Environmental Protection Agency
2007 Annual Performance Plan and Budget Request to OMB
Table of Contents

INTRODUCTION AND OVERVIEW

EPA's Mission 1
Annual Performance Plan and Budget Request Overview 1
Goal 1: Clean Air and Global Climate Change 1
Goal 2: Clean and Safe Water 2
Goal 3: Land Preservation and Restoration 3
Goal 4: Healthy Communities and Ecosystems 3
Goal 5: Compliance and Environmental Stewardship 4
Homeland Security 5
Human Capital 6
Workforce 6
Organization of the Annual Performance Plan and Budget Request 7
Annual Performance Plan and Budget Request Components 7

RESOURCE SUMMARY TABLES

Appropriation Summary 1
Budget Authority / Obligations 1
Full-Time Equivalents (FTE) 2

GOAL AND OBJECTIVE OVERVIEW

Goal, Appropriation Summary 1
Budget Authority / Obligations 1
Full-Time Equivalents (FTE) 3
Clean Air and Global Climate Change 5
Goal, Appropriation Summary 5
Clean and Safe Water 13
Goal, Appropriation Summary 13
Land Preservation and Restoration 26
Goal, Appropriation Summary 26
Healthy Communities and Ecosystems 37
Goal, Appropriation Summary 37
Compliance and Environmental Stewardship 52
Goal, Appropriation Summary 52

SCIENCE AND TECHNOLOGY

Resource Summary Table 1
Program Projects in S&T 1
Clean Air Allowance Trading Programs 3
Climate Protection Program 7
Drinking Water Programs 10
Facilities Infrastructure and Operations 12
Federal Support for Air Quality Management 14

Federal Support for Air Toxics Program 16
Federal Vehicle and Fuels Standards and Certification 18
Forensics Support 22
Homeland Security: Critical Infrastructure Protection 25
Homeland Security: Preparedness, Response, and Recovery 28
Homeland Security: Protection of EPA Personnel and Infrastructure 32
Human Health Risk Assessment 34
Indoor Air: Radon Program 38
IT / Data Management 40
Pesticides: Registration of New Pesticides 42
Pesticides: Review / Reregistration of Existing Pesticides 44
Radiation: Protection 46
Radiation: Response Preparedness 48
Reduce Risks from Indoor Air 50
Research: Air Toxics 52
Research: Drinking Water 55
Research: Endocrine Disruptor 59
Research: Environmental Technology Verification (ETV) 61
Research: Human Health and Ecosystems 63
Research: Land Protection and Restoration 69
Research: Pesticides and Toxics 72
Research: Water Quality 75
Research: Computational Toxicology 79
Research: Economics and Decision Science (EDS) 82
Research: Fellowships 85
Research: Global Change 87
Research: NAAQS 90
Research: Sustainability 93

ENVIRONMENTAL PROGRAM AND MANAGEMENT

Resource Summary Table 1
Program Projects in EPM 1
Acquisition Management 4
Administrative Law 6
Alternative Dispute Resolution 8
Beach / Fish Programs 9
Brownfields 13
Central Planning, Budgeting, and Finance 15
Children and Other Sensitive Populations: Agency Coordination 17
Civil Enforcement 19
Civil Rights / Title VI Compliance 22
Clean Air Allowance Trading Programs 25

Climate Protection Program....28
Commission for Environmental Cooperation....32
Compliance Assistance and Centers....34
Compliance Incentives....38
Compliance Monitoring....41
Congressional, Intergovernmental, External Relations....44
Criminal Enforcement....47
Drinking Water Programs....50
Endocrine Disruptors....54
Enforcement Training....56
Environment and Trade....58
Environmental Justice....60
Exchange Network....63
Facilities Infrastructure and Operations....66
Federal Stationary Source Regulations....69
Federal Support for Air Quality Management....71
Federal Support for Air Toxics Program....75
Financial Assistance Grants / IAG Management....78
Geographic Program: Chesapeake Bay....80
Geographic Program: Great Lakes....84
Geographic Program: Gulf of Mexico....88
Geographic Program: Lake Champlain....91
Geographic Program: Long Island Sound....93
Geographic Program: Other....95
Great Lakes Legacy Act....99
Homeland Security: Communication and Information....102
Homeland Security: Critical Infrastructure Protection....104
Homeland Security: Preparedness, Response, and Recovery....107
Homeland Security: Protection of EPA Personnel and Infrastructure....109
Human Resources Management....111
Indoor Air: Radon Program....114
Information Security....116
International Capacity Building....118
IT / Data Management....121
Legal Advice: Environmental Program....125
Legal Advice: Support Program....127
LUST / UST....128
Marine Pollution....131
National Estuary Program / Coastal Waterways....134
NEPA Implementation....137
Pesticides: Field Programs....139
Pesticides: Registration of New Pesticides....142

Pesticides: Review / Reregistration of Existing Pesticides....145
Pollution Prevention Program....149
POPs Implementation....154
Radiation: Protection....156
Radiation: Response Preparedness....159
RCRA: Corrective Action....161
RCRA: Waste Management....164
RCRA: Waste Minimization & Recycling....168
Reduce Risks from Indoor Air....172
Regional Geographic Initiatives....175
Regional Science and Technology....177
Regulatory Innovation....179
Regulatory/Economic-Management and Analysis....182
Science Advisory Board....184
Science Policy and Biotechnology....185
Small Business Ombudsman....187
Small Minority Business Assistance....189
State and Local Prevention and Preparedness....192
Stratospheric Ozone: Domestic Programs....194
Stratospheric Ozone: Multilateral Fund....197
Surface Water Protection....199
Toxic Substances: Chemical Risk Management....204
Toxic Substances: Chemical Risk Review and Reduction....206
Toxic Substances: Lead Risk Reduction Program....210
TRI / Right to Know....213
Tribal – Capacity building....215
US Mexico Border....219
Wetlands....222

INSPECTOR GENERAL
Resource Summary Table....1
Program Projects in IG....1
Audits, Evaluations, and Investigations....2

BUILDINGS AND FACILITIES
Resource Summary Table....1
Program Projects in B&F....1
Facilities Infrastructure and Operations....2
Homeland Security: Protection of EPA Personnel and Infrastructure....4

HAZARDOUS SUBSTANCE SUPERFUND
Resource Summary Table....1

Program Projects in Superfund....1
Acquisition Management....3
Alternative Dispute Resolution....5
Audits, Evaluations, and Investigations....7
Central Planning, Budgeting, and Finance....9
Civil Enforcement....12
Compliance Assistance and Centers....14
Compliance Incentives....16
Compliance Monitoring....18
Congressional, Intergovernmental, External Relations....20
Criminal Enforcement....22
Enforcement Training....25
Environmental Justice....27
Exchange Network....29
Facilities Infrastructure and Operations....32
Financial Assistance Grants / IAG Management....35
Forensics Support....37
Homeland Security: Communication and Information....39
Homeland Security: Critical Infrastructure Protection....41
Homeland Security: Preparedness, Response, and Recovery....43
Homeland Security: Protection of EPA Personnel and Infrastructure....46
Human Health Risk Assessment....48
Human Resources Management....50
Information Security....52
IT / Data Management....54
Legal Advice: Environmental Program....57
Radiation: Protection....59
Research: Land Protection and Restoration....61
Research: SITE Program....65
Superfund: Emergency Response and Removal....67
Superfund: Enforcement....70
Superfund: EPA Emergency Preparedness....74
Superfund: Federal Facilities....76
Superfund: Remedial....79
Superfund: Support to Other Federal Agencies....84
Superfund: Federal Facilities Enforcement....86

LEAKING UNDERGROUND STORAGE TANKS

Resource Summary Table....1
Program Projects in LUST....1
Acquisition Management....2
Central Planning, Budgeting, and Finance....3

Compliance Assistance and Centers 5
Facilities Infrastructure and Operations 7
Human Resources Management 9
IT / Data Management 10
LUST Cooperative Agreements 12
LUST / UST 15
Research: Land Protection and Restoration 19

OIL SPILL
Resource Summary Table 1
Program Projects in Oil 1
Compliance Assistance and Centers 3
Civil Enforcement 6
IT Data Management 9
Oil Spill: Prevention, Preparedness and Response 12
Facilities Infrastructure and Operations 16
Research: Land Protection and Restoration 19

STATE AND TRIBAL ASSISTANCE GRANTS
Resource Summary Table 1
Program Projects in STAG 3
Program Area: Air Toxics and Quality 14
Clean School Bus Initiative 15
Program Area: Brownfields 16
Brownfields Projects 17
Program Area: Infrastructure Assistance 20
Infrastructure Assistance: Alaska Native Villages 21
Infrastructure Assistance: Clean Water SRF 23
Diesel Emissions Reduction Grant Program 25
Infrastructure Assistance: Drinking Water SRF 27
Infrastructure Assistance: Mexico Border 29
Infrastructure Assistance: Puerto Rico 31
Program Area: Categorical Grant 32
Categorical Grant: Beaches Protection 33
Categorical Grant: Brownfields 35
Categorical Grant: Environmental Information 37
Categorical Grant: Hazardous Waste Financial Assistance 39
Categorical Grant: Homeland Security 41
Categorical Grant: Lead 43
Categorical Grant: Nonpoint Source (Sec. 319) 45
Categorical Grant: Pesticides Enforcement 48
Categorical Grant: Pesticides Program Implementation 50
Categorical Grant: Pollution Control (Sec. 106) 52
Categorical Grant: Pollution Prevention 56

Categorical Grant: Public Water System Supervision (PWSS) 58
Categorical Grant: Radon 60
Categorical Grant: Sector Program 62
Categorical Grant: State and Local Air Quality Management 64
Categorical Grant: Targeted Watersheds 67
Categorical Grant: Toxics Substances Compliance 69
Categorical Grant: Tribal Air Quality Management 71
Categorical Grant: Tribal General Assistance Program 73
Categorical Grant: Underground Injection Control (UIC) 76
Categorical Grant: Underground Storage Tanks 79
Categorical Grant: Wetlands Program Development 82

PROGRAM PERFORMANCE AND ASSESSMENT

Supplemental PART Information 1
Annual Performance Goals and Measures 7
Clean Air and Global Climate Change 7
Clean and Safe Water 26
Land Preservation and Restoration 41
Healthy Communities and Ecosystems 52
Compliance and Environmental Stewardship 80
Annual Performance Goals and Measures for Enabling Support Programs 92
Office of Administration and Resources Management 92
Office of Environmental Information 94
Office of the Chief Financial Officer 99
Office of the Inspector General 101
Verification and Validation 103

APPENDIX

Homeland Security 1
Coordination with Other Federal Agencies - Environmental Programs 13
Coordination with Other Federal Agencies - Enabling Support Programs 43
Major Management Challenges 45
EPA User Fee Program 56
Working Capital Fund 58
Acronyms for Statutory Authorities 59
STAG Categorical Program Grants – Statutory Authority and Eligible Uses 64
Infrastructure / STAG Project Financing 74
Program Projects by Appropriation 78

EPA's Mission

The mission of the Environmental Protection Agency (EPA) is to protect and safeguard human health and the environment. This budget supports the Administration's commitment to achieving environmental results as we work to develop more efficient methods to conduct our mission. It also emphasizes the Administration's desire to diversify our energy sources, promote emissions-reductions technologies, revitalize the Great Lakes, and improve the security of our Nation's drinking water infrastructure. Additionally, this budget incorporates new responsibilities and requirements for some of EPA's major programs, along with some new provisions mandated by the Energy Policy Act of 2005 (EPAct).

Annual Performance Plan and Congressional Justification

The EPA's FY 2007 Annual Performance Plan and Congressional Justification requests $7.3 billion in discretionary budget authority and 17,560 Full Time Equivalents (FTE). This request demonstrates the Agency's efforts to work with its State, Tribal, and local government partners in its efforts to protect clean air and water, preserve and restore contaminated lands, promote healthy communities and ecosystems, assure compliance with environmental regulations, and secure the Nation's environmental assets through homeland security programs such as Water Sentinel. Specific narratives for each program outline what the resources accomplish and FY 2007 priorities. Human Capital and EPA's workforce levels are two overarching resource areas that impact all programs and projects. A discussion of planning and management initiatives follows.

Human Capital

In FY 2007 EPA will continue to develop and refine its Human Capital strategies, to ensure that the Agency recruits, trains and retains a qualified pool of employees to protect human health and safeguard the air, water and land. EPA will continue its systematic approach to workforce planning throughout the Agency including: setting targets, and closing competency gaps, in mission critical occupations (MCOs); increasing emphasis on innovative and flexible recruitment and hiring strategies to address personnel shortages within MCOs; and improving the overall effectiveness of the hiring process for the Agency's workforce.

EPA has met many important milestones in implementing its revised Human Capital Strategy, and the Human Capital Accountability Plan. In FY 2005, EPA National Program Managers (NPMs) and Regional offices formally adopted the Human Capital Strategy, and developed office-specific Action Plans, using the Agency's Human Capital strategy framework. Results of the Agency's Action Plans will then be used to inform the Human Capital strategic planning process, and to make future strategic workforce decisions.

In FY 2006, as part of workforce planning efforts, EPA will complete an assessment of current competency gaps for senior management, the first selected MCO sample group. In FY 2007, the Agency will further its Workforce Planning efforts by closing competency gaps in senior leadership positions and developing plans to address the competency gaps in other MCOs. The results will continue to be evaluated through our Human Capital accountability reporting,

ensuring a highly skilled, diverse, results-oriented workforce with the right mix of technical expertise, experience, and leadership capabilities.

Workforce

EPA values its world class workforce and uses its expertise to meet urgent responsibilities across a broad range of national and local environmental issues. In FY 2007 adjustments to EPA's workforce management strategy will help better align resources, skills, and Agency priorities. A key step is aligning the total number of authorized positions and actual FTE utilization. In FY 2007 EPA's estimated 17,560 FTE will work toward advancing the Agency's mission of protecting human health and the environment.

Organization of the Annual Performance Plan and Congressional Justification

The main body of the EPA Congressional Justification presents the budget in a programmatically-focused format to facilitate Congressional review and decision-making. The format includes program justifications at the program/project level with the information presented in order by appropriation, program area, and program project. Additionally, the justification clearly details the change between the FY 2006 Enacted Budget versus the FY 2007 President's Budget.

EPA performs its work under five strategic goals. A goal overview section outlines how the related efforts in program/projects are designed to fit together to attain long-term measurable outcomes. The budget totals shown by goal offer a look at the full costs associated with achieving the goal. In other words, rent, LAN infrastructure, and other Agency-wide costs are allocated to each goal. Details of the specific cost areas are found in the program/project narratives. Measuring outcomes is a primary emphasis of PART reviews, highlighted in the Program Performance and Assessment Section. Resource tables and supporting appendix materials complete the document, offering easy reference for budget numbers as well as items of special interest.

Annual Performance Plan and Congressional Justification Components

EPA's Annual Performance Plan is integrated into the annual Budget request. Where applicable, programmatic funding increases are tied to performance measures and associated targets by program/project.

Annual Performance Plan and Congressional Justification:

Chapters include:

Introduction and Overview

Resource Summary Tables
- Resources by Appropriation

Goal and Objective Overview (Goals 1-5)
- Resource Table by Goal and Appropriation
- FY 2007 Goal and Objective Summary (Goals 1-5)

Program/Project by Appropriation (S&T, EPM, IG, BF, SF, LUST, OIL, STAG)
- Resources for Appropriation
- Annotated Bill Language by Appropriation
- Resource Table by Appropriation, Program/Project
- Program/Project Fact Sheets (the following included within each factsheet)
  - Resource Chart ($s, FTEs)
  - Program/Project description
  - FY 2007 Activities and Performance Plan
  - Performance Targets
  - FY 2007 President's Budget versus FY 2006 Enacted
  - Statutory Authorities

Program Performance and Assessment
- PART
  - OMB Report
  - PART Supplemental Information

- Performance
  - 6-year array of APGs, PMs and Baselines
  - 6-year array of APGs, PMs and Baselines for Enabling Support Programs

Appendix
- Coordination with Other Federal Agencies – Environmental Programs
- Coordination with Other Federal Agencies – Enabling Support Programs
- Major Management Challenges
- User Fees
- Working Capital Fund
- Acronym List for Statutory Authority
- STAG Statutory Authority and Eligible Uses for Categorical Grants
- Infrastructure / STAG Project Financing
- Program/Projects by Appropriations

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Resource Summary Tables

APPROPRIATION SUMMARY 1
Budget Authority / Obligations 1
Full-time Equivalents (FTE) 2

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION SUMMARY

Budget Authority / Obligations
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud
Science & Technology	$785,903.1	$730,810.0	$788,274.0
Environmental Program & Management	$2,309,238.0	$2,346,711.0	$2,306,617.0
Inspector General	$45,007.1	$36,904.0	$35,100.0
Building and Facilities	$45,181.0	$39,626.0	$39,816.0
Oil Spill Response	$17,594.9	$15,629.0	$16,506.0
Superfund Program	$1,320,886.4	$1,198,581.0	$1,217,827.9
IG Transfer	$15,182.0	$13,337.0	$13,316.0
S&T Transfer	$38,821.1	$30,156.0	$27,811.1
Hazardous Substance Superfund	$1,374,889.5	$1,242,074.0	$1,258,955.0
Leaking Underground Storage Tanks	$70,589.5	$79,953.0	$72,759.0
State and Tribal Assistance Grants	$3,608,479.6	$3,213,709.0	$2,797,448.0
SUB-TOTAL, EPA	*$8,256,882.7*	*$7,705,416.0*	*$7,315,475.0*
Rescission of Prior Year Expired Contracts, Grants, and Interagency Agreements			
Environmental Programs and Management	$0	$-2,000	$0
Science & Technology	$0	$-1,000	$0
State and Tribal Assistance Grants	$0	$-66,000	$0
Hazardous Substance Superfund	$0	$-11,000	$0
TOTAL, EPA	$8,256,882.7	$7,625,416.0	$7,315,475.0

APPROPRIATION SUMMARY

Full-time Equivalents (FTE)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud
Science & Technology			
Authorized Ceiling		2,438.1	
FY 2005 Final / FY 2006-2007 Estimated Usage	2,416.1	2,420.0	2,431.6
Science and Tech. - Reim			
Authorized Ceiling		3.0	
FY 2005 Final / FY 2006-2007 Estimated Usage	3.0	3.0	3.0
Environmental Program & Management			
Authorized Ceiling		11,048.1	
FY 2005 Final / FY 2006-2007 Estimated Usage	10,904.2	10,966.0	11,007.5
Envir. Program & Mgmt - Reim			
Authorized Ceiling		1.5	
FY 2005 Final / FY 2006-2007 Estimated Usage	48.5	1.5	1.5
Inspector General			
Authorized Ceiling		267.7	
FY 2005 Final / FY 2006-2007 Estimated Usage	270.8	265.7	267.7
Oil Spill Response			
Authorized Ceiling		99.2	
FY 2005 Final / FY 2006-2007 Estimated Usage	91.9	98.5	98.7
Oil Spill Response - Reim			
Authorized Ceiling		0.0	
FY 2005 Final / FY 2006-2007 Estimated Usage	7.5	0.0	0.0
Superfund Program			
Authorized Ceiling		3,126.2	
FY 2005 Final / FY 2006-2007 Estimated Usage	3,020.9	3,103.0	3,097.1
IG Transfer			
Authorized Ceiling		94.1	
FY 2005 Final / FY 2006-2007 Estimated Usage	87.0	93.4	94.1
S&T Transfer			
Authorized Ceiling		106.3	
FY 2005 Final / FY 2006-2007 Estimated Usage	125.0	105.5	106.2
Hazardous Substance Superfund			
Authorized Ceiling		3,326.6	
FY 2005 Final / FY 2006-2007 Estimated Usage	3,232.9	3,301.9	3,297.4
Superfund Reimbursables			
Authorized Ceiling		77.5	
FY 2005 Final / FY 2006-2007 Estimated Usage	87.2	76.9	77.5

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud
Leaking Underground Storage Tanks			
Authorized Ceiling		77.4	
FY 2005 Final / FY 2006-2007 Estimated Usage	72.1	76.8	76.9
FEMA - Reim			
Authorized Ceiling		0.0	
FY 2005 Final / FY 2006-2007 Estimated Usage	2.7	0.0	0.0
WCF-REIMB			
Authorized Ceiling		104.7	
FY 2005 Final / FY 2006-2007 Estimated Usage	99.7	103.9	110.7
Rereg. & Exped. Proc. Rev Fund			
Authorized Ceiling		187.2	
FY 2005 Final / FY 2006-2007 Estimated Usage	185.3	185.8	187.2
Pesticide Registration Fund			
Authorized Ceiling		0.0	
FY 2005 Final / FY 2006-2007 Estimated Usage	72.7	0.0	0.0
TOTAL, EPA			
Authorized Ceiling		17,631.0	
FY 2005 Final / FY 2006-2007 Estimated Usage	17,494.6	17,500.0	17,559.7

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Goal and Objective Overview

Goal, Appropriation Summary - Budget Authority/Obligations 1
Goal, Appropriation Summary - Authorized Full Time Equivalents (FTE) 3
Clean Air and Global Climate Change 5
Clean and Safe Water 13
Land Preservation and Restoration 25
Healthy Communities and Ecosystems 36
Compliance and Environmental Stewardship 51

GOAL, APPROPRIATION SUMMARY

Budget Authority / Obligations
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud
Clean Air and Global Climate Change	$927,481.7	$923,596.4	$932,024.5
Environmental Program & Management	$443,492.8	$452,246.5	$446,242.3
Science & Technology	$210,039.6	$209,077.3	$214,789.2
Building and Facilities	$9,881.5	$8,672.3	$8,748.4
State and Tribal Assistance Grants	$255,475.1	$245,484.0	$253,692.5
Inspector General	$5,701.0	$5,040.4	$5,174.0
Hazardous Substance Superfund	$2,891.7	$3,075.9	$3,378.1
Clean and Safe Water	$3,517,729.0	$3,133,211.9	$2,731,342.1
Environmental Program & Management	$503,466.6	$484,969.8	$451,812.7
Science & Technology	$134,592.4	$121,337.1	$170,692.3
Building and Facilities	$6,717.1	$6,050.8	$6,039.4
State and Tribal Assistance Grants	$2,848,262.8	$2,501,325.0	$2,085,435.0
Inspector General	$24,690.1	$19,529.1	$17,362.7
Land Preservation and Restoration	$1,780,624.2	$1,656,471.0	$1,689,635.1
Environmental Program & Management	$210,037.2	$216,513.0	$217,902.2
Science & Technology	$17,261.4	$14,713.7	$12,149.9
Building and Facilities	$5,393.8	$4,966.4	$4,871.3
State and Tribal Assistance Grants	$121,827.5	$113,718.0	$140,912.2
Leaking Underground Storage Tanks	$70,589.5	$79,953.0	$72,759.0
Oil Spill Response	$17,594.9	$15,629.0	$16,506.0
Inspector General	$2,572.0	$2,277.7	$2,494.6
Hazardous Substance Superfund	$1,335,347.8	$1,208,700.2	$1,222,039.9
Healthy Communities and Ecosystems	$1,257,846.7	$1,249,321.4	$1,228,933.7
Environmental Program & Management	$616,729.7	$640,732.5	$638,298.6
Science & Technology	$345,807.2	$334,290.4	$348,424.1
Building and Facilities	$16,249.6	$13,929.8	$13,951.7
State and Tribal Assistance Grants	$257,253.9	$245,983.0	$213,656.3

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud
Inspector General	$7,906.2	$6,642.4	$6,576.9
Hazardous Substance Superfund	$13,900.2	$7,743.2	$8,026.1
Compliance and Environmental Stewardship	$773,201.2	$742,815.3	$733,539.6
Environmental Program & Management	$535,511.7	$552,249.1	$552,361.1
Science & Technology	$78,202.5	$51,391.4	$42,218.6
Building and Facilities	$6,939.0	$6,006.7	$6,205.1
State and Tribal Assistance Grants	$125,660.3	$107,199.0	$103,752.0
Inspector General	$4,137.8	$3,414.4	$3,491.8
Hazardous Substance Superfund	$22,749.8	$22,554.7	$25,511.0
Sub-Total	*$8,256,882.7*	*$7,705,416.0*	*$7,315,475.0*
Rescission of Prior Year Expired Contracts, Grants, and Interagency Agreements			
Environmental Programs and Management	$0	$-2,000	$0
Science & Technology	$0	$-1,000	$0
State and Tribal Assistance Grants	$0	$-66,000	$0
Hazardous Substance Superfund	$0	$-11,000	$0
Total	$8,256,882.7	$7,625,416.0	$7,315,475.0

GOAL, APPROPRIATION SUMMARY

Authorized Full-time Equivalents (FTE)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud
Clean Air and Global Climate Change	2,646.4	2,655.3	2,652.0
Environmental Program & Management	1,889.8	1,895.5	1,879.0
Science & Technology	674.8	679.2	688.3
Inspector General	34.6	36.6	39.5
Hazardous Substance Superfund	17.1	17.8	17.5
Envir. Program & Mgmt - Reim	3.0	0.3	0.3
Science and Tech. - Reim	3.0	3.0	3.0
FEMA - Reim	2.3	0.0	0.0
WCF-REIMB	21.8	23.0	24.3
Clean and Safe Water	2,906.9	2,930.1	2,906.8
Environmental Program & Management	2,249.7	2,257.2	2,245.1
Science & Technology	476.5	514.5	511.6
Inspector General	150.0	141.7	132.4
Envir. Program & Mgmt - Reim	15.5	0.3	0.3
WCF-REIMB	15.4	16.5	17.4
Land Preservation and Restoration	4,602.5	4,737.8	4,686.2
Environmental Program & Management	1,195.2	1,228.2	1,229.3
Science & Technology	48.3	52.0	51.2
Leaking Underground Storage Tanks	72.1	77.4	76.9
Oil Spill Response	91.9	99.2	98.7
Inspector General	15.6	16.5	19.0
Hazardous Substance Superfund	3,061.7	3,174.4	3,120.6
Envir. Program & Mgmt - Reim	11.0	0.1	0.1
Oil Spill Response - Reim	7.5	0.0	0.0
FEMA - Reim	0.4	0.0	0.0
Superfund Reimbursables	87.2	77.5	77.5
WCF-REIMB	11.5	12.4	12.9

Healthy Communities and Ecosystems	3,874.8	3,812.5	3,834.2
Environmental Program & Management	2,470.1	2,496.5	2,520.5
Science & Technology	1,014.3	1,023.6	1,016.1
Inspector General	45.4	48.2	50.2
Rereg. & Exped. Proc. Rev Fund	185.3	187.2	187.2
Hazardous Substance Superfund	42.7	19.9	21.3
Envir. Program & Mgmt - Reim	8.9	0.5	0.5
Pesticide Registration Fund	72.7	0.0	0.0
WCF-REIMB	35.4	36.6	38.5
Compliance and Environmental Stewardship	3,464.0	3,495.3	3,480.5
Environmental Program & Management	3,099.5	3,170.7	3,133.6
Science & Technology	202.2	168.9	164.5
Inspector General	25.1	24.8	26.6
Hazardous Substance Superfund	111.3	114.5	137.9
Envir. Program & Mgmt - Reim	10.1	0.3	0.3
WCF-REIMB	15.7	16.2	17.5
Total	17,494.6	17,631.0	17,559.7

CLEAN AIR AND GLOBAL CLIMATE CHANGE

Protect and improve the air so it is healthy to breathe and risks to human health and the environment are reduced. Reduce greenhouse gas intensity by enhancing partnerships with businesses and other sectors.

STRATEGIC OBJECTIVES:

- Through 2010, working with partners, protect human health and the environment by attaining and maintaining health-based air-quality standards and reducing the risk from toxic air pollutants.
- By 2008, 22.6 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings.
- By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet (UV) radiation, particularly among susceptible subpopulations, such as children, will be reduced.
- Through 2008, working with partners, minimize unnecessary releases of radiation and be prepared to minimize impacts to human health and the environment should unwanted releases occur.
- Through EPA's voluntary climate protection programs, contribute 45 million metric tons of carbon equivalent (MMTCE) annually to the President's 18 percent greenhouse gas intensity improvement goal by 2012. (An additional 75 MMTCE to result from the sustained growth in the climate programs are reflected in the Administration's business-as-usual projection for greenhouse gas intensity improvement.)
- Through 2010, provide and apply sound science to support EPA's goal of clean air by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 1.

GOAL, OBJECTIVE SUMMARY

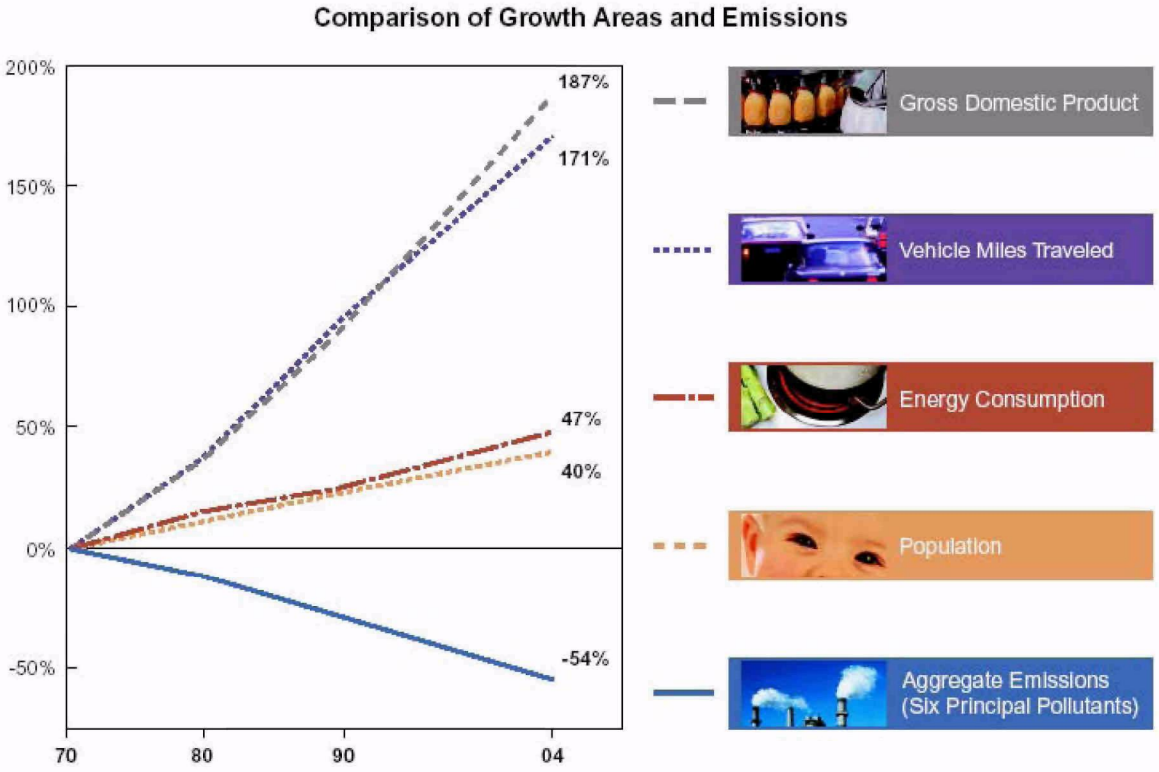
Budget Authority / Obligations
Full-time Equivalents
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Clean Air and Global Climate Change	**$927,481.7**	**$923,596.4**	**$932,024.5**	**$8,428.1**
Healthier Outdoor Air	$588,382.2	$583,161.8	$596,460.1	$13,298.3
Healthier Indoor Air	$48,141.4	$46,956.8	$47,674.9	$718.1

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Protect the Ozone Layer	$16,872.9	$16,666.0	$21,625.0	$4,959.0
Radiation	$34,905.9	$36,213.8	$37,242.7	$1,028.9
Reduce Greenhouse Gas Intensity	$111,978.8	$111,091.4	$110,298.0	($793.4)
Enhance Science and Research	$127,200.4	$129,506.6	$118,723.8	($10,782.8)
Total Authorized Workyears	2,646.4	2,655.3	2,652.0	-3.3

EPA implements the Clean Air and Global Climate Change goal through national and regional programs designed to provide healthier outdoor and indoor air for all Americans, protect the stratospheric ozone layer, minimize the risks from radiation releases, reduce greenhouse gas intensity, and enhance science and research. In implementing the goal, EPA carries out its responsibilities through programs that include several common elements: setting risk-based priorities; facilitating regulatory reform and market-based approaches; partnering with state, Tribal, and local governments, non-governmental organizations, and industry; promoting energy efficiency; and using sound science.

EPA's key clean air programs – including those addressing particulate matter, ozone, acid rain, air toxics, indoor air, radiation and stratospheric ozone depletion – focus on some of the highest health and environmental risks faced by the Agency. These programs have achieved results. According to EPA's projections, every year, state and federal air pollution programs established under the Clean Air Act help prevent tens of thousands of premature mortalities, millions of incidences of chronic and acute illness, tens of thousands of hospitalizations and emergency room visits, and millions of lost work days.



According to EPA analyses, the benefits of implementing the Clean Air Act exceed costs by a factor of six or seven to one. Based on EPA's estimates, Clean Air Act costs have been relatively small compared to the dollar value of public health and environmental benefits. For example, EPA estimates that for every dollar the agency spends on voluntary climate change programs returns $75 in energy savings.

The FY 2007 budget request includes funding for implementing provisions of the Energy Policy Act of 2005, which includes new responsibilities and requirements in the fuels and diesel retrofit programs. In the area of fuels, EPA is required to develop a number of new regulations, revise several existing regulations, revise models and undertake a series of fuel-related studies and analyses. This effort includes promulgating regulations for: a major new renewable fuels program; the current reformulated gasoline (RFG) program; new regulations requiring health and environmental testing of fuels; and in conjunction with DOE, conducting a study on Federal, state, and local fuel requirements with recommendations on harmonization. The request includes funding for expanded diesel retrofit program for a variety of sources.

The Clean Air Rules are a suite of actions that will dramatically improve America's air quality and will address the transport of pollution across state borders. The rules provide national tools to achieve significant improvement in air quality and the associated benefits of improved health, longevity and quality of life for all Americans. Taken together, they will make significant air quality improvement in years to come. The Clean Air Rules encompass the following major rules:

Clean Air Mercury Rule: EPA issued the Clean Air Mercury Rule (originally proposed as the Utility Mercury Reductions Rule) on March 15, 2005.[1] This rule will build on the Clean Air Interstate Rule (CAIR) to reduce mercury emissions from coal-fired power plants, the largest remaining domestic source of human-caused mercury emissions. Issuance of the Clean Air Mercury Rule marks the first time EPA has regulated mercury emissions from utilities, and makes the U.S. the first nation in the world to control emissions from this major source of mercury pollution. Mercury is a persistent, toxic pollutant that accumulates in the food chain. While concentrations of mercury in the air are usually low, mercury emissions can reach lakes, rivers and estuaries and eventually build up in fish tissue. Americans are exposed to mercury primarily by eating certain species of fish. However, close to 80 percent of the fish Americans buy comes from overseas, from other countries and from waters beyond our reach and control. The United States contributes just a small percentage of human-caused mercury emissions worldwide - roughly three percent with U.S. utilities responsible for about one percent of that.

NonRoad Diesel Rule: The Clean Air Nonroad Diesel Rule, a component of the National Clean Diesel Campaign (NCDC), will improve diesel engine function to remove emissions and innovative diesel fuel refining techniques to remove sulfur. The black puff of smoke seen coming from construction and other nonroad diesel equipment will be eliminated. Even with more stringent heavy-duty highway engine standards set to take effect over the next decade, over the next twenty years millions of diesel engines already in use will continue to emit large amounts of nitrogen oxides and particulate matter, both of which contribute to serious public health problems. The Diesel Retrofit work will be covered under the Energy Policy Act of 2005. These problems are manifested by thousands of instances of premature mortality, hundreds of thousands of asthma attacks, millions of lost work days, and numerous other health impacts. The NCDC works to reduce the pollution emitted from diesel engines across the country through the implementation of varied control strategies and the aggressive involvement of national, state, and local partners.

Ozone Rule: The Clean Air Ozone Rules (dealing with 8-hour ground-level ozone designation and implementation) designate those areas where air does not meet the health-based standards for ground-level ozone and classify the seriousness of the problem in each area. The Rules also set forth the schedule and minimum elements required in plans states must submit to reduce the levels of ozone in areas where the ozone standards are not met. Ground-level ozone is an air pollutant that causes human health problems, and damages crops and other vegetation. It is a key ingredient of urban smog.

Fine Particle Rule: The Clean Air Fine Particle Rules (dealing with PM 2.5 designations and implementation) designate those areas where air does not meet the health-based standards for fine-particulate pollution and classify the seriousness of the problem in each area. An upcoming rule will also set forth the schedule and minimum elements required for state plans to reduce the levels of fine particulate matter in areas where the standards are not met. Particulate Matter is associated with increased hospital admissions and emergency room visits for people with heart and lung disease as well as increased work and school absences. It is also the major source of haze that reduces visibility in many parts of the United States, including our National Parks.

The Clean Air Interstate Rule and the Nonroad Diesel Rule, combined with other existing state and Federal programs, including the Tier 2 clean vehicles and gasoline sulfur standards for cars and light trucks, the heavy duty diesel engines and low sulfur diesel rule, and the NOx SIP Call Rule to reduce interstate ozone, will bring well over half of counties now monitoring non-attainment into attainment with the fine particle and ozone standards.

The Indoor Air Program characterizes the risks of indoor air pollutants to human health, develops techniques for reducing those risks, and educates the public about what they can do to reduce their risks from indoor air. Through voluntary partnerships with non-governmental and professional organizations, EPA educates and encourages individuals, schools, industry, the health care community, and others to take action to reduce health risks in indoor environments using a variety of approaches including national public awareness, media campaigns, as well as community-based outreach and education. EPA also uses technology-transfer to improve the design, operation, and maintenance of buildings – including schools, homes, and workplaces – to promote healthier indoor air. EPA also supports a national radon (second only to smoking as a cause of lung cancer) program that encourages voluntary national, regional, state, and tribal programs and activities that support initiatives targeted to radon testing and mitigation as well as radon resistant new construction.

For more than a decade, businesses and organization have partnered with EPA through voluntary climate protection programs to pursue common sense approaches to reducing greenhouse gas emissions and help in meeting the President's greenhouse gas intensity goal. Voluntary programs such as Energy Star and SmartWay Transport have contributed to increasing the use of energy-efficient products and practices and reducing emissions of carbon dioxide as well as methane and other greenhouse gases with very high global warming potentials. These partnership programs help spur investment in advanced energy technologies and the purchase of energy-efficient products and create emissions reduction benefits that accrue over the lifetime of the investment or product.

EPA's Domestic Stratospheric Ozone Protection Program will continue to implement the provisions of the Clean Air Act and the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol), contributing to the reduction and control of ozone-depleting substances (ODSs) in the U.S. and lowering health risks to the American public associated with exposure to UV radiation.

In FY 2007, EPA will continue upgrading the national radiation monitoring system, thus improving response time, data dissemination, and population/geographic coverage of the U.S should there be an accidental or intentional release of radiation either domestically or internationally. EPA will also maintain readiness of deployable monitors allowing for sampling density at locations near and downwind from radiological incidents. The Agency will continue to enhance laboratory response capacity and capability to ensure a minimal level of surge capacity for radiological incidents.

International Activities

EPA will continue to work with other agencies on the Methane to Markets program. This program is an international initiative that focuses on advancing cost-effective, near-term methane recovery and use as a clean energy source. The goals of the program are to reduce global methane emissions to enhance economic growth, promote energy security, improve the environment, and reduce greenhouse gas emissions. Other benefits include improving mine safety, reducing waste, and improving local air quality. EPA is the lead agency for the Methane to Markets program.

EPA will also participate in the newly-established Asia-Pacific Partnership on Clean Development and Climate. The Partnership aims to promote development and transfer of cleaner, more efficient technologies that can address greenhouse gas mitigation and energy security - issues that are crucial not only to the region but the entire world. Through these programs, EPA will work with international governments to transfer American technology and voluntary program techniques. The Department of State is the lead agency for implementing this initiative.

Research

EPA's air research provides the scientific foundation for the Agency to fulfill its responsibilities under the Clean Air Act, which helps make the air safe to breathe and protects human health and the environment. The Agency focuses its research on National Ambient Air Quality Standards (NAAQS) pollutants and also studies hazardous air pollutants (HAPs).

In FY 2007, the Agency's air research will continue to strengthen the scientific basis for the periodic review and implementation of air quality standards. This research is concentrated on particulate matter (PM), but includes other NAAQS pollutants. PM research is aligned with the ten priority research topics for PM identified by the National Academy of Sciences (NAS). The NAS has conducted four reviews of EPA's PM research since 1998 to identify relevant, high-priority research needs and monitor research performance.

In FY 2007, the Agency's air toxics research will complete selected ongoing research efforts and begin transitioning toward the Multiple Air Pollutant Program (MAPP) focus recommended by external review. Air toxics research provides health hazard and exposure methods, data, and models that enable the Agency to reduce uncertainty in risk assessment. It also produces tools that enable national, regional, state, and local officials to identify and implement cost-effective approaches to reduce risk from sources of air toxics.

Recognizing that environmental policy and regulatory decisions will only be as good as the science upon which they are based, EPA makes every effort to ensure that its science is of the highest quality and relevance, thereby providing the basis for sound environmental results. EPA uses the Research and Development (R&D) Investment Criteria of quality, relevance, and performance in its decision-making processes through a) the use of research strategies and plans, b) program review and evaluation by the Board of Scientific Counselors (BOSC) and the Science Advisory Board (SAB), and c) peer review.

In 2005, the BOSC evaluated the NAAQS research program to assess the quality and relevance of its research and the program's historical performance.[1] The subcommittee concluded that the program has reduced scientific uncertainty and that there was a high degree of integration between the program's in-house and external research, which is usually conducted through competitive, peer-reviewed grants under the Agency's Science to Achieve Results (STAR) program.

Research is guided by strategies and plans that are developed with participation from Agency research programs' major clients. Strategies outline the research needs and priorities. Multi-year research plans outline steps for meeting strategic research needs and annual performance goals and measures for evaluating progress.

Taken together, these mechanisms serve to ensure that EPA's research and science remain relevant, of high quality, and contribute to superior environmental performance.

The Agency approaches its research programs' workforce planning in a manner consistent with its human capital strategy. Key elements of this strategy include working to develop and implement a holistic approach to recruitment, preserving a diverse workforce that reflects a wide spectrum of viewpoints, and retaining existing talent.

Workforce

Senior management supports Human Capital efforts to develop leadership and technical skills for all employees supporting the Clean Air and Global Climate Change Goal. Offices within the Goal are analyzing their knowledge management needs and capabilities as an important element of the overall strategic succession plan. This analysis includes evaluating the skills of the current workforce and needs for the future to ensure that EPA possesses the skills necessary to meet the challenges that lie ahead.

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EPA offices work together to enhance information and data access across the offices, and better communicate EPA's message about air quality.

FY 2005 PARTs

The following programs were assessed in 2005 though OMB's Program Assessment Rating Tool (PART).

- National Ambient Air Quality Standards (NAAQS) Federal Program

[1] EPA, Office of Research and Development, Board of Scientific Counselors, *Particulate Matter and Ozone Research Program (Washington: EPA, 2005).* Available at: <http://www.epa.gov/osp/bosc/pdf/pm0508rpt.pdf>

- Air Quality Grants and Permitting Programs
- Indoor Environments
- National Ambient Air Quality Standards (NAAQS) Research (re-PART)

More detailed information is provided in specific program project descriptions.

CLEAN AND SAFE WATER

Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

STRATEGIC OBJECTIVES:

- Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.
- Protect the quality of rivers, lakes, and streams on a watershed basis and protect coastal and ocean waters.
- Provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 2.

GOAL, OBJECTIVE SUMMARY

Budget Authority / Obligations
Full-time Equivalents
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Clean and Safe Water	**$3,517,729.0**	**$3,133,211.9**	**$2,731,342.1**	**($401,869.8)**
Protect Human Health	$1,270,988.5	$1,220,989.2	$1,177,458.2	($43,531.0)
Protect Water Quality	$2,121,752.9	$1,791,519.9	$1,412,740.6	($378,779.3)
Enhance Science and Research	$124,987.5	$120,702.8	$141,143.3	$20,440.5
Total Authorized Workyears	2,906.9	2,930.1	2,906.8	-23.3

Over the 30 years since enactment of the Clean Water and Safe Drinking Water Acts (CWA and SDWA), government, citizens, and the private sector have worked together to make dramatic progress in improving the quality of surface waters and drinking water. Thirty years ago, much of the Nation's tap water had either very limited treatment (usually disinfection) or no treatment at all. About two-thirds of the surface waters assessed by states were not attaining basic water quality goals and were considered polluted.[2] Some of the Nation's waters were open sewers posing health risks and many water bodies were so polluted that traditional uses, such as swimming, fishing, and recreation, were impossible.

[2] United States Environmental Protection Agency Office of Water. 1998. *Clean Water Action Plan: Restoring and Protecting America's Water.* Washington, DC: Government Printing Office.

Today, drinking water systems monitor and treat water to assure compliance with drinking water standards covering a wide range of contaminants. In addition, EPA now protects sources of drinking water through activities such as regulating underground injection of wastes. The number of polluted waters has been reduced and many clean waters are even healthier. A massive investment of Federal, state, and local funds resulted in a new generation of wastewater treatment facilities able to provide "secondary" treatment or better. EPA has issued national discharge regulations for over 50 industrial categories.[3] In addition, sustained efforts to implement "best management practices" have helped reduce runoff of pollutants from diffuse or "nonpoint" sources.

Cleaner, safer water has renewed recreational, ecological, and economic interests in communities across the nation. The recreation, tourism, and travel industry is one of the largest employers in the nation, and a significant portion of recreational spending comes from swimming, boating, sport fishing, and hunting.[4] Each year, more than 180 million people visit the shore for recreation.[5] In 2001, sportspersons spent a total of $70 billion– $35.6 billion on fishing, $20.6 billion on hunting, and $13.8 million on items used for both hunting and fishing. Wildlife watchers spent an additional $38.4 billion on their activities around the home and on trips away from home.[6] The commercial fishing industry, which also requires clean water and healthy wetlands, contributed $28.6 billion to the economy in 2001.[7] The Cuyahoga River, which once caught fire, is now busy with boats and harbor businesses that generate substantial revenue for the City of Cleveland. The Willamette River in Oregon has been restored to provide swimming, fishing, and water sports. Even Lake Erie, once infamous for its dead fish, now supports a $600 million per year fishing industry.[8]

Although there has been much progress on important economic, human health and environmental benefits, there is still work to be done to realize the vision of clean rivers, lakes, streams and coastal areas and safe water to drink. In 2007, EPA will work with states and tribes to continue accomplishing measurable improvements in the safety of the Nation's drinking water and in the condition of rivers, lakes and coastal waters. This Overview summarizes key environmental and public health goals and describes the general strategies EPA proposes to implement to accomplish these goals. With the help of states, tribes and other partners, EPA expects to continue progress toward protecting human health and improving water quality by 2008, including –

- **Water Safe to Drink:** increase the percentage of population served by community water systems that meet all applicable health-based drinking water standards from 89% to 95%;

[3] Code of Federal Regulations. Title 40, PARTs 405 -471. Revised as of July 1, 2005
[4] Travel Industry Association of America. *Tourism for America, 11th Edition.* Washington, DC: Travel Industry of America.
[5] Pew Oceans Commission. 2002. *America's Living Oceans Charting a Course for Sea Change.* Arlington, VA: Pew Oceans Commission.
[6] U.S. Fish and Wildlife Service. 2002. *2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation.* Washington, DC: Government Printing Office.
[7] National Marine Fisheries Service. 2002. *Fisheries of the U.S. 2001.* Washington, DC: Government Printing Office.
[8] United States Environmental Protection Agency Office of Water. 1998. Clean Water Action Plan: Restoring and Protecting America's Water. Washington, DC: Government Printing Office.

- **Fish and Shellfish Safe to Eat:** reduce the percentage of the water miles/acres identified by states or Tribes as having fish consumption advisories in 2002 where increased consumption of safe fish is allowed, (485,205 river miles, 11,277,276 lake acres) while increasing the percentage of the shellfish growing acres monitored by states that are approved or conditionally approved for use from 77% to 91%;

- **Surface Water Meeting Standards:** address water quality problems on a watershed basis so that water quality standards are fully attained in waterbodies identified by states as not meeting standards

- **Healthy Coastal Waters:** maintain or improve the overall health of each of the four major coastal ecosystems around the country, as measured by the National Coastal Condition Report.

The clean and safe water goals are closely related to goals established in Goal 4 of the Agency *Strategic Plan* regarding improvements in wetlands, estuaries, targeted geographic programs such as the waters of the Mexico Border region, the Great Lakes, the Chesapeake Bay, and the Gulf of Mexico. The key strategies that EPA plans to implement in FY 2007 to make progress toward the public health and environmental goals identified in the Strategic Plan are briefly described below.

Water Safe to Drink

For almost 30 years, protecting the Nation's public health through safe drinking water has been the shared responsibility of EPA, the states, and nearly 54,000 community water systems (CWSs)[9] nationwide that supply drinking water to more than 260 million Americans (approximately 90% of the U.S. population). Within this time span, safe drinking water standards have been established and are being implemented for 91 microbial, chemical, and radiological contaminants. Forty-nine states have adopted primary authority for enforcing their drinking water programs. Additionally, CWS operators are better informed and trained to both treat contaminants and prevent them from entering the source of their drinking water supplies.

During 2007, EPA, the states, and CWSs will build on these successes while working toward the 2008 goal of assuring that 95 percent of the population served by CWSs receives drinking water that meets all applicable standards. Collectively, these core areas and other interrelated elements of the national safe drinking water program form a balanced, integrated framework that comprises the multiple barrier approach to protecting public health from unsafe drinking water. EPA has identified key activities within five core program areas described below that are critical to ensuring safe drinking water.

[9] Although the Safe Drinking Water Act applies to 159,796 public water systems nationwide (as of January 2004), which include schools, hospitals, factories, campgrounds, motels, gas stations, etc. that have their own water system, this implementation plan focuses only on CWSs. A CWS is a public water system that provides water to the same population year-round. As of January 2004, there were 52,838 CWSs.

Drinking Water Standards

During FY 2007, EPA will continue to assess the need for new or revised drinking water standards based on available data on health effects, occurrence, risks of exposure, analytical (detection) methods, as well as information on technologies to prevent, detect, or remove specific contaminants. Specifically, EPA will:

- Determine whether to regulate at least five unregulated contaminants on the second contaminant candidate list (CCL) and, through the Six-Year Review of existing regulations, whether a revision to an existing standard is warranted;
- Continue analysis to prepare the Agency's third CCL;
- Continue the comprehensive Lead and Copper Rule Review that began in 2004;
- Begin to develop revisions to the Total Coliform Rule (TCR); and
- Consider additional protections of drinking water distribution systems.

Drinking Water Implementation

During FY 2007, EPA will support state efforts to meet existing and new drinking water standards including the Cryptosporidium (Long Term 2 Enhanced Surface Water Treatment), Disinfection (Stage 2 Disinfectants and Disinfection Byproducts Rule), and Ground Water Rules. In many states, EPA will be responsible for directly implementing the early monitoring requirements under the Cryptosporidium and Disinfection rules. In addition, initial monitoring requirements under the revised arsenic rule and revised radionuclides rule will be underway. EPA and the states will use the following tools to encourage compliance:

- **Public Water System Supervision (PWSS) Program Grants:** These grants to states and tribes provide assistance to implement and enforce National Primary Drinking Water Regulations to ensure the safety of the Nation's drinking water resources and to protect public health.

- **Sanitary Surveys:** Sanitary surveys are on-site reviews of the water sources, facilities, equipment, operation, and maintenance of public water systems. All states are to be in compliance with requirements to conduct sanitary surveys at CWSs once every three years starting in 2004.

- **Data Access, Quality, and Reliability:** EPA will complete the modernization of the Safe Drinking Water Information System (SDWIS), which serves as the primary source of national information on compliance with all health-based, regulatory requirements of SDWA.

Promotion of Sustainable Management of Drinking Water Infrastructure

The Drinking Water State Revolving Loan Fund (DWSRF), established under the SDWA, offers low interest loans to help public water systems across the nation make improvements and upgrades to their water infrastructure, or support other activities that build system capacity. In FY 2007, the DWSRF program will provide an estimated 600 additional loans. EPA will also

work with states to increase the percentage of loan agreements made each year that return a system to compliance, estimated to be 30% of loan agreements in 2002.

Protection of Sources of Drinking Water

In FY 2007, EPA will work with states and water systems to improve protection of sources of drinking water in two key areas.

- **Voluntary Source Water Protection Strategies:** EPA will promote the concept of a multiple barriers approach to drinking water program management and will work with states to track, to the extent feasible, the development and implementation of source water protection strategies. EPA has set a goal of increasing the number of source water areas (both surface and ground water) for community water systems that have minimized risk to public health from an estimated baseline of 5% of all areas in 2002 to 20% in FY 2007.
- **Underground Injection Control:** EPA works with states to regulate injection of hazardous substances and other waste to prevent contamination of underground sources of drinking water. In FY 2007, EPA will continue to focus on shallow wells (Class V) in source water areas. EPA and the states will work to assure that all identified Class V motor vehicle waste disposal wells are closed by 2008. EPA and states will also work to assure that 100 percent of Class I, II, III and V wells that are determined to be in violation are addressed.

Assurance that Critical Water Infrastructure is Secure

In FY 2007, EPA will continue to lead and support state and water utility efforts to secure their water infrastructure from terrorist threats and other intentional harm. In addition, due to its responsibilities under Homeland Security Presidential Directives 7 and 9, EPA will support the water sector in implementing protective measures and in continuing to pilot a new and innovative drinking water surveillance and monitoring program. In FY 2007, EPA will establish, in selected cities, additional pilot contamination warning systems based upon intensive water monitoring and other surveillance. The pilots will integrate information from contaminant-specific sampling and laboratory analysis, on-line water quality monitoring, public health surveillance, customer complaints and physical security to form a *comprehensive contamination warning system*. The WaterSentinel program will prove the concept of an effective contamination warning system, so that drinking water utilities, ideally of all sizes and characteristics, could adopt such a system. The Agency will also provide critical tools, training, and exercises that will help utilities detect, prevent, and respond to threats.

Fish and Shellfish Safe to Eat

Across the U.S., states and tribes have issued fish consumption advisories for a range of persistent, bioaccumulative contaminants covering more than 840,000 river miles and 14 million lake acres as of 2003.[10] The EPA *Strategic Plan* calls for improving the quality of water and

[10] United States Environmental Protection Agency Office of Water. Fact Sheet: National Listing of Fish Advisories. EPA-823-F-04-016. August 2004. Available on the Internet at http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf

sediments to allow increased consumption of fish and shellfish. EPA's national approach to meeting safe fish and shellfish goals is described below.

Safe Fish

Most of the current fish consumption advisories issued by states are for mercury, PCBs, and dioxin. EPA is emphasizing strategic partnerships within the Agency to address these pollutants. EPA's water program is also addressing remaining controllable sources of fish exposure to these chemicals. The Agency is:

- Developing mercury fish tissue criteria implementation guidance to ensure new criteria are incorporated into WQS and implemented in National Pollutant Discharge Elimination System (NPDES) permits;
- Working with states to improve their advisory programs with particular emphasis on periodic re-sampling of previously tested waters that are under advisory; and
- Working to identify emerging contaminants to ensure that routes of fish exposure to new, emerging contaminants are addressed early.

Safe Shellfish

Success in achieving the shellfish goals relies on implementation of CWA programs that are focused on sources of pollution that cause shellfish acres to be closed. Important new technologies include pathogen source tracking, new indicators of pathogen contamination and predictive correlations between environmental stressors and their effects. Once critical areas and sources are identified, core program authorities, including expanded monitoring, development of Total Maximum Daily Loads (TMDLs), and revision of discharge permit limits can be applied to improve conditions.

Water Safe for Swimming

Recreational waters, especially beaches in coastal areas and the Great Lakes, provide recreational opportunities for millions of Americans. Swimming in some recreational waters, however, can pose a risk of illness as a result of exposure to microbial pathogens. In November 2004, EPA established more protective health-based WQSs for bacteria for those states and Territories bordering Great Lakes or ocean waters that had not yet adopted standards in accordance with the Beaches Environmental Assessment and Coastal Health Act of 2000, an important step to further protect the quality of the nation's coastal recreation waters.[11] For FY 2007, EPA's national strategy for improving the safety of recreational waters will include these key elements:

Improve Beach Monitoring and Public Notification

A key component of the strategy for improving the safety of recreational waters is improving monitoring of public beaches and notifying the public of unsafe conditions. EPA is working

[11] United States Environmental Protection Agency. Federal Register; November 16, 2004; Volume 69, Number 220; pages 67217 – 67243. Water Quality Standards for Coastal and Great Lakes Recreation Waters. Available on the Interenet at http://www.epa.gov/fedrgstr/EPA-WATER/2004/November/Day-16/w25303.htm

with states to implement the Beaches Environmental Assessment and Coastal Health (BEACH) Act. In FY 2007, EPA expects that all Tier 1 public beaches will be monitored and managed under the BEACH Act and that states and localities will be taking actions where possible and appropriate to address sources of unsafe conditions that result in the closure of beaches.

Identify Unsafe Recreational Waters and Begin Restoration

Another important element of the strategy to restore waters unsafe for swimming is to identify the specific waters that are unsafe and develop plans to accomplish the needed restoration. An important part of this work is to maintain strong progress toward development of TMDLs based on the schedules established by states in conjunction with EPA. In a related effort, the Agency will better focus compliance assistance and, where necessary, enforcement resources on unsafe recreational waters. In addition, working with communities that have frequent wet weather discharges (which are a major source of pathogens) to ensure progress to reduce the frequency of these discharges is one of the Agency's national enforcement priorities for FY 2005 through 2007.

Reduce Pathogen Levels in Recreational Waters Generally

In addition to focusing on waters that are unsafe for swimming today, EPA, states and tribes will work in FY 2007 to reduce the overall level of pathogens discharged to recreational waters using three key approaches:

- Reduce pollution from CSOs;
- Address major sources discharging pathogens under the permit program; and
- Improve management of septic systems.

Restore and Improve Water Quality on a Watershed Basis

A significant investment of the National Water Program resources is under the CWA, which directly support efforts to restore and improve the quality of rivers, lakes, and streams. In FY 2007, EPA will work with states to make continued progress toward the clean water goals identified in the Strategic Plan by using a two-part strategy. EPA will also implement core clean water programs, including innovations that apply programs on a watershed basis and accelerate efforts to improve water quality on a watershed basis.

Implement Core Clean Water Programs:

To protect and improve water quality on a watershed basis in FY 2007, EPA, in partnership with states and tribes, will continue to focus the work on integrating the six key program areas that form the foundation of the water program. Core water program work includes:

- **Strengthen Water Quality Standards:** The top priority for the criteria and standards program in FY 2007 is the continued implementation of the *Water Quality Standards (WQS) and Criteria Strategy*, developed in cooperation with states, tribes, and the public in 2003. The *Standards and Criteria Strategy* prioritizes key strategic actions EPA and

the states need to complete in order to strengthen the WQS program to guide assessment and restoration efforts. This Strategy calls for EPA to continue work in developing scientific "criteria documents" for key chemical, microbial, and water pollutants, including implementation protocols and methods. Key elements identified in the Strategy include developing nutrient criteria, adopting biological criteria, approving state WQSs in a timelier manner, and providing technical and scientific support to the states and tribes in conducting Use Attainability Analyses and developing site-specific criteria. Finally, EPA will work with states and tribes to ensure the effective operation and administration of the standards program.

- **Improve Water Quality Monitoring**: Scientifically defensible water quality data and information are essential to all aspects of the national program to protect and restore water yet, as documented in numerous independent evaluations, Federal and state water quality monitoring and assessment programs need strengthening. Top priorities for FY 2007 are state participation in efforts to develop statistically valid monitoring networks, continued EPA support of states in developing monitoring programs consistent with national monitoring guidance published in 2003, and state support of the national water quality database.

- **Develop Total Maximum Daily Loads (TMDLs) and Related Plans:** Development of TMDLs for an impaired waterbody is a critical tool for meeting water restoration goals. In FY 2007, EPA will continue to support states as they develop TMDLs to meet court-ordered schedules and ensure that the national policy of TMDL completion within 13 years of waterbody listing is met. EPA will continue to pursue innovative approaches to help states and other partners develop and implement waterbody restoration plans as efficiently as possible.

- **Control Nonpoint Source Pollution on a Watershed Basis:** Polluted runoff from nonpoint sources is the largest single remaining cause of water pollution. In FY 2007, EPA will use grants to states under Section 319 of the CWA to support efforts to manage nonpoint pollution through the development and implementation of watershed plans. Special emphasis will be placed on restoring impaired waters on a watershed basis.

- **Industrial Water Pollution Control:** EPA will develop regulations for industries where the risk to waterbodies can be reduced and water quality can be improved through wastewater treatment. In FY 2007, EPA will be working on regulations for the 4 industries identified in the 2004 effluent guideline plan and any additional industries that may be identified in the 2006 plan.

- **Strengthen NPDES Permit Program:** The NPDES program requires point sources discharging to water bodies to have permits. In FY 2007, EPA will work with states to use the "Permitting for Environmental Results Strategy" to address concerns about the workload for issuing permits and the health of state NPDES programs. Additionally, EPA will finalize a rule that incorporates financial incentives for states that implement adequate NPDES fee systems.

- **Support Sustainable Wastewater Infrastructure:** The Clean Water State Revolving Funds (CWSRFs) provide low-interest loans to help finance wastewater treatment facilities and other water quality projects. Recognizing the substantial remaining need for wastewater infrastructure, EPA will continue to provide significant annual capitalization to CWSRFs in FY 2007. Another important approach to closing the gap between the need for clean water projects and available funding is to use sustainable management systems to prolong the lives of existing systems. EPA will work to encourage rate structures that lead to full cost pricing and other conservation measures.

Accelerate Watershed Protection

Strong execution of core CWA programs alone is not sufficient to maintain and accelerate progress toward cleaner water and accomplish the water quality improvements called for in the *Strategic Plan*. About a decade ago, EPA fostered the watershed approach, focusing on multi-stakeholder and multi-program efforts within hydrologically defined boundaries, as a better way to address water quality problems. In FY 2007, EPA will accelerate watershed protection by working in three key areas:

- **Core Programs Organized by Watershed:** In addition to development of watershed based plans, discussed below, core programs can be implemented on a watershed basis. Some examples in practice as a result of innovations developed by state, EPA Regions, and others are development of TMDLs and NPDES permits on a watershed basis and implementing water quality "trading" programs within a watershed.

- **Local Watershed Protection Efforts:** EPA is developing national tools, training, and technical assistance that will help community partnerships to be more effective at improving watershed health.

- **Apply an Adaptive Management Framework:** The best way to achieve progress in improving and protecting waters and watersheds is by applying an adaptive management approach to better understand the problems, set challenging but realistic goals, and address opportunities associated with developing programs and building partnerships at the watershed level. In FY 2007, EPA will continue to work with states and tribes to apply an adaptive management framework to identify the specific mix of watershed tools that best suit local needs and conditions.

Protect Coastal and Ocean Waters

Coastal waters are among the most productive ecosystems on Earth, but they are also among the most threatened ecosystems, largely as a result of rapidly increasing growth and development. About half of the U.S. population now lives in coastal areas and coastal counties are growing three times faster than counties elsewhere in the Nation. The work described here will be closely coordinated with the implementation of the National Estuary Program (described in Goal 4).

For FY 2007, EPA's national strategy for improving the condition of coastal and ocean waters will include the key elements listed below. The health of ocean and coastal waters and progress in meeting EPA's strategic targets will be tracked through the National Coastal Condition Report. In addition, the OSV *BOLD*, EPA's ocean survey vessel, will support monitoring and assessment needs in coastal regions.

Reduce Vessel Discharges

EPA will focus on enhancing regulation of discharges of pollution from vessels. Key work for FY 2007 includes proposing wastewater standards for cruise ships operating in Alaskan waters and cooperating with the Department of Defense to develop discharge standards for all armed forces vessels.

Manage MPRSA Ocean Dumping Program (Including Dredged Material)

Several hundred million cubic yards of sediment are dredged from waterways, ports, and harbors every year to maintain the Nation's navigation system. All of this sediment must be disposed of safely. EPA and the U.S. Army Corps of Engineers (COE) share responsibility for regulating how and where the disposal of sediment occurs. In FY 2007, EPA and COE will continue to focus resources on improving how disposal of dredged material is managed, including evaluating, designating, and monitoring disposal sites. EPA will also review and concur on the disposal permits issued by COE.

Manage Invasive Species

One of the greatest threats to U.S. waters and ecosystems is the uncontrolled spread of invasive species. Invasive species commonly enter U.S. waters through the discharge of ballast water from ships. In FY 2007, EPA will assist the U.S. Coast Guard in its efforts to develop ballast water discharge standards. In addition, EPA will continue efforts to target invasive species in coastal areas. Efforts addressing invasive species on an international level are discussed below.

FY 2005 Performance Assessment Rating Tool Evaluations (PARTs):

The following programs were assessed using the Program Assessment Rating Tool (PART) for the FY 2005 PART process (final PART ratings will be included in the President's Budget):

- Oceans and Coastal Programs
- Surface Water Protection Program
- Section 106 Categorical Grants
- Drinking Water Research

More detailed information is provided in specific program project descriptions.

International Activities

Internationally, our objective is to protect the environmental quality of U.S. coastal and ocean waters. U.S. waters are subject to international sources of pollution and EPA's international

efforts in this area are focused on the development and implementation of international standards necessary to address transboundary sources of pollution, pollution affecting shared ecosystems, and the introduction of non-indigenous species through maritime shipping. To reach these ends we are seeking to reduce the introduction of invasive species to U.S. waters by working with the U.S. Coast Guard regarding the International Ballast Water Standards Convention under MARPOL. Another emphasis is negotiation of effective international standards addressing harmful anti-foulants and air emissions from ships. Achievement of the objective and strategic targets will enhance U.S. water quality, human health, and help stabilize aquatic ecosystems in North America.

Research

EPA's drinking water and water quality research programs conduct leading edge, problem-driven research to provide a sound scientific foundation for Federal regulatory decision-making. These efforts will result in strengthened public health and aquatic ecosystem protection by providing data methods, models, assessments, and technologies for EPA program and regional offices, as well as state and local authorities.

In FY 2007, the drinking water research program will continue to focus on filling key data gaps and developing analytical detection methods for measuring the occurrence of chemical and microbial contaminants on the Contaminant Candidate List (CCL) and developing and evaluating cost-effective treatment technologies for removing pathogens from water supplies while minimizing microbial/disinfection by-product (M/DBP) formation. The water quality research program will continue providing approaches and methods the Agency and its partners need to develop and apply criteria to support designated uses, tools to diagnose and assess impairment in aquatic systems, and tools to restore and protect aquatic systems.

A new investment in FY 2007 will support research and development of innovative approaches and technologies aimed at the growing gap in the nation's water infrastructure requirements. Aging and deteriorated potable water and wastewater infrastructure makes it difficult to meet Clean Water Act and Safe Drinking Water Act requirements, and increases the potential for waterborne disease outbreaks. The purpose of this initiative will be to generate the science and engineering to evaluate promising innovative technologies and techniques to reduce the cost of operation, maintenance, and replacement of aging and failing wastewater and potable water conveyance systems and move towards sustainable water infrastructure.

Other important areas of research in FY 2007 will include: 1) developing a web-enabled database of treatability information for chemicals and pathogens, providing information to the Agency for prioritization of contaminants and for Homeland Security efforts; 2) reporting on public health benefits associated with improvements in drinking water treatment to reduce microbial exposures; 3) conducting wetlands research to develop a hierarchical assessment approach to address the objectives of the President's initiative to preserve and restore wetlands, and augment the current no-net-loss policy; and 4) performing a suite of epidemiological studies to establish a strong, defensible link between rapid water quality indicators and swimming-associated health effects.

Recognizing that environmental policy and regulatory decisions will only be as good as the science upon which they are based, EPA makes every effort to ensure that its science is of the highest quality and relevance, thereby, providing the basis for sound environmental results. EPA uses the Research and Development (R&D) Investment Criteria of quality, relevance, and performance in its decision-making processes through the use of research strategies and plans, program review and evaluation by the Board of Scientific Counselors (BOSC) and the Science Advisory Board (SAB), and peer review.

In 2005, the BOSC evaluated the Agency's drinking water research program to assess the quality and relevance of its research and the program's historical performance. The subcommittee concluded that the program has produced significant research, which in turn has been used by the Agency's Office of Water (OW), states, and industry to achieve outcomes. The subcommittee also lauded the program's use of the Agency's Science to Achieve Results (STAR) program, which awards competitive research grants through a rigorous peer review process. The FY 2005 PART process resulted in specific annual and long term performance measures that will improve quantification of outcomes. Notably, the drinking water research program will measure the long term utility of its products for key decisions by the Office of Water.

Strategies are tailored to specific research needs and priorities. The Agency maintains multi-year research plans (MYP) that outline steps for meeting those strategic research needs and annual performance goals (APG) and measures (APM) for evaluating progress.

Taken together, these mechanisms serve to ensure that EPA's research and science remain relevant, of high quality, and contribute to superior environmental performance.

In order to sustain a viable and credible workforce, the Agency approaches its research programs' workforce planning in a manner consistent with its human capital strategy. Key elements of this strategy include working to develop and implement a holistic approach to recruitment, preserving a diverse workforce that reflects a wide spectrum of viewpoints, and retaining existing talent.

LAND PRESERVATION AND RESTORATION

Preserve and restore the land by using innovative waste management practices and cleaning up contaminated properties to reduce risks posed by releases of harmful substances.

STRATEGIC OBJECTIVES:

- By 2008, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper management of waste and petroleum products at facilities in ways that prevent releases.
- By 2008, control the risks to human health and the environment by mitigating the impact of accidental or intentional releases and by cleaning up and restoring contaminated sites or properties to appropriate levels.
- Through 2008, provide and apply sound science for protecting and restoring land by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 3.

GOAL, OBJECTIVE SUMMARY

Budget Authority / Obligations
Full-time Equivalents
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Land Preservation and Restoration	**$1,780,624.2**	**$1,656,471.0**	**$1,689,635.1**	**$33,164.1**
Preserve Land	$217,596.8	$217,305.7	$242,090.9	$24,785.2
Restore Land	$1,501,041.1	$1,383,140.1	$1,395,285.3	$12,145.2
Enhance Science and Research	$61,986.3	$56,025.2	$52,258.9	($3,766.3)
Total Authorized Workyears	4,602.5	4,737.8	4,686.2	-51.6

Uncontrolled, hazardous and nonhazardous wastes on the land can migrate to the air, groundwater, and surface water, contaminating drinking water supplies, causing acute illnesses or chronic diseases, and threatening healthy ecosystems in urban, rural, and suburban areas. Hazardous substances can kill living organisms in lakes and rivers, destroy vegetation in contaminated areas, cause major reproductive complications in wildlife, and otherwise limit the ability of an ecosystem to survive.

EPA leads the country's activities to prevent and reduce the risks posed by releases of harmful substances and by contaminated land. The most effective approach to controlling these risks incorporates developing and implementing prevention programs, improving response

capabilities, and maximizing the effectiveness of response and cleanup actions. This approach will help to ensure that human health and the environment are protected and that land is returned to or continues to be used beneficially.

EPA will work to preserve and restore the land with the most effective waste management and cleanup methods available. EPA uses a hierarchy of approaches to protect the land: reducing waste at its source, recycling waste, managing waste effectively by preventing spills and releases of toxic materials, and cleaning up contaminated properties. The Agency especially is concerned about threats to our most sensitive populations, such as children, the elderly, and individuals with chronic diseases, and prioritizes cleanups accordingly. Additional information on these programs can be found at: www.epa.gov/superfund, http://www.epa.gov/epaoswer/hazwaste/ca/, and http://www.epa.gov/superfund/programs/er/index.htm.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) and the Resource Conservation and Recovery Act (RCRA) provide the legal authority for most of EPA's work toward this goal. The Agency and its partners use Superfund authority to clean up uncontrolled or abandoned hazardous waste sites and return the land to productive use. Under RCRA, EPA works in partnership with states and Tribes to address risks associated with leaking underground storage tanks and with the generation and management of hazardous and nonhazardous waste.

EPA also uses authorities provided under the Clean Air Act, Clean Water Act, and Oil Pollution Act of 1990 to protect against spills and releases of hazardous materials. Controlling the many risks posed by accidental and intentional releases of harmful substances presents a significant challenge. EPA's approach integrates prevention, preparedness, and response activities to minimize these risks. Spill prevention activities keep harmful substances from being released to the environment. Improving its readiness to respond to emergencies through training, development of clear authorities, and provision of proper equipment ensures that EPA is adequately prepared to minimize contamination and harm to the environment when spills do occur.

The following themes characterize EPA's land program activities under Goal 3: Revitalization; Recycling, Waste Minimization and Energy Recovery; Emergency, Preparedness and Response and Homeland Security; and implementation of the recently-authorized Energy Policy Act of 2005 (EPAct).

- Revitalization: All of EPA's cleanup programs (Superfund Remedial, Superfund Federal Facilities Response, RCRA Corrective Action, Brownfields, and Underground Storage Tanks) and their partners are taking proactive steps to accommodate and facilitate the cleanup and revitalization of contaminated properties. Revitalizing these once productive properties can provide numerous positive impacts for communities such as removing blight, satisfying the growing demand for land, helping limit urban sprawl, fostering ecologic habitat enhancements, enabling economic development, and maintaining or improving quality of life. Efforts are underway to develop cross-program revitalization measures that will enable EPA to capture a broader array of accomplishments resulting from the assessment and cleanup of properties.

- Recycling, Waste Minimization and Energy Recovery: EPA's strategy for reducing waste generation and increasing recycling is based on: (1) establishing and expanding partnerships with businesses, industries, Tribes, states, communities, and consumers; (2) stimulating infrastructure development, environmentally responsible behavior by product manufacturers, users, and disposers ("product stewardship"), and new technologies; and (3) helping businesses, government, institutions, and consumers through education, outreach, training, and technical assistance.

- Emergency Preparedness, Response, and Homeland Security: EPA has a major role in reducing the risk to human health and the environment posed by accidental or intentional releases of harmful substances and oil. EPA will continue to improve its capability to effectively prepare for and respond to these incidents, including natural disasters such as Hurricane Katrina, working closely with other Federal agencies within the National Response Plan.

- Implementing New Energy and Transportation Legislation: EPA has a critical role in implementing the EPAct. The EPAct contains numerous provisions that significantly affect Federal and state underground storage tank (UST) programs. In FY 2007, EPA will provide assistance to states to help them meet their new responsibilities, which include performing additional inspections, developing operator training requirements, prohibiting fuel deliveries at non-compliant UST facilities, and requiring secondary containment for new and replaced tanks and piping or financial responsibility for tank installers and manufacturers.

Controlling Risks to Human Health and the Environment at Contaminated Sites

EPA and its partners work to identify contaminated lands that pose significant risks to human health and the environment. Once identified, these contaminated lands are cleaned up to levels sufficient to prevent and control risks to human health and the environment and, where necessary, to return the land to productive use. EPA and its partners follow four key steps to accomplish cleanups and control risks to human health and the environment from contaminated lands: assessment of risk, identification and stabilization of contaminants, selection of appropriate remedies to address risk posed by contaminants, and implementation of remedies to reduce contamination to below health-based risk levels. The Agency's cleanup activities, some new and some well-established, include removing contaminated soil, capping or containing contamination in place, pumping and treating groundwater, and bioremediation. New tools, such as Triad, a process for flexible and targeted sampling, help provide a more focused strategy to characterize contaminated lands. Also, through an Environmental Management Systems (EMS) approach, which involves a continuous cycle of planning, implementing, reviewing, and improving practices at each site, EPA has improved performance and reduced operating costs of remedies while ensuring continued protectiveness.

EPA has ongoing cleanup and property transfer responsibilities at some of the Nation's most contaminated Federal properties, which range from realigning and closing military installations and former military properties containing unexploded ordnance, solvents and other industrial chemicals, to Department of Energy sites containing nuclear waste. EPA's Superfund Federal Facilities Response program helps Federal and local governments, Tribes, states, redevelopment authorities and the affected communities ensure contamination at Federal or former Federal

properties is addressed in a manner that protects human health and the environment. For more information on the Superfund Federal Facilities Response program, please refer to http://www.epa.gov/fedfac.

EPA uses a variety of tools to accomplish cleanups, including permits, enforcement actions, consent agreements, and Federal facility agreements. Cleanup programs at all levels of government work together to ensure that appropriate cleanup tools are used; that resources, activities, and results are coordinated with partners and stakeholders and communicated to the public effectively; and that cleanups are protective and contribute to community revitalization. The Agency's two major cleanup programs, Superfund and RCRA Corrective Action, now rely on similar human health and groundwater protection environmental indicators. EPA is working to coordinate across all of its cleanup programs, while maintaining the flexibility needed to accommodate differences in program authorities and approaches.

EPA fulfills its cleanup and waste management responsibilities on Tribal lands by acknowledging Tribal sovereignty, which means recognizing Tribal governments as the most appropriate authorities for setting standards, making policy decisions, and managing programs consistent with Agency standards and regulations. EPA works with its Federal, state, Tribal, and local government partners to identify facilities and sites on or adjacent to Indian country requiring attention and to monitor changes in priorities.

Even though the Superfund program met its FY 2005 targets for a majority of its existing performance measures, challenges remain for the coming years. The program has a number of projects ready for construction, while it also needs to fund several large, complex remedial projects at an optimal pace. In addition, as the program has matured, it has become necessary for the Agency to devote more resources toward post construction activities, including long-term remedial actions and five-year reviews. Therefore, the Agency proposes to redirect resources from earlier phase activities toward construction in FY 2007.

To meet its objective to control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and to make land available for reuse, EPA intends to achieve the following results in FY 2007:

- Make 350 final site-assessment decisions under Superfund;
- Increase the total number of Superfund sites where all identified unacceptable human exposures are controlled to at or below health-based levels for current land and/or groundwater use conditions by 10;
- Increase the total number of Superfund sites where the migration of contaminated groundwater is under control through engineered or natural processes by 10;
- Select final remedies at 25 Superfund sites on the National Priorities List (NPL);
- Complete construction of remedies at 40 Superfund sites on the NPL;
- Increase the percentage of high priority RCRA facilities with human exposure to controlled toxins from an estimated 82% in FY 2006 to 89%;
- Increase the percentage of high priority RCRA facilities with toxic releases to groundwater contamination to 75% from an estimated 68% in FY 2006; and
- Complete 13,000 leaking underground storage tanks cleanups.

Enforcement authorities play a unique role under the Superfund program: they are used to leverage private-party resources to conduct a majority of the cleanup actions and to reimburse the Federal government for cleanups financed by the Trust Fund. The Superfund program's "enforcement first" policy ensures that sites that have viable potentially responsible parties (PRPs) are cleaned up by those parties, allowing EPA to focus appropriated resources on sites where viable PRPs either do not exist or lack funds or capabilities needed to conduct the cleanup. In tandem with this approach, various reforms have been implemented to increase fairness, reduce transaction costs, and promote economic development. For more information regarding EPA's enforcement program and its various components, please refer to www.epa.gov/compliance/cleanup/superfund/.

The Agency also has been encouraging the establishment and use of Special Accounts within the Superfund Trust Fund. These accounts segregate site-specific funds obtained from responsible parties that complete settlement agreements with EPA. These funds may create an incentive for other PRPs at that specific site to perform work they otherwise might not be willing to perform. Alternatively, these funds may be used by the Agency to fund cleanup activities if there are not known or viable PRPs. As a result, the Agency can get more sites cleaned up while preserving the appropriated Trust Fund dollars for sites without viable PRPs.

In FY 2007, the Agency will continue to implement its "enforcement first" strategy. It will negotiate remedial design/remedial action cleanup agreements and removal agreements at contaminated properties. Where negotiations fail, the Agency will either take unilateral enforcement actions to require PRP cleanup or use appropriated dollars to remediate sites. When appropriated dollars are used to clean up sites, the program will recover this money from the PRPs whenever possible. The Agency will also continue its efforts to establish and maximize the use of Special Accounts to facilitate clean up.

By continuing to pursue cost recovery settlements, the program promotes the principle that polluters should perform or pay for cleanups, preserving appropriated Superfund Trust Fund resources for site remediation where there is no known or viable PRP. The Agency's expenditures are recouped through administrative actions, CERCLA section 107 case referrals, and through settlements reached with the use of alternative dispute resolution.

EPA's financial management offices provide a full array of support services to the Superfund program including managing oversight billing for Superfund site cleanups and financial cost recovery. The Department of Justice supports EPA's Superfund Enforcement program through negotiations and judicial actions to compel PRP cleanup and litigation to recover Trust Fund monies spent.

Encouraging Land Revitalization

Land is one of America's most valuable resources. However, where contamination presents a real or perceived threat to human health and the environment, options and even interest in future use of that property may be limited. To address these common scenarios, EPA's cleanup programs have set a national goal of returning formerly contaminated sites to long-term, sustainable, and productive use. This goal creates greater impetus for selecting and implementing

remedies that, in addition to providing clear environmental benefits, support reasonably anticipated future land use options and provide greater economic and social benefits.

To help achieve its land revitalization goals, EPA works with external partners to: (1) promote land revitalization by ensuring that current use or reuse options are considered explicitly in the evaluation of cleanup options; (2) commit the necessary resources to address current use or reuse as a top priority in cleanup decisions; (3) develop new comprehensive policies and programs to address unintended cross-jurisdiction and cross-program barriers to the protective reuse of contaminated properties; (4) promote protective, long-term current use or reuse of properties; (5) promote sustainable reuse to prevent further contamination and indirect environmental problems that may result from some reuse (sustainable reuses include open spaces, energy efficient buildings, low impact design, smart growth community developments, and wildlife habitats); (6) develop and promote a land revitalization research agenda that improves our understanding of and our ability to use protectively or reuse contaminated or potentially contaminated properties; (7) build partnerships to leverage knowledge, expertise, and resources in the revitalization of properties (including government-to-government partnerships at the local, state, Tribal, and Federal levels as well as partnerships with non-government, private, and community organizations); (8) expand community capabilities through improved public involvement tools and information systems on contamination, cleanup, reuse, and long-term stewardship; (9) expand and promote educational and training programs that encourage and provide needed tools to achieve land revitalization; and (10) promote various approaches to measure and report the status and impacts of the collective efforts to revitalize.

For more information concerning EPA's land revitalization efforts, please refer to http://www.epa.gov/swerrims/landrevitalization/ .

Reducing and Recycling Waste

Preventing pollution before it is generated and poses harm is often less costly than cleanup and remediation. Source reduction and recycling programs can increase resource and energy efficiencies and thereby reduce pressures on the environment. RCRA directs EPA to minimize the amount of waste generated and to improve recovery and conservation of materials through recycling. To this end, EPA builds on partnerships with other Federal agencies; state, Tribal, and local governments; business and industry; and non-governmental organizations. These voluntary partnerships provide information sharing, recognition, and assistance to improve practices in both public and private sectors.

EPA launched the Resource Conservation Challenge (RCC) as a major national effort to find flexible, yet more protective ways to conserve our valuable natural resources through waste reduction, energy recovery, and recycling. Through the RCC, EPA challenges every American to prevent pollution, promote recycling and reuse, and conserve energy and materials. The RCC programs foster source reduction and recycling in business, industry, and government; encourage local adoption of economic incentives that further source reduction and recycling; reduce hazardous wastes containing priority chemicals; promote waste-based industries that concurrently create jobs; foster cost-effective recycling programs in communities and Tribes; enhance markets for recycled materials by increasing procurement of recycled-content products; encourage innovative practices that result in more cost-effective source reduction and recycling;

implement the President's Climate Change Action Plan; and provide information to assess and track progress in reaching national goals.

Reducing waste generation has clear benefits in combating the ever-growing stream of municipal solid waste (MSW). MSW includes waste generated from residences, commercial establishments, institutions, and industrial non-process operations. Annual generation of MSW grew steadily from 88 million to 236 million tons between 1960 and 2003.[12] In FY 2007, EPA's municipal solid waste program will implement a set of coordinated strategies, including source reduction (also called waste prevention), recycling (including composting), combustion with energy recovery, and landfilling. Preference will be given to strategies that maximize the diversion of waste from disposal, with source reduction (including reuse) as the highest priority.

To meet its objective for reducing materials use through product and process redesign, and increasing materials and energy recovery from wastes otherwise requiring disposal, EPA intends to achieve the following results in FY 2007:

- Maintain the national average MSW generation rate at no more than 4.5 pounds per person per day; and
- Divert 85.2 million tons of MSW from landfills and combustion.

Recognizing that some hazardous wastes cannot be completely eliminated or recycled, the RCRA program works to reduce exposure to hazardous wastes by maintaining a cradle-to-grave approach to waste management. The program's primary focus is to prevent hazardous releases from RCRA facilities and reduce emissions from hazardous waste combustion through a combination of regulations, permits and voluntary standards. State program authorization provides the states with primary RCRA implementation and enforcement authority; reduces overlapping and dual implementation by the states and EPA; provides the regulated community with one set of regulations; reduces overall Federal enforcement presence in the states; and can provide the opportunity for some of the newer, less-stringent RCRA regulations to be implemented by the states. To date, 48 States, Guam, and the District of Columbia are authorized to issue permits. Important goals of the RCRA program include strong state partnerships, the authorization of states for all portions of the RCRA hazardous waste program, including regulations addressing waste management issues contained in permits, and results-oriented state oversight.

[12] US Environmental Protection Agency. *Municipal Solid Waste in the United States:* 2003 Facts and Figures, Executive Summary, U.S. Government Printing Office, Washington, DC, October 2003. Available online at www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm. Last updated April 5, 2005.

EPA works with states, Tribes and Intertribal Consortia to prevent, detect, and correct leaks into the environment from Federally-regulated USTs containing petroleum and hazardous substances. Achieving significant improvements in release prevention and detection requires a sustained emphasis by both EPA and its partners. Because states are the primary enforcers of the UST program requirements, EPA has adopted a decentralized approach to UST program implementation by building and supporting strong state and local programs. Concerns about the use of fuel oxygenates, like MTBE, in gasoline further underscores EPA's and the states' emphasis on promoting compliance with all UST requirements. EPA provides technical information, forums for information exchanges and training opportunities to states, Tribes and Intertribal Consortia to encourage program development and/or implementation of the UST program. In FY 2007, EPA will make grants to states and Tribes under Section 2007(f)(2) of the Solid Waste Disposal Act (SWDA) for underground storage tank detection, prevention and correction programs and grants or cooperative agreements for new activities authorized by the Underground Storage Tank Compliance Act of 2005 (USTCA), which was enacted as Title XV, Subtitle B of the EPAct, that are not otherwise provided for in Section 2007 of the SWDA. Due to authority limits, EPA will not use STAG funds for leaking underground storage tank cleanup activities that are authorized by Section 205 of the Superfund Amendments and Reauthorization Act of 1986, even if those activities are also authorized by the USTCA.

To meet its objective for reducing releases to the environment by managing hazardous wastes and petroleum products properly, EPA intends to achieve the following results in FY 2007:

- Prevent releases from RCRA hazardous waste management facilities by increasing the number of facilities with permits or other approved controls by 2.4 percent over the FY 2006 level. At the end of FY 2005, 90 percent of the facilities had permits or other approved controls;[13]
- Increase the percentage of UST facilities in significant operational compliance with both release detection and release prevention (spill, overfill, and corrosion protection) requirements to 67 percent of the estimated universe of approximately 256,000 facilities; and
- Reduce the number of confirmed releases at UST facilities to 10,000 or fewer. (Between FY 1999 and FY 2005, confirmed releases averaged 10,844. The annual number of confirmed releases in FY 2005 was 7,421).

Emergency Preparedness, Response, and Homeland Security

EPA will continue to improve its emergency preparedness and response capability, including homeland security capabilities. EPA plays a major role in reducing the risks that accidental and intentional releases of harmful substances and oil pose to human health and the environment. Under the multi-agency National Response Plan (NRP), EPA evaluates and responds to thousands of releases annually. EPA's primary role in the NRP is to serve as the Federal On-Scene Coordinator (OSC) for spills and releases in the inland zone. As a result of NRP efforts, many major oil spills and releases of hazardous substances have been contained, minimizing the adverse impacts on human health and the environment.

[13] This goal currently tracks approximately 2,460 hazardous waste management facilities subject to permitting requirements. This baseline was updated for FY 2006.

An important component of EPA's land strategy is to prevent oil spills from reaching our Nation's waters. Under the Clean Water Act, as amended by the Oil Pollution Act, the Agency requires certain facilities (defined in 40 CFR 112.2) to develop and implement spill prevention, control, and countermeasure (SPCC) plans. Compliance with these requirements reduces the number of oil spills that reach navigable waters and prevents detrimental effects on human health and the environment should a spill occur.

Each year, EPA personnel assess, respond to, mitigate, and clean up thousands of releases, whether accidental, deliberate, or naturally occurring. These incidents range from small spills at chemical or oil facilities to national disasters, such as hurricanes and earthquakes, to large-scale terrorist events.

EPA will work to improve its capability to respond effectively to incidents that may involve harmful chemical, oil, biological, and radiological substances. The Agency will explore improvements in field and personal protection equipment, expand training for response personnel and continue to participate in multi-agency training and exercises. EPA also will review response data provided in the "after-action" reports prepared by EPA emergency responders following a release and examine "lessons learned" reports to identify which activities work and which need improvement. Application of this information and other data will advance the Agency's state-of-the-art emergency response operations.

EPA's 25-year-old Emergency Response and Removal program is supported by EPA OSCs, the Environmental Response Team (ERT) and the National Decontamination Team (NDT), who respond to small and large scale response actions, disasters and terrorist incidents. Responding to these incidents is one of EPA's traditional responsibilities.

The FY 2007 President's Budget request includes funding to enable EPA to improve the capabilities of EPA's responders through procurement of state-of-the-art equipment, to organize a new Environmental Laboratory Response Network (eLRN) program to strengthen such lab capabilities, expand participation for pre-deployments to national security special events, and develop decontamination protocols.

In FY 2007, EPA will continue to implement its homeland security plans and procedures and to meet its responsibilities in order to respond to major hazardous substance, oil, weapons of mass destruction (WMD) or nationally significant terrorist incidents. EPA will prepare for the possibility of simultaneous attacks on multiple targets and will implement the National Approach to Response (NAR), which is EPA's internal multi-faceted mechanism to effectively manage and conduct responses to nationally significant events. The NDT will improve its specialized decontamination capabilities to address chemical and biological and/or radiological agents in both environmental and building contamination situations. The ERT will provide training and specialized scientific, technical, and health and safety support to EPA's responders.

To meet its objective to reduce and control the risks posed by accidental or intentional releases of harmful substances by improving our Nation's capability to prepare for and respond more effectively to these emergencies, EPA intends to achieve the following results in FY 2007:

- Improve the Agency's emergency preparedness by achieving and maintaining the capability to respond to simultaneous large-scale emergencies and by improving response readiness by 10 percent from the previous year using the core emergency response criteria;
- Complete 315 removal actions (excluding actions at Federal facilities and actions by PRPs with enforcement instruments);
- Inspect or conduct exercises or drills at approximately 200 oil storage facilities required to have Facility Response Plans; and
- Respond to 300 oil spills.

Implementing New Legislation

EPA has a critical role to play in implementing the EPAct. The EPAct contains numerous provisions that significantly affect Federal and state underground storage tank (UST) programs. The EPAct requires that EPA and states strengthen tank release and prevention programs, such as: mandatory inspections every three years, operator training, prohibition of delivery for non-complying facilities, secondary containment or financial responsibility for tank installers, and various compliance reports. The EPAct imposes very strict deadlines on EPA and states; EPA is required to develop numerous grant guidelines before the FY 2007 grant cycle and states are required to develop their first new requirements for tank owners by February 2007.[14] EPA must develop regulations and guidance that states must adopt, and must develop a strategy for USTs in Indian Country to bring them into compliance and to clean up leaks. EPA is currently working with state, tribal, and industry partners to develop and implement the various requirements.

Enhancing Science and Research to Restore and Preserve Land

The FY 2007 land research program supports the Agency's objective of reducing or controlling potential risks to human health and the environment at contaminated waste sites by providing the science to accelerate scientifically defensible and cost-effective decisions for cleanup at complex sites in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

In FY 2007, research will focus on contaminated sediments, ground water contamination, site characterization, and technical support to specific sites. Reducing uncertainties in the assessment of contaminated sediments and developing and evaluating remedial options will be the focus of this research theme. Ground water research will continue to develop applications for permeable reactive barriers and address fate and transport and treatment methods for contaminants. Site characterization and sampling methods will continue to support site specific statistical and analytical applications. The technical support centers will continue to provide site specific assistance on technical issues. Oil spill research will address fate and effects of non-petroleum oil and dispersion effectiveness. Underground storage tank research will address fate and transport issues for fuel components and remediation methods.

[14] For more information, please visit http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_public_laws&docid=f:publ058.109.pdf and scroll to Title XV - Ethanol and Motor Fuels, Subtitle B Underground Storage Tank Compliance, on pages 500-513 of the pdf file.

Multimedia decision-making and materials management constitute the two major areas of research under the Resource Conservation and Recovery Act (RCRA) in FY 2007, as the Agency works toward identifying releases to inform proper facility management. Multimedia research continues to advance multimedia modeling and uncertainty/sensitivity analysis methodologies that support core RCRA program needs as well as emerging RCRA resource conservation needs which include beneficial reuse issues (e.g., electronic waste recycling and waste-derived products). Materials management research will provide technical reports and technical support on methods to improve industrial and municipal waste management. Materials management research will evaluate landfill caps, containment technologies, as well as leachate issues and hard to treat wastes.

Recognizing that environmental policy and regulatory decisions will only be as good as the science upon which they are based, EPA makes every effort to ensure that its science is of the highest quality and relevance, thereby providing the basis for sound environmental results. EPA uses the Research and Development (R&D) Investment Criteria of quality, relevance, and performance in its decision-making processes through a) the use of research strategies and plans, b) peer review, and c) program review and evaluation by the Board of Scientific Counselors (BOSC) and the Science Advisory Board (SAB).

In 2005, the BOSC evaluated the Land Research Program to assess the quality and relevance of its research and the program's historical performance. The BOSC will report its findings to the Agency in the 2nd quarter of 2006.

Research is guided by research strategies and plans, which are developed with participation from major clients. The strategy outlines the research needs and priorities. The Agency also maintains multi-year research plans that outline steps for meeting strategic research needs, and annual performance goals and measures for evaluating progress.

Taken together, these mechanisms serve to ensure that EPA's research and science remain relevant, of high quality, and contribute to superior environmental performance.

In order to sustain a viable and credible workforce, the Agency approaches its research programs' workforce planning in a manner consistent with its human capital strategy. Key elements of this strategy include working to develop and implement a holistic approach to recruitment, preserving a diverse workforce that reflects a wide spectrum of viewpoints, and retaining existing talent.

FY 2005 PARTs

The following programs were assessed by OMB's Program Assessment Rating Tool (PART) for the FY 2005 PART process (final PART ratings will be included in the President's Budget):

- Superfund Federal Facilities Response
- Oil Spill
- Superfund Emergency Response and Removal (rePART)

More detailed information is provided in specific program project descriptions.

HEALTHY COMMUNITIES AND ECOSYSTEMS

Protect, sustain, or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

STRATEGIC OBJECTIVES:

- Prevent and reduce pesticide, chemical, and genetically engineered biological organism risks to humans, communities, and ecosystems.
- Sustain, clean up, and restore communities and the ecological systems that support them.
- Protect, sustain, and restore the health of natural habitats and ecosystems.
- Enhance the Nation's capability to prevent, detect, protect, and recover from acts of terror.
- Through 2008, provide a sound scientific foundation for EPA's goal of protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 4.

GOAL, OBJECTIVE SUMMARY

Budget Authority / Obligations
Full-time Equivalents
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Healthy Communities and Ecosystems	**$1,257,846.7**	**$1,249,321.4**	**$1,228,933.7**	**($20,387.7)**
Chemical, Organism, and Pesticide Risks	$390,156.3	$399,053.9	$376,874.5	($22,179.4)
Communities	$290,561.6	$272,118.6	$247,874.1	($24,244.5)
Ecosystems	$178,713.5	$193,885.7	$199,421.1	$5,535.4
Enhance Science and Research	$398,415.4	$384,263.2	$404,764.1	$20,500.9
Total Authorized Workyears	3,874.8	3,812.5	3,834.2	21.7

EPA must bring together a wide variety of programs, tools, approaches and resources to promote healthy communities and ecosystems. Achieving the Agency's goal of protecting, sustaining or restoring healthy communities and ecosystems requires strong partnerships with Federal, state, Tribal and local governments. Programs under this goal focus on reducing chemical and pesticide risks, addressing high priority ecosystem risks, and supporting local community priorities.

A key component of this goal is protecting human health and the environment by identifying, assessing, and reducing the potential risks presented by the thousands of chemicals and pesticides on which our society and economy have come to depend. EPA must also address the emerging challenges posed by a growing array of biological organisms—naturally occurring and, increasingly, genetically engineered—that are being used in industrial and agricultural processes.

Biological agents are potential weapons that could be exploited by terrorists against the United States. EPA's pesticides antimicrobial program has been very responsive to addressing this threat by assessing efficacy of antimicrobial products used against biological weapons of mass destruction, and registering products as necessary.

EPA programs under this goal have many indirect benefits. For example, each year the Toxic Substances Control Act (TSCA) New Chemicals program reviews and manages the potential risks from approximately 1,700 new chemicals and 40 products of biotechnology that enter the marketplace. Americans also come into daily contact with any number of chemicals that entered the market before the New Chemicals Program was established in 1978, yet relatively little is known about many of their potential impacts. Obtaining basic hazard testing information on large volume chemicals is one focus of EPA's work in the Existing Chemicals program. EPA also plans a dual approach to address the possible health risks associated with nanoscale materials. EPA is currently reviewing pre-manufacture notices for new nanoscale materials under TSCA to ensure protection of human health and the environment. For new and existing chemical nanoscale materials, EPA is developing a stewardship program.

The Acute Exposure Guideline Levels (AEGLs) Program was designed by EPA to provide scientifically credible data to directly support chemical emergency planning, response, and prevention programs mandated by Congress. Emergency workers and first responders addressing accidental or intentional chemical releases need to know how dangerous a chemical contaminant may be to breathe or touch, and how long it may remain dangerous. The program develops short-term exposure limits applicable to the general population for a wide range of extremely hazardous substances (approximately 400).

As the population in coastal regions grows, the challenges to preserve and protect these important ecosystems increase. Through the National Estuary Program, coastal areas have proved valuable grounds for combining innovative and community-based approaches with national guidelines and interagency coordination to achieve results.

Wetlands are among the most productive ecosystems in the world, comparable to rain forests and coral reefs. Yet the nation loses an estimated 58,000 acres per year, and existing wetlands may be degraded by excessive sedimentation, nutrient enrichment, and other factors.[15]

Large water bodies like the Gulf of Mexico, the Great Lakes, and the Chesapeake Bay are surrounded by industrial and other development and have been exposed to substantial pollution over many years at levels higher than current environmental standards permit. As a result, the volume of pollutants in these water bodies has exceeded their natural ability to restore balance. Working with stakeholders, EPA has established special programs to protect and restore these unique resources by addressing the vulnerabilities for each.

EPA's Brownfields program promotes the clean up, reuse, and redevelopment of brownfields sites through its assessment, revolving loan fund, and cleanup grants. The program also supports research, training, and technical assistance efforts; clarifies liability issues; and promotes Federal, state and local partnerships toward the goal of putting contaminated land back into productive use.

The Agency will continue to support the National Environmental Justice Advisory Council (NEJAC) which provides the Agency significant input from interested stakeholders such as community-based organizations, business and industry, academic institutions, state, Tribal and local governments, non-governmental organizations and environmental groups.

Pesticides and Chemicals Programs

EPA will continue using both voluntary and regulatory approaches to address risks associated with the use of pesticides in the home, work environment and agricultural settings. These approaches include identifying and assessing potential risks from pesticides, setting priorities for addressing these risks, strategizing for reducing these risks, and promoting innovative and alternative measures of pest control, such as environmental stewardship and integrated pest management (IPM). In addition, EPA will strengthen education and training of workers and the public and promote the registration and use of reduced risk pesticides.

EPA will make progress towards its objective of protecting human health, communities and ecosystems from pesticide use by focusing on meeting our Food Quality Protection Act (FQPA) statutory mandate of completing the assessment of all existing tolerances (9,721). This process includes the issuance of all food use Reregistration Eligibility Decisions (REDs). These regulatory actions will ensure that pesticides on the market and the associated tolerance residues remain safe for the public and the environment. EPA will also continue identifying candidates for countering potential bioterrorist use of pesticides and biopesticides.

[15] Dahl, T.E. 1990. *Status and Trends of Wetlands in the Conterminous United States, 1986 to 1997.* Washington, DC: U.S. Department of the Interior, U.S. Fish and Wildlife Service. Available online at: http://wetlands.fws.gov/bha/SandT/SandTReport.html : Report to Congress on the Status and Trends of Wetlands in the Conterminous United States, 1986 to 1997.

***TOLERANCE REASSESSMENT SUMMARY BREAKDOWN**

Category	Tolerances to be Reassessed	Total Reassessed as of 12/19/05	Tolerances Remaining	Percentage Reassessed
Organophosphates	1691	1147	544	67.83%
Carbamates	545	317	228	58.17%
Organochlorine	253	253	0	100%
Carcinogen	2008	1530	478	76.2%
High Hazard Inert	5	5	0	100%
Other	5219	4578	641	87.70%
TOTALS	9721	7830	1891	80.50%

*EPA's Tolerance Index, Tolerance Tracking Systems and Tolerance Reassessment Database.

EPA plans to emphasize the continuation and further development of programs for the review of new and existing chemicals. The Agency will also continue to carry out its mandate to review potential risks from newly manufactured or imported chemicals before they are introduced to commerce. EPA's "Sustainable Futures" program encourages chemical manufacturers to apply pollution prevention techniques in the design of new chemicals, so that chemicals entering the new chemical review process will be less hazardous and less risky.

In addressing chemicals that have entered the market before the inception of the new chemical review program, EPA will continue to implement its voluntary High Production Volume (HPV) Chemicals Program, which challenges industry to develop chemical hazard data on existing chemicals that it chooses to "sponsor." This will enable EPA and the public to screen many chemicals already in commerce for risks they may be posing.

Complementing HPV is the Voluntary Children's Chemical Evaluation Program (VCCEP), a high-priority screening program targeting existing chemicals believed to have particular impact on children's health. Inventory Update Reporting Data, due for submission in 2006, will provide the Agency with valuable manufacturing, processing and use information on many chemicals in commerce. We will make special efforts to assess the potential risks of newly developed substitutes for a chemical category of emerging concern: brominated flame retardants. EPA is working to engage stakeholders in a cooperative process to evaluate the efficacy and potential risks of developing flame retardants. In addition, the Agency will continue to evaluate and implement perfluorooctanoic acid (PFOA) risk management actions as needed and will continue developments of information collection and chemical testing rules to address the needs of the Agency and others.

The lead program is developing a comprehensive program for the management of renovation, repair and painting activities involving lead based paint hazards and will continue to shift its focus from oversight and rule development at the Headquarters level to regional oversight of activities supported through grant funding, such as state-implemented lead-based paint training and certification programs and efforts targeted to high-risk areas, and on implementation of a few of the highest priority regulatory and outreach efforts. The Agency will continue to work with the Maritime Administration (MARAD) in order to dispose of its fleet of obsolete ships containing equipment that uses PCBs and will continue to work with the U.S. Navy to develop a national approval for the reefing of ships.

The Agency will continue Homeland Security activities focused on identifying and reviewing proposed pesticides for use against pathogens of greatest concern for crops, animals, and humans in advance of their potential introduction, including testing of antimicrobial products to determine which are effective against human pathogens. If the safety concerns are met, and the product is effective (in the case of antimicrobials), EPA can approve use of the product. Close cooperation with other Federal agencies and industry will continue in order to carry out these activities which directly respond to requirements in Homeland Security Presidential Directives. Additionally, EPA's Acute Exposure Guideline Levels (AEGLs) program will continue to develop proposed AEGL values.

The Toxic Release Inventory (TRI) program provides the public with information on the releases and other waste management of toxic chemicals. Two laws, Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 6607 of the Pollution Prevention Act (PPA), mandate that EPA annually collect information on listed toxic chemicals from certain industries and make the information available to the public through various means, including a publicly accessible national database. EPCRA also allows EPA to change reporting frequency by issuing a regulation with a one-year prior notification to Congress.

Water Programs

Protecting the Great Lakes

As the largest freshwater system on the face of the earth (containing 20 percent of the earth's surface water and 84 percent[16] of the surface water in the United States), the Great Lakes ecosystem holds the key to the quality of life and economic prosperity for tens of millions of people. While significant progress has been made to restore the environmental health of the Great Lakes, work remains.

In FY 2007, EPA will continue efforts to protect and restore the Great Lakes, and will work with state, local, and Tribal partners using the Great Lakes Regional Collaboration's strategy as a guide. The President's May 2004 Executive Order established the Great Lakes Task Force to coordinate the Federal effort to improve water quality in the Great Lakes. EPA is working with partners to restore the chemical, physical, and biological integrity of the Great Lakes ecosystem, by implementing Clean Water Act core programs and other actions including the clean up and de-listing of Areas of Concern (AOC), and a reduction in PCB concentrations in lake trout and

[16] Great Lakes National Program Office. Basic Information. http://www.epa.gov/glnpo/basicinfo.html

walleye. Some of the key activities include preventing and controlling invasive species, cleaning up Areas of Concern through the Great Lakes Legacy Act.

- **Core Clean Water Programs:** While the Great Lakes face a range of unique pollution problems (e.g., extensive sediment contamination) they also face problems common to most other water bodies around the country. Core clean water programs must be fully and effectively implemented throughout the Great Lakes Basin. EPA will focus on assuring that by 2008, 100 percent of the major, permitted discharges to the Lakes or major tributaries have permits that reflect the most current standards. In addition, EPA will focus on assuring that 95 percent of permits are consistent with the national Combined Sewer Overflow Policy.

- **Great Lakes Legacy Act:** Restoration of contaminated sediments around the Great Lakes is a critical step toward meeting water quality goals. In FY 2007, EPA will expedite work to address contaminated sediment. EPA anticipates that FY 2007 funding will result in cleanup of a half million cubic yards of contaminated sediments.

- **Critical Ecosystem Issues:** In FY 2007 EPA will lead the development of management recommendations to mitigate the underlying causes of the annual occurrence of high rates of oxygen depletion which lead to low dissolved-oxygen levels in Lake Erie in the so-called "dead zone." EPA will also lead Canadian and U.S. Federal agencies and the academic community in exploring causes of the rapid decline of the *Diporeia* population in the Great Lakes. The dead zone occurrence and the *Diporeia* decline are both problems believed to be related to invasive species.

Mexico Border Water Quality

The United States and Mexico have a long-standing commitment to protect the environment and public health in the U.S.-Mexico Border Region. The U.S.-Mexico Border 2012 Program, a joint effort between the U.S. and Mexican governments, will work with the 10 border states and with border communities to improve the region's environmental health using the *Border 2012 Plan*. Under this *Plan*, EPA expects to take several key actions to improve water quality and protect public health.

- **Core Program Implementation:** EPA will continue to implement core programs under the Clean Water Act (CWA) and related authorities, ranging from discharge permit issuance, to watershed restoration, to nonpoint pollution control.

- **Wastewater Treatment Financing:** Federal, state, and local institutions participate in border area efforts to improve water quality through the construction of infrastructure and development of pretreatment programs. Specifically, Mexico's National Water Commission (CNA) and EPA provide funding and technical assistance for project planning and construction. The program has sufficient resources to carry out currently approved projects and provides $25 million to address new needs in FY 2007.

- **Build Partnerships:** In FY 2007, EPA will establish a workgroup with Mexico to develop a workplan to define specific steps needed to accomplish the water quality improvement goals expressed in the Border 2012 Plan.

National Estuary Program (NEP)/Coastal Watersheds
The goal of this program is to restore the physical, chemical, and biological integrity of the Nation's estuaries and coastal watersheds by protecting and enhancing water quality and living resources.

In FY 2007, EPA will undertake various efforts in support of coastal watershed protection and restoration. In the area of monitoring, we will continue to work with our Federal and state partners on the National Coastal Condition Report, the only statistically-significant measure of U.S. water quality on a nationwide basis. We will also support estuarine monitoring efforts using such tools as the Ocean Survey Vessel *Bold,* EPA's research vessel. EPA will also support coastal watersheds to enhance their efforts to address threats to the health of estuaries and coastal waters through various means, including providing technical assistance on financing estuary and coastal protection projects, developing and disseminating tools and resources for localities on planning for growth, and continuing to play a lead role in the five-year reassessment of the Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico.

The NEP is EPA's flagship watershed protection effort. The NEP provides inclusive, community-based planning and action at the watershed level and has an established record of improvements to ecosystem conditions.

A top priority in FY 2007 is to continue supporting the efforts to implement Comprehensive Conservation and Management Plans in all 28 NEP estuaries. EPA created a baseline to track priority actions in 2004 and now tracks implementation of actions.

The health of the nation's estuarine ecosystems also depends on the maintenance of high-quality habitat. Diminished and degraded habitats are less able to support healthy populations of wildlife and marine organisms and perform the economic, environmental, and aesthetic functions on which coastal populations depend for their livelihood. A key success has been the restoration of over 500,000 acres of habitat over the past decade. For 2007, EPA has set a goal of protecting or restoring an additional 75,000 acres of habitat within the 28 study areas. Finally, EPA will work with NEPs in FY 2007 to provide more focused support for several priority areas, including invasive species, nutrient over-enrichment, and coastal growth.

Wetlands Protection
Wetlands are among our Nation's most critical and productive natural resources. They provide a variety of benefits, such as water quality improvements, flood protection, shoreline erosion control, and ground water exchange. Wetlands are the primary habitat for fish, waterfowl, and wildlife, and as such, provide numerous opportunities for education, recreation, and research. EPA recognizes that the challenges the nation faces to conserve our wetland heritage are daunting and that many partners must work together for this effort to succeed. EPA's strategy for meeting wetland goals in FY 2007 is described below.

- **Net Gain Goal:** Meeting the President's goal of restoring, protecting, or creating 3 million wetland acres primarily will be accomplished by other Federal programs (Farm Bill, agriculture incentive programs, and wetlands acquisition and restoration programs,

including those administered by Fish and Wildlife Service) and non-Federal programs. EPA supports the goal through EPA's regulatory programs, including the CWA Section 404/401 permit review, compliance and enforcement, and other programs. EPA will also support states, Tribes, and others to protect and restore wetlands and build capacity to increase wetland functionality. In implementing these responsibilities, each Region will identify watersheds where wetlands and other aquatic resources are most at risk, including from cumulative impacts. EPA will improve levels of protection by integrating wetlands protection into other EPA programs such as Section 319, State Revolving Fund, NEP; working with the COE and/or states on permitting and mitigation compliance; providing grants and technical assistance to state, Tribal or local organizations; and developing information, education and outreach tools.

- Building upon the analysis of existing mitigation data base systems, the COE, EPA, USDA, DOI, and NOAA is in the process of establishing a shared mitigation database. Utilizing the shared database, the Agencies will provide an annual public report card on compensatory mitigation to complement reporting of other wetlands programs. The COE has initiated six new performance measures designed to improve permitting and mitigation compliance, including compliance inspections and audits, and resolution of enforcement actions.

EPA will work with the COE to ensure application of the 404(b)(1) guidelines, which require that discharges into waters of the U.S. be avoided and minimized to the extent practicable. Each Region will also identify opportunities to partner with the COE in meeting performance measures for compensatory mitigation for unavoidable impacts. The Agency is also working closely with the COE to develop and implement wetlands and barrier island restoration projects along the Gulf Coast to help ensure an improved level of protection from hurricanes.

Chesapeake Bay Protection and Restoration
The Chesapeake Bay is the largest estuary in the United States and a water resource of tremendous ecological and economic importance. For over twenty years, efforts to protect and restore the Bay have been led by the Chesapeake Bay Executive Council—Bay area governors, the mayor of the District of Columbia; the EPA Administrator, and the chair of the Chesapeake Bay Commission, a tri-state legislative body. This unique regional partnership has defined environmental improvements needed in the Bay and developed a strategy that blends regulatory and voluntary processes.

While there are a number of measures used by the Chesapeake Bay Program, a key measure of success, which integrates both water quality and essential aquatic habitat, is the restoration of submerged aquatic vegetation (SAV). An additional measure of environmental improvement in the Bay is the reduction in nitrogen, phosphorus, and sediment entering the bay.

To achieve improved water quality needed to restore submerged aquatic vegetation, the Chesapeake Bay Program partners committed to reducing nutrient and sediment pollution loads sufficiently to remove the Bay and the tidal portions of its tributaries from the list of impaired waters by 2010. Key elements of state strategies to achieve these reductions include: the implementation of advanced treatment of wastewater to reduce nutrient discharges, the use of a range of management practices to reduce nutrients and sediments from farms, and the restoration and protection of riparian forests that serve as a buffer against sediment and nutrient pollution that enters waterways from the land.

The targets in EPA's plan for nutrient and sediment reductions are scientifically based and also reflect a multi-state consensus. The Program plans to conduct a full re-evaluation in 2007. In the meantime, the Program continues to pursue program strategies to accelerate nutrient-sediment reduction, including state adoption of enforceable bay-specific water quality standards, an innovative new basin-wide NPDES permitting strategy for nitrogen and phosphorus, and development of a strategy to address excess animal manure and poultry litter for Chesapeake Executive Council endorsement in 2005. Attention is also being given to financing issues.

Protecting the Gulf of Mexico
The Gulf of Mexico basin has been called "America's Watershed." Its U.S. coastline is 1,630 miles long; thirty-three major rivers feed into it; and, drainage from 31 states in addition to a similar drainage area from Mexico flow into it. One sixth of the U.S. population now lives in Gulf Coast states. For FY 2007, EPA has worked with states and other partners to define key activities to support attainment of environmental and health goals. These activities fall into three categories:

- **Core Clean Water Programs:** The Clean Water Act provides authority and resources that are essential to protecting water quality in the Gulf of Mexico and in the larger Mississippi River Basin that contributes pollution, especially oxygen demanding nutrients, to the Gulf. EPA will work with states to assure effective implementation of core clean water programs, including discharge permits, nonpoint pollution controls, wastewater treatment, and protection of wetlands.

- **Protecting and Restoring the Gulf of Mexico:** A central pillar of the strategy to restore the health of the Gulf is restoration of water quality and habitat in 12 priority coastal watersheds. These 12 watersheds include 354 of the impaired segments identified by states around the Gulf and will receive targeted technical and financial assistance to restore impaired waters. The 2008 goal is to fully attain water quality standards in at least 20 percent of these segments.

- **Reducing the Size of the Hypoxic Zone:** Any strategy to improve the overall health of the entire Gulf of Mexico must include a focused effort to reduce the size of the zone of hypoxic conditions (i.e. low oxygen in the water) in the northern Gulf. Actions to address this problem will need to focus on both controlling localized addition of pollution to the Gulf and on controlling the loadings of nutrients from the Mississippi River.

  In working to accomplish this goal, EPA and other Federal agencies will continue implementation of core clean water programs and partnerships among agencies. Specific efforts in FY 2007 will include:

  - Work with states to select a project watershed in each of the states in the Lower Mississippi River Basin to reduce nitrogen loadings to the lower Mississippi River;
  - Work with states and other partners to identify "100 Highest Opportunity Watersheds" where nitrogen reduction strategies will be implemented;
  - Implement the "Friends of the Gulf" award program to recognize corporations, organizations, or individuals that have taken effective, voluntary measures to reduce nutrient inputs; and
  - Work with the private sector to support Industry Led Solutions for reducing both point and nonpoint sources.

Multidisciplinary Programs

Children's Health

EPA's Children's Health program reduces risks to children from a range of environmental hazards. The Agency builds partnerships and effective working relationships with other Federal agencies, health care providers, and international organizations to incorporate children's environmental health concerns into their programs and activities. In addition, work is underway to reduce exposure of older adults to environmental hazards. Efforts focus on building capacity, providing tools and information for better decision-making, and engaging in outreach activities.

Solid Waste and Emergency Response
To reduce or eliminate the potential risks associated with chemical releases, EPA must first identify and understand potential chemical risks and releases. EPA will use information generated by the Risk Management Program (RMP), Emergency Planning and Community Right-to-Know Act (EPCRA), and the Spill Prevention Control and Countermeasure (SPCC) program to supplement data on potential chemical risks and to develop voluntary initiatives and activities to reduce risk at high-risk facilities, priority industry sectors, and/or specific geographic areas.

To meet its objective of protecting human health, communities, and ecosystems from chemical releases through facility risk reduction efforts and building community infrastructures, EPA, working with state and local implementing agencies, intends to complete 400 RMP audits in FY 2007. EPA will also continue to work to transition the RMP submission system to allow complete Internet-based risk management plan submission.

Information collected from the local emergency planning committees (LEPCs) indicating how they have incorporated appropriate facility risk information into their emergency preparedness and community right-to-know programs will serve as a baseline from which EPA will track progress toward this strategic goal in later years. EPA will also continue an initiative to improve and enhance emergency preparedness and prevention in Tribal communities.

Brownfields
Economic changes over several decades have left thousands of communities with these contaminated properties and abandoned sites. Working with its state, Tribal, and local partners to meet its objective to sustain, cleanup, and restore communities and the ecological systems that support them, together with extension of the Brownfields tax credit, EPA intends to achieve the following results in FY 2007:

- Assess 1,000 Brownfields properties
- Clean up 60 properties using Brownfields funding
- Leverage $900 million in cleanup/redevelopment funding
- Train 200 participants, placing 65 percent in jobs

Smart Growth
The Smart Growth program achieves measurably improved environmental and economic outcomes by working with states, communities, industry leaders, and nonprofit organizations to minimize the environmental impacts of development. EPA provides tools, technical assistance, education, research, and environmental data to help states and communities grow in ways that minimize environmental and health impacts and evaluate environmental consequences of various development patterns. EPA's Smart Growth activities and tools show community and government leaders how they can meet environmental standards through innovative community design, and identify and research new policy initiatives to improve environmental quality by supporting environmentally friendly development patterns. In FY 07, EPA plans to build upon its work in Smart Growth outreach and direct implementation assistance.

EPA will also continue to coordinate smart growth work with EPA's Brownfield program to reuse and revitalize vacant and abandoned properties. EPA plans to continue developing

incentives for brownfield redevelopment, provide direct assistance to communities working on brownfields, and maintain our education and outreach on innovative methods for brownfield redevelopment.

Community Action for a Renewed Environment
EPA supports community-based, multi-media approaches to the reductions of toxics through the Community Action to Renew the Environment (CARE) program. This program fills a gap in our national programs which provide a broad level of basic health and environmental protection but which do not always sufficiently meet the needs of all communities, especially those which are overburdened by toxic pollutants. CARE works to reduce those risks through cost-effective, tailored and immediate actions. Grants will be awarded to provide funding for communities to organize and assess the risks in their community and to take action to reduce those risks. The program also provides multi-media risk reduction and risk assessment tools, models to assist communities in identifying, prioritizing and reducing risks. This program will result in measurable results in the reduction of exposures to toxic pollutants including toxic chemicals, lead, pesticides and particulates, as well as a reduction in exposure to asthma triggers.

Enforcement and Compliance
EPA's continued enforcement efforts will be strengthened through the development of measures to assess the impact of enforcement activities, and assist in targeting areas that pose the greatest risks to human health or the environment, display patterns of noncompliance, and include disproportionately exposed populations.

Environmental Justice
EPA's enforcement program supports Environmental Justice efforts by focusing enforcement actions and criminal investigations on industries that have repeatedly violated environmental laws in minority and/or low-income areas. EPA's environmental justice program will continue education, outreach, and data availability initiatives. The program provides a central point for the Agency to address environmental and human health concerns in minority and/or low-income communities, segments of the population that have been disproportionately exposed to environmental harms and risks. The program will continue to manage the Agency's Environmental Justice Community Small Grants program which assists community-based organizations working to develop solutions to local environmental issues.

The Agency will continue to support the National Environmental Justice Advisory Council (NEJAC). The Council provides the Agency with significant input from interested stakeholders such as community-based organizations, business and industry, academic institutions, state, Tribal and local governments, non-governmental organizations and environmental groups. The Agency will also continue to chair an Interagency Working Group (IWG) consisting of eleven departments and agencies, as well as representatives of various White House offices, to ensure that environmental justice concerns are incorporated into all Federal programs.

International Affairs
Many human health and environmental risks to the American public originate outside our borders. Many pollutants can travel easily across borders - via rivers, air and ocean currents, and migrating wildlife. Even in the remote Arctic, industrial chemicals such as polychlorinated

biphenyls (PCBs) have been found in the tissues of local wildlife. Further, differences in public health standards can contribute to global pollution. A chemical of particular concern to one country may not be controlled or regulated in the same way by another. EPA employs a range of strategies for achieving its goals. These strategies include participation in bilateral programs (U.S.-Mexico and U.S.-Canada programs, and the Border Environmental Cooperation Commission (BECC)), cooperation with multinational organizations like the Commission for Environmental Cooperation, the World Trade Organization and the World Health Organization, and contribution to a set of measurable end points that will show reduction in pollutants of concern and that will reduce exposure to our citizens along the US borders, and the reduction of pollutants at their origin thereby reducing the level of pollutants in the global atmosphere.

Research

EPA has a responsibility to ensure that efforts to reduce potential environmental risks are based on the best available scientific information. Strong science allows identification of the most important sources of risk to human health and the environment as well as the best means to detect, abate, and avoid possible environmental problems, and thereby guides our priorities, policies, and deployment of resources.

To enable the Agency to enhance science and research for healthy people, communities, and ecosystems, EPA will engage in high priority, multidisciplinary research efforts in areas related to human health, ecosystems, mercury, global change, pesticides and toxics, endocrine disruptors, computational toxicology and Homeland Security.
The Agency is also proposing an investment in nanotechnology research, and an investment to promote transparency of and participation in EPA assessments (as part of the IRIS process) in FY 2007.

In FY 2007, the human health research program will continue research efforts on cumulative risks. Research will focus on risk intervention and prevention strategies that ultimately reduce human risk associated with exposures to single and multiple environmental stressors, including reducing chemical exposure in schools. Also, the Agency's human health risk assessment research program will complete 16 human health assessments of high priority chemicals for interagency review or external peer review, and deliver final air quality criteria documents for lead, which will serve as the basis for the EPA staff paper supporting the National Ambient Air Quality Standards (NAAQS).

In order to balance the growth of human activity with the need to protect the environment, it is important to understand the current condition of ecosystems, what stressors are changing that condition, what the effects are of those changes, and what can be done to prevent, mitigate, or adapt to those changes. To meet these objectives, the Agency's ecosystems research will continue to develop approaches to identify and test the linkages between probability-based and targeted water quality monitoring programs, landscape characteristics, and the probability of water body impairment. The Agency will continue to develop monitoring methods and decision support systems to improve its ability to identify probable causes of ecological impairment in streams. Diagnosis and forecasting models previously developed will be applied to provide a better scientific basis for ecosystem protection and restoration.

With the completion of critical research efforts in FY 2006 in areas such as the development of tools and approaches for the prioritization of endocrine disruptor screening and testing needs, the computational toxicology research program is positioned to expand efforts in FY 2007 to focus on four key areas: information technology, chemical prioritization and categorization tools, system biology models, and cumulative risk assessment. In the pesticides and toxics research program, research designed to provide updated tools for asbestos risk assessments will be completed in 2007.

In FY 2007, an increased investment in nanotechnology research will accelerate efforts to generate the underlying science needed to better understand and predict the potential implications of nanoparticle releases to the environment and their fate, transport, and potential effects on human health and ecosystems. Nanotechnology research will also identify how nano-scale science can be responsibly used for beneficial environmental applications, such as improved sensors and new control and remediation technologies.

In addition, resources in FY 2007 supporting health risk assessments will elevate and help to ensure acceptance of Agency assessments through identification and airing of scientific issues at an early stage in assessment development, improve transparency in how issues are resolved, and enhance the quality, objectivity, utility, and integrity of health assessments that result from advice and review from the National Academy of Sciences.

Recognizing that environmental policy and regulatory decisions will only be as good as the science upon which they are based, EPA makes every effort to ensure that its science is of the highest quality and relevance, thereby providing the basis for sound environmental results. EPA uses the Research and Development (R&D) Investment Criteria of quality, relevance, and performance in its decision-making processes through the use of research strategies and plans, program review and evaluation by the Board of Scientific Counselors (BOSC) and the Science Advisory Board (SAB), and peer review.

In 2005, the BOSC evaluated the endocrine disruptors, human health, and ecological research programs to assess the quality and relevance of the research and the programs' historical performance. The endocrine disruptors subcommittee concluded that the program's goals and scientific questions are appropriate and represent an understandable and solid framework for setting research priorities. The human health subcommittee concluded that the program's research is of high quality and appropriately focused. In addition, the ecological subcommittee stated that the potential benefits of the program to the public are evident and clearly articulated. The subcommittees also reviewed each program's external research, which is usually conducted through competitive, peer-reviewed grants under the Agency's Science to Achieve Results (STAR) program.

Research is guided by a number of research strategies and plans, which are developed in concert with internal and external partners. Strategies are tailored to specific research needs and priorities. The Agency maintains multi-year research plans (MYP) that outline steps for meeting those strategic research needs and annual performance goals and measures for evaluating progress.

Three major research programs in this Goal have undergone OMB's PART evaluation through FY 2005. They include endocrine disruptors research, ecosystems protection research and human health research. Climate change research is tentatively scheduled for PART review in FY 2006.

Lastly, workforce planning is essential to sustaining a viable and credible research program. The Agency approaches its research program workforce planning in a manner consistent with its human capital strategy. Key elements of this strategy include working to develop and implement a holistic approach to recruitment, preserving a diverse workforce that reflects a wide spectrum of viewpoints, and retaining existing talent.

FY 2005 PARTs

The following programs were assessed by OMB's Program Assessment Rating Tool (PART) for the FY 2005 PART process:

- Lead Risk Reduction
- Human Health Research
- Ecological Research (re-PART)
- Human Health Research
- Oceans and Coastal Programs

More detailed information is provided in specific program project descriptions.

COMPLIANCE AND ENVIRONMENTAL STEWARDSHIP

Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation and providing incentives for governments, businesses, and the public that promote environmental stewardship.

STRATEGIC OBJECTIVES:

- By 2008, maximize compliance to protect human health and the environment through compliance assistance, compliance incentives, and enforcement by achieving a 5 percent increase in the pounds of pollution reduced, treated, or eliminated, and achieving a 5 percent increase in the number of regulated entities making improvements in environmental management practices. (Baseline established in 2006.)
- By 2008, improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption of results-based, innovative, and multimedia approaches.
- Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.
- Through 2008, strengthen the scientific evidence and research supporting environmental policies and decisions on compliance, pollution prevention, and environmental stewardship.

GOAL, OBJECTIVE SUMMARY

Budget Authority / Obligations
Full-time Equivalents
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Compliance and Environmental Stewardship	**$773,201.2**	**$742,815.3**	**$733,539.6**	**($9,275.7)**
Improve Compliance	$470,414.5	$485,146.6	$491,033.4	$5,886.8
Improve Environmental Performance through Pollution Prevention and Innovation	$121,112.5	$120,975.7	$112,735.3	($8,240.4)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Build Tribal Capacity	$88,989.5	$73,551.6	$74,630.5	$1,078.9
Enhance Science and Research	$92,684.7	$63,141.4	$55,140.4	($8,001.0)
Total Authorized Workyears	3,464.0	3,495.3	3,480.5	-14.8

In FY 2007, the Environmental Protection Agency will work to improve the nation's environmental protection practices, and to enhance natural resource conservation on the part of government, business, and the public. To accomplish these goals, the Agency will employ a mixture of effective inspection, enforcement and compliance assistance strategies; provide leadership and support for pollution prevention and sustainable practices; reduce regulatory barriers; and refine and apply results-based, innovative, and multimedia approaches to environmental stewardship and safeguarding human health.

In order to be effective, the EPA requires a strong enforcement and compliance program, one which identifies and reduces noncompliance problems; assists the regulated community in understanding environmental laws and regulations; responds to complaints from the public; strives to secure a level economic playing field for law-abiding companies; and deters future violations. In FY 2007, the enforcement program will also carry out actions outlined in the Domenici-Barton Energy Policy Act of 2005, providing compliance assistance to owners and operators of Underground Storage Tanks. The EPA will protect human health and the environment by increasing compliance with existing laws and regulations. Innovation and environmental stewardship will be encouraged. In addition, EPA will assist Federally recognized Tribes in assessing environmental conditions in Indian Country, and will help build their capacity to implement environmental programs. EPA will also strengthen the scientific evidence and research supporting environmental policies and decisions on compliance, pollution prevention, and environmental stewardship.

Improving Compliance with Environmental Laws

Critical to the success of EPA's mission is a strong commitment to ensuring compliance with environmental laws and policies. Working in partnership with state and Tribal governments, local communities and other Federal agencies, in FY 2007 EPA will identify and address significant environmental and public health problems, strategically deploy its resources, and make use of integrated approaches to reduce noncompliance and achieve strong environmental protection outcomes.

In order to meet the Agency's goals, its "smart enforcement" strategy employs an integrated, common-sense approach to problem-solving and decision-making. An appropriate mix of data collection and analysis; compliance monitoring, assistance and incentives; civil and criminal enforcement resources; and innovative problem-solving approaches are used to address significant environmental issues and achieve environmentally beneficial outcomes.

This approach also requires that the Agency develop and maintain strong and flexible partnerships with regulated entities and a well-informed public, in order to foster a climate of empowerment and shared responsibility for the quality of our nation's land, resources and communities. Thus the Agency can carefully target its enforcement and compliance assurance resources, personnel and activities to address the most significant risks to human health and the environment, and to ensure that certain populations do not bear a disproportionate environmental burden.

EPA's continued enforcement efforts will be strengthened through the development of meaningful measures to assess the impact of enforcement and compliance activities; assist in targeting areas that pose the greatest risks to human health or the environment; display patterns of noncompliance; or include disproportionately exposed populations. Further, EPA cooperates with states and the international community to enforce and ensure compliance with cross-border environmental regulations, and to help build their capacity to design and implement effective environmental regulatory, enforcement and Environmental Impact Assessment programs.

Compliance Assistance and Incentives: The Agency's Enforcement and Compliance Assurance Program uses compliance assistance and incentive tools to encourage compliance with regulatory requirements, and to reduce adverse public health and environmental problems. To achieve compliance, the regulated community must first understand its obligations, and then learn how to best comply with regulatory obligations. Throughout FY 2007, EPA will support the regulated universe by working to assure that requirements are clearly understood. EPA also enables other assistance providers (e.g., states, universities) to provide compliance information to the regulated community.

Compliance Monitoring: The Agency reviews and evaluates the activities of the regulated community to determine compliance with applicable laws, regulations, permit conditions and settlement agreements, and to determine whether conditions presenting imminent and substantial endangerment exist. The majority of work years devoted to compliance monitoring are provided to the Agency's Regional offices to conduct investigations and on-site inspections, and perform monitoring, sampling and emissions testing. FY 2007 Compliance Monitoring activities will be both environmental media- and sector-based. The traditional media-based inspections complement those performed by states and Tribes, and are a key part of our strategy for meeting the long-term and annual goals established for the air, water, pesticides, toxic substances, and hazardous waste environmental goals included in the EPA Strategic Plan. The National Enforcement and Compliance Assurance Program will utilize statistically valid noncompliance information to select and evaluate National Priorities.

Enforcement: The Enforcement Program addresses violations of environmental laws, to ensure that violators come into compliance with Federal laws and regulations. In FY 2007, the program will work to achieve the Agency's environmental goals through consistent, fair and focused enforcement of all environmental statutes. The overarching goal of the Enforcement program is to protect human health and the environment, targeting its actions according to degree of health and environmental risk. Further, it aims to level the economic playing field by ensuring that violators do not realize an economic benefit from non-compliance, and also seeks to deter future violations; one way the enforcement program carries this out is by working with the Department

of Justice (DOJ) on enforcement of all environmental laws and regulations. In FY 2007, EPA will continue to implement its National Compliance and Enforcement Priorities, which address the most widespread types of violations that also pose the most substantive health and environmental risks. The National Compliance and Enforcement Priority list will use the statistically valid noncompliance information developed by Compliance Monitoring. Also in FY 2007, the enforcement program will also carry out actions outlined in the Domenici-Barton Energy Policy Act of 2005, providing compliance assistance to owners and operators of Underground Storage Tanks.

Auditing and Evaluation Tools: Maximum compliance requires the active efforts of the regulated community to police itself. Evaluation of self-reporting will occur in order to understand the effectiveness and accuracy of such self-reporting. Throughout FY 2007, EPA will continue to investigate options for encouraging self-directed audits and disclosures. We will also continue to measure and evaluate the effectiveness of Agency programs in improving compliance rates and provide information and compliance assistance to the regulated community. Further, the Agency will maintain its focus on evaluating the effectiveness of the innovative approaches developed through better communication, fostering partnerships and cooperation, and the application of new technologies.

Partnering: State, Tribal and local governments bear much of the responsibility for ensuring compliance, and EPA works in partnership with them and other Federal agencies to promote environmental protection. EPA also develops and maintains productive partnerships with other nations to enable and enforce compliance with U.S. environmental standards and regulations.

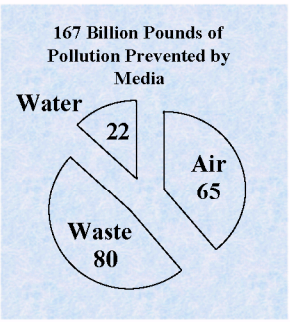
Improving Environmental Performance through Pollution Prevention

Through pollution prevention integration, EPA will work to bring about a performance-oriented regulatory system that develops innovative, flexible strategies to achieve measurable results; promotes environmental stewardship in all parts of society; supports sustainable development and pollution prevention; and fosters a culture of creative environmental problem solving.

Partnering with Businesses and Consumers: In 2007, through the Pollution Prevention (P2) program, EPA will continue to encourage, empower, and assist government and business to "green" the nation's supply and demand structures to make them more environmentally sound. Through the Environmentally Preferable Purchasing Program, the Agency will provide enhanced guidance to the Federal building community on model green construction specifications and help Federal agencies identify and procure those products that generate the least pollution, consume fewest non-renewable natural resources, and constitute the least threat to human health and to the environment. EPA's innovative Green Suppliers Network Program works with large manufacturers to increase energy efficiency; identify cost-saving opportunities; optimize resources and technology through the development of sound business approaches incorporating pollution prevention; and to promote those approaches among their numerous suppliers.

"An Ounce of Pollution Prevention is Worth Over 167 Billion Pounds of Cure"

A Decade of Pollution Prevention Results, 1990-2000



Resources Conserved

- 215 million kWh of energy
- 4.1 billions gallons of water
- $666 million in cost savings

Source: National Pollution Prevention Roundtable, January 2003 report on achievement of state and local P2

Partnering with Industry: EPA will continue to reduce the amount of toxic chemicals in use by encouraging the design of alternative less toxic chemicals and industry processes through its Green Chemistry and Green Engineering Programs. New emphasis will be placed on the development of environmentally preferable substitutes for emerging chemicals of concern such as brominated flame retardants, perfluorinated acids, and chemicals which are persistent in the environment, toxic, and capable of accumulating in animal, fish, and human tissue. In conjunction with the efforts of the Green Chemistry and Green Engineering Programs, the Design for the Environment Program will continue collaborative partnerships with industries to develop safer products, processes and technologies.

Reducing Impacts in the Electronics Lifecycle: EPA is focusing FY 2007 efforts to address key environmental impacts in the electronics lifecycle. End-of-life impacts of used and obsolete electronics are part of an increasing and complex waste stream that poses enormous environmental management problems. Almost 3 million tons of consumer electronics entered the municipal waste stream in 2003, up from 2 million in 2001. This includes personal computers, TVs, other video and audio products, telephones, fax machines, printers, and modems. Electronic products contain hazardous materials. Monitors, circuit boards, batteries, and other electronic components contain lead, mercury, brominated flame retardants (BFRs) and cadmium.

Pollution Prevention Grant Program: Pollution Prevention Grants to states and Tribes enable them to provide technical assistance, education and outreach to assist businesses and industries in identifying strategies and solutions to reduce wastes and pollution at the source. The importance of tracking outcomes from P2 grants has been reinforced by adding key P2 environmental outcome targets to program guidance reporting measures. The P2 grant management system will be enhanced by the incorporation of P2 metrics that capture quantifiable environmental results within individual work plans and sharing those results regionally and nationally.

NEPA Federal Review: EPA fulfills its uniquely Federal responsibilities under the National Environmental Policy Act (NEPA) by reviewing and commenting on other Federal agency Environmental Impact Statements (EISs). NEPA requires that Federal agencies prepare and submit EISs to identify potential environmental consequences of major proposed activities, and develop plans to mitigate or eliminate negative impacts. The Enforcement and Compliance Assistance Program maximizes its use of NEPA review resources by targeting its efforts toward potentially high-impact projects, thereby promoting cooperation and innovation, and working towards a more streamlined review process.

Environmental Information Exchange Network: The Exchange Network Grant Program provides funding to states, territories, Tribes, and Tribal consortia to help them develop the information management and technology (IM/IT) capabilities they need to participate in the Environmental Information Exchange Network (Exchange Network). In FY 2007, EPA, states, Tribes, and territories will continue to re-engineer data systems so that information previously not available or not easily available can be exchanged using common data standards. By the end of 2007 all fifty states and approximately ten Tribes will have established nodes on the Exchange Network and will be mapping data for sharing with partners and submission to EPA.

Promoting Environmental Stewardship and Innovation

In FY 2007, EPA will promote environmental stewardship, an ethic that goes beyond the minimum compliance with environmental regulations. The Agency will accomplish this through education, and by providing incentives, tools and technical assistance to states, tribes, communities and businesses. EPA will accomplish its goals using the next generation of voluntary environmental protection strategies, which emphasize results rather than process, and promote business practices that are both environmentally and economically sustainable. EPA will work to achieve a performance-oriented regulatory system that allows flexible strategies to achieve measurable results; environmental stewardship that maintains sustainable development and places pollution prevention first; and a culture of creative environmental problem solving that emphasizes collaboration and results-driven work. EPA will focus on five areas under its innovation strategy:

- Promote innovative environmental leadership in business, one that uses new ideas, creative partnerships, and sound analysis to grow their business and protect the environment;
- Instill the ethics of environmental stewardship and sustainability in business practices;
- Promote stronger facility-level environmental management, including Environmental Management Systems (EMSs);
- Improve overall environmental performance within high-priority business sectors; and
- Improve program efficiency through increased evaluation and measurement.

Innovation Grant Program: EPA will expand the Innovation Grants program, to encourage states and tribes to develop and test innovative protection strategies, such as permit streamlining and environmental management systems. These grants promote the use of innovative technologies for better environmental results, and demonstrate measurable efficiencies in environmental management.

Performance Track: Performance Track is one of EPA's most successful and fastest growing voluntary programs. Successful because it uses positive incentives to recognize and reward private and public facilities that demonstrate environmental stewardship, and strong environmental performance beyond current requirements. In FY 2007, EPA will move to significantly increase the number of facilities participating in the program, with closer coordination and involvement of states. EPA will expand activities to recruit facilities to participate in Performance Track and provide assistance to those facilities. In FY 2007 Performance Track members will collectively achieve an annual reduction of: 1.1 billion gallons in water use; 8.4 million MMBTUs in energy use; 20,000 tons in materials use; 360,000 tons of solid waste; 42,000 tons of air releases; and 10,000 tons in water discharges.

Sector-based Stewardship: In FY 2007 EPA will continue to work with twelve industrial business sectors: agribusiness, cement manufacturing, construction, forest products, iron and steel manufacturing, paint and coatings, ports, shipbuilding, metal finishing, die casting and meat processing. EPA will work with national representatives of these business sectors to set pollution reduction goals, measure performance, provide environmental protection tools and technical assistance, remove barriers, develop incentives, reduce unnecessary regulatory burden and test innovative strategies.

Small Business Ombudsman: EPA will continue to support the Small Business Ombudsman who serves as EPA's gateway and leading advocate for small business issues, partnering with state Small Business Assistance Programs, and hundreds of small business trade associations, to reach out to the small business community. These partnerships provide the information and perspective EPA needs to help small businesses reduce waste and materials use, and to achieve their environmental goals. This is a comprehensive program that provides networks, resources, tools and forums for education and advocacy on behalf of small businesses.

Building Tribal Capacity

Since adoption of the EPA Indian Policy in 1984 EPA has worked with Tribes on a government-to-government basis, to affirm the Agency's trust responsibility to federally recognized Tribes. Under Federal environmental statutes, the Agency has responsibility for assuring human health and environmental protection in Indian Country. EPA has worked to establish the internal infrastructure and organize its activities in order to meet this responsibility. EPA's American Indian Environmental program goes a step further in ensuring environmental protection in Indian Country. EPA's strategy for achieving this Objective has three major components:

Establish an Environmental Presence in Indian Country: The Agency will work to create an environmental presence for each Federally recognized Tribe. In FY 2007, using Tribal General Assistance Program (GAP) grant resources EPA will provide approximately 517 Federally recognized Tribes and Inter-Tribal Consortia access to resources to hire at least one person working in their community to build a strong, sustainable environment for the future; for these

purposes, the universe of eligible entities is 572. Tribal communities can then assess environmental conditions on their lands, and build an environmental program tailored to their specific needs. EPA will also continue to develop environmental and public health outcome-based measures to quantify programmatic success.

Provide Access to Environmental Information: EPA will provide the information needed by Tribes to meet EPA and Tribal environmental priorities. At the same time, we will ensure that the Agency has the ability to view and analyze the conditions in Indian Country, and the impacts of EPA and tribal actions and programs in Indian Country. The Agency continues to take advantage of new technology to establish direct links to the U.S. Geological Service, Bureau of Reclamation, Indian Health Service, and other Federal agency data systems to further the development of an integrated, comprehensive, multi-agency Tribal Program Enterprise Architecture. The Agency continues to formalize interagency data standards and protocols to ensure quality information is collected and reported consistently among the Federal agencies. To this end, EPA has adopted Tribal Identifier codes that will enable data systems to identify Tribal sources of information. In FY 2007, EPA will integrate two additional existing Agency data systems within the Tribal Program Enterprise Architecture and encourage other agencies to adopt common Tribal codes.

Implementation of Environmental Goals: The Agency will provide opportunities for the implementation of Tribal environmental programs by Tribes, or directly by EPA, as necessary. In addition to assisting in the building of Tribal environmental capacity, another key role of the environmental presence workforce in Indian Country is to alert EPA of immediate public health and ecological threats, so EPA can work with the Tribe to respond quickly and effectively.

Pollution Prevention and Enforcement Research

EPA has developed and evaluated tools and technologies to monitor, prevent, control, and clean up pollution throughout its history. During the 1970s and 1980s, the agency emphasized controlling or remediating environmental dangers. Since the Pollution Prevention Act of 1990, the agency has increasingly focused on preventative and sustainable approaches to health and environmental problems. Sustainable approaches require: (1) innovative design and production techniques that minimize or eliminate environmental liabilities; (2) integrated management of air, water, and land resources; and (3) changes in the traditional methods of creating and distributing goods and services. EPA remains committed to helping industry achieve these ideals while at the same time adopting more effective and efficient practices, materials, and technologies.

EPA's pollution prevention work promotes innovative new technology, assessing the interaction of stressors threatening human and environmental health, and developing cost-effective responses to those stressors (R&D Criteria: Relevance). In FY 2007, research will continue to explore the principles governing sustainable systems and the integration of social, economic, and environmental objectives in environmental assessment and management. In a broader context, the program will focus not just on the industrial sectors, but on all decision-makers in areas critical to environmental stewardship (e.g., municipal sector and ecosystems) such as testing the effectiveness of a market-based incentive as a tool to manage storm water run-off in urban

watersheds. Efforts within environmental economics and decision science research are designed to improve EPA's decision making, cost-benefit analyses, and implementation strategies (R&D Criteria: Performance). Research will focus on benefit transfer methods and better understanding of and design for practical trading programs. These two areas are high priorities for EPA's program offices and have broad applications to the Agency's regulatory work.

Also in FY 2007, the innovative student design competition award program known as P3 (People, Prosperity, and Planet) will support up to 50 student design projects from around the country. This awards program encourages technological innovation in a wide range of activities. This competition promotes innovative thinking in sustainable approaches toward research, development and design of scientific and technical solutions to environmental problems. In FY 2006 several awards have already moved from the design stage to business plan and may soon be ready for commercialization (R&D Criteria: Relevance; Performance).

Recognizing that environmental policy and regulatory decisions will only be as good as the science upon which they are based, EPA makes every effort to ensure that its science is of the highest quality and relevance, thereby, providing the basis for sound environmental results. EPA uses the Research and Development (R&D) Investment Criteria of quality, relevance, and performance in its decision-making processes through a) the use of research strategies and plans, b) peer review, and c) program review and evaluation by the Board of Scientific Counselors (BOSC) and the Science Advisory Board (SAB). EPA's Science Advisory Board (SAB), an independently chartered Federal Advisory Committee Act (FACA) committee, annually conducts in-depth reviews and analyses of EPA's Science and Technology (S&T) account and other science activities. The SAB provides its findings to the House Science Committee of Congress and reports them to EPA's Administrator.

Research is guided by research strategies and plans, which are developed with participation from our major clients (R&D Criteria: Quality; Relevance). The strategy outlines the research needs and priorities. The Agency also maintains multi-year research plans (MYP) that outline steps for meeting strategic research needs, and annual performance goals and measures for evaluating progress. Taken together, these mechanisms serve to ensure that EPA's research and science remain relevant, of high quality, and contribute to superior environmental performance.

In order to sustain a viable and credible workforce, the Agency approaches its research programs' workforce planning in a manner consistent with its human capital strategy. Key elements of this strategy include working to develop and implement a holistic approach to recruitment, preserving a diverse workforce that reflects a wide spectrum of viewpoints, and retaining existing talent.

FY 2005 PARTs

The following programs were assessed by OMB's Program Assessment Rating Tool (PART) for the FY 2005 PART process:

- No programs within Goal 5 were assessed by OMB's Program Assessment Rating Tool (PART) in FY 2005.

Brownfields 26, 38, 46
Categorical Grants 22
Chesapeake Bay 15, 38, 44
Clean Air 1, 3, 5, 6, 7, 8, 9, 10, 11, 26
Clean Water 13, 14, 19, 21, 23, 26, 33, 40, 41, 44
Commission for Environmental Cooperation 48
Compliance 2, 4, 32, 33, 34, 47, 51, 52, 53, 54, 56
Compliance Monitoring 53, 54
Corrective Action 26, 28
Decontamination 33
Drinking Water 13, 15, 16, 17, 22, 23
Energy Star 9
Enforcement 29, 47, 53, 56, 58
Environmental Information 56, 58
Environmental Justice 38, 47
Exchange Network 56
Great Lakes 15, 18, 38, 40, 41
Great Lakes Legacy Act 41
Gulf of Mexico 15, 38, 42, 44, 45
Homeland Security 17, 23, 26, 27, 32, 40, 48
Indoor Air 5, 9
Lead 16, 50
Methane to Markets 10
Mexico Border 15, 41
NAAQS 10, 11, 12, 48
Oil 1, 3, 26, 33, 34, 35
Particulate Matter 8, 11
Pollution Prevention 40, 51, 54, 55, 58
Public Water System Supervision (PWSS) 16
Resource Conservation and Recovery Act (RCRA) 26, 35
Science Advisory Board 10, 24, 35, 49, 59
Small Business Ombudsman 57
Surface Water Protection 22
Tribal General Assistance Program 57
Underground Storage Tanks 1, 3, 26, 52, 54
Water Quality 13, 18, 19, 20, 41
Water Quality Monitoring 20
Wetlands 38, 42

[1] http://www.epa.gov/mercuryrule/

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Science and Technology

Resource Summary Table 1
Program Projects in S&T 1
Program Area: Air Toxics And Quality 5
Clean Air Allowance Trading Programs 6
Federal Support for Air Quality Management 11
Federal Support for Air Toxics Program 13
Federal Vehicle and Fuels Standards and Certification 15
Radiation: Protection 19
Radiation: Response Preparedness 21
Program Area: Climate Protection Program 23
Climate Protection Program 24
Program Area: Enforcement 26
Forensics Support 27
Program Area: Homeland Security 29
Homeland Security: Critical Infrastructure Protection 30
Homeland Security: Preparedness, Response, and Recovery 34
Homeland Security: Protection of EPA Personnel and Infrastructure 38
Program Area: Indoor Air 40
Indoor Air: Radon Program 41
Reduce Risks from Indoor Air 43
Program Area: IT / Data Management / Security 45
IT / Data Management 46
Program Area: Operations and Administration 48
Facilities Infrastructure and Operations 49
Program Area: Pesticides Licensing 51
Pesticides: Registration of New Pesticides 52
Pesticides: Review / Reregistration of Existing Pesticides 55
Program Area: Research: Clean Air 58
Research: Air Toxics 59
Research: Global Change 61
Research: NAAQS 64
Program Area: Research: Clean Water 68
Research: Drinking Water 69
Research: Water Quality 73
Program Area: Research: Human Health And Ecosystems 77
Human Health Risk Assessment 78
Research: Computational Toxicology 81
Research: Endocrine Disruptor 84
Research: Fellowships 87
Research: Human Health and Ecosystems 90
Program Area: Research: Land Protection 97

Research: Land Protection and Restoration 98
Program Area: Research: Sustainability 101
Research: Economics and Decision Science(EDS) 102
Research: Environmental Technology Verification (ETV) 105
Research: Sustainability 107
Program Area: Toxic Research and Prevention 111
Research: Pesticides and Toxics 112
Program Area: Water: Human Health Protection 115
Drinking Water Programs 116

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION: Science & Technology
Resource Summary Table
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology				
Budget Authority / Obligations	$785,903.1	$729,810.0	$788,274.0	$58,464.0
Total Workyears	2,416.1	2,438.1	2,431.6	-6.5

BILL LANGUAGE: SCIENCE AND TECHNOLOGY

For science and technology, including research and development activities, which shall include research and development activities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended; necessary expenses for personnel and related costs and travel expenses, including uniforms, or allowances therefor, as authorized by 5 U.S.C. 5901-5902; services as authorized by 5 U.S.C. 3109, but at rates for individuals not to exceed the per diem rate equivalent to the maximum rate payable for senior level positions under 5 U.S.C. 5376; procurement of laboratory equipment and supplies; other operating expenses in support of research and development; construction, alteration, repair, rehabilitation, and renovation of facilities, not to exceed $85,000 per project, [$741,722,000] $788,274,000, to remain available until September 30, [2007] 2008, of which $19,000,000 shall be derived from the Environmental Services fund.

Program Projects in S&T
(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Air Toxics and Quality				
Clean Air Allowance Trading Programs	$8,476.1	$8,527.0	$9,259.4	$732.4
Federal Support for Air Quality Management	$10,747.8	$10,012.0	$10,272.9	$260.9
Federal Support for Air Toxics Program	$3,040.8	$2,225.0	$2,264.7	$39.7
Federal Vehicle and Fuels Standards and Certification				
Energy Policy Act & Related Authorities Implementation	$0.0	$0.0	$11,400.0	$11,400.0
Federal Vehicle and Fuels Standards and Certification (other activities)	$60,614.9	$58,613.0	$56,924.5	($1,688.5)
Subtotal, Federal Vehicle and Fuels Standards and Certification	$60,614.9	$58,613.0	$68,324.5	$9,711.5

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Radiation: Protection	$2,552.0	$2,086.0	$2,054.3	($31.7)
Radiation: Response Preparedness	$2,460.0	$3,468.0	$3,585.9	$117.9
Subtotal, Air Toxics and Quality	$87,891.6	$84,931.0	$95,761.7	$10,830.7
Climate Protection Program				
Climate Protection Program	$20,448.0	$18,648.0	$12,549.6	($6,098.4)
Enforcement				
Forensics Support	$13,377.9	$13,129.0	$13,185.2	$56.2
Homeland Security				
Homeland Security: Critical Infrastructure Protection				
Water sentinel and related training	$0.0	$8,131.0	$41,735.2	$33,604.2
Homeland Security: Critical Infrastructure Protection (other activities)	$17,952.2	$4,262.0	$3,515.8	($746.2)
Subtotal, Homeland Security: Critical Infrastructure Protection	$17,952.2	$12,393.0	$45,251.0	$32,858.0
Homeland Security: Preparedness, Response, and Recovery				
Decontamination	$0.0	$16,868.0	$24,666.7	$7,798.7
Laboratory Security: Preparedness, Response, and Recovery	$0.0	$591.0	$600.0	$9.0
Safe Building	$0.0	$3,722.0	$4,000.0	$278.0
Homeland Security: Preparedness, Response, and Recovery (other activities)	$33,417.3	$14,571.0	$15,231.4	$660.4
Subtotal, Homeland Security: Preparedness, Response, and Recovery	$33,417.3	$35,752.0	$44,498.1	$8,746.1
Homeland Security: Protection of EPA Personnel and Infrastructure	$2,517.6	$2,050.0	$2,079.0	$29.0
Subtotal, Homeland Security	$53,887.1	$50,195.0	$91,828.1	$41,633.1
Indoor Air				
Indoor Air: Radon Program	$696.7	$429.0	$442.2	$13.2
Reduce Risks from Indoor Air	$909.5	$810.0	$828.7	$18.7
Subtotal, Indoor Air	$1,606.2	$1,239.0	$1,270.9	$31.9
IT / Data Management / Security				
IT / Data Management	$4,141.3	$4,173.0	$4,268.0	$95.0
Operations and Administration				

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Facilities Infrastructure and Operations	$8,892.1	$8,511.0	$70,239.5	$61,728.5
Pesticides Licensing				
Pesticides: Registration of New Pesticides	$2,473.1	$2,463.0	$2,766.1	$303.1
Pesticides: Review / Reregistration of Existing Pesticides	$2,471.1	$2,480.0	$2,820.4	$340.4
Subtotal, Pesticides Licensing	$4,944.2	$4,943.0	$5,586.5	$643.5
Research / Congressional Priorities				
Congressionally Mandated Projects	$74,485.5	$32,919.0	$0.0	($32,919.0)
Research: Clean Air				
Research: Air Toxics	$14,472.5	$16,226.0	$12,274.2	($3,951.8)
Research: Global Change	$19,395.9	$18,619.0	$17,456.4	($1,162.6)
Research: NAAQS	$63,156.4	$66,777.0	$65,455.6	($1,321.4)
Subtotal, Research: Clean Air	$97,024.8	$101,622.0	$95,186.2	($6,435.8)
Research: Clean Water				
Research: Drinking Water	$46,824.0	$45,170.0	$49,242.5	$4,072.5
Research: Water Quality	$46,243.2	$51,269.0	$56,988.2	$5,719.2
Subtotal, Research: Clean Water	$93,067.2	$96,439.0	$106,230.7	$9,791.7
Research: Human Health and Ecosystems				
Human Health Risk Assessment	$33,247.5	$35,637.0	$34,488.5	($1,148.5)
Research: Computational Toxicology	$12,002.9	$12,327.0	$14,983.1	$2,656.1
Research: Endocrine Disruptor	$12,559.5	$10,494.0	$9,081.2	($1,412.8)
Research: Fellowships	$14,476.8	$11,691.0	$8,383.0	($3,308.0)
Research: Human Health and Ecosystems	$169,805.8	$167,703.0	$161,312.7	($6,390.3)
Subtotal, Research: Human Health and Ecosystems	$242,092.5	$237,852.0	$228,248.5	($9,603.5)
Research: Land Protection				
Research: Land Protection and Restoration	$10,257.6	$11,606.0	$10,552.8	($1,053.2)
Research: Sustainability				
Research: Economics and Decision Science(EDS)	$2,465.6	$2,361.0	$2,494.6	$133.6
Research: Environmental Technology Verification (ETV)	$3,364.9	$2,990.0	$0.0	($2,990.0)
Research: Sustainability	$36,354.6	$25,803.0	$21,404.9	($4,398.1)
Subtotal, Research: Sustainability	$42,185.1	$31,154.0	$23,899.5	($7,254.5)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Toxic Research and Prevention				
Research: Pesticides and Toxics	$28,276.0	$30,357.0	$26,223.7	($4,133.3)
Water: Human Health Protection				
Drinking Water Programs	$3,326.0	$3,092.0	$3,243.1	$151.1
Subtotal, Drinking Water Programs	$3,326.0	$3,092.0	$3,243.1	$151.1

Program Area: Air Toxics and Quality

Clean Air Allowance Trading Programs
Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air; Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$17,513.5	$17,708.0	$19,126.4	$1,418.4
Science & Technology	***$8,476.1***	***$8,527.0***	***$9,259.4***	***$732.4***
Total Budget Authority / Obligations	$25,989.6	$26,235.0	$28,385.8	$2,150.8
Total Workyears	89.2	86.2	92.2	6.0

Program Project Description:

The Clean Air Interstate Rule (CAIR), promulgated on May 12, 2005, uses a multi-pollutant control approach to provide states with a solution to the problem of ozone and fine particulate matter ($PM_{2.5}$) -- pollution that drifts from one state to another. Using a market-based approach, CAIR is projected to achieve the deepest cuts in sulfur dioxide (SO_2) and nitrogen oxides (NO_x) emissions in more than a decade. Reductions in these emissions will reduce $PM_{2.5}$ and lower ozone. EPA's approach builds upon the successful Acid Rain cap-and-trade program created in 1990.

CAIR provides a Federal framework requiring 28 states and the District of Columbia to reduce emissions of SO_2 and/or NO_x. These states contribute significantly to unhealthy levels of fine particles and 8-hour ozone in downwind states. CAIR is an important component of the Administration's plan to help states in the eastern United States meet the national health-based air quality standards. Under CAIR, annual emissions are permanently capped, and there is an additional seasonal NO_x cap for states that contribute significantly to transported ozone pollution.

When fully implemented, CAIR is projected to reduce SO_2 emissions from electrical power generation sources in the covered states by over 70 percent and NO_x emissions by over 60 percent from 2003 levels. CAIR provides incentives for operators of power plants to find the best, fastest, and most efficient ways to make the required emission reductions. It provides incentives to do more as well as serious disincentives for those that do less.

The Clean Air Mercury Rule (CAMR), promulgated on May 15, 2005, is the first-ever Federal rule to permanently cap and reduce mercury emissions from coal-fired power plants. Together CAIR and CAMR are important, complementary components of the Administration's plan to improve air quality. CAMR establishes "standards of performance" limiting mercury emissions from new and existing coal-fired power plants and creates a market-based allowance trading program that will reduce nationwide utility emissions of mercury in two distinct phases. In the first phase cap, which begins in 2010, emissions will be reduced by taking advantage of "co-benefit" reductions—that is, mercury reductions achieved by reducing SO_2 and NO_x emissions

under CAIR. In the second phase, due in 2018, coal-fired power plants will be subject to a second cap, which will reduce emissions to 15 tons upon full implementation.

EPA is responsible for managing the Clean Air Status and Trends Network (CASTNET), a dry deposition monitoring network, as well as for providing operational support for the National Atmospheric Deposition Program (NADP), a wet deposition monitoring network. CASTNET is a national long-term atmospheric deposition monitoring network established in 1987 and serves as the nation's primary source for atmospheric data on the dry deposition component of total acid deposition, rural ground-level ozone and other forms of atmospheric pollution that enter the environment as particles and gases. Used in conjunction with the NADP and other networks, CASTNET long-term datasets and data products are used to help determine the efficacy of national emission control programs through monitoring geographic patterns and temporal trends in ambient air quality and atmospheric deposition in rural areas of the country. Maintaining a robust long-term atmospheric deposition monitoring network is critical for the accountability of the Acid Rain Program as well as other programs for controlling transported air pollutants (NO_x Budget Program, CAIR). These monitoring efforts play a crucial role in the Agency's ongoing assessment activities, including reporting outcomes under the Program Assessment Rating Tool (PART) and the Government Performance and Results Act (GPRA), and fulfilling assessment responsibilities under the US-Canada Air Quality Agreement and Title IX of the Clean Air Act.

FY 2007 Activities and Performance Plan:

The activities listed below for implementation of CAIR/CAMR would also support implementation of Clear Skies or a comparable program, if legislation is passed.

Performance Assessment: In 2005 OMB assessed the Federal NAAQS and Regional Haze programs, and rated them as "Adequate." The NAAQS program sets standards to protect human health and the environment from the effects of air pollution. The Regional Haze program, which addresses some of the same pollutants, improves visibility in areas of special natural, recreational, scenic, or historic value. The program is working on developing a broader, more integrated multiple-pollutant approach in standard-setting and will be working on developing an efficiency measure to show efficiency improvements over time.

- Assist states in CAIR implementation: Provide technical assistance to states in completing and promulgating rules to implement CAIR. Review state plans for CAIR; assist states in resolving issues related to applicability and monitoring as well as provide technical support. CAIR is a complex program that EPA wants to put in place rapidly at the state level to allow sufficient time for industry compliance starting in 2009 (NO_x) and 2010 (SO_2). Provide outreach, allowance trading education, and orientation for states and affected industry.

- Maximize flexibility for affected sources: Develop software that will facilitate optimum trading and efficient, cost-effective program implementation by building on existing Acid Rain electronic allowance trading and emissions reporting systems to support CAIR.

- Provide litigation program support for CAIR: Conduct legal, technical, and economic analyses to support timely implementation of the rule; continue assessing regulatory impacts on the US economy, environment, small business, and local communities. Harmonize Part 75 (Acid Rain Program) provisions with CAIR requirements.

- Develop the operating infrastructure: Effective and efficient operation of the CAIR program depends critically upon further development of the e-GOV infrastructure supporting the Acid Rain electronic allowance trading and emissions reporting systems. Data collection requirements must be determined and operating software and hardware specifications developed. Initial software development should also begin to expand current tracking systems to accommodate CAIR in addition to the Acid Rain Program.

- Develop baselines and prepare to assess program benefits: Establish an integrated assessment program to include enhanced ambient and deposition monitoring, efficiency measures that will include the total cost of the program, and indicators to track health and environmental benefits, as called for by the National Academy of Sciences.

- Ensure the program's credibility and results: Successful trading programs require accurate and consistent monitoring of emissions from affected sources. Propose performance specifications and investigate monitoring alternatives and methods to improve the efficiency of monitor certification and emissions data reporting, especially for sources that are new to market-based control programs.

- Assist states considering regional programs for Electric Generating Units (EGU's) outside of the CAIR region: EPA will work with states to create cap-and-trade programs where they potentially could be more cost-effective than application of Best Available Retrofit Technology (BART).

- Work with states and tribes on implementation of the CAMR: EPA will work with states and tribes on emissions monitoring provisions. Required mercury monitoring and reporting for CAMR begins in 2009. EPA will also assist the states and tribes that elect to participate in the Federally administered interstate CAMR allowance trading program to establish allowance allocations and implement reconciliation procedures.

In FY 2007, the program will continue the refurbishment project to modernize and enhance CASTNET. The program has made progress in evaluating alternative technologies and in procuring new equipment to be deployed at three CASTNET sites in order to test operational performance under realistic field conditions. The upgraded site equipment, reconfigured network and improved geographic coverage will help to ensure its continued viability and to enhance the monitoring capacity to support ongoing and future accountability needs, particularly relating to interstate pollutant transport. The program plans to:

- Complete a pilot phase study to evaluate options for upgrading CASTNET with new advanced measurement instrumentation.

- Select and procure advanced technology monitoring equipment for additional CASTNET sites, extending the pilot technology to a broader representation of field conditions.

- Expand a technology assessment program to compare performance of new and existing CASTNET monitoring instrumentation.

- Complete a data comparability study to evaluate how data collected by the advanced technology instrumentation compares and relates to the existing CASTNET data, to preserve the integrity of the long-term data record.

- Identify and begin development of new ecological indicators of air quality and atmospheric deposition to expand the suite of environmental metrics available for measuring the performance and efficiency of the operating programs consistent with the PART measures developed in cooperation with OMB.

In addition, the program provides analytical support for the interagency National Acid Precipitation Assessment Program (NAPAP). NAPAP coordinates Federal acid deposition research and monitoring of emissions, acidic deposition, and their effects, including assessing the costs and benefits of Title IV. In 2007, the program will continue analyzing the costs and benefits of the Acid Rain Program for inclusion in NAPAP's Integrated Assessment Report.

Performance Targets:

Measure Type		FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent change in average sulfur deposition and mean ambient sulfate concentrations reduced.				29	Percentage Reduction

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent change in average nitrogen deposition and mean total ambient nitrate concentrations reduced.				10	Percentage Reduction

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Tons of sulfur dioxide emissions from electric power generation sources	Data Lag	6,900,000	7,000,000	7,500,000	Tons Reduced

Reducing emissions of SO_2 remains a crucial component of EPA's strategy for cleaner air. Particulate matter can be formed from direct sources (such as diesel exhaust or smoke), but can also be formed through chemical reactions. Emissions of SO_2 can be chemically transformed into ammonium sulfates, which are very tiny particles that can be carried hundred of miles by winds. These same small particles are also a main pollutant that impairs visibility across large areas of the country, particularly national parks that are known for their scenic views. Meeting EPA's national health-based air quality standards is an important step towards ensuring the air is safe to breathe. To meet the standards, EPA, states, tribes, and local governments work as partners to reduce emissions of SO_2.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$732.4) Funding will support modeling and monitoring efforts for CAIR and CAMR implementation.

Statutory Authority:

CAA (42 U.S.C. 7401-7661 f).

Federal Support for Air Quality Management

Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$89,350.1	$95,949.0	$88,065.6	($7,883.4)
Science & Technology	***$10,747.8***	***$10,012.0***	***$10,272.9***	***$260.9***
Total Budget Authority / Obligations	$100,097.9	$105,961.0	$98,338.5	($7,622.5)
Total Workyears	721.3	715.9	709.0	-6.9

Program Project Description:

This program supports state development of the clean air plans through developing modeling and other tools. EPA works with states and local governments to ensure the technical integrity of the mobile source controls in the State Implementation Plans (SIPs). Also, EPA assists states and local governments that identify the most cost-effective control options available.

FY 2007 Activities and Performance Plan:

As part of implementing the 8-hour ozone and $PM_{2.5}$ standards, EPA will continue to provide state and local governments with substantial assistance in implementing the conformity rule during this period. In FY 2007, EPA will continue to ensure national consistency in how conformity determinations are conducted across the US. EPA will continue to ensure consistency in adequacy findings for motor vehicle emissions budgets in air quality plans, which are used in conformity determinations. EPA also will continue working on revising the conformity rule to address changes made in Safe Accountable Flexible Efficient Transportation Equality Act – A Legacy for Users (SAFETEA-LU). In addition, EPA will work with states and local governments to ensure the technical integrity of the mobile source controls in the SIPs for the 8-hour ozone and $PM_{2.5}$ air quality standards which are due in 2007 and 2008, respectively. EPA will also assist areas in identifying the most cost-effective control options available and provide guidance, as needed, for areas that implement conformity.

Performance Assessment: In 2005 OMB assessed the NAAQS and Regional Haze Programs through the PART process, and rated them as "Adequate." The NAAQS program sets standards to protect human health and the environment from the effects of air pollution. The Regional Haze program, which addresses some of the same pollutants, improves visibility in areas of special natural, recreational, scenic, or historic value. The program is working on developing a broader, more integrated multiple-pollutant approach in standard-setting. In promulgating air quality standards, the program clearly outlines the expected health and environmental benefits and will be working on developing an efficiency measure to show efficiency improvements over time.

EPA will partner with states, tribes, and local governments to create a comprehensive compliance program to ensure that vehicles and engines pollute less. EPA will use advanced in-

use measurement techniques and other sources of in-use data to monitor the performance of On-board Diagnostics (OBD) systems on vehicle models to make sure that OBD is a reliable check on the emissions systems as part of vehicle inspection and maintenance (I/M) programs. In FY 2005, basic and/or enhanced vehicle I/M testing was being performed in over 30 states with technical and programmatic guidance from EPA. In FY 2007, EPA will continue to assist states in incorporating OBD inspections into their I/M programs.

EPA will continue to assist state, Tribal, and local agencies implement and assess effectiveness of national clean air programs via a broad suite of analytical tools. (For more information visit: http://www.epa.gov/ttn/).

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percent reduction in population-weighted ambient concentration of ozone in monitored counties from 2003 baseline.	Available in 2006	3	5	6	Percentage

EPA, collaborating with the states, will be implementing federal measures and assisting with the development of clean air plans to continue to improve air quality as measured by the air quality index and other measures.

FY 2007 Change from FY 2006 Enacted Operating Plan (Dollars in Thousands):

- (+$202.0) This reflects an increase for payroll and cost of living for existing FTE.
- (+$58.9) This increase will provide additional assistance to States for conformity implementation.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f); Motor Vehicle Information Cost Savings Act; Alternative Motor Fuels Act of 1988; National Highway System Designation Act; NEP Act.

Federal Support for Air Toxics Program

Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$23,518.7	$25,405.0	$25,513.7	$108.7
Science & Technology	***$3,040.8***	***$2,225.0***	***$2,264.7***	***$39.7***
Total Budget Authority / Obligations	$26,559.5	$27,630.0	$27,778.4	$148.4
Total Workyears	139.5	144.8	144.2	-0.6

Program Project Description:

Federal support for the air toxics program includes a variety of tools to help characterize the level of risk to the public and measure the Agency's progress in reducing this risk. The program will develop and provide information and tools to assist state, local, and Tribal agencies as well as communities to reduce air toxics emissions and risk specific to their local areas.

Reductions in emissions of mobile source air toxics, such as diesel particulate matter (PM), are achieved through innovative and voluntary approaches working with state, local, and Tribal governments as well as a variety of stakeholder groups. This program also includes activities related to the Stationary Source Residual Risk Program.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Air Toxics program, re-assessed by OMB in 2004, received a rating of "Adequate." The Program reduces emissions of toxic air pollutants by establishing and reviewing technology-based regulations for mobile and stationary sources. The Program also collects information about exposure to air toxics and provides tools and compliance assistance to state, Tribal, and local air pollution control agencies. The program is working on improving monitoring systems to fill data gaps and get a better assessment of actual population exposure to toxic air pollution.

In FY 2007, EPA will work with a broad range of stakeholders to develop incentives for different economic sectors (construction, ports, freight, and agriculture) to address the emissions from existing diesel engines. Work is being done across these sectors at the national and regional level to clean up the existing fleet. This work addresses emissions from diesel engines that both contribute to meeting the Agency's Ambient Air Quality Goals and reduce the harmful exposure to air toxics from diesel engines. EPA has also developed several emissions testing protocols that will provide potential purchasers of emission control technology a consistent, third party evaluation of emission control products. EPA has developed partnerships with state and local governments, industry, and private companies to create project teams to help fleet owners create the most cost-effective retrofit programs.

EPA also will continue to provide technical expertise and support to state, local, and tribal air toxics programs in assessing and reducing mobile source air toxics. This support includes models and other assessment tools; guidance on the application of such tools for evaluating impacts of proposed transportation facilities and the benefits of voluntary mobile source control programs; and education and outreach materials.

EPA will work with partners to develop improved emission factors and inventories. This effort will include gathering improved activity databases and using geographic information systems (GIS) and satellite remote sensing, where possible, for key point, area, mobile and fugitive source categories and global emission events.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics from 1993 baseline.			22	22	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percentage reduction in tons of toxicity-weighted (for noncancer risk) emissions of air toxics from 1993 baseline.			55	56	Percentage

Implementation of the MACT standards is expected to result in the reduction of over 1.7 million tons of hazardous air pollutants. These emission reductions, used in conjunction with unit risk estimates and reference concentration information, will be converted to toxicity-weighted emission reductions. Changes to the FY 2007 level of funding will not impact the established targets as they are based on standards already promulgated.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$23.2) This reflects an increase for payroll and cost of living for existing FTE.

- (+$16.5) This increase will help develop or revise three toxics emission factors using control strategies.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f).

Federal Vehicle and Fuels Standards and Certification

Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$60,614.9***	***$58,613.0***	***$68,324.5***	***$9,711.5***
Total Budget Authority / Obligations	$60,614.9	$58,613.0	$68,324.5	$9,711.5
Total Workyears	285.8	283.2	295.2	12.0

Of this requested amount, $19 million should be appropriated from the Environmental Services fund from resources collected by the mobile source compliance fees.

Program Project Description:

The most common mobile sources of air pollution are highway motor vehicles and their fuels. Other mobile sources, such as airplanes, ships, construction equipment and lawn mowers also produce significant amounts of pollutants. EPA regulates the air pollution produced by all of these sources. The Agency also provides emissions and fuel economy information for new cars, funds grants for the development of cleaner burning fuels and alternative energy sources, and educates consumers on the ways their actions affect the environment.

Primary responsibilities include: developing national regulatory programs to reduce mobile source-related air pollution from light-duty cars and trucks, heavy-duty trucks and buses, nonroad engines and vehicles and their fuels; evaluating emission control technology; and providing state and local air quality regulators and transportation planners with access to critical information on transportation programs and incentive-based programs. Other activities include testing vehicles, engines and fuels, and establishing test procedures for and determining compliance with Federal emissions and fuel economy standards.

FY 2007 Activities and Performance Plan:

Performance Assessment: OMB assessed the Mobile Sources program in 2004 through the PART process, and rated it as "Moderately Effective." The Program protects public health by limiting harmful emissions from mobile sources of air pollution. Emissions of key air pollutants from motor vehicles per vehicle-miles-traveled have decreased substantially since enactment of the 1990 Clean Air Act Amendments. The Program will continue to monitor efficiency improvements.

In FY 2007, EPA will support implementation of the Tier II light-duty (LD) vehicle program, the 2007-2010 Heavy-Duty (HD) Diesel standards, and the Non-Road Diesel Tier 4 standards (and earlier nonroad standards) in order to ensure the successful delivery of cleaner vehicles, equipment, and fuel. In FY 2007, a number of regulatory actions will be under development or completed. A final rule is planned in FY 2007 to implement the Renewable Fuels Standard (RFS) required by the Energy Policy Act (EPAct) of 2005. This complex rulemaking will set the stage for several more EPAct provisions required of the Agency over the next few years. A final rule is also planned in FY 2007 concerning on-board diagnostic (OBD) standards for engines used in

heavy-duty trucks. Because of the recently promulgated 2007 HD truck standards, these vehicles will become more complex and dependent on electronic controls and exhaust emission control technology. In FY 2007, EPA will finalize a rule that will reduce toxic emissions from mobile sources by setting new standards to limit the benzene content of gasoline; reduce hydrocarbon emissions from passenger vehicles operating at cold temperatures; and reduce evaporation and spillage from gas cans. An EPA rule will be issued addressing exhaust and evaporative emissions from small gasoline engines (under 50 horsepower), including all recreational marine gasoline engines, non-handheld engines (such as those used in lawnmowers), and handheld engines (such as those used in trimmers and chainsaws). In FY 2007, EPA also plans to issue a final rule for new test methods for the fuel economy labeling program. The new test methods will lower the city and highway MPG estimates for new cars and trucks, and bring them closer to the fuel economy consumers are getting in the real-world. This rule was proposed in January 2006 and the new test methods will take effect in model year 2008. EPA is also planning a rulemaking action to review and revise, as appropriate, the long-term emission standards for snowmobiles, consistent with a 2004 court order. Rulemakings are also planned in FY 2007 for more stringent standards for locomotives and marine diesel engines and for further reducing emissions from large commercial ships. Technology reviews for the Nonroad Tier 4 program and Nonroad Fuel Implementation were planned for 2007, but will be delayed due to a high priority shift for efforts related to the Energy Policy Act (EPAct).

EPA's National Vehicle and Fuel Emissions Laboratory (NVFEL) will continue to conduct vehicle emission tests as part of the pre-production tests, certification audits, in-use assessments, and recall programs to support mobile source clean air programs. Tests are conducted on motor vehicles, heavy-duty engines, non-road engines, and fuels to: 1) certify that vehicles and engines meet Federal air emission and fuel economy standards; 2) ensure engines comply with in-use requirements; and 3) ensure fuels, fuel additives, and exhaust compounds meet Federal standards. In FY 2007, EPA will continue to conduct testing activities for fuel economy, LD vehicle and HD engine characterization, Tier II testing, reformulated gasoline, future fleets, OBD evaluations, certification audits, and recall programs.

EPA will review and approve approximately 2,400 vehicle and engine emissions certification requests, including light-duty vehicles, heavy-duty diesel engines, nonroad engines, marine engines, locomotives and others. The Agency will review the first in-use verification program (IUVP) data submitted by vehicle manufacturers to determine whether there are any emissions compliance issues, and continue the development of a new, web-based compliance information system to be used by manufacturers and EPA staff to house compliance data for all regulated vehicles and engines.

EPA will also test heavy-duty diesel engines to support implementation of the 2007 HD diesel requirements and non-road diesel engine rulemaking activities. In-use compliance is an important element of EPA's regulatory programs ensuring that new engine standards are actually met under real-world conditions. EPA will implement a manufacturer-run in-use compliance surveillance program for highway heavy-duty diesel engines. Additionally, EPA is planning to propose a manufacturer-run in-use testing program for nonroad diesel engines.

EPA also will continue implementing the Reformulated Gasoline (RFG) program, which is designed to substantially reduce vehicle emissions of ozone-forming and toxic pollutants. Major changes in the RFG regulations will be introduced to account for the elimination of the oxygen mandate in light of the new Energy Policy Act of 2005. Additionally, new opt-in rules covering newly eligible areas (under the Energy Policy Act) will have to be promulgated and implemented. EPA also will continue to address issues associated with the use of oxygenates (e.g., MTBE and ethanol) and will review the industry's retail station survey plan.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Limit the increase of CO emissions (in millions of tons) from mobile sources compared to a 2000 baseline.	0.84M	0.84M	1.01 M	1.18M	Millions of Tons

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Millions of Tons of Volatile Organic Compounds (VOCs) Reduced since 2000 from Mobile Sources	0.86M	0.86M	1.03 M	1.20M	Millions of Tons

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Millions of Tons of Nitrogen Oxides (NOx) Reduced since 2000 Reduced from Mobile Sources	1.69M	1.69M	2.03 M	2.37M	Millions of Tons

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Tons of PM-10 Reduced since 2000 from Mobile Sources	62,161	62,161	74,594	87,026	Tons

Funding will allow EPA to continue achieving results in reducing pollution from mobile sources, especially NOx emissions. The Tier 2 Vehicle program, which took effect in 2004, will make new cars, SUVs, and pickup trucks 77 to 95 percent cleaner than 2003 models. Beginning in 2007, the Clean Trucks and Buses program will make new highway diesel engines as much as 95 percent cleaner than current models. Under the Non-road Diesel program, new fuel and engine requirements will reduce sulfur in off-highway diesel by more than 99 percent by 2010.

Combined, these measures will prevent over 22,000 premature deaths each year, reduce millions of tons of pollution a year, and prevent hundreds of thousands of respiratory illnesses.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$9,000.0) This increase in funding is provided to support implementation of the Energy Policy Act's Renewable Fuel Standard (RFS). This complex rulemaking will set the stage for several more Energy Act provisions required of the Agency over the next few years.

- (-$2033.0) This change represents redirections within this program project to address high priority Energy Policy Act implementation work.

- (+20.0 FTE) This increase in FTE is provided to support implementation of the Energy Policy Act's Renewable Fuel Standard (RFS).

- (-5.0 FTE) These FTE were reprogrammed to support the Clean Air Interstate Trading Rule implementation. These FTE will be used to augment existing work in: modifying data systems; establishing allowance accounts; allocating allowances; assisting States in developing and promulgating their State Implementation Plans (SIP); assisting affected facilities through set up of certification emissions measurement equipment; and to establish baseline assessments for program accountability.

- (-3.0 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$101.4) This increased funding will cover increases in fixed-costs at the National Vehicles and Fuels Emissions Laboratory.

- (+$2,643.7) This reflects the net increase for payroll and cost of living for existing FTE; the increase in number of FTE for Energy Policy Act work; and the reduction in payroll associated with the decreases in FTE for the reprogramming to the CAIR rule implementation and the Agency's workforce management strategy.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f); Motor Vehicle Information Cost Savings Act; Alternative Motor Fuels Act of 1988; National Highway System Designation Act; National Environmental Policy Act; Energy Policy and Conservation Act; and Energy Policy Act of 2005.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$11,694.4	$11,178.0	$10,648.6	($529.4)
Science & Technology	***$2,552.0***	***$2,086.0***	***$2,054.3***	***($31.7)***
Hazardous Substance Superfund	$1,969.4	$2,120.0	$2,323.3	$203.3
Total Budget Authority / Obligations	$16,215.8	$15,384.0	$15,026.2	($357.8)
Total Workyears	102.0	103.5	96.6	-6.9

Program Project Description:

This program supports the maintenance of an on-going radiation protection capability at the National Air and Radiation Environmental Laboratory (NAREL) located in Montgomery, Alabama and the Radiation and Indoor Environments National Laboratory (R&IE) located in Las Vegas, Nevada. These laboratories provide radioanalytical and mixed waste testing and analysis of environmental samples to support site assessment, clean-up, and response activities.

Both labs provide technical support for conducting site specific radiological characterizations and clean-ups, which uses the best available science to develop risk assessment tools. The labs also develop guidance for cleaning up sites that are contaminated with radioactive materials in collaboration with the public, industry, states, tribes and other governments. EPA, in partnership with other Federal agencies, will promote the management of radiation risks in a consistent and safe manner.

FY 2007 Activities and Performance Plan:

In FY 2007 EPA, the Department of Energy (DOE), Department of Defense (DOD), state and local governments and other Federal Agencies will: assist with site charcterizations and providing analytical support for site assessment activities, remediation technologies, and measurement and information systems; and provide training and direct site assistance including laboratory, field, and risk assessment support at sites with actual or suspected radioactive contamination.

EPA's laboratories will provide radiological and technical support to EPA Program Managers and On-Scene Coordinators, the public, industry, tribes and state and local governments. EPA will also conduct approximately 1,300 radioanalytical and mixed waste analyses in support of Regional site assessments, cleanups and response activities.

Performance Targets:

EPA is developing new outcome-oriented performance measures for this program in preparation for a 2006 PART assessment. The program will have new performance information to report in FY 2008. EPA will continue to track progress on routine program indicators such as preparedness and response capability for radiological incidents.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$8.8) This decrease will affect testing at the National Radiation and Indoor Environments Laboratory of radiation samples to support rules and guidances.

- (-$22.9) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (-1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

AEA of 1954, as amended, 42 U.S.C 2011 et seq. (1970), and Reorganization Plan #3 of 1970; CAA Amendments of 1990; CERCLA, as amended by the SARA of 1986 ; Energy Policy Act of 1992, P.L. 102-486; Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; NWPA of 1982; PHSA, as amended, 42 U.S.C 201 et seq.; SDWA; UMTRCA of 1978; Waste WIPP Land Withdrawal Act.

Radiation: Response Preparedness
Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Radiation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$2,284.4	$2,632.0	$2,688.7	$56.7
Science & Technology	***$2,460.0***	***$3,468.0***	***$3,585.9***	***$117.9***
Total Budget Authority / Obligations	$4,744.4	$6,100.0	$6,274.6	$174.6
Total Workyears	35.1	42.3	42.3	0.0

Program Project Description:

The National Air and Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama and the Radiation and Indoor Environments National Laboratory (R&IE) in Las Vegas, Nevada provide field sampling and analyses, laboratory analyses, and direct scientific support to respond to radiological and nuclear incidents. This includes measuring and monitoring radioactive materials in the environment and assessing of radioactive contamination in the environment. This program comprises direct scientific field and laboratory activities to support preparedness, planning, training, and procedures development. In addition, selected staffs are members of EPA's Radiological Emergency Response Team (RERT) and are trained to provide direct expert assistance in the field.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA's RERT, a component of the Agency's emergency response structure, will maintain its preparedness in the laboratories for radiological incidents including those for which EPA is the Coordinating Agency under the National Response Plan. The laboratory RERT members will conduct training and exercises to enhance their ability to fulfill EPA responsibilities in the field, using mobile analytical systems, and in the fixed labs, in order to provided the necessary mix of rapid and accurate radionuclide analyses in environmental matrices.[1]

Also in FY 2007, the research labs will continue to be ready to deploy field teams that provide scientific data, analyses and updated analytical techniques for radiation emergency response programs across the Agency; maintain readiness for radiological emergency responses, participate in mock emergency response situations; provide on-site scientific support to state radiation, solid waste, and health programs that regulate radiation remediation; participate in the Protective Action Guidance (PAG) workshops; and respond, as required, to radiological incidents.

[1] Additional information can be accessed at: http://www.epa.gov/radiation/rert/rert.htm last accessed 1/20/2006.

Performance Targets:

EPA is developing new outcome-oriented performance measures for this program in preparation for a 2006 PART assessment. The program will have new performance information to report in FY 2008. EPA will continue to track progress on routine program indicators such as preparedness and response capability for radiological incidents.

FY 2007 Change from FY 2006 Enacted Budget Request (Dollars in Thousands):

- (+$9.1) This increase supports costs associated with maintaining field sampling, laboratory analyses, preparedness, planning and training in the National Air and Radiation Environment Laboratory and the Radiation and Indoor Environments National Laboratory.

- (+$108.8) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

AEA of 1954, as amended, 42 U.S.C 2011 et seq. (1970), and Reorganization Plan #3 of 1970; CAA. Amendments of 1990; CERCLA, as amended by the (SARA); Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988; Public Health Service Act, as amended, 42 U.S.C 201 et seq.; Robert T. Stafford Disaster Relief and EAA, as amended, 42 U.S.C 5121 et seq.; SDW Act; and Title XIV of the NDA of 1997, PL 104-201 (Nunn-Lugar II).

Program Area: Climate Protection Program

Climate Protection Program

Program Area: Climate Protection Program
Goal: Clean Air and Global Climate Change
Objective(s): Reduce Greenhouse Gas Intensity; Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$92,457.2	$90,834.0	$91,843.3	$1,009.3
Science & Technology	***$20,448.0***	***$18,648.0***	***$12,549.6***	***($6,098.4)***
Total Budget Authority / Obligations	$112,905.2	$109,482.0	$104,392.9	($5,089.1)
Total Workyears	218.1	216.3	214.1	-2.2

Program Project Description:

EPA manages the Clean Automotive Technology (CAT) and the Fuel Cell and Hydrogen programs to recognize and remove barriers in the marketplace, and to more rapidly deploy technology into the transportation sector of the economy. The Agency's Clean Automotive Technology program develops advanced clean and fuel-efficient automotive technology to better protect the environment and save energy. The emphasis of Clean Automotive Technology program work for the next 5-10 years will be research and collaboration with the automotive, trucking, and fleet industries. Through cooperative research and development agreements (CRADA), EPA's unique hydraulic hybrid technology and advanced clean-engine technologies will be demonstrated in vehicles, such as large SUVs, pickup trucks, urban delivery trucks, school buses, shuttle buses, and refuse trucks. The intent of these real world demonstrations is to lead to the initial commercial introduction of significant elements of EPA's technologies by vehicle manufacturers.

Under the Fuel Cell and Hydrogen program, EPA will continue working closely with DaimlerChrysler and UPS on the Fuel Cell Delivery Vehicle Testing Program based in Ann Arbor. EPA will also continue to coordinate with key stakeholders through the public/private California Fuel Cell Partnership to facilitate the commercialization of innovative technologies.

FY 2007 Activities and Performance Plan:

In FY 2007, the Clean Automotive Technology Program will:

- Continue to provide technology transfer to partners for clean engine and hydraulic hybrid technologies in order to phase down Federal investment in these technologies; and

- Continue to support field tests for hydraulic-hybrid and clean engine technologies in an urban delivery vehicle or large SUV to achieve better fuel

Performance Assessment: OMB assessed the Climate Change Program in 2004, and gave it a rating of "Adequate." There are over 20 climate change programs which work with the private sector to cost effectively reduce greenhouse gas emissions and facilitate energy efficiency improvements. Each sector (buildings, industry, and transportation) has performance and efficiency measures to track the amount of greenhouse gas emissions that are reduced as a result of the programs' efforts.

economy than the typical baseline vehicle, while meeting or exceeding 2007/2010 Heavy Duty or Tier 2 Bin 5 Light Duty standards.

In FY 2007, the Fuel Cell and Hydrogen Program will:

- Continue to develop and participate in effective government/industry partnerships that advance fuel cell and hydrogen fueling vehicle technologies;

- Continue evaluation of the new-technology "Sprinter" delivery vehicle as a part of the EPA/Daimler Chrysler/UPS Fuel Cell Deliver Vehicle Testing partnership (the first real-world demonstration of a medium duty fuel cell vehicle in the US); and

- Support use of the Motor Vehicles Emissions Simulator (MOVES) model for life-cycle analyses.

Performance Targets:

EPA will work to develop better performance measures that more clearly link to greenhouse gas reduction potential in the near term.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$6,244.0) This reduction reflects a phase down in Federal investment in hydraulic hybrid technology development as a result of transfer to private sector of hybrid and clean diesel technologies.

- (+$145.6) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CAA Amendments, 42 U.S.C. 7401 et seq. - Sections 102, 103, 104, and 108; Pollution Prevention Act, 42 U.S.C. 13101 et seq. - Sections 6602, 6603, 6604, and 6605; NEPA, 42 U.S.C. 4321 et seq. - Section 102; Global Climate Protection Act, 15 U.S.C. 2901 - Section 1103; Federal Technology Transfer Act, 15 U.S.C. - Section 3701a.

Program Area: Enforcement

Forensics Support
Program Area: Enforcement
Goal: Compliance and Environmental Stewardship
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$13,377.9***	***$13,129.0***	***$13,185.2***	***$56.2***
Hazardous Substance Superfund	$3,599.5	$3,643.0	$4,184.2	$541.2
Total Budget Authority / Obligations	$16,977.4	$16,772.0	$17,369.4	$597.4
Total Workyears	104.1	108.6	107.8	-0.8

Program Project Description:

The Forensics Support program provides specialized scientific and technical support for the nation's most complex civil and criminal enforcement cases, and provides technical expertise for non-routine Agency compliance efforts. EPA's National Enforcement Investigations Center (NEIC) is the only accredited environmental forensics center in the nation. NEIC's Accreditation Standard has been customized to cover the civil, criminal, and special program work conducted by the program.

NEIC collaborates with state, local and Tribal agencies, providing technical assistance, consultation, and on-site investigation and inspection activities in support of the Agency's civil program. In addition, the program coordinates with the Department of Justice and other Federal, state and local law enforcement organizations in support of criminal investigations. For more information visit: http://www.epa.gov/compliance/neic/index.html

FY 2007 Activities and Performance Plan:

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Throughout FY 2007, efforts to stay at the forefront of environmental enforcement will include the refinement of successful multi-media inspection approaches; use of customized laboratory methods to solve unusual enforcement case problems; applied research and development for both laboratory and field applications. In response to civil and criminal case needs, the NEIC conducts applied research and development to identify and deploy new capabilities, and to test and/or enhance existing methods and techniques involving environmental measurement and forensic situations. As part of this activity, NEIC evaluates the scientific basis and/or technical enforceability of select EPA regulations. The program also provides technical support for national, regional, state, and Tribal initiatives and priorities, as well as the Agency's integrated Compliance Assurance program, using a unique process-based approach.

Also in FY 2007, the Forensics program will continue to function under more stringent International Standards of Operation for environmental data measurements to maintain its accreditation. The program also will continue development of emerging technologies in field measurement techniques and laboratory analytical techniques, as well as identifying sources of pollution at abandoned waste sites.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)	1,100	300	450	500	million pounds

This program was included in the Civil Enforcement PART assessment in 2004, which received an overall rating of Adequate based on development of a Measures Implementation Plan. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. A baseline was established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.8 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.
- (-$312.2) This reflects a decrease for the National Enforcement Investigations Center (NEIC).
- (+$368.4) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CAA, as amended; CWA; EPCRA; FIFRA; FTTA; ODA; PPA; Pollution Prosecution Act; RLBPHRA; RCRA, as amended; SDWA; SBIDA; TSCA.

Program Area: Homeland Security

Homeland Security: Critical Infrastructure Protection
Program Area: Homeland Security
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$6,700.6	$6,787.0	$7,242.7	$455.7
Science & Technology	***$17,952.2***	***$12,393.0***	***$45,251.0***	***$32,858.0***
Hazardous Substance Superfund	$1,348.2	$1,442.0	$1,571.6	$129.6
Total Budget Authority / Obligations	$26,001.0	$20,622.0	$54,065.3	$33,443.3
Total Workyears	47.9	59.0	59.0	0.0

Program Project Description:

This program provides resources to coordinate and support protection of the nation's critical water infrastructure from terrorist threats. Reducing risk in the water sector requires a multi-step approach to: determine risk through vulnerability assessments, reduce risk through security enhancements, and prepare to respond effectively to incidents. Homeland Security Presidential Directives (HSPDs) 7 and 9 direct EPA to help the water sector implement protective measures and develop comprehensive water surveillance and monitoring program. The Public Health Security and Bioterrorism Response and Preparedness Act of 2002 (Bioterrorism Act) also provides that EPA support the water sector in such activities.

FY 2007 Activities and Performance Plan:

EPA will continue to support the WaterSentinel pilot program and water sector-specific agency responsibilities, including the Water Alliance for Threat Reduction (WATR), to protect the nation's critical water infrastructure. In FY 2007, the Agency and major stakeholders in critical water infrastructure protection will continue their efforts to develop and implement measures on the best security practices and policies recommended by the National Drinking Water Advisory Council in 2005.

WaterSentinel

HSPD-9 directs EPA to develop a "robust, comprehensive, and fully coordinated surveillance and monitoring system" for drinking water and a water laboratory network that would support water surveillance and emergency response activities. The overall goal of WaterSentinel is to design and demonstrate an effective system for timely detection and appropriate response to drinking water contamination threats and incidents through a pilot program that would have broad application to the nation's drinking water utilities. Recent analyses underscore the importance of a contaminant warning system that integrates all five components of event detection, as different contaminants are detected by different sequences of triggers or alarms.

5 Components of a Contamination Warning System:

- Enhanced physical security monitoring
- Water quality monitoring
- Routine and triggered sampling of high priority contaminants
- Public health surveillance
- Consumer complaint surveillance

The WaterSentinel program would demonstrate the concept of an effective contamination warning system, so that drinking water utilities, ideally of all sizes and characteristics, could adopt such a system. While a scattering of utilities have deployed elements of a contaminant warning system, WaterSentinel represents a broader effort to integrate all five components into one monitoring and surveillance system. WaterSentinel would provide a comprehensive protocol that would enable utilities to most effectively deploy monitoring stations. EPA's Science Advisory Board is reviewing the design and implementation of the Water Sentinel program.

In FY 2007, EPA will establish, in selected cities, additional pilot contamination warning systems with water utilities through intensive water monitoring and other surveillance. The pilots will integrate information from contaminant-specific sampling and laboratory analysis, on-line water quality monitoring, public health surveillance, customer complaints, and physical security to form a comprehensive contamination warning system. Through the pilots, EPA will analyze the design and implementation issues over a range of system types including: different sized water systems; different types of water delivery systems (open versus closed); and different types of treatment (chlorinated versus non-chlorinated). The addition of water utilities in FY 2007 will allow for more comprehensive testing of the contaminant warning system, as each utility---due to its unique distribution networks, treatment regimens, relationship with public health departments, and other specific circumstances---will encounter different challenges in design and implementation. Ultimately, an expansion of the number of utilities will serve to promote the adoption of WaterSentinel within the water sector, as functioning warning systems among several utilities of potentially divergent configurations will afford a more compelling outcome than just one utility. The pilots will also involve building the analytical capability and capacity necessary to support the contaminant-specific sampling. This entails leveraging existing laboratory infrastructure through select expansion of Federal, state, and utility laboratory resources to enhance the capability and capacity for processing high priority biological, chemical, and radiological threat agents in water. By the end of FY 2007, EPA expects to begin disseminating information learned from the pilots to other water utilities.

In addition, selection of these cities will be tailored to offer opportunities to evaluate the operational experience of different types of water systems. EPA will provide training and technical assistance to water systems on monitoring devices, sampling protocols, analytical methods and consequence management. The Agency will report monitoring results to the National Biosurveillance Integration System run by the Department of Homeland Security (DHS). The Agency will also continue evaluating and improving early warning system and detection devices, analytical methods, and modeling programs for high priority contaminants as well as disseminating information and training drinking water utilities in these new surveillance

technologies. EPA will develop a performance evaluation plan that will describe the specific criteria against which all of the key monitoring and surveillance elements of WaterSentinel will be reviewed. The evaluation plan will enable EPA to identify the most effective, both in terms of early warning and cost, combination of monitoring and surveillance elements.

- For the WaterSentinel program, EPA will fund new pilots in FY 2007. Each pilot entails significant efforts in coordinating with selected utilities, purchasing monitoring and laboratory equipment, installing monitoring stations, ensuring interfaces between the utilities and public health departments, and establishing data management and analysis systems.

- EPA will conduct a program evaluation of the first pilot begun in FY 2006.

- In FY 2007, the Agency and major stakeholders in critical water infrastructure protection will continue efforts to develop and implement performance measures on the best security practices and policies recommended by the National Drinking Water Advisory Council.

Work will be carried out in collaboration with other Federal agencies, such as DHS, Centers for Disease Control and Prevention, Department of Defense, and the U.S. Geological Survey.

Water Sector-Specific Agency Responsibilities

HSPD-7 designates EPA as the Sector-Specific Agency "responsible for infrastructure protection activities" for the water sector (drinking water and wastewater utilities). Under this directive, EPA is responsible for developing and providing tools and training on improving security to the 54,000 community water systems and 13,000 publicly-owned treatment works.[2]

EPA will continue to provide special assistance to high-priority drinking water systems under the Water Alliance for Threat Reduction (WATR). In FY 2006, the Agency will provide training and technical assistance to as many as 100 water utilities serving greater than 100,000 people. In FY 2007, EPA will work to ensure that the remaining 367 large water utilities have tools and information to prevent, detect, and respond to a terrorist or other intentional attack. The following preventive and preparedness activities will be implemented for the water sector in collaboration with DHS and states' homeland security and water officials:

- Continue to develop and conduct exercises to prepare utilities, emergency responders, and decision-makers to evaluate and respond to physical, cyber-, and contamination threats and events;

- Build on recommendations made by the National Drinking Water Advisory Council, continue to provide technical assistance and training to high risk water utilities and

[2] U.S. Environmental Protection Agency. "FACTOIDS: Drinking Water and Ground Water Statistics for 2004." EPA 816-K-05-001 Washington, D.C. May 2005. Available at: http://www.epa.gov/safewater/data/pdfs/data_factoids_2004.pdf

relevant state and local officials on implementing active and effective security programs and practices to protect against the sector's priority vulnerabilities;

- Provide expert technical assistance in preparedness and response for national special security events and incidents; and

- Disseminate (e.g., via the Water Information Sharing and Analysis Center) tools and provide technical assistance to ensure that water utilities and emergency responders react rapidly and effectively to intentional contamination. Tools include information on high priority contaminants, sampling and detection protocols and methods, and treatment options.

- For the Water Alliance for Threat Reduction (WATR), EPA anticipates it will conduct approximately 30 training sessions for drinking water systems serving over 100,000 people.

In FY 2007, EPA will develop the foundation, in coordination with key federal and water sector partners, for a robust critical infrastructure monitoring and surveillance program. In addition, EPA will provide the critical tools, training, and exercises that drinking and wastewater utilities need to detect, prevent, and respond to a terrorist or other intentional attack while fulfilling its responsibility as a Sector-Specific Agency under the National Infrastructure Protection Plan (NIPP).

Performance Targets:

Work under this program supports EPA's protect human health objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$30,479.5) This increase will support additional WaterSentinel pilot systems.

- (+$2,256.7) This increase will provide training and technical assistance for water utilities serving greater than 100,000 people.

- (+$121.8) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

SDWA; CWA; Public Health Security and Bioterrorism Emergency and Response Act of 2002; EPCRA.

Homeland Security: Preparedness, Response, and Recovery
Program Area: Homeland Security
Goal: Clean Air and Global Climate Change
Objective(s): Radiation

Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks; Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$2,620.2	$3,252.0	$3,328.7	$76.7
Science & Technology	***$33,417.3***	***$35,752.0***	***$44,498.1***	***$8,746.1***
Hazardous Substance Superfund	$38,131.8	$37,579.0	$49,774.9	$12,195.9
Total Budget Authority / Obligations	$74,169.3	$76,583.0	$97,601.7	$21,018.7
Total Workyears	143.2	160.6	165.6	5.0

Program Project Description:

Through research, development and technical support activities, this program continues to increase the Agency's preparedness, and its response and recovery capabilities for homeland security incidents involving chemical, biological or radiological threats,. The Agency continues to increase the state of its knowledge of potential threats, as well as its response capabilities, by assembling and evaluating private sector tools and capabilities so that preferred response approaches can be identified and evaluated for future use by first responders, decision makers, and the public. EPA also continues to work with Federal institutions and other organizations through collaborative research efforts to strengthen decontamination capabilities.

FY 2007 Activities and Performance Plan:

The Agency will continue to strengthen its response capabilities, clarify its roles and responsibilities to ensure an effective response, and promote improved response capabilities across government and industry in areas where EPA has unique knowledge and expertise.

EPA's National Homeland Security Research Center (NHSRC):

The NHSRC oversees Agency research in preparedness, risk assessment, detection, containment, decontamination, and disposal associated with chemical, biological, and radiological attacks. The Center will continue work in support of its responsibilities as assigned in Homeland Security Presidential Directives (HSPDs) (e.g., HSPD-7, HSPD-9, and HSPD-10) and Department of Homeland Security requirements for EPA expertise in a number of key areas. Activities in FY 2007 will include the following:

- Water infrastructure protection research will focus on developing, testing, demonstrating, communicating, and implementing enhanced methods for detection, treatment, and

containment of biological and chemical warfare agents, certain radiological contaminants, and bulk industrial chemicals intentionally introduced into drinking water and wastewater systems. This is consistent with the Critical Infrastructure Protection Plan (CIPP) developed for water infrastructure and with the *Water Security Research and Technical Support Action Plan*.

- Threat and consequence assessment research will focus on conducting risk assessments of decontamination byproducts; refining toxicity databases; developing fate, transport, dispersion, and exposure parameters; and developing computer-based tools to aid decision makers in assessing the risks associated with biological and chemical attacks; as well as determination/revision of cleanup guidance goals.

- To support the new Homeland Security requirements under HSPDs 9 and 10, EPA will expand its Standardized Analytical Methods (SAM) document for Homeland Security to include development, validation, and testing of non-standard methods and additional methods for chemicals, biologicals, and radiologicals in new environmental matrices. EPA will also establish an applied measurement science research program to administer the activities of a national laboratory network that will manage method development, validation, and application for contaminants resulting from terrorist attacks.

- EPA will conduct critical research to improve existing decontamination systems and to develop and test new decontamination methods and systems for buildings, large structures, and outdoor areas. In addition, field studies to validate decontamination methods specific to anthrax will be conducted, as will research to develop decontamination and disposal methods for building materials.

- Other efforts will be conducted to begin evaluating toxicity, infectivity, mechanisms of action, and other risk characterization information of biological contaminants in order to develop dose/response relationships and cleanup goal estimates. Additionally, work will begin to evaluate existing technologies that can be applied to *in situ* management of crops and animal carcasses contaminated with threat agents.

- EPA's Homeland Security research program plans to have several projects and proposals reviewed by independent scientific advisory bodies during FY 2007. EPA has set up a special Science Advisory Board (SAB) committee to review research related to Homeland Security. In addition, EPA's Homeland Security research program has tentatively planned a Board of Scientific Counselors (BOSC) review.

Radiation Monitoring:

In the Nuclear/Radiological Incident Annex to the National Response Plan for Homeland Security, EPA's responsibilities include maintenance and enhancement of the RadNet monitoring network. The network includes deployable monitors, conventional monitors, and fixed, near-real-time monitors. (RadNet, until early 2005, was known as the Environmental Radiation Monitoring System [ERAMS]). EPA also is responsible for maintenance of both fixed

and mobile personnel and asset readiness for radiological emergency responses, which includes participating in emergency response situations and providing technical expertise and support.

- The Agency will continue to upgrade and enhance the RadNet air monitoring network. From FY 2005 through FY 2007, EPA expects to deploy approximately 110 monitors providing near real-time radiation monitoring coverage for over 60% of the U.S. population. As the RadNet air monitoring network is upgraded and enhanced, response time and data dissemination will be reduced from days to hours and will provide the Agency with greater access to near real-time data, enabling officials to make decisions about protecting public health during an incident and improving preparedness for radiological incidents.

- By FY 2009, approximately 150 fixed radiation air monitors will have been deployed providing near real-time radiation monitoring coverage for close to 70% of the U.S. population. Monitors will be put into operation as they are delivered and installed at the sites by the manufacturer. These near-real-time monitors will replace the existing system of 60 conventional air samplers that comprise the current air network of RadNet. Fixed stations will operate in conjunction with 40 deployable monitors.

- In FY 2007, EPA will build upon work begun in FY 2006 to augment EPA's existing applied science radiological labs to meet emerging homeland security needs and serve as the Agency's radiological reference laboratory. Also, EPA will continue to upgrade the Agency's lab response capability to ensure a minimal level of surge capacity for radiological terrorism incidents; enhance the existing capability to conduct chemical and radiological analysis simultaneously; and coordinate the Radiological Emergency Response Team's sample handling protocols with the mobile triage units. Additionally, EPA will align and integrate related radiological activities with existing National Lab Networks and initially assess capability and capacity of ten state, Federal, and commercial laboratories.

Biodefense:

EPA will continue work to develop and validate methods to evaluate the efficacy of products against bioterrorism agents, expanding this work to address fumigants. EPA will address critical gaps in efficacy test methodology and knowledge of microbial resistance. In addition to bacteria, in FY 2007, EPA will begin to address threatening viruses and other emerging pathogens in environmental media. Thus far, decontamination test methods for viruses have not been addressed. EPA will propose the development and evaluation of efficacy test protocols for products designed to control viruses in the environment during decontamination.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$196.4) This reflects increases for payroll and cost of living for existing FTE.

- (+$442.3) This increase will support Homeland Security research activities in the fields of threat and consequence assessment and management, and water infrastructure protection.

- (+$7,075.0) This increase in Homeland Security research includes: (1) development of new or revised sampling and analytical methods for chemical, biological, and radiological contaminants of concern; (2) testing and evaluation of outdoor decontamination methods; (3) evaluation of treatment and disposal options for agricultural biomass; and (4) evaluation of the health risks from decontamination by-products.

- (+$337.8) This increase will provide statistical contract support to develop methodologies for evaluating the efficacy of antimicrobial compounds and fund expenses at the environmental chemistry lab related to biodefense activities.

- (+$545.1) Increase requested to acquire updated mobile radiological monitoring equipment to better respond to radiological events.

- (+$112.6) This is the result of minor adjustments to IT and telecommunication resources to more accurately align with Agency priorities.

- (+$36.9) This change is the net result of realigning workforce and support costs to more accurately reflect programmatic priorities.

Statutory Authority:

Atomic Energy Act of 1954, as amended, 42 U.S.C 2011 et seq. (1970), and Reorganization Plan #3 of 1970; CAA; CERCLA, SARA; Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988; Public Health Service Act, as amended, 42 U.S.C 201 et seq.; Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C 5121 et seq.; SDWA; Title X IV of the National Defense Authorization Act of 1997, PL 104-201 (Nunn-Lugar II) National Response Plan; Public Health Security and Bioterrorism Emergency and Response Act of 2002; TSCA; Oil Pollution Act; Pollution Prevention Act; RCRA; EPCRA; CWA; FIFRA; Federal Food, Drug and Cosmetic Act; FQPA; Ocean Dumping Act; Public Health Service Act, as amended; 42 U.S.C 201 et seq.; Executive Order 10831 (1970); Public Law 86-373; PRIA.

Homeland Security: Protection of EPA Personnel and Infrastructure

Program Area: Homeland Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$9,102.2	$6,199.0	$6,268.9	$69.9
Science & Technology	***$2,517.6***	***$2,050.0***	***$2,079.0***	***$29.0***
Building and Facilities	$12,936.5	$11,331.0	$11,385.1	$54.1
Hazardous Substance Superfund	$694.2	$588.0	$594.2	$6.2
Total Budget Authority / Obligations	$25,250.5	$20,168.0	$20,327.2	$159.2
Total Workyears	4.4	3.0	3.0	0.0

Program Project Description:

This program involves activities to ensure that EPA's physical structures and assets are secure and that the Agency is prepared to conduct its essential functions during an emergency or threat situation. This involves safeguarding EPA's staff, ensuring the continuity of operations and protecting the capability of EPA's vital infrastructure assets.

FY 2007 Activities and Performance Plan:

The Agency conducts nationwide vulnerability assessments at EPA's 191 facilities on a regular basis in accordance with federal mandates. In FY 2007, the Agency will conduct physical security vulnerability assessments and mitigation efforts; perform window security vulnerability assessments, engineering analyses and post mitigation analyses; ensure new construction, new leased, and major modernization projects meet physical security requirements; expand or realign existing laboratories for homeland security support activities. The Agency will also focus on retrofitting access control systems in Level 4 Laboratories in order to comply with Homeland Security Presidential Directive (HSPD) 12 – Policy for a Common Identification Standard for Federal Employees and Contractors.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Changes from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$29.0) This increase will support security at new EPA facilities.

Statutory Authority:

Public Health Security and Bioterrorism Emergency and Response Act of 2002; and Secure Embassy Construction and Counterterrorism Act (Sections 604 and 629).

Program Area: Indoor Air

Indoor Air: Radon Program
Program Area: Indoor Air
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Indoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$5,986.6	$5,159.0	$5,519.2	$360.2
Science & Technology	***$696.7***	***$429.0***	***$442.2***	***$13.2***
Total Budget Authority / Obligations	$6,683.3	$5,588.0	$5,961.4	$373.4
Total Workyears	41.0	43.3	42.9	-0.4

Program Project Description:

The Radiation and Indoor Environments National Laboratory (R&IE) in Las Vegas, Nevada is the only Federal laboratory that: 1) gives technical support to private, state, and local radon labs; 2) provides the mechanism for private radon measurement firms to obtain testing and evaluation of new radon measurement devices; 3) provides consumer protection by assuring accurate and precise radon measurements; and 4) is the only U.S. avenue to establish traceability to a nationally recognized radon standard. R&IE supports the radon program by: evaluating new radon instruments and devices; collecting samples and performing analyses for radon; and distributing radon kits and analyzing follow-up measurements for community-based environmental justice partners with a focus on tribes.

EPA has established four priority areas to double radon mitigation in new construction by 2012: EPA will build new national partnerships and increase national outreach; through state partnerships, increase the number of states, tribes, and localities with active and comprehensive radon programs; continue to work with partners to accelerate action in the marketplace to incorporate radon protection as a normal part of doing business and in conjunction with its partners, will expand scientific knowledge and technologies to support and drive aggressive action on radon.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA's radon laboratory will continue to provide ongoing measurement expertise as the only Federal lab for radon devices as well as radon support and technical tools for community-based environmental justice partners. EPA will continue to evaluate new radon instruments and devices for private radon measurement firms. As part

Performance Assessment: The Indoor Air program, assessed by OMB in 2005, received a rating of "Adequate." The program does not issue regulations, so it works toward its goal by conducting research and promoting appropriate risk reduction actions through voluntary education and outreach programs. The program will be focusing on making efficiency improvements.

of its environmental justice efforts, EPA will distribute approximately 2,500 radon kits to our network of partner organizations and community-based environmental justice partners and analyze 100% of returned radon kits.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of additional homes (new and existing) with radon reducing features	Data Avail. 06	173,000	180,000	190,000	Homes

In FY 2007, EPA expects to have 190,000 additional homes with radon reducing features (90,000 mitigations and 100,000 new homes with radon resistant new construction), bringing the cumulative number of U.S. homes with radon reducing features to 2.4 million. EPA estimates that this cumulative number will result in over 700 future premature cancer deaths prevented (each year these radon reducing features are in place).

These program goals are a result of the total funding the program area receives through EPM, S&T, and SIRG funding.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$0.8) This increase will help support EPA national radon reinvigoration activities that reduce the health risk from radon in homes, schools, and workplaces.

- (+$12.4) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CAA Amendments of 1990; (IRAA), Section 306 Radon Gas Indoor Air Quality Research Act; Title IV of the Superfund Amendments and Re-authorization Act (SARA) of 1986; Toxic Substances Control Act (TSCA), section 6, Titles II, and Title III (15 U.S.C. 2605 and 2641-2671), and Section 10.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$21,464.4	$23,137.0	$23,464.3	$327.3
Science & Technology	***$909.5***	***$810.0***	***$828.7***	***$18.7***
Total Budget Authority / Obligations	$22,373.9	$23,947.0	$24,293.0	$346.0
Total Workyears	75.1	69.2	68.9	-0.3

* Resources under the program/project were formerly captured under Indoor Air: Asthma (74), Indoor Air: Environmental Tobacco Smoke Program (75), and Indoor Air: Schools and Workplace Programs (77).

Program Project Description:

The Radiation and Indoor Environments National Laboratory (R&IE) maintains the capacity to conduct field measurements, assessments and technical support for indoor air quality remediations. R&IE also conducts training and provides technical support for development of Tribal capacity for indoor air quality programs, such as mold remediation, assessment and characterization of sources of volatiles and intruding vapors, and monitoring and measurement techniques.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will conduct several Indoor Air Quality (IAQ) intervention and remediation training courses which will continue to support development of tribal capacity for indoor air quality programs. EPA will continue conducting field measurements and assessments and providing technical support for indoor air quality remediations.

Performance Assessment: The Indoor Air Program, assessed by OMB in 2005 through the PART process, received a rating of "Adequate." The program does not issue regulations, so it works toward its goal by conducting research and promoting appropriate risk reduction actions through voluntary education and outreach programs. The program will be focusing on making efficiency improvements.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Estimated annual number of schools establishing indoor air quality programs based on EPA's Tools for Schools guidance.	3,000	2500	1200	1100	Number

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent of public that is aware of the asthma program's media campaign.	31	>20	>20	>20	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Additional health care professionals trained annually by EPA and its partner on the environmental management of asthma triggers.	3,080	2000	2000	2000	Number

The measure included in the performance table is a new measure developed during the process of completing a 2005 Program Assessment Rating Tool (PART) process; the target listed is the long-term date for reporting out results of the measure.

EPA will continue to work towards its long term 2012 goal to have 6.5 million people with asthma take the essential actions to reduce their exposure to their environmental triggers of asthma, including environmental tobacco smoke. EPA's goal is to have close to 400,000 additional people with asthma to take these actions in 2007, bringing the total number to over 4.5 million people with asthma taking these actions. As part of this goal, EPA will continue to work to reduce existing disparities between disproportionately impacted populations and the overall population.

EPA will continue to work towards its long term 2012 goal of 40,000 schools implementing effective indoor air quality management plans. In 2007, EPA aims to have an additional 1,100 schools start implementation of an effective IAQ management plan, bringing the total to over 35,000 schools implementing these plans nationwide.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$5.9) This increase will support testing costs at the National Radiation and Indoor Environments Laboratory.

- (+$12.8) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CAA Amendments of 1990; Radon Gas Indoor Air Quality Research Act; Title IV of the SARA of 1986.

Program Area: IT / Data Management / Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$84,371.1	$94,567.0	$96,807.2	$2,240.2
Science & Technology	***$4,141.3***	***$4,173.0***	***$4,268.0***	***$95.0***
Leaking Underground Storage Tanks	$108.0	$182.0	$175.9	($6.1)
Oil Spill Response	$39.5	$31.0	$32.5	$1.5
Hazardous Substance Superfund	$17,734.0	$17,053.0	$17,120.4	$67.4
Total Budget Authority / Obligations	$106,393.9	$116,006.0	$118,404.0	$2,398.0
Total Workyears	510.4	486.4	488.0	1.6

Program Project Description:

The S&T IT/Data Management program supports the development of the Agency's Enterprise Architecture and develops analytical tools (e.g., Environmental Indicators) to ensure sound environmental decision-making. The program implements the Agency's e-Government responsibilities as well as designs, develops and manages the Agency's Internet and Intranet resources including the Integrated Portal. In addition, the IT/Data Management program supports the development, collection, management, and analysis of environmental data (to include both point source and ambient data) to manage statutory programs and to support the Agency in strategic planning at the national, program, and regional levels, and provides a secure, reliable, and capable information infrastructure based on a sound enterprise architecture which includes data standardization, integration, and public access. The program manages the Agency's Quality System ensuring EPA's processes and data are of quality and adhere to Federal guidelines, and supports S&T information technology infrastructure, administrative and environmental programs, and telecommunications. These functions are integral to the implementation of Agency information technology programs and systems like the Exchange Network, the Central Data Exchange (CDX, http://www.epa.gov/cdx) and Permit Compliance System (PCS, http://www.epa.gov/enviro/html/pcs/index.html) Agency Offices rely on the IT/Data Management program and its capabilities to develop and implement tools for ready access to accurate and timely data.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to provide methods to manage the quality of its environmental data collection, generation, and use. The primary goal of the EPA Quality System is to ensure

that its environmental data are of sufficient quantity and quality to support the data's intended use. As part of the Agency's Quality System, policies and procedures have been developed to assist individual data collectors, data users, and decision makers in defining their needs for data and assessing data against these needs, and to provide EPA management with methods for overseeing the quality-related activities of their programs. Like the larger IT/Data Management efforts, the Quality System is closely coordinated with the Exchange Network and Information Security programs. This relationship ensures quality data are available and accessible to promote sound environmental decision-making.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$85.0) This reflects an increase for payroll and cost of living for existing FTE.

- (+$10.0) This resource adjustment reflects additional use of Agency's information technology infrastructure components.

Statutory Authority:

Federal Advisory Committee Act; Government Information Security Reform Action; CERCLA; CAA and amendments; CWA and amendments; Environmental Research, Development, and Demonstration Act; TSCA; FIFRA; Food Quality Protection Act; Safe Drinking Water Act and amendments; Federal Food, Drug and Cosmetic Act; Emergency Planning and Community Right-to-Know; RCRA; SARA; GPRA; GMRA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; Computer Security Act; Privacy Act; EFOIA; EPAct.

Program Area: Operations and Administration

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$317,744.7	$343,908.0	$294,760.1	($49,147.9)
Science & Technology	***$8,892.1***	***$8,511.0***	***$70,239.5***	***$61,728.5***
Building and Facilities	$32,244.5	$28,295.0	$28,430.9	$135.9
Leaking Underground Storage Tanks	$982.9	$894.0	$916.8	$22.8
Oil Spill Response	$552.1	$500.0	$499.3	($0.7)
Hazardous Substance Superfund	$65,156.8	$69,667.0	$73,944.7	$4,277.7
Total Budget Authority / Obligations	$425,573.1	$451,775.0	$468,791.3	$17,016.3
Total Workyears	364.1	437.2	438.6	1.4

Program Project Description:

S&T resources in the Facilities Infrastructure and Operations Program Project are used to fund rent, utilities, and security, and also to manage activities and support services in many centralized administrative areas such as health and safety, environmental compliance, occupational health, medical monitoring, fitness/wellness and safety, and environmental management functions at EPA. Resources for this program also support a full range of ongoing facilities management services including: facilities maintenance and operations; Headquarters security; space planning; shipping and receiving; property management; printing and reproduction; mail management; and transportation services.

FY 2007 Activities and Performance Plan:

The Agency will continue to manage its lease agreements with GSA and other private landlords by conducting rent reviews and verifying that monthly billing statements are correct. The Agency also reviews space needs on a regular basis.

These resources also help to improve operating efficiency and encourage the use of new, advanced technologies and energy sources. EPA will continue to direct resources towards acquiring alternative fuel vehicles and more fuel-efficient passenger cars and light trucks to meet the goals set by Executive Orders (EO) 13149[3], *Greening the Government through Federal Fleet*

[3] Information available at http://www.epa.gov/fedsite/eo13149.htm

and Transportation Efficiency and EO 13123[4], *Greening the Government through Efficient Energy Management*.

As a result of an ongoing review of indirect cost charging in FY 2007, the Agency is reviewing the allocation of rent, security and utilities costs among EPA's various appropriations. The largest shift is to the Science and Technology appropriation, but other appropriations' proportions have been adjusted. These changes do not result in any overall funding difference. In the past, only direct laboratory rent, security, and utilities have been included under the S&T appropriation. This methodology change will better reflect actual costs for personnel with S&T funds. Funds were moved from EPM; no S&T programs were reduced in this effort.

Lastly, EPA will provide transit subsidy to eligible applicants as directed by Executive Order (EO) 13150[5] *"Federal Workforce Transportation."* EPA will continue the implementation of the Safety and Health Management Systems to ensure a safe working environment.

Performance Targets:

Work under this program supports multiple objectives. Performance information is included in the Program Performance and Assessment section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$60,993.1) This is not an increase to the overall program, but a shift to the Science and Technology (S&T) appropriation from the Environmental Programs and Management (EPM) appropriation for rent, security, and utilities costs. This change reflects the restructuring of cost allocation methodologies. Overall funding is not affected, and no S&T programs were reduced in this effort. In the past, direct laboratory rent, security, and utilities have been included under the EPM appropriation. This methodology change will better reflect actual costs for personnel with S&T funds.

- (+$41.6) This increase will support Agency environmental management systems projects.

- (+$2.6) This reflects an increase for payroll and cost of living for existing FTE.

- (+$691.2) Provides additional resources to cover basic facilities management services in EPA's laboratories.

Statutory Authority:

FPASA; PBA; annual Appropriations Acts; CWA; CAA; D.C. Recycling Act; Executive Orders 10577 and 12598; United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Homeland Security Presidential Decision Directive 63 (Critical Infrastructure Protection).

[4] Information available at http://www.epa.gov/fedsite/eo13123.htm
[5] Additional information available at http://ceq.eh.doe.gov/nepa/regs/eos/eo13150.html

Program Area: Pesticides Licensing

Pesticides: Registration of New Pesticides
Program Area: Pesticides Licensing
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$39,321.6	$41,604.0	$39,767.6	($1,836.4)
Science & Technology	***$2,473.1***	***$2,463.0***	***$2,766.1***	***$303.1***
Total Budget Authority / Obligations	$41,794.7	$44,067.0	$42,533.7	($1,533.3)
Total Workyears	401.9	327.8	327.8	0.0

Program Project Description:

The Agency has three laboratories supporting registration activities including an Analytical Chemistry Laboratory and a microbiology laboratory at the Environmental Science Center (ESC) at Fort Meade, MD and an Environmental Chemistry Laboratory (ECL) at Stennis Space Center, Bay St. Louis, MS. The Analytical Chemistry and Environmental Chemistry laboratories validate environmental and analytical chemistry methods to ensure that the Food and Drug Administration (FDA), United States Department of Agriculture (USDA), and states have reliable methods to measure and monitor pesticide residues in food and in the environment. The laboratories provide support to EPA's enforcement programs with highly specialized pesticide chemistry services to support enforcement cases including the more difficult to analyze older pesticides. State pesticide laboratories receive technical and quality assurance support through workshops and training in pesticide analytical chemistry. Analytical methods are evaluated for:

- Potential use in detecting pesticide residues in the environment to ensure these methods are suitable for monitoring residues in soil and water;
- Enforcement for product chemistry to ensure that the labels are accurate; and
- Detecting residues in food and feed to ensure that they are suitable for monitoring and to enforce legal residue limits (tolerances).

Analytical Chemistry laboratory resources are used to operate the National Pesticide Standard Repository for pesticide analytical reference standards and to distribute the standards to Federal and state enforcement laboratories. EPA laboratories, in cooperation with industry and state and regional laboratories, develop multi-residue analytical methods to allow enforcement agencies to test for several different chemicals using one test.

The microbiology laboratory conducts post-market product performance testing of hospital disinfectants and tuberculocides, evaluates new efficacy test methods for antimicrobials, investigates new technologies and screening techniques for evaluating the product performance of antimicrobials, and provides technical support and training on testing methods and procedures.

The microbiology laboratory also validates methods used for the detection of DNA and proteins associated with plant incorporated protectants, or "PIPs" (genetically modified plants).

FY 2007 Activities and Performance Plan:

EPA's laboratories will continue to provide quality assurance and technical support and training to EPA regions, state laboratories, and other Federal agencies that implement the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The laboratories will evaluate registered products that are most crucial to infection control (sterilants, tuberculocides, and hospital-level disinfectants).

Performance Assessment: The Pesticides Registration program underwent PART review in calendar year 2002 and received a rating of "adequate." Using the logic model process, the Agency is developing new, output-oriented performance measures. EPA has consulted with State and Tribal partners throughout the development process, and the Pesticide Program Dialogue Committee, the program's federal advisory committee, is currently reviewing the proposed measures.

Under the PIP method validation program, work will continue on evaluating several novel molecular-based methods. The Microarray Research Laboratory efforts will continue research to better understand how antimicrobial pesticides work at the genetic level in hopes this will provide a faster and better way to test antimicrobials for efficacy, thus increasing efficiencies in the Antimicrobial Testing Program.

Additionally, as discussed in the program/project *Homeland Security: Preparedness, Response and Recovery*, the laboratories will continue to support Homeland Security activities such as anthrax surrogate studies and ensure the ability to provide surge capacity to respond to incidents. In addition, the laboratory will continue research on sporicidal test methods in order to formulate registration requirements for products used to remediate areas contaminated with bioterrorism agents, most notably *Bacillus anthracis*. The Homeland Security activities associated with these laboratories are discussed in more detail in the program project *Homeland Security: Preparedness, Response and Recovery*.

Performance Targets:

Some of the PART measures for this program are program outputs, which, when finalized, represent the program's statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment. Evaluating chemistry and efficacy claims allows the Agency to take regulatory or enforcement action on products which do not comply with the conditions of registration.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$47.5) This reflects an increase for payroll and cost-of-living for existing FTE.
- (+$11.7) This increase will support activities including contracts, grants, and expenses to support our environmental laboratories.

- (+$243.9) This increase will fund laboratory support for pesticide registration and reregistration activities, including quality assurance technical support and training to state FIFRA laboratories.

Statutory Authority:

PRIA; FIFRA; FFDCA; FQPA.

Pesticides: Review / Reregistration of Existing Pesticides

Program Area: Pesticides Licensing
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$49,074.7	$57,458.0	$51,814.6	($5,643.4)
Science & Technology	***$2,471.1***	***$2,480.0***	***$2,820.4***	***$340.4***
Total Budget Authority / Obligations	$51,545.8	$59,938.0	$54,635.0	($5,303.0)
Total Workyears	460.7	462.7	458.7	-4.0

Program Project Description:

Pesticide review and reregistration is supported by an Analytical Chemistry Laboratory and a microbiology laboratory at the Environmental Science Center (ESC) at Fort Meade, MD and an Environmental Chemistry Laboratory (ECL) at Stennis Space Center, Bay St. Louis, MS. These laboratories support Reregistration activities by validating environmental and analytical chemistry methods to ensure that the Food and Drug Administration (FDA), the United States Department of Agriculture (USDA), Regional offices, and states have reliable methods to measure and monitor pesticide residues in food and in the environment. The laboratories, in cooperation with industry and state and regional laboratories, develop multi-residue analytical methods to allow enforcement agencies to test for several different chemicals using one test.

Activities of the microbiology laboratory include:

- Conducting product performance testing of antimicrobials related to public health;
- Investigating new efficacy test methods for antimicrobials, including those used for Homeland Security purposes;
- Providing technical support and training on testing methods and procedures; and
- Providing method validation services for genetically modified organisms (GMO) products (plant incorporated protectants).

Additionally, the laboratories provide EPA's enforcement programs with highly specialized pesticide chemistry services to support enforcement cases, including the more difficult to analyze older pesticides, and dioxin assessments and screenings. Support is provided for screening for method development, biotechnology, and homeland security activities.

The laboratories support the following functions:

- Provide the state pesticide laboratories with technical and quality assurance support through workshops and training in pesticide analytical chemistry;
- Evaluate analytical methods for detecting pesticide residues in the environment to ensure that they are suitable for monitoring residues in soil and water;
- Evaluate enforcement analytical methods for product chemistry and product efficacy to ensure that the labels are accurate;
- Evaluate analytical methods for detecting residues in food and feed to ensure that they are suitable for monitoring, and to enforce legal residue limits (tolerances); and
- Operate the National Pesticide Standard Repository for pesticide analytical reference standards, distributing the standards to Federal and state enforcement laboratories.

FY 2007 Activities and Performance Plan:

The Agency will continue supporting the Reregistration program activities, operating the National Pesticide Standard Repository, and conducting chemistry and efficacy testing for antimicrobials. Additionally, as discussed in the program/project *Homeland Security: Preparedness, Response and Recovery*, the laboratories will continue to support Homeland Security activities such as anthrax surrogate studies and ensure the ability to provide surge capacity to respond to incidents. The Homeland Security activities associated with these laboratories are discussed in more detail in the program/project *Homeland Security: Preparedness, Response and Recovery*.

Performance Assessment: The Pesticides Registration program underwent PART review in calendar year 2004 and received a rating of "adequate." Using the logic model process, the Agency is developing new, output-oriented performance measures. EPA has consulted with State and Tribal partners throughout the development process, and the Pesticide Program Dialogue Committee, the program's federal advisory committee, is currently reviewing the proposed measures.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

Some of this program's PART performance measures are program outputs which represent statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment and when used in accordance with the packaging label present a reasonable certainty of no harm. While program outputs are not the best measures of risk reduction, they do provide a means for reducing risk in that the program's safety review prevents dangerous pesticides from entering the marketplace.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$51.5) This reflects an increase for payroll and cost-of-living for existing FTE.

- (+$288.9) This increase will support activities including contracts, grants, and the purchase of equipment and repairs at our pesticides laboratories.

Statutory Authority:
PRIA; FIFRA; FFDCA; FQPA.

Program Area: Research: Clean Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$14,472.5***	***$16,226.0***	***$12,274.2***	***($3,951.8)***
Total Budget Authority / Obligations	$14,472.5	$16,226.0	$12,274.2	($3,951.8)
Total Workyears	58.5	55.5	52.6	-2.9

Program Project Description:

Air Toxics (AT) research provides the scientific foundation that enables the Agency to fulfill responsibilities mandated by the Clean Air Act. This research seeks to increase understanding of the exposure and health risks posed by hazardous air pollutants (HAPs) and reduce uncertainty in national- and community-scale assessments as well as residual risk. Research also provides the tools (i.e., methods, models, and health hazard, exposure, and emission data) needed to identify and implement cost-effective approaches to reduce AT risks. This program addresses both indoor and outdoor environments and source categories regulated by the Agency's AT rules.

The Agency's AT research strategy and multi-year plan outline steps for meeting research needs and annual performance goals and measures for evaluating progress.[6] (R&D Investment Criteria: Relevance, Performance) EPA's Science Advisory Board (SAB), an independently chartered Federal Advisory Committee Act (FACA) committee, annually conducts in-depth reviews and analyses of EPA's S&T account.[7] (R&D Investment Criteria: Relevance, Quality, Performance) The SAB reports its findings to the House Committee on Science and EPA's Administrator. In addition, these documents have been peer reviewed by the Science Advisory Board (SAB), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry. (R&D Investment Criteria: Quality, Relevance)

FY 2007 Activities and Performance Plan:

In FY 2007, AT research will continue support for the Health Effects Institute (HEI), an independent, nonprofit corporation chartered in 1980 that partners with EPA to investigate topics including the health effects of air pollution from mobile sources and threats such as carbon monoxide, methanol and aldehydes, nitrogen oxides, diesel exhaust, ozone, and particulate air pollution. The program will complete selected ongoing research efforts in FY 2007 and

[6] EPA, Office of Research and Development, *Air Toxics Multi-Year Plan (Washington: EPA, 2003).* Available at: <http://www.epa.gov/sab/03minutes/atrsmyp072303mattach_e.pdf>

[7] The latest SAB review is: EPA, SAB, *Science and Research Budgets for the U.S. Environmental Protection Agency (EPA) for Fiscal Year 2006; An Advisory Report by the EPA Science Advisory Board (Washington: EPA, 2005).* Available at: <http://www.epa.gov/sab/pdf/science_and_res_budgets_fy-2006_sab-adv-05-002.pdf>

transition toward the Multiple Air Pollutant Program (MAPP) recommended by external reviews.[8]

Performance Targets:

Work under this program supports cleaner air. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (–$3,946.4) EPA is transitioning toward a multiple air pollutant program recommended by the National Research Council. As part of this shift, some extramural research in this program project will be discontinued, while other projects, including work on the next National Air Toxics Assessment research to support residual risk evaluations, and field studies to improve techniques used to measure organic air toxics and human exposure factors from stationary and mobile sources will be delayed. In addition, identification of options to reduce exposures and to analyze fuel and additive emissions, exposures, and health effects will be reduced.

- (–2.9 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (–$5.4) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

CAA, Radon Gas and Indoor Air Quality Research Act; Title IV of the Superfund Amendments and Re-authorization Act (SARA) of 1986.

[8] National Research Council, *Research Priorities for Airborne Particulate Matter: IV. Continuing Research Progress (Washington: National Academies Press, 2004)*. Available at: <http://books.nap.edu/catalog/10957.html>

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$19,395.9***	***$18,619.0***	***$17,456.4***	***($1,162.6)***
Total Budget Authority / Obligations	$19,395.9	$18,619.0	$17,456.4	($1,162.6)
Total Workyears	39.1	37.1	35.3	-1.8

Program Project Description:

EPA's global change research focuses on understanding the potential consequences of global change (particularly climate variability and change) on air and water quality, ecosystems, and human health in the United States. The goal of the program is to produce timely and useful information and decision support tools for resource managers and policymakers that enable them to formulate adaptation strategies to respond effectively to the risks and opportunities presented by global change. For example, the program has worked with communities and decision makers in the Great Lakes and Northeast regions to investigate the potential impact of climate change on the frequency of combined sewer overflow events, and to help them develop effective long-term control plans that will reduce the number of overflow events in future years.

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and products. The BOSC evaluated the global change program in September, 2005, and will release a draft report to the public in early 2006.

The program's activities are closely coordinated with the U.S. Climate Change Science Program (CCSP) to ensure complete consistency with CCSP's strategic plan.[9] CCSP integrates the planning and implementation of EPA's program with other participating Federal agencies to reduce overlap, identify and fill programmatic gaps, and add integrative value to products and deliverables produced under the CCSP's auspices. The Agency also maintains a global change research multi-year plan[10] that outlines steps for meeting research needs and annual performance goals and measures for evaluating progress. (R&D Investment Criteria: Relevance, Performance)

[9] Climate Change Science Program and the Subcommittee on Global Change Research, *Strategic Plan for the U.S. Climate Change Science Program*. Available at: <http://www.climatescience.gov/Library/stratplan2003/final/ccspstratplan2003-all.pdf>
[10] EPA, Office of Research and Development, *Global Change Research Program Multi-Year Plan, (Washington: EPA, 2003)*. Available at: <http://www.epa.gov/osp/myp/global.pdf>

FY 2007 Activities and Performance Plan:

In FY 2007, the program will concentrate primarily on the potential effects of global change on air quality and aquatic ecosystems. The program's top priorities include producing the three CCSP Synthesis and Assessment (S&A) reports for which EPA is the lead Federal agency (sea level rise, ecosystem adaptation, and analyses of the effects of global change on human health and welfare and human systems), and contributing to seven others. CCSP is producing 21 S&A reports by 2007-2008 on the highest priority research, observation, and decision support needs. The S&A documents EPA is responsible for must be finalized and published in 2007; one by the third quarter and the remaining two by the end of the fourth quarter. The CCSP effort responds to the President's direction that climate change research activities be accelerated to provide the best possible scientific information to support public discussion and decision making on climate-related issues. Many of the S&A reports (including two of the reports being produced by EPA) are necessary to comply with Section 106 of the Global Change Research Act of 1990.

The program will continue to make significant contributions to high-level interagency bilateral climate initiatives with China, Italy, Canada, and India. For example, EPA and the National Oceanic and Atmospheric Administration (NOAA) recently organized conferences with the governments of China and India to discuss the potential impacts of and responses to climate change. The Department of State (DOS) is coordinating Federal agencies' participation in these activities.

CCSP is increasingly emphasizing improved decision making and adaptive management ("decision support"). In step with these priorities, EPA's global change research program will work in collaboration with the National Research Council (NRC) and NOAA's Office of Global Programs to better understand the factors that determine the extent to which outcomes of given resource management decisions are climate sensitive, the extent to which altering the decision may facilitate adaptation to climate change, and the likelihood that decision support strategies could improve associated environmental outcomes.

Performance Targets:

Work under this program supports cleaner air. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$457.4) This reflects an increase for payroll and cost of living for existing FTE.

- (–$1,620.0, -1.7 FTE) This reduces computer modeling efforts related to climate change impacts on watersheds, sewer systems and coral reefs.

- (–0.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

USGCRA; NCPA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$63,156.4***	***$66,777.0***	***$65,455.6***	***($1,321.4)***
Total Budget Authority / Obligations	$63,156.4	$66,777.0	$65,455.6	($1,321.4)
Total Workyears	186.3	190.9	191.9	1.0

In FY 2006, Program/Project Research: Particulate Matter (B4) and Program/Project Research: Tropospheric Ozone (B9) were eliminated and Program/Project H6 (Research: NAAQS) established.

Program Project Description:

This research provides the scientific foundation for implementation and review of the National Ambient Air Quality Standards (NAAQS) for particulate matter (PM), tropospheric ozone, carbon monoxide, sulfur dioxide, nitrogen oxides, and lead.[11] Research focuses on PM in particular,[12] but also considers ozone (O_3) and other important co-pollutants.

The NAAQS research program develops and transfers to clients new data in atmospheric, exposure, biological, engineering, and environmental sciences. This research informs the setting of standards to protect air quality by providing insights into human susceptibility to air pollution and into specific sources and attributes of PM associated with a growing number of potential health outcomes. The program develops, among other things, products that can help inform environmental decision-making, such as tools to predict, measure, and model concentrations and emissions of air pollutants, which are directly used by states to develop and successfully implement the most cost-effective control strategies to comply with existing NAAQS. The program includes research that addresses scientific uncertainties and refines knowledge of the health risks associated with sources of PM exposure.

Air Quality Criteria Documents (AQCDs), which are prepared under the Human Health Risk Assessment Program, incorporate the improved scientific understanding gained by the NAAQS research program as part of the standard-setting process.

The research on PM conducted through the NAAQS research program is guided by a series of National Academy of Sciences reports that identify research priorities for airborne particulate matter.[13] (R&D Investment Criteria: Relevance, Quality) The program incorporates the National Academy's recommendations into its multi-year plan, which outlines steps for meeting

[11] For more information about NAAQS, visit: <http://www.epa.gov/air/criteria.html>
[12] For more information about EPA's PM research, visit: <http://www.epa.gov/pmresearch>
[13] National Research Council, *Research Priorities for Airborne Particulate Matter: IV. Continuing Research Progress (Washington: National Academies Press, 2004)*. Available at: <http://books.nap.edu/catalog/10957.html>

the needs of the program clients and the annual performance goals and measures for evaluating progress.[14] (R&D Investment Criteria: Relevance, Performance)

The Board of Scientific Counselors (BOSC), a body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and product. The BOSC evaluated the NAAQS research program in 2005 and reports that "the PM & O_3 Program directly addresses NRC (and OMB) concerns in terms of the Agency's long-term goals, the plans to meet these goals, and the ways to measure progress toward these goals. The … PM & O_3 Research Program has resulted in significant reductions in scientific uncertainty in critical areas… [T]he outputs produced by research to support these reductions in uncertainty have provided a sound basis for subsequent improvements in public health (outcomes)."[15] (R&D Investment Criteria: Relevance, Quality, Performance)

FY 2007 Activities and Performance Plan:

The Agency's NAAQS research, which is organized according to a source-to-health-outcome paradigm, is strongly tied to the high-priority PM research topics identified by the National Academy. EPA's NAAQS research focuses on the following key areas:

- Identifying profile constituents and downstream products (e.g., sulfates, nitrates, organic and elemental carbon, and metals) that link to health effects;
- Determining the hazardous components and associated biological mechanisms as linked to PM size;
- Differentiating the health effects of PM from those of other air pollutants;
- Understanding the quantitative relationship between exposure to different particles and various health effects;
- Understanding attributes of susceptibility, e.g., exposure, dose, and biological differences, that factor into response;

The NAAQS research program was reviewed as a rePART in 2005, as it received a "results not demonstrated" rating in its initial PART in 2003. The NAAQS research program received an "Adequate" rating on the 2005 PART assessment. The purpose of the NAAQS research program is to support the EPA's mandated responsibilities under the Clean Air Act to review and set national air quality standards. This includes performing investigations and research concerning specific problems of air pollution and to provide to regions, States, and Tribes (as well as appropriate air pollution control agencies) the information they need to develop appropriate and effective air pollution control strategies. OMB has accepted the program's proposed measures in the 2005 PART. OMB is recommending the following actions to improve the performance of the program: (1) improve multi-year plans, financial data tracking, and other systems to better integrate grantee and program performance with financial information; (2) develop and implement adequate, easily understood methods for calculating progress on performance measures; and (3) develop efficiency measures that assess program

[14] EPA, Office of Research and Development, *Draft Particulate Matter Research Program Multi-Year Plan (Washington: EPA, 2003).*

[15] EPA, Office of Research and Development, Board of Scientific Counselors, *Particulate Matter and Ozone Research Program (Washington: EPA, 2005).* Available at: <http://www.epa.gov/osp/bosc/pdf/pm0508rpt.pdf>

- Improving methods to measure and estimate source emissions, including understanding chemical composition;
- Developing air quality models and associated atmospheric chemistry and meteorology inputs, e.g., Community Multiscale Air Quality (CMAQ), to predict NAAQS concentrations;
- Developing and field testing ambient monitoring methods, including Federal Reference Methods; and
- Evaluating the performance of technologies that can be used to control multiple pollutants from the same source category.

The most recently awarded PM research centers, which will begin work in FY 2006, will support research in the first six areas identified above. A long-term epidemiological study of the relationship of PM exposure to cardiovascular disease will be supported as well as health effects, exposure, and atmospheric science research related to important PM sources and components. Research will also be initiated to support emerging needs such as developing new approaches to evaluate the effectiveness of Agency regulatory actions and interventions, e.g., diesel bus retrofits.

EPA is transitioning its air research to begin to incorporate the National Academy's recommended Multiple Air Pollutant Program (MAPP) approach. The Agency will carefully integrate its air research programs to provide science that optimizes the cost-effectiveness and health-effectiveness of future air quality management strategies. In FY 2006, the Research: Particulate Matter and Research: Tropospheric Ozone Programs merged to form the Research: NAAQS Program. In FY 2007, efforts will be made to improve integration between the NAAQS and air toxics research programs. A more integrated program will support select aspects of research formerly conducted in separate programs. This approach aligns with emerging Agency needs and a multi-pollutant research focus to improve the Agency's efficiency and effectiveness in reducing risks.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of NAAQS program publications rated as highly cited papers				35.7	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent progress toward completion of a hierarchy of air pollutant sources based on the risk they pose to human health.				30	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent planned actions accomplished toward the long-term goal of reducing uncertainty in the science that support standard setting and air quality management decisions.				100	Percent

FY 2007 Change from FY 2006 Enacted (Dollars in Thousands):

- (–$918.0 \ +1 FTE) This reduction impacts PM monitoring methods and emission source testing. This reduction will also impact tropospheric ozone research.

- (–$403.4) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

CAA.

Program Area: Research: Clean Water

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$46,824.0***	***$45,170.0***	***$49,242.5***	***$4,072.5***
Total Budget Authority / Obligations	$46,824.0	$45,170.0	$49,242.5	$4,072.5
Total Workyears	199.5	209.6	208.6	-1.0

Program Project Description:

The goal of the program's Drinking Water research is to develop leading-edge research products that the Water program and other clients use in implementing the 1996 Safe Drinking Water Act (SDWA) Amendments[16]. In pursuit of this goal, the research program directly supports several key elements of EPA's "Strategic Plan for Clean and Safe Water,[17]" including developing or revising standards for contaminants of concern, effectively implementing these standards, and protecting drinking water sources.

To meet the requirements of SDWA, EPA conducts an integrated, multi-disciplinary research program that is closely linked to the agency's regulatory activities and timelines. Research in the Drinking Water research program: provides new scientific data and analytical methods for identifying and evaluating the health effects of waterborne pathogens (e.g., *Cryptosporidium*, Norwalk virus) and chemicals (e.g., arsenic, disinfection byproducts) that may contaminate drinking water (assessments and methods for estimating risk to waterborne pathogens and chemicals are conducted under the Human Health Risk Assessment Program-project); and develops improved technologies for cost-effective control of these risks.

Research is guided by several research strategy documents (e.g., Microbial Pathogens/Disinfection Byproducts (M/DBPs) in Drinking Water[18] and Arsenic in Drinking Water[19]) that were developed with participation from major clients and that outline the research needs and priorities. The Agency also maintains a Drinking Water Research Program Multi-Year Plan[20] (MYP) that outlines steps for meeting these needs and annual performance goals and measures for evaluating progress. These plans were subjected to rigorous peer review and

[16] Safe Drinking Water Act Amendments of 1996, Public Law 104-182. Available through the internet: http://www.epa.gov/safewater/sdwa/sdwa.html
[17] U.S. EPA, Office of the Chief Financial Officer. *"2003 – 2008 EPA Strategic Plan: Direction for the Future."* Date of Access: January 14, 2004. Available through the internet: http://www.epa.gov/ocfo/plan/2003sp.pdf
[18] U.S. EPA, Office of Research and Development. *Research Plan for Microbial Pathogens and Disinfection By-Products in Drinking Water*. Washington, D.C.: U.S. Government Printing Office. EPA 600-R-97-122. (1997).
[19] U.S. EPA, Office of Research and Development. *Research Plan for Arsenic in Drinking Water*. Washington, D.C.: U.S. Government Printing Office. EPA 600-R-98-042. (1998).
[20] U.S. EPA, Office of Research and Development, Drinking Water Research Program Multi-Year Plan, Washington, D.C. Available through the internet: http://www.epa.gov/osp/myp.htm

address those problems deemed most pressing in the area of drinking water quality (R&D Criteria: Quality, Relevance, Performance).

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the Agency's peer review policies and research plans and products. In 2005, the Drinking Water research program underwent a program-wide review by the BOSC, who concluded that the program is "quite relevant and is focused on high quality research of national importance" and that the program's "research outputs are leading to important outcomes with respect to EPA's Water program and other clients" (R&D Criteria: Quality, Relevance, Performance).

FY 2007 Activities and Performance Plan:

In FY 2007, the Drinking Water research program will focus on the science needed to implement SDWA's requirements for the Contaminant Candidate List (CCL), safety of drinking water quality in distribution systems, and the protection of drinking water sources, while continuing to support the SDWA-mandated 6-year review of regulated contaminants.

Key products planned include:

- Report on the feasibility of surveillance methods to measure endemic drinking water associated illness;
- Syntheses of Arsenic Treatment Technology Demonstration Program results;
- A DNA microarray test for pathogen virulence and infectivity to aid discovery of previously unidentified microbes for classification and potential listing on future CCLs;
- Reports on the characterization and real-time monitoring of water quality in distribution systems;
- A Treatability Database – a web-enabled, secure database of treatability information for chemicals and pathogens providing information to the Agency for prioritization of contaminants and for Homeland Security efforts;
- Large and small system treatment technology evaluations of CCL pathogens and chemicals;
- Results from acute toxicity, carcinogenicity, and population-based health effects studies on the cyanobacterial toxins; and
- Report on public health benefits associated with improvements in drinking water treatment to reduce microbial exposures.

Performance Assessment: The drinking water research Program received an "Ineffective" rating on its first PART review in 2005. The purpose of the drinking water research program is to provide timely, leading-edge research products to support sound scientific decisions by EPA's Water program. The drinking water research program's secondary purpose is to provide research products to state and local water authorities and to the drinking water research community. EPA and OMB came to an agreement on program long-term goals and measures during the 2005 PART process. OMB suggested that EPA take the following actions to improve the performance of the program: (1) develop baselines and targets for all long-term and annual performance measures; (2) develop a performance measure to track how efficiently the program delivers its services to its primary client, the EPA Water program; and (3) improve oversight on non-grant partners and requiring non-grant partners to work towards the annual and long-term goals of the program.

A new investment in FY 2007 will support research and development of innovative approaches and technologies aimed at the growing gap in the nation's water infrastructure requirements. Deteriorated potable water infrastructure makes it difficult to meet Safe Drinking Water Act requirements, and increases the potential for waterborne disease outbreaks. The reliable and efficient functioning of America's potable water infrastructure provides massive benefits to public health, the environment, industry, homeland security, and the economy. The purpose of this initiative will be to conduct research to generate the science and engineering to evaluate promising innovative technologies and techniques to reduce the cost of operation, maintenance, and replacement of aging and failing potable water conveyance systems and move toward sustainable water infrastructure. Planned activities to be conducted in FY 2007 include:

- Research and evaluation of innovative approaches to detect, locate, characterize, and repair leakage in distribution systems;

- Research and evaluation of innovative approaches to inspect and assess the condition of high risk water mains; and

- Selected full-scale demonstration of the most promising technologies and techniques.

By conducting research in support of SDWA this research program will assist the Agency in pursuing its objective of providing, by 2008, drinking water that meets all applicable health-based drinking water standards to 95% of the population served by community water systems.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of planned outputs delivered in support of Six Year Review decisions.				100	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of planned outputs delivered in support of Contaminant Candidate List Decisions.				100	Percent

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$2,047.4) This reflects an increase for payroll and cost of living for existing FTE.

- (+$2,000.0) This increase will support innovative approaches and technologies aimed at the growing gap in the nation's water infrastructure requirements. This research will generate the science and engineering to evaluate promising innovative technologies and

techniques to reduce the cost of operation, maintenance, and replacement of aging and failing potable water conveyance systems. This reflects part of the total Water Infrastructure initiative funding of $7M. The remaining $5M resides in the Water Quality research program.

- (+$993.7) This increase will support key research products for the EPA's Water program including: a report on the public health benefits associated with drinking water treatment changes to reduce microbial exposures; reports on the characterization and real-time monitoring of water quality in distribution systems, as well as other products to support implementation of the source water protection provisions in SDWA.

- (-$968.6) This is a reduction to lower priority research to fund higher priorities within the Drinking Water Research Program.

- (-1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

SDWA; CWA; MPRSA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$46,243.2***	***$51,269.0***	***$56,988.2***	***$5,719.2***
Total Budget Authority / Obligations	$46,243.2	$51,269.0	$56,988.2	$5,719.2
Total Workyears	229.4	247.3	245.4	-1.9

Program Project Description:

Although the quality of the Nation's waters has shown improvement, threats to water quality remain and new threats continue to be identified. The adoption and implementation of watershed management approaches by states and tribes require strong standards, monitoring, Total Maximum Daily Load (TMDL) determinations, and implementation programs, including best-management practices, restoration, and TMDL watershed plans. Water quality research provides the sound science needed to implement effective watershed management approaches by developing methods to: apply criteria that support designated uses of water bodies; monitor and assess water body conditions; diagnose causes and sources of water body impairments; protect and restore water bodies; and forecast the effectiveness of protection/restoration alternatives.

Research is guided by the several research strategy documents (e.g., Landscape ecology,[21] Aquatic stressors[22]) which were developed with participation from major clients. The strategies outline the research needs and priorities. The Agency also maintains a Water Quality Research Program multi-year plan[23] (MYP) that outlines steps for meeting these needs and annual performance goals and measures for evaluating progress. (R&D Criteria: Relevance, Performance)

The Board of Scientific Counselors (BOSC), evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the Agency's peer review policies and research plans and products. The Water Quality research program will undergo review by the BOSC in January 2006.

[21] U.S. EPA, Office of Research and Development, *A National Assessment of Landscape Change and Impacts to Aquatic Resources: A 10-year Research Strategy for the Landscape Sciences Program*; EPA/600/R-00/001, Washington, D.C. 20460, January 2000. Available on the internet at: http://www.epa.gov/nerlesd1/land-sci/pdf/157leb00.pdf

[22] U.S. EPA, Office of Research and Development, *Aquatic Stressors: A Framework and Implementation Plan for Effects Research,* 2002. EPA 600/R-02-074.

[23] U.S. EPA, Office of Research and Development, *Water Quality Research Program Multi-Year Plan*, Washington, D.C. Available on the internet at: http://www.epa.gov/osp/myp.htm

FY 2007 Activities and Performance Plan:

Performance Assessment: The Water Quality research program has been proposed for a PART review in FY 2006. The program has begun developing outcome-based performance measures in order to

In FY 2007, EPA research on diagnostic methods will continue to focus on the causes and sources of aquatic ecosystem impairment. Specifically, this research will provide the scientific foundation and information management scheme for an integrated 305(b)/ 303(d) process for assessing, listing, and reporting water quality conditions, including a classification framework for surface waters, watersheds, and regions to guide problem formulation. In addition, the program will develop field-oriented approaches to establish biocriteria for a range of designated uses, including determination of ecological needs for water availability and quality ("fishability," "ecological integrity") and potential for preserving or restoring waterbody uses.

As EPA directs and informs the efforts of the states to adopt nutrient criteria for individual waterbodies, research is required to identify nutrient responses based on geographic region, waterbody type, and designated use. Research on responses of coastal receiving waters will be emphasized in 2007, generating and refining models that address the ecological responses to nutrient loads for a range of estuary types.

Studies will be conducted on the transport and control of contaminants from land-based practices, including agricultural operations and land-use conversions, that reach the environment through surface runoff or leaching to ground water, and the effectiveness of best-management practices in mitigating such transfers.

Research on wetlands will develop a hierarchical assessment approach to address the objectives of the President's initiative to preserve and restore wetlands, and to augment the current no-net-loss policy by incorporating wetlands functions and impacts on water quality. Comparison of natural and constructed wetlands to determine how seasonal changes in hydrologic regime, stressor load, and upland land use affect the functioning of these systems will inform the protection and restoration of wetlands.

To provide more efficient monitoring and diagnostic tools, research will continue to develop methods of using landscape assessments for monitoring and assessing watershed conditions. Models to determine likelihood of impairment will be integrated with monitoring to assess condition to develop optimal monitoring strategies that support integrated assessment and reporting (305(b)/303(d)). Research on the integration of economic data and ecosystem services will lead to better understanding of both the costs and benefits of alternative ways to achieve water quality.

To minimize the public health risks from swimming and other recreational water activities, research will specifically focus on both developing techniques to reduce wet weather flow (WWF) impacts and providing data to support the development of scientifically sound criteria for protecting recreational waters. Guided by the "EPA Action Plan for Beaches and

Recreational Waters"[24] and the Beaches Act of 2000, EPA is performing a suite of epidemiological studies to establish a strong, defensible link between rapid water quality indicators and swimming-associated health effects. Research will address the need to predict water quality indicators and health risks associated with short-term (meteorological) and longer-term (storm-water infrastructure and land-use management) determinants of recreational and coastal water quality, and the effectiveness of mitigation measures, with an emphasis on concurrent mitigation of multiple stressors.

A new investment in FY 2007 will support research and development of innovative approaches and technologies aimed at the growing gap in the nation's water infrastructure requirements. Deteriorated wastewater infrastructure makes it difficult to meet Clean Water Act requirements, and increases the potential for waterborne disease outbreaks, fish kills, loss of biodiversity and habitat, sewer backups and overflows. The reliable and efficient functioning of America's wastewater infrastructure provides massive benefits to public health, the environment, industry, and the economy. The purpose of this initiative is to generate the science and engineering to evaluate promising innovative technologies and techniques to reduce the cost of operation, maintenance, and replacement of aging and failing wastewater conveyance systems and move toward sustainable water infrastructure. Additional work on this initiative is supported under the Research: Drinking Water program.

Planned activities to be conducted in FY 2007 include:

- Research and evaluation of inspection, condition assessment, and cost estimating tools for existing collection systems;

- Investigation of advanced design concepts for wastewater collection systems that reduce construction costs and increase carrying capacity and storage capabilities;

- Research and evaluation of performance and cost of innovative repair, rehabilitation, and replacement technologies and procedures for wastewater collection systems; and

- Evaluation of novel techniques to improve performance and extend service life of existing wastewater systems by addressing problems associated with factors such as: sediments; fats, oils, and grease; pH; corrosion, etc.

Performance Targets:

Work under this program supports cleaner and safer water. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

[24] U.S. EPA, Office of Research and Development, Office of Water. EPA Action Plan for Beaches and Recreational Waters.Washington, D.C.: U.S. Government Printing Office. EPA 600-R-98-079. (1999). Available through the internet at: http://www.epa.gov/ord/WebPubs/beaches/600r98079.pdf S&T - 68

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$5,000.0) This increase will support the research and development of innovative approaches and technologies aimed at the growing gap in the nation's wastewater infrastructure requirements. This will generate the science and engineering to evaluate promising innovative technologies and techniques to reduce the cost of operation, maintenance, and replacement of aging and failing wastewater conveyance systems and move towards sustainable water infrastructure. This reflects part of the total Water Infrastructure initiative funding of $7M. The remaining $2M resides in the Drinking Water research program.

- (+$2,788.5 / +0.2 FTE) These resources will focus on the effects of multiple stressors on wildlife populations in spatially diverse landscapes and research on the associations between land characteristics and water quality conditions used to target more comprehensive monitoring of the causes of water quality degradation. This work will also address concerns regarding the risk posed by the levels of pathogens, hormones, and chemical toxics in livestock manure released from concentrated animal feeding operations (CAFOs).

- (+$228.6) This reflects an increase for payroll and cost of living increases for existing FTE.

- (-$2,297.9) This is a reduction to lower priority research to fund higher priorities within the Water Quality Research Program.

- (-2.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

CWA; ODBA; SPA; CVA; WRDA; WWWQA; MPPRCA; NISA; CZARA; CWPPRA; NAWCA; FIFRA; TSCA; ESA.

Program Area: Research: Human Health and Ecosystems

Human Health Risk Assessment

Program Area: Research: Human Health and Ecosystems
Goal: Healthy Communities and Ecosystems
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$33,247.5***	***$35,637.0***	***$34,488.5***	***($1,148.5)***
Hazardous Substance Superfund	$3,848.8	$3,755.0	$3,847.2	$92.2
Total Budget Authority / Obligations	$37,096.3	$39,392.0	$38,335.7	($1,056.3)
Total Workyears	177.9	184.0	183.9	-0.1

Program Project Description:

Human health risk assessment is a process where information is analyzed to determine if an environmental hazard might cause harm to exposed persons (National Research Council, 1983). Risk assessment is extensively used by EPA programs, regions, and other parties to determine the threshold levels of environmental contaminants that are unlikely to pose a human health hazard, to develop regulatory standards, and to manage environmental cleanups.

Three complementary areas comprise the risk assessment program:

Integrated Risk Information System (IRIS) and other health hazard assessments: Peer reviewed, qualitative, and quantitative health hazard assessments are prepared on environmental pollutants of major relevance to EPA's regulatory mandates. These assessments are used by EPA's program and regional offices to support their decision-making, and also disseminated to the public, principally on the IRIS internet database.[25] IRIS is widely used throughout EPA and the risk assessment/risk management community as the premier source of hazard and dose-response information for environmental pollutants. As of FY 2005, there are over 500 health hazard assessments available through IRIS. (R&D Criteria: Quality, Relevance)

Risk assessment guidance, methods and model development: Improved risk assessment guidance, methods, and models are developed to enhance the quality and objectivity of assessments through the incorporation of contemporary scientific advances for use in decision-making by EPA programs and regional offices. These scientific products are externally peer reviewed and disseminated through the published literature, EPA web-sites, and incorporation in IRIS assessments. (R&D Criteria: Quality, Relevance)

Air Quality Criteria Documents (AQCDs): Congress requires that EPA regularly summarize the state-of-the-science on the criteria air pollutants – ozone, particulate matter, sulfur and nitrous oxides, carbon monoxide, and lead – to assist EPA's air and radiation programs in

[25] Available at: <http://www.epa.gov/iris>

determining the National Ambient Air Quality Standards (NAAQS). These summaries, AQCDs, are major risk assessments that undergo rigorous external peer review by the Clean Air Scientific Advisory Committee (CASAC). (R&D Criteria: Quality, Relevance)

This research program is guided by the Human Health Risk Assessment Multi-Year Plan[26] (MYP), which provides detail on the assessment and methods development products planned under this program/project. The MYP also outlines the research needs and priorities. Performance outputs and outcomes are documented in the MYP through annual performance goals and annual performance measures structure. The MYP also coordinates with a number of EPA research strategies and plans[27] (e.g., Human Health Research Plan, Asthma Research Strategy, Particulate Matter and Ozone MYPs) to obtain the information necessary to inform risk assessment outputs, and hence programmatic decision-making needs.

FY 2007 Activities and Performance Plan:

Principal activities of relevance to the assessment of human health risks in FY 2007 will include:

- Completing 16 health hazard assessments of high priority chemicals for interagency review or external peer review, including (but not limited to) acrylonitrile, methanol, methylene chloride, trichloroethylene, and tetrachlorodibenzo-p-dioxin; (R&D Criteria: Quality, Relevance, Performance)

- Delivering a final AQCD for Lead (Pb) which serves as the basis for the EPA Air Quality Program paper for the NAAQS; (R&D Criteria: Relevance, Performance) and,

- Delivering external review draft AQCDs for Sulfur Dioxide and Nitrogen Oxides for CASAC peer review. (R&D Criteria: Relevance, Performance)

Risk assessment methods development in 2007 will:

- Deliver an external review draft report on central estimates and uncertainty bounds in dose-response analysis - current techniques, alternatives, and decision parameters for application to risk assessment, thereby advancing risk-based decision-making through the incorporation of data-informed uncertainty parameters; (R&D Criteria: Relevance, Performance)

- Provide approaches to harmonization of uncertainty factors for cancer and non-cancer risk assessment; (R&D Criteria: Relevance, Performance) and,

- Provide guidance on how to interpret human bladder tumor results and immuno-suppression information in the context of human health risk assessment of environmental pollutants. (R&D Criteria: Relevance, Performance)

[26] U.S. EPA, Office of Research and Development, Human Health Risk Assessment Multi-Year Plan (2005).
[27] Available at: <http://www.epa.gov/ord/htm/researchstrategies.htm#rs01>

In FY 2007, the Agency is proposing to enhance the risk assessment process through incorporating additional peer review and consultation for high impact and scientifically controversial risk assessments. In particular, very difficult and complex assessments may be provided to the National Academy of Sciences (NAS) for consultation or review. Expansion of peer review to the NAS will directly improve the quality, objectivity, and utility of information disseminated by EPA. (R&D Criteria: Quality, Relevance)

Performance Targets:

Work under this program supports community and ecosystem protection. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$500.0) This increase to the human health risk assessment program will support the development and use of high-impact EPA health hazard assessments by providing peer review and consultation by the NAS, and by increasing opportunities for review by other federal agencies and the public. Chemicals likely to be sent to the NAS for review include very difficult and complex assessments such as formaldehyde and trichloroethylene.

- (-$736.5) The NCS is being realigned to the Human Health research program to better reflect the nature of the research which focuses on health effects to infants and children. There will be no change in purpose.

- (-$676.3) Reduces funding to Agency-wide risk assessment guidance and involvement in interpreting risks associated with children's risk assessment and with biotechnology.

- (-$235.7) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (-1.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

CAA; SDWA; CWA; TSCA; FIFRA; CERCLA; SARA; FQPA.

Research: Computational Toxicology
Program Area: Research: Human Health and Ecosystems
Goal: Healthy Communities and Ecosystems
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$12,002.9***	***$12,327.0***	***$14,983.1***	***$2,656.1***
Total Budget Authority / Obligations	$12,002.9	$12,327.0	$14,983.1	$2,656.1
Total Workyears	19.9	36.8	34.3	-2.5

Program Project Description:

EPA's Computational Toxicology Research Program (CTRP) has three objectives: 1) improving the linkages in the source-outcome paradigm; 2) providing tools for screening and prioritization of chemicals under regulatory review; and 3) enhancing quantitative risk assessment. The National Center for Computational Toxicology (NCCT) was specifically created to play a critical coordination and implementation role in these activities across the agency.

A peer reviewed Framework for a Computational Toxicology Research Program[28] has been developed. The framework identifies the research needs and unique capabilities of EPA and provides the basis for a more focused and integrated research program in the future.

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and products. A standing subcommittee of the BOSC has been established to provide guidance to the newly formed NCCT. In April 2005, this subcommittee met to review the proposed directions for the NCCT. Their report is available on the BOSC website (http://epa.gov/osp/bosc/subcomm-ctox.htm). The report was highly favorable of the early efforts of the NCCT, and encouraged its further development. A formal response was prepared and submitted to EPA and the BOSC. The NCCT is currently drafting an implementation plan for its research program, which will be submitted to the BOSC for review and comment in 2006. (R&D Criteria: Quality)

FY 2007 Activities and Performance Plan:

Research programs funded for a three-year period through a competitive process in FY 2004 will be completed, and allow for expansion of the NCCT and CTRP in four key focal areas in FY 2007: 1) Information technology; 2) chemical prioritization and categorization tools; 3) systems biology models; and 4) cumulative risk assessment. (R&D Criteria: Relevance)

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28 U.S. EPA, Office of Research and Development. *A Framework for a Computational Toxicology Research Program. Washington, DC: EPA.* Accessed August 4, 2005. Available on the Internet: http://www.epa.gov/comptox/publications/comptoxframework06_02_04.pdf

Information Technology: New technologies are needed to mine existing data for patterns to place new chemicals of unknown hazards appropriately in the context of existing data. In addition, new technologies will allow the integration of data from different domains of toxicology and newer "omics" experiments to look beyond traditional means for classifying chemicals. (R&D Criteria: Relevance) As a result, more chemically annotated, publicly available datasets will be posted on the internet through the Distributed Structure-Searchable Toxicity Database project (DSSTox). (R&D Criteria: Performance)

Chemical Prioritization and Categorization Tools: Having the capability to predict which chemicals are in greatest need of toxicology testing, and what endpoints would be the most important to examine, is a pressing problem for multiple regulatory offices in EPA. Knowledge of key steps in the potential mechanisms of action of a chemical provides a template for developing models for these predictions. Moreover, the ToxCast program which was initiated in FY 2006 will be obtaining high throughput screening data on 200-400 chemicals of know toxicological profiles. Fingerprints of biological activity associated with differing toxicological profiles will be developed from this database, which is being developing in conjunction with the NIH Molecular Libraries Initiative (R&D Criteria: Relevance). Examples of outputs in this area include:

- Constructing *in silico* models for identifying chemicals that can interact with steroid hormone (e.g., estrogen and androgen) receptors; (R&D Criteria: Performance)

- Providing alternative assays for the Endocrine Disruptor Screening Program that will reduce the numbers of animals required for screening; (R&D Criteria: Performance) and

- Integrating information from a variety of data sources that can provide indications of the similarity of chemicals to interact with biological systems being developed and implemented to support the needs of the Program Offices. (R&D Criteria: Performance)

Systems Biology Models: Modeling now plays a crucial role in practically all areas of biological research. Systems models integrate information at all levels of organization and aid in bridging the source-to-outcome paradigm and in conducting quantitative risk assessments (R&D Criteria: Relevance). In FY 2007 the CTRP will:

- Provide standards for developing, documenting, archiving, and accessing quantitative mathematical models that will foster both the development and linkages of these models, and their regulatory acceptance; (R&D Criteria: Performance)

- Utilize systems modeling approaches for the latest biological, chemical, and exposure data for quantitative risk assessment; (R&D Criteria: Performance) and

- Developing guidance on best practices for the construction, analysis and reporting of toxicological models that link pharmacokinetic information with the dynamic responses of target organs.

Cumulative Risk Assessment: Computational tools offer the potential to reducing uncertainties in cumulative risk by focusing on aspects of data compilation, integration, and analysis (R&D Criteria: Relevance).

The CTRP will explore mathematical approaches to the analysis of the effects of dietary exposure throughout the day to pesticides that act via the same mechanism (e.g., the methyl carbamates and pyrethroids). (R&D Criteria: Performance) Research will also build conceptual frameworks that consider how biomonitoring data can be used to characterize cumulative risk and how psychosocial factors can be incorporated into cumulative risk assessments using tools of the new field of visual analytics. These new tools offer the promise of integrating different types of data representing physical, chemical, and psycho-social aspects and that are proposed to be collected in the National Children's Study. (R&D Criteria: Performance) The CTRP will also be working with the Center for Environmental Bioinformatics, established through the Science to Achieve Results (STAR) program, to enhance predictive linkages between the components of the source-outcome paradigm.

Performance Targets:

Work under this program supports community and ecosystem protection. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$2,178.2) This increase will support research to implement a biologically-based system to reduce the uncertainty in the prioritization and categorization of chemicals for classical toxicological testing, add a number of new toxicological databases to the distributed structure-searchable toxicity (DSSTox) system, and develop computational models of biological processes relevant to the induction of toxicity for high priority environmental contaminants. As a result of this increase, the Agency will be less reliant on default assumptions for risk assessments and able to accurately characterize the true uncertainty associated with risk predictions for various chemical classes (e.g., EDCs, HPVs).

- (+$477.9) This reflects an increase for payroll and cost of living for existing FTE.

- (-2.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

TSCA; FIFRA; FQPA; SDWA.

Research: Endocrine Disruptor

Program Area: Research: Human Health and Ecosystems
Goal: Healthy Communities and Ecosystems
Objective(s): Enhance Science and Research

Goal: Compliance and Environmental Stewardship
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$12,559.5***	***$10,494.0***	***$9,081.2***	***($1,412.8)***
Total Budget Authority / Obligations	$12,559.5	$10,494.0	$9,081.2	($1,412.8)
Total Workyears	58.0	54.8	54.8	0.0

Program Project Description:

Research in direct support of EPA's screening and testing programs (mandated under the Food Quality Protection Act (FQPA) of 1996 and the Safe Drinking Water Act Amendments[29] (SDWAA) of 1996) will evaluate current testing protocols and develop new protocols to evaluate potential endocrine effects of environmental agents. Research will assist decision makers in working toward reducing and preventing exposure of humans and ecosystems to endocrine disruptors that pose an unreasonable risk.

Research is guided by the Research Plan for Endocrine Disruptors, which was developed with participation from major clients and outlines research needs and priorities.[30] The Agency also maintains a multi-year plan (MYP)[31] for Endocrine Disruptors that outlines steps for meeting these needs, as well as annual performance goals and measures for evaluating progress. (R&D Criteria: Quality, Performance)

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and products. In December 2004, the Endocrine Disrupting Chemicals (EDCs) research program underwent a program-wide review by a subcommittee of the BOSC, who commended the progress and direction of the research and provided recommendations for further partnerships.[32]

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[29] SDWA Section 1457
[30] U.S. EPA, Office of Research and Development, *Research Plan for Endocrine Disruptors (Washington, DC. 1998).* .
Available at: <http:// *www.epa.gov/ord/htm/documents/ORD-EDR-Feb1998.pdf*>
[31] U.S. EPA, Office of Research and Development, *Multi-Year Plan for Endocrine Disruptors (Washington, DC. 2003).*
Available at: <www.epa.gov/osp/myp/edc.pdf>
[32] U.S. EPA, Office of Research and Development, EDC Research Program Review, (Washington, DC, 2004).
Available at: <http://www.epa.gov/osp/bosc/pdf/edc0504rpt.pdf>

FY 2007 Activities and Performance Plan:

Performance Assessment: In FY 2003, the EDC research program received an overall rating of "adequate" from OMB's PART review. Supporting the Office of Prevention, Pesticides and Toxic Substances by providing screening and testing tools for EDCs is one of several outcome-based performance measures developed and accepted by OMB.

In FY 2007, EPA will continue to develop and evaluate innovative DNA microarray and other state-of-the-art analytical methods for EDCs. EPA's endocrine disruptors research program has developed and refined assays, and improved other screening tools using genomics and high-speed computing capabilities so that the Agency has the necessary protocols to validate for use in the Endocrine Disruptors Screening Program. Using genomics and related approaches in the continued development of improved molecular and computational tools that can be used to prioritize chemicals for screening and testing is within the "Understanding Complex Biological Systems" category highlighted as a priority for Federal investment by the Office of Management and Budget (OMB) and Office of Science and Technology Policy (OSTP)[33]. Other important areas of research to be conducted in FY 2007 include:

- Applying computational and molecular approaches to develop models that predict a chemical's ability to cause endocrine disruption;
- Compiling a report on the development of high throughput screens for EDCs;
- Continuing to study the ability of conventional wastewater treatment and drinking water treatment processes to remove EDCs;
- Increasing emphasis on studying concentrated animal feeding operations (CAFOs) as possible sources of EDCs to the environment;
- Developing tools for examining environmental and human exposures to EDCs through a variety of pilot programs; and,
- Determining the degree to which effects of EDCs with defined mechanisms of action can be extrapolated across classes of vertebrates leading to reduced animal testing.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Improved protocols for screening and testing				6	Reports

[33] FY 2007 Administration Research and Development Budget Priorities memo by J.Marburger and J. Bolten; July 8, 2005.

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Effects and exposure milestones met				4	Reports

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Assessment milestones met					Reports

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Risk management milestones met				3	Reports

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$10.3) This reflects an increase for payroll and cost of living for existing FTE.

- (-$1,423.1) This reflects a reduction of extramural support for research focusing on the effects of multiple EDCs, major sources of EDC exposure, and approaches for managing risks from EDCs.

Statutory Authority:

CAA; ERDDA; FIFRA; TSCA; FQPA; SDWA; CWA; RCRA; CERCLA; PPA.

Research: Fellowships

Program Area: Research: Human Health and Ecosystems
Goal: Healthy Communities and Ecosystems
Objective(s): Enhance Science and Research

Goal: Compliance and Environmental Stewardship
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$14,476.8***	***$11,691.0***	***$8,383.0***	***($3,308.0)***
Total Budget Authority / Obligations	$14,476.8	$11,691.0	$8,383.0	($3,308.0)
Total Workyears	2.3	2.8	2.8	0.0

Program Project Description:

To ensure an educated and trained scientific workforce for the future, EPA offers five fellowship programs that encourage promising students to obtain advanced degrees and pursue careers in environmentally related fields.

Science to Achieve Results (STAR) Fellowship Program:[34] EPA provides stipends, tuition assistance, and research support to graduate students in environmentally-related fields for up to three years. In addition to providing quality research to EPA, fellows agree to maintain contact with the Agency for at least five years after graduation.

Greater Research Opportunities (GRO) Fellowship Program:[1] EPA provides stipends, tuition assistance, and research support to undergraduate and graduate students in environmentally-related fields for up to two (undergraduate) or three (graduate) years. The GRO program serves higher education institutions that receive less than $35 million annually in Federal science and engineering funds[35] to create opportunities for minorities and less-privileged students. In addition to providing quality research to EPA, fellows agree to maintain contact with the Agency for at least five years after graduation.

Environmental Science and Technology (EST) Fellowship Program:[36] In conjunction with the American Association for the Advancement of Science (AAAS), EPA hosts post-doctoral students for up to two years at EPA headquarters. Fellows work independently with support from Agency mentors on projects of their own design that advance the use of science in decision making.

[34] For more information, visit: <http://es.epa.gov/ncer/fellow>
[35] As determined by the National Science Foundation. NSF, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions: Fiscal Year 2002 (Arlington: NSF, 2005).* Available on the Internet at: <http://www.nsf.gov/statistics/nsf05309/>
[36] For more information, visit: <http://fellowships.aaas.org/01_About/01_Partners.shtml#EPA>

Environmental Public Health (EPH) Fellowship Program:[37] In conjunction with the Association of Schools of Public Health (ASPH), EPA places graduates from public health programs in its research laboratories and centers for up to two years to conduct projects that relate to EPA's public health mission.

EPA Marshall Scholarship Program:[38] In conjunction with the British Marshall Scholarship program, EPA will offer three scholarships for U.S. students to undertake graduate environmental studies. The program will give priority to students whose work focuses on environmental problems of a global or international nature. Supported by the British government, scholars will spend two years at a British university. Students may then continue their graduate work for up to three years to obtain a doctoral degree, either in the United Kingdom or U.S., with EPA support.

EPA is the only Federal agency that provides higher education assistance and career development in the environmental sciences. (R&D Investment Criteria: Relevance) The Agency encourages applicants to choose research projects that align with EPA's research priorities. (R&D Investment Criteria: Relevance) Fellowships are awarded through a competitive, merit-based process that incorporates external peer review of candidates. (R&D Investment Criteria: Quality)

FY 2007 Activities and Performance Plan:

EPA will award new STAR, GRO, EST, and EPH fellowships and support the second and third years of fellows initially funded in Fiscal Years 2005 and 2006. The first EPA Marshall Scholars will begin British-supported studies in 2005 and continue with EPA support in FY 2007. Fellowship recipients will complete progress and exit reports, and the Agency will maintain contact information and follow-up data on former fellows. (R&D Investment Criteria: Performance)

Performance Targets:

Work under this program supports community and ecosystem protection. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$47.3) This reflects an increase for payroll and cost of living for existing FTE.

- (–$3,355.3) This reduction reflects the discontinuation of directed FY 2006 funding for the STAR fellowships program. This reduction will affect approximately 37 graduate students pursuing environmentally-related degrees.

[37] For more information, visit: <http://www.asph.org/document.cfm?page=751&JobProg_ID=1>
[38] For more information, visit: <http://www.marshallscholarship.org/applicationepa.html>

Statutory Authority:

CAA; CWA; FIFRA; NCA; RCRA; SDWA; TSCA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$169,805.8***	***$167,703.0***	***$161,312.7***	***($6,390.3)***
Total Budget Authority / Obligations	$169,805.8	$167,703.0	$161,312.7	($6,390.3)
Total Workyears	520.4	509.8	509.3	-0.5

Program Project Description:

The Agency conducts human health and ecosystems research to: 1) identify and characterize environment-related human health problems and determine exposures to and sources of agents responsible for these health concerns; and 2) understand the condition of ecosystems, the stressors changing that condition, the consequences of those changes, and how to prevent, mitigate, or adapt to those changes. The Human Health and Ecosystems Program also supports mercury research, research on indicators to support the Agency's Report on the Environment (ROE), advanced monitoring research, nanotechnology research, and exploratory research.

Research is guided by the *Human Health Research Strategy*[39], *Ecological Research Strategy*[40] and the *Environmental Monitoring and Assessment Program (EMAP) Research Strategy*[41], which were developed with participation from major clients (e.g., program offices and regions). These strategies outline the programs' research needs and priorities. Under this program project, several multi-year plans (MYPs)[42] (e.g., human health, ecological research, mercury) convey research priorities and approaches for achieving goals and objectives. MYPs outline the steps for meeting client research needs, as well as annual performance goals and measures for evaluating progress. The Human Health research program and the Ecological research program both underwent successful Board of Scientific Counselors (BOSC) reviews in March of 2005.

FY 2007 Activities and Performance Plan:

Human Health Research

In FY 2007, EPA will support research to derive a commonly accepted set of principles defining how mode of action information can be used in chemical risk assessments, particularly as it relates to extrapolation between animals and humans and from high to low dose. Such research will inform the re-evaluation of acceptable levels of arsenic in drinking water, as well as the risk

[39] U.S. EPA, Office of Research and Development. *Human Health Research Strategy*. Washington, DC: EPA. Accessed August 8, 2005. Available on the Internet: http://www.epa.gov/nheerl/humanhealth/HHRS_final_web.pdf
[40] For additional information, please go to: http://www.epa.gov/ord/htm/documents/eco.pdf
[41] U.S. EPA, Office of Research and Development, *EMAP Research Strategy (Washington: EPA)*. For additional information, please go to http://www.epa.gov/emap/html/pubs/docs/resdocs/EMAP_Research_Strategy.pdf
[42] For additional information, please go to: http://www.epa.gov/osp/myp

assessments of cancer and non-cancer effects of conazole fungicides. Additional research efforts will be initiated to develop emerging molecular methods and approaches and identify critical toxicity pathways for characterizing effects of chemicals (such as particulate matter and brominated disinfection by-products) on human health.

Performance Assessment: The human health research program received an "Adequate" rating on its first PART assessment in 2005. The PART found that the program's research results are being used to reduce uncertainty in risk assessment, but the program needs more data and clearer long-term targets to show that it is making continued progress. EPA is taking the following actions to: (1) improve the program's ability to link budget resources to performance; (2) develop ambitious long-term performance targets that clearly define a successful program and promote continued improvement; and (3) implement follow-up recommendations from a recent independent expert review.

Research on intervention and prevention strategies will ultimately reduce human risk associated with exposures to single and multiple environmental stressors, including chemical exposure in schools. Other research related to children's health includes efforts to identify the key factors influencing children's exposures to environmental toxicants by lifestage, and to produce high quality children's exposure data to reduce current uncertainties in risk assessment. EPA will continue to collaborate with the Children's Centers, which are establishing long-term birth and school age cohorts that follow participants over many years to consider the full range of developmental consequences of exposure to environmental chemicals. Additionally, the Children's Centers are tracking the wide range of exposure concentration at multiple stages of development to evaluate the relationships between distribution of exposure and observed effects.

Cumulative risk research will develop approaches for using exposure, biomarker, and pharmacokinetic data in cumulative risk assessments. (R&D Criteria: Performance) Other human health research will focus on physiological and biochemical changes that result from aging, which will be used as a basis for understanding potential susceptibility to environmental stressors. This research will also determine if older individuals are exposed differentially to environmental stressors. (R&D Criteria: Performance)

Public health outcomes research will report on the results of proof-of-concept studies undertaken with Regional offices to develop approaches to evaluate actual public health outcomes for risk management decisions. (R&D Criteria: Performance)

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and products. In the 2005 BOSC review, the review panel stated "the research of the human health research program is of high quality and appropriately focused, it is multidisciplinary, yet coherent and coordinated, and the research benefits from managerial excellence across all aspects of the program."[43]

[43] *Report of the Subcommittee on Health*, revised July 27, 2005, Board of Scientific Counselors, pg 9. For additional information please go to: http://www.epa.gov/osp/bosc/pdf/hh0507rpt.pdf

Ecological Research

The Ecological Research Program is comprised of three primary elements: (1) Condition assessment and accountability research including EMAP, (2) Tool and methodology development (primarily for causal diagnostics and environmental forecasting), including ReVA, and (3) Ecological Services and Restoration research, including RePLUS.

A component of the *EMAP Research Strategy*[44] is the National Coastal Assessment (NCA) and its contributions to the third National Coastal Conditions Report (NCCR3), which will be released in FY 2007. In addition to an assessment of the current biological condition of the nation's coastline, NCCR3 will include an analysis of the trends of condition of the mid-Atlantic and Gulf of Mexico coastline for the period 1993-2004.

A number of major efforts in EMAP will be completed in 2006, including the estuarine portion of the National Coastal Assessment (NCA) and wadeable streams portion of the Western EMAP (WEMAP). Resources for these efforts will be refocused into other EMAP continuing research efforts, including condition assessment research in the Central Basin Integrated Assessment, coastal wetlands, and programs to develop and refine environmental indicators (R&D Criteria: Relevance). Other efforts include diagnostic research relating measured ecological condition and landscape models to estimate condition in locations without direct measurements. One EMAP research area that will be expanded is the use of assessments in environmental decision-making in concert with non-environmental information (e.g., socioeconomic issues, demographic issues, etc.). Results from WEMAP, NCA, and the National Streams Survey reporting efforts will be used to guide the development of monitoring frameworks for other aquatic ecosystems (R&D Criteria: Relevance).

The Regional Vulnerability Assessment (ReVA) program extends environmental assessments at the regional scale by using integrative technologies to predict future environmental risk in order to support decision-making. In FY 2007 EPA will continue research to evaluate the effectiveness of restoration options for aquatic ecosystems, with particular emphasis on options for the Mid-Atlantic Region and the western United States (R&D Criteria: Performance).

Performance Assessment: The ecological research program was reviewed as a rePART in 2005 and received an "ineffective" rating. The PART found that the program collaborates and coordinates with related programs, but that it lacks ambitious targets for some of its long-term and annual performance measures. The program is taking the following actions to: (1) refine the questions used in independent scientific reviews; (2) develop a program specific customer survey; and (3) improve ability to link budget resources to annual and long-term performance targets by requesting and reporting human health research and ecosystem research funding as separate program projects (beginning in the FY 2008 budget request).

In an effort to prepare for the recent FY 2005 PART review and respond to OMB's three R&D Investment Criteria (Quality, Relevance, and Performance) the Ecological Research program was reviewed in FY 2005 by the Board of Scientific Counselors (BOSC). The review panel stated "the potential benefits of the Ecological Research Program's research to the public are evident and clearly articulated". The panel also stated that the "results of Ecological research program are relevant and of direct use to states and tribes in protecting and restoring ecological

[44] For additional information please go to: http://www.epa.gov/emap/html/pubs/docs/resdocs/resstrat02.html

resources."[45] During the next program review, the BOSC will re-evaluate the program using the newly developed long-term measures developed through the PART process, which will provide a more specific assessment of program progress.

Indicators Research to support the Report on the Environment (ROE)

In FY 2007, the Agency will continue its research in support of the triennial ROE. The ROE is working to shift beyond EPA's historic reliance on indicators of reduction in exposure to more direct outcome measures, while maintaining emphasis on the identification, development, and application of existing and future indicators that extend EPA's ability to assess environmental condition and progress.

Nanotechnology and Exploratory Research

In FY 2007, the Agency will continue its exploratory grants program, which funds investigator-initiated projects that address emerging environmental issues. Exploratory grants will be awarded to address the implications of manufactured nanoparticles on human health and the environment, including toxicity, fate and transport, and life cycle impacts. The Agency will conduct new intramural nanotechnology research consistent with the findings of the President's Council of Advisors on Science and Technology (PCAST) review of the National Nanotechnology Initiative (NNI) at five years,[46] which recommended further study of the environmental and health implications of nanotechnology. (R&D Investment Criteria: Relevance, Performance). Additional research will include nanoparticles' reactivity with other elements and their byproducts, bio-persistence, and transport and fate. Research will also investigate nanotechnology's potential to improve environmental measurement and monitoring and its potential to enhance control and remediation technologies.

Advanced Monitoring (AMI) Effort

In 2007, the Advanced Monitoring Initiative (AMI) will continue to bring together information technology advancements with advances in remote sensing and in situ monitoring. EPA and its partners will continue to integrate socioeconomic, human health, and ecosystem databases and models, to monitor the health of humans and the environment over greater expanses, in less time, and more cost-effectively than ever before, supporting decision-making processes that provide clear societal benefits in the near term. This effort is linked with the interagency U.S. Global Earth Observations (US GEO) initiative and with the international community through the Global Earth Observation System of Systems (GEOSS) program.

[45] *Report of the Subcommittee on Ecological Research*, April 1, 2005 – revised August 19, 2005, Board of Scientific Counselors, pg 7. For additional information please go to: http://www.epa.gov/osp/bosc/pdf/eco0508rpt.pdf

[46] Executive Office of the President, Office of Science and Technology Policy, President's Council of Advisors on Science and Technology, *The National Nanotechnology Initiative at Five Years: Assessment and Recommendations of the National Nanotechnology Advisory Panel (OSTP: Washington, 2005).* Available at: http://www.ostp.gov/PCAST/PCASTreportFINAL.pdf

Mercury Research

In FY 2007, mercury research will focus on supporting effective implementation of the new Clean Air Mercury Rule (CAMR)[47] and on evaluating the rule's effectiveness. Research will seek to improve understanding of the effectiveness of the "cap and trade" strategy contained in the CAMR. This will be accomplished by analyzing power plant emissions of mercury and the species of mercury using source continuous emission monitors. The program will also seek to reduce uncertainties about the cost and performance of various alternative emission control devices that could be installed by utility companies as they consider how to implement the CAMR provisions.

The mercury research program will also aim to better understand the relationship between emissions reductions resulting from CAMR and changes in mercury concentrations in the environment. The program will include collaborative research with interested stakeholders to jointly design approaches to site mercury monitors optimally so they produce data that will address the scientific questions of greatest interest to federal and state policy officials. The mercury research program's activities are guided by a multi-year research plan.[48]

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of states using a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of national programs and policies.				30	States

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of planned outputs delivered in support of public health outcomes long-term goal.				100	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of planned outputs delivered in				100	Percent

[47] For more information, visit: <http://www.epa.gov/air/mercuryrule>

[48] EPA, Office of Research and Development, *Mercury Research Multi-Year Plan (Washington: EPA, 2003).* Available at: <http://www.epa.gov/osp/myp/mercury.pdf>

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	support of mechanistic data long-term goal.					

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of planned outputs delivered in support of aggregate and cumulative risk long-term goal.				100	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of planned outputs delivered in support of the susceptible subpopulations long-term goal.				100	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Average time (in days) to process research grant proposals from RFA closure to submittal to EPA's GAD, while maintaining a credible and efficient competitive merit review system				292	Average Days

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$3,000.0) This increase supports expansion of the Agency's nanotechnology research. This research aims to generate the underlying science needed to better understand and predict the potential implications of nanoparticle releases to the environment and their fate and transport, which may potentially result in exposure to human health and ecosystems. It also seeks to identify how nano-scale science can be responsibly used for beneficial environmental applications (e.g., improved sensors, control/remediation options). Research will also study how releases of nanoparticles are measured, protocols for waste handling and disposal that take nanoparticles into consideration, and how nanoparticles used for environmental remediation may affect human health. This research will directly support activities in the Agency's program and regional offices.

- (-$5,000.0) This decrease is due to the program's lack of progress in developing adequate performance measures as assessed in the Program Assessment Rating Tool (PART). This decrease will reduce support for the Environmental Monitoring and Assessment Program (EMAP).

- (-$1,625.2) This reduction will impact research on the use of mechanistic information in risk assessment, aggregate and cumulative risk, and public health outcomes that was determined to be of relatively lower importance.

- (-$1,344.1) This reflects a net reduction of directed FY 2006 STAR funding.

- (-$931.3, +3.8 FTE) This change is the net result of technical adjustments of workyears, and associated workforce and support resources to more accurately align with Agency research priorities, including realignment of resources for library subscriptions management from the Facilities, Infrastructure and Operations program directly into the research program.

- (-$489.7) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (-4.3 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities. Although fewer FTE will be available to provide human health research, the program is using data collected from its recent assessment of resource skills needs to ensure that there will not be a negative impact to the program.

Statutory Authority:

CAA; SDWA; ERDDA; CWA; FIFRA; FFDCA; RCRA; FQPA; TSCA.

Program Area: Research: Land Protection

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$10,257.6***	***$11,606.0***	***$10,552.8***	***($1,053.2)***
Leaking Underground Storage Tanks	$699.3	$634.0	$651.3	$17.3
Oil Spill Response	$841.0	$838.0	$903.1	$65.1
Hazardous Substance Superfund	$23,322.6	$22,927.0	$21,963.9	($963.1)
Total Budget Authority / Obligations	$35,120.5	$36,005.0	$34,071.1	($1,933.9)
Total Workyears	138.9	135.4	142.8	7.4

Program Project Description:

Research performed under this program supports scientifically defensible and consistent decision-making for Resource Conservation and Recovery Act (RCRA) waste management and corrective action by providing a tested multimedia modeling system and technical support to those who use the model to make environmental decisions. Research and support within this program addresses resource conservation, corrective action, hazardous waste treatment, multimedia modeling, landfills, leaching, containment systems, and landfill bioreactors.

Research is guided by the long term *Waste Research Strategy*[49], which was developed with participation from major clients and outlines research needs and priorities. These research efforts are guided by multi-year plans (MYPs)[50], developed with input from across the Agency, which outline steps for meeting the needs of the Research and Development program's clients and for evaluating progress through annual performance goals and measures. Specific human health risk and exposure assessments and methods are discussed and conducted under the Human Health Risk Assessment Program.

EPA requested an independent review of a major component of this program by the Science Advisory Board (SAB). The SAB evaluated the Multimedia, Multi-pathway, Multi-receptor

[49] EPA, Office of Research and Development, *Waste Research Strategy (Washington: EPA)*. For additional information please go to: http://www.epa.gov/ord/htm/documents/wastepub.pdf

[50] For additional information, please go to: http://www.epa.gov/osp/myp
The *Waste Research Strategy* outlines the research needs and priorities at the time it was prepared. To guide these research efforts as progress is made and new needs emerge, EPA develops multi-year research plans that are revised periodically. EPA is currently merging the Contaminated Sites and RCRA Multi-Year Plans (MYPs) into one cohesive Land Research MYP, with input from across the Agency, to ensure research conducted continues to support the Agency's mission to protect human health and the environment.

Exposure and Risk Assessment (3MRA) modeling system[51] and in its report of November 2004, concluded that:

- 3MRA is ready to be used for national exit level analyses;
- By including additional exposure pathways (e.g. vapor intrusion, dermal exposure), and additional treatment options, 3MRA can be used for site-specific assessments; and
- 3MRA can be upgraded easily as technology advances because the Framework for Risk Analysis in Multimedia Environmental Systems (FRAMES) architecture makes it very adaptable.

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and products. The Land Protection and Restoration research program was reviewed by the BOSC in FY 2006 (December, 2005) and findings will be reported to the Agency in the 2nd quarter of 2006.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Land Research and Restoration program is scheduled for PART review in FY 2006. The program has begun developing and refining outcome-based performance measures in order to demonstrate results.

In support of EPA's Resource Conservation Challenge (RCC), a major national effort to reduce waste and conserve natural resources by promoting the use of recycled products, EPA will continue to develop effective options for minimizing waste, and for assessing the performance of waste minimization programs through multimedia risk assessments (R&D Criteria: Performance). In FY 2007, utilizing its multimedia modeling risk assessment methodologies, EPA's research and development program will provide an estimate of the benefits realized (i.e., reduction in risk to human and ecological receptors) in reducing priority chemicals waste streams (R&D Criteria: Relevance, Performance). EPA also will continue to collaborate with the private sector to conduct field sampling, and with the states to optimize operations and monitoring of several landfill bioreactors and determine their potential to provide alternative energy in the form of landfill gas while increasing the nation's landfill capacity (R&D Criteria: Relevance, Performance). The Association of State and Tribal Solid Waste Management Officials (ASTSWMO) helps transfer research results on landfill bioreactors to the states (R&D Criteria: Relevance), who issue the permits under the recent Research, Development, and Demonstration (RD&D) rule.

[51] *EPA's Multimedia, Multipathway, and Multireceptor Risk Assessment (3MRA) Modeling System; A Review by the 3MRA Review Panel of the EPA Science Advisory Board* EPA-SAB-05-003. For more information please go to: http://www.epa.gov/sab/pdf/sab_05_003.pdf

Performance Targets:

Work under this program supports restoring land. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$179.6) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (-$873.6) This reflects a decrease to work in the RCRA research program, including performance evaluation of landfill liners and covers.

- (-0.8 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the agency better align resources, skills, and Agency priorities.

Statutory Authority:

SWDA; HSWA; SARA; CERCLA; RCRA; OPA; BRERA.

Program Area: Research: Sustainability

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$2,465.6***	***$2,361.0***	***$2,494.6***	***$133.6***
Total Budget Authority / Obligations	$2,465.6	$2,361.0	$2,494.6	$133.6
Total Workyears	2.4	3.0	3.0	0.0

In FY 2006, Program/Project Research: Pollution Prevention (B6) was eliminated and Program/Projects Research: Economics and Decision Sciences (EDS) (H7) and Research: Sustainability (H8) established.

Program Project Description:

Economics and Decision Sciences (EDS) research is designed to improve EPA's decision making, cost-benefit analyses, and implementation strategies.[52] EDS research focuses on areas such as:

- How people value their health and the environment;
- Corporate and consumer environmental behavior;
- Market mechanisms and incentives; and
- Information disclosures, e.g., how the public and markets respond to publicizing institutional environmental behavior.

Protecting the environment depends not only on understanding the health and ecological effects of environmental change, but also human and organizational environmental behavior. EDS is designed to meet this critical need. Since its inception, the EDS program has produced dozens of published, peer-reviewed articles that have contributed to the field of environmental decision making and been used in crafting state and Federal environmental policies. For example, EPA's agency-wide guidelines for cost-benefit analyses cite 10 peer-reviewed, academic articles sponsored by the EDS program.[53] (R&D Criteria: Quality)

Research is guided by the Environmental Economics Research Strategy (EERS),[54] research strategy, which was developed with participation from our major clients and was reviewed by independent experts.[55] The strategy outlines the research needs and priorities. The Agency also

[52] For more information, visit: <http://es.epa.gov/ncer/science/economics>
[53] EPA, Office of the Administrator, *Guidelines for Preparing Economic Analyses, (Washington: EPA, 2000).* Available on the Internet at: <http://yosemite.epa.gov/ee/epa/eed.nsf/webpages/Guidelines.html/$file/Guidelines.pdf>
[54] EPA, *Environmental Economic Research Strategy, (Washington: EPA, 2005).* Available on the Internet at: <http://www.epa.gov/ord/htm/documents/econresearch.pdf>
[55] EPA, Science Advisory Board, Advisory Panel on the Environmental Economics Research Strategy, *Review of the Environmental Economics Research Strategy of the U.S. Environmental Protection Agency (Washington: EPA, 2004).* Available on the Internet at: <http://www.epa.gov/sab/pdf/sab_04007.pdf>

maintains a Multi-Year Plan (MYP) [56] that reflects the priorities identified in the recently-released EERS and outlines steps for meeting these needs, as well as annual performance goals and measures for evaluating progress. (R&D Criteria: Quality, Relevance, Performance)

FY 2007 Activities and Performance Plan:

In FY 2007, Economics and Decision Science research will focus on benefit transfer methods and better understanding and designing practical trading programs. These two areas are important to EPA's program offices and have broad application to the Agency's regulatory work.

Economic valuation is a high priority in the EERS (and the draft Ecological Benefits Assessment Strategic Plan) and improving benefit transfer methods is a related high priority research need. Benefit transfer methods are the techniques used to transfer benefit numbers from an existing study to a policy analysis. The techniques are used in virtually all economic analyses performed by the Agency. In FY 2007, research efforts will seek to develop methodological advances in benefit transfer relying primarily on existing datasets, which would enable faster delivery of research results. These results would fill a critical need for the Agency to conduct accurate benefit transfers.

Another focus in FY 2007 will be the design of trading programs. Programs such as the sulfur dioxide trading program have been remarkably successful, but that success has not always transferred to other trading programs, especially those that are local or are in new areas. There is a need across many offices to better understand how to design practical trading programs for local and new markets. For example, there are numerous water quality trading programs in the context of Total Maximum Daily Loads, but actual trades in these programs tend to be rare. Other similar areas are pesticide trading and local air pollution trading. Research will be conducted on a series of case studies to identify the causes for success or failure for the trading programs. These results could be used to immediately inform the ongoing design of similar trading programs and bring about a more effective and innovative way to solve environmental pollution problems.

EPA's most frequent use of economic research is as a basis for economic analyses for environmental regulations and other policies. Economic principles are also playing an increasingly important role in the design of implementation strategies, such as marketable pollution permit trading as an alternative to traditional regulation. EPA has also begun to use economic research to explain and predict individual or corporate environmental behavior in response to voluntary programs, incentives, regulations or sanctions.

[56] EPA, Office of Research and Development, *Draft Economic, Social, and Behavioral Science Research Program Multi-Year Plan (Washington: EPA, 2001).*

Performance Targets:

Work under this program supports compliance and environmental stewardship. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$182.9) This reflects an increase for payroll and cost of living for existing FTE.
- (-$49.3) This is a technical adjustment of program support resources to more accurately align with Agency research priorities, and to cover increases in fixed costs.

Statutory Authority:

CAA; CWA; PPA; RCRA; SDWA; SARA; TSCA.

Research: Environmental Technology Verification (ETV)
Program Area: Research: Sustainability
Goal: Compliance and Environmental Stewardship
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$3,364.9***	***$2,990.0***	***$0.0***	***($2,990.0)***
Total Budget Authority / Obligations	$3,364.9	$2,990.0	$0.0	($2,990.0)
Total Workyears	6.2	4.7	0.0	-4.7

Program Project Description:

The Environmental Technology Verification (ETV) program[57] verifies the performance of environmental technologies that address high-priority, high-risk environmental issues. The ETV Program operates as a public-private partnership through agreements between EPA and private nonprofit testing and evaluation organizations. These organizations work with EPA technology experts to create efficient and quality-assured testing procedures that verify the performance of innovative technologies. These technologies are submitted voluntarily by private industry, which cite ETV's findings to support claims about a product's capabilities. ETV only verifies the performance of commercial-ready technologies, allowing the program to respond to the immediate needs of the environmental technology market. ETV operates using centers and one pilot program covering a broad range of environmental technology categories, and has verified over 300 environmental technologies since 1995. An active community of nearly 800 collaborating stakeholders assist the centers in developing protocols for testing, prioritizing the types of technologies to be verified, and designing and implementing outreach activities to the customer groups they represent.

Through this program, EPA supports the stakeholder process that identifies technology categories and vendors for verification, conducts outreach to vendors via trade conferences and industry publications, provides program oversight, and provides technical and QA support to the centers, thus ensuring that the data obtained meet EPA's data quality standards. The vendor pays for the remainder of the program's costs, including test plan development, testing, data analysis, reporting, and any vendor- or product-specific verification expenses. In some cases, a third party such as a state or another Federal agency contributes towards vendors' shares of the costs. EPA and its partner centers work to facilitate these arrangements as they arise.

ETV also supports state, national, and international efforts to address environmental issues with technological solutions. States use ETV data and protocols to shorten site-specific pilot testing of technologies, and some require verification of technologies used to comply with state and Federal pollution laws. The ETV program's operating procedures and the testing protocols it

[57] For more information, visit: <http://www.epa.gov/etv>

produces serve as peer-reviewed standards for the international and business communities on how to verify different types of environmental technologies.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA funding for the verification centers will be discontinued. Workforce and associated resources will be shifted to the sustainability research program where they will continue to provide in-kind programmatic and technical oversight, and quality assurance/quality control of the partner centers' verifications.

Performance Targets:

Work under this program supports compliance and environmental stewardship. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$2,170.1) ETV will move to a fully vendor-and other collaborator-paid program with an EPA commitment to provide 'in-kind" technical and QA oversight. In addition to shifting a larger portion of the cost of verification to vendors (as appropriate), the program, largely through the efforts of its centers, will obtain funding and in-kind support from organizations interested in collaborating with ETV. This will allow EPA ETV to leverage its technical expertise against the technical, monetary, and capital resources provided by these collaborators and its center partners. Ultimately, this shift will enable the program to verify technologies in an increasingly cost-effective and relevant manner, allowing the program to build strategic relationships that support common environmental goals.

- (-$689.7) This decrease represents a shift in payroll resources to the sustainability program project to support to support redirected workyears.

- (-$130.2, - 4.7 FTE) ETV staff moved to the sustainability program project will continue to provide in-kind programmatic and technical oversight, and quality assurance/quality control of the program's verification activities. This redirection of work years is consistent with EPA's Research and Development program's long term human capital priorities.

Statutory Authority:

CAA; CWA; FIFRA; PPA; RCRA; SDWA; SARA; TSCA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$36,354.6***	***$25,803.0***	***$21,404.9***	***($4,398.1)***
Hazardous Substance Superfund	$501.0	$292.0	$0.0	($292.0)
Total Budget Authority / Obligations	$36,855.6	$26,095.0	$21,404.9	($4,690.1)
Total Workyears	111.1	76.2	77.3	1.1

In FY 2006, Program/Project Research: Pollution Prevention (B6) was eliminated and Program/Projects Research: Economics and Decision Sciences (EDS) (H7) and Research: Sustainability (H8) established.

Program Project Description:

Sustainable and preventive approaches to health and environmental problems have increasingly become the agency's focus since the Pollution Prevention Act of 1990. Sustainable approaches require innovative design and production techniques that minimize or eliminate environmental liabilities; integrated management of air, water, and land resources; and changes in the traditional methods of creating and distributing goods and services. In addition to conducting research related to human health and environmental threats, EPA is committed to promoting sustainability—achieving economic prosperity while protecting natural systems and quality of life. Specific sustainability research areas include:

- *Pollution Prevention Tools*:[58] This research creates tools that the public and private sectors use to improve environmental decision making. For example, the P2 Tools program will develop new Life Cycle Impact Assessment (LCIA) analytical techniques that are cost effective, take less time to complete, and provide high priority life cycle benchmark data.

- *Small Business Innovation Research (SBIR) Program*:[59] As required by the Small Business Act as amended,[60] EPA sets aside 2.5% of its extramural research budget for contracts to small businesses to develop and commercialize new environmental technologies.

- *National Environmental Technology Competition (NETC)*:[61] The People, Prosperity, and the Planet (P^3) Award[62] is a student competition to develop solutions to sustainability challenges.

[58] For more information, visit: <http://www.epa.gov/ord/NRMRL/std/sab>
[59] For more information, visit: <http://es.epa.gov/ncer/sbir>
[60] U.S. Public Law 219. 79th Congress, 2nd session, 22 July 1982. *Small Business Innovation Development Act of 1982.* More information is available on the Internet at: <http://thomas.loc.gov/cgi-bin/bdquery/z?d097:s.881:>
[61] For more information, visit: <http://www.epa.gov/etop/netc>
[62] For more information, visit: <http://es.epa.gov/ncer/p3>

- *Sustainable Environmental Systems (SES)*:[63] The SES program develops methodologies for understanding and managing large, complex environmental systems such as metropolitan areas and watersheds.

EPA is drafting a new sustainability research strategy and Multi-Year Plan. In the interim, research will be guided by the agency's Pollution Prevention Research Strategy[64] and draft Multi-Year Plan.[65]

FY 2007 Activities and Performance Plan:

Performance Assessment: In 2003, the Pollution Prevention research program underwent a PART assessment and received an overall rating of "Results Not Demonstrated". The program will continue to work with OMB on finalizing the appropriate measures for the program as we proceed with collecting the data needed to show program results.

Sustainability is a priority for water infrastructure if the Nation is to meet the challenges of an aging infrastructure. The Shepherd Creek Watershed Management Project in Cincinnati, Ohio is an effort to test the effectiveness of a market-based incentive as a tool to manage storm water run-off in urban watersheds. Urban storm water run-off is a well known environmental problem because it mobilizes pollutants, causes combined sewer overflows, and scourers streams resulting in ecological damage. The incentive will take the form of a voluntary auction where individual land owners will bid on a lease to establish on-site, on-property run-off control best management practices such as rain barrels and rain gardens. The project plan calls for the auction to be held during 2006 and the establishment of the best management practices by the start of 2007. The management system will be fully operational in 2007 including an extensive network for ecological, hydrological, and water quality monitoring to quantitatively assess the effectiveness of the process.

In FY 2007, the Pollution Prevention Tools research area will begin developing the foundation for an indicator model, GREENSCOPE that will be used to evaluate a particular reaction or process for its sustainability value with respect to the environment, energy, efficiency, and economics. This direct evaluation will allow for variant comparisons of industrial processes by normalizing the results and will allow one to choose the most sustainable process. This "what-if" approach will help to guide research efforts, save resources, and eliminate chemical waste from exploratory research. As bench processes are scaled up, these same effects should be realized as green industrial processes.

In FY 2007, the People, Prosperity, and Planet (P3) Award will support up to 50 student design projects from around the country, focusing on challenges in areas such as materials and chemicals, energy, resources, and water. In the spring, teams will be invited to bring their designs to Washington, D.C., to compete for the P3 Award. Winners of the P3 Award will be

[63] For more information, visit: <http://www.epa.gov/ord/NRMRL/std/seb>
[64] EPA, Office of Research and Development, *Pollution Prevention Research Strategy (Washington: EPA, 1998).* Available on the Internet at: <http://www.epa.gov/ord/htm/documents/p2.pdf>
[65] EPA, Office of Research and Development, *Draft Pollution Prevention and New Technologies for Environmental Protection Multi-Year Plan (Washington: EPA, 2003).*

eligible for additional funds from EPA to match contributions from industry or non-governmental organizations to help further develop the design, implement the project in the field, and move the design to the marketplace.

Performance Targets:

Work under this program supports compliance and environmental stewardship. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$130.2, +4.7 FTE) This reflects the redirection of workforce and associated costs from the ETV program to support research on sustainability. Resources will provide technical oversight and quality assurance activities related to technology verifications conducted in FY 2006 as well as program evaluation efforts. EPA's commitment to provide "in-kind" technical and QA support for vendor paid verifications supporting sustainability research will continue in 2007 with sustainability evaluation criteria incorporated into the technology verifications.

- (-$2,668.6, -3.0 FTE) This reflects an adjustment for Small Business Innovation Research (SBIR). Enacted funding levels for this program project include the amount EPA is required to set aside for contracts to small businesses to develop and commercialize new environmental technologies. This adjustment is necessary because the SBIR set aside, at this point in the budget cycle, is redistributed to other research programs in the President's Budget request. After the budget is enacted, when the exact amount of the mandated requirement is known, the funds will be transferred to the SBIR program in this program project.

- (-$1,000.0) This reduction reflects discontinuation of the Collaborative Science and Technology Network for Sustainability (CNS) grants program. CNS projects use science at a regional scale to inform decision-making related to long-term sustainability of resources, including water, air, land, materials, energy, and ecosystems.

- (-$560.4) This reduction to CC&T research will discontinue research funding for efforts such as the development of less toxic chemicals for use in the metal finishing industry and cost effective environmental improvements to mine waste run-off.

- (-$299.3) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (-0.6 FTE) This decrease reflects a change in EPA's management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

CAA; CWA; FIFRA; PPA; RCRA; SDWA; SBA; SARA; TSCA.

Program Area: Toxic Research and Prevention

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	***$28,276.0***	***$30,357.0***	***$26,223.7***	***($4,133.3)***
Total Budget Authority / Obligations	$28,276.0	$30,357.0	$26,223.7	($4,133.3)
Total Workyears	133.3	123.4	122.2	-1.2

Program Project Description:

The Pesticides and Toxics research program is a multidisciplinary program that examines risks resulting from exposure to pesticides and toxic chemicals. The research is designed to support the Agency's efforts to reduce current and future risks to the environment and to humans by preventing and/or controlling the production of new chemicals that pose unreasonable risk, as well as assessing and reducing the risks of chemicals already in commerce. This research complements work conducted under the Human Health and Ecosystem Research, the Human Health Risk Assessment, and the Endocrine Disruptor programs. The development and validation of methods and assessments for predicting risks to human health are conducted under the Human Health Research and the Human Health Risk Assessment programs. The development and validation of methods and assessments for predicting risks from pesticides and toxic substances to human health and ecosystems are conducted under the Pesticides and Toxics research program. (R&D Criteria: Relevance)

Research is guided by the Biotechnology Research Strategy[66] and the Wildlife Research Strategy,[67] both of which were developed with participation from major clients (e.g., EPA's Prevention, Pesticides and Toxic Substances program and the Regional Offices). The strategies outline the research needs and priorities. The Agency also maintains a Safe Pesticides/Safe Products (SP2) multi-year plan (MYP)[68] that outlines steps for meeting these needs, as well as, annual performance goals and measures for evaluating progress.

[66] U.S. EPA, Office of Research and Development. *Biotechnology Research Strategy*. Washington, DC: EPA. Accessed August 8, 2005. Available at: <http://www.epa.gov/nheerl/publications/files/biotechnology_research_program_4_8_05.pdf>

[67] U.S. EPA, Office of Research and Development, *Wildlife Research Strategy (Washington: EPA)*. Available at: <http://www.epa.gov/nheerl/publications/files/wildlife_research_strategy_2_2_05.pdf>

[68] U.S. EPA, Office of Research and Development, Safe Pesticides/Safe Products Multi-Year Plan (Washington: EPA, 2003). Available at: <http://www.epa.gov/osp/myp/safecomm.pdf>

FY 2007 Activities and Performance Plan:

In FY 2007, research will continue to focus on the following four major goals of the pesticides and toxics research program:

Providing predictive tools for prioritization and enhanced interpretation of exposure, hazard identification, and dose-response information: This research will develop/validate: 1) predictive biomarkers of neurotoxic effects for major classes of pesticides, 2) alternative test methods for the hazard identification of developmental neurotoxicants, 3) virtual chemical screening methods for risk-based prioritization and ranking needs for chronic non-cancer effects, and 4) quantitative structure activity relationships (QSARs) to relate various structural descriptions of molecules to toxicity endpoints. EPA will use the results of this research to make decisions about which chemicals should undergo more definitive toxicological testing by industry and, subsequently, to help interpret the industry-submitted data for use in risk assessments. The two extramural Environmental Bioinformatic Research Centers that were awarded in FY 2006 will continue to be supported and will work collaboratively with EPA to develop and apply novel computational approaches to integrate data from genomics, proteomics, and metabonomics studies. Integrating data from genomics and related approaches is consistent with the "Understanding Complex Biological Systems" category highlighted as a priority for Federal investment by the Office of Management and Budget (OMB) and Office of Science and Technology Policy (OSTP)[69]. (R&D Criteria: Relevance, Quality, Performance)

Creating the scientific foundation for probabilistic risk assessment methods to protect natural populations of birds, fish, and other wildlife: This research directly supports Agency efforts to assure that endangered species are protected from pesticides while making sure farmers and communities have the pest control tools they need. Four key components of this research are: 1) extrapolation among wildlife species and exposure scenarios of concern, 2) population biology to improve population dynamics in spatially-explicit habitats, 3) models for assessing the relative risk of chemical and non-chemical stressors, and 4) models to define geographical regional/spatial scales for risk assessment. Methods for characterization of population-level risks of toxic substances to aquatic life and wildlife will also be developed. Results of this research will help the Agency meet the long term goal of developing scientifically valid approaches for assessing spatially-explicit, population-level risks to wildlife populations from multiple stressors. (R&D Criteria: Relevance, Quality, Performance)

Providing the scientific underpinnings for guidance to prevent or reduce risks of human environments within communities, homes, and workplaces: Research in biotechnology will improve the capability to assess the ecologic risks associated with genetically modified organisms (GMOs) and will provide preliminary tools for risk management. Development of methods to assess the potential allergenicity of genetically engineered foods will continue to be supported. Tools for characterizing community and meso-scale exposures associated with the use of agricultural pesticides will be developed (Spray Drift). Research will examine human risks resulting from the transport of pesticides and associated degradants from source waters through conventional drinking water treatment plants and then through the distribution systems

[69] FY 2007 Administration Research and Development Budget Priorities memo by J. Marburger and J. Bolten: July 8, 2005.

to the end users. Research designed to provide updated tools for asbestos risk assessments will be completed in 2007. (R&D Criteria: Relevance, Quality, Performance)

Providing strategic scientific information and advice concerning novel or newly discovered hazards: The mechanisms by which perfluoroctane sulfonate (PFOS) causes developmental toxicity in a laboratory animal model will be characterized. Research examining the potential for selected perfluorinated chemicals to degrade to perfluorooctanoic acid (PFOA) and/or it's precursors in the environment will continue. New protocols to assess risk to non-target plant species from high potency herbicides will be developed. (R&D Criteria: Relevance, Quality, Performance)

Performance Targets:

Work under this program supports community and ecosystem protection. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$26.1) This reflects an increase for payroll and cost of living for existing FTE.

- (-$4,159.4, -1.2 FTE) This reflects a decrease to various lower priority research projects as defined by the program's aforementioned multi-year research plans and research strategies. The decrease will impact biotechnology, collaborative and risk-related research efforts while the program continues to demonstrate progress toward its research goals.

Statutory Authority:

FQPA; FIFRA; TSCA; CWA; CAA.

Program Area: Water: Human Health Protection

Drinking Water Programs
Program Area: Water: Human Health Protection
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$94,559.1	$95,656.0	$99,121.0	$3,465.0
Science & Technology	***$3,326.0***	***$3,092.0***	***$3,243.1***	***$151.1***
Total Budget Authority / Obligations	$97,885.1	$98,748.0	$102,364.1	$3,616.1
Total Workyears	582.1	588.6	583.9	-4.7

Program Project Description:

These resources provide technical support to drinking water programs through the Technical Support Center (TSC), which evaluates engineering and scientific data, collects and evaluates contaminant occurrence data, evaluates treatment technologies, develops and evaluates monitoring approaches and analytical methods, and develops and disseminates treatment plant performance improvement mechanisms to affect development and implementation of National Primary Drinking Water Regulations that ensure the safety of drinking water. The Center also provides external technical assistance in support of EPA Regional and state drinking water programs. (See http://www.epa.gov/safewater/ for more information.)

FY 2007 Activities and Performance Plan:

In FY 2007, the drinking water technical support program will:

- Provide technical and scientific support for the development and implementation of drinking water regulations;

- Continue to implement EPA's Drinking Water Laboratory Certification Program. This program sets standards and establishes methods for Agency, state, and privately-owned labs that are analyzing drinking water samples. Through this program, EPA will also conduct three regional program/laboratory reviews;

- Support small systems' efforts to optimize their treatment technology under the drinking water treatment Area Wide Optimization Program (AWOP). AWOP is a highly successful technical assistance and training program that enhances the ability of small systems to meet existing and future microbial, disinfectant, and disinfection byproducts standards. By the end of 2007, EPA expects that 30 states will be working with the Agency to establish, strengthen, and enhance AWOPs. EPA will complete the disinfection byproduct distribution system performance based training pilot;

- Manage the implementation of Unregulated Contaminant Monitoring Rule(s) (UCMR2);

- Support the Partnership for Safe Water, a national voluntary collaborative effort between the water industry and EPA to pursue optimization of the drinking water treatment infrastructure to maximize public health protection; and

- Provide analytical method development/validation to enable implementation of the Nation's compliance-monitoring and occurrence data gathering.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent population served by community water systems in compliance with health based drinking water standards.* *This measure is a long-term PART measure for the Drinking Water programs under the STAG appropriation. This program is scheduled for an initial PART review in FY 2006.	88.5	93	93	94	% population

The Technical Support Center (TSC) will provide technical and scientific support for the development and implementation of drinking water regulations. In FY 2007, the TSC will assist in the development of tools for states and water utilities to use in implementing Stage 2 of the Disinfection Byproducts and Long-Term 2 Enhanced Surface Water treatment rules;

The vast majority of the nation's community water systems will provide drinking water that meets all health-based standards, progress in line with EPA's 2008 target of 95%.

EPA continues to work to achieve this target and to accurately reflect the many public health benefits such as reducing acute illnesses linked to microbiological contaminants or longer-term health problems related to exposure from contaminants that are achieved through safe drinking water.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$5.4) This increase will enhance technical and scientific support of the National Primary Drinking Water Regulations.

- (+$145.7) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

SDWA; CWA.

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Science and Technology

Air Toxics **1, 2, 7, 8, 13, 15, 18, 22, 24, 64, 65**
Air Toxics and Quality **1, 2, 8, 13, 15, 18, 22, 24**
Civil Enforcement **31**
Clean Air **1, 8, 9, 13, 15, 18, 21, 22, 24, 27, 38, 45, 47, 63, 64, 69, 84, 101**
Clean Air Allowance Trading Programs **1, 8**
Clean Water **2, 73, 80**
Climate Protection Program **1, 2, 26, 27**
Compliance **30, 51, 91, 94, 110, 113, 115**
Computational Toxicology **87**
Congressionally Mandated Projects **4**
Decontamination **3**
Drinking Water **2, 6, 34, 36, 52, 74, 75, 76, 77, 80, 81, 91, 124, 125**
Drinking Water Programs **2, 6, 124**
Endocrine Disruptor **88, 91, 92, 120**
Endocrine Disruptors **91, 92**
Enforcement **1, 2, 29, 30, 31, 58**
Environmental Information **42, 51, 54**
Environmental Technology Verification (ETV) **113**
Exchange Network **51, 52**
Facilities Infrastructure and Operations **1, 4, 54**
Federal Support for Air Quality Management **1, 13**
Federal Support for Air Toxics Program **1, 15**
Federal Vehicle and Fuels Standards and Certification **1, 2, 18**
Fellowships **95**
Forensics Support **1, 2, 30**
Global Change **66, 67**
Great Lakes **66**
Gulf of Mexico **99**
Homeland Security **1, 2, 3, 33, 34, 35, 38, 39, 41, 42, 56, 59, 61, 62, 75**
Critical Infrastructure Protection 1, 2, 34
Preparedness, Response, and Recovery 1, 3, 38
Protection of EPA Personnel and Infrastructure 1, 3, 42
Human Health and Ecosystems **97**
Human Health Risk Assessment **2, 5, 69, 74, 83, 84, 106, 120**
Indoor Air **1, 3, 44, 45, 46, 47, 49, 65**
Radon Program 1, 3, 45
Information Security **52**
IT / Data Management **1, 3, 4, 50, 51**
IT / Data Management / Security **1, 3, 50, 51**

Laboratory Security
Preparedness, Response, and Recovery 3
Land Protection **2, 105, 107**
Land Protection and Restoration **107**
Lead **84**
NAAQS **69, 70, 71, 84**
Oil **41, 51, 54, 106**
Operations and Administration **1, 4, 53, 54**
Particulate Matter **65, 69, 70, 71, 84**
Pesticides
Registration of New Pesticides 1, 4, 58
Review / Reregistration of Existing Pesticides 1, 4, 61
Pesticides and Toxics **120**
Pesticides Licensing **1, 4, 57, 58, 61**
Pollution Prevention **28, 41, 110, 115, 116**
Radiation
Protection 1, 2, 22
Response Preparedness 1, 2, 24
Radon **46, 49, 65**
Reduce Risks from Indoor Air **1, 3, 47**
Research
Air Toxics 1, 4, 64
Clean Air 4, 64, 66, 69
Clean Water 4, 5, 74, 78
Computational Toxicology 2, 5, 87
Drinking Water 2, 4, 74
Economics and Decision Science(EDS) 2, 5, 110
Endocrine Disruptor 2, 5, 91
Environmental Technology Verification (ETV) 2, 5, 113
Fellowships 2, 5, 94
Global Change 2, 4, 66
Human Health and Ecosystems 2, 5, 83, 87, 91, 94, 97
Land Protection 2, 5, 106
Land Protection and Restoration 2, 5, 106
NAAQS 2, 4, 69, 71
Pesticides and Toxics 2, 6, 120
Sustainability 5, 6, 110, 113, 115
Sustainability 2, 5, 109, 110, 115
Water Quality 2, 5, 78
Research / Congressional Priorities **4**
Resource Conservation and Recovery Act (RCRA) **106**
Safe Building **3**
Science Advisory Board **35, 39, 64, 106, 107, 111**
Sustainability **116, 117**
Toxic Research and Prevention **2, 6, 119, 120**
Underground Storage Tanks **51, 54, 106**

Waste Management **107**
Water
Human Health Protection 2, 123
Water Quality **77, 78, 81**
Water sentinel and related training **2**

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Environmental Program and Management

Resource Summary Table **1**
Program Projects in EPM **1**
Program Area: Air Toxics And Quality **7**
Clean Air Allowance Trading Programs 8
Federal Stationary Source Regulations 12
Federal Support for Air Quality Management 15
Federal Support for Air Toxics Program 19
Radiation: Protection 22
Radiation: Response Preparedness 25
Stratospheric Ozone: Domestic Programs 27
Stratospheric Ozone: Multilateral Fund 30
Program Area: Brownfields **32**
Brownfields 33
Program Area: Climate Protection Program **35**
Climate Protection Program 36
Program Area: Compliance **41**
Compliance Assistance and Centers 42
Compliance Incentives 46
Compliance Monitoring 49
Program Area: Enforcement **54**
Civil Enforcement 55
Criminal Enforcement 58
Enforcement Training 61
Environmental Justice 63
NEPA Implementation 66
Program Area: Geographic Programs **68**
Geographic Program: Chesapeake Bay 69
Geographic Program: Great Lakes 73
Geographic Program: Gulf of Mexico 77
Geographic Program: Lake Champlain 80
Geographic Program: Long Island Sound 82
Geographic Program: Other 85
Regional Geographic Initiatives 89
Program Area: Homeland Security **91**
Homeland Security: Communication and Information 92
Homeland Security: Critical Infrastructure Protection 94
Homeland Security: Preparedness, Response, and Recovery 97
Homeland Security: Protection of EPA Personnel and Infrastructure 99
Program Area: Indoor Air **101**
Indoor Air: Radon Program 102
Reduce Risks from Indoor Air 104

Program Area: Information Exchange / Outreach **107**
Children and Other Sensitive Populations: Agency Coordination 108
Congressional, Intergovernmental, External Relations 111
Exchange Network 116
Small Business Ombudsman 119
Small Minority Business Assistance 122
State and Local Prevention and Preparedness 125
TRI / Right to Know 127
Tribal - Capacity Building 129
Program Area: International Programs **132**
Commission for Environmental Cooperation 133
Environment and Trade 135
International Capacity Building 137
POPs Implementation 140
US Mexico Border 142
Program Area: IT / Data Management / Security **145**
Information Security 146
IT / Data Management 148
Program Area: Legal / Science / Regulatory / Economic Review **152**
Administrative Law 153
Alternative Dispute Resolution 155
Civil Rights / Title VI Compliance 157
Legal Advice: Environmental Program 160
Legal Advice: Support Program 162
Regional Science and Technology 164
Regulatory Innovation 166
Regulatory/Economic-Management and Analysis 170
Science Advisory Board 172
Program Area: Operations and Administration **174**
Acquisition Management 175
Central Planning, Budgeting, and Finance 177
Facilities Infrastructure and Operations 179
Financial Assistance Grants / IAG Management 182
Human Resources Management 184
Program Area: Pesticides Licensing **187**
Pesticides: Field Programs 188
Pesticides: Registration of New Pesticides 192
Pesticides: Review / Reregistration of Existing Pesticides 195
Science Policy and Biotechnology 199
Program Area: Resource Conservation and Recovery Act (RCRA) **201**
RCRA: Corrective Action 202
RCRA: Waste Management 205
RCRA: Waste Minimization & Recycling 209
Program Area: Toxics Risk Review and Prevention **214**
Toxic Substances: Chemical Risk Management 215
Toxic Substances: Chemical Risk Review and Reduction 218

Endocrine Disruptors 223
Toxic Substances: Lead Risk Reduction Program 225
Pollution Prevention Program 228
Program Area: Underground Storage Tanks (LUST / UST) 233
LUST / UST 234
Program Area: Water: Ecosystems 237
Great Lakes Legacy Act 238
National Estuary Program / Coastal Waterways 241
Wetlands 244
Program Area: Water: Human Health Protection 247
Beach / Fish Programs 248
Drinking Water Programs 252
Program Area: Water Quality Protection 257
Marine Pollution 258
Surface Water Protection 261

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION: Environmental Program & Management
Resource Summary Table

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management				
Budget Authority / Obligations	$2,309,238.0	$2,344,711.0	$2,306,617.0	($38,094.0)
Total Workyears	10,904.2	11,048.1	11,007.5	-40.6

BILL LANGUAGE: ENVIRONMENTAL PROGRAMS AND MANAGEMENT

For environmental programs and management, including necessary expenses, not otherwise provided for, for personnel and related costs and travel expenses, including uniforms, or allowances therefor, as authorized by 5 U.S.C. 5901-5902; services as authorized by 5 U.S.C. 3109, but at rates for individuals not to exceed the per diem rate equivalent to the maximum rate payable for senior level positions under 5 U.S.C. 5376; hire of passenger motor vehicles; hire, maintenance, and operation of aircraft; purchase of reprints; library memberships in societies or associations which issue publications to members only or at a price to members lower than to subscribers who are not members; construction, alteration, repair, rehabilitation, and renovation of facilities, not to exceed $85,000 per project; and not to exceed [$19,000] $9,000 for official reception and representation expenses, [$2,381,752,000] $2,306,617,000, to remain available until September 30, [2007] 2008, including administrative costs of the brownfields program under the Small Business Liability Relief and Brownfields Revitalization Act of 2002.

Program Projects in EPM

(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Air Toxics and Quality				
Clean Air Allowance Trading Programs	$17,513.5	$17,708.0	$19,126.4	$1,418.4
Federal Stationary Source Regulations	$20,555.3	$23,215.0	$25,678.3	$2,463.3
Federal Support for Air Quality Management				
Energy Policy Act Implementation	$0.0	$0.0	$2,800.0	$2,800.0
Clean Diesel Initiative	$0.0	$5,867.0	$0.0	($5,867.0)
Federal Support for Air Quality Management (other activities)	$89,350.1	$90,082.0	$85,265.6	($4,816.4)
Subtotal, Federal Support for Air Quality Management	$89,350.1	$95,949.0	$88,065.6	($7,883.4)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Federal Support for Air Toxics Program	$23,518.7	$25,405.0	$25,513.7	$108.7
Radiation: Protection	$11,694.4	$11,178.0	$10,648.6	($529.4)
Radiation: Response Preparedness	$2,284.4	$2,632.0	$2,688.7	$56.7
Stratospheric Ozone: Domestic Programs	$4,478.1	$4,938.0	$5,221.4	$283.4
Stratospheric Ozone: Multilateral Fund	$9,920.0	$8,600.0	$13,365.0	$4,765.0
Subtotal, Air Toxics and Quality	$179,314.5	$189,625.0	$190,307.7	$682.7
Brownfields				
Brownfields	$27,248.4	$24,534.0	$24,637.3	$103.3
Climate Protection Program				
Climate Protection Program				
Energy Star	$0.0	$49,536.0	$45,722.8	($3,813.2)
Methane to Markets	$0.0	$1,971.0	$4,420.5	$2,449.5
Climate Protection Program (other activities)	$92,457.2	$39,327.0	$41,700.0	$2,373.0
Subtotal, Climate Protection Program	$92,457.2	$90,834.0	$91,843.3	$1,009.3
Subtotal, Climate Protection Program	$92,457.2	$90,834.0	$91,843.3	$1,009.3
Compliance				
Compliance Assistance and Centers				
Energy Policy Act Implementation	$0.0	$0.0	$111.2	$111.2
Compliance Assistance and Centers (other activities)	$27,207.0	$27,935.0	$28,779.5	$844.5
Subtotal, Compliance Assistance and Centers	$27,207.0	$27,935.0	$28,890.7	$955.7
Compliance Incentives	$10,135.7	$9,412.0	$9,702.2	$290.2
Compliance Monitoring				
Energy Policy Act Implementation	$0.0	$0.0	$986.9	$986.9
Compliance Monitoring (other activities)	$85,297.9	$85,463.0	$92,031.9	$6,568.9
Subtotal, Compliance Monitoring	$85,297.9	$85,463.0	$93,018.8	$7,555.8
Subtotal, Compliance	$122,640.6	$122,810.0	$131,611.7	$8,801.7
Enforcement				
Civil Enforcement				
Energy Policy Act Implementation	$0.0	$0.0	$753.2	$753.2
Civil Enforcement (other activities)	$113,719.7	$117,807.0	$120,024.5	$2,217.5
Subtotal, Civil Enforcement	$113,719.7	$117,807.0	$120,777.7	$2,970.7
Criminal Enforcement	$35,109.3	$37,565.0	$37,793.5	$228.5

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Enforcement Training	$3,766.2	$2,945.0	$2,503.7	($441.3)
Environmental Justice	$4,853.2	$5,569.0	$3,859.0	($1,710.0)
NEPA Implementation	$13,016.8	$12,640.0	$13,787.5	$1,147.5
Subtotal, Enforcement	$170,465.2	$176,526.0	$178,721.4	$2,195.4
Environmental Protection / Congressional Priorities				
Congressionally Mandated Projects	$89,868.8	$49,799.0	$0.0	($49,799.0)
Geographic Programs				
Geographic Program: Chesapeake Bay	$22,886.6	$22,118.0	$26,397.7	$4,279.7
Geographic Program: Great Lakes	$21,098.8	$21,164.0	$20,577.1	($586.9)
Geographic Program: Gulf of Mexico	$3,739.8	$4,809.0	$4,310.7	($498.3)
Geographic Program: Lake Champlain	$686.3	$1,926.0	$933.8	($992.2)
Geographic Program: Long Island Sound	$2,132.7	$470.0	$466.9	($3.1)
Geographic Program: Other				
Geographic Program: Puget Sound	$0.0	$1,971.0	$0.0	($1,971.0)
Community Action for a Renewed Environment (CARE)	$0.0	$2,862.0	$4,448.4	$1,586.4
Geographic Program: Other (other activities)	$6,786.1	$5,124.0	$4,601.6	($522.4)
Subtotal, Geographic Program: Other	$6,786.1	$9,957.0	$9,050.0	($907.0)
Regional Geographic Initiatives	$8,057.0	$8,060.0	$9,137.3	$1,077.3
Subtotal, Geographic Programs	$65,387.3	$68,504.0	$70,873.5	$2,369.5
Homeland Security				
Homeland Security: Communication and Information				
Laboratory Preparedness and Response	$0.0	$1,212.0	$1,200.0	($12.0)
Homeland Security: Communication and Information (other activities)	$5,432.4	$5,263.0	$5,599.7	$336.7
Subtotal, Homeland Security: Communication and Information	$5,432.4	$6,475.0	$6,799.7	$324.7
Homeland Security: Critical Infrastructure Protection				
Decontamination	$0.0	$98.0	$99.0	$1.0
Homeland Security: Critical Infrastructure Protection (other activities)	$6,700.6	$6,689.0	$7,143.7	$454.7
Subtotal, Homeland Security: Critical Infrastructure Protection	$6,700.6	$6,787.0	$7,242.7	$455.7
Homeland Security: Preparedness, Response, and Recovery				
Decontamination	$2,620.2	$3,252.0	$3,328.7	$76.7

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Subtotal, Homeland Security: Preparedness, Response, and Recovery	$2,620.2	$3,252.0	$3,328.7	$76.7
Homeland Security: Protection of EPA Personnel and Infrastructure	$9,102.2	$6,199.0	$6,268.9	$69.9
Subtotal, Homeland Security	$23,855.4	$22,713.0	$23,640.0	$927.0
Indoor Air				
Indoor Air: Radon Program	$5,986.6	$5,159.0	$5,519.2	$360.2
Reduce Risks from Indoor Air	$21,464.4	$23,137.0	$23,464.3	$327.3
Subtotal, Indoor Air	$27,451.0	$28,296.0	$28,983.5	$687.5
Information Exchange / Outreach				
Children and Other Sensitive Populations: Agency Coordination	$7,135.8	$5,633.0	$6,063.8	$430.8
Congressional, Intergovernmental, External Relations	$48,407.3	$50,291.0	$52,142.7	$1,851.7
Environmental Education	$8,648.1	$8,889.0	$0.0	($8,889.0)
Exchange Network	$16,723.0	$17,700.0	$16,048.5	($1,651.5)
Small Business Ombudsman	$3,691.3	$3,343.0	$3,501.7	$158.7
Small Minority Business Assistance	$2,245.7	$2,503.0	$2,646.6	$143.6
State and Local Prevention and Preparedness	$11,327.5	$11,377.0	$12,508.4	$1,131.4
TRI / Right to Know	$15,380.7	$14,289.0	$15,243.4	$954.4
Tribal - Capacity Building	$10,937.7	$11,049.0	$11,435.7	$386.7
Subtotal, Information Exchange / Outreach	$124,497.1	$125,074.0	$119,590.8	($5,483.2)
International Programs				
Commission for Environmental Cooperation	$3,370.5	$4,116.0	$4,137.0	$21.0
Environment and Trade	$2,211.7	$1,766.0	$1,861.2	$95.2
International Capacity Building	$10,548.5	$6,138.0	$6,390.3	$252.3
POPs Implementation	$3,196.5	$1,697.0	$1,808.7	$111.7
US Mexico Border	$5,951.5	$5,749.0	$6,061.0	$312.0
Subtotal, International Programs	$25,278.7	$19,466.0	$20,258.2	$792.2
IT / Data Management / Security				
Information Security	$4,745.6	$3,751.0	$5,562.1	$1,811.1
IT / Data Management	$84,371.1	$94,567.0	$96,807.2	$2,240.2
Subtotal, IT / Data Management / Security	$89,116.7	$98,318.0	$102,369.3	$4,051.3
Legal / Science / Regulatory / Economic Review				

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Administrative Law	$4,784.2	$4,607.0	$4,860.9	$253.9
Alternative Dispute Resolution	$1,531.0	$1,048.0	$1,229.8	$181.8
Civil Rights / Title VI Compliance	$10,905.7	$10,575.0	$11,053.7	$478.7
Legal Advice: Environmental Program	$32,764.8	$35,931.0	$37,525.5	$1,594.5
Legal Advice: Support Program	$13,864.0	$13,206.0	$13,465.9	$259.9
Regional Science and Technology	$3,424.8	$3,522.0	$3,520.7	($1.3)
Regulatory Innovation	$21,215.1	$21,511.0	$25,853.6	$4,342.6
Regulatory/Economic-Management and Analysis	$13,875.1	$16,551.0	$17,554.8	$1,003.8
Science Advisory Board	$4,660.8	$4,402.0	$4,615.7	$213.7
Subtotal, Legal / Science / Regulatory / Economic Review	$107,025.5	$111,353.0	$119,680.6	$8,327.6
Operations and Administration				
Acquisition Management	$21,830.4	$23,265.0	$25,418.3	$2,153.3
Central Planning, Budgeting, and Finance	$68,045.9	$73,680.0	$83,548.1	$9,868.1
Facilities Infrastructure and Operations	$317,744.7	$343,908.0	$294,760.1	($49,147.9)
Financial Assistance Grants / IAG Management	$22,223.9	$23,168.0	$21,847.0	($1,321.0)
Human Resources Management	$46,795.7	$41,275.0	$40,202.5	($1,072.5)
Subtotal, Operations and Administration	$476,640.6	$505,296.0	$465,776.0	($39,520.0)
Pesticides Licensing				
Pesticides: Field Programs	$25,649.5	$24,516.0	$24,926.3	$410.3
Pesticides: Registration of New Pesticides	$39,321.6	$41,604.0	$39,767.6	($1,836.4)
Pesticides: Review / Reregistration of Existing Pesticides	$49,074.7	$57,458.0	$51,814.6	($5,643.4)
Science Policy and Biotechnology	$1,961.5	$1,694.0	$1,754.0	$60.0
Subtotal, Pesticides Licensing	$116,007.3	$125,272.0	$118,262.5	($7,009.5)
Resource Conservation and Recovery Act (RCRA)				
RCRA: Corrective Action	$36,575.0	$39,396.0	$40,372.3	$976.3
RCRA: Waste Management	$67,842.9	$65,793.0	$67,887.3	$2,094.3
RCRA: Waste Minimization & Recycling	$10,878.7	$11,825.0	$12,235.1	$410.1
Subtotal, Resource Conservation and Recovery Act (RCRA)	$115,296.6	$117,014.0	$120,494.7	$3,480.7
Toxics Risk Review and Prevention				
Toxic Substances: Chemical Risk Management	$8,462.3	$9,008.0	$7,736.5	($1,271.5)
Toxic Substances: Chemical Risk Review and Reduction	$45,781.1	$46,542.0	$44,637.0	($1,905.0)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Endocrine Disruptors	$8,696.4	$8,767.0	$7,985.4	($781.6)
Toxic Substances: Lead Risk Reduction Program	$13,280.9	$10,162.0	$11,367.6	$1,205.6
Pollution Prevention Program	$15,889.3	$16,621.0	$21,292.4	$4,671.4
Subtotal, Toxics Risk Review and Prevention	$92,110.0	$91,100.0	$93,018.9	$1,918.9
Underground Storage Tanks (LUST / UST)				
LUST / UST	$6,459.2	$7,763.0	$11,713.7	$3,950.7
Water: Ecosystems				
Great Lakes Legacy Act	$13,946.6	$28,989.0	$49,600.0	$20,611.0
National Estuary Program / Coastal Waterways	$25,902.3	$23,773.0	$18,417.2	($5,355.8)
Wetlands	$20,126.7	$19,416.0	$20,992.2	$1,576.2
Subtotal, Water: Ecosystems	$59,975.6	$72,178.0	$89,009.4	$16,831.4
Water: Human Health Protection				
Beach / Fish Programs	$3,723.7	$3,156.0	$2,653.9	($502.1)
Drinking Water Programs	$94,559.1	$95,656.0	$99,121.0	$3,465.0
Subtotal, Water: Human Health Protection	$98,282.8	$98,812.0	$101,774.9	$2,962.9
Water Quality Protection				
Marine Pollution	$13,114.0	$12,212.0	$12,462.4	$250.4
Surface Water Protection				
Water Quality Monitoring	$0.0	$7,193.0	$7,120.7	($72.3)
Surface Water Protection (other activities)	$186,745.5	$182,019.0	$184,466.5	$2,447.5
Subtotal, Surface Water Protection	$186,745.5	$189,212.0	$191,587.2	$2,375.2
Subtotal, Water Quality Protection	$199,859.5	$201,424.0	$204,049.6	$2,625.6

Program Area: Air Toxics and Quality

Clean Air Allowance Trading Programs

Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$17,513.5***	***$17,708.0***	***$19,126.4***	***$1,418.4***
Science & Technology	$8,476.1	$8,527.0	$9,259.4	$732.4
Total Budget Authority / Obligations	$25,989.6	$26,235.0	$28,385.8	$2,150.8
Total Workyears	89.2	86.2	92.2	6.0

Program Project Description:

The Acid Rain Program, established under Title IV of the Clean Air Act Amendments of 1990, requires major reductions in SO_2 and NO_x emissions from electric utilities. The authorizing legislation specifies two phases and numerous deadlines for both the SO_2 and NO_x program components. The U.S. is also committed under the US-Canada Air Quality Agreement of 1991 to making reductions in SO_2 and NO_x emissions. EPA's Acid Rain Program provides affected sources flexibility to select their own methods of compliance so the required emission reductions are achieved at the lowest cost (both to industry and government). The SO_2 program component uses a market-based approach with tradable units called "allowances" (one allowance authorizes the emission of one ton of SO_2) and sets a permanent cap in 2010 on the total amount of SO_2 that may be emitted by affected sources at approximately one-half the amount these sources emitted in 1980. Both the SO_2 and NO_x program components require accurate and verifiable measurement of emissions. The Acid Rain Program continues to be recognized as a model for flexible and effective air pollution regulation, both in the U.S. and abroad.

At the request of the states, EPA administers the NO_x Budget Program (NBP), a market-based cap and trade program for reducing NO_x emissions and transported ozone in the eastern U.S. The initial program under the Ozone Transport Commission (OTC) went into effect in the summer of 1999. By 2001, this voluntary regional control program for the Ozone Transport Region (OTR) had expanded to include 9 states plus the District of Columbia (D.C.). Ozone-season NO_x emissions from approximately 970 affected sources were reduced by over 250,000 tons (60%) from the 1990 baseline and 12% below allowance allocations.[1] In 2003, the OTC program ended as a separate entity, integrating fully with the broader regional NBP under the NO_x SIP Call. Implementation of the NO_x SIP Call rule began in 2003 for the affected OTC states and in 2004 for other states. Based on data reported to EPA, there are approximately 2,540 affected and operating units in the 19 NBP states and D.C.[2]

FY 2007 Activities and Performance Plan:

[1] U.S. EPA., Clean Air Market Programs, NO_x Budget Program: 1999-2002 Progress Report (March 2003). (EPA 430-R-03-900). Available on the Internet at http://www.epa.gov/airmarkets/otc/otcreport.pdf (last accessed January 2006).
[2] U.S. EPA., Evaluating Ozone Control Programs in the Eastern United States: Focus on the NO_x Budget Trading Program, 2004. (August 2005). (EPA 454-K-05-001). Available on the Internet at http://www.epa.gov/airtrends/2005/ozonebp.pdf (last accessed January 2006).

In FY 2007, through the Clean Air Allowance Trading Programs, EPA will continue to measure, quality assure, and track emissions for SO_2 (Acid Rain) and NO_x (Acid Rain and NO_x Budget),-from Continuous Emissions Monitors (CEMs) or equivalent monitoring methods at approximately 4,000 electric utility units and 340 industrial units. In addition, the program will conduct audits and certify emissions monitors. Through the Acid Rain SO_2 Allowance Tracking System (ATS) and the NO_x Allowance Tracking System (NATS), allowance transfers are recorded and reconciled against emissions for all affected sources to ensure compliance. Separate activities determine compliance for over 1,000 coal-fired utility boilers with the Acid Rain NO_x emission rate reduction program.

Performance Assessment: In 2003, OMB assessed the Acid Rain program through the PART process, and gave it a rating of "Moderately Effective." The Program is designed to reduce the harmful effects of acid rain through reductions in emissions of sulfur dioxide and nitrogen oxides and employs a market-based emissions trading system to minimize costs and maximize compliance. The Program is working to develop an efficiency measure.

Performance Assessment: In 2005 OMB assessed the NAAQS and Regional Haze programs through the PART process, and rated them as "Adequate." The NAAQS program sets standards to protect human health and the environment from the effects of air pollution. The Regional Haze program, which addresses some of the same pollutants, improves visibility in areas of special natural, recreational, scenic, or historic value. The program is working on developing a broader, more integrated multiple-pollutant approach in standard-setting. In promulgating air quality standards, the program clearly outlines the expected health and environmental benefits and will be working on developing an efficiency measure to show efficiency improvements over time.

In FY 2007, EPA will include an additional state in the NO_x Budget Program and will continue to assist all the states in this program with implementation, especially activities related to allowance trading, emissions monitoring, and end-of-season reconciliation of emissions with allowances. Affected sources under the NO_x Budget Program include boilers, turbines, and combined cycle units from a diverse set of industries as well as electric utility units. In 2004, the volume of emissions data processed by EPA increased 2 ½ times over the volume under the OTC program. This surge in emissions reporting and allowance reconciliation activity is one factor that has required the program to increase and accelerate investment in software re-engineering for the Clean Air Markets Division Business System. EPA will also assist states in transitioning their sources and allowances from the NO_X Budget Program into the Clean Air Interstate Rule seasonal NO_x trading program. Required NO_x monitoring for CAIR begins in 2008, or earlier for states and sources interested in qualifying for early emissions reduction credits.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent change in average sulfur deposition and mean ambient sulfate concentrations reduced.				29	Percentage Reduction

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent change in average nitrogen deposition and mean total ambient nitrate concentrations reduced.				10	Percentage Reduction

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Tons of sulfur dioxide emissions from electric power generation sources	Data Lag	6,900,000	7,000,000	7,500,000	Tons Reduced

Reducing emissions of SO_2 and NO_x continue to be a crucial component of EPA's strategy for cleaner air. Particulate matter can be formed from direct sources (such as diesel exhaust or smoke), but can also be formed through chemical reactions. Emissions of SO_2 and NO_x can be chemically transformed into sulfates and nitrates ("acid rain particulate"), which are very tiny particles that can be carried by winds hundred of miles. These same small particles are also a main pollutant that impairs visibility across large areas of the country, particularly national parks that are known for their scenic views. Meeting EPA's national health-based air quality standards is an important step towards ensuring the air is safe to breathe. To meet the standards, EPA, states, tribes, and local governments work as partners to reduce emissions of SO_2 and NO_x and ambient sulfate and total ambient nitrate concentrations.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$181.3) This increase will support development of the operating infrastructure for the CAIR program. This includes the allowance trading and emissions reporting systems under the Clean Air Interstate Rule and Clean Air Mercury Rule implementation.

- (+$1,237.1) This reflects an increase for payroll and cost of living for existing and new FTE.

- (+6 FTE) FTE were reprogrammed from the Federal Vehicle and Fuels Standards Certification (Mobile Sources Program) and the Federal Support for Air Quality Management Programs to support the Clean Air Implementation Rule (CAIR). These resources will used to augment existing FTE in: modifying data systems; establishing allowance accounts; allocating allowances; assisting States in developing and promulgating their State Implementation Plans (SIP); assisting affected facilities through set up of certification emissions measurement equipment; and to establish baseline assessments for program accountability.

Statutory Authority:

Clean Air Act (42 U.S.C. 7401-7661f).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$20,555.3***	***$23,215.0***	***$25,678.3***	***$2,463.3***
Total Budget Authority / Obligations	$20,555.3	$23,215.0	$25,678.3	$2,463.3
Total Workyears	105.5	105.8	105.8	0.0

Program Project Description:

Under the Clean Air Act, EPA is responsible for setting, reviewing, and revising the National Ambient Air Quality Standards (NAAQS), as well as for setting emission standards for sources of air toxics. These national standards form the foundation for air quality management and air toxics programs implemented at the national, state, local and Tribal levels, and establish goals that protect public health and the environment.

The Clean Air Act requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. EPA establishes NAAQS for the six most pervasive air pollutants: particulate matter (PM), ozone, sulfur dioxide (SO2), nitrogen dioxide (NO2), carbon monoxide (CO), and lead.

This program includes activities related to the development of the Maximum Achievable Control Technology (MACT), combustion, and area source standards, the Stationary Source Residual Risk Program, and associated national guidance and outreach information.

FY 2007 Activities and Performance Plan:

The following chart shows the current status of the NAAQS reviews:

Criteria Pollutant*	Proposal	Final
PM (Fine & 10)**	December 2005	September 2006
Ozone**	March 2007	December 2007
CO***	March 2008	December 2008
Lead**	May 2008	September 2008

* There are currently no schedules for reviewing the SO2 & NO2 standards.
** These are court ordered deadlines.
*** Internal deadline, subject to change.

In FY 2007, EPA will promulgate two residual risk standards. Promulgations:

- Halogenated Solvents – 12/05
- Hazardous Organic NESHAP (HON) – 12/05

EPA is required to regulate 70 source categories through area source standards. EPA has completed 15 source categories, with an additional one to be promulgated in 2007 and three to be proposed in 2007.

In FY 2007, EPA also will promulgate one New Source Performance Standards (NSPS).

- NSPS for Reciprocating Internal Combustion Engines – Spark Ignition Engines

In FY 2007, EPA will likely be under court ordered schedules for the remaining area source standards. As the NSPS rules, residual risk rules and 183 (e) rules are also currently in litigation, EPA anticipates the probability of also being under a court ordered schedule for those rules by FY 2007.

Performance Assessment: The Air Toxics Program, re-assessed by OMB in the 2004 PART process, received a rating of "Adequate." The Program reduces emissions of toxic air pollutants by establishing and reviewing technology-based regulations for mobile and stationary sources. The Program also collects information about exposure to air toxics and provides tools and compliance assistance to state, Tribal, and local air pollution control agencies. The Program is working on improving monitoring systems to fill data gaps and get a better assessment of actual population exposure to toxic air pollution.

Performance Assessment: In the 2005 PART process OMB assessed the NAAQS and Regional Haze Programs, and rated them as "Adequate." The NAAQS program sets standards to protect human health and the environment from the effects of air pollution. The Regional Haze program, which addresses some of the same pollutants, improves visibility in areas of special natural, recreational, scenic, or historic value. The Program is working on developing a broader, more integrated multiple-pollutant approach in standard-setting. In promulgating air quality standards, the Program clearly outlines the expected health and environmental benefits and will be working on developing an efficiency measure to show efficiency improvements over time.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics from 1993 baseline.			22	22	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percentage reduction in tons of toxicity-weighted (for noncancer risk) emissions of air toxics from 1993 baseline.			55	56	Percentage

Implementation of the MACT standards is expected to result in overall reductions of over 1.7 million tons of hazardous air pollutants from stationary sources. These emission reductions, used in conjunction with unit risk estimates and reference concentration information, are converted into toxicity-weighted emission reductions. Changes to the FY 2007 level of funding will not impact the established targets as they are based on standards already promulgated.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$202.0) This reflects an increase for payroll and cost of living for existing FTE.

- (+$2,261.3) This increase improves EPA's capacity to meet air toxics rulemakings under court-ordered deadlines and to complete other priority air toxic rulemaking in accord with benzene National Emissions Standards for Hazardous Air Pollutants (NESHAP).

Statutory Authority:

CAA (42 U.S.C. 7401-7661f).

Federal Support for Air Quality Management

Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air; Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$89,350.1***	***$95,949.0***	***$88,065.6***	***($7,883.4)***
Science & Technology	$10,747.8	$10,012.0	$10,272.9	$260.9
Total Budget Authority / Obligations	$100,097.9	$105,961.0	$98,338.5	($7,622.5)
Total Workyears	721.3	715.9	709.0	-6.9

Program Project Description:

The Federal support program includes non-financial support from EPA headquarters and regional offices to state, Tribal, and local air pollution control agencies for the development, implementation, and evaluation of programs to implement the National Ambient Air Quality Standards (NAAQS). EPA develops Federal measures and regional strategies that reduce emissions from stationary and mobile sources. States and tribes must develop the additional clean air measures necessary to meet the NAAQS. EPA partners with states, tribes, and local governments to create a comprehensive compliance program to ensure that multi-source and multi-pollutant reduction targets and air quality improvement objectives are met and sustained. For each of the criteria pollutants, EPA tracks two kinds of air pollution trends: air pollutant concentrations based on actual measurements in the ambient (outside) air at selected monitoring sites throughout the country, and emissions based on engineering estimates of the total tons of pollutants released into the air each year. EPA works with states and local governments to ensure the technical integrity of the source controls in the state implementation plans (SIPs). EPA assists areas in identifying the most cost-effective control options available including consideration of multi-pollutant reduction and innovative strategies. The Federal support program includes working with other Federal agencies to ensure a coordinated approach, and working with the United Nations and other countries to address pollution sources outside US borders that pose risks to public health and air quality within the U.S. This program supports the development of risk assessment methodologies for the criteria air pollutants.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will promulgate the Clean Air Interstate Rule (CAIR) Federal Implementation Plan (FIP) to ensure that the CAIR reductions occur in a timely fashion and that PM2.5 and ozone non-attainment problems are reduced.

EPA will continue to assess particle pollution, ozone and the transport of particle pollution and provide support to states and Tribes in developing control strategies for attaining and maintaining the PM2.5 NAAQS and the 8-hour ozone NAAQS.

The Agency will review issues on reactivity of volatile organics and will propose updates to the volatile organic compound (VOC) control policy.

EPA will continue to address visibility through region-specific programs.

EPA will assist state, Tribal, and local agencies in implementing and assessing the effectiveness of national programs using a broad suite of analytical tools such as source characterization analyses, emission factors and inventories, statistical analyses, source apportionment techniques, quality assurance protocols and audits, improved source testing and monitoring techniques, augmented cost/benefit tools to assess control strategies, including voluntary measures, and urban and regional-scale numerical grid air quality models (For more information visit: http://www.epa.gov/ttn/). These tools provide the basis for assessing regional control strategies and measuring progress toward meeting CAIR, meeting regional haze goals and developing SIPs and Tribal implementation plans (TIPs).

EPA will continue to improve and automate associated data and technology exchange/transfer. Through the EPA's Air Pollution Training Institute (APTI), technical air pollution training will be provided to state, Tribal, and local air agency professionals. (For more information please visit: http://www.epa.gov/apti/). EPA will also continue to assist other Federal agencies and state and local governments in implementing the conformity regulations during this period. The regulations require Federal agencies taking actions in nonattainment and maintenance areas to determine that the emissions caused by their actions will conform to the SIP.

EPA will strengthen its program leadership to address transboundary air pollution. The Agency will continue to lead negotiations under international treaties (e.g., US-Canada, Convention on Long Range Transboundary Air Pollution, Stockholm Convention on Persistent Organic Pollutants (POPs)) to address fine particles, ozone, mercury, and POPs; assess trends and its impact on US air quality using sophisticated models; and build capacity in key regions and countries of the world (i.e.,. Asia, China, Mexico).

Performance Assessment: The Air Quality Grants and Permitting Program, assessed by OMB in the 2005 PART process, received a rating of "Ineffective." These programs support the prevention and control of air pollution at the state and local level. Grants are provided for program implementation and research and development. Permits are issued to manage pollution from new and existing facilities. The programs have developed new performance measures and will be working to developing efficiency measures to assess program progress.

Performance Assessment: In the 2005 PART process OMB assessed the NAAQS and Regional Haze Programs, and rated them as "Adequate." The NAAQS program sets standards to protect human health and the environment from the effects of air pollution. The Regional Haze program, which addresses some of the same pollutants, improves visibility in areas of special natural, recreational, scenic, or historic value. The Program is working on developing a broader, more integrated multiple-pollutant approach in standard-setting. In promulgating air quality standards, the Program clearly outlines the expected health and environmental benefits and will be working on developing an efficiency measure to show efficiency improvements over time.

The AIRNow Program will offer air quality (AQ) forecast maps, developed in conjunction with National Oceanic and Atmospheric Administration (NOAA) and using data from the NOAA prototype AQ Forecast Model Activities include streamlining existing processes; developing new products including web services, tools,

XML, and Geographic Information Systems (GIS); and producing new maps, forecasts and information as additional monitors, forecast cities, and agencies join the program. (For more information visit: http://airnow.gov).

EPA will modify the Air Quality System (AQS) to reflect new ambient monitoring requirements and to ensure that it complies with programmatic needs and EPA's architecture and data standard requirements. The AQS Data Mart will continue to operate as a method for the scientific community and others to obtain air quality data via the internet.

EPA will continue to focus on the timely issuance of Part 70 renewal permits. EPA also will continue to develop periodic monitoring rules and address monitoring issues in underlying Federal and state rules. EPA will implement recommendations from the Clean Air Act Advisory Committee regarding Title V program performance and will implement the OAR action plan resulting from the Office of Inspector General (OIG) evaluation of the Title V program. (For more information visit: http://www.epa.gov/air/oaqps/permits/)

EPA will continue its NSR reform efforts by finalizing rules currently under development. EPA will review and respond to the 2006 National Academy of Sciences (NAS) report evaluating the 2002 NSR reform rules. EPA will continue to work with states to implement revisions to the PSD and NSR rules and will work to complete updates to delegation agreements (for delegated states) and review for approval implementation plan revisions (for SIP-approved states). EPA will also continue to review and respond to reconsideration requests and (working with DOJ) legal challenges related to NSR rule revisions.

EPA will continue to maintain and operate the RACT/BACT/LAER Clearinghouse (RBLC) Web data base. (For more information visit: http://www.epa.gov/ttn/catc).

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percent reduction in population-weighted ambient concentration of ozone in monitored counties from 2003 baseline.	Available in 2006	3	5	6	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of major NSR permits issued within one year of receiving a complete permit application.	Available in 2006	65	70	75	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of new Title V operating permits issued within 18 months of receiving a complete permit application.	79	79	83	87	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of significant Title V operating permit revisions issued within 18 months of receiving a complete permit application.	88	88	91	94	Percentage

EPA, collaborating with the states, will be implementing Federal measures and assisting with the development of clean air plans to continue to improve air quality as measured by the air quality index and other measures.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-6.9 FTE) This change reflects a decrease in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities. The result of these reductions will not impede Agency efforts to maximize efficiency and effectiveness in carrying out its programs.

- (+$946.6) This reflects an increase for payroll and cost of living for existing FTE.

- (-$6,950.7) This reduction reflects shifting priorities, expected improvements in efficiency and reallocating efforts from rulemaking to technical assistance.

- (+$2,800.0) Funding is requested to support work required under the Energy Policy Act of 2005. This funding will support analysis of fuels, emissions, and air quality and development of improved modeling capabilities.

- (-$4,679.3) This redirects funds to support implementation of the Energy Policy Act of 2005 (EPAct) to the Clean Diesel Grants Program in the STAG Appropriation.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f).

Federal Support for Air Toxics Program
Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air; Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$23,518.7***	***$25,405.0***	***$25,513.7***	***$108.7***
Science & Technology	$3,040.8	$2,225.0	$2,264.7	$39.7
Total Budget Authority / Obligations	$26,559.5	$27,630.0	$27,778.4	$148.4
Total Workyears	139.5	144.8	144.2	-0.6

Program Project Description:

Federal support for the air toxics programs includes non-financial support by EPA headquarters and Regional offices to state, Tribal and local air pollution control agencies for: modeling, inventories, monitoring, assessments, strategy and program development; community-based toxics programs; voluntary programs including those that reduce inhalation risk and those that reduce deposition to water bodies and ecosystems; international cooperation to reduce transboundary and intercontinental air toxic pollution; National Emissions Inventory development and updates; Great Waters; the development of risk assessment methodologies for the toxic air pollutants; and Persistent Biocummulative Toxics (PBT) activities. It also includes training for air pollution professionals. In addition, it includes activities for implementation of federal air toxics standards and the triennial National Air Toxics Assessments.

FY 2007 Activities and Performance Plan:

By FY 2007, EPA will have completed a significant portion of the 2005 National Emissions Inventory (NEI), which can be used by EPA, states, and others to analyze the public health risks from air toxics, and develop strategies to manage that risk. The 2005 NEI will be a more truly multi-pollutant inventory integrating criteria pollutants and HAP data (http://www.epa.gov/ttn/chief/net/index.html).

To aid the Agency in characterizing risk, EPA will continue to work with state and local agencies, via the National Air Monitoring Steering Committee, to implement the National Air Toxics Monitoring Network. The network has two main components: the National Air Toxics Trends Sites (NATTS), and Local Scale Monitoring (LSM) projects. The NATTS are comprised of 22 permanent monitoring sites, designed to capture the impacts of widespread pollutants. The LSMs are comprised of several short-term monitoring sites, each designed to address specific local issues. Additional community scale monitoring projects will be initiated in FY 2007. Information on air toxics monitoring is available at the (For more information please visit: http://www.epa.gov/ttn/amtic/airtoxpg.html).

EPA will provide information to states and communities through case examples, documents, websites, and workshops on tools to help them in conducting assessments and identifying risk reduction strategies for air toxics. This will allow state, local and Tribal governments, industry, public interest groups, and local citizens to work together to determine if actions are needed, and if so, what should be done.

Based on recommendations from the PBT Monitoring Steering Committee, ambient mercury models will be improved to support understanding of changes in ambient concentrations and deposition rates because of changes in mercury emission rates. There will be improvements in both multi-scale and multimedia modeling. The multi-scale monitoring will enable assessment of near-field potential for elevated concentrations associated with both major and minor point sources. Re-emittance of mercury through soil, vegetation and water is believed to be an important factor affecting the mercury cycle; however, it is currently poorly characterized in atmospheric models. We will develop a true multimedia modeling framework that links air quality models with watershed/water surface models.

Performance Assessment: The Air Toxics program, re-assessed by OMB in 2004, received a rating of "Adequate." The Program reduces emissions of toxic air pollutants by establishing and reviewing technology-based regulations for mobile and stationary sources. The Program also collects information about exposure to air toxics and provides tools and compliance assistance to state, Tribal, and local air pollution control agencies. The program is working on improving monitoring systems to fill data gaps and get a better assessment of actual population exposure to toxic air pollution.

EPA will continue its efforts under the Air-Water Interface Work Plan to address and prevent adverse effects of atmospheric deposition to coastal and inland waterways (i.e., Great Waters). (For more information visit: http://www.epa.gov/oar/oaqps/gr8water/). EPA will continue implementation of the revised Air-Water Interface Work Plan. These efforts involve the development and support of multi-media approaches to reduce risk and achieve water quality standards. Up-to-date information regarding air deposition, emission sources, monitoring technologies, and toxic effects will be provided.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics from 1993 baseline.			22	22	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percentage reduction in tons of toxicity-weighted (for noncancer risk) emissions of air toxics from 1993 baseline.			55	56	Percentage

Implementation of the MACT standards is expected to result in overall reduction of over 1.7 million tons of hazardous air pollutants. These emission reductions, used in conjunction with unit risk estimates and reference concentration information, are converted into toxicity-weighted emission reductions. Changes to the FY 2007 level of funding will not impact the established targets as they are based on standards already promulgated.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.6 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.
- (+$60.7) This reflects an increase for payroll and cost of living for existing FTE.
- (+$48.0) This increase will develop or revise three toxics emission factors used for developing control strategies.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$11,694.4***	***$11,178.0***	***$10,648.6***	***($529.4)***
Science & Technology	$2,552.0	$2,086.0	$2,054.3	($31.7)
Hazardous Substance Superfund	$1,969.4	$2,120.0	$2,323.3	$203.3
Total Budget Authority / Obligations	$16,215.8	$15,384.0	$15,026.2	($357.8)
Total Workyears	102.0	103.5	96.6	-6.9

Program Project Description:

The Radiation Protection Program includes activities that minimize public radiation exposure. EPA provides oversight of operations at the Waste Isolation Pilot Plant (WIPP) and is responsible for development of environmental standards applicable to Yucca Mountain. EPA also sets protective limits on radioactive air emissions and ensures that the Agency has appropriate methods to manage radioactive releases and exposures. EPA works with other Federal agencies, states, Tribes, and industry to develop and use training, public information, and voluntary programs to reduce public exposure to radiation.[3] Other EPA approaches include radiation clean-up and waste management guidance, clean materials programs, and guidance on radiation protection standards and practices to Federal agencies.

EPA conducts radiation risk assessments and provides the technical tools and the scientific basis for generating radionuclide-specific risk coefficients. Risk managers use this information to assess health risks from radiation exposure and to determine appropriate levels for contaminated site clean-up. This information is also utilized by EPA to develop radiation protection and risk management policy, guidance, and rulemakings.

FY 2007 Activities and Performance Plan:

EPA will continue certifying that all radioactive waste shipped by the Department of Energy (DOE) to the Waste Isolation Pilot Plant (WIPP) is permanently and safely disposed of, consistent with EPA standards[4] by conducting inspections of waste generator facilities and evaluating DOE's compliance with applicable environmental laws and regulations every 5 years. By 2007, EPA will have reviewed and made its first determination on DOE's documentation that the WIPP complies with EPA's radioactive waste disposal regulations.

EPA will continue protecting people and the environment from harmful and avoidable exposure

[3] Additional information at: http://www.epa.gov/radiation/assessment/index.html last accessed 8/2/2005.
[4] Additional information at: http://www.epa.gov/radiation/WIPP/index.html last accessed 8/2/2005.

to radiation by providing information about radiation and hazards from radioactive materials.

EPA, in partnership with other Federal agencies, will promote the management of radiation risks in a consistent and safe manner at water treatment facilities, and during cleanups at Superfund, DOE, Department of Defense (DOD), state, local and other Federal sites. EPA will continue to conduct risk assessments on radiation, including radon, and provide technical tools.

By 2007, EPA will have evaluated and proposed revisions to its cancer risk models and projections based on *Biological Effects of Ionizing Radiation (BEIR) VII* recommendations which will be submitted to the Science Advisory Board (SAB). The Agency will draft a report that presents the scientific basis of our understanding of radiation-induced health effects and revised methods for calculating radiogenic cancer risks. This draft report will be submitted to the SAB for formal review by FY 2008. Also, during FY 2007, EPA will begin to examine what impact the proposed changes might have on risk estimates for specific radionuclides as contained in Federal Guidance Report-13 and to assess possible policy implications. EPA will continue to provide national guidance on the risks posed by radiation in the environment, including technical guidance for conducting and documenting risk assessments.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$210.1) This decrease will reduce guidance and other activities for low level waste.

- (-5.9 FTE) Part of this decrease (2.9 FTE) reflects a change in EPA's workforce management strategy that will help it better align resources, skills, and Agency priorities. An additional 2.0 FTE reduction represents our ability to decrease workyears in the area of WIPP as a result of the completion of the recertification process. An additional 1.0 FTE is taken in the Radiation Risk Assessment area to reflect streamlining of resources upon completion of the initial evaluation work resulting from the BEIR VII Report.

- (-$319.3) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Performance Targets:

EPA is developing new outcome-oriented performance measures for this program in preparation for a 2006 PART assessment. The program will have new performance information to report in FY 2008. EPA will continue to track progress on routine program indicators such as preparedness and response capability for radiological incidents.

Statutory Authority:

AEA of 1954, as amended, 42 U.S.C 2011 et seq. (1970), and Reorganization Plan #3 of 1970; CAA Amendments of 1990; CERCLA, as amended by the SARA of 1986; Energy Policy Act of 1992, P.L. 102-486; Executive Order 12241 of September 1980, National Contingency Plan, 3

CFR, 1980; NWP Act of 1982; PHSA, as amended, 42 U.S.C 201 et seq.; SDWA; UMTRCA of 1978; WIPP Land Withdrawal Act.

Radiation: Response Preparedness
Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Radiation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$2,284.4***	***$2,632.0***	***$2,688.7***	***$56.7***
Science & Technology	$2,460.0	$3,468.0	$3,585.9	$117.9
Total Budget Authority / Obligations	$4,744.4	$6,100.0	$6,274.6	$174.6
Total Workyears	35.1	42.3	42.3	0.0

Program Project Description:

EPA generates policy guidance and procedures for EPA radiological response under the National Response Plan (NRP). EPA is a member of the Federal Radiological Protection Coordinating Committee (FRPCC), supports the federal Advisory Team on Environment, Food, and Health "A-Team" and also maintains its own EPA's Radiological Emergency Response Team (RERT). EPA conducts national and regional radiological response planning and training and develops response plans for radiological incidents or accidents.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA's RERT, a component of the Agency's emergency response structure, will maintain its preparedness for those radiological incidents for which EPA is the Coordinating Agency under the National Response Plan (NRP) and also will be prepared to fulfill its requirement under the Nuclear/Radiological Incident Annex to the NRP. EPA also will continue to develop and maintain Protective Action Guides (PAGs) for use by Federal, state, and local responders. EPA will provide training on the use of the PAGs to users through workshops and radiological emergency response exercises. EPA will design training and exercises to enhance the RERT's ability to fulfill EPA responsibilities;[5] as well as analyze them for improvements needed for overall radiation response preparedness.

EPA will continue to coordinate with its interagency partners under the FRPCC to revise Federal radiation emergency response plans, develop radiological emergency response standard operating procedures. The Agency also will develop guidance for coordination of EPA support with other Federal and state response agencies.

EPA will contiue to participate in planning, and implementing international and Federal table-top and field exercises including radiological anti-terrorism activities, with the National Response Center (NRC), Department of Energy (DOE), Department of Defence (DOD) and Department of Homeland Security (DHS). EPA will also continue to train state, local and Federal officials and

[5] Additional information can be accessed at: http://www.epa.gov/radiation/rert/rert.htm last accessed 12/20/2005.

provide technical support to federal and state radiation, emergency management, solid waste, and health programs that are responsible for radiological emergency response and for development of their own preparedness programs.

Performance Targets:

EPA is developing new outcome-oriented performance measures for this program in preparation for a 2006 PART assessment. The program will have new performance information to report in FY 2008. EPA will continue to track progress on routine program indicators such as preparedness and response capability for radiological incidents.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$35.6) This increase will support the development of and participation in emergency response exercises.

- (+$21.1) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

AEA of 1954, as amended, 42 U.S.C 2011 et seq. (1970), and Reorganization Plan #3 of 1970; CAA Amendments of 1990; CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA); Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988; PHSA, as amended, 42 U.S.C 201 et seq.; Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C 5121 et seq.; SDWA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$4,478.1***	***$4,938.0***	***$5,221.4***	***$283.4***
Total Budget Authority / Obligations	$4,478.1	$4,938.0	$5,221.4	$283.4
Total Workyears	21.1	27.2	27.1	-0.1

Program Project Description:

The stratospheric ozone layer protects life on earth by preventing harmful UV radiation from reaching the earth's surface. Scientific evidence amassed over the past 25 years has shown that Ozone Depleting Substances (ODSs) used around the world are destroying the stratospheric ozone layer.[6] Increased levels of UV radiation due to ozone depletion may raise the incidence of skin cancer, cataracts, and other illnesses.[7] Skin cancer is the most common type of cancer and accounts for more than 50 percent of all cancers in adults.[8] Increased UV levels have also been associated with other human and non-human risks, including immune suppression and effects on aquatic ecosystems and agricultural crops.

EPA estimates that in the United States alone, the worldwide phaseout of ODS's will avoid 299 million cases of non-fatal skin cancers and 27.5 million cases of cataracts between 1990 and 2165.[9] This estimate is based on the assumption that international ODS phaseout targets will be achieved, allowing the ozone layer to begin recovery by the middle of this century. According to current atmospheric research, the ozone layer is not expected to recover until the mid-21st century at the earliest, due to the very long lifetimes of ODSs.[10] Given that ozone recovery will take several decades, EPA will continue education and outreach efforts to encourage behavioral changes that reduce UV-related health risks.

EPA's Domestic Stratospheric Ozone Protection Program will implement the provisions of the Clean Air Act Amendments of 1990 (the Act) and the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol), which will lead to the reduction and control of ODSs in the U.S. and lower health risks to the American public due to exposure to UV radiation. The Act provides for a phaseout of production and consumption of ODSs and requires controls

[6] World Meteorological Organization (WMO). "Scientific Assessment of Ozone Depletion: 2002." WMO: Geneva, Switzerland. February 2003.
[7] World Health Organization. "Solar Radiation and Human Health: Fact Sheet No. 227." August 1999. Accessed December 30, 2003. Available on the Internet at: www.who.int/inf-fs/en/fact227.html.
[8] American Cancer Society. "What are the Key Statistics for Melanoma?" Accessed December 30, 2003. Available on the Internet at: www.cancer.org/docroot/CRI/CRI_0.asp.
[9] U.S. Environmental Protection Agency (EPA). The Benefits and Costs of the Clean Air Act 1990-2010: EPA Report to Congress. EPA: Washington, DC. November 1999.
[10] WMO, February 2003.

on various products containing ODSs. As a signatory to the Montreal Protocol, the U.S. also is committed to regulating and enforcing its terms domestically.

FY 2007 Activities and Performance Plan:

In carrying out the requirements of the Act and the Montreal Protocol in FY 2007, EPA will continue to implement the domestic rulemaking agenda for reduction and control of ODSs and will provide compliance assistance and enforce rules controlling their production, import, and emission. EPA's ozone protection program will combine market-based regulatory approaches with sector-specific technology guidelines, and will facilitate the development and commercialization of alternatives to ODSs.

In FY 2007, EPA will focus its work to both assure that currently required caps on production and import are met, as well as on approving the use of alternatives to ODS to assist the market's transition to safer, non-ozone depleting alternatives. EPA is developing the analyses and major regulations upon which the next round of phase-outs will be based. An advanced notice of proposed rulemaking is expected in FY 2006 and a final rule (FR) must be promulgated in 2009.

Performance Assessment: In 2004, OMB assessed the Stratospheric Ozone program through the PART process, and rated it as "Adequate." EPA's Stratospheric Ozone program is the only governmental or private program in the U.S. designed and authorized to eliminate ozone-depleting substances. The program is monitoring annual progress to ensure that it is on track to meet its long term (25-160 years) goals.

Pollution prevention is an important element in achieving the ozone protection objective. The National Emission Reduction Program will require recovery and recycling or reclamation of ODSs, primarily in the air-conditioning and refrigeration sectors. Also, under the Significant New Alternatives Program (SNAP), EPA will review newly developed alternatives to ODSs and, if necessary, will restrict use of alternatives for a given application that are more harmful to human health and the environment on an overall basis. In addition, EPA will work with Federal and international agencies to curb illegal imports of ODSs and ensure a smooth transition to non-ozone depleting alternatives in various sectors.

Given that Americans will be exposed to higher levels of UV radiation for many years, EPA will also work to inform the public about health risks associated with UV radiation exposure and to encourage sun safety behaviors that help to reduce risk. The Agency is placing special emphasis on education and outreach to children, who are particularly vulnerable to UV overexposure, through the award-winning SunWise Program.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Remaining US Consumption of HCFCs in tons of Ozone Depleting Potential (ODP).	Data lag	<9,900	<9,900	<9,900	ODP MTs

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Cumulative federal dollars spent per school joining the SunWise program.		580	560	525	Dollars

Annual performance goals are set to meet Clean Air Act requirements for the quantities and timing of phasing out the production and import of ozone depleting substances. The base of comparison for assessing the program is the domestic consumption cap of class II HCFCs as set by the Parties to the Montreal Protocol. Each ozone depleting substance (ODS) is weighted based on the damage it does to the stratospheric ozone -- this is the ozone depletion potential (ODP). Beginning on January 1, 1996, the cap was set at the sum of 2.8 percent of the domestic ODP-weighted consumption of CFCs in 1989 plus the ODP-weighted level of HCFCs in 1989. Consumption equals production plus import minus export.

The next incremental reduction in production and import of Class II HCFCs that the U.S. is required to meet is no more than 5334 Metric tons starting in 2010. Further incremental reductions are required through 2020, until all ODS production and import is phased out except for exempted amounts.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$168.3) Investments in FY 2007 - FY 2009 will lay the groundwork for the first major stage of phasing out class II ODS in time to meet a statutory deadline of January 1, 2010. This will allow EPA to meet the first major increment in reducing ODS emissions, and will provide an added co-benefit of reducing an estimated 49 MMTCE/yr of greenhouse gas emissions.

- (-0.1 FTE) This decrease reflects a change in the EPA's workforce management strategy that will help the Agency better align resources, skills and Agency priorities.

- (+$115.1) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CAA Amendments of 1990, Title I, Parts A and D (42U.S.C. 7401-7434, 7501-7515), Title V (42 U.S.C. 7661-7661 f), and Title VI (42 U.S.C. 7671-7671q); The Montreal Protocol on Substances that Deplete the Ozone Layer.

Stratospheric Ozone: Multilateral Fund
Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Protect the Ozone Layer

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$9,920.0***	***$8,600.0***	***$13,365.0***	***$4,765.0***
Total Budget Authority / Obligations	$9,920.0	$8,600.0	$13,365.0	$4,765.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The stratospheric ozone layer protects life on earth by preventing harmful UV radiation from reaching the earth's surface. Scientific evidence amassed over the past 25 years has shown that Ozone Depleting Substances (ODSs) used around the world are destroying the stratospheric ozone layer. Increased levels of UV radiation are due to ozone depletion and may increase incidence of health effects such as skin cancer, cataracts and other illnesses.

Under the *Montreal Protocol on Substances that Deplete the Ozone Layer*, the U.S. and other developed countries contribute to the Multilateral Fund to support projects and activities that eliminate the production and use of ozone depleting substances (ODS) in developing countries. Currently, the United States and 188 other countries are Parties to the Montreal Protocol. The United States has repeatedly affirmed its commitment to this international treaty and to demonstrating world leadership by phasing out domestic production of ODSs, as well as helping other countries find suitable alternatives.

EPA estimates that, in the United States alone, the worldwide phaseout of ODSs will save 6.3 million lives from fatal cases of skin cancer, and will avoid 299 million cases of non-fatal skin cancers and 27.5 million cases of cataracts between 1990 and 2165. This estimate is based on the assumption that international ODS phaseout targets will be achieved, allowing the ozone layer to begin recovery by the middle of the century. In addition, the Multilateral Fund has reached long-term agreements to dismantle developing country chlorofluorocarbon (CFC) and halon production capacity to eliminate production of 119,648 metric tons.

FY 2007 Activities and Performance Plan:

EPA's contributions to the Multilateral Fund in FY 2007 will help support cost-effective projects that are designed to build capacity and eliminate ODS production and consumption in over 60 developing countries.

Performance Assessment: In the 2004 PART process, OMB assessed the Stratospheric Ozone Program, and rated it as "Adequate." EPA's Stratospheric Ozone Program is the only governmental or private program in the U.S. designed and authorized to eliminate ozone-depleting substances. The program is monitoring annual progress to ensure that it is on track to meet its long term (25-160 years) goals.

The Multilateral Fund continues to support over 5,150 activities in 139 countries, and when fully implemented, will prevent annual emissions of more than 223,729 metric tons of ODSs. Over 80% of project activities have been implemented to date, with remaining work expected to be fully implemented by 2009.

Performance Targets:

Long term performance goals are set to reflect environmental response to actions to reduce consumption of ozone depleting substances. Meeting the long term performance goal of reduced levels of effective equivalent stratospheric chlorine requires successful action not only by the US and other developed countries, but by all developing nations worldwide. Developing nations rely on timely, complete contributions to the Montreal Protocol Multilateral Fund in order to meet their commitments, thus resulting in the meeting of the goals for reduced levels of effective equivalent stratospheric chlorine.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$4,765.0) This increase to the Montreal Protocol Multilateral Fund increases assistance to developing countries in their efforts to eliminate Ozone Depleting Substances.

Statutory Authority:

CAA Amendments of 1990, Title 1, Parts A and D (42 U.S.C. 7401-7434, 7501-7515), Title V (42 U.S.C. 7661-7661f), and Title VI (42 U.S.C. 7671-7671q); The Montreal Protocol on Substances that Deplete the Ozone Layer.

Program Area: Brownfields

Brownfields
Program Area: Brownfields
Goal: Healthy Communities and Ecosystems
Objective(s): Communities

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$27,248.4***	***$24,534.0***	***$24,637.3***	***$103.3***
Total Budget Authority / Obligations	$27,248.4	$24,534.0	$24,637.3	$103.3
Total Workyears	119.2	121.7	121.3	-0.4

Program Project Description:

The Brownfields program is designed to help states, Tribes, local communities and other stakeholders in economic redevelopment to work together to assess, safely cleanup, and reuse Brownfields. EPA's Brownfields program funds research efforts, clarifies liability issues, enters into Federal, state, and local partnerships, conducts outreach activities, and creates related job training and workforce development programs. EPA's work is focused on removing barriers and creating incentives for Brownfield redevelopment. The program provides financial assistance for:

- Training with regard to hazardous substances for organizations representing the interests of states and Tribal co-implementors of the Brownfields law;
- Tribal technical outreach support to address environmental justice issues and support Brownfields research; and
- Administrative and programmatic support to the Agency to implement the Brownfields program, including logistical support for grant competition and for measurement of program outcomes.

FY 2007 Activities and Performance Plan:

In addition to supporting the operations and management of the Brownfields program, funds requested will provide financial assistance for training on hazardous waste to organizations representing the interests of state and Tribal co-implementers of the Brownfields law (Small Business Liability Relief and Brownfields Revitalization Act). The program also offers outreach support for environmental justice issues involving Tribal and native Alaskan villages or other disadvantaged communities that need to address perceived or real hazardous substance contamination at sites in their neighborhood or town. EPA also will provide technical assistance to communities that were awarded funding to combine smart growth policies with Brownfields redevelopment or national groups that use the funding to address general issues of vacant properties and infrastructure decisions. EPA also will conduct further research on incentives for

cleanup that enables Brownfields redevelopment, pilot additional techniques to accomplish redevelopment within communities, identify new policy and research needs and create examples and best practices that can be copied in other communities.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.4 FTE) This change reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$566.6) This reflects an increase for payroll and cost of living for existing FTE.

- (-$463.3) This reflects a reduction based on realigned workforce and support contract costs to more accurately reflect programmatic priorities.

Statutory Authority:

CERCLA as amended by SBLRBRA (P.L. 107-118); RCRA, Section 8001; GMRA (1990); SWDA; FGCAA.

Program Area: Climate Protection Program

Climate Protection Program

Program Area: Climate Protection Program
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air; Protect the Ozone Layer; Radiation; Reduce Greenhouse Gas Intensity

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$92,457.2***	***$90,834.0***	***$91,843.3***	***$1,009.3***
Science & Technology	$20,448.0	$18,648.0	$12,549.6	($6,098.4)
Total Budget Authority / Obligations	$112,905.2	$109,482.0	$104,392.9	($5,089.1)
Total Workyears	218.1	216.3	214.1	-2.2

Program Project Description:

The core of EPA's climate change efforts are voluntary government/industry partnership programs designed to capitalize on the opportunities that consumers, businesses, and organizations have for making sound investments in efficient equipment, policies, and practices. Energy efficiency saves fuel and leads to reduction in emission from power plants and the transportation sector.

EPA manages a number of efforts, such as the ENERGY STAR and SmartWay programs, clean energy partnerships, and voluntary transportation efficiency programs to remove barriers in the marketplace and to deploy technology faster. EPA programs do not provide financial subsidies. Instead, they work to address the lack of clear, reliable information on technology opportunities; lack of awareness of energy efficient products, services, and transportation choices; and low incentives for manufacturers to invest in efficiency research and development.

EPA also manages the continued implementation of the Methane to Markets Partnership – a U.S. led international initiative that promotes cost-effective, near-term methane recovery and use as a clean energy source. The Partnership has the potential to deliver by 2015 annual reduction in methane emission of up to 500 billion cubic feet of natural gas. Methane to Markets builds on the success of EPA's domestic methane voluntary programs by creating an international forum that will achieve its goals through collaboration among developing countries, developed countries, and countries with economies in transition- together with strong participation from the private sector, development banks, and other governmental and non-governmental organizations.

Performance Assessment: OMB assessed the Climate Change Program in 2004 through the PART process, and gave it a rating of "Adequate." There are over 20 climate change programs which work with the private sector to cost effectively reduce greenhouse gas emissions and facilitate energy efficiency improvements. Each sector (buildings, industry, and transportation) has performance and efficiency measures to track the amount of greenhouse gas emissions that are reduced as a result of the programs' efforts.

EPA's Climate Protection Program has encouraged the reduction of carbon dioxide (CO_2) and other greenhouse gases such as

methane and perfluorocarbons (PFCs). EPA's climate change programs promote the use of energy efficient equipment. Since energy efficient equipment often has a working life of decades or more, consumer purchases of energy efficient equipment -- that are made today -- will continue to deliver environmental and economic benefits for many years to come. Based on investments in equipment already made due to EPA's programs, organizations and consumers across the country will net savings of about $100 billion and reduce greenhouse emissions by more than 700 MMTCE (cumulative reductions based upon estimated 2004 achievements).[11] For every dollar spent by EPA on its technology deployment programs, the programs have reduced greenhouse gas emissions by more than 1.0 metric ton of carbon equivalent (3.67 tons of CO_2) and delivered more than $75 in energy bill savings.[12] This is based upon cumulative reductions since 1995.

EPA's international activities lead to greater information and technical capacity available for developing and industrialized countries to implement emissions reductions policies and climate protection programs. EPA is one of several U.S. government agencies participating in the Asia-Pacific Partnership on Clean Development and Climate. The United States partnered with Australia, China, India, Japan and South Korea to formally launch this initiative in January 2006. This partnership will focus on voluntary practical measures to create new investment opportunities, build local capacity, and remove barriers to the introduction of clean, more efficient technologies. This partnership will also help each country meet nationally designed strategies for improving energy security, reducing pollution, and addressing the long-term challenge of climate change.

FY 2007 Activities and Performance Plan:

EPA will continue to build upon its voluntary government/industry partnership efforts to achieve even greater greenhouse gas reductions, which contribute to the President's goal to reduce greenhouse gas intensity by 18 percent by 2012. In FY 2007, EPA's climate change programs are projected to:

- Reduce other forms of pollution, including air pollutants such as nitrogen oxides (NO_x), particulate matter, and mercury;
- Continue the ENERGY STAR program across the residential, commercial, and industrial sectors, expanding the program as outlined in the Administration's National Energy Policy;
- Continue the Climate Leaders program as a key element of the President's Climate Policy and Clean Energy Programs which are key elements of the Administration's National Energy Policy;
- Continue the SmartWay Transport Partnership to increase energy efficiency and lower emissions of freight transportation by substantially increasing the market penetration of diesel engine retrofits, anti-idling technologies, lower rolling resistant tires, improved aerodynamic truck designs, improved freight logistics, and by partnering with international partners like Canada and Mexico, especially at border crossings;

[11] Climate Protection Partnerships Division estimate

[12] Climate Protection Partnerships Division, U.S. Environmental Protection Agency. 2004. Protecting the Environment-- Together, ENERGY STAR and Other Voluntary Programs, 2003 Annual Report.

- Continue the Best Workplaces for Commuters program to save energy, reduce C02 emissions and transform the way Americans get to work by targeting key national businesses and industry sectors so that employers routinely offer great commuter benefits including telework programs, transit passes and carpool incentives;
- Extend the Methane-to-Markets Partnership by assessing the feasibility of methane recovery and use projects at landfills, coal mines, and natural gas and oil facilities and by identifying and addressing institutional, legal, regulatory and other barriers to project development in partner countries;
- Assist developing countries and countries with economies-in-transition to reduce emissions of greenhouse gases through cost-effective measures and assist in the fulfillment of the U.S. obligations under the U.N. Framework Convention on Climate Change (UNFCCC) to facilitate technology transfer to developing countries;
- Produce measurable international greenhouse gas emission reductions through clean industrialization partnerships with key developing countries;
- Working with USDA, analyze, identify, and develop specific opportunities to sequester carbon in agricultural soils, forests, other vegetation, and commercial products, with collateral benefits for productivity and the environment;
- Begin work on the government-wide Asia-Pacific Partnership on Clean Development to assist the region in developing country-specific strategies to improve investment in clean energy, energy security and reduce pollution. EPA will also work with this Asia-Pacific region to develop and deploy new and emerging technologies and tailor programs, such as methane capture and use, building energy efficiency, clean energy generation, and more efficient industrial energy use to meet the specific conditions of each area.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the buildings sector.	Data Avail. 06	23.8	26.5	29.4	MMTCE

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the industry sector.	Data Avail. 06	53.5	59.5	64.5	MMCTE

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the transportation sector.	Data Avail. 06	2.9	3.3	4.2	MMTCE

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.7 FTE) This change reflects a decrease in EPA's workforce as part of a management strategy to better align resources, skills, and Agency priorities.

- (-$175.0 \ -1.5 FTE) This reduces workforce and payroll contributions by the Office of International Affairs to the Climate Protection Program. Remaining resources have been shifted to the International Capacity Building Program/ Project.

- (+$612.7) This reflects an increase for payroll and cost of living for existing FTE.

- (-$107.4) This reduces contributions by the Office of International Affairs to the Climate Protection Program. Remaining resources have been shifted to the International Capacity Building Program/ Project.

- (-$2,127.5) This reduces contract funds for the Energy Star program to reflect efficiency gains and shifting priorities.

- (+$2,032.0) This will support the Methane to Markets program, an international initiative that advances cost-effective, near-term methane recovery and use as a clean energy source. The goal of the Partnership is to reduce global methane emissions in order to enhance economic growth, strengthen energy security, improve air quality, improve industrial safety, and reduce emissions of greenhouse gases.

- (+$5,000.0) This funding will support involvement in the Asia-Pacific Partnership, which will build from existing EPA programs as well as new efforts. This partnership will focus on voluntary practical measures taken by Australia, China, India, Japan, and South Korea to accelerate clean development in the Asia-Pacific region to create new investment opportunities, build local capacity, and remove barriers to the introduction of clean, more efficient technologies. EPA will work with these nations to develop and deploy innovative technologies that are cleaner and more efficient.

- (-$4,225.5) This decrease reflects the net changes to all other Climate Change programs, such as Green Power Partnership, Industrial Carbon, Best Workplaces, and International Capacity Building.

Statutory Authority:

CAA Amendments, 42 U.S.C. 7401 et seq. – Sections 102, 103, 104 and 108; Pollution Prevention Act, 42 U.S.C. 13101 et seq. – Sections 6602, 6603, 6604 and 6605; NEPA, 42 U.S.C. 4321 et seq. – Section 102; Global Climate Protection Act, 15 U.S.C. 2901 – Section 1103; Federal Technology Transfer Act, 15 U.S.C. – Section 3701a; CWA, 33 U.S.C. 1251 et seq. – Section 104; Solid Waste Disposal Act, 42 U.S.C. 6901 et seq.- Section 8001.

Program Area: Compliance

Compliance Assistance and Centers
Program Area: Compliance
Goal: Land Preservation and Restoration
Objective(s): Preserve Land

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$27,207.0***	***$27,935.0***	***$28,890.7***	***$955.7***
Leaking Underground Storage Tanks	$531.6	$711.0	$839.1	$128.1
Oil Spill Response	$270.1	$284.0	$280.2	($3.8)
Hazardous Substance Superfund	$0.0	$11.0	$22.2	$11.2
Total Budget Authority / Obligations	$28,008.7	$28,941.0	$30,032.2	$1,091.2
Total Workyears	200.4	212.4	212.1	-0.3

The FY 2005 Obligations include a redistribution of resources from the IT/Data Management program project to the core programs that these resources support: Compliance Monitoring, Civil Enforcement, Compliance Assistance and Compliance Incentives program projects.

Program Project Description:

EPA's compliance assistance program includes a range of activities and tools designed to improve compliance with environmental laws. Regulated entities, Federal agencies and the public benefit from easy access to tools that help them understand these laws and find efficient, cost-effective means for putting them into practice. To achieve these goals, the Compliance Assistance and Centers program provides information, training and technical assistance to the regulated community to increase its understanding of statutory and regulatory environmental requirements, thereby gaining measurable improvements in compliance and reducing risks to human health and the environment. The program also provides tools such as plain-language guides; interactive virtual compliance assistance centers and an on-line clearinghouse; training; and assistance to other compliance assistance providers. The Program provides international enforcement and compliance training, promotes environmental "good governance," and promotes positive approaches to trade and environment. Activities are tracked and reported using the Integrated Compliance Information System (ICIS). For more information, visit: www.epa.gov/compliance/assistance/index.html; www.epa.gov/clearinghouse; and www.assistancecenters.net.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to provide general and targeted compliance assistance to the regulated community and to integrate assistance into its enforcement and compliance efforts. In partnership with trade associations and other assistance providers, the Agency will continue to support the Compliance Assistance Centers. These Centers are a key component of EPA's efforts to help small and medium-sized businesses and governments understand and comply with

federal environmental requirements. The fourteen existing centers and the National Environmental Compliance Assistance Clearinghouse provide one-stop shopping through integration with the "Business Gateway" e-government initiative. The Business Gateway targets sectors of the regulated community and the public for regulatory environmental and technical assistance, pollution prevention activities, and resources suited to the individual sector.

The Federal Facility Enforcement Program will continue to provide technical guidance to other Federal agencies on compliance with executive orders and applicable environmental laws. EPA will also continue working with other Federal agencies to support the new Federal Facilities Stewardship and Compliance Assistance Center (www.fedcenter.gov) in FY 2007.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with

The Agency will improve local and state-specific information (e.g. state regulatory requirements) available in new and existing centers. EPA will also continue to integrate the centers and clearinghouse with the "Business Gateway" Initiative. In FY 2007, EPA will continue refining data elements to ensure accurate reporting into the Integrated Compliance Information System (ICIS), and build the Agency's capacity to measure compliance assistance outcomes.

In FY 2007, the Agency will also carry out the actions outlined in the Domenici-Barton Energy Policy Act of 2005 by providing compliance assistance to owners and operators of Underground Storage Tanks (UST).

The program will continue to assist foreign industries (especially those along the United States border) who do business in the United States to comply with statutory and regulatory environmental requirements; and promote effective enforcement programs in foreign countries. This will strengthen environmental protection, and level the economic playing field in a global trading system.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved EMP as a result of EPA assistance.	72	50	50	50	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	Percentage of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or eliminated pollution, as a result of EPA assistance.	13	25	15	15	Percentage

EPA's Compliance Assistance Program achieves pollutant reductions, improvements in regulated entities environmental management practices, and increases regulated entities understanding of environmental requirements through direct compliance assistance provided by EPA personnel, and through on-line compliance assistance centers and the clearinghouse. There are many programs evaluated under the Civil Enforcement PART. These programs include Compliance Assistance, Compliance Incentives, Compliance Monitoring, Civil Enforcement, Enforcement Training, Forensics, Superfund Enforcement, and categorical grant programs for toxic substances and sectors. One of the key Civil PART program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions, resulting from enforcement actions taken by EPA, have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. EPA is working to develop a statistical method to set the baseline for this measure that will eliminate the extreme variations in results from a few cases. A baseline will be established in FY 2006.

Through compliance assistance in FY 2005, EPA increased the understanding of regulated entities, improved environmental management practices (EMPs), and reduced pollution. Regulated entities reported improvement of EMPs went up 78% for regulated entities using the CACs and 72% for regulated entities receiving direct compliance assistance. Forty six percent of regulated entities reported that they reduced, treated, or eliminated pollution as a result of using Compliance Assistance Centers and the clearinghouse.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+1 FTE) This increase supports the Energy Policy Act of 2005 which provides assistance for the state and tribal coordination of Underground Storage Tanks (UST) inspections.

- (+$29.3, +2.8 FTE) This increase represents a restructuring which moves resources from the International Capacity Building program/project. The resources will continue to promote security along the United States' borders with Mexico and Canada.

- (+$138.9) This increase will be used to provide information, training, and technical assistance on the nation's environmental laws to regulated entities, including other federal agencies and the public.

- (+$170.8) This is a technical adjustment moving IT/Telecommunications resources from the Compliance Monitoring program to support the Integrated Compliance Information System (ICIS) modernization project.

- (+$8.9 \ +1 FTE) This is a technical adjustment redirecting resources for Tribal outreach activities from the Congressional, Intergovernmental, and External Relations program/project.

- (+$102.5) This supports multi-media enforcement and compliance assurance capacity building for Tribal programs.

- (-5.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$1,153.4) The program will be able to maintain the current number of Centers at 14 in FY 2007.

- (+$1,658.7) This reflects an increase for payroll and cost of living increases for existing FTE.

Statutory Authority:

RCRA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NEPA; CERCLA; NAAEC; LPA-US/MX-BR; EPAct.

Compliance Incentives
Program Area: Compliance
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$10,135.7***	***$9,412.0***	***$9,702.2***	***$290.2***
Hazardous Substance Superfund	$148.9	$186.0	$142.7	($43.3)
Total Budget Authority / Obligations	$10,284.6	$9,598.0	$9,844.9	$246.9
Total Workyears	78.5	76.8	76.6	-0.2

The FY 2005 Obligations include a redistribution of resources from the IT/Data Management program project to the core programs that these resources support: Compliance Monitoring, Civil Enforcement, Compliance Assistance and Compliance Incentives program projects.

Program Project Description:

EPA is currently using a variety of approaches to encourage corporate self-disclosures, with emphasis on corporate-wide disclosures of environmental violations under various environmental statutes. EPA's Audit Policy encourages corporate audits of environmental compliance and subsequent correction of self-discovered violations, providing a uniform enforcement response toward disclosures of violations. Under the Audit Policy, when companies voluntarily discover and promptly correct environmental violations, EPA may waive or substantially reduce civil penalties. For more information visit: www.epa.gov/compliance/incentives/programs/index.html.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

The Agency's Enforcement Program will continue to implement the Audit/Self-Policing Policy (Audit Policy); Small Business Compliance Policy; and Small Local Governments Policy as core elements of the Enforcement and Compliance Assurance Program. Since FY 2001, over 5,000 facilities have resolved violations under EPA's Voluntary Disclosure Policies. In FY 2007, the Agency will continue to expand use of the Audit Policy through aggressive outreach to industries. Several examples of the EPA's sector-specific efforts include refrigerated warehouses, colleges and universities, and healthcare facilities. EPA actively encourages disclosures at multiple facilities owned by the same regulated entity, because such disclosures allow each entity to review their operations holistically, which more effectively benefits the environment.

In FY 2007, the Compliance Incentives program continues to promote the use of Environmental Management Systems (EMSs). EMSs provide organizations with an approach to minimizing

environmental impacts – regulated and unregulated – by integrating environmental concerns into business decisions and practices. EPA will continue to implement the National Environmental Performance Track Program (NEPT) which is a program that recognizes and motivates top-performing facilities that consistently meet their legal requirements, have implemented EMS, and made tangible improvements to their environmental performance.

In FY 2007, the Agency will support and encourage states' efforts to adopt the innovative Environmental Results Program (ERP). ERP consists of a set of three linked tools – compliance assistance, self-evaluation and certification, and inspections and performance measurement – that work together to hold facility owners and operators accountable for their environmental obligations. In Massachusetts, where ERP was developed, the program improved performance for small businesses and also resulted in savings for businesses, while allowing the state and EPA to focus resources on higher priority environmental problems.

Compliance Incentives activities are reported into the Integrated Compliance Information System (ICIS), to enable the Agency to make strategic decisions for the best utilization of resources and tools, and to respond to increasing demands for compliance and environmental information. EPA will continue to make multi-media compliance incentives information available to the public through the Enforcement and Compliance History On-line (ECHO) Internet website during FY 2007. This site provides communities with compliance status, and averages 65,000 queries per month.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Pounds of pollutants reduced, treated, or eliminated, as a result of audit agreements.	1.9 million	0.25 million	0.4 million	0.4 million	Pounds

EPA's Compliance Incentive Programs, which encourage regulated entities to monitor and quickly correct environmental violations, achieves pollutant reductions, and improvements in regulated entities environmental management practices. There are many programs evaluated under the Civil Enforcement PART. These programs include Compliance Assistance, Compliance Incentives, Compliance Monitoring, Civil Enforcement, Enforcement Training, Forensics, Superfund Enforcement, and categorical grant programs for toxic substances and sectors. One of the key Civil Enforcement PART program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made of future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. A baseline was established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$19.1) This is a technical adjustment moving IT and telecommunications resources from the Compliance Monitoring program to support the Integrated Compliance Information System (ICIS) modernization project.

- (-$76.2) This reflects a decrease to resources used to provide incentives for regulated entities to comply with the environmental laws.

- (-0.2 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$347.3) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

RCRA; CWA; SDWA; CAA; TSCA; EPCRA; RLBHRA; FIFRA; ODA; NEPA; NAAEC; LPA-US/MX-BR.

Compliance Monitoring
Program Area: Compliance
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$85,297.9***	***$85,463.0***	***$93,018.8***	***$7,555.8***
Hazardous Substance Superfund	$1,452.4	$955.0	$1,144.1	$189.1
Total Budget Authority / Obligations	$86,750.3	$86,418.0	$94,162.9	$7,744.9
Total Workyears	625.7	627.6	632.0	4.4

The FY 2005 Obligations include a redistribution of resources from the IT/Data Management program project to the core programs that these resources support: Compliance Monitoring, Civil Enforcement, Compliance Assistance and Compliance Incentives program projects.

Program Project Description:

The Compliance Monitoring program reviews and evaluates the activities of the regulated community to determine compliance with applicable laws, regulations, permit conditions, and settlement agreements. It also responds to tips and complaints from the public, and determines whether conditions exist that may present imminent and substantial endangerment to human health or the environment. EPA's Compliance Monitoring program includes the management of compliance and enforcement data and data systems, and the use of that data to manage the compliance and enforcement program. For more information visit: www.epa.gov/compliance/monitoring /index.html.

The Agency reviews and responds to 100 percent of the notices for trans-boundary movement of hazardous waste, ensuring that these wastes are properly handled in accordance with international agreements and Resource Conservation and Recovery Act regulations. For more information about the Import/Export program visit: www.epa.gov/compliance/international/importexport.html.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

EPA coordinates with and provides support to state and Tribal partners conducting inspections either under their own authority or EPA's authority. EPA's activities will be targeted in areas that pose risks to human health or the environment, display patterns of noncompliance, or involve disproportionately exposed populations. EPA's efforts complement state and Tribal programs to ensure compliance with laws throughout the United States. EPA is working with states and Tribes to identify where these inspections, evaluations and investigations will have the greatest impact on achieving environmental results. Program activities will focus on the national program

priorities and the core programs identified in the Enforcement and Compliance Assurance's FY 2005/2007 National Program Guidance as well as on supporting and overseeing delegated state/Tribal programs.
For more information visit: www.epa.gov/ocfopage/npmguidance/index.htm.

To ensure the quality of these inspections/evaluations/investigations, EPA identifies and provides needed training to ensure that the inspectors/investigators are: 1) knowledgeable of environmental requirements and policies; 2) technically proficient to conduct the inspection and take samples; and 3) skilled at interviewing potential witnesses and documenting the results of inspections.

The Agency plans to implement the modernized Permit Compliance System (PCS) beginning in Spring 2006 for direct-user states. The Integrated Compliance Information System (ICIS) – National Pollutant Discharge Elimination System (NPDES), or modernized PCS, will improve the ability of EPA and the states to manage the Clean Water Act NPDES program. During Spring 2006, ICIS-NPDES will bring on approximately seven states, with an additional seventeen states added by the end of 2006. Development of a modernized PCS, through integration into ICIS, will continue throughout FY 2007, with a goal of completing modernization and moving all states to ICIS-NPDES by the end of FY 2008.

EPA will continue to make multi-media compliance monitoring information available to the public through the Enforcement and Compliance History On-line (ECHO) Internet website during FY 2007. This site provides communities with compliance status, averaging about 65,000 queries per month.

EPA will continue to review all notices for trans-boundary movement of hazardous waste. While the vast majority of the hazardous waste trade occurs with Canada, the United States also has international trade agreements with Mexico, Malaysia, Costa Rica and the Philippines; and is a member of the Organization for Economic Cooperation and Development which issued a Council Decision controlling trans-boundary movement of hazardous waste applicable to all member countries. In 2004, EPA responded to 1,142 notices (representing 424 import notices and 718 export notices).

In FY 2007, the Agency also will implement the Domenici-Barton Energy Policy Act of 2005 by inspecting Underground Storage Tanks (UST) on sites not inspected since December 31, 1998, with a wide range of industries including gas stations, chemical companies, and federal facilities. The program will also focus on monitoring compliance of gasoline rules and will ensure that the operation and maintenance of ICIS and the data flows to capture State UST inspection information will be completed.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)	1,100	300	450	500	million pounds

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	Percentage of concluded enforcement cases (including SEPs) requiring that pollution be reduced, treated, or eliminated.	28.8	30	30	30	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	Percentage of concluded enforcement cases including SEPs requiring implementation of improved environmental management practices.	72.5	60	65	70	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations.	19	10	25	30	percentage

EPA's Monitoring and Enforcement Program achieves pollutant reductions, and improvements in regulated entities environmental management practices through the settlement of enforcement cases. There are many programs evaluated under the Civil Enforcement PART. These programs include Compliance Assistance, Compliance Incentives, Compliance Monitoring, Civil Enforcement, Enforcement Training, Forensics, Superfund Enforcement, and categorical grant programs for toxic substances and sectors. One of the key Civil Enforcement PART program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions, resulting from enforcement actions taken by EPA, have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant effect on the end-of-year results. The baseline was established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$287.1 \ +6 FTE) This increase will be used to implement the Energy Policy Act of 2005 by inspecting Underground Storage Tanks (UST) and monitoring the compliance of new ethanol fuel standards, Reformulated Gasoline (RFG) oxygenate, and summertime Volatile Organic Compounds (VOC) requirements.

- (+$148.8, +1 FTE) This increase will be used by EPA's Region 10 to support local compliance monitoring activities in Alaska.

- (+$226.7, +1 FTE) This increase is a technical adjustment moving resources from the Congressional, Intergovernmental, and External Relational program for work relating to the National Environmental Performance Partnerships System (NEPPS) and National Association of Attorney's General.

- (+$1,709.6) This increase provides additional resources for inspections and investigations that are used to determine if members of the regulated community are in compliance with the nation's environmental laws.

- (+$1,219.5) This increase supports continued development of a modernized Permit Compliance System which support the information management requirements of the Clean Water Act National Pollutant Discharge Elimination System program.

- (-3.6 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$189.9) This is a technical adjustment moving IT and telecommunications resources to the Compliance Assistance and Compliance Incentives program/projects. These funds are being moved from the Integrated Compliance Information System (ICIS)

modernization component in compliance monitoring to the ICIS components in the two other programs.

- (+$4,154.0) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

RCRA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NEPA; NAAEC; LPA-US/MX-BR; EPAct.

Program Area: Enforcement

Civil Enforcement
Program Area: Enforcement
Goal: Land Preservation and Restoration
Objective(s): Restore Land

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$113,719.7***	***$117,807.0***	***$120,777.7***	***$2,970.7***
Oil Spill Response	$1,900.7	$1,910.0	$1,826.3	($83.7)
Hazardous Substance Superfund	$625.2	$796.0	$883.0	$87.0
Total Budget Authority / Obligations	$116,245.6	$120,513.0	$123,487.0	$2,974.0
Total Workyears	933.9	960.7	958.5	-2.2

The FY 2005 Obligations include a redistribution of resources from the IT/Data Management program project to the core programs that these resources support: Compliance Monitoring, Civil Enforcement, Compliance Assistance and Compliance Incentives program projects.

Program Project Description:

The Civil Enforcement program's overarching goal is to protect human health and the environment, targeting enforcement actions according to degree of health and environmental risk. The program works with the Department of Justice to ensure consistent and fair enforcement of all environmental laws and regulations. The objective is to level the economic playing field by ensuring that violators do not realize an economic benefit from noncompliance, and to deter future violations. The civil enforcement program develops, litigates and settles administrative and civil judicial cases against serious violators of environmental laws. For more information visit:
www.epa.gov/compliance/civil/index.html; www.epa.gov/epaoswer/hazwaste/ca/backgnd.htm.

FY 2007 Activities and Performance Plan:

The Civil Enforcement program coordinates with states and within EPA to establish priorities based on risk and patterns of compliance. In FY 2007, the Agency will continue to build on its work on national compliance and enforcement priorities established in FY 2005, including Petroleum Refining; Clean Water Act (CWA)/Wet Weather discharge; Clean Air Act (CAA)/New Source Review/Prevention of Significant Deterioration (NSR/PSD); CAA/Air Toxics; Resource Conservation and Recovery Act (RCRA)/Mineral Processing; and RCRA/SDWA/TSCA/Financial Responsibility.

Performance Assessment:
The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

The program will also focus FY 2007 resources on national program priorities, including environmental and human health problems, trans-boundary pollutants, and multi-state industrial violators. The Federal Facilities Enforcement program will continue to expeditiously pursue enforcement actions at Federal facilities where significant violations are discovered. The Civil Enforcement program also will support the Environmental Justice program by focusing enforcement actions on industries that have repeatedly violated environmental laws in disproportionately affected communities, including minority and/or low-income areas.

Also in FY 2007, the Integrated Compliance Information System (ICIS) will continue to support the civil enforcement program by ensuring the security and integrity of this data, and build the Agency's capacity to measure civil enforcement outcomes. The Agency will also implement the Domenici-Barton Energy Policy Act of 2005 by focusing on enforcing new fuel standards and acting on waiver applications.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)	1,100	300	450	500	Million Pounds

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Dollars invested in improved environmental performance or improved environmental management practices as a result of concluded enforcement actions (i.e., injunctive relief and SEPs)	10 billion	4 billion	4.1 billion	4.2 billion	Dollars

EPA's Monitoring and Enforcement Program achieves pollutant reductions, and improvements in regulated entities environmental management practices through the settlement of enforcement cases. There are many programs evaluated under the Civil Enforcement PART assessment. These programs include Compliance Assistance, Compliance Incentives, Compliance Monitoring, Civil Enforcement, Enforcement Training, Forensics, Superfund Enforcement, and categorical grant programs for toxic substances and sectors. One of the key Civil Enforcement PART program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend

the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year and one or two cases can have a significant affect on the end-of-year results. A baseline was established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$326.7 \ +3.5 FTE) This increase will be used to enforce the Energy Policy Act of 2005 by supporting investigations and follow up enforcement at refineries and terminals, and enforcement of Reformulated Gasoline (RFG) oxygenate and summertime Volatile Organic Compounds (VOC) requirements.

- (+$811.6) This increase will be used to pursue enforcement actions against serious violators of the law, focusing on main national priorities, including petroleum refining, air toxics, New Source Review and Prevention of Significant Deterioration (NSR/PSD), wet weather, mineral processing, and tribal.

- (+$31.7 \ +2.9 FTE) This increase represents a restructuring that more accurately aligns the work accomplished by the International Compliance Assurance Division of the Office of Enforcement and Compliance Assurance. These resources will be transferred from the International Capacity Building program to assist border countries (i.e. Canada and Mexico) to comply with United States statutory and regulatory environmental requirements and promote effective enforcement programs in foreign countries. This restructuring will not change the work that is currently being accomplished by the International Compliance Assurance Division.

- (+$10.0) This increase will be used by EPA's Region 10 to support local civil enforcement activities in Alaska.

- (-8.6 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$1,790.7) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

RCRA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NAAEC; LPA-US/MX-BR; NEPA; SBLRBRERA; CERCLA; PPA; CERFA; AEA; PPA; UMTRLWA; EPAct.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$35,109.3***	***$37,565.0***	***$37,793.5***	***$228.5***
Hazardous Substance Superfund	$8,070.1	$8,275.0	$8,502.2	$227.2
Total Budget Authority / Obligations	$43,179.4	$45,840.0	$46,295.7	$455.7
Total Workyears	251.8	273.5	270.8	-2.7

Program Project Description:

The Criminal Enforcement program, mandated by the Pollution Prosecution Act of 1990, deters violations of environmental laws and regulations by demonstrating that the regulated community will be held accountable, through jail sentences and criminal fines, for serious, willful statutory violations. The program thus serves as a warning for potential violators, enhancing aggregate compliance with laws and regulations.

The Criminal Enforcement program conducts investigations and refers case for prosecution. Where appropriate, it helps secure plea agreements or sentencing conditions that will require defendants to improve their environmental management practices (e.g., by securing permits or developing environmental management systems to enhance performance). The Agency also develops information to support grand jury inquiries and decisions, and works with other law enforcement agencies to present a highly visible and effective force in the Agency's overall enforcement strategy. Cases are referred to the Department of Justice for prosecution, with special agents serving as key witnesses in the proceedings.

The program also participates in task forces with state and local law enforcement, and provides specialized training at the Federal Law Enforcement Training Center (FLETC) in Glynco, GA. FLETC provides one of the few opportunities for state, local, and tribal environmental enforcement professionals to obtain criminal investigation training. For more information visit: http://www.epa.gov/compliance/criminal/index.html

FY 2007 Activities and Performance Plan:

In FY 2007, the Criminal Enforcement Program will continue implementing its strategic approach by emphasizing investigations and prosecutions of national and regional enforcement priorities, as well as complex cases that have the most significant impact upon human health and the environment. The Criminal Enforcement Program also will continue to enhance its coordination with the Civil Enforcement program by expanding the Regional case screening process and by taking criminal enforcement actions against long-term, or repeat significant non-compliers where appropriate.

Performance Assessment: The Criminal Enforcement Program was rated adequate with the addition of new outcome measures. The program created a measure implementation plan to set targets and milestones for performance measures. Case Conclusion Data Sheet improvements will collect new data for Criminal Enforcement PART measures. EPA anticipates collecting performance information for pollution reduction and recidivism performance targets in 2006. The targets for the Improved Environmental Management and the Pollutant Impact measures will be developed in FY2007 and FY2008 respectively.

In FY 2007, the Criminal Case Reporting System (which replaces the existing CRIMDOC system and will come "on-line" in FY 2006) will complete a series of enhancements to allow real time entry of data associated with all closed criminal enforcement cases. This information will be used to systematically compile a profile of criminal cases, including the extent to which the cases support Agency-wide, program-specific, or Regional enforcement priorities. The profile will also describe the impact of the cases in terms of pollution released into the environment and resulting environmental harm such as the degradation of drinking water wells, human populations injured or made ill, and aquatic or animal life harmed.

Performance Targets:

This program underwent a PART assessment in 2004 and received a rating of Adequate based on submission of a Measures Implementation Plan. In FY 2007, the Criminal Enforcement program's Pollution Reduction measure will be reported against the baseline and target set in FY 2006, which uses an average of pollutant reduction data from three fiscal years (FY 2003-2005). The results of this measure are likely to fluctuate annually due to the specific characteristics of the enforcement cases concluded during a given fiscal year, however, applied over the long-term, this information will help the program to identify and prioritize cases that present the most serious threats to public health and the environment.

In addition, in FY 2007 the Criminal Enforcement Program will report its PART-approved measures on "improved environmental management" and "recidivism" after the targets and baselines are developed in FY 2006. The program will also develop the targets and baselines for its "pollutant impact" measure (i.e., the amount of illegal pollution released into the environment that cannot be treated, remediated or otherwise reduced) in order to begin external reporting of that measure in FY 2008. Work under this program supports the Improve Compliance objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$111.3) This increase will be used to conduct criminal investigations and refer cases for prosecution.

- (-2.0 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$886.7) This decrease reflects the FY 2006 Congressional earmark for the criminal enforcement program which is not requested in FY 2007.

- (+$1,003.9) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

RCRA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NEPA; NAAEC; LPA-US/MX-BR; Pollution Prosecution Act; Federal Criminal Code (18 USC) Powers of Environmental Protection Agency; EPAct.

Enforcement Training

Program Area: Enforcement
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$3,766.2***	***$2,945.0***	***$2,503.7***	***($441.3)***
Hazardous Substance Superfund	$897.8	$581.0	$621.9	$40.9
Total Budget Authority / Obligations	$4,664.0	$3,526.0	$3,125.6	($400.4)
Total Workyears	25.0	17.0	16.9	-0.1

Program Project Description:

As mandated by the Pollution Prosecution Act, the Agency's Enforcement Training program provides environmental enforcement training nationwide, through EPA's National Enforcement Training Institute (NETI). The program oversees the design and delivery of core and specialized enforcement courses that sustain a well-trained workforce to carry out the Agency's enforcement goals. Courses are provided to lawyers, inspectors, civil and criminal investigators, and technical experts at all levels of government.

FY 2007 Activities and Performance Plan:

In FY 2007, NETI will develop and deliver training to address variances in enforcement and compliance assurance knowledge and skills identified in needs assessments and national strategic plans. The program funds training for states and tribes through cooperative agreements with state/tribal entities.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

NETI also maintains a training center on the Internet, "NETI Online," which offers targeted technical training courses and a clearinghouse of training information to national and international audiences. The site provides tools for tracking individual training plans, as well as developing, managing and improving the program's training delivery processes. For more information, please visit: http://www.epa.gov/compliance/training/neti/index.html.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)	1,100	300	450	500	Million Pounds

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate based on development of a Measures Implementation Plan. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. A baseline was established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$492.1) This decrease reflects the FY 2006 Congressional earmark for the National Enforcement Training Institute (NETI) which is not requested in FY 2007.
- (-$17.5) This decrease reduces support for various enforcement training activities.
- (+$68.3) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

PPA; RLBPHRA; RCRA; CWA; SDWA; CAA; TSCA; EPCRA; TSCA; FIFRA; ODA; NAAEC; LPA-US/MX-BR; NEPA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$4,853.2***	***$5,569.0***	***$3,859.0***	***($1,710.0)***
Hazardous Substance Superfund	$921.5	$827.0	$756.7	($70.3)
Total Budget Authority / Obligations	$5,774.7	$6,396.0	$4,615.7	($1,780.3)
Total Workyears	21.6	18.0	17.9	-0.1

Program Project Description:

The Environmental Justice program addresses environmental and human health concerns in all communities, focusing attention on minority and/or low-income communities -- segments of the population that have been, or could be disproportionately exposed to environmental harm and risks. The program provides education, outreach, and data to communities and facilitates the integration of environmental justice principles into Agency activities. The Agency also supports state and tribal environmental justice programs and conducts outreach and technical assistance to states, local governments, and stakeholders on environmental justice issues. For more information on the Environmental Justice program please visit: http://www.epa.gov/compliance/environmentaljustice/index.html.

FY 2007 Activities and Performance Plan:

EPA will enhance and maintain the Online Environmental Justice Geographical Information System Assessment Tool to help individuals, government, industry, and organizations better identify and address environment and public health issues that may affect them. The Environmental Justice Geographical Information System Assessment Tool provides ready access to environmental, public health, economic, and social demographic information from EPA and other government sources.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

The Program will also work with other EPA offices to develop customized online tools that help the Agency integrate environmental justice into their day-to-day work in an efficient and effective manner. Currently, the Program is assisting the Compliance Assurance program to develop an online assessment tool for use in conjunction with compliance activities.

In FY 2007, EPA will maintain the Environmental Justice Collaborative Problem-Solving (CPS) Cooperative Agreement Program. This program provides financial assistance to affected local community-based organizations who wish to engage in constructive and collaborative problem-

solving. This is achieved by utilizing tools developed by EPA and others to find viable solutions for their community's environmental and/or public health concerns.

EPA will continue to manage its Environmental Justice Small Grants program, which assists community-based organizations in developing solutions to local environmental issues. The program has awarded more than 1,000 grants of up to $20,000 each to community-based organizations and other entities such as universities, Tribes, and schools.

In FY 2007, EPA's Enforcement and Compliance Assurance program will continue to lead an Agency-wide effort to more fully incorporate environmental justice into EPA's programs and operations, including its 5-year planning and budget process. The Environmental Justice Strategic Plan will link to applicable portions of the headquarters program and regional offices' environmental justice activities.

The Agency also will continue to chair the Federal Interagency Working Group on Environmental Justice (IWG), composed of 11 Federal agencies, to ensure that environmental justice concerns are incorporated into all Federal programs. In 2007, the IWG will continue its efforts to work collaboratively and constructively with all levels of government, and throughout the public and private sectors. The IWG also will effectively address the environmental, health, economic and social challenges facing our communities by continuing to monitor the demonstration and revitalization projects underway which have used the collaborative problem-solving model as a tool for addressing local environmental and/or public health issues.

In FY 2007, the Agency will continue to use alternative dispute resolution (ADR) as an effective means of addressing disputes by training local community organizations on its use. Through the use of ADR, the Agency expects to reduce time and resources accompanying litigation and anticipates that decisions reached will be more efficient and favorable for all parties involved.

The Agency will also continue to assist program offices and other environmental organizations and government agencies deliver customized training to increase the capacity of personnel to effectively address issues of environmental justice. This training includes both in-person presentations and development of online training.

Performance Targets:

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate based on development of a Measures Implementation Plan. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure. Work under this program supports Healthy Communities objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$1,875.0) This decrease reflects the FY 2006 Congressional earmark for the environmental justice program which is not requested in FY 2007.

- (-0.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$26.2) This decrease reflects a small reduction in funding for the Agency's environmental justice activities.

- (+$191.2) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

Executive Order 12898; RCRA; CWA; DWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NAAEC; LPA-US/MX-BR; NEPA; Pollution Prosecution Act.

NEPA Implementation
Program Area: Enforcement
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Environmental Performance through Pollution Prevention and Innovation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$13,016.8***	***$12,640.0***	***$13,787.5***	***$1,147.5***
Total Budget Authority / Obligations	$13,016.8	$12,640.0	$13,787.5	$1,147.5
Total Workyears	110.3	101.7	104.0	2.3

Program Project Description:

As required by National Environmental Policy Act (NEPA), the NEPA Implementation program reviews Environmental Impact Statements detailing the anticipated environmental impacts of proposed major Federal actions, and options for avoiding or mitigating them. The program manages the Agency's official filing activity for all Federal environmental impact statements, in accordance with a Memorandum of Understanding with the Council on Environmental Quality. The program also manages the review of environmental impact assessments of non-governmental activities in Antarctica, in accordance with the Antarctic Science, Tourism, and Conservation Act.

In addition, the program fosters cooperation with other Federal agencies to ensure compliance with applicable environmental statutes, and to promote better integration of pollution prevention and ecological risk assessment elements into their programs. The Agency targets high impact Federal program areas, such as water resources and transportation/energy related projects. The program also develops policy and technical guidance on issues related to NEPA, the Endangered Species Act, the National Historic Preservation Act and relevant Executive Orders. For more information visit: www.epa.gov/compliance/nepa.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will work with other Federal agencies to streamline and improve their NEPA process. Work will focus on a number of key areas such as approval of highway and airport expansion; hydro-power/nuclear power plant re-licensing; coal bed methane development and other energy-related projects; military base realignment/redevelopment; flood control and port development; and management of national forests and public lands.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

The NEPA Implementation program also guides EPA's own compliance with NEPA, other applicable statutes and executive orders, and related Environmental Justice requirements. Corresponding efforts include EPA-issued new source

National Pollutant Discharge Elimination System (NPDES) permits, in cases where a State or Tribe has not assumed responsibility for the NPDES program; off-shore oil and gas projects; Clean Water Act wastewater treatment plant grants; and special appropriation grants for wastewater, water supply and solid waste collection facilities. In FY 2007, 90 percent of EPA projects subject to NEPA environmental assessment or environmental impact statement requirements (e.g., water treatment facility projects and other grants, new source NPDES permits and EPA facilities) are expected to result in no significant environmental impact.

NEPA reviews for projects in Alaska are expected to increase in number and complexity, and resources are requested to support the additional efforts needed. By 2007 the projected number of oil, gas and mining projects in Alaska is anticipated to increase by 50% to 100% over 2005 levels. The variety and complexity of these Alaska projects span a broad spectrum, including: a proposed natural gas pipeline; on-shore and off-shore oil and gas exploration and production, including the Congressionally authorized oil and gas exploration in the Arctic National Wildlife Refuge; and metal mines. This challenge is impacted by Executive Order 13212, which requires agencies to expedite their permit reviews or other actions to accelerate the completion of energy-related projects.

Performance Targets:

This program was included in the Civil Enforcement PART assessment in 2004, which received an overall rating of Adequate based on development of a Measures Implementation Plan. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure. Work under this program supports the Improve Environmental Performance through Pollution Prevention and Innovation objective. Currently there are no specific performance measures exist for the program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$63.9) This increase will support environmental impact statement and environmental assessment work.

- (+$294.4, +3 FTE) This increase will be used by EPA's Region 10 to support local compliance monitoring activities in Alaska.

- (-0.7 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$789.2) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CAA; NEPA; ASTCA; CWA; ESA; NHPA; AHPA; FCMA; FWCA; EO 12898.

Program Area: Geographic Programs

Geographic Program: Chesapeake Bay
Program Area: Geographic Programs
Goal: Clean and Safe Water
Objective(s): Protect Water Quality

Goal: Healthy Communities and Ecosystems
Objective(s): Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$22,886.6***	***$22,118.0***	***$26,397.7***	***$4,279.7***
Total Budget Authority / Obligations	$22,886.6	$22,118.0	$26,397.7	$4,279.7
Total Workyears	22.7	21.9	21.7	-0.2

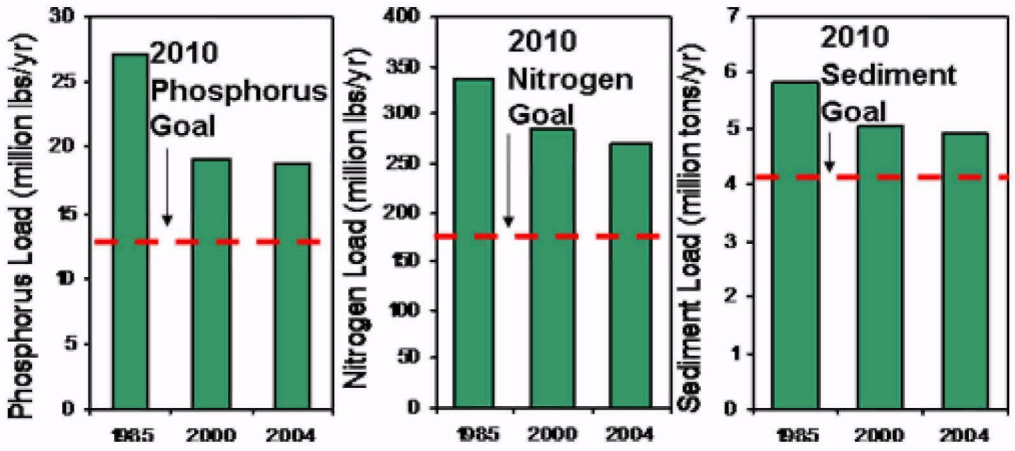
Program Project Description:

EPA's work in the Chesapeake Bay is based on a regional partnership formed to direct and conduct restoration of the Chesapeake Bay. Partners include Maryland, Virginia and Pennsylvania; the District of Columbia; the Chesapeake Bay Commission, a tri-state legislative body; and participating citizen advisory groups. Delaware, New York and West Virginia, representing the Bay's headwaters, also participate in Bay Program water quality restoration activities.

Chesapeake 2000, a comprehensive strategy developed between all partners, guides restoration and protection efforts in the Bay through 2010. The plan focuses on improving water quality as the most critical element in the overall protection and restoration of the Bay and its tributaries. The restoration of Submerged Aquatic Vegetation (SAV), a primary indicator of water quality, is a key program performance measure.

To improve water quality and restore SAV, Bay partners have committed to reducing nutrient (phosphorus and nitrogen) and sediment pollution loads. In *Chesapeake 2000,* the partners committed to "correcting the nutrient- and sediment- related problems in the Chesapeake Bay and its tidal tributaries sufficiently to remove the Bay and the tidal portions of the tributaries from the list of impaired waters under the Clean Water Act" by 2010. Total reductions from 1985 levels needed to achieve the new standards are currently estimated to be 162 M lbs/yr for nitrogen, 14.3 M lbs/yr for phosphorus and 1.68 M tons/yr for sediment. Total reductions needed from the FY 2002 baseline are 111 M lbs/yr for nitrogen, 6.3 M lbs/yr for phosphorus and 0.88 M tons/yr for sediment, indicating progress is being attained.

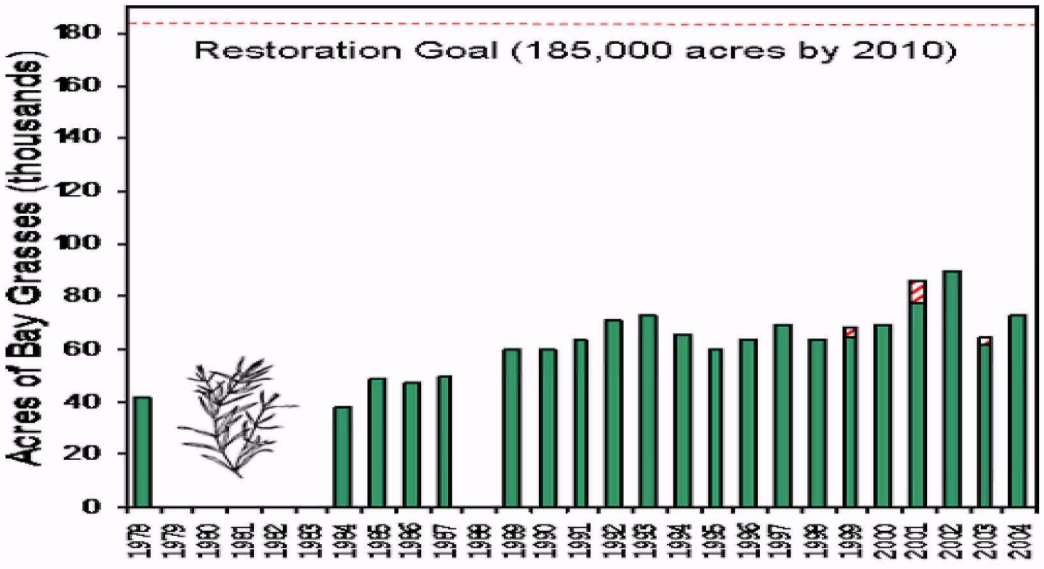
In order to achieve the necessary additional reductions, states will need to fully implement their pollution reduction strategies. Key elements of State strategies to achieve these reductions include: (1) the implementation of advanced wastewater treatment to reduce nutrient discharges; (2) the use of a range of best management practices to reduce nutrients and sediment loadings from farms; and (3) the restoration and protection of riparian forests that serve as a buffer against sediment and nutrient pollution that enters waterways from the land. (For additional information visit http://www.chesapeakebay.net/status.cfm?sid=186.)



FY 2007 Activities and Performance Plan:

While there are a number of measures used by the Chesapeake Bay Program, a key measure of success, which integrates water quality and essential aquatic habitat, is the restoration of SAV. SAV is one of the most important biological communities in the Bay, producing oxygen, nourishing a variety of animals, providing shelter and nursery areas for fish and shellfish, reducing wave action and shoreline erosion, absorbing nutrients such as phosphorus and nitrogen, and trapping sediments.

While recent improvements in water quality have contributed to a modest increase in SAV, from a low of 38,000 acres in 1984 to a cumulative total of 72,935 acres, more improvements are needed. The "healthy Bay" goal of 185,000 acres of SAV is expected to return the resource to historical levels. As a measure of improved water quality in the Bay, the goal for FY 2007 is there will be 100,000 acres of SAV. (For additional information visit www.chesapeakebay.net/status.cfm?sid=88 .)



The SAV chart includes partial estimated data for years with incomplete photographic documentation of the survey area (See red and white sections of the bars for 1999, 2001 and 2003). Spatial gaps in 1999 occurred due to hurricane disturbance and

subsequent inability to reliably photograph SAV. Spatial gaps in 2001 occurred due to flight restrictions near Washington D.C. after the September 11th terrorist attacks. Other gaps occurred in 2003 due to adverse weather in the spring, summer, and fall (Hurricane Isabel). Estimates of acreage in the nonsurveyed areas, based on prior years' surveys, were developed for 1999, 2001, and 2003.

Additional indicators used to measure environmental improvement in the Bay are reductions in the pounds of nitrogen, phosphorus, and sediment entering the Bay. Through the implementation of best management practices, reductions in these pollutants are occurring and are offsetting significant load increases that would have resulted from population growth. Maintaining the existing nitrogen, phosphorus and sediment loading levels will be a challenge due to the continued expected growth in human and farm animal population in the region. In addition, the current pollutant loading rate continues to exceed the level needed to meet the Bay water quality standards adopted by the states in 2005.

In 2000, the Chesapeake Bay Program partners (including the Administrator of EPA) committed to a goal of restoring Bay water quality by 2010. This ambitious commitment created a sense of urgency within EPA and partner government agencies to establish new, attainable water quality criteria and standards and agree to scientifically-supported, protective nutrient and sediment load allocations. The targets in Bay Program plans for nutrient and sediment reductions are scientifically based and reflect a multi-state consensus.

The Program plans to conduct a full re-evaluation beginning in 2007 in response to commitments made by program leaders. In the meantime, the Program continues to pursue strategies to accelerate nutrient-sediment reduction. Strategies include, (1) state adoption of enforceable Bay-specific water quality standards, (2) implementation of an innovative basin-wide NPDES permitting strategy for nitrogen and phosphorus, and (3) the implementation of a strategy to address excess animal manure and poultry litter endorsed by the Chesapeake Executive Council in 2005.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay. (cumulative)	89,659	90,000	90,000	100,000	Acres

While recent improvements in water quality have contributed to a modest increase in SAV, from a low of 38,000 acres in 1984 to a cumulative total of 72,935 acres, more improvements are needed. Beginning in FY 2005, achievement of SAV targets will be based on the "single best year" of acreage as observed through the most recent three years of data from the aerial survey. This new method for reporting performance more accurately captures the natural fluctuations in acreage due to annual changes caused by weather. Baywide, the single best year in the calendar years 2002 through 2004 period was 89,659 acres in 2002.

The CBPO is revising the FY 2006 commitments and FY 2007 targets based on these factors:

- The FY 2005 commitments (based on single best year in the calendar years 2002 through 2004) for nutrient and sediment reductions and SAV were not met. FY 2006 performance will be based on calendar year 2004 results of 72,935 acres, unless actual figures for 2005 are higher.
- SAV acreages are impacted by loads of nutrients and sediment delivered to the Bay. Calendar year 2002 was a drought year and relatively low levels of these pollutants entered the Bay, allowing SAV acreage to increase. Calendar years 2003 – 2004 were wet years. SAV acreages declined significantly in 2003 and increased only modestly in 2004. Based on 2005 rainfall, it is expected that SAV acreage for calendar year 2005 may show a slight increase but still fall short of the FY 2006 commitment.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$6,396.9) This increase will be used for wetlands protection and other nonpoint source work.

- (-$1,970.6) This reflects a decrease from Small Water Program activities, reflecting the discontinuation of special 2006 funding for promoting community-based efforts to develop and implement conservation strategies.

- (-$146.6) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a recalculation of base workforce costs.

- (-0.2 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

CWA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$21,098.8***	***$21,164.0***	***$20,577.1***	***($586.9)***
Total Budget Authority / Obligations	$21,098.8	$21,164.0	$20,577.1	($586.9)
Total Workyears	53.5	52.1	65.1	13.0

Program Project Description:

The Great Lakes are the largest system of surface freshwater on earth, containing 20 percent of the world's surface freshwater and accounting for 84 percent of the surface freshwater in the United States. The watershed includes two nations, eight U.S states, a Canadian province, more than 40 Tribes, and more than one-tenth of the U.S. population. The goal of the Agency's Great Lakes Program is to restore and maintain the chemical, physical and biological integrity of the Great Lakes Basin Ecosystem. The Great Lakes Program:

- Monitors and reports annual air and water monitoring data for nutrients, toxics and biota for five lakes in partnership with other Federal, state and Canadian agencies;
- Operates the binational Great Lakes Integrated Atmospheric Deposition Network;
- Performs toxic reduction activities by implementing the Great Lakes Binational Toxics Strategy for reduced loadings of targeted pollutants in accordance with the Great Lakes Water Quality Agreement (GLWQA)[13];
- Performs demonstrations and investigations related to contaminated sediments in Great Lakes rivers and harbors;
- Protects and restores habitat to decrease loss of high quality ecological communities and rare species and increase ecosystem conditions and functions providing habitat with the necessary size, mixture, and quality to sustain native plants and animals; and
- Addresses invasive species, though collaboration with partners, by emphasizing prevention of additional introductions.

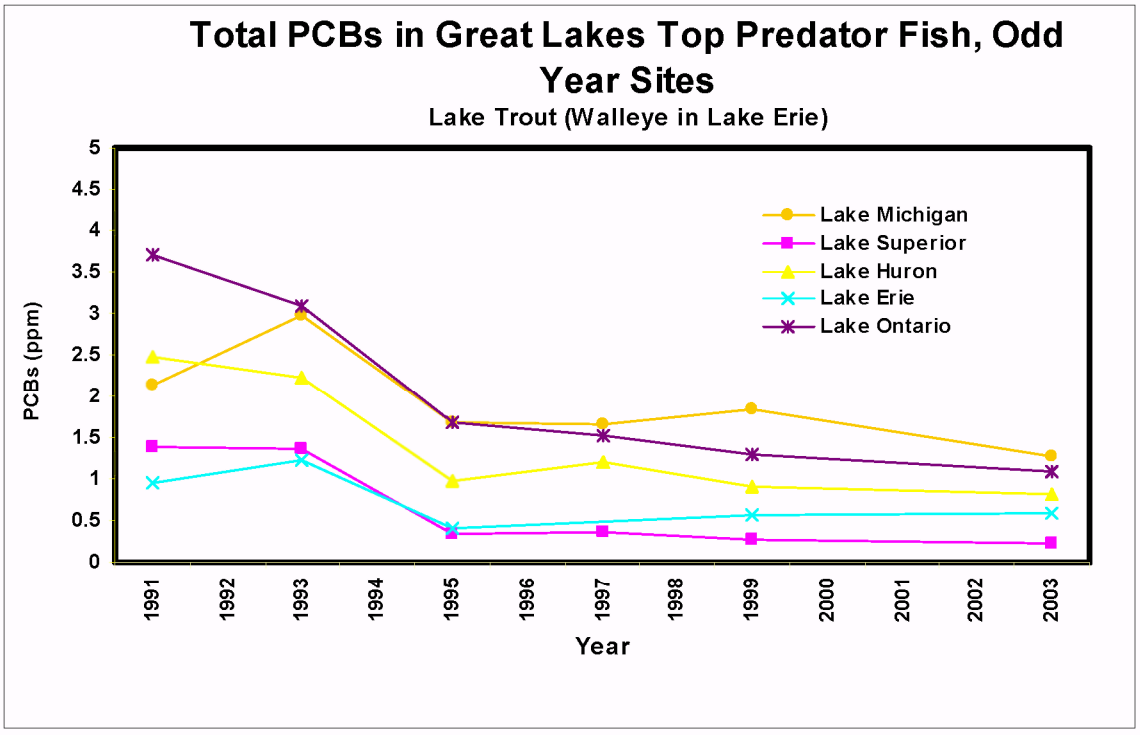
For more information visit http://www.epa.gov/glnpo/.)

[13] U.S. EPA. Great Lakes National Program Office. April 1997. *The Great Lakes Binational Toxics Strategy*. Washington, DC. Available online at http://www.epa.gov/glnpo/p2/bns.html.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue efforts to protect and restore the Great Lakes, and will work with State, local, and Tribal partners, using the Great Lakes Regional Collaboration's strategy as a guide. The President's May 2004 Executive Order established the Great Lakes Task force to coordinate the Federal effort to improve water quality in the Great Lakes. EPA will continue working with partners to restore the chemical, physical, and biological integrity of the Great Lakes ecosystem through the core water protection programs. EPA will make strong efforts in working with states and local communities to clean-up and de-list 8 AOCs by 2010 and most AOCs by 2025. EPA will continue to work toward the existing Agency goals of a 25 percent reduction in PCB concentrations in Lake Trout and walleye (see Figure 1) and for 90 percent of monitored Great Lakes beaches to be open 95 percent of the season.

EPA will work with states, industry, Tribes, non-governmental organizations, and other stakeholders to coordinate Great Lakes monitoring, information management, pollution prevention, contaminated sediments, habitat, invasive species, lakewide management, and remedial action plan programs to be consistent with the Great Lakes Regional Collaboration Strategic Plan. Following intensive ship- and land-based monitoring of Lakes Michigan and Superior in 2005 and 2006, respectively, EPA will focus on similar cooperative monitoring efforts with Canada on Lake Huron in 2007.



PCBs in Great Lakes Top Predator Fish[14]

[14] A sample of 50 whole fish is collected each year (x-axis). 10 sets of 5 fish are composited and averaged for the data points above. Great Lakes Fish Monitoring Program – Quality Assurance Project Plan for Sample Analysis, University of Minnesota. http://www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP%20QAPP%20v7.pdf Great Lakes Fish Monitoring Program – Quality Assurance Project Plan for Sample Collection Activities, Great Lakes National Program Office. http://www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP_QAPP_082504.pdf

EPA will continue to monitor the annual occurrence of high rates of oxygen depletion, which lead to low dissolved-oxygen levels in Lake Erie in the so-called "dead zone," and EPA will lead the development of management recommendations to mitigate the underlying causes. Despite U.S. and Canadian success in achieving total phosphorus load reductions, phosphorus in the central basin of Lake Erie has increased since the early 1990's to levels substantially in excess of the GLWQA Objective of 10ug-P/l[15]. During 2006, EPA will work with the National Oceanic and Atmospheric Association (NOAA) to continue to investigate the depleted oxygen conditions and will update models of Lake Erie's response to nutrients. In 2007, efforts will focus on information gaps, which are identified through the modeling process regarding nutrient dynamics, and on the identification of management implications for Lake Erie restoration.

In FY 2007, EPA will lead Canadian and US Federal agencies and the academic community in exploring causes of the rapid decline of the *Diporeia* population in the Great Lakes. The decline may be related to invasive species. *Diporeia* are normally the predominant organism at the base of the Great Lakes food web (up to 70 percent of living biomass of a healthy lake bottom). Their decline may portend adverse affects on Great Lakes fish and fisheries.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Prevent water pollution and protect aquatic systems so that overall ecosystem health of the Great Lakes is improved (cumulative)	21.9 points	21	21	21	40 point Great Lakes Ecosystem Scale (1=poor; 40=excellent)

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Average concentrations of PCBs in whole lake trout and walleye samples will decline.	6.2%	5%	5%	5%	Annual Decrease

Quality Management Plan for the Great Lakes National Program Office. EPA905-R-02-009. October 2002, Approved April 2003. http://www.epa.gov/glnpo/qmp/

5 Great Lakes National Program Office Annual Monitoring Program - Changes in Phosphorus levels and direction over time, Great Lakes Environmental Database. Available online at http://www.epa.gov/grtlakes/glindicators/index.html.

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Average concentrations of toxic chemicals in the air in the Great Lakes basin will decline	7.1%	7%	7%	7%	Annual Decrease

Each of these performance measures reflects the results of multiple base EPA base programs and other activities of organizations working to improve Great Lakes environmental conditions.

The score for overall ecosystem health of the Great Lakes is expected to remain constant in 2007 from 2006. Ecosystem improvement on a scale as large as the Great Lakes is likely to be reflected in time periods greater than a year.

Following long term trends, average concentrations of PCBs in whole lake trout and walleye samples are expected to continue to decline by 5% annually, reflecting modest continual improvement in Great Lakes health.

Following long term trends, average concentrations of toxic chemicals (PCBs) in the air in the Great Lakes basin are expected to continue to decline by 7% annually, reflecting modest continual improvement in Great Lakes health.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$806.8) This decrease is will allow EPA to redirect funding from lower priority activities. The Great Lakes Legacy Act, which is funded at $50 million, $20 million over 2006 levels, will coordinate with GLNPO to augment and support ongoing AOC work.

- (+$219.9) This reflects an increase for payroll and cost of living for existing FTE.

- (+13 FTE) The increase provides the workforce to support the Great Lakes Legacy Act.

Statutory Authority:

1990 Great Lakes Critical Programs Act; 2002 Great Lakes and Lake Champlain Act (Great Lakes Legacy Act); CWA; Coastal Wetlands Planning, Protection, and Restoration Act of 1990; Estuaries and Clean Waters Act of 2000; North American Wetlands Conservation Act; US-Canada Agreements; WRDA; 1909 The Boundary Waters Treaty; 1978 GLWQA; 1987 GLWQA; 1987 Montreal Protocol on Ozone Depleting Substances; 1996 Habitat Agenda; 1997 Canada-U.S. Great Lakes Binational Toxics Strategy.

Geographic Program: Gulf of Mexico
Program Area: Geographic Programs
Goal: Healthy Communities and Ecosystems
Objective(s): Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$3,739.8***	***$4,809.0***	***$4,310.7***	***($498.3)***
Total Budget Authority / Obligations	$3,739.8	$4,809.0	$4,310.7	($498.3)
Total Workyears	10.9	13.0	14.0	1.0

Program Project Description:

EPA's efforts in the Gulf of Mexico directly support a collaborative, multi-organizational Gulf states-led partnership comprised of regional, business and industry, agriculture, state and local government, citizens, environmental and fishery interests, and numerous Federal departments and agencies. The Gulf of Mexico Program (www.epa.gov/gmpo) is designed to assist the Gulf states and stakeholders in developing a regional, ecosystem-based framework for restoring and protecting the Gulf of Mexico. In response to the U.S. Ocean Action Plan, thirteen Federal agencies have come together to form a Regional Partnership to provide support to the Gulf of Mexico Alliance, a partnership of the five Gulf states. The Gulf states have identified five key priority coastal and ocean issues that are regionally significant and can be effectively addressed through cooperation at the local, state, and Federal levels. The partnership will target specific Federal, state, local, and private programs and identify processes and financial authorities in order to leverage the resources needed to support the Gulf of Mexico Action Plan developed by the Gulf Alliance. EPA supports this partnership's efforts to effectively address the complex and pressing issues facing the Gulf of Mexico.

FY 2007 Activities and Performance Plan:

Gulf of Mexico issues can be broadly categorized as affecting water quality, public health, nutrient reductions, and coastal restoration. Activities of the Gulf of Mexico Program and its partners include:

- Supporting efforts to achieve the 2007 target to restore 20% of impaired segments in the 13 priority coastal areas to achieve water and habitat quality levels that meet state water quality standards;

- Supporting projects with the goal of creating, restoring or protecting 2400 acres of important coastal and marine habitats in the Gulf of Mexico;

- Supporting State and coastal community efforts to manage harmful algal blooms (HABs) by implementing an integrated binational early-warning system;

- Assisting the Gulf States in reducing contamination of seafood and local beaches through efforts to establish effective bacterial source tracking methods and technologies;

- Assisting in consumer awareness/educational efforts to reduce the rate of shell-borne *Vibrio vulnificus* illnesses caused by consumption of commercially-harvested raw or undercooked oysters;

- Supporting efforts to reduce nutrient loadings to watersheds;

- Fostering regional stewardship through Gulf Guardian Awards and outreach projects.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters of the Gulf of Mexico is improved	2.40	2.4	2.4	2.4	5-point National Coastal Condition Index (1= poor; 5=good)

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico, as measured by the five year running average	12,700	14,128	14,128	14,128	sq km

A major indication of improvement in the overall health of the entire Gulf of Mexico is a reduction in the size of the zone of hypoxic conditions (i.e. low oxygen in the water) in the northern Gulf. The hypoxic zone results in the failure to capture fish, shrimp, and crabs in bottom-dragging trawls when the oxygen falls below the critical level of 2 ppm. The seasonal formation and persistence of hypoxia are influenced by discharges and nutrient loads of the Mississippi and Atchafalaya Rivers. The fresher water forms a layer above the saltier Gulf waters. Nitrogen and phosphorus in the river water stimulate the growth of microscopic plants or phytoplankton. These algae are either transferred into the food web or end up as organic debris on the sea floor. Their decomposition by bacteria depletes oxygen in the lower waters until they no longer sustain the life of most marine animals.

The coast wide extent of the hypoxic zone mapped in 2005 was 11,840 square kilometers (or 4,564 square miles). The low oxygen waters extended from near the Mississippi River to the Louisiana/Texas border. The long-term average since mapping began in 1985 is 12,700 km2 (or 4,800 square miles).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$477.4) This reduction in program funding will allow EPA to fund higher priority activities.

- (-$20.9) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+1 FTE) This increase reflects the special needs of the Gulf area and will serve as a liaison on post-Katrina Gulf policy issues.

Statutory Authority:

CWA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$686.3***	***$1,926.0***	***$933.8***	***($992.2)***
Total Budget Authority / Obligations	$686.3	$1,926.0	$933.8	($992.2)
Total Workyears	0.3	0.0	0.0	0.0

Program Project Description:

Lake Champlain was designated a resource of national significance by the Lake Champlain Special Designation Act (Public Law 101-596) which was signed into law on November 5, 1990. A plan, "Opportunities for Action", was developed to achieve the goal of the Act, which brings together people with diverse interests in the Lake to create a comprehensive pollution prevention, control, and restoration plan for protecting the future of the Lake Champlain Basin. Efforts to protect Lake Champlain reflect the successful interstate, interagency, and international partnership undertaking the implementation of the Plan. "Opportunities for Action" is designed to address various threats to the Lake's water quality, including phosphorus loadings, invasive species, and toxic substances. For more information, visit www.lcbp.org, nh.water.usgs.gov/champlain_feds/, and www.epa.gov/NE/eco/lakechamplain/index.html.

FY 2007 Activities and Performance Plan:

Lake Champlain Basin's water quality, fisheries, wetlands, wildlife, recreation, and cultural resources depend on EPA's participation and funding contribution to the Lake Champlain Basin Program. In the Lake Champlain Basin Program, EPA will work with state and local governments to restore and protect Lake Champlain and its surrounding watershed for future generations. Activities include:

- Addressing high levels of phosphorus, which encourage algal blooms in parts of the lake;
- Reducing levels of persistent toxic contaminants in the lake's sediments and fish;
- Addressing invasive, non-native aquatic plants, and animals, such as zebra mussels, milfoil, and water chestnuts, which displace native species and reduce recreational values;
- Continuing work to understand the high seasonal concentrations of toxic cyanobacteria, particularly microcystin, in the northern reaches of Lake Champlain;
- Continued limnological monitoring in inland waters (both saline and fresh);

- Continued education/outreach and training;
- Continuing restoration through community involvement;
- Controlling aquatic nuisance species; and
- Continuing the implementation of the Lake Champlain Total Maximum Daily Load (TMDL) for phosphorus.

Performance Targets:

Tracking progress is a key component of the "Opportunities for Action." Plan. EPA and our partners conduct extensive monitoring and assessment to demonstrate progress toward a variety of goals, including those for the reduction of toxics, phosphorus loadings and the introduction and spread of invasive species.

Work under this program supports EPA's healthy communities and ecosystems objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$992.2) This will reduce efforts in implementing the TMDL for phosphorous. This reduction will allow EPA to fund higher priority activities. Other national programs also will continue to provide support for Lake Champlain.

Statutory Authority:

1909 The Boundary Waters Treaty; 1990 Great Lakes Critical Programs Act; 2002 Great Lakes and Lake Champlain Act; CWA; North American Wetlands Conservation Act; U.S.-Canada Agreements; and WRDA.

Geographic Program: Long Island Sound
Program Area: Geographic Programs
Goal: Healthy Communities and Ecosystems
Objective(s): Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$2,132.7***	***$470.0***	***$466.9***	***($3.1)***
Total Budget Authority / Obligations	$2,132.7	$470.0	$466.9	($3.1)
Total Workyears	0.5	0.0	0.0	0.0

Program Project Description:

EPA supports protection and restoration activities in the Long Island Sound and implementing the Sound's Comprehensive Conservation and Management Plan (CCMP), which was approved in September 1994 under Section 320 of the Clean Water Act (CWA) as amended.

The CCMP is a product of the Long Island Sound Study (LISS) -- a bi-state cooperative effort to restore and protect the Sound authorized under CWA Section 119. The LISS includes EPA, Connecticut, New York, scientific researchers, user groups, industry, and other concerned organizations and individuals. The LISS organized a number of committees to help ensure broad input into development of, and continuing implementation of the CCMP. These committees represent policy, management, citizen, and scientific and technical interests from around the Long Island Sound region. Restoration and protection actions focus on six areas identified in the CCMP that require special attention: hypoxia, toxic contamination, pathogens, floatable debris, the impact of habitat degradation and loss on the health of living resources, land use and development, and public education, information, and participation.

Further information about this program can be found at http://www.longislandsoundstudy.net.

FY 2007 Activities and Performance Plan:

EPA will continue to ensure implementation of the LISS CCMP in 2007 through coordinating the actions of the LISS Management Conference authorized under the CWA Sections 320 and 119. Efforts will focus in the following four primary areas -- cleanup and restoration actions; water quality monitoring; scientific research; and public information and education. Specifically, EPA will focus on:

Performance Assessment: The Oceans and Coastal Program underwent the PART for the first time in FY 2005 and received an adequate rating. The purpose of the program is to integrate the control of water pollution from land-base sources and vessels to improve the overall health of ocean and coastal ecosystems. The program provided performance measures, including one long-term,

Cleanup and Restoration

- Nitrogen reduction from point and nonpoint sources of pollution to reduce large areas of the Sound that are seasonally impaired as habitat for fish and shellfish because of low dissolved oxygen levels, a condition called hypoxia;

- Habitat restoration and protection to improve the productivity of tidal wetlands, intertidal zones, and other key habitats that have been adversely affected by unplanned development, overuse, or pollution;

- Watershed protection and nonpoint source pollution controls to reduce the effects of runoff pollution on rivers and streams discharging to the Sound, and to restore and protect streamside buffer zones;

- Stewardship of ecologically and biologically significant areas, and identification and management of recreationally important areas and compatible public access and use;

Water Quality Monitoring

- Monitoring water quality, including environmental indicators such as dissolved oxygen levels, temperature, salinity, and water clarity, and biological indicators such as chlorophyll *a*, to assess environmental conditions that may contribute to impaired water quality;

Scientific Research

- Scientific research into the causes and effects of pollution on the Sound's living marine resources, ecosystems, water quality and human uses; and

Public Information and Education

- Public education and information to report on implementation progress and the status of environmental and other indicators of ecosystem health.

Performance Targets:

- Water Quality: reduced nitrogen pollution to Long Island Sound by 26% from 1994 baseline, or by 59,000 pounds per day from the baseline level.

- Habitat Restoration and Protection: restored or protected 1,175 acres of coastal habitats in New York and Connecticut portions of the Long Island Sound watershed, and

- Fish Passage: reopened 65 miles of river corridor in Connecticut to anadromous fish passage, achieving 65% of the 10-year goal through 2004.

Work under this program supports EPA's healthy communities and ecosystems. Currently, there are no performances measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$3.1) This modest reduction will have no measurable impact.

Statutory Authority:

2002 Great Lakes and Lake Champlain Act; CWA; Coastal Wetlands Planning, Protection, and Restoration Act of 1990; Estuaries and Clean Waters Act of 2000; North American Wetlands Conservation Act; WRDA.

Geographic Program: Other
Program Area: Geographic Programs
Goal: Healthy Communities and Ecosystems
Objective(s): Communities; Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$6,786.1***	***$9,957.0***	***$9,050.0***	***($907.0)***
Total Budget Authority / Obligations	$6,786.1	$9,957.0	$9,050.0	($907.0)
Total Workyears	6.1	12.5	12.4	-0.1

Program Project Description:

EPA targets efforts to protect and restore communities and ecosystems impacted by environmental problems. Under this program, the Agency works with communities to develop and implement community-based approaches to mitigate diffuse sources of pollution and cumulative risk for four geographic programs: South Florida; Northwest Forest; Lake Pontchartrain Basin Restoration; and Community Action for a Renewed Environment (CARE). The Agency also fosters community efforts to build consensus and mobilize local resources to target highest risks.

The South Florida Program takes the lead on special initiatives and planning activities in the South Florida region, which includes the Everglades and Florida Keys coral reef ecosystem. Implementing, coordinating, and facilitating activities include the Section 404 Wetlands Protection Program of the Clean Water Act (CWA), Comprehensive Everglades Restoration Program (CERP), Water Quality Protection Program for the Florida Keys National Marine Sanctuary (FKNMS), the Southeast Florida Coral Reef Initiative (SEFCRI) as directed by the U.S. Coral Reef Task Force, Brownfields Program, and other Waste Division programs. For more information see http://www.epa.gov/Region4/southflorida/index.html.

The Northwest (NW) Forest Program implements a collaborative planning and management framework that supports efforts needed to generate interagency management agreement and joint funding for watershed assessment, planning, protection, and restoration efforts. The Program's focus on aquatic and watershed monitoring contributes to aquatic and riparian monitoring on Federal lands, as well as, monitoring efforts on all lands under the Pacific NW Aquatic Monitoring Partnership. These two efforts contribute to the achievement of national examples of watershed scale aquatic monitoring and collaborative monitoring across Federal, Tribal, state, and private lands. For more information see http://www.reo.gov/monitoring.

The Lake Pontchartrain Basin Restoration Program strives to restore the ecological health of the Basin by developing and funding restoration projects and related scientific and public education projects. Projects focused on water quality, habitat monitoring and evaluation, and sustainable development will be emphasized in response to the impacts of Hurricane Katrina. For more information see http://www.epa.gov/ecocommunity/case1/ponchatrain.htm.

The Community Action for a Renewed Environment (CARE) is a community-based, multi-media program designed to help local communities address the cumulative risk of toxics exposure. Through the CARE program, EPA provides technical support for communities, helps them use collaborative processes to select and implement local actions, and awards federal funding for projects to reduce exposure to toxic pollutants. CARE works through two different competitive grants: the smaller cooperative agreements support the development of community based stakeholder groups to assess local toxics risks; and, the larger cooperative agreements are for communities that have already organized and assessed risks and are ready to select risk reduction activities.

FY 2007 Activities and Performance Plan:

South Florida

In FY 2007 the South Florida Program will continue to coordinate and implement the Water Quality Protection Program for the FKNMS, including management of long-term status and trends monitoring projects (water quality, coral reef, and seagrass). In addition, EPA will conduct studies to determine cause-and-effect relationships between pollutants and changes to biological resources, implement wastewater and storm water master plans, and conduct public education and outreach activities. Finally, the program will provide monetary and/or technical/managerial support for priority environmental projects and programs in South Florida, including:

- Southeast Florida Coral Reef Initiative,
- Water Quality Protection Strategy for the South Florida Ecosystem; and
- Integrated Mercury Study.

This program is funded at $2.5 million.

Northwest Forest

In FY 2007 EPA and partners will implement shared responsibilities for the Aquatic Monitoring Strategy, including broad scale monitoring indicators, protocols, and a design framework. In addition, EPA will implement an intensive effectiveness-monitoring network in 3 to 5 basins in Oregon and Washington and compare and report on 2006 state, EPA, Tribal and Forest Service monitoring protocols. EPA also will develop shared data standards and data sharing network/tools for state, Tribal, and Federal efforts and continue developing and implementing the common probabilistic survey design to allow creation of annual data summaries and "report cards" for state, Tribal and Federal PNW monitoring efforts. EPA also will complete watershed condition/trend monitoring in 25 to 30 watersheds in California, Oregon, and Washington. This program is funded at $1.1 million.

Lake Pontchartrain

In 2007 EPA will continue efforts to restore of the ecological health of the Lake Pontchartrain Basin, particularly in response to changes resulting from Hurricane Katrina. Through the Lake Pontchartrain Basin Foundation, EPA will support water quality and habitat evaluations throughout the Basin, and sustainable development opportunities in New Orleans and in

previously undeveloped land to the north and west of New Orleans. EPA will continue to support projects and studies in the Comprehensive Management Plan (CMP) and through outreach and public education projects. EPA will work with partners to execute franchise agreements for centralized sewer collection and drinking water distribution systems in priority areas; this project will establish a template by which appropriate franchising can be applied to other parishes in Louisiana. The CMP was recently updated, and EPA has approved the additional coastal preservation/restoration objectives and the multiple lines of defense strategy in the CMP in response to Hurricane Katrina. This program is funded at approximately $1.0 million.

CARE

In FY 2007 CARE will continue to build on the wide range of current Agency efforts designed to address community concerns such as Waste-wise, Integrated Pest Management, Best Workplaces for Commuters, National Priorities for Environmental Pollutants and Performance Track improving their effectiveness by working to integrate them to better meet the needs of communities. EPA has funded 12 CARE programs throughout the country. EPA expects this number to fund approximately 20 programs in FY 2007.

Performance Targets:

The South Florida Program continues efforts to implement EPA's Everglades Environmental Monitoring and Assessment Program (EMAP), the only monitoring effort that provides extensive information on mercury and phosphorus conditions and environmental health throughout the entire Everglades system. Research projects associated with the FKNMS program provides the scientific information to justify critical wastewater and storm water infrastructure projects. The program also works with partners to develop control technologies to meet the 10 part-per-billion requirement for phosphorus in the Everglades, and leads the development of pesticide monitoring and best management practices to avoid contamination of surface and ground water in Everglades National Park.

Activities in the NW Forest Program focus on developing data standards and participating in interagency watershed monitoring and planning efforts. EPA works with partners to develop shared data standards and implement effectiveness monitoring pilots.

EPA continues efforts to implement priority actions in the Comprehensive Management Plan for the Pontchartrain Basin, including upgrading sewerage collection systems to improve water quality in the Basin, with an emphasis on reducing health risks associated with the contamination of drinking water wells. A detailed engineering and financial plan has been developed for the implementation of the regional system, as well as a strategy for including private, community and individual treatment systems in the regional plan. EPA worked with partners to complete the development of a comprehensive, Parish-wide wastewater plan for the next 20 years. This phase also included: further identification of property needs, detailed evaluation of existing infrastructure and development of plans and specifications for the initial transmission system and connection to interim regional treatment facilities. The Agency also finalized the management system recommendations and funding plan necessary for full implementation of the region program.

Through the CARE program, EPA provides technical support for communities, helps them use collaborative processes to select and implement local actions, and awards Federal funding for projects to reduce exposure to toxic pollutants. Much of the risk reduction comes through the application of over 25 EPA voluntary programs from across the Agency. CARE uses two sets of cooperative agreements. In the smaller Level I agreements, the community, working with EPA, creates a collaborative problem-solving group made up of the various stakeholders in the community. That group assesses the community's toxic exposure problems and begins to identify potential solutions. In the larger Level II agreements, the community, working with EPA, selects and funds projects that reduce risk and improve the environment in the community.

Work under this program supports EPA's healthy communities and ecosystem objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$1,971.0) This reflects a decrease from Puget Sound activities, reflecting the discontinuation of special 2006 funding for implementation of the Comprehensive Conservation and Management Plan.

- (-$1,141.2) This reflects a decrease from Lake Pontchartrain efforts, reflecting the discontinuation of special 2006 funding for support of planning, outreach and implementation activities.

- (+$50.4) This reflects an increase to Northwest Forest activities ($16.0) and the South Florida Program ($34.4) to support implementation of ecosystem-based plans in these areas.

- (+$619.4) This reflects an increase for payroll and cost of living for existing FTE.

- (-0.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$1,535.4) This increase to the CARE program will enable EPA to work with additional communities and state and local governments to use collaborative processes to develop neighborhood-based solutions that will reduce toxic risks.

Statutory Authority:

South Florida: Florida Keys National Marine Sanctuary and Protection Act of 1990; National Marine Sanctuaries Program Amendments Act of 1992; CWA; RCRA; and CERCLA. Northwest Forest: CWA; Economy Act of 1932; and Intergovernmental Cooperation Act. Lake Pontchartrain: CWA. CARE: As a multi-media program CARE uses grant authority from all the major statutes (CAA, CWA, SWDA, TSCA, etc.).

Regional Geographic Initiatives
Program Area: Geographic Programs
Goal: Healthy Communities and Ecosystems
Objective(s): Communities; Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$8,057.0***	***$8,060.0***	***$9,137.3***	***$1,077.3***
Total Budget Authority / Obligations	$8,057.0	$8,060.0	$9,137.3	$1,077.3
Total Workyears	17.0	15.3	15.3	0.0

Program Project Description:

Multi-media Regional Geographic Initiative (RGI) funds are available to EPA's Regions to support innovative, geographically-based projects. These funds support priority local and regional environmental projects that protect children's health, restore watersheds, provide for clean air, prevent pollution and foster environmental stewardship. The problems addressed by RGI funds often showcase innovative solutions to local priority threats to human health and ecosystems. RGI provides an essential tool for EPA's Regional offices to broaden their role as regulatory entities, to include facilitation of holistic innovative resolutions to complex environmental problems. RGI spurs local projects that have often become national models (such as school bus diesel retrofits, watershed planning and development of agricultural pollution prevention performance standards for pest management). Many RGI Initiatives also have financial support from other sources: states, localities, non-profit organizations and the private sector.

FY 2007 Activities and Performance Plan:

RGI provides modest funding to support eight to ten environmental and public health projects per Region. These initiatives encourage communities to invest in projects which yield improved environmental results important to their communities. Areas of focus include:

- In FY 2007 and beyond, watershed and coastal protection will continue to be top priorities for EPA's regional office in Atlanta, Georgia. This region has one third of the nation's wetlands, one third of its estuaries, and one third of the nation's coastline (over 2,000 miles). It supports the river systems of the Mississippi, Ohio, Tennessee and Savannah River basins, and with the other Southeast river systems, totals nearly 460,000 miles of waterways (the most miles for any EPA regional office in the country). A major portion of FY 2007 RGI funding will be used to help address specific local water quality issues, especially those related to agriculture, the Gulf of Mexico, major river systems, coastal smart growth projects, and community watershed projects.

- EPA's regional office in Seattle, Washington continues to use RGI funds to support collaborative community based multimedia projects that are both innovative and cost-

effective. In FY 2007, the regional office plans to focus its RGI funds in two strategic target areas: 1) Sensitive Populations: reducing or preventing environmental risks to sensitive populations, including but not limited to children, the elderly, asthmatics, pregnant women, and immigrant and Native American communities, and 2) Environmentally Responsible Land Use: projects that include, but are not limited to smart growth planning in developing areas, sustainable agriculture and forestry, and innovative storm water management. EPA recognizes the value of the knowledge, expertise, and communities' commitment toward solving their environmental problems, and has seen regional interest in this type of funding opportunity increase annually. Typically, the Seattle office receives well over 100 applications annually, for about ten grant awards.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$289.1) This decrease is the net effect of increases to payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$1,366.4) This increase will support additional local and regional environmental projects that protect children's health, prevent pollution and foster environmental stewardship activities.

Statutory Authority:

CWA; CAA; TSCA; CERLA; SDWA; PPA; RCRA.

Program Area: Homeland Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$5,432.4***	***$6,475.0***	***$6,799.7***	***$324.7***
Hazardous Substance Superfund	$0.0	$296.0	$300.0	$4.0
Total Budget Authority / Obligations	$5,432.4	$6,771.0	$7,099.7	$328.7
Total Workyears	7.4	13.0	13.0	0.0

Program Project Description:

This program coordinates development and implementation of homeland security policy and related information security across the Agency. EPA coordinates its homeland security policy with other Federal partners as well as within the Agency through implementation of Homeland Security Presidential Directives (HSPDs). EPA also works to ensure rapid access to relevant communication tools, accelerated transfers of data, the development of models and maps to support response activities, and effective Agency wide communication in emergency situations.

The HSPDs, and use of an Agency wide team of people called the Homeland Security Collaborative Network (HSCN) support the Agency's ability to effectively implement its broad range of homeland security responsibilities, ensure consistent development and implementation of homeland security policies and procedures, and build an external network of partners so that EPA's homeland security efforts are integrated into the Federal effort, complementing the work of other Federal partners. This approach also serves to capitalize on the concept of "dual-benefits" so that EPA's homeland security efforts enhance and are integrated into EPA core environmental programs that serve to protect human health and the environment.

FY 2007 Activities and Performance Plan:

EPA's FY 2007 homeland security resources for information systems will continue support for the Agency's rapid response infrastructure by delivering increased network capacity. In FY 2007, EPA will ensure emergency access to the Agency's information resources by continuing deployment of an integrated Internet/Wide Area Network (WAN)/Local Area Network (LAN) solution – Mobile Laboratory LAN-in-a-Box -- that can be immediately deployed anywhere to equip mobile laboratories with high speed, secure access to the Internet and the EPA WAN, and the ability to share information on scene. In addition, Homeland Security information technology efforts are closely coordinated with the Agency-wide Information Security and

Infrastructure activities coordinated and managed in the Information Security and IT/Data Management programs.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$58.9) Increased resource levels will provide for the acquisition of additional LAN-in-a-Box systems.

- (+$162.4) This reflects an increase for payroll and cost of living for existing FTE.

- (+$103.4) This increase will provide for an automated tracking system of progress on the Agency's homeland security activities.

Statutory Authority:

National Oil and Hazardous Substances Pollution Contingency Plan (NCP); CERCLA; SDWA, CWA; CAA, BioTerrorism Act; Homeland Security Act of 2002; Defense Against Weapons of Mass Destruction Act (Title XIV of Public Law 104-201).

Homeland Security: Critical Infrastructure Protection
Program Area: Homeland Security
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air; Radiation

Goal: Clean and Safe Water
Objective(s): Protect Human Health

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$6,700.6***	***$6,787.0***	***$7,242.7***	***$455.7***
Science & Technology	$17,952.2	$12,393.0	$45,251.0	$32,858.0
Hazardous Substance Superfund	$1,348.2	$1,442.0	$1,571.6	$129.6
Total Budget Authority / Obligations	$26,001.0	$20,622.0	$54,065.3	$33,443.3
Total Workyears	47.9	59.0	59.0	0.0

Program Project Description:

This program involves several EPA activities that coordinate and support the protection of the nation's critical public infrastructure from terrorist threats. EPA activities support effective information sharing and dissemination to help protect critical water infrastructure. Support to state and local governments also helps them develop methods to detect anomalies in ambient air. EPA also provides subject matter expertise in environmental criminal investigations and training support for terrorism-related investigations.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to build its capacity to identify and respond to threats to critical national infrastructure.

EPA's wastewater and drinking water security efforts will continue to support the implementation of information sharing tools and mechanisms to provide timely information on contaminant properties, water treatment effectiveness, detection technologies, analytical protocols and laboratory capabilities for use in responding to a water contamination event. EPA will continue to support effective communication conduits to disseminate threat and incident information and to serve as a clearing-house for sensitive information. EPA promotes information sharing between the water sector and such groups as environmental professionals and scientists, law enforcement and public health agencies, the intelligence community, and technical assistance providers. Through such exchange, water systems can obtain up-to-date information on current technologies in water security, accurately assess their vulnerabilities to

terror acts and work cooperatively with public health officials, first responders and law enforcement officials to respond effectively in the event of an emergency.

EPA partners with both the Water Information Sharing and Analysis Center (WaterISAC) and the Water Security Channel (WaterSC) to provide up-to-date security information for drinking and wastewater utilities. This group is evaluating the potential for integration with the Department of Homeland Security's Homeland Security Information Network (HSIN) – a new information sharing network offered to the critical infrastructure sectors, including all utilities within the water sector. In FY 2007, approximately 8,000 drinking water and wastewater utilities will receive notices and have access to the WaterSC web portal, a service of the WaterISAC designed to provide communication from the Federal government to the water sector affiliates. In addition, more than 500 water utilities representing 55% of the population will rely on a secure and up-to-date web-based environment on water system security as members of WaterISAC.

In FY 2007, EPA will focus on its goal to train all EPA criminal investigators in the National Counter Terrorism Evidence Response Team (NCERT) areas of Weapons of Mass Destruction and Environmental Crime Scene/ Forensic Evidence Collection. EPA criminal investigators provide environmental expertise for criminal cases and support the FBI and DHS in the event of a terrorist attack anywhere in the United States. In FY 2007, the program will continue this multi-year effort to train and provide these agents with the necessary specialized response and evidence collection equipment. This will enable EPA criminal investigators to collect evidence and process a crime scene safely and effectively in a contaminated environment (hot zone).

EPA will continue to provide support for infrastructure protection by assisting state and local governments to develop methods for detecting anomalies in ambient air. This includes the continued development of source-oriented, near-field modeling science and techniques to address direct releases or emission of toxic and/or harmful air pollutants as well as the development and improvements of multi-pollutant models to demonstrate effects of air threats to air quality. For monitoring, EPA will continue the testing and improvement of monitoring technologies and institutional infrastructure of the Federal, state and local ambient air monitoring networks and capabilities. EPA will provide technical assistance as necessary to respond to or be prepared for an air quality threat in the United States.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$358.3) This reflects an increase for payroll and cost of living for existing FTE.
- (+$28.9) This increase will support continuation of the WaterISAC.
- (+$23.6) This increase will provide improved ambient air monitoring

- (+$44.9) This increase will provide improved environmental criminal investigative capacity related to Weapons of Mass Destruction.

Statutory Authority:

SDWA; CWA; Public Health Security and Bioterrorism Emergency and Response Act of 2002; EPCRA; CAA; RCRA; TSCA; Residential Lead-Based Paint Hazard Reduction Act; FIFRA; ODA; NEPA; North American Agreement on Environmental Cooperation; 1983 La Paz Agreement on US/Mexico Border Region; Pollution Prosecution Act.

Homeland Security: Preparedness, Response, and Recovery

Program Area: Homeland Security
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$2,620.2***	***$3,252.0***	***$3,328.7***	***$76.7***
Science & Technology	$33,417.3	$35,752.0	$44,498.1	$8,746.1
Hazardous Substance Superfund	$38,131.8	$37,579.0	$49,774.9	$12,195.9
Total Budget Authority / Obligations	$74,169.3	$76,583.0	$97,601.7	$21,018.7
Total Workyears	143.2	160.6	165.6	5.0

Program Project Description:

Through this program EPA continues to increase the state of preparedness for homeland security incidents. One area of emphasis is to prepare for incidents that release or introduce dangerous chemicals or certain foreign plant or animal pathogens or other pests into the United States. Acute Exposure Guideline Levels (AEGLs) are also needed by first responders and Chemical Risk Managers to help guide response and preparedness efforts. In addition to dictating evacuation or shelter-in-place decisions, AEGLs are used to help guide the development of chemical protective equipment and chemical detection limits.

EPA is taking action to significantly improve the nation's ability to decontaminate buildings and other sites, crops, and livestock and food facilities contaminated with select agent pathogens or other biological organisms of significant consequence to public health, the food and agriculture sector, and the economy. EPA, using its core programs and statutory authority, is making decisions to approve the use of new pesticides that will prevent or control these organisms in order to facilitate safe re-occupancy and to protect the production of crops, livestock, and food in the U.S.

Introduction of dangerous pathogens or pests could cause significant crop or livestock diseases, which could result in catastrophic damage to the multi-billion dollar U.S. food and agriculture sectors. EPA, working with other Federal and state agencies and industry, will focus on addressing the need for readily available chemical pesticide products for decontamination of agricultural structures, crops, and livestock and food facilities.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will review and make decisions on requests from other Federal and state agencies and/or pesticide manufacturers for the use of specific pesticides to inactivate biological agents or emerging pathogens that have been identified by authorities as potential significant threats to the public's health and/or livestock animals and crops and the nation's food supply and

economy. The goal is to ensure availability of adequate pesticides to prevent, control, and recover from a major threat.

In FY 2007, depending on the number of submitted requests, the Agency will make regulatory decisions on approximately 5 pesticides for use against potentially dangerous crop and livestock pests. EPA will review extensive scientific data on each of these pesticides to ensure their use will meet current safety standards for human health and the environment and additionally, for public health antimicrobial pesticides, that they meet efficacy standards. EPA will also establish by regulation any necessary maximum residue limits (tolerances) for those pesticides to ensure a safe food supply and enable interstate commerce and international trade of treated crop and food commodities.

EPA will accelerate development of AEGLs that are needed by First Responders and Chemical Risk Managers for use in chemical emergency and counter-terrorism planning, prevention and response programs. In FY 2007, EPA's program plans to develop Proposed AEGL values for 24 chemicals.

Performance Targets:

Work under this program supports the Healthy Communities objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$7.3) This reflects an increase for payroll and cost of living for existing FTE.

- (+$69.4) This increase will support development of AEGLs relevant to Homeland Security preparedness. Including support for IT, telecommunications and contracts.

Statutory Authority:

Public Health Security and Bioterrorism Emergency and Response Act of 2002; CERCLA; SARA; TSCA; Oil Pollution Act; Pollution Prevention Act; RCRA; EPCRA; SDWA; CWA; CAA; FIFRA; FFDCA; FQPA; Ocean Dumping Act; Public Health Service Act, as amended; 42 U.S.C 201 et seq.; Executive Order 10831 (1970); Public Law 86-373; PRIA.

Homeland Security: Protection of EPA Personnel and Infrastructure

Program Area: Homeland Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$9,102.2***	***$6,199.0***	***$6,268.9***	***$69.9***
Science & Technology	$2,517.6	$2,050.0	$2,079.0	$29.0
Building and Facilities	$12,936.5	$11,331.0	$11,385.1	$54.1
Hazardous Substance Superfund	$694.2	$588.0	$594.2	$6.2
Total Budget Authority / Obligations	$25,250.5	$20,168.0	$20,327.2	$159.2
Total Workyears	4.4	3.0	3.0	0.0

Program Project Description:

This program involves activities to ensure that EPA's physical structures and assets are secure and that the Agency is prepared to conduct its essential functions during an emergency or threat situation. This involves safeguarding EPA's staff, ensuring the continuity of operations and protecting the capability of EPA's vital infrastructure assets.

FY 2007 Activities and Performance Plan:

The Agency funds three types of activities with these Homeland Security resources: physical security, personnel security, and national security information activities.

Physical security activities involve conducting nationwide vulnerability assessments at EPA's 191 facilities on a regular basis in accordance with federal mandates. In FY 2007, the Agency will focus on physical security activities to retrofit access control systems in order to comply with Homeland Security Presidential Directive (HSPD) 12 – Policy for a Common Identification Standard for Federal Employees and Contractors.

Personnel security activities include conducting position risk designations; performing prescreening activities on prospective new hires; initiating, tracking and monitoring, and adjudicating federal investigations to determine if employees and select non-federal workers are suitable for employment or worthy of possessing national security clearances; maintaining personnel security files and information on more than 26,000 employees and select non-federal workers; leveraging and optimizing technology to automate personnel security functions and services, such as processing personnel actions and investigations; developing and distributing guidance and outreach to employees on various topics. In FY 2007, as part of the Agency's

responsibilities under HSPD 12, the Agency plans to conduct 5,000 investigations on new employees and the affected non-federal workforce prior to issuing smart cards to these individuals.

National security information activities include classifying, declassifying, and safeguarding classified information; identification and marking of classified information; education, training, and outreach; audits and self inspections; certification and accreditation of secure access facilities (SAFs) and sensitive compartmented information facilities (SCIFs); and reporting.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Changes from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$4.9) This reflects an increase for payroll and cost of living for existing FTE.
- (+$142.8) This increase will support security at new EPA facilities.
- (-$77.8) Reflects budget restructuring; funds moved to International Capacity Building Program Project.

Statutory Authority:

Public Health Security and Bioterrorism Emergency and Response Act of 2002; and Secure Embassy Construction and Counterterrorism Act (Sections 604 and 629).

Program Area: Indoor Air

Indoor Air: Radon Program
Program Area: Indoor Air
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Indoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$5,986.6***	***$5,159.0***	***$5,519.2***	***$360.2***
Science & Technology	$696.7	$429.0	$442.2	$13.2
Total Budget Authority / Obligations	$6,683.3	$5,588.0	$5,961.4	$373.4
Total Workyears	41.0	43.3	42.9	-0.4

Program Project Description:

EPA's non-regulatory indoor radon program promotes voluntary public action to reduce health risk from indoor radon (second only to smoking as a cause of lung cancer). EPA and the Surgeon General recommend that people do a simple home test and, if levels above EPA's guidelines are confirmed, reduce those levels by home mitigation using inexpensive and simple techniques. EPA also recommends that new homes be built radon-resistant using techniques described in national building codes.

This voluntary program includes national, regional, state, and Tribal programs and activities that promote radon risk reduction activities across the spectrum of building type.

FY 2007 Activities and Performance Plan:

In FY 2007 EPA will:

- Continue to build new national partnerships and increase national outreach;
- Increase the number of states, tribes, and localities with active and comprehensive radon programs, through state partnerships;
- Continue to work with partners to accelerate action in the marketplace to incorporate radon risk reduction as a normal part of doing business; and
- Expand scientific knowledge and technologies to support and drive aggressive action on radon in conjunction with its partners.

Performance Assessment: The Indoor Air Program, assessed by OMB in 2005 through the PART process, received a rating of "Moderately Effective." The program does not issue regulations, so it works toward its goal by conducting research and promoting appropriate risk reduction actions through voluntary education and outreach programs. The Program will be focusing on making efficiency improvements.

Additionally, EPA will continue to promote public action to test homes for indoor radon and where levels are above the action level, to mitigate; to encourage builders to construct new homes with radon-resistant features in areas where there is elevated radon; and to continue its

work with national partners to inform and motivate public action using recent risk estimates from the National Academy of Sciences that show substantially higher risks associated with radon exposure. The program will promote radon testing and mitigation in Federal housing and through private real estate transactions, promote radon-resistant new construction, and track results in these program areas.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of additional homes (new and existing) with radon reducing features	Data Avail. 06	173,000	180,000	190,000	Homes

The measure included in the performance table is a new measure developed during the process of completing a 2005 Program Assessment Rating Tool (PART) process; the target listed is the long-term date for reporting out results of the measure.

In FY 2007, EPA expects 190,000 additional homes to have radon reducing features (90,000 mitigations and 100,000 new homes with radon resistant new construction), bringing the cumulative number of U.S. homes with radon reducing features to 2.4 million. EPA estimates that this cumulative number will result in over 700 future premature cancer deaths prevented (each year these radon reducing features are in place). EPA is on track for achieving the FY 2012 target of 1250 premature cancer deaths prevented.

These program goals are a result of the total funding the program area receives through EPM, S&T, and State Indoor Radon Grant (SIRG) funding.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.4 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills and Agency priorities.

- (-$94.8) This decrease will reduce EPA's national radon outreach activities, but progress toward annual and long-term performance targets will not be affected.

- (+$455.0) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CAA Amendments of 1990; IRAA, Section 306; Radon Gas and Indoor Air Quality Research Act; Title IV of the SARA of 1986; TSCA, section 6, Titles II, and Title III (15 U.S.C. 2605 and 2641-2671), and Section 10.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$21,464.4***	***$23,137.0***	***$23,464.3***	***$327.3***
Science & Technology	$909.5	$810.0	$828.7	$18.7
Total Budget Authority / Obligations	$22,373.9	$23,947.0	$24,293.0	$346.0
Total Workyears	75.1	69.2	68.9	-0.3

Program Project Description:

In this non-regulatory, voluntary program, EPA creates partnerships with non-governmental organizations and Federal partners as well as professional organizations to educate and encourage individuals, schools, industry, the health care community, and others to take action to reduce health risks from poor indoor air quality. EPA uses technology transfer to improve the design, operation, and maintenance of buildings – including schools, homes, and workplaces – to promote healthier indoor air. EPA's technical assistance directly supports State and local governments and public health organizations in designing local programs to promote practices that reduce exposures to asthma triggers through environmental management and to promote smoke-free environments for children.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Indoor Air program, assessed by OMB in 2005 through the PART process, received a rating of "Adequate." The program does not issue regulations, so it works toward its goal by conducting research and promoting appropriate risk reduction actions through voluntary education and outreach programs. The program will be focusing on making efficiency improvements.

In FY 2007 EPA will build on its national, multi-faceted asthma education and outreach program, in partnership with other Federal and non-profit agencies, to improve and expand the delivery of comprehensive asthma-care programs that emphasize management of environmental asthma triggers such as environmental tobacco smoke, dust mites, mold, pet dander, cockroaches and other pests, and nitrogen dioxide. To reach more people more effectively, EPA will promote the adoption of best practices to achieve positive health outcomes. EPA will continue its efforts to reach populations disproportionately impacted by asthma and environmental tobacco smoke.

Through public awareness and mass-media communications such as the Childhood Asthma "Goldfish" Campaign, EPA will continue to build public awareness and knowledge of comprehensive asthma care and the importance of environmental management to reduce exposure to indoor triggers. EPA also will continue to work with the health care provider community to integrate environmental asthma management into the standards of care for asthma.

EPA will also work with the health-insurance community to integrate cost beneficial and environmental asthma management strategies into the health care services and products they offer to providers and enrollees. In such public-health settings, EPA's role as environmental steward reinforces families' trust and acceptance of key risk-avoidance messages.

EPA will continue to build the success of its national *Indoor Air Quality Tools for Schools (IAQ TfS)* program and extend the program to more schools. EPA will continue to market *Design Tools for Schools* (DTfS)[16] web-based guidance, as well as EPA's new Healthy School Environments Assessment Tool (HealthySEAT), assisting school districts in integrating indoor air quality and performance goals into the design, construction, and renovation of school buildings. EPA also will continue partnerships and activities that inform and motivate school officials, school nurses, teachers, facility managers and planners, and parents to improve IAQ in schools. EPA also will expand its efforts to address children's asthma in schools in league with cooperative partners.

EPA will respond to continued interest in reducing indoor air risks through community building activities (i.e., design, construction, operations and maintenance), by promoting a suite of "best practice" guidance including new guidance for the control and management of moisture and mold in commercial and public buildings, followed by comprehensive best practice guidance for IAQ during each phase of the building cycle. EPA will also offer guidance and training programs for building operations and maintenance that integrate best practices for indoor environmental quality and energy efficiency. In addition, EPA will work in partnership and collaboration with other Federal agencies, the health care community, and state and local organizations to promote its Smoke-free Homes Pledge Campaign.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Estimated annual number of schools establishing indoor air quality programs based on EPA's Tools for Schools guidance.	3,000	2500	1200	1100	Number

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent of public that is aware of the asthma program's media campaign.	31	>20	>20	>20	Percentage

[16] www.epa.gov/iaq/schooldesign last accessed 8/5/2005.

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Additional health care professionals trained annually by EPA and its partner on the environmental management of asthma triggers.	3,080	2000	2000	2000	Number

The measure included in the performance table is a new measure developed during the process of completing a 2005 Program Assessment Rating Tool (PART) process; the target listed is the long-term date for reporting out results of the measure.

EPA will continue to work towards its long term 2012 goal to have 6.5 million people with asthma take the essential actions to reduce their exposure to their environmental triggers of asthma, including environmental tobacco smoke. EPA's goal is to have close to 400,000 additional people with asthma to take these actions in 2007, bringing the total number to over 4.5 million people with asthma taking these actions. As part of this goal, EPA will continue to work to reduce existing disparities between disproportionately impacted populations and the overall population.

EPA will continue to work towards its long term 2012 goal of 40,000 schools implementing effective indoor air quality management plans. In 2007, EPA aims to have an additional 1,100 schools start implementation of an effective IAQ management plan, bringing the total to over 35,000 schools implementing these plans nationwide

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$263.1) This increase will support EPA outreach activities to schools, especially those in disproportionately impacted areas, to promote indoor air quality management through the use of Tools for Schools or a similar plan that highlights essential actions for schools to take to improve indoor air quality.

- (-0.3 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$64.2) This reflects an increase for payroll and cost of living for exiting FTE.

Statutory Authority:

CAA Amendments of 1990; Title IV of the Superfund Amendments and Re-authorization Act (SARA) of 1986.

Program Area: Information Exchange / Outreach

Children and Other Sensitive Populations: Agency Coordination

Program Area: Information Exchange / Outreach
Goal: Healthy Communities and Ecosystems
Objective(s): Communities

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$7,135.8***	***$5,633.0***	***$6,063.8***	***$430.8***
Total Budget Authority / Obligations	$7,135.8	$5,633.0	$6,063.8	$430.8
Total Workyears	14.7	12.9	15.9	3.0

Program Project Description:

The Office of Children's Health Protection (OCHP) advocates for and facilitates the consideration of children's environmental health across activities identified in the Agency's "National Agenda to Protect Children's Health from Environmental Threats," and Executive Order 13045, "Protection of Children's Health from Environmental Health Risks and Safety Risks." EPA also recognizes that older adults are more susceptible to environmental health risks than the general population. EPA's Aging Initiative is another emphasis within this office which strives to protect the health of older adults. This cross-cutting, non-regulatory program works with other EPA offices, other federal agencies, States, Tribes, the public, healthcare providers, industry, and non-governmental organizations to achieve its mission. Core activities focus on building capacity, providing tools and information to inform decisions, and engaging in educational outreach activities.

FY 2007 Activities and Performance Plan:

Examples of activities that this program contributes to are ensuring that EPA programs and policies explicitly consider and use the most up-to-date data and methods relevant to evaluating, protecting, and improving the environmental health of children and older adults by ensuring that EPA has the tools and information to enable decision makers to consider approaches that protect children and older adults from heightened public health risks; ensuring that States, tribes, and local governments will effectively incorporate environmental health of children and older adults into new or existing programs; and ensuring that non-government organizations and entities (family members, health care providers, community leaders, etc.) have and use reliable/valid scientific information when making decisions about the environmental health of children and older adults.

OCHP coordinates efforts to enhance the environmental health of children and older adults. The following are examples of accomplishments and planned activities:

- Work with other Agency offices to develop guidance designed to assist the agency in considering health risks to children in rule making and evaluating the application of such guidance throughout EPA.

- Work within EPA to generate and apply new scientific research, tools and assessments and promote easy access to information regarding children's environmental health. Support efforts within the Agency's Regions to address children's environmental health issues that of high priority in their states.
- Provide tools, information, and support to build capacity in States, Tribes and local governments so that they can take effective action to protect children from environmental health risks. Continue support for the Healthy Schools Environmental Health Assessment Tool which was launched in December 2005. Work is underway to assist states in implementing it in school districts nationwide. We will also continue to support the Agency's School Chemical Cleanout Program.
- Support partners outside of the Agency to ensure that the public, health care providers, and other civic entities have access to tools and information needed to protect Children and older adults from environmental health risks. To recognize successful programs and encourage organizations to undertake programs that protect children the Children's Environmental Health Awards program was launched in 2005.
- Ensure that health professionals have the capacity to identify, prevent, and manage environmental health risks to children. Support the Pediatric Environmental Health Specialty Units which provide consultation, education and referral services to other health professionals and the public on pediatric environmental health issues. Award assistance agreements that will provide education and training to health professionals and evaluate the incorporation of pediatric environmental health into their practice.
- Continue to work with and support the Agency's global efforts to protect children though ongoing partnerships with international organizations including the World Health Organization, the Pan American Health Organization and the Organization and Economic Co-operation and Development.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$5.1) This increase will be used for program reviews associated with the President's Management Agenda, (e.g., Human Capital, Competitive Sourcing).
- (+3 FTE) This increase reflects a redirection of resources that were allocated in the FY 2006 enacted budget to support the Environmental Education function. As part of the Agency's ongoing efforts to fully integrate environmental education into all program areas, 19.7 FTEs were reallocated from the Environmental Education Office to support increased outreach initiatives throughout the Agency.
- (+$425.7) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

EO 13045.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$48,407.3***	***$50,291.0***	***$52,142.7***	***$1,851.7***
Hazardous Substance Superfund	$111.7	$48.0	$130.4	$82.4
Total Budget Authority / Obligations	$48,519.0	$50,339.0	$52,273.1	$1,934.1
Total Workyears	396.2	370.2	381.1	10.9

Program Project Description:

This program provides the vision and leadership needed to enable EPA to meet its commitments to protect public health and the environment. The Administrator and Deputy Administrator guide the Agency in implementing its complex mission. Program staff respond to Congressional requests for information and provide written and oral testimony, briefings, and briefing materials. They develop legislative strategies to support program offices and coordinate Agency appearances before Congress. They inform the public (including State, Local and Tribal Governments) about environmental problems and goals; and act to strengthen communications with state, local and tribal governments and organizations, news media, and the public. The office also works to increase public awareness and enhance public perceptions of environmental issues, and their social, technological and scientific solutions.

Program staff work with states, local and tribal governments and their associations, to ensure that their concerns are considered in Agency policies, guidance, and regulations. The office also serves as EPA's lead on issues relating to the National Environmental Performance Partnerships System (NEPPS). Staff manage correspondence received by the Administrator, Deputy Administrator, and Regional Administrators. This program also provides the resources for the direct support to four Federal advisory committees (FACAs), as well as resources to develop and manage Agency-wide FACA policy and guidance.

The Enforcement and Compliance Assurance program also contributes to the mission of this program by disseminating information regarding enforcement actions, compliance monitoring and the availability of compliance assistance. Monthly Enforcement Alerts, regular news briefs about enforcement and compliance assistance activities and a website with easily accessible tools for retrieving information are some of the tools used to inform stakeholders.

FY 2007 Activities and Performance Plan:

The emphasis and priority of these programs is to provide the vision and leadership for the full range of activities that support EPA's mission. The Regional Administrators and their staff continue to provide leadership to the regions and states they serve.

Congressional and Intergovernmental Relations efforts continue to:

- Lead and support the Administration's efforts to pass legislation to protect human health and the environment (such as Clear Skies, the Treaty on Persistent Organic Pollutants, and Water Resources), and begin implementation of the recently passed Energy and Transportation legislation.

- During FY 2007, the Agency will continue to foster public awareness of environmental issues and the Federal government's role in monitoring compliance and enforcing the nation's environmental laws. This awareness and support are critical to public support and to the Agency's success in meeting its goals. The Agency will issue the following informational materials: enforcement alerts; accomplishments reports, daily updating of the website, weekly news alerts, specialized list-serves with periodic postings, and news releases as Superfund major cases are concluded.

- Facilitate and participate in the White House Conference on Cooperative Conservation. Support the President's Executive Order on intergovernmental consultation through the National Environmental Performance Partnership System (NEPPS) and Local Government Advisory Council (LGAC). The LGAC and Intergovernmental Relations team will reach out to local governments to facilitate implementation of the Executive Order on Intergovernmental Consultation.

- Provide national policy and program management to more fully integrate the NEPPS framework and principles into the Agency's core business practices. Key activities include: (a) developing policy/program guidance, outreach tools and training to promote the value and benefits of Performance Partnership Agreements (PPAs) and Performance Partnership Grants (PPGs); (b) improving opportunities for bilateral joint planning and work sharing agreements, evaluating their influence, and facilitating continuous improvement; and (c) increasing the use and effectiveness of PPAs and PPGs as definitive joint planning and management tools to achieve environmental results at the national, state, and local level. The effectiveness of PPAs and PPGs is being measured as follows:

    - From the outset, EPA and state leaders understood that building the performance-based management system envisioned by NEPPS would evolve and require continuous improvements along the way.
    - In 2004, EPA revamped its planning process to promote the joint strategic analysis of environmental conditions and priority needs, and to give states more frequent and meaningful opportunities to set priorities jointly with EPA. Enhanced joint planning should bring about PPAs and PPGs that are results-oriented and strategically connected at the state, regional, and national levels.

- 40 CFR Part 35 requires joint evaluation of all state grants, including PPGs. The evaluation process must include a discussion of accomplishments as measured against work plan commitments and a discussion of the cumulative effectiveness of the work performed under the work plan.
- To ensure that EPA can link the work performed with grant funds to the achievement of the goals and objectives in the EPA Strategic Plan, in 2005 EPA issued a new order on environmental results. This order requires EPA project officers to link proposed assistance agreements to the Agency's Strategic Plan; ensure that outputs and outcomes are appropriately addressed in work plans and performance reports; and consider how the results from completed assistance agreement projects contributed to the Agency's goals and objectives.
- To improve accountability, EPA will develop a standardized template that all States will use to develop and submit their State grant agreements. This new template will include clear linkages to EPA's Strategic Plan and long-term and annual goals, as well as consistent requirements for regular performance reporting. It also will allow for meaningful comparisons between various States' past and planned activities and performance, making progress more visible and programs more transparent.

- Manage EPA's cooperative agreement with the Environmental Council of the States (ECOS) through close coordination and involvement of several of EPA's program offices.

The Cooperative Environmental Management (CEM) program functions continue to:

- Ensure that EPA's 67 federal advisory committees and sub-committees are in compliance with the Federal Advisory Committee Act (FACA) through policy creation, oversight of federal advisory committees, identifying and sharing best practices, and training Agency Designated Federal Officers (DFOs) and committee Chairs. These efforts ensure consistent application of an open process throughout all of EPA's federal advisory committees. A new "assist visit" process will allow the Committee Policy and Oversight Staff to conduct on-site inspection of DFO files to ensure Agency compliance with FACA as required by law, thereby, reducing the Agency's risk to legal challenges.

- In 2007, CEM will provide stewardship for the Designated Federal Officers' community by, providing outreach, assistance, and training. By continuing its "assist visits," in part, CEM will ensure that the GSA database is updated in a timely manner.

- Promote and guide FACA and the public participation process in National and International environmental policy, while facilitating the identification of emerging trends and issues.

The Public Affairs program continues to support the achievement of Agency strategic goals by communicating Agency proposals, actions, policy, data, research and information through mass media and directly via the Web.

- The Public Affairs program works with all program and Regional offices to develop, coordinate and manage print, broadcast and Web-based background and content

information to enhance public understanding of Agency policy and actions. Recognizing the importance of the Web in the communication of Agency information, the Public Affairs program will be leading a major review and consolidation of Agency Web content in FY 2007 to ensure that the Web information is current, consistent, accurate and easy to find.

- In FY 2007, the program will continue its coordination with EPA's Environmental Information program to ensure effective distribution of policy and regulatory information requested by citizens, the media, other government entities and non-government organizations.

The Executive Secretariat emphasizes responsiveness and efficiency. The program:

- Manages the Agency's correspondence tracking and workflow management software application. Indicators of success include an increase in Agency-wide usership, meeting or exceeding all user support commitments, and delivering service and meeting user needs within the program's annual budget.

- Is responsible for mail distribution and performs vital records management functions for the Immediate Office. Indicators of success are determined through a customer feedback process and workflow tracking to help ensure same-day delivery, timely responses to FOIA and discovery requests, and compliance with all NARA mandates.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-1.7 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+14.6 FTE) This increase reflects resources that were allocated in the FY 2006 enacted budget to support the Environmental Education function, but will be used in FY 2007 for other administrative functions such as grants management and reviews associated with the President's Management Agenda, e.g., Human Capital, Competitive Sourcing.

- (-0.2 FTE) The decrease reflects a change in EPA's workforce management strategy that will help the agency better align resources, skills, and Agency priorities.

- (-2 FTE) This represents a transfer of personnel to the Compliance Assistance and compliance monitoring programs for tribal outreach and for work with the states, including work relating to the National Environmental Performance Partnership System.

- (-$235.6) This represents a transfer of resources to the Compliance Assistance and compliance monitoring programs for tribal outreach and for work with the states, including work relating to the National Environmental Performance Partnership System.

- (-$7.2) This reduces support for the preparation of enforcement-related information materials.

- (+$2,456.1) This is reflects an increase for payroll and cost of living for existing FTE.

- (-$361.9) This represents a redirection to payroll and cost-of-living costs from programmatic resources.

Statutory Authority:

As provided in Appropriations Act funding; Federal Advisory Committee Act; Enterprise for the Americas Initiative Act; NAFTA Implementation Act; RLBPHRA; NAAED; LPA-US/MX-BR; CERCLA.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$16,723.0***	***$17,700.0***	***$16,048.5***	***($1,651.5)***
Hazardous Substance Superfund	$2,330.3	$1,650.0	$1,432.4	($217.6)
Total Budget Authority / Obligations	$19,053.3	$19,350.0	$17,480.9	($1,869.1)
Total Workyears	24.6	24.0	24.0	0.0

Program Project Description:

This program supports the development and maintenance of the Environmental Information Exchange Network (the Exchange Network), an integrated information system that facilitates information sharing among EPA and its partners using standardized data formats and definitions. The Exchange Network provides a centralized approach to receiving and distributing information, and improving access to timely and reliable environmental information. This program provides resources for the development, implementation, operation and maintenance for the Agency's Central Data Exchange (CDX, www.epa.gov/cdx), the point of entry on the Exchange Network for data submissions to the Agency. The program also develops the regulatory framework to ensure that electronic submissions are legally acceptable, establishes partnerships with states, tribes, territories and tribal consortia; and, supports the e-Rulemaking e-Government initiative. E-Rulemaking is designed to improve the public's ability to find, view, understand and comment on Federal regulatory actions, and EPA is providing the leadership role on this effort.

FY 2007 Activities and Performance Plan:

In FY 2007, the major focus is on fulfilling the Agency's e-Government (e-Gov) commitments and support of EPA's information technology initiatives. These activities build upon efforts started in FY 2004-2006 to enhance the availability, quality and analytical usefulness of environmental information for EPA and its partners and stakeholders. These efforts support the data exchange of states, tribes and other partners, through the use of the Exchange Network and EPA's node on the Exchange Network, the Central Data Exchange (CDX).

The Exchange Network is the cornerstone of the Agency's efforts to partner with states, tribes and territories to exchange secure, accurate and timely information that supports environmental and health decisions. In FY 2007, EPA, states, tribes, and territories will continue to re-engineer

data systems so that information that was previously not available or not easily available can be exchanged using common data standards and computer language called schemas. In FY 2007, all 50 states and approximately 10 tribes will have established nodes on the Exchange Network and will be mapping data to the new schemas for sharing with partners and submission to EPA. These efforts will be closely coordinated with the Agency's Program Offices, as well as data system registries.

EPA's efforts capitalize on the Exchange Network and CDX to continue to improve access to and availability of relevant program data for states, tribes and direct reporting participants. Additional data flow capability will increase information accuracy through tools that check data before submission, increase timeliness of data, improve analytical capability, and create economies of scale as standards and schemas are reused and additional efficiencies are found through re-engineering.

In addition, EPA will be implementing electronic reporting standards that will support the authentication and electronic signatures of report submitters. EPA will work to provide assistance to states, tribes and territories in implementing these standards.

Effective implementation of the Exchange Network activities relies on close coordination with the Information Security and Agency Architecture and data management activities. Coordination helps to ensure necessary system security measures are adhered to, system platforms follow the Agency's Enterprise Architecture, and data management follows documented data standards.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Number of major EPA environmental systems that use the CDX electronic requirements enabling faster receipt, processing, and quality checking of data. The baseline is 70 data flows.	22	12	29	36	Systems

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Number of users from states, tribes, laboratories, and others that choose CDX to report environmental data electronically to EPA. The baseline of users for the scheduled deployments of data flows is approximately 75,000 users.	45,000	20,000	47,000	55000	Users

Work under this program supports multiple objectives.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$1,800.9) The reduction in resources reflects a shift in the emphasis of the Central Data Exchange from infrastructure to adding data flows and Web services; and scheduling Enterprise Content Management System and enterprise solutions deployments to better align with Agency readiness, and with the lifecycle phase of the e-Rulemaking project.

- (+$149.4) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

Federal Advisory Committee Act; Government Information Security Reform Action; CERCLA; CAA and amendments; CWA and amendments; Environmental Research, Development, and Demonstration Act; TSCA; FIFRA; Food Quality Protection Act; Safe Drinking Water Act and amendments; Federal Food, Drug and Cosmetic Act; Emergency Planning and Community Right-to-Know; SARA; GPRA; GMRA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; Computer Security Act; Privacy Act; EFOIA; EPAct.

Small Business Ombudsman

Program Area: Information Exchange / Outreach
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Environmental Performance through Pollution Prevention and Innovation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$3,691.3***	***$3,343.0***	***$3,501.7***	***$158.7***
Total Budget Authority / Obligations	$3,691.3	$3,343.0	$3,501.7	$158.7
Total Workyears	16.7	13.0	13.0	0.0

Program Project Description:

The Small Business Ombudsman (SBO) serves as EPA's gateway and leading advocate for small business issues. The SBO partners with state Small Business Assistance Programs (SBAP's) nationwide, and hundreds of small business trade associations, to reach out to the small business community. These partnerships provide the information and perspective EPA needs to help small businesses achieve their environmental goals. This is a comprehensive program that provides networks, resources, tools, and forums for education and advocacy on behalf of small businesses.

FY 2007 Activities and Performance Plan:

The core SBO functions include participating in the regulatory development process, operating the Small Business Ombudsman Hotline, participating in program and regional office small business related meetings, and supporting internal and external small business activities. The SBO outreach and communication services help small businesses learn about new EPA actions and developments and helps EPA to learn about the concerns of small businesses. SBO partners with state SBAP's and trade associations to assist small businesses and provide them with environmental information. SBO provides a service to Agency program and regional offices, and other agencies by disseminating information, and providing tools and information that SBAP's need to assist small businesses. SBO supports partnerships with, and provides training to, state SBAP's, in order to reach an ever-increasing number of small businesses and to assist them with updated and new approaches for improving their environmental performance. SBO provides technical assistance in the form

One-Stop-Relief
Small Business Ombudsman Functions

- Provides a convenient way for small businesses to access EPA;
- Facilitates communications between the small business community and EPA;
- Investigates and resolves disputes with EPA; and
- Works with EPA personnel to increase their understanding of small businesses in the development and enforcement of environmental regulations.

of tools, workshops, conferences and training forums designed to help small businesses become better environmental performers, and also helps our partners to provide the assistance they need.

In FY 2007, the Small Business Ombudsman will:

- Continue to serve as EPA's gateway and leading advocate for small business issues.
- Promote EPA's Small Business Strategy and coordinate the Agency's Strategy Implementation Plan activities.
- Strengthen and support partnerships with state SBAP's and trade associations.
- Support and promote a state-lead multimedia initiative and coordinate efforts within the Agency.
- Serve as the Agency's Point of Contact for the Small Business Paperwork Relief Act (SBPRA), through work with an established Agency-wide workgroup addressing the requirement to "make efforts to further reduce the information collection burden for small business concerns with fewer than 25 employees."
- Implement EPA's Small Business Awards Program to recognize state SBAPs, small businesses, and trade associations that have directly impacted the improved environmental performance of small businesses.
- Support and promote the President's Management Agenda by encouraging small businesses, states, and trade associations to comment on EPA rulemaking through the E-rulemaking initiative, as well as providing updates on the Agency's rulemaking activities in the semi-annual Small Business Ombudsman Update.
- Participate with the Small Business Administration and other Federal agencies in Business Gateway "one-stop" activities which help improve services and reduce the burden on small businesses by guiding them through government rules and regulations.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$243.3) This decrease is the net effect of increases to payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.
- (+$402.0) This reflects an increase for additional work with the Small Business Administration on Business Gateway one stop activities.

Statutory Authority:

CAA of 1990, section 507.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$2,245.7***	***$2,503.0***	***$2,646.6***	***$143.6***
Total Budget Authority / Obligations	$2,245.7	$2,503.0	$2,646.6	$143.6
Total Workyears	10.1	9.8	11.8	2.0

Program Project Description:

This program provides technical assistance to Headquarters and regional employees to ensure that small, disadvantaged, women-owned, Historically Underutilized Business Zone (HUBZone), and Service-Disabled Veteran-Owned Small Businesses receive a fair share of EPA's procurement dollars. This program enhances the ability of these businesses to participate in the protection of public health and the environment. The functions assigned to this area involve ultimate accountability for evaluating and monitoring contracts, grants and cooperative agreements entered into on behalf of EPA's Headquarters and regional offices. This will ensure that the Agency's contract and procurement practices further the Federal laws and regulations regarding utilization of small and disadvantaged businesses in direct procurement acquisitions and indirect procurement assistance.

FY 2007 Activities and Performance Plan:

Small and disadvantaged business procurement experts will provide assistance to Headquarters and regional program office personnel, as well as small business owners, to ensure that small, disadvantaged, women-owned, HUBZone, and Service Disabled Veteran-Owned Small Businesses receive a fair share of EPA's procurement dollars. This fair share may be received either directly or indirectly through contracts, grants, cooperative agreements, or interagency agreements. EPA has a number of national goals that it negotiates with the Small Business Administration (SBA) every two years. EPA's proposed goals for FY 2006/2007 were based on estimated contract obligations of $1.2 billion for prime contracts and $200 million for subcontracts. (See chart below)

EPA's Proposed Direct Procurement Goals for FY2006-FY2007

Estimated Obligations	Proposed FY2006/2007 Goals	
DIRECT	**$ Value**	**Goal**
Small Businesses	$432M	36.0%
8(a) Businesses	$90M	7.5%
Non 8(a) Small Disadvantaged Businesses	$36M	3.0%
Women-Owned Small Businesses	$66M	5.5%
HUBZone Businesses	$36M	3.0%
Service Disabled Veteran-Owned Small Businesses	$36M	3.0%
SUBCONTRACT	**$ Value**	**Goal**
Small Businesses	$100M	50.0%
Small Disadvantaged Businesses	$40M	20.0%
Women-Owned Small Businesses	$15M	7.5%
HUBZone Businesses	$6M	3.0%
Service Disabled Veteran-Owned Small Businesses	$6M	3.0%

Contract bundling reviews of an increased number of Agency contracts will emphasize ways to: 1) eliminate unnecessary contract bundling; and 2) mitigate the effects of bundling on America's small business community. In FY 2007, special emphasis will continue to be placed on working with Service-Disabled Veteran-Owned Small Businesses, as mandated by the White House's October 21, 2004 Executive Order, which requires increased Federal contracting opportunities for this group of entrepreneurs. Outreach and in-reach efforts will help EPA meet its 3 percent procurement goal for Service-Disabled Veteran-Owned Small Businesses that was established by the new Executive Order and SBA Regulation (F.R. Vol. 69, No. 87, May 5, 2004), its 5.5 percent goal for women-owned small businesses, and 3 percent goal for HUBZones.

Under its Indirect Procurement Program, EPA has a statutory goal of 10 percent utilization of Minority Business Enterprises/Women-Owned Business Enterprises for research conducted under the Clean Air Act Amendments of 1990, as well as a statutory 8 percent goal for all other programs. The Small Minority Business Assistance program encourages the Agency to meet these direct and indirect procurement goals. These efforts will enhance the ability of America's small and disadvantaged businesses to help the Agency protect human health and the environment and, at the same time, create more jobs. As a result of the Supreme Court's decision in *Adarand v. Pena*, 115 S. Ct. 2097 (1995), EPA will finalize a rule for the participation of Disadvantaged Business Enterprises in procurements funded through EPA's assistance agreements in early 2006. The Agency will also begin implementing the certification requirements of the final rule. In 2007, the rule will be in full implementation.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+2 FTE) This increase reflects resources that were allocated in the FY 2006 enacted budget to support the Environmental Education function, but are now being used for other administrative functions associated with Service-Disabled Veteran-Owned Small Businesses and other small business efforts.

- (+$250.2) This reflects an increase for payroll and cost of living for existing FTE.

- (-$106.6) This decrease reflects cost savings resulting from the use of newly developed, more efficient data base software for tracking small minority business utilization within the Agency.

Statutory Authority:

Small Business Act, Sections 8 and 15, as amended; Executive Orders 12073, 12432, and 12138; P.L. 106-50; CAA Amendments of 1990.

State and Local Prevention and Preparedness
Program Area: Information Exchange / Outreach
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$11,327.5***	***$11,377.0***	***$12,508.4***	***$1,131.4***
Total Budget Authority / Obligations	$11,327.5	$11,377.0	$12,508.4	$1,131.4
Total Workyears	53.7	57.9	57.4	-0.5

Program Project Description:

EPA works with state and local partners to help protect the public and the environment from catastrophic releases of hazardous substances that occur at chemical handling facilities. Under the Clean Air Act (CAA), EPA regulations require that facilities handling more than a threshold quantity of certain extremely hazardous substances must implement a risk management program and submit to EPA a Risk Management Plan (RMP). The RMP must also be sent to the state, local planning entity, the Chemical Safety and Hazard Investigation Board, and be made available to the public. The RMP describes the hazards of the chemicals used by the facility, the potential consequences of worst case and other accidental release scenarios, a five-year accident history, the chemical accident prevention program in place at the site, and the emergency response program used by the site to minimize the impacts on the public or environment should a chemical release occur. Facilities are required to update their RMP at least every five years, sooner if certain changes are made at the facility.

The Agency works with state and local partners to help them implement their own risk management program through technical assistance grants, technical support, outreach and training. EPA also works with communities to provide chemical risk information on local facilities, as well as assist them in understanding how the chemical risks may affect their citizens. Additionally, EPA supports continuing development of emergency planning and response tools such as the Computer-Aided Management of Emergency Operations (CAMEO) software suite. With this information and these tools, communities are in a better position to prepare for, reduce and mitigate releases that may occur.

RMP data is a valuable source to homeland security analysts for the identification of potential hazards in the chemical sector. EPA assists the Department of Homeland Security and other Federal agencies by providing updated copies of the RMP database for their vulnerability analyses. EPA also provides state and local government entities information and analysis from the RMP database that is helpful for homeland security planning related to chemical accidents and terrorism. In addition, EPA conducts analyses of RMP data to identify chemical accident trends and industrial sectors that may be more accident-prone, to gain knowledge on the effectiveness of risk management measures, and for other analyses in support of the Agency's mission.

FY 2007 Activities and Performance Plan:

The Agency will continue its efforts to help state and local partners implement the Risk Management program. EPA will continue to refine RMP database analyses, make the data more easily available to appropriate government agencies and improve data utility for security and emergency prevention, preparedness, and response efforts. EPA will also use information generated by the RMP with other Right-to-Know data to conduct initiatives and activities aimed at risk reduction in high-risk facilities, priority industry sectors, and/or specific geographic areas.

The Clean Air Act requires EPA to establish a system to audit RMPs. In an effort to help agencies, states, and prospective third party auditors acquire or improve skills required to conduct audits, EPA has developed and implemented an RMP audit curriculum. This training will continue to be offered extensively throughout the country in FY 2007. The audit system is used to continuously improve the quality of risk management programs as well as check compliance with the requirements. In FY 2007, the EPA and other implementing agencies will perform their audit obligations through a combination of desk audits of RMP plans and at least 400 on-site facility inspections. Additionally in FY 2007, EPA will continue its extensive quality assurance oversight of data collection and reporting procedures.

In FY 2007, EPA will continue its work to transition the RMP submission system to allow complete Internet-based risk management plan submission. Transitioning the system to full internet-based submission capability will reduce facility burden, reduce data processing errors, and result in more timely updates of EPA's RMP*Info database.

In FY 2007, EPA and the National Oceanic Atmospheric Administration will complete development of a new Flammables and Explosives software module for the Aerial Locations of Hazardous Atmospheres (ALOHA) air dispersion model – part of the CAMEO suite of emergency management software applications. The new Flammables and Explosives module will, for the first time, give CAMEO users the ability to accurately estimate the hazardous effects of large releases of flammable and explosive hazardous substances, and thereby enhance local preparedness for such events.

Performance Targets:

Work under this program supports Chemical, Organism, and Pesticide Risks. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.
- (+$631.1) This reflects an increase for payroll and cost of living for existing FTE.
- (+$500.3) This increase will support ongoing audits at regulated facilities.

Statutory Authority:

EPCRA; SARA of 1986; Section 112r, Accidental Release Provisions of the CAA of 1990; Chemical Safety Information, Site Security and Fuels Regulatory Relief Act.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$15,380.7***	***$14,289.0***	***$15,243.4***	***$954.4***
Total Budget Authority / Obligations	$15,380.7	$14,289.0	$15,243.4	$954.4
Total Workyears	52.0	44.0	44.0	0.0

Program Project Description:

The Toxics Release Inventory (TRI) program provides the public with information on the releases and other waste management of toxic chemicals. The program: 1) collects information on listed toxic chemicals from certain industries and makes the information available to the public through a variety of means, including a publicly accessible national database; operates and maintains the TRI, TRI-Explorer ((http://www.epa.gov/triexplorer/reports.htm) and TRI-Made Easy (TRI-ME) (www.epa.gov/tri) systems to facilitate the program's data collection and reporting requirements, and 2) provides TRI program compliance assistance through extensive outreach efforts including mailings, workshops, the Internet, and telephone hotlines.

FY 2007 Activities and Performance Plan:

EPA will continue its effort to accelerate the development of ongoing projects that improve TRI information availability to states and tribes. Central to this effort is the addition of new states and tribes to the network and the delivery of additional web-based services. By reducing the duplication of work performed by the recipients of TRI reported data (the states and tribes), resources are being released for allocation to analytical and other services.

The continued expansion and development of the TRI State and Tribe Data Exchange Network is reducing the reporting load on the regulated community and the processing load on the states and tribes. Specifically, the regulated community may submit only one electronic report via the Exchange Network that is then simultaneously routed to both the state or tribe and federal recipients. In FY 2007, the service of the network is being expanded to include processing of non-electronic information. Should a reporting facility chose to send in their report(s) on paper rather than electronically, the TRI data processing center will key enter the information and electronically transmit the resulting files to the state or tribe. This eliminates the need for the reporting facility to submit multiple copies of their reports and precludes the duplication of the key entry operation at the state or tribe and federal data processing centers.

TRI-*ME* Web will be web-based software that will assist facility owners and operators in determining and completing their Emergency Planning and Community Right-to-Know (EPCRA) Section 313 (TRI) Form R and Form A certification statements.

TRIS-II required the relocation of the TRI database from a contractor's site to the EPA National Computer Center (NCC) in Research Triangle Park, NC. This fundamental step has enabled direct and secure access of TRI data by the Agency's new TRI data mart, thereby providing real-time updates and Agency-wide access of complete TRI information.

EPA will continue to provide TRI facilities with compliance assistance through workshops, web-based reference tools, and telephone hotline support. EPA also will increase the percentage of TRI chemical forms that are submitted in electronic format via EPA's Central Data Exchange (CDX) (i.e., Internet reporting).

The TRI program works closely with EPA's Exchange Network program to coordinate more efficient and effective data collection and system access using EPA's CDX node on the Exchange Network. Data collection and reporting efforts use data standards and reporting requirements outlined in the IT/Data Management program closely linking the programs and ensuring appropriate information security. The TRI program implements information security measures outlined by the Information Security program and is compliant with Federal Information Security Management Act (FISMA) regulations.

Performance Targets:

Work under this program supports Chemical, Organism and Pesticide Risk objective, although no performance measures exist for the program project. The TRI program also supports the development of web-based TRI-ME and TRIS-II, both of which are e-Gov initiatives and support the President's Management Agenda (PMA).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$417.8) The increase will support the acceleration of developments currently underway to improve TRI information availability to states and tribes and other interested parties.

- (+$536.6) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

Federal Advisory Committee Act; Government Information Security Reform Action; CERCLA; SARA; Emergency Planning and Community Right-to-Know; CAA and amendments; CWA and amendments; Safe Drinking Water Act and amendments; TSCA; FIFRA; Food Quality Protection Act; Federal Food, Drug and Cosmetic Act; Environmental Research, Development, and Demonstration Act; GPRA; Government GMRA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; Computer Security Act; Privacy Act; EFOIA; Pollution Prevention Act; EPAct.

Tribal - Capacity Building
Program Area: Information Exchange / Outreach
Goal: Compliance and Environmental Stewardship
Objective(s): Build Tribal Capacity

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$10,937.7***	***$11,049.0***	***$11,435.7***	***$386.7***
Total Budget Authority / Obligations	$10,937.7	$11,049.0	$11,435.7	$386.7
Total Workyears	75.7	73.3	74.1	0.8

Program Project Description:

Under Federal environmental statutes, the Agency has responsibility for protecting human health and the environment in Indian country. EPA has worked to establish the internal infrastructure and organize its activities in order to meet this responsibility.

Since adopting the EPA Indian Policy in 1984, EPA has worked with Tribes on a government-to-government basis that affirms the Federal trust responsibility between EPA and each Federally-recognized Tribe. EPA's American Indian Environmental program leads the Agencywide effort to ensure environmental protection in Indian country. For more information, please visit http://www.epa.gov/indian/policyintitvs.htm and http://www.epa.gov/indian/.

EPA's strategy for this program has three major components:

- Work with Tribes to create an environmental presence for each Federally-recognized Tribe (discussed under the Tribal General Assistance Program in the STAG appropriation);

- Provide the data and information needed by Tribal governments and EPA to meet Tribal environmental priorities. At the same time, ensure EPA has the ability to view and analyze the conditions on Indian lands and the effects of EPA and Tribal actions and programs on the environmental conditions; and

- Provide the opportunity for implementation of Tribal environmental programs by Tribes, or directly by EPA, as necessary.

FY 2007 Activities and Performance Plan:

Complementary to the efforts of providing an environmental presence through the Indian General Assistance Program (GAP), EPA continues to develop its information technology infrastructure, known as the Tribal Program Enterprise Architecture (TPEA), to organize environmental data on a Tribal basis, enabling a clear, up-to-date picture of environmental

conditions in Indian country. TPEA includes access to a wide variety of information from several agencies and numerous sources within those agencies.

The Agency is also working with some Tribes on data exchange efforts (*i.e.*, Eastern Band of Cherokee Indians, Shoshone and Arapahoe Tribes of the Wind River Reservation, and Navajo Nation). The components of the TPEA create a broad, multiple-variant view of the environmental conditions and programs in Indian country. It also includes several applications that perform analysis of information on environmental performance in Indian country for a wide variety of specific purposes. For more information, please visit https://oasint.rtpnc.epa.gov/TIMS/index_sav.html (Username: lieu; Password: test1).

The ability to comprehensively and accurately examine conditions and make assessments will provide a blueprint for planning future activities through the development of Tribal/EPA Environmental Agreements (TEAs) or similar Tribal environmental plans that address and support priority environmental multi-media concerns in Indian country. For more information, please visit https://oasint.rtpnc.epa.gov/TATS/tats_prv/entry_page.

Vital to the EPA Indian Policy are the principles that the Agency has a government-to-government relationship with Tribes and that "EPA recognizes Tribes as the primary parties for setting standards, making environmental policy decisions and managing programs for reservations, consistent with agency standards and regulations." To that end, EPA "encourage[s] and assist[s] Tribes in assuming regulatory and program management responsibilities," primarily through the treatment in a manner similar to a state (TAS) processes available under several environmental statutes. EPA will continue to encourage Tribal capacity development to implement Federal environmental programs, including the use of Direct Implementation Tribal Cooperative Agreement (DITCA) authority.

In FY 2005, EPA instituted a review of the national GAP grant program to assure effective management of grant resources. This effort, which will be described in Regional Oversight Reports, includes review of Regional GAP programs and individual GAP grant files. These program oversight activities will continue in FY 2007.

Performance Targets:

In FY 2007, EPA will continue to standardize and crosswalk Tribal identifier codes to integrate and consistently report Tribal information across Federal agencies. Integration of Tribal identifier codes into various information management systems allows for better analysis of environmental conditions in Indian country. This type of cross-platform data analysis was not possible without EPA's TPEA initiative. EPA will also integrate two additional agency data systems into the TPEA. With the addition of these two data systems, EPA will be able to measure environmental quality in Tribal lands in two important areas: ambient quality of air and water, and emissions of pollutants into the environment. For example, the Agency will have the capability to quantitatively measure the impacts of hazardous air pollutants and any reductions in the emission of those pollutants in reservation boundaries and within a 10 kilometer buffer zone of the Tribe. Both kinds of measures (ambient quality and emissions) are important in the development of outcome-based performance measures for EPA Tribal programs.

One of EPA's approaches to eliminating data gaps is to integrate data from other agencies. In FY 2007 we expect to link directly to the Tribal sanitation tracking system of the Indian Health Service (IHS) Sanitation Facilities Construction Division, which is responsible for most of the construction of drinking water, wastewater and solid waste facilities in Indian country. Linkage to this IHS data will provide information needed to inform critical environmental priorities and future policy decisions for Tribal programs. Work under this program supports tribal capacity building. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$20.0) This increase will be used by EPA's Region 10 to support local environmental activities in Alaska.

- (-$66.0) This reduction reflects a decrease in technical assistance activities to Tribes.

- (+$432.7) This reflects an increase for payroll and cost of living for existing FTE, including additional support for EPA's Region 10 for local environmental activities in Alaska.

- (+1 FTE) This reflects an increase for payroll and cost of living for existing FTE, including additional support for EPA's Region 10 for local environmental activities in Alaska.

- (-0.2 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

Indian General Assistance Program Act, 42 U.S.C. § 4368b (1992).

Program Area: International Programs

Commission for Environmental Cooperation
Program Area: International Programs
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks; Communities

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$3,370.5***	***$4,116.0***	***$4,137.0***	***$21.0***
Total Budget Authority / Obligations	$3,370.5	$4,116.0	$4,137.0	$21.0
Total Workyears	7.6	7.4	7.4	0.0

Program Project Description:

The Commission on Environmental Cooperation (CEC) was created by the North American Agreement on Environmental Cooperation (NAAEC), a side agreement to the North American Free Trade Agreement (NAFTA), with the mission of facilitating cooperation and public participation to conserve and improve the North American environment, in the context of increasing economic, trade and social links among Canada, Mexico, and the United States. EPA's continuing leadership and management of the CEC is critical to ensure that activities generate concrete results consistent with U.S. goals and priorities.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will ensure that the CEC supports the objectives of the NAFTA. In particular, the CEC will facilitate trade expansion in a manner consistent with environmental protection by focusing on the following areas:

- facilitating training and compliance assistance to ensure that customs and law enforcement officials are informed of environmental laws affecting trade;
- providing access to export requirements for environmentally sensitive materials;
- expediting legal shipments while protecting human health and the environment;
- developing guidelines to conduct risk assessments of pathways and species and through cooperation to prevent, detect, and eradicate invasive alien species (IAS);
- promoting the North American market for renewable energy and green products; and
- continuing the assessment of the environmental effects of trade liberalization.

In the area of capacity building, EPA will continue to support the CEC to strengthen partnerships among the wildlife enforcement agencies in Mexico and Canada. Through this partnership, EPA will facilitate cooperation on conducting wildlife forensics, investigative and analysis techniques,

and help to develop training programs for wildlife enforcement officers. EPA will also assist in the promotion of clean electronics by supporting voluntary efforts within the electronics industry to eliminate the use of lead, mercury, cadmium and other toxic chemicals. EPA will also continue to work with the CEC to implement quality assurance mechanisms, transparency, and cost effectiveness.

Performance Targets:

In FY 2007, EPA will continue to support the CEC's efforts to address environmental challenges by increasing the comparability, reliability and compatibility of national and sub-regional environmental information by developing common standards and methodologies to integrate various information-related activities and reporting mechanisms being used in North America. This will be accomplished by establishing an end-to-end quality assured information management system to promote the generation and use of the best environmental information possible for protecting the North American environment.

Work under this program supports EPA's objective to reduce Chemical, Organism, and Pesticide Risks, although no specific performance measures exist for this program project. Work under this program to improve quality assurance and cost effectiveness is in line with the President's Management Agenda (Budget and Performance Integration). Work under this program also supports OECA's PART measures for its International Compliance Assurance Division, through its Green Customs Initiative. The Green Customs Initiative helps Customs and other law enforcement agencies monitor transboundary movement of regulated hazardous/sensitive substances, assist foreign industries (especially along the U.S. border) who do business in the United States comply with U.S. statutory and regulatory environmental requirements; and promote effective enforcement programs in foreign countries. This will promote global environmental protection and level the economic playing field in a global trading system. However, while EPA is focused on these efforts, it is important to note that achieving the intended results will depend on the support from the other Signatory Parties to the NAAEC.

FY 2007 Change from 2006 Enacted Budget (Dollars in Thousands):

- (-$9.5) This reflects a modest decrease to training and compliance assistance.
- (+$30.5) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

NAFTA; NAAEC.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$2,211.7***	***$1,766.0***	***$1,861.2***	***$95.2***
Total Budget Authority / Obligations	$2,211.7	$1,766.0	$1,861.2	$95.2
Total Workyears	12.1	8.9	8.9	0.0

Program Project Description:

The Trade Promotion Authority Act of 2002 (TPA) requires environmental reviews of trade agreements and provisions in each agreement to prevent lowering environmental standards or weakening the enforcement of existing laws to attract investment or trade. It also calls for the provision of U.S. assistance to promote sustainable development and increase the capacity of U.S. trading partners to develop and implement environmental protection standards.

EPA performs three major functions pursuant to the Trade Act of 2002. First, we contribute to the development, negotiation and implementation of environment-related provisions in all new U.S. free trade agreements. This helps ensure that U.S. trading partner countries improve and enforce their domestic environmental laws, which promotes sound environmental practices. As U.S. trading partner countries pursue more environmentally-sound economic development as a result of the trade agreement's environmental provisions we expect to see reduced growth in environmental impacts, such as air pollution and the inadvertent transmission of invasive alien species. A second major function involves helping to develop the U.S. Government's (USG) environmental reviews of each new free trade agreement. This function includes encouraging and supporting trade partner countries that may wish to conduct their own assessments of the environmental implications of trade liberalization. Our third major function involves helping to negotiate and implement the environmental cooperation agreements that parallel each new trade agreement. EPA and other entities of the USG are required to help provide assistance to promote sustainable development and increase the capacity of U.S. trading partners to develop and implement environmental protection standards that offer high levels of protection.

FY 2007 Activities and Performance Plan:

During FY 2007, the U.S. will conclude new bilateral free trade agreements (most likely with South Korea, Malaysia and possibly Egypt) and trade and investment framework agreements. In addition to helping the U.S. Trade Representative (USTR) develop and negotiate the environmental provisions of each new free trade agreement, EPA will contribute to the environmental reviews and environmental cooperation agreements that are associated with these trade agreements. As part of this work, we will develop baseline assessments of existing environmental law and enforcement regimes in a number of U.S. trading partner countries. We

will advocate greater attention to invasive species and other concerns associated with the movement of traded goods. EPA also will provide targeted capacity building support under the environmental cooperation agreements already developed in parallel with recently-concluded U.S. free trade agreements – at a minimum, with Jordan, Chile, Bahrain, Morocco, Singapore, seven countries in Central America and the Caribbean, three countries in the Andean region, Oman and the United Arab Emirates.

Also during FY 2007, to facilitate a successful conclusion of the Doha Round of negotiations under the World Trade Organization (WTO) EPA will continue to provide the USTR with policy and analytical data to influence environmental practices in the U.S. and other countries. In addition, EPA will continue to work with other major U.S. trading partners such as China and India that pose increasingly complex environmental and health challenges. More specifically, EPA will continue working to help these two countries to address air pollution problems that result from the emissions from ships that export goods to the U.S. and other countries.

Performance Targets:

Although no specific performance measures exist for this program project, work under this program supports EPA's objective to sustain, clean up and restore communities and the ecological systems that support them, and also indirectly supports pertinent objectives under Goals 1 (e.g., long-range transboundary air pollution) and 2 (e.g., marine pollution and invasives) of EPA's Strategic Plan. To illustrate, our work with China, a major source and shipper of goods to the U.S., is expected to help to reduce ship- and port operations-related air emissions (e.g., of PM and SO_x) associated with our imports of their goods. This should help to improve air quality in communities around major U.S. and Chinese ports and help to reduce long-range transmission of air pollution from China. With the conclusion in FY 2007 of our ongoing work to develop baseline assessments of the environmental law and enforcement regimes of nine trading partner countries we will be better positioned to advance new performance measures and objectives.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$12.0) This reflects an increase for payroll and cost of living for existing FTE.

- (+$83.2) This reflects an increase for trade-related environmental projects and environmental reviews associated with Free Trade Agreements, as called for under Trade Promotion Authority. The increase help support baseline environmental trend analyses for trade partner countries, on which we then will develop long-term performance targets and measures.

Statutory Authority:

Trade Act of 2002; Executive Order 13141 (Environmental Review of Trade Agreements); WTO Agreements; NAFTA; NAAEC; PPA.

International Capacity Building
Program Area: International Programs
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air; Healthier Indoor Air

Goal: Clean and Safe Water
Objective(s): Protect Human Health; Protect Water Quality

Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$10,548.5***	***$6,138.0***	***$6,390.3***	***$252.3***
Total Budget Authority / Obligations	$10,548.5	$6,138.0	$6,390.3	$252.3
Total Workyears	43.6	42.0	37.1	-4.9

Program/Project Description:

EPA has improved the quality of life for all Americans by safeguarding their air, water, and land and helping protect their health. Addressing issues at home is only part of the environmental equation. As globalization continues to affect the world and as we better understand the interdependencies of ecosystems and the transport of pollutants, it becomes clearer that the actions of others can affect our environment. For example, the water quality of a lake here in the U.S. is affected not only by pesticides from nearby farms, lawns, or gardens but also by pollutants emitted thousands of miles away. The depletion of a natural resource, such as forest cover in one nation, can have environmental and economic consequences in many other countries. To achieve our domestic environmental objectives, it is and will become increasingly more important to address foreign sources of pollution that impact the U.S. International capacity-building is a key component of efforts to protect human health and the environment.

FY 2007 Activities and Performance Plan:

Clean Air. In FY 2007, EPA will continue to provide technical cooperation to help countries reduce air pollution and better manage air quality. The focus will be on four areas:

- Partnership for Clean Fuels and Vehicles. This program will focus on (a) lead phase-out, along with the introduction of catalytic converters in countries that have removed lead from gasoline, (b) introduction of low-sulfur fuels, and (c) retrofits of in-use vehicles. Work will advance the Partnership's goal of global lead phase-out of gasoline by 2008 as

well as Partnership efforts to encourage sulfur reductions in transport fuels to 50 ppm and lower globally.

- Reduction of stationary-source pollution. EPA will focus on practical measures for NOx emission reductions. For example, EPA will work with China to reduce dioxin and furans from cement kilns and assess and reduce emissions of mercury from coal combustion sources.

- Improved air quality management. EPA will work to transfer appropriate air management tools and techniques to India, China, Mexico, Central America, Russia, Africa, and other key countries and regions. For example, EPA will work with the Indian government to develop a national standard for nitrogen oxides from power plants.

- Climate change. To help reduce greenhouse gas (GHG) emissions worldwide, EPA will work with China, Mexico, Russia, and India through capacity and technology transfer activities.

Clean Water. In FY 2007, EPA will continue its capacity-building program to address water quality issues worldwide.

- Drinking water. EPA will continue to provide overseas support that includes (1) the development and implementation of water safety plans in at least two countries, (2) strengthening the capacity of governmental institutions to build regulatory frameworks for water quality standards in conjunction with water safety plan efforts, (3) establishing sustainable systems for financing water system improvement projects in at least one country.

- Wastewater. EPA is working with two national governments in Central America to build regulatory frameworks for wastewater discharges.

- Marine Protection. EPA will work with the U.S. Coast Guard, Department of State, and other interested agencies to pursue development of more stringent international air emission standards from ships.

Sound management of toxics.

EPA's international chemicals program focuses on reducing global sources of persistent bioaccumulative toxics and gives highest priority to mercury in 2007. EPA will increase its international efforts on mercury in FY 2007 through implementing Global Partnerships for Mercury Reduction, which focuses on reductions in mercury use and releases from key sources. Together these sources account for over 80% of global atmospheric emissions of mercury[17].

In 2007 EPA will demonstrate environmental and policy results by achieving leveraged and sustainable mercury partnerships, especially in the chlor-alkali and artisanal mining sectors.

[17] UNEP Global Mercury Assessment, 2002. Available: http://www.epa.gov/mercury.html

EPA will achieve the reduction of mercury consumption in the chlor-alkali industry through pilot demonstration projects in India, Russia, and Mexico, and in artisanal mining through pilot demonstration projects in select communities in Senegal and Brazil. Results of these demonstration projects will then be duplicated further to achieve even greater global reductions.

Performance Targets:

Work under this program supports EPA's Improve Compliance objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from 2006 Enacted Budget (Dollars in Thousands):

- (-$436.4) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+0.8 FTE) Reflects budget restructuring; existing workforce are being redirected within the framework of EPA's International Affairs strategic workforce plan.

- (+$749.8) Increased resources for implementing the Global Mercury Partnerships for Reduction of Mercury in specific sectors.

- (-$61.1, -5.7 FTE) This decrease represents a restructuring that more accurately aligns the work accomplished by the International Compliance Assurance Division of the Office of Enforcement and Compliance Assurance. These resources will be transferred from the International Capacity Building program to the Compliance Assistance and Centers and Civil Enforcement programs in order to assist border countries (i.e. Canada and Mexico) to comply with United States statutory and regulatory environmental requirements and promote effective enforcement programs in foreign countries. This restructuring will not change the work that is currently being accomplished by the International Compliance Assurance Division.

Statutory Authority:

PPA; FIFRA; CAA; TSCA; NEPA; CWA; SDWA; RCRA; CERCLA; NAFTA; OAPCA; MPRSA; CRCA.

POPs Implementation
Program Area: International Programs
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$3,196.5***	***$1,697.0***	***$1,808.7***	***$111.7***
Total Budget Authority / Obligations	$3,196.5	$1,697.0	$1,808.7	$111.7
Total Workyears	8.9	12.3	12.3	0.0

Program Project Description:

This program supports EPA's international Persistent Organic Pollutants (POPs) efforts. Domestic POPs-related activities and associated funding are included in the Toxic Substances: Chemical Risk Management Program/Project. EPA's international activities under this program give priority to reducing persistent organic pollutants (POPs) under the Stockholm Convention. Long-range and transboundary atmospheric transport and deposition of POPs are a continuing threat to human health and ecosystems. These pollutants can be transported and released far from their sources, enter the ecosystem, and bioaccumulate through the food chain. To reduce the risks posed to the American public, international and domestic sources must be addressed.

To demonstrate U.S. commitment to international action on these chemicals, EPA is working to reduce potential risk from POPs on several international fronts including the following: 1) reduction in the releases of POPs reaching the U.S. by long range transport; 2) reduction/elimination of sources of POPs in countries of origin, focusing on PCB-containing equipment, obsolete pesticides stockpiles, and dioxins and furans emissions from combustion sources; and 3) better inter- and intra-country coordination on POPs implementation activities by improving access to POPs technical, regulatory and program information from all sources including the Internet.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue efforts to reduce POPs sources world-wide, focusing on regions and countries from which POPs releases are impacting U.S. human health and the environment, specifically Russia, China, India and the wider Caribbean (Jamaica, the Bahamas or Cuba). In these countries and regions EPA will transfer innovative U.S. technology, and help develop regulatory and financial infrastructure for sustainable projects.

In 2007, EPA will conduct a proof of concept test demonstration for the destruction of over 100 tons of PCB liquids and safe storage up to 2500 tons of obsolete POPs pesticides in Russia. EPA will assist China to reduce dioxins and furans emissions from the cement sector, resulting in a 20 percent reduction of the global emissions of these pollutants. EPA will also assist India in developing a plan for the safe storage and repackaging of POPs pesticides in one targeted

province, in preparation for the targeted destruction of these pesticides by 2011. In the Wider Caribbean, EPA will assist one country (Jamaica, the Bahamas or Cuba) to develop a plan for the collection and safe storage of PCB-containing electrical equipment in preparation for the targeted destruction of these PCBs by 2011.

Performance Targets:

Work under this program supports EPA's objective to reduce Chemical, Organism, and Pesticide Risks, although no specific performance measures exist for the program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$8.5) This decrease reflects a slight reduction to international activities in the Persistent Organic Pollutant Implementation Program.

- (+$120.2) This reflects an increase for payroll and cost-of-living for existing FTE.

Statutory Authority:

PPA; FIFRA; CAA; TSCA; NEPA; CWA; MPRSA.

US Mexico Border
Program Area: International Programs
Goal: Healthy Communities and Ecosystems
Objective(s): Communities

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$5,951.5***	***$5,749.0***	***$6,061.0***	***$312.0***
Total Budget Authority / Obligations	$5,951.5	$5,749.0	$6,061.0	$312.0
Total Workyears	22.9	24.2	24.2	0.0

Program Project Description:

The U.S.-Mexico 2,000 mile border is one of the most complex and dynamic regions in the world. This region accounts for 3 of the 10 poorest counties in the U.S., with an unemployment rate 250 - 300 percent higher than the rest of the U.S. 432,000 of the 14 million people in the region live in 1,200 colonias[18], which are unincorporated communities characterized by substandard housing and unsafe drinking water.

The U.S.-Mexico Border 2012 Program is a joint effort between the U.S. and Mexican governments[19]. The Border 2012 framework agreement is intended to protect the environment and public health along the U.S.-Mexico Border region, consistent with the principles of sustainable development. The results achieved to date are extraordinary and include: (1) implementation of the first air quality improvement plan in Mexico; (2) implementation of an economically sustainable plan to virtually eliminate used tire piles along the U.S.-Mexico border by 2010; (3) the removal of 300 tons[20] of hazardous waste to protect a local, economically disadvantaged residential community; and (4) implementation of emergency response plans to better protect residents.

FY 2007 Activities and Performance Plan:

The key areas of focus for the Border 2012 Program in FY 2007 will continue to include: (1) the improvement of water quality in the region; (2) the clean up of abandoned hazardous waste sites; 3) elimination of used tire piles along the U.S.-Mexico Border; and (4) development of measures to protect and improve air quality along the 2,000 mile border region. (Additional Border efforts are described in the Infrastructure Assistance: Mexico Border Program Project Fact Sheet.)

[18] http://www.borderhealth.org/border_region.php
[19] http://www.epa.gov/border2012/pdf/2012_english.pdf
[20] Personal Communication, Emily Pimentel (Project Officer), EPA Region 9

The Border 2012 Program will develop a bi-national policy to identify priority sites and to clean up and restore to productive use the abandoned sites contaminated with hazardous waste or materials, along the length of the Border. In FY 2007, the Border 2012 Program will focus on at least one hazardous waste site in each of the four geographic regions that span the 2000 mile border.

Before Clean Up (June 2004)

After Partial Clean Up (September 2004)

A major health and environmental hazard along the Border area are the vast tire piles that can harbor vector-borne diseases such as malaria and dengue fever carried by mosquitoes, and also acute respiratory illness from uncontrolled fires. The goal is to eliminate these used tire piles by 2010.

More than a third of Mexico's disease burden is the result of environmental factors, the most serious of which is air pollution[21]. A CEC study found that from 1997 to 2001, respiratory ailments related to air pollution were the cause of death for at least half of the more than 2,800 children who died in the northern border city of Ciudad Juarez [22]. The Border 2012 Program will continue efforts to define baseline and alternative scenarios for emissions reductions along the Border and estimates the impact on air quality and human exposure. Based on results obtained from defining baselines and scenarios, specific emission reductions strategies and air quality and exposure objectives will be identified. The target date for achieving full implementation of the reduction strategies to achieve the desired objectives is 2012.

Performance Targets:

Work under this program supports EPA's objective to sustain, clean up and restore communities and the ecological systems that support them, although no specific performance measures exist for the program project.

FY 2007 Change from 2006 Enacted Budget (Dollars in Thousands):

- (+$85.1) This increase reflects contributions to the Mexico Border 2012 program to reduce the number of used tire piles along the U.S.-Mexico Border and develop measures to protect and improve air quality.

- (+$226.9) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CWA; CAA; TSCA; RCRA; PPA; FIFRA; Annual Appropriation Acts.

[21] http://www.eia.doe.gov/emeu/cabs/mexenv.html
[22] Romieu, Isabelle, et al., Health Impacts of Air Pollution on Morbidity and Mortality Among Children of Ciudad Juarez, Chihuahua, Mexico. Commission for Environmental Cooperation. Montreal. November 2003.

Program Area: IT / Data Management / Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$4,745.6***	***$3,751.0***	***$5,562.1***	***$1,811.1***
Hazardous Substance Superfund	$234.6	$341.0	$788.6	$447.6
Total Budget Authority / Obligations	$4,980.2	$4,092.0	$6,350.7	$2,258.7
Total Workyears	14.3	14.3	15.8	1.5

Program Project Description:

The Information Security program protects the confidentiality, availability, and integrity of the EPA's information assets. The program: establishes a risk-based cyber security program using a defense-in-depth approach that includes partnering with other Federal agencies and the states; implements aggressive efforts to respond to evolving threats and computer security alerts and incidents, and integrates information security into its day-to-day business; manages the Federal Information Security Management Act (FISMA) data collection and reporting requirements; and, supports the development, implementation and operations and maintenance of the security documentation system ASSERT.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue its technical and system analyses, evaluations, and assessments to maintain the security of EPA's information. The constant system and network monitoring is essential to detect and identify any potential weaknesses or vulnerabilities that might compromise EPA's information assets. These proactive efforts allow EPA to develop cost-effective solutions that extend EPA's long-term goal of building analytical capacity. EPA will also coordinate information security activities with the Homeland Security IT, Exchange Network and IT/Data Management program requirements and where possible identify and implement more efficient solutions.

In FY 2007, Information Security continues to be a critical factor in the effective management of a Continuity of Operations (COOP) Plan. The Information Security program will continue to coordinate with the IT/Data Management to prepare the Agency for successful identification and implementation of the necessary information management infrastructure, telecommunications, and standard operating procedures to ensure that EPA can promptly respond to emergency situations. In FY 2005 and early FY 2006, EPA's COOP Program met the challenge of

Hurricanes Katrina and Rita with support that included emergency response access to the web and internet, IT, communications, and other critical services.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of Federal Information Security Management Act reportable systems that are certified and accredited.	94	75	100	100	Percent

Work under this program supports multiple objectives.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1,597.9) The increase will support development of the national Information Systems Security Line of Business (ISS LOB), that will expand EPA's business processes and technical infrastructure to effectively provide information security products and services to EPA programs and regions in two security areas: (1) FISMA Reporting and (2) Situational Awareness and Incident Response.

- (+$213.2) This reflects an increase for payroll and cost of living for existing FTE. Included in this increase is $124.3 for the one FTE transferred from the IT Data Management program.

- (+1.0 FTE) This FTE increase reflects the move of the ASSERT security tool from the IT Data Management program to the Information Security program as a complement of the Enterprise Information Systems Security (EISS) initiative.

Statutory Authority:

FISMA; GPRA; GMRA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; EFOIA.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$84,371.1***	***$94,567.0***	***$96,807.2***	***$2,240.2***
Science & Technology	$4,141.3	$4,173.0	$4,268.0	$95.0
Leaking Underground Storage Tanks	$108.0	$182.0	$175.9	($6.1)
Oil Spill Response	$39.5	$31.0	$32.5	$1.5
Hazardous Substance Superfund	$17,734.0	$17,053.0	$17,120.4	$67.4
Total Budget Authority / Obligations	$106,393.9	$116,006.0	$118,404.0	$2,398.0
Total Workyears	510.4	486.4	488.0	1.6

Program Project Description:

The EPM IT/Data Management program supports the development of the Agency's Enterprise Architecture and develops analytical tools (e.g., Environmental Indicators) to ensure sound environmental decision-making. The program implements the Agency's e-Government responsibilities as well as designs, develops and manages the Agency's Internet and Intranet resources including the Integrated Portal. In addition, the IT/Data Management program supports the development, collection, management, and analysis of environmental data (to include both point source and ambient data) to manage statutory programs and to support the Agency in strategic planning at the national, program, and regional levels, and provides a secure, reliable, and capable information infrastructure based on a sound enterprise architecture which includes data standardization, integration, and public access. The program manages the Agency's Quality System ensuring EPA's processes and data are of quality and adhere to Federal guidelines, and supports EPM information technology infrastructure, administrative and environmental programs, and telecommunications. These functions are integral to the implementation of Agency information technology programs and systems like the Exchange Network, the Central Data Exchange (CDX, http://www.epa.gov/cdx) and Permit Compliance System (PCS, http://www.epa.gov/enviro/html/pcs/index.html) Agency Offices rely on the IT/Data Management program and its capabilities to develop and implement tools for ready access to accurate and timely data. Recent internal partnerships include portal projects with the Research and Development program and the Air and Radiation program to access scientific and program data.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA's Information Technology community will continue to focus on the Agency's Technology Initiative and fulfilling the Agency's e-Government (e-Gov) commitments. The Agency's Technology Initiative builds on efforts started in FY 2004 and FY2005 to enhance environmental analytical capacity for EPA, its partners and stakeholders. The Initiative is designed with the understanding that the majority of environmental data are collected by states and Tribes, not directly by EPA. Ready access to real time quality environmental data and analytical tools is essential to making sound environmental decisions. The Agency's IT/Data Management program forms the core of this effort with its focus on building and implementing the Agency's Integrated Portal and Enterprise Content Management System (ECMS), developing improved Environmental Indicators, and deploying enterprise-wide IT infrastructure solutions. The ECMS, and EPA's enterprise-wide IT infrastructure solutions, combined with the Exchange Network (e.g., Central Data Exchange, CDX), provide the foundation for improved information, data access and sharing opportunities among the states, the Tribes, the public, the regulated community, and EPA.

Feedback and results received during stakeholder meetings on EPA's FY 2003 "Draft Report on the Environment" identified key areas for data collection, review and analysis. EPA's Technology Initiative and its focus areas work together to advance data analyses and the development of an analytical tool kit, including environmental indicators, to address these information needs. These efforts will be reflected in the next "Report on the Environment" planned for release, with an electronic Report on the Environment capability in FY 2007.

In FY 2007 EPA's Integrated Portal activities continue implementing identity and access management solutions, integrating geospatial tools, and linking the CDX. The Portal is the Technology Initiative's link to diverse data sets and systems giving users the ability to perform complex environmental data analyses on data stored at other locations. It provides a single business gateway for people to access, exchange and integrate standardized local, Regional and national environmental and public health data.

Using a collaborative process, the Agency will continue to implement the ECMS project, an enterprise-wide, multi-media solution designed to manage and organize environmental data and documents for EPA, Regions, field offices and laboratories. Previously fragmented data storage approaches will be converted into a single tool on a standard platform which is accessible to everyone, reducing data and document search time and assisting in security and information retention efforts.

EPA's infrastructure program will continue to deliver secure information services to ensure that the Agency and its programs have a full range of information technology infrastructure components (e.g., user equipment, network connectivity, e-mail, application hosting, and remote access) that make information accessible across the spectrum of mission needs at all locations. The program uses performance-based, outsourced services to obtain the best solutions (value for cost) for the range of program needs. This includes innovative multi-year leasing that sustains and renews technical services in a least-cost, stable manner as technology changes over time (e.g., desktop hardware, software and maintenance).

In addition to supporting key components of EPA's Technology Initiative, IT/Data Management will continue to provide regional offices with critical support for hardware requirements, software programming and applications, records management systems, data base services, local area network activities, intranet web design, and desktop support. EPA's environmental information needs require the Agency to ensure that it is keeping pace with the states in the areas of data collection, management and utilization. Additionally, this program will continue to focus on information security and the need for each regional office to have an internal IT security capacity. The regional offices will implement Agency information resource management policies in areas such as data and technology standards, central data base services, and telecommunications. The regional offices will also continue to work on the implementation of cost accounting procedures to capture in detail all IT expenditures for EPA offices. This will enable the Agency decision makers to have easy access to information on the Agency's IT resources.

Information Technology continues to be a critical factor in the effective management of a Continuity of Operations (COOP) Plan. The IT/Data Management program, along with the information security program, continues to prepare the Agency for successful identification and implementation of the necessary information management infrastructure, telecommunications, and standard operating procedures to ensure that EPA can promptly respond to emergency situations. In FY 2005 and early FY 2006, EPA's COOP Program met the challenge of Hurricanes Katrina and Rita with support that included emergency response access to the web and internet, IT, communications, and other critical services.

EPA's e-Government participation and contributions continue in FY 2007 with the coordination, development and implementation of the Business Gateway (http://www.epa.gov/smallbusiness/), Geospatial One-Stop (http://www.epa.gov/nsdi/index.html), and e-Authentication. Key activities ensure that access to critical data (e.g., geospatial information, federal regulations) is increased through the Geospatial One-Stop portal and the Business Gateway and its Business Portal providing opportunities for collaboration and intergovernmental partnerships, reducing duplication of data investments, and offering the public easy access to important federal services for businesses.

IT/Data Management efforts are integral to the Exchange Network and Information Security programs. Together these programs work to design, develop and deploy secure systems and analytical tools to promote sound environmental decision-making.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1,096.8) This reflects an increase for payroll and cost of living for existing FTE. This increase also includes a payroll reduction of $124.3 for the one FTE transferred to the Information Security program.

- (+$1,145.0) This resource shift from the Exchange Network program to the IT Data Management aligns resources with the systems, functions and data that Enterprise Content Management System will be supporting.

- (-1.0 FTE) This FTE decrease reflects the move of the ASSERT security tool from the IT Data Management program to the Information Security program as a complement of the Enterprise Information Systems Security (EISS) initiative.

- (-2.9 FTE) The decrease in FTE reflects resource efficiencies gained in managing the Agency's IT infrastructure activities.

Statutory Authority:

Federal Advisory Committee Act; Government Information Security Reform Action; CERCLA; CAA and amendments; CWA and amendments; Environmental Research, Development, and Demonstration Act; TSCA; FIFRA; Food Quality Protection Act; Safe Drinking Water Act and amendments; Federal Food, Drug and Cosmetic Act; Emergency Planning and Community Right-to-Know; RCRA; SARA; GPRA; GMRA; Paperwork Reduction Act; FOIA; Computer Security Act; Privacy Act; EFOIA; EPAct.

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$4,784.2***	***$4,607.0***	***$4,860.9***	***$253.9***
Total Budget Authority / Obligations	$4,784.2	$4,607.0	$4,860.9	$253.9
Total Workyears	32.4	35.2	34.7	-0.5

Program Project Description:

This program provides support to both the Administrative Law Judges (ALJs) and the Environmental Appeals Board (EAB). The ALJs preside in hearings and issue decisions in cases initiated by EPA's enforcement program concerning those accused of environmental violations. The EAB issues final decisions in environmental adjudications, primarily enforcement and permit-related, that are on appeal to the Board. ALJs and the EAB issue decisions under the authority delegated by the Administrator. These decisions establish the Agency's legal interpretation on the issues presented. The EAB also makes policy determinations in the matters before it, as necessary and appropriate to resolve disputes. In addition, the EAB serves as the final approving body for proposed settlements of enforcement actions initiated by the Agency's headquarters offices.

FY 2007 Activities and Performance Plan:

By adjudicating disputed matters, the ALJs and EAB further the EPA's long-term strategic goals of protecting public health and the environment. The EAB will issue final Agency decisions in environmental adjudications on appeal to the Board. These decisions are the end point in the Agency's administrative enforcement and permitting programs. The right of affected persons or entities to appeal these decisions within the Agency is conferred by various statutes, regulations and constitutional due process rights. The Administrative Law Judges (ALJs) will preside in hearings and issue initial decisions in cases brought by EPA's enforcement program against those accused of environmental violations under various environmental statutes. The Agency has sought efficiencies in the process. The ALJs have increased their use of alternative dispute resolution techniques to facilitate the settlement of cases and, thereby, avoided more costly litigation. The EAB and ALJs also use videoconferencing technology to reduce expenses for parties involved in the administrative litigation process.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$94.3) This reflects an increase for payroll and cost of living for existing FTE.

- (+$159.6) This increase will provide the updated equipment and training necessary to continue the EAB and the ALJ efforts in dispute resolution and video conferencing.

Statutory Authority:

CERCLA; FIFRA; CWA; TSCA; RCRA; SDWA; EPAct, EPCRA; as provided in Appropriations Act funding.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$1,531.0***	***$1,048.0***	***$1,229.8***	***$181.8***
Hazardous Substance Superfund	$980.4	$975.0	$887.2	($87.8)
Total Budget Authority / Obligations	$2,511.4	$2,023.0	$2,117.0	$94.0
Total Workyears	11.6	7.9	7.6	-0.3

Program Project Description:

The Agency's General Counsel and Regional Counsel Offices will provide environmental Alternative Dispute Resolution services.

FY 2007 Activities and Performance Plan:

In FY 2007, the Agency will provide conflict prevention and alternative dispute resolution (ADR) services to EPA Headquarters and Regional Offices and external stakeholders on environmental matters. The national ADR program assists in developing effective ways to anticipate, prevent and resolve disputes and makes neutral third parties – such as facilitators and mediators – more readily available for those purposes. Under EPA's ADR Policy, the Agency encourages the use of ADR techniques to prevent and resolve disputes with external parties in many contexts, including adjudications, rulemaking, policy development, administrative and civil judicial enforcement actions, permit issuance, protests of contract awards, administration of contracts and grants, stakeholder involvement, negotiations and litigation.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$24.2) This reflects an increase for payroll and cost of living for existing FTE.

- (+$157.6) This increase will support contract support for the Agency's Alternative Dispute Resolution services.

Statutory Authority:

EPA's General Authorizing Statutes.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$10,905.7***	***$10,575.0***	***$11,053.7***	***$478.7***
Total Budget Authority / Obligations	$10,905.7	$10,575.0	$11,053.7	$478.7
Total Workyears	64.5	71.4	71.0	-0.4

Program Project Description:

EPA's Civil Rights activities include policy direction and guidance on equal employment opportunity, civil rights, affirmative employment, and diversity issues for Headquarters' program offices, regional offices and laboratories. Programs include Title VI compliance and review; intake and processing of discrimination complaints from Agency employees and applicants for employment under Title VII; implementation of processes and programs in support of reasonable accommodation and Minority Academic Institutions (MAIs); and diversity initiatives, especially those related to issues of ageism and sexual orientation. Program functions include accountability for the implementation, program evaluation and compliance monitoring of the Civil Rights Act of 1964 (Titles VI, VII, IX), and legislative requirements and executive orders covering civil rights, affirmative employment, disability, and MAIs. The program also interprets policies and regulations, ensures compliance with Civil Rights laws, EEOC regulations, and equal employment initiatives, and upholds the civil rights of employees and prospective employees of the Government, as required by Federal statutes and executive orders.

FY 2007 Activities and Performance Plan:

EPA expects to conduct compliance reviews of five recipient agencies. While the number of complaints that allege discrimination by a recipient of EPA financial assistance varies annually, over the past three years, there have been approximately 10 complaints per year. The Civil Rights External Compliance Program expects to improve its processing of external complaints. The Agency will:

- Work with the U.S. Department of Justice on the development of any non-discrimination regulations, guidance, or findings of discrimination, and the U.S. Department of Health and Human Services on issues regarding age discrimination, the U.S. Department of Education on issues regarding discrimination on the basis of sex, and other federal

agencies that may simultaneously receive discrimination complaints from the same complainant regarding a particular recipient agency.

- Work to reduce the backlog of employment complaints while completing all new discrimination complaints within required time frames.

- Provide training and guidance to over 100 EEO Counselors in the Agency's regional offices. The Agency will train EEO Officers in the Discrimination Complaint Tracking System (DCTS) and provide technical assistance as needed.

- Examine ways to more effectively and efficiently reduce the number of pending complaints, increase the number of compliance reviews conducted, and improve recipient agencies' civil rights programs through guidance and/or training.

- Monitor and evaluate the effectiveness of the reasonable accommodation process. Continue to provide technical assistance to managers, supervisors, employees and the designated Local Reasonable Accommodation Coordinators in the form of expert training and consultation by the Northeast Regional Application Center (NRAC) to insure efficient implementation of the policy and procedures.

- Monitor the Agency's compliance with various statutes, EEOC regulations, EPA policy and procedures related to the reasonable accommodation of qualified applicants and employees with disabilities.

The Affirmative Employment and Diversity staff (AE&D) will provide programs that increase the cultural awareness of minorities and women; highlight the accomplishments of EPA employees involved in ensuring equal employment opportunity; develop special emphasis programs and initiatives that involve management, unions, and community groups; develop an annual Affirmative Employment Plan; meet on a regular basis with external and union officials to increase communication and relationships, and coordinate the development of recruitment and retention strategies.

The MAI program will conduct information exchange sessions with Agency managers from each region and program office; meet with representatives from minority colleges; introduce representatives from minority colleges to appropriate Agency personnel; participate on interagency workgroups that support Federal assistance for minority colleges; and facilitate constructive dialogues that will advance the goals of the MAI program.

As a result of these activities, the Agency's mission and cornerstone themes are supported by a workforce that is motivated, treated in a fair and non-discriminatory manner and produces positive outcomes with respect to the Agency's goals.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$478.7) This increase for Civil Rights activities in FY 2007 includes an increase of $1,495.1 to payroll and cost-of-living costs, redirected from programmatic resources.

- (-0.4 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

Civil Rights Act of 1964, VII, as amended; Title VI of the Civil Rights Act of 1964; Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act; Title IX of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; Age Discrimination Act of 1975; Rehabilitation Act of 1974, as amended; Americans with Disabilities Act of 1990, as amended; Older Workers Benefit Protection Act of 1990, as amended; Age Discrimination in Employment Act of 1967, as amended EEOC Management Directive 715; Executive Orders 13163, 13164, 13078, 13087, 13171, 11478, 13125, 13096, 13230, 13256 February 12, 2002 (HBCUs), 13270 July 3, 2002 (Tribal Colleges), 13339 May 13, 2004 (Asian American Participation in Federal Programs).

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$32,764.8***	***$35,931.0***	***$37,525.5***	***$1,594.5***
Hazardous Substance Superfund	$722.8	$755.0	$690.8	($64.2)
Total Budget Authority / Obligations	$33,487.6	$36,686.0	$38,216.3	$1,530.3
Total Workyears	236.3	250.9	249.8	-1.1

Program Project Description:

The Agency's General Counsel and Regional Counsel offices will provide legal representational services, legal counseling and legal support for all Agency environmental activities.

FY 2007 Activities and Performance Plan:

In FY 2007, legal advice to environmental programs will include litigation support representing EPA and providing litigation support in cases where EPA is a defendant as well as those cases where EPA is not a defendant but may have an interest in the case. Legal advice, counsel and support are necessary for Agency management and program offices on matters involving environmental issues including, for example, providing interpretations of relevant and applicable laws, regulations, directives, policy and guidance documents and other materials.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$87.6) This increase covers higher contract costs for the Agency's LexisNexis/Westlaw contracts. These are essential electronic legal research database services that are maintained for the benefit of all EPA legal staff, regional staff, administrative law judges, investigators, paralegals and law clerks.

- (+$1,506.9) This reflects increases for payroll and cost of living for existing FTE.

- (-0.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

EPA's General Authorizing Statutes.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$13,864.0***	***$13,206.0***	***$13,465.9***	***$259.9***
Total Budget Authority / Obligations	$13,864.0	$13,206.0	$13,465.9	$259.9
Total Workyears	87.9	87.2	85.9	-1.3

Program Project Description:

The General Counsel and the Regional Counsel offices will provide legal representational services, legal counseling and legal support for all activities necessary for the operation of the Agency.

FY 2007 Activities and Performance Plan:

In FY 2007, legal representational services, legal counseling and legal support will be needed for all Agency activities necessary for the operation of the Agency (i.e., contracts, personnel, information law, ethics and financial/monetary issues). Legal services include litigation support representing EPA and providing litigation support in cases where EPA is a defendant as well as those cases where EPA is not a defendant, but may have an interest in the case. Legal advice, counsel and support are necessary for Agency management and administrative offices on matters involving actions affecting the operation of the Agency, including, for example, providing interpretations of relevant and applicable laws, regulations, directives, policy and guidance documents and other materials.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-1.3 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$4.7) This decrease is the net effect of increases for payroll and cost of living for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$202.6) This increase covers higher contract costs for the Agency's LexisNexis/Westlaw contracts. These are essential electronic legal research database services that are maintained for the benefit of all EPA legal staff, regional staff, administrative law judges, investigators, paralegals and law clerks.

- (+$62.0) This increase will support travel for legal advice, counsel and support.

Statutory Authority:

EPA's General Authorizing Statutes.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$3,424.8***	***$3,522.0***	***$3,520.7***	***($1.3)***
Total Budget Authority / Obligations	$3,424.8	$3,522.0	$3,520.7	($1.3)
Total Workyears	0.0	3.0	3.0	0.0

Program Project Description:

The Regional Science and Technology (RS&T) program supports the purchase of equipment for use by regional laboratories, field investigation teams, and mobile laboratory units, for meeting requirements for laboratory quality assurance and quality control. Regional laboratories provide essential expertise in ambient air monitoring, analytical pollution prevention, environmental biology, environmental microbiology, and environmental chemistry. Centers of Applied Science for specialty work have been established in these areas as well. In recent years, EPA has made significant strides toward improving data collection and analytical capacity to strengthen science based decision making. Funding for necessary equipment is essential for continued progress toward the Agency's long-term environmental protection goals.

The RS&T program supports all of the Agency's national programs and goals, especially enforcement, by supplying ongoing laboratory analysis, field sampling support, and Agency efforts to build tribal capacity for environmental monitoring and assessment. The RS&T program also provides in-house expertise and technical capabilities in the generation of data for Agency decision-making. RS&T organizations support the development of critical and timely environmental data and data review activities in emerging situations.

FY 2007 Activities and Performance Plan:

Regional Science and Technology resources will support Regional implementation of the Agency's statutory mandates through: *field operations* for environmental sampling and monitoring; *regional laboratories* for environmental analytical testing; *quality assurance* oversight and data management support; and *environmental laboratory accreditation*.

The Agency will stay abreast of rapidly changing technologies (i.e., new software, instrumentation, and analytical capability such as Polymerase Chain Reaction Technology) that allow EPA to analyze samples more cost effectively and/or detect lower levels of contaminants,

and to assay new and emerging contaminants of concern, like endocrine disrupters, perchlorate, arsenic, mercury, PCB congeners and flame retardants. In accordance with new policy directives, the Agency will enhance laboratory capacity and capability to ensure that its laboratories implement critical environmental monitoring and surveillance systems, develop nationwide laboratory networks, and develop enhanced response, recovery and clean-up procedures.

The Agency recognizes the value of accreditation of environmental laboratories and continues to work with the National Environmental Laboratory Accreditation Conference/Program (NELAC/NELAP). These activities ensure continued confidence that our environmental testing laboratories at the Federal, state, local, private and academic levels are qualified to produce data supporting environmental compliance, at all levels within the regulatory community.

Laboratory equipment such as Standard Reference Photometers are used to ensure that the national network of ozone ambient monitors is accurately measuring ozone concentrations in support of Air program performance measures. Nearly 60% of the analyses performed by regional laboratories support the cleanup of uncontrolled or abandoned hazardous waste sites associated with the Superfund program. Analytical support is also provided for identifying and assessing risks associated with pesticides and other high risk chemicals.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- ($15.6) This reflects an increase for payroll and cost of living for existing FTE.

- (-$16.9) This represents laboratory cost savings resulting from the use of newly developed, more efficient laboratory software.

Statutory Authority:

CWA; CAA; TSCA; CERCLA; SDWA; PPA; RCRA; FIFRA.

Regulatory Innovation
Program Area: Legal / Science / Regulatory / Economic Review
Goal: Healthy Communities and Ecosystems
Objective(s): Communities

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Environmental Performance through Pollution Prevention and Innovation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$21,215.1***	***$21,511.0***	***$25,853.6***	***$4,342.6***
Total Budget Authority / Obligations	$21,215.1	$21,511.0	$25,853.6	$4,342.6
Total Workyears	110.8	120.7	116.7	-4.0

Program Project Description:

Innovation, new ideas and creative approaches are critical to continued environmental progress. Increasingly complex environmental problems -- such as the continuing accumulation of greenhouse gases, poor water quality, increasing urban smog, and the need for cost effective solutions to national water infrastructure issues -- call for EPA to develop and use a broader set of cross media tools. Additionally, shrinking state and Federal budgets make it necessary to find new ways to leverage partnership opportunities with states, local communities, and businesses to produce better environmental results at lower costs. EPA will continue to make sure that state, local, and tribal governments, business, and the public meet Federal environmental requirements. Through public recognition, incentives and help in overcoming regulatory barriers, EPA will continue to encourage widespread interest in environmental stewardship. The Agency will also support and encourage efforts to improve environmental performance "beyond compliance" with regulatory requirements, as a means to achieve long term environmental protection goals.

FY 2007 Activities and Performance Plan:

State Innovation Grants (SIG): These competitive grants provide seed money to help states test and adopt innovative environmental protection strategies, such as permit streamlining and environmental management systems, as well as environmental leadership programs that encourage the use of innovative technologies for better environmental results, and demonstrate improved efficiencies in environmental management. EPA anticipates up to 15 awards for SIG proposals that apply innovation to State environmental permitting programs. Since 2002, EPA has supported 22 projects through the State Innovation Grant Program.

National Environmental Performance Track: Performance Track recognizes and rewards private and public facilities that demonstrate strong environmental performance, beyond current requirements. To provide incentives to business to participate, EPA continues to implement and develop new regulatory incentives at the state level. It will support and leverage state environmental leadership programs by aligning Performance Track with at least 20 state

programs. Performance Track will continue to provide direct assistance to States through State Innovation Grants for their development and implementation of leadership programs.

In addition to its work with industry under the Performance Track Program: EPA will continue to provide tools for voluntary programs to improve their ability to deliver effective results; work with industry leaders in "lean manufacturing" to integrate environmental improvements and enhance business efficiency and competitiveness; and encourage the development of industry ecology and sustainable development. A new Corporate Leadership designation recognizes companies that participate with a large number of facilities and demonstrate environmental excellence in other ways.

Environmental Management Systems (EMS): An EMS is a continual cycle of planning, implementing, reviewing and improving the processes and actions that an organization undertakes to meet its business and environmental goals. Most EMSs are built on the "Plan, Do, Check, Act" model. This model leads to continual improvement. EPA will continue to provide leadership and coordination with states and industry on the use of EMSs to protect the environment. EMS implementation supports the President's Management Agenda goal of improved efficiency and performance in the Federal government. This is accomplished through a formal process which ensures that result oriented goals are established, performance measures are in place to determine if the desired outcome is achieved, and changes are made as necessary. In FY 2007, EPA will also support states in experimenting and evaluating innovative permitting models that use EMSs. *(www.epa.gov/ems)*

The Environmental Results Program, based on a system created by the Massachusetts Department of Environmental Protection, uses innovative tools to integrate compliance assistance, self-certification and performance measurement. These tools give small business owners/operators a better understanding of their regulatory requirements, flexibility in achieving compliance, and opportunities to achieve higher levels of environmental results. EPA is facilitating the transfer of this approach to other states and environmental applications. *(www.epa.gov/innovation/erp)*

The Sector Strategies Program promotes widespread improvement in environmental performance, with reduced administrative burden, in 12 business sectors: agribusiness, cement manufacturing, construction, forest products, iron and steel manufacturing, paint and coatings, ports, shipbuilding, metal finishing, die casting and meat processing. In FY 2007, EPA will design policy initiatives to establish more flexible, performance-based environmental protection standards for multiple sectors in all media. EPA will also create national EMS implementation programs in all participating sectors.

Under the Smart Growth program EPA provides tools, technical assistance, education, research, and environmental data to help states and communities minimize environmental and health impacts and evaluate environmental consequences of various development patterns. The programs help community and government leaders better understand how they can meet environmental standards through innovative community design and supporting environmentally friendly development patterns. EPA helps industry, transportation, architecture, construction, real

estate (residential and commercial), and mortgage lending institutions to identify and remove barriers to growth in ways that serve the economy, public health, and environment.

In FY 2007, EPA plans to build upon its work in outreach and direct implementation assistance. Strategically, EPA has identified four areas as offering the greatest potential for environmental returns: State and Local Governments, Standard-Setting Organizations, Federal Government, and the Private Sector.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Reduce 3.7 billion gallons of water use; 16.3 million MMBTUs of energy use; 1,050 tons of materials use; 460,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges.				4	Media Reductions
Outcome	Reduce 3.5 billion gallons of water use; 15.5 million MMBTUs of energy use; 1,000 tons of materials use; 440,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges.			6		Media Reductions
Outcome	Specific annual reductions in six media/resource areas: water use, energy use, solid waste, air releases, water discharges, & materials use.	1	6			Media Reductions

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1,000.0) Additional resources will fund expanded program implementation for Performance Track, through contracts, and grants to promote state incentives and growth of State-lead performance-based recognition programs. Funds will also support an increase in innovation grant resources, made competitively available to states, to test,

adopt and evaluate innovative environmental protection strategies that aim to improve performance and cut costs.

- (+$1,891.4) This increase will be used for fund grants and contracts for the Agency's manufacturing sector programs, and to restore funding for the Agri-business sector program, an Administrator's priority sector.

- (+$1,451.2) This reflects an increase for payroll and cost-of-living for existing FTE.

- (-4.0 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

As provided in Appropriations Act funding; CWA, Section 104(b)(3); CAA, Section 104(b)(3).

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$13,875.1***	***$16,551.0***	***$17,554.8***	***$1,003.8***
Total Budget Authority / Obligations	$13,875.1	$16,551.0	$17,554.8	$1,003.8
Total Workyears	89.5	103.2	103.2	0.0

Program Project Description:

This program is designed to strengthen EPA's policy analysis of key regulatory actions, including underlying economic analyses, and associated information management systems, in order to ensure that the Administrator and other senior EPA leaders have sound analyses for decision-making. Resources are used to develop and analyze various regulatory and non-regulatory approaches; develop and evaluate policy options; identify priority problem areas; and to target specific areas of concern, such as small businesses. EPA works to continually strengthen the capacity and quality of its economic analysis, and reviews the Economic Analyses (EAs) for all economically significant rules, to ensure their compliance with OMB's guidelines. The Regulatory and Economic program works to fill gaps in EPA's ability to quantify the benefits of environmental regulations and policies. Another area of emphasis is to improve the Agency's internal regulation development tracking system, to ensure better managerial accountability. An increased effort will be placed on ensuring that Agency personnel understand the impact of Executive Orders and Congressional mandates on the regulatory and policy development processes.

Objectives of the program include advancing the theory and practice of quality economics, policy analysis and risk analysis within the Agency; providing information on the full societal impacts of reducing environmental risks, including the costs and benefits of regulatory options; supporting the development of regulatory and policy alternatives, especially economic incentives as an environmental management tool; confirming and maintaining the accuracy and consistency of EPA's economic analyses to enhance environmental decision-making; and implementing and coordinating processes and information systems to facilitate planning and management.

FY 2007 Activities and Performance Plan:

Program activities planned for FY 2007 include:

- Participate in the development of the Administrator's priority actions, review economic and risk analyses conducted across EPA offices, and provide technical assistance when needed to help meet Agency goals. The Agency will also continue to chair the Small Business Advocacy Panels.

- Continue to conduct and support research on methods to integrate ecological and economic models, and improve household surveys, to quantify the impacts and value to improvements in ecological services and functions. The Agency will also continue to establish effective management systems, in order to improve the quality and consistency of EPA's economic and risk assessment studies.

- Continue the Risk Assessment for Benefits Analysis project, demonstrating approaches to adopt benefits analysis techniques.

- Continue to provide training on the Agency's action development process and the Agency's Economic Analysis Guidelines and related requirements (e.g., OMB Circular A-4).

- Continue to organize workshops on priority economic issues, i.e., benefits valuation, market mechanisms and incentives, treatment of uncertainties in risk and economic analyses, and measuring the effectiveness and benefits of information-based programs. For more information: on these workshops, please see http://yosemite.epa.gov/ee/epa/eed.nsf/webpages/Guidelines.html; or http://yosemite.epa.gov/ee/epa/eed.nsf/webpages/WorkshopSeries.html.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$355.1) This reduction reflects cost savings realized through the use of more efficient software and equipment for economic analysis

- (+$1,358.9) This reflects an increase for payroll and cost-of-living for existing FTE.

Statutory Authority:

TSCA sections 4, 5, and 6 (15 U.S.C. 2603, 2604, and 2605); CWA sections 304 and 308 (33 U.S.C. 1312, 1314, 1318, 1329-1330, 1443); SDWA section 1412 (42 U.S.C. 210, 300g-1); RCRA/HSWA: (33 USC 40(IV)(2761), 42 USC 82(VIII)(6981-6983)); CAA: 42 USC 85(I)(A)(7403, 7412, 7429, 7545, 7612); CERCLA: 42 USC 103(III)(9651); PPA (42 U.S.C. 13101-13109); FTTA.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$4,660.8***	***$4,402.0***	***$4,615.7***	***$213.7***
Total Budget Authority / Obligations	$4,660.8	$4,402.0	$4,615.7	$213.7
Total Workyears	26.6	22.3	22.3	0.0

Program Project Description:

The Science Advisory Board (SAB) uses non-EPA technical experts to ensure a balanced range of technical views from academia, communities, states, independent research institutions, and industry through peer reviews of EPA's products and technical issues. This program also includes costs for administering the SAB and two other statutorily mandated chartered Federal Advisory Committees: 1) Clean Air Scientific Advisory Committee (CASAC), and 2) Council on Clean Air Compliance Analysis (COUNCIL). These Advisory committees are charged with providing independent advice and peer review on scientific and technical aspects of environmental problems, regulations and research planning to EPA's Administrator.

FY 2007 Activities and Performance Plan:

In FY 2007, the SAB will provide scientific and technical advice on about 20 key topical areas related to: 1) the technical basis of EPA national standards for air pollutants and water contaminants; 2) risk assessments of major environmental contaminants; 3) economic benefits analyses of EPA's environmental programs; and 4) EPA's research and science programs.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$68.4) This decrease is the net effect of increases to payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$282.1) This reflects an increase for travel, teleconferencing, and meeting room costs that are necessary to accommodate a larger number of more diverse professionals at the meetings that the SAB convenes to resolve issues brought before them

Statutory Authority:

Environmental Research, Development, and Demonstration Authorization Act, 42 U.S.C. § 4365; Federal Advisory Committee Act, 5 U.S.C. App. C; CAA of 1977, see 42 U.S.C. 7409(d)(2); CAA of 1990, see 42 U.S.C. 7612.

Program Area: Operations and Administration

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$21,830.4***	***$23,265.0***	***$25,418.3***	***$2,153.3***
Leaking Underground Storage Tanks	$337.0	$358.0	$360.8	$2.8
Hazardous Substance Superfund	$17,464.2	$19,727.0	$23,514.3	$3,787.3
Total Budget Authority / Obligations	$39,631.6	$43,350.0	$49,293.4	$5,943.4
Total Workyears	343.5	364.8	357.2	-7.6

Program Project Description:

Sound contract management fosters efficiency and effectiveness assisting all of EPA's programs. EPM resources in this program support contract and acquisition management activities at Headquarters, regional offices, Research Triangle Park and Cincinnati offices. EPA focuses on maintaining a high level of integrity in the management of its procurement activities, and in fostering relationships with state and local governments, to support the implementation of environmental programs.

FY 2007 Activities and Performance Plan:

In FY 2007 EPA plans to acquire and to begin implementing a new acquisition system, as the current Acquisition Management System has reached the end of its useful life. Staff increasingly spend time making the system work, as opposed to using the system to accomplish their work. The system is obsolete; and therefore an upgrade is not feasible. The new system will provide data on contracts that support mission oriented planning and evaluation. This will allow the Agency to reach President's Management Agenda (PMA) goals, e-government requirements and the needs of Agency personnel resulting in more efficient process implementation. Some of the benefits of the new system are: 1) program offices will be able to track the progress of individual actions; 2) extensive querying and reporting capabilities will allow the Agency to meet internal and external demands; and 3) the system will integrate with the Agency's financial systems and Government-wide shared services.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$2,000.0) This change reflects an increase to support the development and deployment of the Agency's new Acquisition Management System. A total of $4,000.0 is requested ($2.0M EPM and $2.0M Superfund) for FY 2007. The new Acquisition Management System is required because the existing system is obsolete and impedes efficiency. The new system will be capable of integrating with the GSA Integrated Acquisition Environment (IAE).

- (+$208.5) This reflects an increase for payroll and cost-of-living for existing FTE.

- (-$55.2) This adjustment represents cost savings associated with streamlining of the Agency-wide training program for contract management officers.

Statutory Authority:

EPA's environmental statutes; annual Appropriations Act; FAR.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$68,045.9***	***$73,680.0***	***$83,548.1***	***$9,868.1***
Leaking Underground Storage Tanks	$730.4	$1,010.0	$1,014.8	$4.8
Hazardous Substance Superfund	$20,620.3	$24,349.0	$25,540.8	$1,191.8
Total Budget Authority / Obligations	$89,396.6	$99,039.0	$110,103.7	$11,064.7
Total Workyears	520.6	548.1	537.7	-10.4

Program Project Description:

Activities under the Central Planning, Budgeting and Finance program/project support the management of integrated planning, budgeting, financial management, performance and accountability processes and systems to ensure effective stewardship of resources. Also included is EPA's Environmental Finance Program that provides grants to a network of university-based Environmental Finance Centers which deliver financial outreach service such as technical assistance, training, expert advice, finance education and full cost pricing analysis to states, local communities and small businesses. (See http://www.epa.gov/ocfo/functions.htm for additional information).

FY 2007 Activities and Performance Plan:

EPA will continue efforts to modernize the Agency's financial systems and business processes. The modernization effort will reduce cost, comply with Congressional direction, and new Federal financial systems requirements. This work is framed by the Agency's Enterprise Architecture and will make maximum use of enabling technologies for e-Gov initiatives including e-Procurement, e-Payroll, and e-Travel.

EPA plans further improvements to its budgeting and planning system, financial data warehouse, business intelligence tools and reporting capabilities. These improvements will support EPA's "green" score in financial performance on the President's Management Agenda scorecard by providing more accessible data to support accountability, cost accounting, budget and performance integration, and management decision-making.

In FY 2007, EPA will continue to strengthen its accountability and effectiveness of operations through improved coordination and integration of internal control assessments as required under

Revised OMB Circular A-123. Improvements in internal controls will further support EPA's President's Management Agenda initiatives for improved financial performance.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$352.6) This increase will further support activities relating to the assessment and strengthening of internal controls over financial reporting pursuant to OMB Circular A-123, Management for Responsibility for Internal Control.

- (+$7,550.0) This increase continues the modernization process of major Agency financial systems by funding the Financial Replacement System (FinRS) Capital Investment.

- (+$1,389.9) This reflects an increase for payroll and cost of living for existing FTE.

- (+$580.8) This reflects an increased cost for Agency-wide Flexible Spending Accounts (FSA), as well as technical changes for other Agency-wide payroll costs. FSA is an OPM required expense and this increase reflects increased participation in the program by Agency employees.

- (+$870.0) This reflects full-year payroll costs related to consolidation of financial services in 2005 and 2006.

- (-$875.2) This decrease reflects costs savings in IT and telecommunications resources.

- (-0.9 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

Annual Appropriations Act; Clinger-Cohen Act; CERCLA; Computer Security Act; E-Government Act of 2002; EFOIA; EPA's Environmental Statutes, and the Federal Grant and Cooperative Agreement Act; Federal Activities Inventory Reform Act; Federal Acquisition Regulations, contract law and EPA's Assistance Regulations (40CFR Parts 30, 31, 35, 40,45,46, 47); Federal Manager's Financial Integrity Act (1982); FOIA; GMRA (1994); Improper Payments Information Act; Inspector General Act of 1978 and Amendments of 1988; Paperwork Reduction Act; Privacy Act; The Chief Financial Officers Act (1990); GPRA (1993); The Prompt Payment Act (1982); Title 5 United States Code; EPAct.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$317,744.7***	***$343,908.0***	***$294,760.1***	***($49,147.9)***
Science & Technology	$8,892.1	$8,511.0	$70,239.5	$61,728.5
Building and Facilities	$32,244.5	$28,295.0	$28,430.9	$135.9
Leaking Underground Storage Tanks	$982.9	$894.0	$916.8	$22.8
Oil Spill Response	$552.1	$500.0	$499.3	($0.7)
Hazardous Substance Superfund	$65,156.8	$69,667.0	$73,944.7	$4,277.7
Total Budget Authority / Obligations	$425,573.1	$451,775.0	$468,791.3	$17,016.3
Total Workyears	364.1	437.2	438.6	1.4

Program Project Description:

EPM resources in the Facilities Infrastructure and Operations Program Project are used to fund rent, utilities, and security, and also to manage activities and support services in many centralized administrative areas such as health and safety, environmental compliance, occupational health, medical monitoring, fitness/wellness and safety, and environmental management functions at EPA. Resources for this program also support a full range of ongoing facilities management services including: facilities maintenance and operations; Headquarters security; space planning; shipping and receiving; property management; printing and reproduction; mail management; and transportation services.

FY 2007 Activities and Performance Plan:

The Agency will continue to manage its lease agreements with GSA and other private landlords by conducting rent reviews and verifying that monthly billing statements are correct. The Agency also reviews space needs on a regular basis.

These resources also help to improve operating efficiency and encourage the use of new, advanced technologies and energy sources. EPA will continue to direct resources towards acquiring alternative fuel vehicles and more fuel-efficient passenger cars and light trucks to meet the goals set by Executive Orders (EO) 13149[23], *Greening the Government through Federal*

[23] Information available at http://www.epa.gov/fedsite/eo13149.htm

Fleet and Transportation Efficiency and EO 13123[24], *Greening the Government through Efficient Energy Management*. Additionally, the Agency will attain the Executive Orders' goals through several initiatives including comprehensive facility energy audits, sustainable building design in Agency construction and alteration projects, energy savings performance contracts to achieve energy efficiencies, the use of off-grid energy equipment, energy load reduction strategies, green power purchases, and the use of Energy Star products and Energy Star rated buildings.

EPA will provide transit subsidy to eligible applicants as directed by Executive Order 13150[25] *"Federal Workforce Transportation."* EPA will continue the implementation of the Safety and Health Management Systems to ensure a safe working environment. As a result of an ongoing review of indirect cost charging in FY 2007, the Agency is reviewing the allocation of rent, security and utilities costs among EPA's various appropriations. The largest shift is to the Science and Technology appropriation, but other appropriations proportions have been adjusted. These changes do not result in any overall funding difference.

In FY 2007, the Agency will complete its Headquarters space consolidation project for the offices in Crystal City, VA. The move to the new facility in Region 8 (Denver, CO) will begin.

Performance Targets:

Work under this program supports multiple objectives. Performance information is included in the Program Performance and Assessment section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$61,836.3) This is not a reduction to the overall program, but a shift to the Science and Technology (S&T) (+$60,993.1) and Superfund (+$843.2) appropriations from the Environmental Programs and Management (EPM) appropriation for EPA's rent, security, and utilities costs. This change reflects the restructuring of cost allocation methodologies. In the past, direct laboratory rent, security, and utilities have been included under the EPM appropriation. This methodology change will better reflect actual costs for personnel with S&T funds.

- (+$7,912.5) this adjustment represents an increase in costs associated with rising utilities, resulting from increases in natural gas and oil prices as well as increased costs associated with security. The increase in security includes a base shift from Rent to Security, and represents the cost of the Federal Protective Service and Building Specific Guard contracts previously included in GSA Rent/Lease bills. These costs will now be billed to EPA directly from the Department of Homeland Security.

- (+$3,221.3) This change provides additional resources for the new Region 1 facility in Boston, MA, and the new Region 8 facility in Denver, CO. These moves align with lease expirations and are required by GSA.

[24] Information available at http://www.epa.gov/fedsite/eo13123.htm
[25] Additional information available at http://ceq.eh.doe.gov/nepa/regs/eos/eo13150.html

- (-$5,577.1) This change represents the expected completion of the Crystal City consolidation project at Potomac Yards.

- (+ $4,651.7) This reflects an increase for payroll and cost of living for existing FTE.

- (+$1,681.7) This increase will support continuing energy efficiency and conservation projects, to allow the Agency to meet its FY 2007 energy reduction performance target.

- (+$798.3) Provides additional resources to cover basic facilities management services in EPA's ten regions.

- (+1.4 FTE) This FTE increase will support Agency environmental management systems and continuing energy conservation projects.

Statutory Authority:

FPASA; PBA; annual Appropriations Acts; CWA; CAA; D.C. Recycling Act; Executive Orders 10577 and 12598; United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Homeland Security Presidential Decision Directive 63 (Critical Infrastructure Protection).

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$22,223.9***	***$23,168.0***	***$21,847.0***	***($1,321.0)***
Hazardous Substance Superfund	$3,109.3	$3,060.0	$2,920.8	($139.2)
Total Budget Authority / Obligations	$25,333.2	$26,228.0	$24,767.8	($1,460.2)
Total Workyears	195.1	164.8	163.3	-1.5

Program Project Description:

Grants and Interagency Agreements comprise over half of the Agency's budget. EPM resources in this program support activities related to the management of Financial Assistance Grants/Interagency Agreements (IAGs), and of suspension and debarment at Headquarters and within Regions. The key components of this program are ensuring that EPA's management of meets the highest fiduciary standards, and that grant funding produces measurable environmental results. This program focuses on maintaining a high level of integrity in the management of EPA's assistance agreements, and fostering relationships with state and local governments to support the implementation of environmental programs.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will achieve key objectives under its long-term Grants Management Plan. These objectives include strengthening accountability, competition and positive, measurable environmental outcomes, and aggressively implementing new and revised policies on at-risk grantees. [26] The Grants Management Plan has provided a framework for extensive improvements in grants management at the technical administrative level, programmatic oversight level and at the executive decision-making levels of the Agency. EPA will continue to reform grants management by conducting on-site and pre-award reviews of grant recipients and applicants, improving systems support, performing indirect cost rate reviews, providing Tribal technical assistance, and implementing its Agency wide training program for project officers, grant specialists, and managers.

[26] US EPA, EPA Grants Management Plan. EPA-216-R-03-001, April 2003. Available at http://www.epa.gov/ogd/EO/finalreport.pdf

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from the FY 2006 Enacted Budget (Dollars in Thousands):

- (-$1,603.8) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$94.5) This increase will support activities for conducting on-site and pre-award reviews of grant recipients and applicants.

- (+$188.3) This change will assist in performing indirect cost rate reviews, providing Tribal technical assistance, and implementing its Agency wide training program for project officers, grants specialists, and managers.

- (-1.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

EPA's environmental statutes; Annual Appropriations Act; FGCAA Section 40; CFR Parts: 30, 31, 35, 40, 45, 46, and 47.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$46,795.7***	***$41,275.0***	***$40,202.5***	***($1,072.5)***
Leaking Underground Storage Tanks	$5.0	$3.0	$3.0	$0.0
Hazardous Substance Superfund	$5,250.8	$5,665.0	$5,270.2	($394.8)
Total Budget Authority / Obligations	$52,051.5	$46,943.0	$45,475.7	($1,467.3)
Total Workyears	344.6	297.7	297.6	-0.1

Program Project Description:

Resources in this program support activities related to the provision of human capital and human resources management services to the entire Agency. EPA supports organizational development and management activities through Agency-wide and interagency councils and committees and through participation in interagency management improvement initiatives. The Agency continually evaluates and improves human resource and workforce functions, employee development, leadership development, workforce planning, and succession management.

FY 2007 Activities and Performance Plan:

EPA is committed to fully implementing "Investing in Our People II, EPA's Strategy for Human Capital" [27], which was issued in December 2003 and reviewed in 2005. As one result of that review, the desired outcomes for each strategy were strengthened to focus on measurable results. In FY 2007, the Agency will continue its efforts to implement a Workforce Planning System that will include: closing competency gaps in senior leadership positions; significantly reducing the time to hire for senior executives; and reducing the overall number of vacancies for non-SES positions processed beyond 45-days; and increasing the emphasis on the EPA Environmental Intern Program and other innovative recruitment and hiring flexibilities that address personnel shortages in mission-critical occupations (MCOs).

In accordance with OMB Circular A-76 "Implementation of the Federal Activities Inventory Reform Act of 1998[28] (Public Law 105-270) (FAIR Act), the Agency will also build on competitive sourcing principles to identify the most efficient, cost effective resources for performing functions critical to the EPA mission.

[27] US EPA Investing in OUR People II, EPA's Strategy for Human Capital. Available at http://www.epa.gov/oarm/strategy.pdf
[28] Available at http://www.whitehouse.gov/omb/fedreg/fair2002notice4.html

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent to which competency/skill gaps are reduced (beginner to intermediate) in Mission Critical Occupations.				25	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent to which competency/skill gaps are reduced (intermediate to expert) in Mission Critical Occupations.				15	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Number of new hires recruited through EPA's Environmental Intern Program in Mission Critical Occupations.				100	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Average time to hire non-SES positions from date vacancy closes to date offer is extended, expressed in working days.				45	Days

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	For SES positions, the average time from date vacancy closes to date offer is extended, expressed in working days.				90	Days

FY 2007 Change from FY 2006 President's Budget (Dollars in Thousands):

- (-$1,779.8) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$184.9) This increase will support activities for workforce planning and succession management functions.

- (+$522.4) This increase will support activities associated with employee development and leadership development programs throughout the Agency.

- (-0.1 FTE) This change reflects a decrease in EPA's workforce as part of a management strategy that will help us better align resources, skills, and Agency priorities.

Statutory Authority:

Title V USC.

Program Area: Pesticides Licensing

Pesticides: Field Programs
Program Area: Pesticides Licensing
Goal: Clean and Safe Water
Objective(s): Protect Human Health

Goal: Healthy Communities and Ecosystems
Objective(s): (no objective); Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$25,649.5***	***$24,516.0***	***$24,926.3***	***$410.3***
Total Budget Authority / Obligations	$25,649.5	$24,516.0	$24,926.3	$410.3
Total Workyears	129.9	124.5	122.5	-2.0

Beginning in FY 2006, the portion of this program project's resources in Goal 2 shifted to Goal 4. For consistency, resources have also been shifted in the above table for FY 2005.

Program Project Description:

The Pesticides Field Program is one of the foundation components of the integrated National Pesticide Program established by Congress in the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). In combination with the risk assessment and risk management actions of the registration and reregistration of pesticides, field activities are the frontline delivery mechanism to ensure that safeguards, practices and capacity exist to achieve intended risk reduction.

State and Tribal Pesticide regulatory agencies, in cooperation with EPA, implement regulatory decisions regarding pesticides throughout the nation. These decisions ensure that pesticides are used legally and safely, thereby ensuring that the Agency meets its statutory requirement to protect public health and the environment.

The field programs utilize technical assistance, resource management, risk communication, outreach and education, and partnership efforts with states, Tribes, growers, farm workers, and families to effectively implement programs such as Certification and Training (C&T), Worker Protection (WP), the Endangered Species Protection Program (ESPP), Pesticide Environmental Stewardship (PESP) and the Tribal Program. These programs apply a geographically-targeted approach where risk management decisions are made close to the source and involve the regions, states, growers, consumers, and public interest groups.

FY 2007 Activities and Performance Plan:

The Agency will continue to stress safe pesticide use through national leadership and coordination for regional, state and Tribal capacity to implement pesticides regulatory decisions in the field. In addition, EPA will provide incentive grants to demonstrate effective applications for safe pest management practices, make regulatory and policy decisions, develop guidance packages and training/educational materials, organize national meetings/workshops to explain policies and regulations and educate pesticide users, provide technical assistance, and coordinate

with other Federal agencies. For example, the program has developed posters and brochures promoting pesticide safety through the "Read the Label First" campaign, produced educational materials targeted to Spanish and Asian language audiences, and provided core study manuals for certified pesticide applicators.

In FY 2007, EPA will provide locally based technical assistance and guidance to states and Tribes on pesticide program implementation. Issues addressed will include newer/safer products and improved outreach and education. Technical assistance will include workshops, demonstration projects, briefings, and informational meetings in areas including pesticide safety training and use of lower risk pesticides.

Certification and Training/Worker Protection

EPA will work with stakeholders to identify and prioritize key concerns and issues that must be addressed, support ongoing worker protection programming, and provide an enhanced focus on special concerns for children. EPA guidance and direction for state and Tribal implementation will be provided in FY 2007. Because it is essential that pesticide users be properly informed so they can make appropriate choices for the use of pesticides, training, education and outreach, the cornerstones of all field programs, will be pursued aggressively. Development and distribution of support materials and training and follow-up, which are critical to ensuring that pesticide regulatory decisions are properly implemented, will also continue. States will continue to develop, reproduce and distribute training materials. The resulting increased awareness and workers' ability to understand and avoid pesticide hazards will allow individuals to play a key role in their own health and safety.

Tribal

EPA guidance and policy direction to Tribes on pesticide issues affecting Native Americans will continue through a sound, effective and integrated approach. EPA will review software and other risk assessment tools to capture the unique Tribal exposure risks. Assistance in organizing national and regional workshops/meetings to provide Tribal awareness and understanding of regulatory requirements and pesticide hazards will continue. EPA will provide training on managing pesticides and pesticide risks matched to Tribal needs. Agency support of the Tribal Pesticide Program Council, a Tribal voice in determining national pesticide policies, and an instrument which brings Tribal pesticide issues to Federal attention, will remain a priority. The Agency will also continue open, consistent communications with Tribes, directly and through the Regional Tribal Operations Committees, to communicate Tribal pesticide concerns.

Endangered Species Protection Program (ESPP)

EPA will continue to protect threatened or endangered species from pesticide use, while minimizing regulatory burdens on pesticide users. EPA will use sound science to assess the risk of pesticide exposure to listed species and will continue efforts with partners and stakeholders to improve information databases. As pesticides are reviewed, updated and improved, databases will help ensure consistent consideration of endangered species. EPA will implement use limitations through appropriate label statements, referring pesticide users to EPA-developed

Endangered Species Protection Bulletins. These bulletins will contain maps of pesticide use limitation areas necessary to ensure EPA's compliance with the Endangered Species Act and will be enforceable labeling under FIFRA. EPA will continue providing outreach materials keeping localities informed on the latest pesticide information for protection of listed species. EPA will also provide guidance, assistance and resources to states and Tribes for implementation of these new pesticide regulatory decisions. Because of the unique nature of enforcement through Bulletins and the specific geographic scope of pesticide use limitations that may be necessary, implementation of this enforceable program will demand intensified Regional assistance. Regional support will include developing and reviewing customized state-initiated plans, providing educational/informational and other outreach materials, coordinating with Federal and state lead agencies, and coordinating the review of Bulletins which will show the geographic scope of pesticide use limitations for specific pesticides necessary to protect specific listed species.

Pesticide Environmental Stewardship Program (PESP)

EPA will provide technical assistance, incentive grants and demonstration projects to help both agricultural and non-agricultural users of pesticides adapt safer, and often new pest control practices. The Agency will also organize and deliver pest management educational programs and information for producers, consumers, and other stakeholders. The Agency will continue promoting the use of safer alternatives to traditional chemical methods of pest control, including reduced risk pesticides, to further reduce risk. Partnerships emphasizing environmental stewardship and incorporating pollution prevention strategies will also contribute to risk reduction.

Performance Assessment: The Pesticides Field Program underwent PART review in calendar year 2004 and received a rating of "results not demonstrated." Using the logic model process, the Agency is developing new, output-oriented performance measures. EPA has consulted with State and Tribal partners throughout the development process, and the Pesticide Program Dialogue Committee, the program's federal advisory committee, is currently reviewing the proposed measures.

EPA will encourage integration and adoption of Integrated Pest Management (IPM) in schools to reduce children's exposure to pesticides, yet maintain effective and efficient pest control. Updating the website, distribution of publications, awarding of IPM grants, offering of workshops and courses, and providing guidance and assistance through universities and national associations will remain critical. EPA will continue coordination with other Federal Agencies which support IPM practices. Additionally, the Agency will continue fostering the managed use of an array of biological, cultural, mechanical, and chemical pest control methods to achieve the best results with the least adverse impact to the environment.

Over 170 PESP members have committed to reducing the potential risks associated with pesticide use. Roughly $4.5 million in PESP grants has funded over 100 projects, including promoting reduced risk pest control practices for crops and promoting integrated pest management in schools.

Performance Targets:

Work under this program supports multiple performance objectives. Currently there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1,259.6) This reflects an increase for payroll and cost of living for existing FTE.
- (+$291.2) This increase will support worker protection, certification and training, endangered species, environmental stewardship, and tribal activities.
- (-$1,140.5) Reductions in environmental stewardship, coordination with other federal agencies, and grants to farmer networks and growers are based on the program's inability to demonstrate results. The decrease also reflects the FTE reduction to the groundwater program and related PC&B following a redirection of responsibilities.
- (-2 FTE) This change reflects a reduction to the groundwater program following a redirection of responsibilities.

Statutory Authority:

PRIA; FIFRA; FFDCA; ESA; FQPA.

Pesticides: Registration of New Pesticides
Program Area: Pesticides Licensing
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$39,321.6***	***$41,604.0***	***$39,767.6***	***($1,836.4)***
Science & Technology	$2,473.1	$2,463.0	$2,766.1	$303.1
Total Budget Authority / Obligations	$41,794.7	$44,067.0	$42,533.7	($1,533.3)
Total Workyears	401.9	327.8	327.8	0.0

Program Project Description:

EPA's Pesticide Registration Program licenses pesticides for use, ensuring they present a reasonable certainty of no harm to human health and the environment. The Agency makes licensing decisions about new pesticides only after extensive review and evaluation of studies and data on human health and ecological effects.[29] As part of the process, the Agency analyzes data and, for food-use pesticides, makes tolerance decisions for each crop or crop grouping (or "use") the registrant requests for the pesticide. The Pesticide Registration program gives priority to accelerated processing of reduced risk pesticides which may substitute for products already on the market, thus giving farmers and other pesticide users new tools that are safer for human health and the environment. The resulting benefits to the nation include worker protection, public health assurance, a safer and abundant food supply, and increased protection of the environment from pesticide risk.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Pesticides Registration program underwent PART review in calendar year 2002 and received a rating of "adequate." Using the logic model process, the Agency is developing new, output-oriented performance measures. EPA has consulted with State and Tribal partners throughout the development process, and the Pesticide Program Dialogue Committee, the program's federal advisory committee, is currently reviewing the proposed measures.

During FY 2007, EPA will continue to review and register new pesticides, new uses for existing pesticides, and other registration requests in accordance with Food Quality Protection Act (FQPA) standards and Pesticide Registration Improvement Act (PRIA) timeframes. The Agency will continue to process these registration requests, with special consideration given to susceptible populations, especially children. Specifically, the Agency will focus special attention on the foods commonly eaten by children, to reduce pesticide exposure to children where the science identifies potential concerns.

[29] FIFRA Sec 3; FIFRA Sec 4 (i) (5)

EPA will engage the public, scientific community and other stakeholders in our policy development and implementation to encourage a reasonable transition for farmers and others from the older, more potentially hazardous pesticides to the newer pesticides which have been registered using the latest scientific information available. The Agency will continue to update the pesticide review and use policies to ensure compliance with the latest scientific methods. EPA will also continue its emphasis on accelerating the registration of reduced risk pesticides, including biopesticides, in order to provide farmers and other pesticide users with new alternatives.

In FY 2007, the Agency, in collaboration with the United States Department of Agriculture (USDA), will continue to work to ensure that minor use registrations receive appropriate support and that needs are met for reduced risk pesticides for minor use crops.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficency	Percent reduction in review time for registration of conventional pesticides.	-7%	7%	10%	5.4%	Reduction

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of agricultural acres treated with reduced-risk pesticides.	13%	8.7%	9%	10.0%	Acre-Treatments

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent reduction in terrestial and aquatic wildlife mortality incidents involving pesticides	0%	11%	14 %	20	% reduction

Some of the PART measures for this program are program outputs, which, when finalized, represent the program's statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment.

The "acre-treatments" measure tracks the use of reduced risk pesticides, that is, those that reduce the risks to human health and nontarget organisms, and reduce the potential for contamination of other media or other valued environmental resources. Extracted data are weighted and a multiple regression procedure is used to adjust for known disproportionalities and compared with USDA and state acreage estimates to ensure consistency.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$889.1) This reflects an increase for payroll and cost-of-living for existing FTE.

- (+$476.5) This increase will support product registration, amendments, registrations, tolerances, experimental use permits and emergency exemptions for all pesticides, including antimicrobial and biologically-based.

- (-$3,202.0) This reflects a reduced workload upon completion of the backlog of registration actions. The decrease includes reductions to registration actions for conventional pesticides, Section 18s, reduced risk pesticides and antimicrobial pesticides.

Statutory Authority:

PRIA; FIFRA; FFDCA; FQPA; ESA.

Pesticides: Review / Reregistration of Existing Pesticides

Program Area: Pesticides Licensing
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$49,074.7***	***$57,458.0***	***$51,814.6***	***($5,643.4)***
Science & Technology	$2,471.1	$2,480.0	$2,820.4	$340.4
Total Budget Authority / Obligations	$51,545.8	$59,938.0	$54,635.0	($5,303.0)
Total Workyears	460.7	462.7	458.7	-4.0

Program Project Description:

The Agency ensures that pesticides, when used according to the label, result in a reasonable certainty of no harm to human health and that they do not present an unreasonable adverse effect on the environment. EPA uses various means, including risk mitigation measures such as label changes and modification in the ways pesticides are applied (use of protective equipment, farm worker reentry level changes, application rates and frequency, etc.), regulatory decisions, voluntary actions encouraged through partnerships, education, and outreach to provide benefits such as public health safety, safe and abundant food, worker safety, and protection of land and other media from pesticide contamination.

The Food Quality Protection Act of 1996 (FQPA) also requires that EPA establish a process for periodic review of pesticide registrations with a goal of completing the process every 15 years, which will replace the Reregistration process. The registrations will be reviewed to ensure that they include appropriate risk reduction measures and that decisions are based on current scientific data, risk assessment methodologies and program policies. EPA will begin implementing this program in FY 2007. In 2004, EPA worked with stakeholders to develop the program parameters for the Registration Review program and piloted the program. The pilot determined the latest risk assessments available for the pesticide, considered whether additional data or assessment updates were required, and laid the groundwork for developing the economic analysis.

FY 2007 Activities and Performance Plan:

During FY 2007, the Agency will focus its reregistration resources to support meeting the 2008 FQPA/Pesticide Registration Improvement Act (PRIA) statutory deadlines (26 non-food-use conventional chemical REDs and 12 antimicrobial REDs); implementing the Registration Review program; conducting post-RED activities and continuing product

Performance Assessment: The Pesticides Reregistration program underwent PART review in calendar year 2004 and received a rating of "Adequate." Using the logic model process, the Agency is developing new, output-oriented performance measures. EPA has consulted with State and Tribal partners throughout the development process, and the Pesticide Program Dialogue Committee, the program's federal advisory committee, is currently reviewing the proposed measures.

reregistration. EPA will have completed issuing food use Reregistration Eligibility Decisions (REDs) and related tolerance reassessments by August 3, 2006 and plans to complete issuance of non-food use REDs by 2008.

In FY 2007, EPA plans to complete a cumulative 96 percent of all REDs. Pesticide uses that don't meet the safety standards will be restricted or possibly even cancelled in order to sufficiently reduce their potentially harmful exposures. To establish the new Registration Review program required by FQPA, EPA will issue the final rule in 2006, with program implementation beginning in 2007. As outlined in the proposed rule, EPA will post registration review schedules and provide a baseline for expected pesticide case dockets to be opened for the next three year cycle and for decisions expected over the next several years. The Agency will begin making registration review decisions in 2007.

As the Reregistration/Tolerance Reassessment program approaches completion, the FQPA-required/PRIA-emphasized program to review all registered pesticides on a 15-year cycle will perpetuate the Agency's goal of ensuring that pesticides in the marketplace continue to meet the latest health and safety standards. Resources from completed activities in Reregistration/Tolerance Reassessment will be rechanneled into the Registration Review Program, as well as product reregistration and post-RED activities. Registration review will operate continuously, encompassing all registered pesticides. The scope and depth of the Agency's reviews will be tailored to the circumstances, so reviews will be commensurate with the complexity of the issues currently associated with each pesticide.

Also in 2007, EPA will address post-RED activities vital to effective "real world" implementation of the RED requirements. These activities include review of label amendments that incorporate onto the product labels the mitigation required in the REDs; proposed and final product cancellations; implementation of memoranda of agreements designed to provide fast/effective risk reduction; product reregistration; preparation and tracking of data call-ins (DCIs); review of study submissions and revision of risk and benefits assessments in the REDs; issuing proposed and final tolerance rulemakings to implement the changes in tolerances and revocations required in the REDs, and responding to lawsuits on existing REDs. Although not highly visibile activities, they are essential to effective implementation of mitigation measures called for in the REDs and for achievement of long-term public health protection goals and objectives.

Additionally, in FY 2007, the Agency will continue to review antimicrobials for reregistration in order to meet the deadlines set by FQPA and PRIA for the Reregistration Program. EPA will continue to address concerns regarding the efficacy of public health products used to kill microorganisms in hospitals, schools, restaurants, and homes. EPA will continue to ensure that efficacy tests for antimicrobial products are reliable and reproducible and that internal controls ensure the integrity of data submitted by registrants.

In the performance of our mandate to protect the environment, EPA will continue to use sound science in pesticide reviews and to include stakeholder and scientific community feedback in our policies and decisions. Efforts with stakeholders through the Pesticide Program Dialogue Committee (PPDC) and the Committee to Advise on Reassessment and Transition (CARAT)

will continue to provide transparency in decision-making and a fuller understanding of the implications for growers, producers and the public.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Cumulative percent of Reregistration Eligibility Decisions Completed.	82.3%(504)	88.2%	92.7%	96%(588)	Decisions (Cum)

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficency	Reduction in time required to issue Reregistration Eligibility Decisions.	3.5%	7%	10%	12%	Reduction

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent reduction in terrestial and aquatic wildlife mortality incidents involving pesticides	0%	11%	14 %	20%	% reduction

Some of this program's PART performance measures are outputs representing statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment, and when used in accordance with the packaging label present a reasonable certainty of no harm. While program outputs are not the best measures of risk reduction, they do provide a means for reducing risk in that the program's safety review prevents dangerous pesticides from entering the marketplace.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$391.9) This reflects an increase for payroll and cost of living for existing FTE.
- (+$276.8) This increase will support activities including contracts, grants, expenses, travel, IT and telecommunications for registration review, reregistration of non-food use REDS, post-RED activities and special reviews.
- (-$5,150.7) Reflects the completion of tolerance reassessments and a reduction to the Reregistration/Registration Review program's contracts for study reviews.
- (-$1,161.4) Reflects a reduction to non-food use review and reregistration activities.

- (-4.0 FTE) This decrease reflects a change in EPA's workforce as part of a management strategy that will help us better align resources, skills, and Agency priorities.

Statutory Authority:

PRIA; FIFRA; FFDCA; FQPA.

Science Policy and Biotechnology
Program Area: Pesticides Licensing
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks; Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$1,961.5***	***$1,694.0***	***$1,754.0***	***$60.0***
Total Budget Authority / Obligations	$1,961.5	$1,694.0	$1,754.0	$60.0
Total Workyears	8.8	6.3	6.3	0.0

Program Project Description:

The Agency will continue providing scientific and policy expertise and coordinating EPA interagency and international efforts as well as facilitating the sharing of information related to core science policy issues concerning pesticides and toxic chemicals. Biotechnology is illustrative of the work encompassed by this program. Many offices within EPA regularly deal with biotechnology issues, and the coordination among affected offices allows for coherent and consistent scientific policy from a broad Agency perspective. Internationally, EPA will continue participating in a variety of activities related to biotechnology and is fully committed to and engaged in international dialogues. The Biotechnology Team will continue to assist in formulating EPA and United States positions on biotechnology issues, including representation on United States delegations to international meetings when needed. Such international activity is coordinated with the Department of State.

The Scientific Advisory Panel (SAP), operating under the rules and regulations of the Federal Advisory Committee Act, will continue to serve as the primary external independent scientific peer review mechanism for EPA's pesticide programs.

FY 2007 Activities and Performance Plan:

EPA estimates that the SAP will be asked to complete approximately 14 reviews in FY 2007. The specific topics to be placed on the FIFRA SAP agenda are typically confirmed a few months in advance of each session and usually include difficult, new or controversial scientific issues identified in the course of EPA's pesticide program activities. In FY 2007, topics may include issues related to biotechnology, chemical-specific risk assessments, novel exposure and hazard models, cumulative risk assessment models and ecological probabilistic assessment methodologies.

EPA will continue to play a lead role in evaluating the scientific and technical issues associated with plant-incorporated protectants based on plant viral coat proteins. EPA will also, in conjunction with an interagency workgroup, continue to maintain and further develop the U.S. Regulatory Agencies Unified Biotechnology Website. The site focuses on the laws and regulations governing agricultural products of modern biotechnology and includes a searchable

database of genetically engineered crop plants that have completed review for use in the United States.[30]

In addition, a number of international activities will continue to be supported by EPA, including representation on the Organization for Economic Cooperation and Development's Working Group on the Harmonization of Regulatory Oversight in Biotechnology and Task Force on the Safety of Food and Feed.

Performance Targets:

Work under this program supports multiple performance objectives. Currently there are no performance measures specific to this program project.

Work under this program supports the *Enhance Science and Research* and *Chemical, Organism, and Pesticide Risks* objectives, specifically, work done in EPA's Pesticide and Pollution Prevention and Toxics programs. The programs supported include Registration of New Pesticides and Review/Reregistration of Existing Pesticides. Science Policy and Biotechnology activities such as the SAP, a scientific peer review mechanism, assist in meeting its targets for measures under those program/projects including *Register safer chemicals and biopesticides*, and *Tolerance Reassessments*.

The work in the Science Policy program also supports efforts in the Toxic Substances: Chemical Risk Review and Reduction program. Science coordination efforts under Science Policy and Biotechnology assist in meeting its target for the *Number of chemicals or organisms introduced into commerce that pose unreasonable risks to workers, consumers, or the environment* through Scientific Advisory Panel meetings and letter reviews.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$55.9) This reflects an increase for payroll and cost-of-living for existing FTE.
- (+$4.1) This increase will provide additional support for contracts and grants.

Statutory Authority:

FIFRA; FFDCA; FQPA; TSCA.

[30] http://usbiotechreg.nbii.gov/

Program Area: Resource Conservation and Recovery Act (RCRA)

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$36,575.0***	***$39,396.0***	***$40,372.3***	***$976.3***
Total Budget Authority / Obligations	$36,575.0	$39,396.0	$40,372.3	$976.3
Total Workyears	251.1	270.5	266.7	-3.8

Program Project Description:

The Resource Conservation and Recovery Act (RCRA) requires EPA implement a hazardous waste management program for the purpose of controlling the generation, transportation, treatment, storage and disposal of hazardous wastes. An important element of this program is the requirement that facilities managing hazardous waste clean up past releases. This program, which is largely implemented by authorized states, is known as the Corrective Action Program. Although the states[31] are the primary implementers of the Corrective Action Program, EPA Regional staff are also the lead at a significant number of facilities undergoing corrective actions. Key program implementation activities include: development of technical and program implementation regulations, policies, and guidance and conducting corrective action activities including assessments, investigations, stabilization measures, remedy selection, and remedy construction/implementation. For more information, see http://www.epa.gov/correctiveaction/.

FY 2007 Activities and Performance Plan:

Performance Assessment: RCRA Corrective Action was initially assessed under PART in 2003 and received an overall rating of "Adequate" from OMB's PART review. During the FY 2003 PART, EPA developed a new efficiency measure for the RCRA Corrective Action Program. The measure is total number of final remedy components constructed at RCRA Corrective Action facilities per Federal, state and private sector costs. This measure will show, over time, an increase in the number of final remedy components constructed per the costs related to the cleanup and oversight of cleanup of RCRA facilities in FY 2006.

In the Agency's FY 2003-FY 2008 Strategic Plan, EPA introduced new program goals for corrective action that focus EPA and state efforts on moving facilities from stabilization to final remedies. By the end of FY 2008, EPA intends to select remedies at 30 percent of the highest priority facilities and declare construction complete at 20 percent of the highest priority facilities. To accomplish these ambitious goals, the Agency worked with the states to update its baseline of 1,968 highest priority facilities and to develop annual targets for tracking achievements from FY 2006 through FY 2008.

[31] This includes both those states authorized for corrective action and those not authorized for corrective action through work sharing agreements with their EPA Regional offices.

Consistent with EPA's emphasis on land revitalization, ensuring sustainable future uses for RCRA corrective action facilities is considered in remedy selections and in the construction of those remedies. In addition, the Agency will work in partnership with the states to coordinate cleanup program goals and direction. The Agency also will develop training that will include selecting and completing final remedies. This training will be presented to Regional and state RCRA Corrective Action staff during FY 2007. These activities are key aspects of improving the program's efficiency.

During FY 2007, the Agency will be working with its state partners to continue developing and implementing program improvements that will help meet this ambitious challenge. EPA and the states will continue to develop and implement approaches for selecting and constructing final remedies at operating facilities that are protected as long as the facility remains active.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percentage of RCRA CA facilities with current human exposures under control (using 2005 baseline).			82	89	percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percentage of RCRA CA facilities with migration of contaminated groundwater under control (using 2005 baseline).			68	75	percent

EPA will continue to track the human exposures environmental indicator. At the end of FY 2005, human exposures to toxins were controlled at 1,649 facilities. In FY 2007 EPA expects that human exposures will be controlled at over 1,750 high-priority RCRA facilities. This would represent completed controls at 89 percent of the baseline facilities. The 2008 goal is to achieve this indicator at 95 percent of the 1,968 baseline facilities. EPA will also continue to track the migration of contaminated groundwater environmental indicator, with a target of 76 percent of baseline facilities in FY 2007. The 2008 goal is to achieve this indicator at 80 percent of the 1,968 baseline facilities.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1,309.7) This reflects an increase for payroll and cost of living for existing FTE.

- (-$333.4) This reduction reflects program improvements and progress and a focus on the highest priority facilities.

- (-3.8 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

Solid Waste Disposal Act (SWDA), Section 8001 as amended, Resource Conservation and Recovery Act (RCRA) of 1976 as amended; Public Law-94-580, 42 U.S.C. 6901 et seq. Department of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations Act, Public Law 105-276, 112 Stat. 2461, 2499 (1988).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$67,842.9***	***$65,793.0***	***$67,887.3***	***$2,094.3***
Total Budget Authority / Obligations	$67,842.9	$65,793.0	$67,887.3	$2,094.3
Total Workyears	443.1	453.6	443.1	-10.5

Program Project Description:

The primary focus of the Waste Management Program is to provide national policy directed by the Resource Conservation and Recovery Act to reduce the amount of waste generated and to improve the recovery and conservation of materials by focusing on a hierarchy of waste management options that advocate reduction, reuse, and recycling over treatment and disposal; to prevent dangerous releases to the environment from both non-hazardous and hazardous waste management facilities; and to reduce emissions from hazardous waste combustion, and manage waste in more environmentally beneficial and cost-effective ways.

The Waste Management Program continues to evolve to address the challenges of the 21st century. New waste streams from new industrial processes are being evaluated, and technological advances and innovative methods of conducting business in the waste management arena are being assessed. There is an increased focus on reuse and recycling, particularly the safe beneficial use of industrial byproducts as a preference to disposal. EPA has many major components that are essential to safe waste management and the protection of human health and the environment. Moreover, the program is engaged in regulatory and other reform efforts to improve the efficiency of the program (for example, e-manifest and e-permitting projects) and to provide incentives for increased recycling. EPA actively participates in waste management and resource conservation efforts internationally.

Through the Resource Conservation Challenge (RCC), the program works with industry, states, and environmental groups to explore new ways to reduce materials and energy use by promoting product and process redesign and increased materials and energy recovery from materials otherwise requiring disposal. However, not all materials can be reduced, reused, or recycled and, therefore, some wastes must be safely treated and disposed. Thus, EPA and the states maintain the critical health and environmental protections provided by the base "cradle to grave" waste management system envisioned by RCRA. (http://www.epa.gov/rcrainfo/).

FY 2007 Activities and Performance Plan:

In FY 2005, EPA finalized the standardized permit rule, which facilitated the development of e-permitting. In FY 2007, the program will continue to work in partnership with the states to

incorporate e-permitting tools to encourage and help states to expedite and simplify the permitting process; and to provide better public access to permitting information. During FY 2007, the Agency will continue to work to identify the best manner in which to develop an electronic manifest system. EPA will also continue its active participation in international waste management efforts.

In FY 2007, EPA plans to complete the draft of proposed regulations to allow gasification of oil-bearing hazardous secondary materials from petroleum refining into clean fuels and basic chemicals, thereby vastly expanding the reuse of materials currently managed as waste. Gasification of waste materials will allow the capture of a significant amount of energy from waste materials that previously were treated and disposed of, thus turning a waste problem into an energy solution.

The Agency will continue its regulatory reform efforts in FY 2007 with work on the definition of solid waste and encouraging safe recycling of targeted waste streams. Specific examples of regulatory relief will include finalizing regulations promoting the recycling of solvents, metals, and petroleum catalysts. We expect that savings from EPA's burden reduction rule will also contribute to an improvement in efficiency. In FY 2007, EPA also will finalize regulations that will simplify and improve hazardous waste management in college and university laboratory settings, and that will remove barriers to the use of aluminum in automobile manufacturing, allowing for increased fuel efficiency due to lighter cars.

EPA will continue its state-of-the-practice bioreactor landfill work. Bioreactor landfills are supported by industry because of the expected rapid stabilization which leads to rapid settlement and possible recovery of air space. Studies will determine if bioreactors will increase the practicality of gas to energy conversion. Industry anticipates a greater potential for reducing long-term costs with bioreactors. In FY 2007, EPA will apply the results of its work in developing technical guidance and/or best practices to support industry and state regulatory agencies in designing, operating, and overseeing safe bioreactors.

The Agency also will work to reduce risks from industrial non-hazardous waste, also known as Industrial Subtitle D waste. Manufacturing facilities generate and dispose of 7.6 billion tons of industrial non-hazardous waste each year.[32] EPA will continue to work with interested parties to apply the voluntary "Guide for Industrial Waste Management" which provides facility managers, state and tribal regulators and interested public with recommendations and tools to better address the management of land-disposed non-hazardous industrial waste. The program will expand its successful voluntary Coal Combustion Partnership Program (C2P2) to include industrial material recycling and use C2P2 as a model to foster the safe beneficial use of other industrial non-hazardous waste streams, such as foundry sands and construction and demolition debris. C2P2 will continue to work toward the goal of increasing the beneficial use of coal combustion

[1]Data for 1982 from "Screening Survey of Subtitle D Establishments. Draft final report. U.S. Environmental Protection Agency, Office of Solid Waste, December 1987. "Nonhazardous Waste: Environmental Safeguards for Industrial Facilities Need to Be Developed." Report to the Chairman, Subcommittee on Transportation and Hazardous Materials, Committee on Energy and Commerce, House of Representatives. April 1990

products to a rate of 50% by 2011, as measured by the American Coal Ash Association annual survey. The most recent data from the 2004 annual survey show coal combustion product beneficial use has increased to 40% from a 2001 baseline of 31%.

During FY 2007, the Waste Management Program will continue working with the Department of Agriculture, the Food and Drug Administration, and the Department of Homeland Security to prepare for possible terrorist or natural disaster events and threats to the food chain. EPA will work to expand information on technologies and tools for use in decontamination/disposal operations related to terrorist events and natural disasters.

Providing grant funds, training, and technical assistance to Tribes and Tribal organizations to solve solid waste problems and reduce risk from exposure of improperly disposed hazardous and solid waste also is a priority for the Agency in FY 2007. Of the over 560 Federally-recognized Tribes in this country, up to 44% have no waste management program and 24% use open dumps and open burning as their primary disposal methods for solid wastes. In fact, there are over 1,400 open dumps on Tribal lands, of which 110 are considered high-threat open dumps. The Waste Management Program's goals are to increase the number of Tribal plans to address solid waste management issues and reduce Tribal reliance on open dumps and backyard burning as solid waste management practices.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Annual increase in the percentage of RCRA hazardous waste management facilities with permits or other approved controls.	3.1%	2.8%	2.5%	2.4%	percentage pts.

In FY 2007, EPA will coordinate efforts with the states to increase the number of RCRA hazardous waste management facilities with approved controls by 2.4 percent over the FY 2006 level. EPA will continue to assist the states as needed in getting permits or other approved controls in place. The most complex facilities remain requiring states to spend more resources per facility. In FY 2007 EPA will focus efforts to help states in overcoming barriers, particularly with regard to different types of facilities that are difficult to permit on where emissions are difficult to control, such as boilers and industrial furnaces (BIFs), Subpart X, and large, complex Federal facilities.

The permits universe has been updated for the 2006-2008 cycle. The new facilities on the permit track have been added and the facilities not on the permit track have been omitted. For permit renewals, a new universe and reporting system has been developed to track updated controls. Accomplishments toward this goal will be reported in the 2006-2008 cycle.

This program was included in the PART review of the RCRA Base, Permits and Grants Program for FY 2006 which received an overall rating of Adequate. During the PART, EPA developed an efficiency measure that will show, over time, the RCRA facilities under control (permitted)

per the total permitting costs. Included in these costs will be estimates of the permitting costs of the regulated entities plus appropriated dollars for the program, based on a three year rolling average. The baseline is currently under development, and the program anticipates reporting this information in FY 2007.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1,259.7) This reflects an increase for payroll and cost of living for existing FTE.

- (+$834.6) This increase will be used to fund industrial process analyses to support work in providing incentives for increased recycling (e.g., solvents, metals and other targeted waste streams) through regulatory reform, as well as the safe, beneficial use of industrial byproducts as a preference to disposal. This funding will provide technical support to states in incorporating e-permitting tools to expedite and simplify the permitting process.

- (-10.5 FTE) This reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities. This also reflects a redirection of FTE for Energy Policy Act activities.

Statutory Authority:

Solid Waste Disposal Act (SWDA), Section 8001, as amended, Resource Conservation and Recovery Act (RCRA) of 1976 as amended; Public Law-94-580, 42 U.S.C. 6901 et seq. Department of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations Act, Public Law 105-276, 112 Stat. 2461, 2499 (1988).

RCRA: Waste Minimization & Recycling

Program Area: Resource Conservation and Recovery Act (RCRA)
Goal: Land Preservation and Restoration
Objective(s): Preserve Land; Restore Land

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Environmental Performance through Pollution Prevention and Innovation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$10,878.7***	***$11,825.0***	***$12,235.1***	***$410.1***
Total Budget Authority / Obligations	$10,878.7	$11,825.0	$12,235.1	$410.1
Total Workyears	68.7	75.6	74.4	-1.2

Program Project Description:

The Resource Conservation and Recovery Act (RCRA) directs EPA to promote a reduction in the amount of waste generated and to improve recovery and conservation of materials through reducing, reusing, and recycling. The Waste Minimization and Recycling program implemented through the Resource Conservation Challenge (RCC) emphasizes national policy development and leadership to reduce the generation and environmental impacts of materials from businesses, industries, and communities by fostering adoption of more efficient, sustainable, and protective policies, practices, materials, and technologies. These policies are based on a hierarchy of waste management options that advocate reduction, reuse, and recycling over treatment and disposal. The program focuses its efforts on reduction, reuse, and recycling by building on partnerships with other Federal agencies; state, Tribal, and local governments; business and industry; and non-governmental organizations. These voluntary partnerships provide information sharing, recognition, and assistance to improve practices in both public and private sectors.

The RCC contributes to implementation of the President's Climate Change Action Plan and provides information to assess and track progress in reaching national goals. http://www.epa.gov/rcc.

The program implements waste minimization activities that diminish chemicals of most concern to human health and the environment. This approach involves relating chemicals to waste streams and seeks to reduce not only the volume of wastes, but also the toxicity of wastes. Reduction of priority chemicals in waste streams eliminates some of the risk when a waste is mismanaged and released to the environment, where it could persist, bio-accumulate, or be toxic to humans or to the environment. A goal of reducing chemicals in wastes also will lead to safer chemical substitutions and processes upstream, and eliminate occupational exposures to the chemicals of concern.

FY 2007 Activities and Performance Plan:

Municipal Solid Waste

Under the RCC, EPA will concentrate efforts in FY 2007 on attaining the national goal of recycling 35 percent of municipal solid waste (MSW) by 2008. These efforts will incorporate the FY 2007 annual measures of 85.2 million tons of municipal solid waste diverted and maintaining a daily per capita waste generation rate of 4.5 pounds per person.

EPA will concentrate efforts on three large-volume waste categories with the greatest opportunity for recycling: (1) paper (over 35 percent of MSW); (2) organics (food and yard waste combine to over 23 percent of MSW); and (3) packaging and containers (over 10 percent of MSW). These three commodity streams, which represent between 60 percent and 70 percent of the municipal solid waste stream, are key areas on which EPA must focus resources to achieve the national 35 percent recycling goal. EPA is working with a variety of stakeholder groups involved in paper, organics, and packaging and containers to identify and implement collaborative efforts to increase the recycling of these materials.

EPA's WasteWise program, now in its twelfth year, has over 1,400 partners and 250 endorsers. Between 1994 and 2005, WasteWise partners reported diversion of more than 29.6 billion pounds of material from the waste stream through donation and reuse activities. They also reported recycling nearly 174.8 billion pounds of materials. EPA estimates that, as a result of WasteWise's assistance, 24 million metric tons of carbon equivalent were reduced in 2004, equivalent to the annual greenhouse gas emissions from 2.57 million cars.

Industrial Non-Hazardous Waste

Under the RCC, EPA also will continue to pursue collaborative efforts to increase the safe reuse and recycling of industrial byproducts, with resultant benefits of reduced greenhouse gas emissions and energy savings. By working with manufacturers, utilities, government agencies, and transportation and building construction companies, the RCC Industrial Materials Recycling (IMR) effort is currently focusing on three industrial non-hazardous waste streams:

- Coal Combustion Products
- Construction and Demolition Debris
- Foundry Sand.

Performance Assessment: The program was initially assessed under PART in 2004 and received an overall rating of "Adequate" from OMB's PART review. EPA is identifying new baselines and establishing ambitious annual targets for existing municipal solid waste recycling, priority chemical waste minimization, and permitting measures. The program is identifying new measures related to municipal solid waste diversion from landfills and recycling, reuse of both construction and demolition debris and coal ash products. In addition, EPA is developing an efficiency measure for the municipal solid waste portion of the waste minimization program.

The Construction Initiative is a voluntary Federal, state, and private sector outreach collaboration effort to promote the environmentally safe and sound recycling of industrial materials at the largest, most significant upcoming building and transportation construction projects. This initiative encourages the recycling of all three IMR priority materials at developing construction projects. In FY 2007, EPA will move

toward achieving its goal of increasing the recycling rate of industrial materials by attaining commitments from the developers and owners of building and transportation construction projects to use these materials instead of virgin resources.

Priority Chemicals in Waste

In FY 2007, through the National Partnership for Environmental Priorities (NPEP), the Agency will continue to reduce priority chemicals in wastes. The NPEP partners have established goals committing to reduce program priority chemicals in wastes by over 1.4 million pounds and to reduce hazardous chemicals in general by over 2.6 million pounds. EPA will continue to promote the growth of the NPEP, building on the successes achieved by over 70 existing partners. In addition to enrolling new partners, EPA will seek new commitments from existing partners.

Industry has made significant progress in reducing priority chemical releases and their presence in waste. Reported releases have dropped by 53 percent from 147 million pounds in 1991, to 69 million pounds in 2001. EPA has set goals of reducing 31 priority list chemicals from all industrial wastes by 10 percent by 2008 (from a 2001 baseline).

E-Waste

In FY 2007, EPA will continue to address the nation's growing electronics waste stream through partnerships with private and public entities such as Plug-In To eCycling and the Federal Electronics Challenge (FEC). Since its launch of Plug-In To eCycling in 2003, EPA has agreed to participate with more than 19 members in the manufacturing and retail sectors. Through Plug-In, more than 60.2 million pounds of consumer electronics have been collected. In FY 2005, Plug-In partners continued to sponsor collection events, helping to raise consumer awareness about electronics reuse and recycling and increase the number of electronic devices collected. Partners sponsored over 237 events, collecting approximately 15 million pounds.

Also, the FEC grew beyond the pilot stage and officially enrolled 81 Challenge partners, representing 12 Departments/Agencies. So far, the agencies who have committed to the program represent over 80 percent of Federal agency purchasing power for IT equipment. By the end of FY 2007, the goal for the FEC is to have at least 250 partners and/or have 500,000 federal employees covered under the FEC. Environmental targets for the end of FY 2007 include: 3.8 million pound reduction in solid waste; 218,000 pound reduction in hazardous waste; energy savings of 85,000 megawatt hours; and $6.96 million in cost savings.

EPA also will be initiating a "Mercury Roundup" to promote the voluntary early retirement of devices containing mercury. EPA will issue a formal challenge and request to major industrial facilities in FY 2006, urging mercury elimination. Partners will commit to do the following:

- Inventory mercury sources in their facilities and evaluate non-mercury alternatives
- Establish purchasing policies and educate staff
- Collect existing mercury for recycling

By FY 2007, EPA expects to have identified mercury challenge partners and be able to quantify reduction commitments.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Millions of tons of municipal solid waste diverted.	data lag	81	83.1	85.2	million tons

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Daily per capita generation of municipal solid waste.	data lag	4.5	4.5	4.5	lbs. MSW

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of pounds reduced (in millions) in generation of priority list chemicals from 2001 baseline of 84 million pounds.			1.2 million	0.6 million	Pounds

This program was included in the PART review of the RCRA Base, Permits and Grants Program and received an overall rating of Adequate. During the PART, EPA developed an efficiency measure that will show, over time, the total reduction of priority chemicals contained in industrial waste streams per Federal and private sector cost. In FY 2006, EPA will identify and confirm the quality of data sources produced in the private sector to use with this efficiency measure in FY 2007. In addition, EPA is developing a second efficiency measure related to the solid waste recycling/reduction component of this program. This measure will incorporate MSW and costs to recycle those wastes. The program is in the final analysis stage of work on this measure and expects to have the new measure in place for FY 2007.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

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- (+$1,138.2) This reflects an increase for payroll and cost of living for existing FTE.

- (-$728.1) This reduction reflects a concentration of program effort on the three large-volume waste categories - paper, organics, and packaging and containers.

- (-1.2 FTE) This change reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

SWDA; Section 8001 as amended; RCRA of 1976, as amended; Public Law 94-580, 42 U.S.C. 6901 et seq. VA and HUD and Independent Agencies Appropriations Act; Public Law 105-276; 112 Stat, 2461, 2499 (1988).

Program Area: Toxics Risk Review and Prevention

Toxic Substances: Chemical Risk Management
Program Area: Toxics Risk Review and Prevention
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$8,462.3***	***$9,008.0***	***$7,736.5***	***($1,271.5)***
Total Budget Authority / Obligations	$8,462.3	$9,008.0	$7,736.5	($1,271.5)
Total Workyears	48.7	53.8	52.7	-1.1

Program Project Description:

EPA has established national programs to promote reductions in use and safe removal, disposal and containment of certain prevalent, high-risk chemicals that were introduced into the environment before their risks were known. These chemicals include polychlorinated biphenyls (PCBs), mercury, and asbestos/fibers. This program focuses on providing assistance to Federal agencies and others with responsibility for ensuring proper disposal of PCBs, eliminating the use of medical devices containing mercury, and implementing statutory requirements to address asbestos risks in schools.

FY 2007 Activities and Performance Plan:

Polychlorinated Biphenyls (PCBs)

EPA will continue to work with the U.S. Navy to develop a national approval for the reefing of ships and the Maritime Administration (MARAD) to dispose of its fleet of obsolete ships which contain equipment using PCBs. In addition, the Agency will continue to work with the Department of Defense to approve the disposal via incineration of PCBs in nerve agent rockets. The focus of activity in 2007 will be to continue monitoring compliance with the conditions of the PCB disposal approvals.

EPA will continue to ensure that PCB waste is properly stored and disposed, and that PCB remediation sites are cleaned up correctly. Specific activities include advising the regulated community on PCB remediation, reviewing and acting on PCB disposal applications, and overseeing PCB permitted storage and disposal facilities.

EPA will provide technical assistance to Congress to support the development of legislation to facilitate the U.S. ratification of the Stockholm Convention, which was signed by the U.S. on May 23, 2001 and which entered into force without U.S. ratification on May 17, 2004. Upon ratification, EPA will, among other requirements, take action towards the elimination of PCBs in certain equipment by 2025.

Mercury

EPA will explore opportunities to partner with others to reduce the quantity of mercury in products and the associated municipal waste streams. For enhancing mercury risk communication, the Agency will develop tools for educating different audiences about the risks of eating mercury-contaminated fish and wildlife. EPA's Hospitals for a Healthy Environment (H2E) Program, working to eliminate mercury-containing products in health care facilities, will transition to industry.

Asbestos/Fibers

EPA will continue its scientific research on asbestos. The Agency will continue its outreach and technical assistance for the asbestos program for schools, in coordination with other Federal agencies, states, the National Parent-Teachers Association, and the National Education Association.

EPA will also continue to provide oversight and regulatory interpretation to delegated state and local asbestos demolition and renovation programs, respond to tips and complaints regarding the Asbestos-in-Schools Rule, respond to public requests for assistance, and help asbestos training providers to comply with the Model Accreditation Plan requirements. For more information, visit www.epa.gov/oppt.

Performance Targets:

Work under this program supports EPA's objective to prevent and reduce pesticide, chemical, and genetically engineered biological organism risks to humans, communities, and ecosystems. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$39.0) This reflects an increase for payroll and cost of living for existing FTE.

- (+$137.1) This change will support EPA's role in assisting MARAD and DOD in their work to safely decommission naval vessels and incinerate retired weapons containing PCBs.

- (-$500.0) This reflects disinvestment in EPA's Sustainable Futures Program, which promotes voluntary pre-screening of new chemicals by companies before they are submitted to the Agency under the Pre-Manufacture Review (PMN) Program. Performance is expected to be maintained, however, by transferring to industry responsibility for providing necessary training in the use of EPA's chemical risk screening tools. Resources are redirected to the lead risk reduction program.

- (-$947.6) This reflects disinvestments in components of the Persistent Bioaccumulative Toxics Initiative, including all EPA funding for the Hospitals for a Healthy Environment (H2E) Program and EPA's efforts to promote the premature retirement and safe disposal

of PCB-contaminated electrical equipment. There will be no performance impacts associated with the reduced funding for the H2E Program because the American Hospitals Association will take on increased responsibility for managing this successful initiative. EPA's performance targets for retirement and EPA's performance targets for safe disposal of PCB-containing capacitors and transformers are reduced to zero. While EPA's long-term goal for this PCB performance measure will not be achieved, the program will continue its role in permitting and monitoring the safe disposal of PCBs at disposal facilities.

- (-1.1 FTE) This decrease reflects a change in EPA's workforce as part of a management strategy that will help us better align resources, skills, and Agency priorities.

Statutory Authority:

TSCA; ASHAA; AHERA; AIA.

Toxic Substances: Chemical Risk Review and Reduction
Program Area: Toxics Risk Review and Prevention
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$45,781.1***	***$46,542.0***	***$44,637.0***	***($1,905.0)***
Total Budget Authority / Obligations	$45,781.1	$46,542.0	$44,637.0	($1,905.0)
Total Workyears	246.7	245.0	244.1	-0.9

Program Project Description:

This program spans the full range of EPA activities dealing with review of new and existing chemicals, including the High Production Volume Challenge (HPV) and Voluntary Children's Chemical Evaluation (VCCEP) Programs. These activities focus on reviewing and, as necessary, reducing the health and environmental risks of new chemicals introduced into the United States marketplace as well as chemicals already in commerce. The program works to prevent unreasonable risks from new chemicals, reduce chronic human health risks from industrial releases, and increase the efficiency of risk reduction efforts.

2007 Activities and Performance Plan:

New Chemicals Program

In FY 2007, EPA will continue its successful record of preventing the entry of chemicals that pose unreasonable risk of injury to human health or the environment into the U.S. market. Each year EPA's New Chemicals Program reviews and manages the potential risks from approximately 1,700 new chemicals and 40 products of biotechnology that enter the marketplace. To measure performance under this program, EPA adopted a long-term GPRA/PART measure in its 2008 Strategic Plan establishing a "zero tolerance" performance standard for the number of new chemicals or microorganisms introduced to commerce that pose an unreasonable risk to workers, consumers or the environment. In response to a PART recommendation, EPA is introducing in FY 2007 a corresponding annual performance GPRA/PART measure that more specifically quantifies the goal of allowing no chemicals into commerce that pose unreasonable risk.

Performance Assessment: EPA's Existing Chemicals and New Chemicals Programs underwent PART review in FY 2002 and again in FY 2003. The Existing Chemicals Program received an "adequate" rating. EPA's New Chemicals Program received a "Moderately Effective" rating. The PART reviews recommended that EPA develop efficiency measures for both programs. The Agency is fulfilling these recommendations by introducing two new efficiency measures and accompanying targets in the FY 2007 Budget Justification and Request: Cost of Post-Focus Meeting Action on Pre-Manufacture Notices; Cost of Developing Proposed Acute Exposure Guideline Levels (AEGLs).

Nanoscale Materials

EPA is developing a stewardship program for new and existing nanoscale materials that are subject to TSCA requirements. Information from this program will enable the public to gain a better understanding of risk-related issues and will allow EPA to obtain further experience in the evaluation of such substances. Please see "Existing Chemicals Program," below, for more information on EPA's approach to evaluating and managing chemicals already in commerce at TSCA's enactment.

Existing Chemicals Program

The Agency anticipates a significant amount of activity in 2007 centered on the receipt of data pursuant to the Toxic Substances Control Act (TSCA) Inventory Update Rule (IUR) during the latter part of 2006. A large number of 2006 IUR reports will be submitted in electronic format, but there will be a significant number of paper reports that will need to be entered into the IUR database manually. Additionally, the Agency will improve connectivity with other databases using IUR identifiers such as the Chemical Abstract Services (CAS) number. The CAS appears in most chemical-specific databases and is the internationally-recognized standard method for identifying chemicals.

In FY 2007, EPA will continue its efforts to assess and, if indicated, manage risks associated with brominated flame retardants (BFRs) which are used to enhance fire safety in furniture, fabrics, plastics, consumer electronics and wire insulation. EPA is engaged with stakeholders to evaluate the efficacy and potential risks of new alternative flame retardants, in order to assure that lower risk products are available to meet the important public safety need for flame retardant products. EPA will evaluate and implement perfluorooctanoic acid (PFOA) risk management actions, as indicated by the results of ongoing risk assessment and testing under enforceable consent agreements. In 2007, final reports are due on results from the fluoropolymer and fluorotelomer incineration testing Enforceable Consent Agreements (ECAs), and EPA's Research and Development program will continue telomer biodegradation testing. Additionally, the final Perfluoralkyl Sulfonates (PFAS) Significant New Use Rule (SNUR) will be promulgated. Also, the Agency recently began discussions with a cadre of U.S. companies involved in the fluorochemical manufacturing, processing and user industries to commit to:

- Reduce the releases of PFOA and its precursors to the environment; and

- Continue to improve global understanding of the toxicity, fate, and current and historic exposure of humans and the environment to these chemicals.

The GPRA/PART long-term and annual performance measures for the Existing Chemicals program target an annual percent reduction in a relative risk index for chronic human health associated with environmental releases of industrial chemicals in commerce, as calculated by EPA's Risk Screening Environmental Indicators (RSEI) model. All of EPA's activities in the Existing Chemicals Program contribute to achievement of these annual and long-term goals, which were first introduced in EPA's 2008 Strategic Plan in response to the 2004 Existing Chemicals PART.

High Production Volume (HPV) Challenge Program

In FY 2007, EPA will continue to focus its efforts on making basic screening level hazard data on high production volume chemicals available to the public. The data will be available and searchable through EPA's High Production Volume Information System (HPVIS). EPA will be in the process of screening data submitted under the HPV Challenge Program and identifying chemicals of potential concern that may require additional work, currently anticipated to involve 5 to 10 percent of screened chemicals. Additionally, EPA will be working to accommodate the submission of health and safety data on chemicals identified through the recently announced industry-led Expanded High Production Volume Challenge Program (EHPV).

EPA will continue its participation in the international Organization for Economic Cooperation and Development (OECD) Screening Information Data Set (SIDS) program along with other OECD member countries. EPA plans to complete the review of 50 chemicals and initiate review on at least 15 more.

Voluntary Children's Chemical Evaluation Program (VCCEP)

In FY 2007, EPA will continue its review of chemicals that may pose risks to children. Using the information gathered from the interim evaluation of VCCEP, EPA will work with stakeholders to adjust the program to most efficiently target VCCEP to meet its goals.

Acute Exposure Guideline Levels (AEGLs)

AEGL values are used by first responders in dealing with chemical emergencies. In FY 2007, EPA's Acute Exposure Guideline Level (AEGLs) program plans to develop Proposed AEGL values at the rate of 24 additional chemicals per year. Following September 11, 2001, investment in AEGL extramural funds in the Homeland Security: Preparedness, Response and Recovery Program/Project have supported acceleration of AEGLs development, with annual performance targets increasing from 15 to 24 additional chemicals per year.

EPA has developed a new GPRA/PART efficiency measure for the AEGL program that will enable the Agency to track changes from year to year in the cost it incurs per chemical for which a proposed AEGL data set is developed. EPA costs are adjusted to reflect the estimated percentage of resources spent on *proposed* AEGLs. The measure is tied to proposed, rather than final, AEGL data sets for these reasons:

- Proposed values are suitable for many purposes;
- Actions through the proposal stage of the AEGL development process are largely under EPA's control, whereas actions to finalize AEGLs are controlled more by the National Academies of Science; and
- The program's annual and long-term outcome measures are based on development of proposed AEGL values.

For more information, please visit www.epa.gov/oppt.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Cumulative number of chemicals with proposed, interim, and/or final values for Acute Exposure Guideline Levels (AEGL).	70%	52%	145	163	Total Chemicals

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Reduction in the current year production-adjusted risk-based score of releases and transfers of toxic chemicals.	0%	2%	3%	3%	% RSEI rel risk

The Acute Exposure Guideline Levels (AEGLs) measure demonstrates EPA's ability to deal with threats of chemical terrorism and assist with Homeland Security. EPA's efficiency measure target for FY 2007 calls for a two percent cost savings to be achieved. The target is measured as a two percent reduction in EPA's cost per chemical for which a proposed AEGL data set is developed. This reduction goal assumes a FY 2006 baseline value of $34,857, using projected cost data for that fiscal year.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$611.5) This reflects an increase for payroll and cost of living for existing FTE.

- (+$222.9) This increase will support EPA's implementation of a new voluntary stewardship program for new and existing substances that are nanoscale materials. Information from this program will enable the public to gain a better understanding of risk-related issues and will allow EPA to obtain further experience in the evaluation of such substances.

- (-$500.0) This reflects disinvestment in EPA's Sustainable Futures Program, which promotes voluntary pre-screening of new chemicals by companies before they are submitted to the Agency under the Pre-Manufacture Review (PMN) Program. Performance is expected to be maintained, however, by transferring to industry responsibility for providing necessary training in the use of EPA's chemical risk screening tools. Resources are redirected to the lead risk reduction program.

- (-$2,239.4) This decrease will return the HPV program to its previous planned pace for making basic screening level hazard data obtained through the HPV Challenge Program

on new emerging high production volume chemicals available to the public and in screening those data to identify chemicals of potential concern that may require additional work. The pace for those two activities was accelerated in FY 2006 in response to increased Congressional appropriation beyond the level requested in the FY 2006 President's Budget.

- (-0.9 FTE) This decrease reflects a change in EPA's workforce as part of a management strategy that will help us better align resources, skills, and Agency priorities.

Statutory Authority:

TSCA.

Endocrine Disruptors
Program Area: Toxics Risk Review and Prevention
Goal: Healthy Communities and Ecosystems
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$8,696.4***	***$8,767.0***	***$7,985.4***	***($781.6)***
Total Budget Authority / Obligations	$8,696.4	$8,767.0	$7,985.4	($781.6)
Total Workyears	18.6	15.5	14.0	-1.5

Program Project Description:

The Endocrine Disruptor Screening Program (EDSP) establishes policies, procedures and rules for implementing the endocrine effects screening authorities of the Food Quality Protection Act (FQPA) and Safe Drinking Water Act (SDWA). The program evaluates and validates approximately a dozen scientific test methods for routine, ongoing use in evaluating pesticides and other chemicals to determine their potential for adverse health or environmental effects by interfering with normal endocrine system function.

FY 2007 Activities and Performance Plan:

In FY 2007, the EDSP will complete the validation of three assays that will identify the ability of chemicals to interact with the endocrine system, and submit the results for scientific peer review. The Agency will generate and release a list of the first chemicals to be tested in the program. EPA will continue to move forward on the validation of in-depth, longer-term assays that can confirm the ability of chemicals to interact with the endocrine system and which will provide information that can be used in risk assessment. This effort will leverage international interest in validation of endocrine disruptor assays where possible to minimize costs incurred by the U.S. and to maximize international harmonization of test guidelines while maintaining scientific integrity.

Performance Assessment: The Endocrine Disruptor program underwent PART evaluation in calendar year 2004 and received a rating of "Adequate." The assessment found that the program is free of major design flaws, has a clear purpose, and is reasonably well-managed. The Agency is working to improve program performance measures, and to better articulate research and development priorities.

The EDSP also expects to release the Regulatory Framework of the Endocrine Disruptor Screening Program in FY 2007. All of these activities further the goal of protecting communities from the harmful effects of substances in the environment which may adversely affect health through specific hormonal effects.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative number of screening assays that have been validated.			11	14	Assays

This program's performance measures are outputs that represent the progress toward completing the validation of endocrine test methods. The measures track progress through each stage of the process rather than reporting only the end product.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$56.1\-1.5 FTE) This decrease reflects a change in EPA's workforce as part of a management strategy that will help us better align resources, skills, and Agency priorities.

- (+$42.9) This increase will support activities including contracts, grants, and expenses for endocrine disruptor activities.

- (-$768.4) This reduction reflects a shift to other Agency priorities and will delay validation of two assays while evaluation efforts continue to move forward.

Statutory Authority:

RCRA; CERCLA; SARA; OPA; SDWA; CAA; CWA; TSCA; FIFRA; FQPA; EPCRA; ODA; PPA.

Toxic Substances: Lead Risk Reduction Program
Program Area: Toxics Risk Review and Prevention
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$13,280.9***	***$10,162.0***	***$11,367.6***	***$1,205.6***
Total Budget Authority / Obligations	$13,280.9	$10,162.0	$11,367.6	$1,205.6
Total Workyears	79.7	83.6	82.9	-0.7

Program Project Description:

EPA's Lead Risk Reduction Program alleviates the threat to human health – particularly to young children – posed by exposure to lead-based paint and other sources of lead in the environment. The Agency is working to maintain a national infrastructure of trained and certified lead remediation professionals; establish hazard control methods and standards to ensure that homeowners and others have access to safe, reliable and effective methods to reduce lead exposure; and provide information to housing occupants so they can make informed decisions about lead hazards in their homes.

EPA's *Strategic Plan* includes a strategic target for reducing the number of childhood lead poisoning cases to 90,000 by 2008, from approximately 400,000 cases in 1999/2000. This target was set at a level designed to support achievement of the interagency goal calling for elimination of childhood lead poisoning by 2010 set by the President's Task Force on Environmental Health and Safety Threats to Children.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Lead program provides human health standards, abatement program national oversight and certification and training, notification standards, and public outreach and education for lead hazards. The program underwent its first PART in FY 2005, receiving a Moderately Effective rating. In response to the PART, EPA is introducing a new long-term measure and annual results measure (Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old), and a new efficiency measure (Annual percentage of lead-based paint certification and refund applications that require less than 40 days of EPA effort to process) in the FY 2007 Budget Justification and Request. In FY 2007, EPA will be implementing PART-recommended Improvement Plans to improve the consistency of grantee and regional accountability mechanisms, ensure a clear link between program goals and resource allocations, and target program resources and activities on populations that face a significant risk of being exposed to lead.

EPA is developing a comprehensive program, which will be ongoing through FY 2007, to address lead hazards created by renovation, repair and painting activities in homes with lead-based paint. The program will be focused on promulgating a final regulation to address lead-safe work practices for renovation, remodeling and painting activities.

The Agency will continue to conduct limited education and outreach to the public on the hazards of lead-contaminated paint, dust and soil; implement existing lead hazard reduction regulations; and provide technical and policy assistance to states, Tribes, and other Federal agencies. In addition, EPA will continue to provide support for the National Lead Information Center to disseminate information primarily in electronic form. The Lead Risk Reduction Program has a companion STAG program, "Lead Categorical Grant." See the *Categorical Grant: Lead* program project fact sheet for more information. Taken together, these programs contribute to common strategic targets and annual performance goals. For more information, visit www.epa.gov/oppt.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Annual percentage of lead-based paint certification and refund applications that require less than 40 days of EPA effort to process.	69%	60%	71%	72%	% Certif/Refund

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old.			29%	29%	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of cases of children (aged 1-5 years) with elevated blood lead levels (>10ug/dl).			216,000	199,000	children

Remaining number of cases of children (aged 1 to 5 years) with elevated blood lead levels (>10 ug/dL)

This annual performance measure tracks the number of children aged 1 to 5 years with elevated blood lead levels (> or = 10 ug/dL). Data is collected from the Centers for Disease Control and Prevention's (CDC) National Health and Nutrition Examination Survey (NHANES). NHANES is recognized as the primary database in the United States for national blood lead statistics. Data

is collected on a calendar year basis, and released to the public in two-year data sets. In 2005, the CDC updated 1999/2000 estimates released in 2003 using a four-year data set (1999-2002), to provide a larger sample size.

1999-2000 NHANES data released in January of 2003 estimated 434,000 children with elevated blood lead levels, a steep reduction of the estimate of more than 900,000 cases in the early 1990s. The Center for Disease Control (CDC) updated the 2003 estimate in May of 2005 using a four-year data set, 1999 to 2002, to provide a larger sample size to increase the reliability of the estimate given the declining number of children with lead poisoning[33]. The revised estimate for the 1999 to 2002 period is 310,000 cases of children with elevated blood lead levels, demonstrating continued progress towards EPA's 2008 Strategic Target to reduce such incidence to 90,000 cases and the national goal to virtually eliminate childhood lead poisoning by 2010. However, the revised CDC estimate also showed a slower rate of progress, reflecting increased challenges associated with reaching the remaining vulnerable populations.

Budget reductions enacted in FY 2005 and FY 2006 required decreases to annual performance targets to 9,000 cases of elevated blood levels per year. EPA's budget request for FY 2007 includes a $1.2 million increase for the Lead Program, with a corresponding increase in the annual performance target from 9,000 to 17,000 cases reduced per year.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$635.6) This reflects an increase for payroll and cost of living for existing FTE.

- (+$570.0) This increase will support implementation of the anticipated final Lead-Based Paint Renovation, Repair and Painting rule. This also reflects a redirection of resources from the chemical risk review and reduction program. Resources will support lead risk reduction education and outreach.

- (-0.7 FTE) This decrease reflects a change in EPA's workforce as part of a management strategy that will help us better align resources, skills, and Agency priorities.

Statutory Authority:

TSCA.

[33] Morbidity and Mortality Weekly Report, May 27, 2005.

Pollution Prevention Program
Program Area: Toxics Risk Review and Prevention
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Environmental Performance through Pollution Prevention and Innovation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$15,889.3***	***$16,621.0***	***$21,292.4***	***$4,671.4***
Total Budget Authority / Obligations	$15,889.3	$16,621.0	$21,292.4	$4,671.4
Total Workyears	87.3	87.5	86.8	-0.7

Program Project Description:

The Pollution Prevention Program is one of EPA's primary tools for encouraging environmental stewardship by the Federal government, industry, communities, and individuals, both domestically and globally. The program employs a combination of collaborative efforts, innovative programs, and technical assistance and education to support stakeholder efforts to minimize and prevent adverse environmental impacts. For more information, please visit http://www.epa.gov/p2/.

EPA's *2003-2008 Strategic Plan* established a number of long-term strategic targets for EPA's pollution prevention program:

- Promoting "green" Federal government operations in purchases of more environmentally friendly products and services from a baseline year of 2002;

- Ensuring that all Federal agencies have defined EPP programs, have policies in place, and expand their purchases of available "green" products and services; and

- Reducing pollution by 76 billion pounds, conserving 360 billion BTUs of energy and 2.7 billion gallons of water, and achieving environmentally-related business cost savings of $400 million from 2003 levels (targets expanded from original Green Chemistry Program PART measures to reflect results to be achieved by all P2 programs in this Program/Project).

FY 2007 Activities and Performance Plan:

Following the 2003 New Chemicals PART, the program embarked on an ambitious evaluation of performance measures resulting in considerable improvement to the existing suite of measures.

Environmentally Preferable Purchasing (EPP) Program:

The goal of this program is to have the Federal government serve as a model to others for environmental stewardship. In FY 2007, EPA will continue to provide leadership to implement EPP efforts in partnership with other Federal agencies, notably to continue to implement and measure benefits of the Federal Electronics Challenge, promote the use of the Electronics Products Environmental Assessment Tool (EPEAT), a procurement tool designed to help institutional purchasers compare and select desktop computers, laptops and monitors based on environmental attributes; enhance guidance to the Federal building community on model green construction specifications; provide tools and guidance to Federal purchasers on green janitorial products and services; and continue partnership with the National Park Service to "green" operations at national parks. For more information, visit http://www.epa.gov/oppt/epp/about/about.htm.

Green Suppliers Network:

Through this program, EPA partners with large manufacturers to help small suppliers identify opportunities to "lean and green" their operations, thus saving money and preventing pollution. The Green Suppliers Network will continue to partner with the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership program, expanding the service offerings for the participating suppliers to include health and safety and energy efficiency assistance. For more information, visit http://www.epa.gov/p2/programs/gsn.htm.

Green Chemistry:

This program emphasizes the development of new chemistries that reduce cost, eliminate the need for potentially dangerous processes, and eliminate or reduce hazardous waste and end-of-pipe controls. The Green Chemistry Program (GCP) will continue to administer the Presidential Green Chemistry Challenge and will focus on the development of environmentally preferable substitutes for chemicals of concern such as brominated flame retardants used in flexible foam, perfluorinated acids, and other chemicals which are persistent in the environment and capable of accumulating in animal, fish, and human tissue. For more information, visit http://www.epa.gov/opptintr/greenchemistry/.

Design for the Environment/Green Engineering:

This program promotes opportunities for pollution prevention and stewardship in the design and use of chemical products and formulations. The Design for the Environment (DfE) Program will continue collaborating with industry and non-governmental organizations to reduce risk from chemicals. The program will encourage the use of voluntary best practices to reduce risks to workers and communities now exposed to significant levels of diisocyanates (the leading cause of occupational asthma). DfE will work with EPA's Air Program to integrate best practices into local source regulations.

DfE will leverage partnerships with the electronics, wire and cable, polyurethane foam, chemical product formulation, and furniture industries to help move these industries toward the

manufacture, processing and use of safer chemicals, to reduce the potential product liabilities that these industries face, and to reduce the potential for risk to human health and the environment. DfE partnerships will help these industries move away from substances that are considered health and environmental hazards, including lead, chromium, diisocyantates, and certain flame retardants, and to ensure the transition to alternative chemical substances that are toxicologically safer. DfE partnerships also promote the adoption of work place practices that reduce or eliminate the use of and/or exposure to hazardous substances.

EPA expects these new partnership targets to produce measurable results, such as the replacement of approximately 18.7 million pounds of flame retardants and as much as 176 million pounds of lead per year with safer alternatives. In FY 2007, the related Green Engineering Program will continue partnerships with industries, states, regions and other interested parties to apply green engineering approaches on specific industrial projects and continue to identify and leverage resources with other interested organizations. For more information, visit http://www.epa.gov/dfe/ and http://www.epa.gov/oppt/greenengineering/index.html.

The related Green Engineering Program will continue partnerships with industries, states, regions and other interested parties to apply green engineering approaches on specific industrial projects and continue to identify and leverage resources with other interested organizations. For more information, visit http://www.epa.gov/dfe/ and http://www.epa.gov/oppt/greenengineering/index.html.

EPA is requesting an additional $1.5 million in FY 2007 for contract support to address key environmental impacts in the electronics lifecycle by:

- Convening a cross-Agency, cross-media effort to explore alternative flame retardants for printed wiring boards, with a goal of reducing use of chemicals of concern by over 330 million pounds per year.
- Developing a new industry-requested Green Chemistry Program that would focus the creativity of industry on finding solutions to priority emerging chemical issues in electronics.
- Making EPEAT the recognized standard internationally and expanding its reach to leverage the purchasing power beyond government to other institutional purchasers.
- Engaging electronic manufacturers to green their supply chain through the Green Suppliers Network Program.

EPA is requesting an additional $500,000 in FY 2007 for contract support to expand efforts to apply pollution prevention techniques in protecting sensitive populations from chemical risks, specifically the serious issue of children's environmental health in schools. EPA will provide comprehensive, easily accessible information and guidance to schools on how to reduce potentially harmful exposures to pollutants in schools.

EPA is also requesting an additional $2.8 million in FY 2007 for contract support for expanded work by the Green Suppliers Network, Environmentally Preferable Products, Design for the Environment, and Green Chemistry Challenge Programs to promote source reduction as the

preferred approach for reducing pollution, accelerating progress towards these program's long-term strategic targets.

Performance Targets:

The only PART-approved performance measures associated with the Pollution Prevention Program are those associated with EPA's Presidential Green Chemistry Awards Program, which was included in the 2002 and 2003 New Chemicals Program PART. This program promotes the research, development, and implementation of innovative chemical technologies that accomplish pollution prevention in a scientifically sound and cost-effective manner. To accomplish these goals, the Green Chemistry Program recognizes and supports chemical technologies that reduce or eliminate the use or generation of hazardous substances during the design, manufacture, and use of chemical products and processes.

The Pollution Prevention Program is planning to expand upon this set of PART-approved performance measures in future PART assessments to target and document a broader range of the program's environmental benefits and to increase the ambitiousness of future targets by integrating results contributions from additional program components included in the Pollution Prevention Program/Project, including the Green Supplier Network, Design for the Environment, Environmentally Preferable Purchasing, Hospitals for a Healthy Environment, and Regional Technical Assistance programs. Work under this program supports pollution prevention and innovation. Currently, there are no PART performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$150.8) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$1,500.0) This increase will support a new EPA initiative to address key environmental impacts in the electronics life cycle by exploring alternative flame retardants for printed wiring boards, reducing use of chemicals of concern by over 330 million pounds per year; finding solutions to priority emerging chemical issues in electronics, such as mercury in flat panel backlights and perfluorinated chemistries in wire and cable; expanding the reach of the Electronics Products Environmental Assessment Tool (EPEAT) to leverage the purchasing power beyond government to other institutional purchasers and making EPEAT the recognized standard internationally; and engaging electronic manufacturers to green their supply chains.

- (+$500.0) This reflects additional support for the Schools Initiative under the Sensitive Populations Initiative. Resources will apply environmental management system (EMS) approaches to a broad range of environmental issues in schools, including cleanout efforts to remove toxic chemicals.

- (+$2,822.2) This increase will support expanded work by the Green Suppliers Network, Environmentally Preferable Products, Design for Environment and Green Chemistry Challenge Programs to promote source reduction as the preferred approach for reducing pollution, accelerating progress towards these program's long-term strategic targets.

- (-0.7 FTE) This decrease reflects a change in EPA's workforce as part of a management strategy that will help us better align resources, skills, and Agency priorities.

Statutory Authority:

PPA; TSCA.

Program Area: Underground Storage Tanks (LUST / UST)

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$6,459.2***	***$7,763.0***	***$11,713.7***	***$3,950.7***
Leaking Underground Storage Tanks	$10,146.4	$10,514.0	$10,590.1	$76.1
Total Budget Authority / Obligations	$16,605.6	$18,277.0	$22,303.8	$4,026.8
Total Workyears	112.5	114.1	131.3	17.2

Program Project Description:

EPA works with states, Tribes and Intertribal Consortia to prevent, detect, and correct leaks into the environment from Federally-regulated underground storage tanks (USTs) containing petroleum and hazardous substances. Achieving significant improvements in release prevention and detection requires a sustained emphasis by both EPA and its partners. Potential adverse effects from the use of contaminants of concern (e.g., methyl-tertiary-butyl-ether, or MTBE) in gasoline further underscores EPA's and the states' emphasis on promoting compliance with all UST requirements. EPA provides technical information, forums for information exchanges and training opportunities to states, Tribes and Intertribal Consortia to encourage program development and/or implementation of the UST program (see http://www.epa.gov/OUST/20comply.htm and http://www.epa.gov/OUST/20tnkprf.htm).

The states are the primary enforcers of the UST program requirements. EPA has adopted a decentralized approach to UST program implementation by building and supporting strong state and local programs. Although EPA is responsible for implementing the UST program in Indian country, the Agency is working with Tribes to strengthen their own UST programs. EPA uses its EPM funding in the UST program primarily to improve compliance. EPA will use EPM funds to carry out EPA's responsibilities under the Underground Storage Tank Compliance Act of 2005 (USTCA), which was enacted as Title XV, Subtitle B of the Energy Policy Act of 2005. For statutory reasons, in FY 2007, appropriations from the Leaking Underground Storage Tank (LUST) Trust Fund will not be available to EPA to implement the release prevention and detection provisions in the USTCA.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will begin implementation of the release prevention activities required by the USTCA. These activities include conducting inspections and implementing grant guidelines for implementing fuel deliveries at noncompliant UST facilities. As specified in the USTCA, EPA is required to conduct on-site inspections in Indian country and in Idaho (where EPA is the lead agency) of all tanks not inspected since 1998. EPA will also implement the UST Tribal strategy developed in FY 2006 in Indian Country.

EPA will continue to work with states and industry to improve UST systems performance based on the results of the UST systems evaluation work, e.g., causes of leaks to dispensers. The Agency will also continue to monitor UST systems performance and assess certain aspects of the performance of UST systems in more detail.

To help states and Tribes implement the UST prevention program, EPA will provide web-based training modules that address topics such as cathodic protection, leak detection, spill containment, and overfill protection components of the UST system. The training modules at http://www.epa.gov/swerust1/virtual.htm will provide UST inspectors with core and advanced knowledge on how to inspect an UST system.

In FY 2007, EPA will continue to promote cross-media opportunities, e.g., targeted public health protection through the UST and Source Water Protection Programs, support for core development and implementation of state and Tribal UST programs; strengthening partnerships among stakeholders; and providing technical assistance, compliance assistance, and training to promote and enforce UST facilities' compliance. The Agency and states will continue to use innovative compliance approaches, along with outreach and education tools, to bring more tanks into compliance and to prevent releases, saving over $100,000 in cleanup costs for each release prevented. EPA also will provide guidance to encourage the use of new technology to enhance compliance. For example, the presence of MTBE in gasoline increases the importance of preventing and rapidly detecting releases, since MTBE contamination can increase cleanup costs by 25% to more than 100%.

EPA has the primary responsibility for implementation of the UST Program in Indian Country. Grants under P.L. 105-276 will continue to help Tribes develop the capacity to administer UST programs. For example, funding is used to support training for Tribal staff, educate owners and operators in Indian Country about UST requirements, and maintain information on USTs located in Indian Country.

EPA provides technical information, forums for information exchanges and training opportunities to states, Tribes and Intertribal Consortia to encourage program development and/or implementation of the UST program. See http://www.epa.gov/OUST/20comply.htm and http://www.epa.gov/OUST/20tnkprf.htm

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of confirmed UST releases nationally.	7,421	<10,000	<10,000	<10,000	UST releases

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent increase of UST facilities that are in significant operational compliance with both release detection and release prevention (spill, overfill, and corrosion protection requirements).	2	+1	+1	+1	percent

At the end of FY 2005, EPA exceeded its goal of a one percent increase of UST facilities in operational compliance with both release detection and release prevention (spill, overfill, and corrosion protection) requirements by achieving a two percent increase (from 64 percent at the end of FY 2004 to 66 percent at the end of FY 2005) of the estimated universe of approximately 246,650 UST facilities. [34] In FY 2007, through its compliance activities, the program will strive to maintain the number of confirmed releases at UST facilities to 10,000 or fewer. The actual number of confirmed releases in FY 2005 was 7,421.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.4 FTE) This reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.
- (+18.1 FTE) This increase is to implement Energy Policy Act activities including regulatory and guidance activities.
- (+$2,364.4) Increase for payroll for additional FTE to implement the Energy Policy Act.
- (+$1,586.3) This increase is to implement Energy Policy Act activities including regulatory and guidance activities.

Statutory Authority:

Solid Waste Disposal Act (SWDA) of 1976, as amended by the Superfund Reauthorization Amendments of 1986 (Subtitle I); Section 8001(a); Tribal Grants: PL 105-276.

[34] **U.S. Environmental Protection Agency Memorandum, *FY 2005 Semi-Annual End-of-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division Directors, Regions 1-10, dated December 15, 2005.** http://www.epa.gov/swerust1/cat/ca_05_34.pdf

Program Area: Water: Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$13,946.6***	***$28,989.0***	***$49,600.0***	***$20,611.0***
Total Budget Authority / Obligations	$13,946.6	$28,989.0	$49,600.0	$20,611.0
Total Workyears	0.8	0.0	0.0	0.0

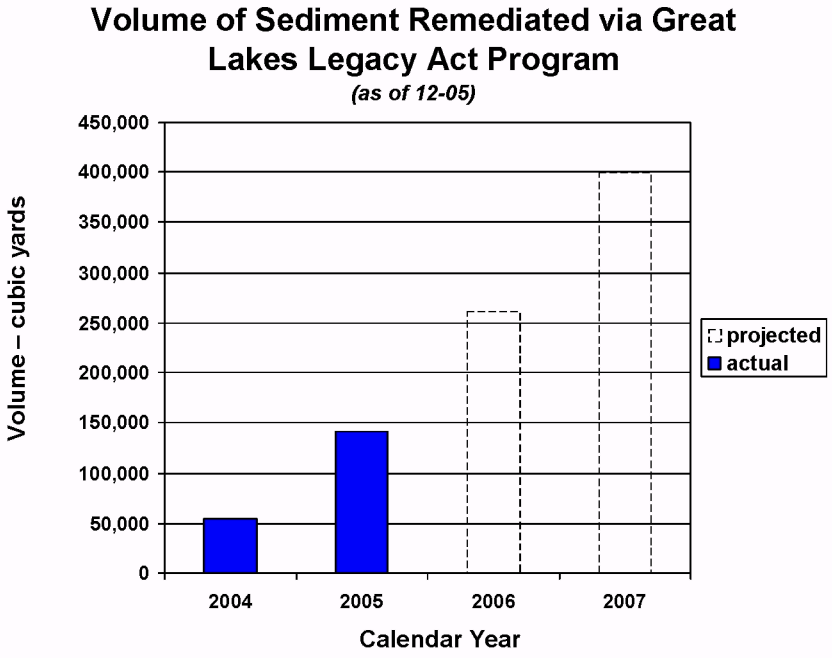
Program Project Description:

The Great Lakes Legacy Act Program cleans up contaminated sediments in the 31 U.S. or bi-national Great Lakes Areas of Concern (AOCs). The Great Lakes Legacy Act targets resources to clean up contaminated sediments, a significant source of Great Lakes toxic pollutants that can impact human health via the bio-accumulation of toxic substances through the food chain. Contaminated sediments are the cause of or significantly contribute to as many as 11 of the 14 impairments to beneficial uses (including restrictions on fish consumption due to high contaminant levels in fish tissue) in AOCs.[35] A quantitative estimate of the impact on fish tissue contamination is not available, however sediment remediation activities will contribute to the reduction of PCBs and other contaminants by removing significant quantities of contaminants (or by capping to reduce biological availability to contaminants).

FY 2007 Activities and Performance Plan:

In FY 2007, the fourth year of the program, EPA expects to support four to six projects for remediation. These projects will result in cleaning up of some half million cubic yards of contaminated sediments over the expected 6 month to 2 year project lifetime. As part of each Legacy Act sediment remediation project, a long-term monitoring program will be instituted, partly to monitor ecological recovery. In FY 2006 EPA will issue Great Lakes Legacy Act program regulations, which will outline how resources will be used and projects prioritized to remediate contaminated sediments in the Great Lakes AOCs.
Legacy Act information is posted to http://www.epa.gov/glnpo/sediment/legacy/index.html.

[35] International Joint Commission – Sediment Priority Action Committee, Great Lakes Water Quality Board. 1997. *OVERCOMING OBSTACLES TO SEDIMENT REMEDIATION in the Great Lakes Basin.* *http://www.ijc.org/php/publications/html/sedrem.html*.



[36] Source: USEPA – Great Lakes National Program Office, December 2005

Reporting in 2007 is expected to show that EPA and its partners will have remediated a cumulative total of 4.2 million cubic yards of contaminated sediments since tracking began in 1997. Remediation from Legacy Act projects will contribute to this growing total. 200,000 cubic yards were remediated through the Legacy Act in 2004 and 2005, and EPA estimates that in 2006 and 2007, Legacy Act projects will remediate over 650,000 cubic yards of contaminated sediments.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Restore and delist Areas of Concern (AOCs) within the Great Lakes basin	0	3	3	4	AOC

[36] *Volume of Sediment Remediated in the Great Lakes Legacy Act Program, January 2007.* Available from Great Lakes National Program Office Sediment Files.

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cubic yards (in millions) of contaminated sediment remediated in the Great Lakes. (cumulative from 1997)	3.7 M	2.9 M	4.0 M	4.5 M	Cubic yards

Sediment remediation in the U.S. portion of the Great Lakes in recent years has varied from 134,000 cubic yards in 1997 to 975,000 cubic yards in 2003, with year-to-year variances of 3,000 cubic yards to 800,000 cubic yards.[37] The amount of remediation in a given year has been largely dependent on the possibility of enforcement actions in various EPA programs. With the Great Lakes Legacy Act, EPA now has a program in place that can make steadier progress toward addressing the 75 million cubic yards of contaminated sediments at 31 sites in Areas of Concern.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$20,610.2) The increase will support additional sediment remediation projects under the Legacy Act, allowing for four to six projects and remediation of some 200,000 cubic yards of contaminated sediments.

Statutory Authority:

2002 Great Lakes and Lake Champlain Act (Great Lakes Legacy Act); CWA; Coastal Wetlands Planning, Protection, and Restoration Act of 1990; Estuaries and Clean Waters Act of 2000; North American Wetlands Conservation Act; WRDA; 1990 Great Lakes Critical Programs Act; 1909 The Boundary Waters Treaty; 1978 GLWQA; 1987 GLWQA; 1987 Montreal Protocol on Ozone Depleting Substances; 1996 Habitat Agenda; 1997 Canada-U.S. Great Lakes Binational Toxics Strategy; and US-Canada Agreements.

[37] USEPA-Great Lakes National Program Office. *Sediment Remediation*. Available from http://www.epa.gov/glnpo/glindicators/sediments/remediateb.html.

National Estuary Program / Coastal Waterways
Program Area: Water: Ecosystems
Goal: Healthy Communities and Ecosystems
Objective(s): Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$25,902.3***	***$23,773.0***	***$18,417.2***	***($5,355.8)***
Total Budget Authority / Obligations	$25,902.3	$23,773.0	$18,417.2	($5,355.8)
Total Workyears	49.6	57.5	57.1	-0.4

Program Project Description:

The goal of this program is to restore the physical, chemical, and biological integrity of the Nation's estuaries and coastal watersheds by protecting and enhancing water quality and living resources. Major areas of effort include: supporting coastal watersheds to address threats to the health of estuaries and coastal waters; supporting continued implementation of Comprehensive Conservation and Management Plans (CCMPs) for the 28 National Estuary Programs (NEPs); encouraging cooperative efforts between Nonpoint Source Programs (e.g., under CWA Section 319) and other programs to develop and implement coastal ecosystem protection/enhancement strategies; and supporting monitoring of estuarine, coastal and marine waters. For more information, visit http://www.epa.gov/owow/estuaries/

FY 2007 Activities and Performance Plan:

The resources in FY 2007 will support EPA's goal of improving aquatic ecosystem health of our national estuaries and protecting additional acres of habitat. EPA will undertake the following activities in support of coastal watershed protection and restoration:

Performance Assessment: The National Estuary Program was included in the Oceans and Coastal Program PART review in FY 2005 and received a rating of adequate. The purpose of the program is to integrate the control of water pollution from land-base sources and vessels to improve the overall health of ocean and coastal ecosystems. The program provided performance measures, including one long-term, three annual, and one efficiency measures.

EPA, working with state and local partners, will continue to develop the third National Coastal Condition Report (NCCR), which is due in FY 2007. The NCCR is the first statistically significant measurement of U.S. water quality on a nationwide scale. In addition, EPA will support monitoring of estuarine waters using such tools as the *OSV* BOLD. This ocean survey vessel supports monitoring and assessment needs in NEPs, and coastal states along the Pacific, Gulf and Atlantic coasts.

EPA will develop and disseminate tools and resources for local land use decision-makers that will provide the information on potential water quality impacts necessary to plan for growth, minimize the adverse impacts of development, and anticipate the cumulative environmental

impacts of growth. EPA will continue partnership with National Ocean and Atmospheric Administration (NOAA) to specifically address coastal communities.

EPA will also continue to work with coastal environmental managers, Federal partners, and other decision-makers to evaluate and address the impacts to water quality from atmospheric deposition of contaminants and assist these stakeholders and the general public. Air deposition is a significant source of nutrients in the Mississippi River basin, contributing to hypoxic conditions in the Gulf of Mexico. EPA has a lead role in the five-year reassessment of the Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico, which will continue in FY 2007. [38]

EPA will produce on-line finance planning modules, traditional workshops, and on-site assistance to help coastal watersheds managers find the best way to finance estuary and coastal protection projects. Within the NEP, EPA plans to implement key activities[39] under its flagship watershed protection effort to help address the growing threats to the Nation's estuarine resources. These activities include:

- Supporting continuing efforts of all 28 NEP estuaries to implement their CCMPs to protect and restore estuarine resources;
- Providing more focused support for several priority needs, including problems of invasive species, coastal population growth, air deposition of pollutants such as mercury and nitrogen, and nutrient over-enrichment;
- Supporting estuary efforts to achieve NEP habitat restoration and protection goal of 250,000 additional acres by 2008. In FY 2007, EPA and its partners will protect or restore an additional 75,000 acres of habitat; and
- Providing targeted support to special ecosystems, including those with statutorily-authorized protection programs such as the Long Island Sound.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Program dollars per acre of habitat protected or restored	533	515	510	505	Dollars

[38]United States., Environmental Protection Agency (EPA). Mississippi River/Gulf of Mexico Watershed Nutrient Task Force. Action Plan of Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico. Washington, D.C., 2001.

[39] The means and strategies outlined here for achieving Sub-objective 4.3.1 must be viewed in tandem with the means and strategies outlined under Goal 2, Objective 2, Sub-objective 2.2.2, Improve Ocean and Coastal Waters. Sub-objective 2.2.2 contains strategic measures for EPA's vessel discharge, dredged material management, ocean disposal, and other ocean and coastal programs, which are integral to the Agency's efforts to facilitating the ecosystem scale protection and restoration of natural areas.

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Acres protected or restored in NEP study areas. (incremental)	103,959	25,000	25,000	75,000	Acres

EPA exceeded its FY 2005 target for habitat acres protected or restored by the NEPs and their partners, for several reasons. They include increased community interest and involvement in protection and restoration, and the enhanced capacity of EPA and its partners to collect and report on data depicting protection and restoration achievements. NEP habitat activities often depend on program partners and the extent to which these partners can and will participate in these habitat efforts can vary year-to-year.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands)

- (-$5,774.7) This reduction reflects elimination of congressionally directed funding in 2006 ($4,926.4), along with a reduction to base program resources.

- (+$418.9) This reflects an increase for payroll and cost of living for existing FTE.

- (-0.4 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

1990 Great Lakes Critical Programs Act; 2002 Great Lakes and Lake Champlain Act; CWA; Estuaries and Clean Waters Act of 2000; Protection, and Restoration Act of 1990; North American Wetlands Conservation Act; WRDA; 1909 The Boundary Waters Treaty; 1978 GLWQA; 1987 GLWQA; 1987 Montreal Protocol on Ozone Depleting Substances; 1996 Habitat Agenda; 1997 Canada-U.S. Great Lakes Binational Toxics Strategy; Coastal Wetlands Planning; and US-Canada Agreements.

Wetlands
Program Area: Water: Ecosystems
Goal: Healthy Communities and Ecosystems
Objective(s): Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$20,126.7***	***$19,416.0***	***$20,992.2***	***$1,576.2***
Total Budget Authority / Obligations	$20,126.7	$19,416.0	$20,992.2	$1,576.2
Total Workyears	149.2	147.7	147.6	-0.1

Program Project Description:

Wetlands improve water quality, recharge water supplies, reduce flood risks, provide fish and wildlife habitat, offer sites for research and education, and support valuable fishing and shellfish industries. EPA's Wetlands Protection Program relies on partnerships with other programs within EPA, other Federal agencies, state, Tribal, and, local governments, private landowners, and the general public to improve protection of our nation's valuable wetland resources. Working with other Federal agencies and directly with states, Tribes, and local programs, EPA ensures a sound and consistent approach to wetlands protection.

Major activities of the Wetlands Protection Program include Clean Water Act (CWA) Section 404 wetlands regulatory program; development and dissemination of guidance, informational materials, and scientific tools to improve management and public understanding of wetland programs and legal requirements; and managing financial assistance to states and Tribes to support development of strong wetland protection programs. EPA works with other Federal agencies to implement the provisions of Section 404 of the CWA to protect wetlands, free-flowing streams, and shallow waters. EPA also works in partnership with state, Tribal, and local agencies and non-governmental organizations to conserve and restore wetlands and associated river corridors through watershed planning approaches, voluntary and incentive-based programs, improved scientific methods, information and education, and helping to build the capacity of state, tribal and local programs. (For more information, visit http://www.epa.gov/owow/wetlands/.)

FY 2007 Activities and Performance Plan:

Since 1989, the national goal under the Clean Water Act Section 404 program administered by the Army Corps of Engineers and EPA has been no net loss of wetlands. In December 2003, the Administrator of EPA and the Assistant Secretary of the Army reaffirmed this Administration's commitment to the goal of "no net loss". Then in 2004 in his Earth Day address, the President announced a renewed effort to move beyond a policy of no-net loss to achieve an overall increase in the Nation's wetland resources over the next five years. To achieve this goal, the Administration is working through six Federal agencies to restore, improve, and protect at least three million acres of wetlands by 2009. A range of approaches including public, private,

regulatory, and non-regulatory initiatives and partnerships are necessary to restore, improve, and protect the Nation's wetlands

In FY 2007, EPA will work with its state and Tribal partners to develop and implement broad-based and integrated monitoring and assessment programs that improve data for decision-making on wetlands within watersheds, address significant stressors, and report on condition and geo-locate wetlands on the landscape. EPA will work to achieve national gains in wetland acreage by implementing an innovative partner-based wetland and stream corridor restoration program. The Agency, working with the Army Corps of Engineers and other partners, will continue to implement the Administration's Mitigation Action Plan and the joint Corps-EPA Mitigation Rule and to build our capacity to measure wetland condition, in addition to measuring wetland acreage.[40] EPA's support will help avoid or minimize wetland losses and provide for full compensation for unavoidable losses of wetland functions, through wetlands restoration and enhancement using tools such as mitigation banking. Wetland and stream corridor restoration will remain a focus for regaining lost aquatic resources. EPA will continue to administer Wetlands Program Development grants, with a continued focus in FY 2007 on state/Tribal wetlands environmental outcomes, as well as the strengthening of state and Tribal wetland programs to protect vulnerable wetland resources.

EPA is working closely with the Army Corps of Engineers to develop and implement wetlands and barrier island restoration projects along the Gulf Coast to help ensure an improved level of protection from hurricanes.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Annually, in partnership with the Corps of Engineers and States, achieve no net loss of wetlands in the Clean Water Act Section 404 regulatory program	Data lag	No Net Loss	No Net Loss	No Net Loss	Acres

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Working with partners, achieve a net increase of wetlands	Data lag	100,000	100,000	100,000	Acres/year

[40] United States. Environmental Protection Agency (EPA). National Wetlands Mitigation Action Plan. Washington, D.C., 2002. www.MitigationActionPlan.gov

New data on the status and trends of the nation's wetlands from the U.S. Fish and Wildlife Service's National Wetlands Inventory will be available in the Service's Status and Trends report due out in spring 2006. Meanwhile, information describing progress toward the broader wetland goals, identified by the President is available. A report titled "Preserving America's Wetlands, Implementing the President's Goal" (CEQ, April (2005)[41], indicates that since April 2004, federal agencies and their partners took actions to restore, create, protect or improve 832,000 acres of wetlands in the U.S. This reflects total acres of restoration improvement and protection efforts and not the actual net change in total national wetlands acres.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$38.0) This increase reflects additional support for wetlands protection activities, including efforts to better assess the condition of wetlands and to improve the effectiveness of mitigation activities.

- (+$50.0) This increase will be used by EPA's Region 10 to support local environmental activities in Alaska, such as technical assistance to industry in developing applications for wetland permits.

- (+$1,388.2) This reflects an increase for payroll and cost of living for existing FTE.

- (-1.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$100.0) This increase provides payroll for EPA's Region 10 support for local environmental activities in Alaska, such as technical assistance to industry in developing applications for wetlands permits.
- (+1 FTE) This increase provides FTE for EPA's Region 10 to support local environmental activities in Alaska, such as technical compliance assistance to industry in developing applications for wetlands permits.

Statutory Authority:

1990 Great Lakes Critical Programs Act; Great Lakes and Lake Champlain Act; CWA; 2002 Coastal Wetlands Planning, Protection, and Restoration Act of 1990; Estuaries and Clean Waters Act of 2000; North American Wetlands Conservation Act; WRDA;1909 The Boundary Waters Treaty; 1978 GLWQA; 1987 GLWQA; 1996 Habitat Agenda; 1997 Canada-U.S. Great Lakes Binational Toxics Strategy; and US-Canada Agreements.

[41] United States. Council on Environmental Quality (CEQ). Conserving America's Wetlands, Implementing the President's Goal. Washington, D.C., Coastal America, 2005. www.coastalamerica.gov

Program Area: Water: Human Health Protection

Beach / Fish Programs
Program Area: Water: Human Health Protection
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$3,723.7***	***$3,156.0***	***$2,653.9***	***($502.1)***
Total Budget Authority / Obligations	$3,723.7	$3,156.0	$2,653.9	($502.1)
Total Workyears	9.0	7.7	7.7	0.0

Program Project Description:

This program supports the Agency's efforts to protect people from contaminated recreational waters and contaminated fish and shellfish. Recreational waters, especially beaches in coastal areas and the Great Lakes, provide recreational opportunities for millions of Americans. However, swimming in some recreational waters, or eating locally caught fish or shellfish, can pose a risk of illness as a result of exposure to microbial pathogens or other pollutants.

Fish & Shellfish Programs

The Fish and Shellfish Programs provide sound science, guidance, technical assistance, and nationwide information to state, Tribal, and Federal agencies on the human health risks associated with eating locally caught fish/shellfish with excessive levels of contaminants. The Agency pursues the following activities to support this program: 1) publishing criteria guidance that states and tribes can use to adopt health-based water quality standards, assess their waters, and establish permit limits; 2) developing and disseminating sound scientific risk assessment methodologies and guidance that states and tribes can use to sample, analyze, and assess fish tissue in support of waterbody-specific or regional consumption advisories, or a determination that no consumption advice is necessary; 3) developing and disseminating guidance that states and tribes can use to communicate the risks of consuming chemically contaminated fish; and 4) gathering, analyzing, and disseminating information to the public and health professionals that enable informed decisions on when and where to fish, and how to prepare fish caught for recreation and subsistence.

Mercury contamination in fish and shellfish is a special concern and the EPA and the FDA have issued a joint advisory concerning eating fish and shellfish. Mercury contamination of fish and shellfish occurs locally as well as in ocean-caught fish and at higher levels causes adverse health effects, especially in children and infants.

Beaches Program

The Beaches Program protects human health by reducing exposure to contaminated recreation waters. Agency activities include: 1) issuing guidance to improve beach monitoring and public

notification programs, including effective strategies to communicate public health risks to the public; 2) developing and disseminating sound scientific risk assessment methods and criteria for use in evaluating recreational water quality, prioritizing beach waters for monitoring, and warning beach users of health risks or closure of beaches; 3) promulgating Federal water quality standards where a state or tribe fails to adopt appropriate standards to protect coastal and Great Lakes recreation waters; and 4) providing publicly accessible Internet-based information about local beach conditions and closures. (See http://www.epa.gov/waterscience/ for more information.)

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will:

Fish/Shellfish Programs:

- Continue to work with the Food and Drug Administration (FDA) and public health agencies to develop and distribute outreach materials related to the joint guidance issued by the EPA and the FDA for mercury in fish and shellfish and assess the public's understanding of the guidance;

- Continue to work with the FDA to investigate the extent and risks of contaminants in fish, including the potential need for advisories for other pollutants, and to distribute outreach materials;

- Continue to strengthen its support to states in their monitoring of mercury in fish;

- Continue to release the summary of information on locally issued fish advisories and safe-eating guidelines. This information is provided to EPA annually by states and tribes; and

- Initiate a study to develop improved monitoring techniques for shellfish waters. The study will be conducted in concert with the FDA and NOAA (National Oceanic and Atmospheric Administration) with the goal of developing unified methodologies across agencies.

Beaches Program:

- Work with states and tribes to implement the latest, scientifically defensible pathogen criteria for freshwaters; and

- Continue to work with coastal and Great Lakes states, territories, and tribes to adopt water quality standards that are as protective of human health as EPA's most current water quality criteria for pathogens.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent of the shellfish growing acres monitored by states that are approved or conditionally approved for use	Data unavailable	80	91	91	% Areas

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent of water miles/acres, identified by states or tribes as having fish consumption advisories in 2002, where increased consumption of fish is allowed.	0	1	1	2	% Miles/Acres

EPA's objective of improving the percentage of water miles/acres where increased consumption of safe fish is allowed has been difficult to achieve. Most fish consumption advisories are attributable to mercury and/or PCBs, both of which are bioaccumulative toxins. This means that even after the source of the mercury or PCBs has been lessened or eliminated, the fish continue to retain the contaminants in their systems for years afterward. Consequently, even though EPA has taken actions to reduce mercury air emissions, the primary cause of mercury in fish, it will take several more years before we can reasonably expect to see the results of these actions, such as lowered mercury levels in fish. On the other hand, we are tracking changes in recommended meal frequency advisories to account for instances where advisories are modified to allow greater consumption. This improved data source may be able to demonstrate incremental progress in reducing advisories in instances where water quality has improved.

Other measures also demonstrate progress. The percentage of shellfish growing acres monitored by states that are approved or conditionally approved for use is not expected to change from the current rate of 91%, which exceeds the 2008 goal of 85%. EPA expects to see a continued increase in the percentage of beach season days that coastal and Great Lakes beaches are open and safe for swimming as states continue their implementation of the BEACH Act program.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$455.6) This reflects a reduction for the fish tissue study, which will be completed in 2006.

- (-$46.5) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

CWA; BEACH Act of 2000.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$94,559.1***	***$95,656.0***	***$99,121.0***	***$3,465.0***
Science & Technology	$3,326.0	$3,092.0	$3,243.1	$151.1
Total Budget Authority / Obligations	$97,885.1	$98,748.0	$102,364.1	$3,616.1
Total Workyears	582.1	588.6	583.9	-4.7

Program Project Description:

This program is based on the multiple-barrier approach to protecting public health from unsafe drinking water. Under this approach, EPA protects public health through: source water assessment and protection programs; promulgation of new or revised, scientifically sound and risk-based National Primary Drinking Water Regulations (NPDWRs); training, technical assistance, and financial assistance programs to enhance systems' capacity to comply with existing and new regulations; and the national implementation of NPDWRs by state and tribal drinking water programs through regulatory, non-regulatory, and voluntary programs and policies to ensure safe drinking water. (See http://www.epa.gov/safewater/ for more information.)

FY 2007 Activities and Performance Plan:

Safe drinking water and clean surface waters are critical to protecting human health. Over 260 million Americans rely on the safety of tap water provided by water systems that are subject to national drinking water standards.[42] In support of the 2008 goal that 95 percent of the population served by community water systems will receive drinking water that meets all of the health-based standards, EPA will continue in FY 2007 to protect sources of drinking water from contamination; develop new and revise existing drinking water standards; support states, tribes, and water systems in implementing standards; and promote sustainable management of drinking water infrastructure. Due to these efforts, by the end of FY 2007, the Agency will have ensured that 94 percent of the population served by community water systems, and 93 percent of the population served by community water systems in Indian country, receive drinking water that meets all applicable health-based standards.

Drinking Water Standards:

In FY 2007, EPA will:

[42] U.S. Environmental Protection Agency Safe Drinking Water Information System (SDWIS/FED), http://www.epa.gov/safewater/data/getdata.html

- Continue to support efforts related to the drinking water regulatory framework including: the development of the 3rd Contaminant Candidate List (CCL); completion of regulatory determinations for the 2nd CCL; and on-going review of existing National Primary Drinking Water Rules (NPDWRs);

- Promulgate short term changes to the Lead and Copper Rule, based on the comprehensive review conducted in 2004-2005;

- Begin to develop revisions to the Total Coliform Rule (TCR) in coordination with stakeholders and in consideration of the upcoming National Academy of Science's recommendations;

- Collect data and develop methodologies to inform future risk management strategies including the collection of occurrence data under the Unregulated Contaminant Monitoring Rule and the development of analytical methods for evaluating emerging contaminants;

- Continue to collaborate with the Centers for Disease Control and Prevention and other EPA programs to determine public health protection effects of risk management strategies for drinking water contamination, including waterborne diseases; and

- Develop a final rule on drinking water provided by interstate carriers (airplanes).

Drinking Water Implementation:

In FY 2007, the Agency will implement requirements for the newly promulgated Cryptosporidium (Long Term 2 Enhanced Surface Water Treatment Rule or "LT2"), Disinfection (Stage 2 Disinfectants and Disinfection Byproducts Rule or "Stage 2"), and Ground Water Rules. EPA will also assist states in implementing public health requirements for high-priority drinking water contaminants including the arsenic standard. In order to facilitate compliance with these new rules, as well as existing rules, EPA will:

- Continue to provide guidance, training, and technical assistance on the implementation of drinking water regulations to states, tribes, and utilities. EPA plans face to face and webcast training sessions on LT2/Stage 2 in 2007, plus training on the Ground Water Rule. EPA will also continue its monthly webcast training on existing rules and activities;

- Work directly with systems to ensure that they submit Initial Distribution System Evaluation (IDSE) plans for Stage 2 in states that are not doing early LT2/Stage 2 implementation (subset of a universe of over 4,000 systems);

- Develop new, easily accessible tools to assist states and water systems, including an interactive learning CD for Total Coliform Rule (the rule with the most violations);

- Ensure on-site reviews of the operation, condition, and management of public water systems as required by regulations;
- Provide technical, managerial, and financial assistance to small systems to improve their capacity to consistently meet regulatory requirements, enhance performance, and reduce costs;

- Promote consumer awareness of the safety of drinking water supplies through training for states and systems on the Consumer Confidence Report Rule and work with the National Drinking Water Advisory Council to improve the readability and content of the public education language required under the Lead and Copper Rule;

- Develop risk communication guidance to support states and water systems;

- Focus on training and assistance on the use of cost-effective treatment technologies, proper waste disposal, and compliance with high priority contaminant requirements, including monitoring under the arsenic rule and rules controlling microbial pathogens and disinfection byproducts;

- Continue to work with states to improve data completeness, accuracy, timeliness, and consistency through: training on data entry, error correction, and regulatory reporting; conducting data verifications and analyses; and implementing quality assurance and quality control procedures to identify missing, incomplete, or conflicting data under the data reliability action plan. In addition, the Safe Drinking Water Information System (SDWIS) will support the new national repository for data on the underground injection control program as well as drinking water data related to interstate carriers (airplanes).

Sustainable Infrastructure:

EPA provides affordable, flexible financial assistance through the Drinking Water State Revolving Fund. To help states and municipalities address their drinking water infrastructure needs, the Agency will:

- Continue to implement its sustainable infrastructure initiative in partnership with drinking water utilities. EPA and its partners will identify leaders in the utility industry who have established best practices in asset management, innovations, efficiency, and who are interested in employing watershed-based approaches to managing water resources; and

- Work closely with states, utilities, and other stakeholders to develop a strategy to facilitate the voluntary adoption of these best practices.

The Partnership for Safe Water – a voluntary activity by which primarily large systems implement effective practices aimed at mitigating microbes and pathogens in drinking water – will serve as a model for this initiative.

Source Water Protection:

EPA will continue to support state and local efforts to protect source waters by identifying and addressing significant sources of contamination. These efforts could be an integral part of the utility efforts in the sustainable infrastructure leadership initiative. With assistance from many Federal programs, states will be working with community water systems to identify and implement voluntary measures to prevent, reduce, or eliminate threats of contamination to sources of drinking water. In FY 2007, the Agency will:

- Work with national, state, and local stakeholder organizations and other Federal agencies to manage significant sources of contamination identified in the source water assessments through broad-based efforts and establish a sustainable infrastructure for prevention activities at the state and local levels;

- Continue to support source water protection efforts by: providing training, technical assistance, and technology transfer capabilities to states and localities; and facilitating the adoption of Geographic Information System (GIS) databases to support local decision-making;

- Work with states and tribes to educate and assist operators of all classes of underground injection control wells; collaborate with industry and stakeholders to collect and evaluate data on high priority endangering shallow injection wells; and explore the best approach to managing these shallow wells and for otherwise protecting underground sources of drinking water; and

- Focus on how to manage potential new waste streams that will use underground injection, including residual waste from desalination and other drinking water treatment processes and carbon capture and storage.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent population served by community water systems in compliance with health-based drinking water standards.* *This measure is a long-term PART measure for the Drinking Water programs under the STAG appropriation. This program is scheduled for an initial PART review in FY 2006.	88.5	93	93	94	% population

The vast majority of the nation's community water systems will provide drinking water that meets all health-based standards, progress in line with EPA's 2008 target of 95%.

EPA continues to work to achieve this target and to accurately reflect the many public health benefits, such as reducing acute illnesses linked to microbiological contaminants or longer-term health problems related to exposure from contaminants, that are achieved through safe drinking water.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$2,044.6) To advance implementation of drinking water standards to protect human health by increasing implementation support for new rules (Long Term 2 Enhanced Surface Water Treatment Rule, Stage 2 Disinfectants and Disinfection Byproducts Rule, and Ground Water Rule) and for increased scientific and technical analyses to support development of the Total Coliform Rule revisions.

- (+$15.0) This increase will be used in EPA's Region 10 to support local environmental activities in Alaska, such as permitting and compliance monitoring of Underground Injection wells.

- (+$1,405.4) This reflects an increase for payroll and cost of living for existing FTE.

- (-4.7 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

SDWA; CWA.

Program Area: Water Quality Protection

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$13,114.0***	***$12,212.0***	***$12,462.4***	***$250.4***
Total Budget Authority / Obligations	$13,114.0	$12,212.0	$12,462.4	$250.4
Total Workyears	47.5	43.9	43.7	-0.2

Program Project Description:

The goals of the marine pollution programs are to ensure marine ecosystem protection through adequate controls on point-source and vessel discharges, and management of ocean dumping and other sources of pollution, such as marine debris and invasive species/harmful algal blooms. Major areas of effort include:

- Establishing water quality controls for point source dischargers;
- Developing and implementing regulations and technical guidance to control pollutants from vessels and issuing permits for materials to be dumped in ocean waters;
- Designating, monitoring, and managing ocean dumping sites and implementing provisions of the National Dredging Policy and the Plan for Dredging NY/NJ Harbor;
- Establishing and conducting beach monitoring for marine debris and promoting public awareness of causes, effects, and controls for marine debris through public education programs;
- Monitoring and assessment of coastal and ocean waters including assessment of potential impacts on water quality at ocean dumping sites and wastewater outfalls, and monitoring other areas such as the hypoxic zone in the Gulf of Mexico; and
- Working with a wide variety of stakeholders to develop, provide, and implement watershed management tools, strategies and plans for coastal ecosystems, including dredged material management plans for coastal ports, in order to restore and maintain the health of coastal aquatic communities on a priority basis. For more information, visit http://www.epa.gov/owow/oceans/regulatory/index.html.

FY 2007 Activities and Performance Plan:

Coastal and ocean waters are environmentally and economically valuable to the Nation. To protect and improve water quality on a watershed basis, EPA will focus its work with states, Tribes, interstate agencies, and others on improving the quality of our valuable ocean resources. The health of ocean and coastal waters and progress in meeting the strategic targets will be tracked through periodic issuance of a National Coastal Condition Report (NCCR), a cooperative project with other Federal agencies. The next NCCR will be issued in 2007.

In 2007, the OSV *Bold,* EPA's ocean research vessel, will support monitoring and assessment needs in EPA coastal Regions and coastal states, and will service the Atlantic Coast and Gulf of Mexico. It will work on the Pacific Coast over the next several years. The OSV *Bold* is also expected to support the following types of activities: collection of environmental data from several offshore areas for use in their designation of dredged material disposal sites (such as in Long Island Sound); periodic environmental monitoring of 10-20 of the 79 existing ocean disposal sites; the monitoring of 5 to 10 offshore waste disposal sites or wastewater outfalls; and monitoring of significantly impacted or important coastal waters such as the Gulf of Mexico hypoxic zone and Florida coral reefs.

Performance Assessment: The Oceans and Coastal Program underwent the PART for the first time in FY 2005 and received a rating of adequate. The purpose of the program is to integrate the control of water pollution from land-base sources and vessels to improve the overall health of ocean and coastal ecosystems. The program provided performance measures, including one long-term, three annual, and one efficiency measures.

Key marine pollution program efforts in 2007 focus on ocean and coastal waters and are critical to improving these waters. EPA's efforts will focus on enhancing regulation of pollutant discharges from vessels. If appropriate, EPA will propose wastewater discharge standards for cruise ships operating in Alaskan waters; and cooperate with the Department of Defense (DOD) to develop discharge standards for all Armed Forces (i.e., DoD and U.S. Coast Guard (USCG)) vessels. EPA will manage the Marine Protection, Research and Sanctuaries Act (MPRSA) Ocean Dumping Program (including dredged material).

As co-chair of the National Dredging Team (NDT), EPA will continue to implement the recently issued NDT Action Agenda for the Next Decade. Efforts will continue to target invasive species in coastal areas, including: prevention, education and outreach, early detection and rapid response, monitoring, applied research, and leadership and coordination. Under a Memorandum of Understanding (MOU) with the USCG, the Agency will assist in its efforts to develop ballast water discharge standards, specifically developing the Environmental Impact Statement (EIS). EPA will also work with the USCG regarding the International Ballast Water Standards Convention under International Convention for the Prevention of Pollution from Ships (MARPOL).

EPA will implement the Best Management Practices Guidance for Clean-up of Vessels Proposed for Use as Artificial Reefs. The Navy/Maritime Administration (MARAD) anticipates many more vessels are needed to become artificial reefs and will need to follow the Guidance. EPA's role will be to participate in the clean-up plans for each vessel and inspection. EPA also contributes to the health of coral reefs by participating on the U.S. Coral Reef Task Force, and assisting in the development of biological assessment methods and biological criteria for use in evaluating coral reef health and associated water quality. Additionally, the OSV *Bold* will continue to support water quality monitoring efforts in the Florida Keys National Marine Sanctuary and support monitoring efforts in Puerto Rico and the U.S. Virgin Islands.

EPA will continue to support international marine pollution control. The Agency will ensure that U.S. policy and procedures are consistent with the London Convention of 1972 (i.e., ocean dumping treaty) and its 1996 protocol; and chair the Scientific Group of the London Convention. One current issue being addressed is sequestration of CO_2 in the sub-seabed. EPA will also

actively participate in meetings of the Marine Environment Protection Committee of MARPOL to develop US-friendly, international standards and guidance within the MARPOL Convention.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	National Coastal Condition Report (NCCR) score for overall aquatic ecosystem health of coastal waters nationally (1-5 scale).	2.70	2.7	2.7	2.8	Scale score

The NCCR is the first statistically-significant measure of U.S. water quality on a national scale and it provides a "snapshot" of the ecological health of coastal ecosystems at a national and regional scale. The NCCR is based on data gathered by various Federal, state, and local sources using a probability design that allows extrapolation to represent all coastal waters of a state, region, and the entire US. The NCCR ratings or scores are based on an evaluation of a number of indicators of coastal condition in each region of the country, including water quality, coastal habitat loss, and fish tissue contaminants. The information on coastal ecological condition generated by the NCCR can be used by resource managers to target water quality actions wisely, and effectively manage those actions to maximize benefits.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- ($328.1) Increase will support monitoring and assessment of ocean and coastal waters, including determining ecosystem impacts on water quality at ocean dumping sites, and monitoring other areas such as the hypoxic zone in the Gulf of Mexico.

- (-$77.7) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (-0.2 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

Certain Alaskan Cruise Ship Operations Act (PL 106-554); Clean Vessel Act; CWA; CZARA of 1990; FIFRA; MPPRCA of 1987; MPRSA; National Defense Authorization Act for Fiscal Year 2004, Section 3516; NEPA, Section 102; NISA of 1996; NAFTA; Ocean Dumping Ban Act of 1988; OAPCA; PPA; RCRA; SDWA; Shore Protection Act of 1988; TSCA; WRDA; and WWWQA of 2000.

Surface Water Protection
Program Area: Water Quality Protection
Goal: Clean and Safe Water
Objective(s): Protect Human Health; Protect Water Quality; Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	***$186,745.5***	***$189,212.0***	***$191,587.2***	***$2,375.2***
Total Budget Authority / Obligations	$186,745.5	$189,212.0	$191,587.2	$2,375.2
Total Workyears	1,110.8	1,115.4	1,103.1	-12.3

Program Project Description:

The EPA Surface Water Protection Program, under the Clean Water Act (CWA), directly supports efforts to protect, improve and restore the quality of rivers, lakes, and streams. EPA works with states to make continued progress toward the clean water goals identified in the Strategic Plan by implementing core clean water programs, including innovations that apply programs on a watershed basis, and accelerating efforts to improve water quality on a watershed basis.

EPA works with states, interstate agencies, tribes and others in key areas, including: water quality criteria and standards, effluent guidelines, cooling water intake regulations, analytical methods, water quality assessment and monitoring, national water quality data systems, watershed management planning, Total Maximum Daily Loads (TMDLs), National Pollutant Discharge Elimination System (NPDES), nonpoint pollutant sources, and effectively managing infrastructure assistance programs. EPA is also responsible for producing the Clean Water Needs Survey, and management and oversight of the Clean Water State Revolving Fund (CWSRF).

FY 2007 Activities and Performance Plan:

Performance Assessment: In FY 2005, the Surface Water Protection Program underwent the PART for the first time and received a rating of adequate. This program is the primary tool for restoring and maintaining water quality. The program tracks progress and results through one long-term, outcome performance measure, five annual measures, and one efficiency measure in the PART spreadsheet measure tab.

This program enables states to implement key CWA programs that will restore and improve the quality of rivers, lakes and streams which will allow the Agency to achieve the long-term national goal of restoring the quality of 25 percent of impaired waters by 2012. Water Quality criteria and standards provide the scientific and regulatory foundation for water quality protection programs under the CWA. The standards are used to define what waters are clean and what waters are impaired, thereby, serving as benchmarks for decisions about allowable pollutant loadings into waterways. (For more information see http://www.epa.gov/waterscience/)

In FY 2007, EPA will continue to implement the *Strategy for Water Quality Standards and Criteria*, developed in cooperation with states. The water quality criteria and standards program will focus on directly supporting regional offices, states and tribes to: continue to develop and adopt ambient water quality criteria for chemical pollutants, pathogens, and nutrients; continue to act on water quality standards submissions in a timely fashion; establish the highest attainable uses in water quality standards; and strengthen the scientific foundation on which to manage the water quality standards program. EPA will work with our state and local partners to implement a standardized approach to help identify sources of contamination at Great Lakes beaches. EPA will work with our state and Tribal partners to help them develop standards that are "approvable" under the Act, including providing advance guidance and technical assistance where appropriate before the standards are formally submitted to EPA. EPA expects that 85% of state and Tribal submissions will be approved in 2007.

In FY 2007, EPA will continue the water quality monitoring initiative that began in 2005, and will provide $7,120,700 for probability-based, statistically-valid assessments. EPA will provide technical support to states and other partners participating in a national statistically-valid survey of lakes. EPA will support states in the implementation of their comprehensive monitoring strategies, including development of efficient scientifically-valid tools to assist states and tribes in monitoring and assessment of their waters. EPA will also partner with states to implement the water quality exchange (WQX) data management system that will leverage Federal enterprise architecture tools to facilitate sharing and use of monitoring data collected by states, tribes, EPA and other Federal agencies and the public. Together these efforts will provide the data and information needed to help ensure CWA program effectiveness and sound management of the nation's waters.

In 2007, EPA will continue working with states, interstate agencies, and tribes to foster a watershed approach as the guiding principle of clean water programs. In watersheds where water quality standards are not attained, states will be developing TMDLs, a critical tool for meeting water restoration goals. Watershed plans and TMDLs will focus pollution control and restoration efforts for impaired waters on a range of pollutant sources, including point sources and nonpoint sources. The states and EPA have made significant progress in the development and approval of TMDLs (cumulatively over 18,000 completed through FY 2005) and expect to maintain the current pace of more than 3,000 TMDLs per year.

Protection and restoration of water quality on a watershed basis through state watershed plans require a careful assessment of the sources of pollution, their location and setting within the watershed, their relative influence on water quality, and their amenability to preventive or control methods. The national nonpoint source program is also a key program for addressing the nation's remaining water quality problems. In FY 2007 EPA will provide program leadership and technical support in the following key areas:

- Creating, supporting, and promoting technical tools that are needed by states to accurately assess water quality problems, sources, and causes; analyzing potential solutions; and implementing those solutions;

- Implementing a new web-based tool to support watershed planning;

- Conducting sanitary surveys to better protect Great Lakes Beaches;

- Enhancing accountability for results in improving water quality by beginning implementation of a new (to be completed in FY 2006) Oracle-based Grants Reporting and Tracking System (GRTS) tracking system for the Nonpoint Source (Section 319) grants program. The tracking system will track all 319-funded watershed projects and pollutant load reductions achieved by each project, as well as enhance EPA's ability to track successful remediation of impaired waters and relate this information to other data management systems;

- Focusing on the development and dissemination of tools to promote Low Impact Development (LID), thereby preventing new nonpoint sources of pollution; and

- Continuing coordination with the U.S. Department of Agriculture to ensure that Federal resources, including grants under Section 319 and Farm Bill funds, are managed in a coordinated way to maximize water quality improvement in impaired waters and protection in all others.

In FY 2007, EPA will continue to implement and support the core water quality programs that control point source discharges. The NPDES program requires point source dischargers to be permitted and requires pretreatment programs to control discharges from industrial and other facilities to the Nation's wastewater treatment plants. This program provides a management framework for the protection of the Nation's waters through the prevention of discharges of billions of pounds of pollutants. In 2007 EPA will focus on several key strategic objectives for the NPDES and effluent guideline programs:

- Use the results of the "*Permitting for Environmental Results Strategy*" to ensure the quality of the NPDES program and focus limited resources on priority permits that have the greatest benefit for water quality;

- Implement wet weather point source control programs, including the storm water program;

- Implement the permit program for Concentrated Animal Feeding Operations (CAFO);

- Advance program innovations, such as watershed permitting and trading;

- Implement strategies to improve management of pretreatment programs;

- Issue a preliminary plan that describes the CWA-mandated biannual review of industrial categories without effluent guidelines to determine if changes are warranted; and

- Take final action on effluent regulations for discharges from Drinking Water Treatment and Supply facilities from Airport Deicing Operations and from Vinyl Chloride manufacturing.

New CAFO rules were developed in 2003, and revisions will be finalized in 2006 in response to the 2nd Circuit Court ruling. EPA will work with states and tribes to implement the final rule to assure that CAFOs that discharge are covered by NPDES permits, and that smaller animal

feeding operations have the tools and information needed to prevent discharges. In addition, EPA expects that 100% of NPDES programs will have current Phase I and II storm water permits including industrial general permits, construction general permits, and municipal separate storm sewer system (MS4) general and individual permits. EPA will work with NPDES authorities to ensure that 90% of all permits and 95% of priority permits are current.

The Agency will continue to work with its partners to facilitate the voluntary adoption of best management practices in wastewater asset management, innovations, and efficiency with the long-term goal of sustainable wastewater utilities that are able to maximize the value of clean water by improving system performance at the lowest possible cost. Water use efforts include the water-efficiency market enhancement program, which will give consumers a reference tool to identify and select water-efficient products. The market enhancement program was launched in 2006 with the recognition of irrigation training programs that can improve water-efficiency in landscape irrigation, and pilot programs focusing on residential bathroom retrofits in two cities. Specifications are currently in development for water-efficient toilets, faucets, and irrigation controllers. Concurrently, criteria for water-efficient new homes are being developed to serve as a benchmark and spur water-efficiency in construction of new homes. The intent of the program is to reduce national water and wastewater infrastructure needs by reducing projected water demand and wastewater flows allowing deferral or downsizing of capital projects.

The CWSRFs (see the CWSRF program/project description) provide low interest loans to help finance wastewater treatment facilities and other water quality projects. Policy and oversight of the fund is supported by this program. In managing this program, EPA continues to work with states to meet several key objectives:

- Funding projects designed as part of an integrated watershed approach;

- Link projects to environmental results through the use of water quality and public health data;

- Maintaining the excellent fiduciary condition of the funds; and

- Continuing to support states efforts in developing integrated priority lists to address nonpoint source pollution and estuary protection and wastewater projects.

The Agency will continue the work needed for completion of the 2008 Clean Watersheds Needs Survey. In FY 2007, this work will include final testing and deployment of an upgraded web data entry system, and integration of clean watershed needs survey database elements with other agency databases. The Agency also will provide oversight and support for the nearly 3100 congressionally mandated projects related to water and wastewater infrastructure as well as management and oversight of grant programs, such as the Section 106 grants, the U.S-Mexico Border, and Alaska Native Village programs.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Annual percentage of waterbody segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained (cumulative).	8	2	5	9	% Miles/Acres

A key performance measure for the Surface Water Protection program is the percentage of water body segments, identified by States in 2000 as not attaining standards, where water quality standards are now attained. EPA will work with state partners to develop and implement plans to meet our goal of 9% of these waters attaining standards. Reaching this outcome is dependent on coordinated efforts to monitor and assess the status and trends of water quality and on continuing EPA and state work to implement core Clean Water Act programs. EPA will continue to work with states to reach our goals for development of TMDLs on a pace consistent with national guidance, timely reissuance of high-priority NPDES permits, approval of new or revised water quality standards, and increasing the percentage of waters assessed using statistically valid surveys.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$2,060.0) This reduces EPA and state CWA activities to restore and improve the quality of the Nation's rivers, lakes, and streams on a watershed basis to fund other higher priority activities.

- (+$105.0) This increase will be used by EPA's Region 10 to support local environmental activities in Alaska, such as reviewing state water quality standards, NPDES permitting activities, and acting as a consultant on Endangered Species assessments.

- (+$200.0) This increase provides payroll for EPA's Region 10 to support local environmental activities in Alaska, such as providing technical assistance to states on developing water quality standards, NPDES permitting activities and Endangered Species activities.

- (+2.0 FTE) This increase FTE for EPA's Region 10 to support local environmental activities in Alaska, such as providing technical assistance to states in developing water quality standards, NPDES permitting activities and Endangered Species activities.

- (+$4,130.2) This reflects an increase for payroll and cost of living for existing FTE.

- (-14.3 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

CWA.

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Environmental Program and Management

Acquisition Management 2, 5, 175, 176
Administrative Law 2, 5, 153
Air Toxics 1, 2, 7, 8, 12, 15, 19, 22, 25, 27, 30, 55
Air Toxics and Quality 1, 2, 8, 12, 15, 19, 22, 25, 27, 30
Alternative Dispute Resolution 2, 5, 155, 156
Beach / Fish Programs 3, 6, 248
Brownfields 1, 2, 32, 33, 85
Central Planning, Budgeting, and Finance 2, 5, 177
Chesapeake Bay 69, 70, 71
Children and Other Sensitive Populations Agency Coordination 2, 4, 108
Civil Enforcement 1, 2, 42, 44, 46, 47, 49, 52, 55, 56, 58, 62, 64, 67, 139
Civil Rights / Title VI Compliance 2, 5, 157
Clean Air. 1, 8, 9, 10, 12, 15, 17, 19, 22, 25, 27, 29, 30, 36, 55, 94, 102, 104, 123, 125, 126, 137, 172
Clean Air Allowance Trading Programs 1, 8, 9
Clean Diesel Initiative 1
Clean Water 50, 52, 55, 67, 69, 76, 82, 84, 85, 138, 240, 243, 244, 245, 246, 261, 264, 265
Climate Protection Program 1, 2, 35, 36, 39
Commission for Environmental Cooperation 2, 4, 133, 144
Community Action for a Renewed Environment (CARE) 3, 85, 86
Compliance. 1, 2, 33, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 55, 56, 57, 58, 59, 61, 63, 64, 66, 94, 111, 114, 115, 119, 129, 134, 137, 139, 148, 157, 166, 172, 209, 228, 234
Compliance Assistance and Centers 1, 2, 42, 139
Compliance Incentives 1, 2, 42, 44, 46, 47, 49, 52, 55, 56
Compliance Monitoring 1, 2, 42, 44, 45, 46, 47, 48, 49, 52, 55, 56
Congressional, Intergovernmental, External Relations 2, 4, 111
Congressionally Mandated Projects 3
Corrective Action 202, 203
Criminal Enforcement 1, 2, 58, 59
Decontamination 3
Drinking Water 3, 6, 118, 128, 151, 223, 252, 253, 254, 255, 263
Drinking Water Programs 3, 6, 252
Endocrine Disruptor 3, 6, 223
Endocrine Disruptors 3, 6, 223
Energy Policy Act Implementation 1, 2
Energy Star 2, 36, 39, 180
Enforcement 1, 2, 3, 43, 44, 46, 47, 50, 52, 54, 55, 56, 57, 58, 61, 62, 63, 64, 66, 111, 139
Enforcement Training 1, 3, 44, 47, 52, 56, 58, 61, 62
Environment and Trade 2, 4, 135

Environmental Education **4, 109, 114, 124**
Environmental Information 92, 99, 111, 114, 116, 122, 146, 148, 153, 155, 157, 160, 162, 164, 170, 172, 175, 177, 179, 182, 184
Environmental Justice **1, 3, 56, 63, 64, 66**
Environmental Protection / Congressional Priorities **3**
Exchange Network **2, 4, 116, 117, 127, 128, 146, 148, 149, 150, 151**
Facilities Infrastructure and Operations **2, 5, 179**
Federal Stationary Source Regulations **1, 12**
Federal Support for Air Quality Management **1, 10, 15**
Federal Support for Air Toxics Program **1, 2, 19**
Financial Assistance Grants / IAG Management **2, 5, 182**
Geographic Program
Chesapeake Bay **1, 3, 69**
Great Lakes **1, 3, 73**
Gulf of Mexico **1, 3, 77**
Lake Champlain **1, 3, 80**
Long Island Sound **1, 3, 82**
Other **1, 3, 85**
Puget Sound **3**
Geographic Programs **1, 3, 68, 69, 73, 77, 80, 82, 85, 89**
Great Lakes **3, 6, 73, 74, 75, 76, 81, 84, 238, 239, 240, 243, 246, 248, 249, 250, 262, 263**
Great Lakes Legacy Act **3, 6, 76, 238, 239, 240**
Gulf of Mexico **77, 78, 89, 242, 258, 259, 260**
Homeland Security.. 1, 3, 4, 25, 91, 92, 93, 94, 95, 97, 98, 99, 125, 146, 180, 181, 207, 220, 221
Communication and Information **1, 3, 92**
Critical Infrastructure Protection **1, 3, 94**
Preparedness, Response, and Recovery **1, 3, 4, 97**
Protection of EPA Personnel and Infrastructure **1, 4, 99**
Human Resources Management **2, 5, 184**
Indoor Air **1, 4, 101, 102, 103, 104, 105, 137**
Radon Program **1, 4, 102**
Information Exchange / Outreach **2, 4, 107, 108, 111, 116, 119, 122, 125, 127, 129**
Information Security **2, 4, 92, 117, 118, 128, 146, 147, 150, 151**
Infrastructure Assistance **142**
International Capacity Building **2, 4, 39, 44, 57, 100, 137, 139**
International Programs **2, 4, 132, 133, 135, 137, 140, 142**
IT / Data Management **2, 4, 145, 146, 148**
IT / Data Management / Security **2, 4, 145, 146, 148**
Laboratory Preparedness and Response **3**
Lake Champlain **76, 80, 81, 84, 240, 243, 246**
Lead **12, 96, 112, 225, 226, 227, 253, 254**
Legal / Science / Regulatory / Economic Review2, 4, 5, 152, 153, 155, 157, 160, 162, 164, 166, 170, 172
Legal Advice
Environmental Program **2, 5, 160**
Support Program **2, 5, 162**

Long Island Sound **82, 83, 242, 259**
LUST / UST **3, 6, 234**
Marine Pollution **3, 6, 258**
Methane to Markets **2, 36, 39**
Mexico Border **96, 142, 144, 264**
NAAQS **12, 15**
National Estuary Program / Coastal Waterways **3, 6, 241**
NEPA Implementation **1, 3, 66**
Oil **42, 55, 93, 98, 148, 179**
Operations and Administration **2, 5, 174, 175, 177, 179, 182, 184**
Pesticides
  Field Programs **2, 5, 188**
  Registration of New Pesticides **2, 5, 192**
  Review / Reregistration of Existing Pesticides **2, 5, 195**
Pesticides Licensing **2, 5, 187, 188, 192, 195, 199**
Pollution Prevention **3, 6, 40, 66, 67, 98, 119, 128, 166, 200, 209, 228, 231**
Pollution Prevention Program **3, 6, 228, 231**
POPs Implementation **2, 4, 140**
Puerto Rico **259**
Puget Sound **88**
Radiation
  Protection **1, 2, 22**
  Response Preparedness **1, 2, 25**
Radon **103**
RCRA
  Corrective Action **2, 5, 202**
  Waste Management **2, 5, 205**
  Waste Minimization & Recycling **2, 5, 209**
Reduce Risks from Indoor Air **1, 4, 104**
Regional Geographic Initiatives **1, 3, 89**
Regional Science and Technology **2, 5, 164**
Regulatory Innovation **2, 5, 166**
Regulatory/Economic-Management and Analysis **2, 5, 170**
Resource Conservation and Recovery Act (RCRA) **2, 5, 55, 201, 202, 204, 205, 208, 209**
Science Advisory Board **2, 5, 23, 172**
Science Policy and Biotechnology **2, 5, 199, 200**
Small Business Ombudsman **2, 4, 119, 120**
Small Minority Business Assistance **2, 4, 122, 123**
State and Local Prevention and Preparedness **2, 4, 125**
State Innovation Grant Program **166**
Stratospheric Ozone
  Domestic Programs **1, 2, 27**
  Multilateral Fund **1, 2, 30**
Surface Water Protection **3, 6, 261, 265**
Toxic Substances
  Chemical Risk Management **2, 5, 215**

Chemical Risk Review and Reduction **2, 5, 218**
Lead Risk Reduction Program **3, 6, 225**
Toxics Risk Review and Prevention **2, 5, 6, 214, 215, 218, 223, 225, 228**
TRI / Right to Know **2, 4, 127**
Tribal - Capacity Building **2, 4, 129**
Tribal General Assistance Program **129**
Underground Storage Tanks **3, 6, 42, 43, 44, 50, 52, 148, 175, 177, 179, 184, 233, 234, 236**
Underground Storage Tanks (LUST / UST) **3, 6, 233, 234**
US Mexico Border **2, 4, 142**
Waste Management **205, 206, 207**
Water
Ecosystems **6, 238, 241, 244**
Human Health Protection **3, 6, 247, 248, 252**
Water Quality **3, 6, 69, 73, 83, 85, 86, 137, 238, 257, 258, 261, 262**
Water Quality Monitoring **6, 83**
Water Quality Protection **3, 6, 85, 86, 257, 258, 261**
Wetlands **3, 6, 76, 81, 84, 85, 240, 243, 244, 245, 246**
Wetlands Program Development **245**

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Superfund

Resource Summary Table **1**
Program Projects in Superfund **1**
Program Area: Air Toxics And Quality **5**
Radiation: Protection 6
Program Area: Audits, Evaluations And Investigations **7**
Audits, Evaluations, and Investigations 8
Program Area: Compliance **10**
Compliance Assistance and Centers 11
Compliance Incentives 13
Compliance Monitoring 15
Program Area: Enforcement **18**
Civil Enforcement 19
Criminal Enforcement 21
Enforcement Training 22
Environmental Justice 25
Forensics Support 27
Superfund: Enforcement 29
Superfund: Federal Facilities Enforcement 33
Program Area: Homeland Security **35**
Homeland Security: Communication and Information 36
Homeland Security: Critical Infrastructure Protection 38
Homeland Security: Preparedness, Response, and Recovery 40
Homeland Security: Protection of EPA Personnel and Infrastructure 43
Program Area: Information Exchange / Outreach **45**
Congressional, Intergovernmental, External Relations 46
Exchange Network 48
Program Area: IT / Data Management / Security **51**
Information Security 52
IT / Data Management 54
Program Area: Legal / Science / Regulatory / Economic Review **57**
Alternative Dispute Resolution 58
Legal Advice: Environmental Program 60
Program Area: Operations and Administration **62**
Financial Assistance Grants / IAG Management 63
Facilities Infrastructure and Operations 65
Acquisition Management 68
FY 2007 Activities and Performance Plan: **68**
Human Resources Management 70
Central Planning, Budgeting, and Finance 72
Program Area: Research: Human Health And Ecosystems **74**
Human Health Risk Assessment 75

Program Area: Research: Land Protection **77**
Research: Land Protection and Restoration 78
Research: SITE Program 82
Program Area: Research: Sustainability **84**
Research: Sustainability 85
Program Area: Superfund Cleanup **86**
Superfund: Emergency Response and Removal 87
Superfund: EPA Emergency Preparedness 90
Superfund: Federal Facilities 92
Superfund: Remedial 96
Superfund: Support to Other Federal Agencies 100

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION: Hazardous Substance Superfund
Resource Summary Table
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund				
Budget Authority / Obligations	$1,374,889.5	$1,231,074.0	$1,258,955.0	$27,881.0
Total Workyears	3,232.9	3,326.6	3,297.4	-29.2

BILL LANGUAGE: HAZARDOUS SUBSTANCE SUPERFUND

For necessary expenses to carry out the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, including sections 111(c)(3), (c)(5), (c)(6), and (e)(4) (42 U.S.C. 9611), and for construction, alteration, repair, rehabilitation, and renovation of facilities, not to exceed $85,000 per project; [$1,260,621,000] $1,258,955,000, to remain available until expended, consisting of such sums as are available in the Trust Fund [upon the date of enactment of this Act] on September 30, 2006, as authorized by section 517(a) of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and up to [$1,260,621,000] $1,258,955,000 as a payment from general revenues to the Hazardous Substance Superfund for purposes as authorized by section 517(b) of SARA, as amended: Provided, That funds appropriated under this heading may be allocated to other Federal agencies in accordance with section 111(a) of CERCLA: Provided further, That of the funds appropriated under this heading, [$13,536,000] $13,316,000 shall be transferred to the ``Office of Inspector General'' appropriation to remain available until September 30, [2007, and $30,606,000] 2008, and $27,811,000 shall be transferred to the ``Science and Technology'' appropriation to remain available until September 30, [2007] 2008.

Program Projects in Superfund
(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Air Toxics and Quality				
Radiation: Protection	$1,969.4	$2,120.0	$2,323.3	$203.3
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	$15,182.0	$13,337.0	$13,316.0	($21.0)
Compliance				
Compliance Assistance and Centers	$0.0	$11.0	$22.2	$11.2

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Compliance Incentives	$148.9	$186.0	$142.7	($43.3)
Compliance Monitoring	$1,452.4	$955.0	$1,144.1	$189.1
Subtotal, Compliance	$1,601.3	$1,152.0	$1,309.0	$157.0
Enforcement				
Civil Enforcement	$625.2	$796.0	$883.0	$87.0
Criminal Enforcement	$8,070.1	$8,275.0	$8,502.2	$227.2
Enforcement Training	$897.8	$581.0	$621.9	$40.9
Environmental Justice	$921.5	$827.0	$756.7	($70.3)
Forensics Support	$3,599.5	$3,643.0	$4,184.2	$541.2
Superfund: Enforcement	$165,634.0	$156,653.0	$163,650.5	$6,997.5
Superfund: Federal Facilities Enforcement	$8,900.3	$9,410.0	$10,196.9	$786.9
Subtotal, Enforcement	$188,648.4	$180,185.0	$188,795.4	$8,610.4
Homeland Security				
Homeland Security: Communication and Information				
Laboratory Preparedness and Response	$0.0	$296.0	$300.0	$4.0
Subtotal, Homeland Security: Communication and Information	$0.0	$296.0	$300.0	$4.0
Homeland Security: Critical Infrastructure Protection				
Decontamination	$0.0	$197.0	$198.0	$1.0
Homeland Security: Critical Infrastructure Protection (other activities)	$1,348.2	$1,245.0	$1,373.6	$128.6
Subtotal, Homeland Security: Critical Infrastructure Protection	$1,348.2	$1,442.0	$1,571.6	$129.6
Homeland Security: Preparedness, Response, and Recovery				
Decontamination	$0.0	$10,395.0	$12,271.3	$1,876.3
Laboratory Preparedness and Response	$0.0	$0.0	$9,500.0	$9,500.0
Homeland Security: Preparedness, Response, and Recovery (other activities)	$38,131.8	$27,184.0	$28,003.6	$819.6
Subtotal, Homeland Security: Preparedness, Response, and Recovery	$38,131.8	$37,579.0	$49,774.9	$12,195.9
Homeland Security: Protection of EPA Personnel and Infrastructure	$694.2	$588.0	$594.2	$6.2
Subtotal, Homeland Security	$40,174.2	$39,905.0	$52,240.7	$12,335.7
Information Exchange / Outreach				
Congressional, Intergovernmental, External	$111.7	$48.0	$130.4	$82.4

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Relations				
Exchange Network	$2,330.3	$1,650.0	$1,432.4	($217.6)
Subtotal, Information Exchange / Outreach	$2,442.0	$1,698.0	$1,562.8	($135.2)
IT / Data Management / Security				
Information Security	$234.6	$341.0	$788.6	$447.6
IT / Data Management	$17,734.0	$17,053.0	$17,120.4	$67.4
Subtotal, IT / Data Management / Security	$17,968.6	$17,394.0	$17,909.0	$515.0
Legal / Science / Regulatory / Economic Review				
Alternative Dispute Resolution	$980.4	$975.0	$887.2	($87.8)
Legal Advice: Environmental Program	$722.8	$755.0	$690.8	($64.2)
Subtotal, Legal / Science / Regulatory / Economic Review	$1,703.2	$1,730.0	$1,578.0	($152.0)
Operations and Administration				
Financial Assistance Grants / IAG Management	$3,109.3	$3,060.0	$2,920.8	($139.2)
Facilities Infrastructure and Operations	$65,156.8	$69,667.0	$73,944.7	$4,277.7
Acquisition Management	$17,464.2	$19,727.0	$23,514.3	$3,787.3
Human Resources Management	$5,250.8	$5,665.0	$5,270.2	($394.8)
Central Planning, Budgeting, and Finance	$20,620.3	$24,349.0	$25,540.8	$1,191.8
Subtotal, Operations and Administration	$111,601.4	$122,468.0	$131,190.8	$8,722.8
Research: Human Health and Ecosystems				
Human Health Risk Assessment	$3,848.8	$3,755.0	$3,847.2	$92.2
Research: Land Protection				
Research: Land Protection and Restoration	$23,322.6	$22,927.0	$21,963.9	($963.1)
Research: SITE Program	$6,730.9	$1,206.0	$0.0	($1,206.0)
Subtotal, Research: Land Protection	$30,053.5	$24,133.0	$21,963.9	($2,169.1)
Research: Sustainability				
Research: Sustainability	$501.0	$292.0	$0.0	($292.0)
Superfund Cleanup				
Superfund: Emergency Response and Removal	$197,032.3	$193,584.0	$192,398.9	($1,185.1)
Superfund: EPA Emergency Preparedness	$11,387.4	$10,540.0	$8,863.1	($1,676.9)
Superfund: Federal Facilities	$31,063.4	$31,336.0	$31,486.6	$150.6
Superfund: Remedial	$711,969.6	$588,905.0	$581,594.9	($7,310.1)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Superfund: Support to Other Federal Agencies	$5,444.0	$9,540.0	$8,575.4	($964.6)
Brownfields Projects	$2,299.0	$0.0	$0.0	$0.0
Subtotal, Brownfields Projects	$2,299.0	$0.0	$0.0	$0.0
Subtotal, Superfund Cleanup	$959,195.7	$833,905.0	$822,918.9	($10,986.1)

Program Area: Air Toxics and Quality

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$11,694.4	$11,178.0	$10,648.6	($529.4)
Science & Technology	$2,552.0	$2,086.0	$2,054.3	($31.7)
Hazardous Substance Superfund	***$1,969.4***	***$2,120.0***	***$2,323.3***	***$203.3***
Total Budget Authority / Obligations	$16,215.8	$15,384.0	$15,026.2	($357.8)
Total Workyears	102.0	103.5	96.6	-6.9

Program Project Description:

Through this program, EPA ensures that Superfund site clean-up activities reduce and/or mitigate the health and environmental risk of radiation to safe levels. In addition, the program makes certain that appropriate clean up technologies and methods are adopted to effectively and efficiently reduce the health and environmental hazards associated with radiation problems encountered at the sites. Finally, the program ensures that appropriate technical assistance is provided on remediation approaches for NPL (National Priority List) and non-NPL sites.

FY 2007 Activities and Performance Plan:

EPA will ensure that appropriate methods to manage and mitigate radioactive releases and exposures are available. This support will include technical assistance for clean-up, sampling, and waste management activities at Superfund sites and at the Radiation and Indoor Environments National Laboratory (RIENL). EPA will maintain an on-going fixed and mobile capability to provide radioanalytical and mixed waste analytical data on environmental samples to support site characterization and remediation activities.

Performance Targets:

EPA is on track through its ongoing work to meet its 2008 strategic plan goal of protecting public health and the environment from unwanted releases of EPA regulated radioactive waste and to minimize impacts to public health from radiation exposure.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$143.3) This increase will provide additional funding for analysis of mixed waste at Superfund sites.

- (+$60.0) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CERCLA, as amended by the SARA of 1986.

Program Area: Audits, Evaluations and Investigations

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Inspector General	$44,580.7	$36,904.0	$35,100.0	($1,804.0)
Hazardous Substance Superfund	***$15,182.0***	***$13,337.0***	***$13,316.0***	***($21.0)***
Total Budget Authority / Obligations	$59,762.7	$50,241.0	$48,416.0	($1,825.0)
Total Workyears	357.8	361.8	361.8	0.0

Program Project Description:

EPA's Inspector General (IG) provides audit, evaluation, investigative, public liaison, and advisory services that fulfill the requirements of the Inspector General Act, as amended, by promoting the economy, efficiency, and effectiveness of Agency operations in the Superfund program. These activities add value and enhance public trust by providing the Agency and Congress with best practices, analyses, and recommendations to address management challenges, efficiently accomplish environmental objectives, achieve Government Performance and Results Act goals, and safeguard resources. They also result in the prevention, detection, and prosecution of financial fraud, laboratory fraud, and cyber crime.

FY 2007 Activities and Performance Plan:

EPA's Inspector General seeks to assist the Agency in its efforts to reduce environmental and human health risks, improve business systems and program operations, save taxpayer dollars, and resolve major management challenges. Work in FY 2007 will emphasize the themes of accountability and data integrity leading to positive environmental impacts and the attainment of EPA's Strategic Goals.

Audits and Evaluations

The audits and evaluations conducted by the IG will determine if EPA is making progress toward efficient and effective risk reduction and hazardous waste cleanup, restoring previously polluted sites to appropriate uses, effectively reducing human health or environmental risk, and generating opportunities for sustained economic growth through the Brownfields program. Ongoing and recently completed audits and evaluations of the Superfund program have identified numerous impediments to effective resource and program management in the areas of contracting, special account management, and implementing program improvements, among

others. The IG will determine EPA's progress in addressing these issues as they relate directly to EPA's ability to effectively and efficiently reduce risk and protect human health and the environment at Superfund sites. IG will also evaluate how EPA can: (1) achieve efficiencies and time reductions in the backlog of Superfund cleanups; (2) better control Superfund resources; and (3) effectively manage its Superfund contracts.

Investigations

Inspector General investigations include efforts to uncover criminal activity pertaining to the Superfund program. The IG will conduct investigations into allegations or indications, and seek prosecution, of: (1) fraudulent practices in awarding, performance, charging, and payment on EPA Superfund contracts, grants, or other assistance agreements; (2) program fraud or other acts which undermine the integrity of or confidence in the Superfund program and create imminent environmental risks; (3) falsification of laboratory results that undermine the bases for Superfund decision-making, regulatory compliance, or enforcement actions; and (4) intrusions into EPA's computer systems as well as incidents of computer misuse. Further, the IG will assist EPA in testing environmental IT infrastructure and information networks against threats of intrusion or destruction.

Public Liaison

Public liaison work will continue addressing critical public and governmental concerns related to the Superfund Program. This activity involves responding to requests from the public, Congress, EPA employees, or other government entities to provide information and to conduct reviews in response to complaints or allegations of fraud, waste, abuse, or mismanagement in EPA's Superfund program. To accomplish this work, the Inspector General initiates reviews and if needed contracts with subject matter experts to assist with such reviews, and coordinates these efforts with ongoing audits, evaluations, or investigations.

Performance Targets:

Work under this program supports multiple objectives. The performance measures are included in the Program Performance and Assessment section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$1,002.4) Decrease reflects a general reduction to the Superfund Appropriation transfer funds.

- (+$981.6) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

Inspector General Act, as amended; SARA; CERCLA; TSCA.

Program Area: Compliance

Compliance Assistance and Centers

Program Area: Compliance
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$27,207.0	$27,935.0	$28,890.7	$955.7
Leaking Underground Storage Tanks	$531.6	$711.0	$839.1	$128.1
Oil Spill Response	$270.1	$284.0	$280.2	($3.8)
Hazardous Substance Superfund	***$0.0***	***$11.0***	***$22.2***	***$11.2***
Total Budget Authority / Obligations	$28,008.7	$28,941.0	$30,032.2	$1,091.2
Total Workyears	200.4	212.4	212.1	-0.3

Program Project Description:

EPA's Compliance Assistance program includes a range of activities and tools designed to improve compliance with Superfund-related environmental laws, regulated entities, Federal agencies and the public benefit from easy access to tools that help them understand these laws and find effective, cost-effective means for putting them into practice. To achieve these goals, the Compliance Assistance and Centers program provides information, training and technical assistance to the regulated community to increase its understanding of statutory and regulatory environmental requirements, thereby gaining measurable improvements in compliance and reducing risks to human health and the environment. The program also provides tools and information to other compliance assistance providers in order to help the regulated community comply with environmental requirements. For more information visit: www.epa.gov/compliance/assistance/index.html; www.epa.gov/clearinghouse; and www.assistancecenters.net.

FY 2007 Activities and Performance Plan:

Superfund-related compliance assistance activities are mainly reported and tracked through the Agency's Integrated Compliance Information System (ICIS). In FY 2007, the Compliance Assistance program will provide Superfund support for ICIS and the ongoing enhancements to ICIS for continued support of the federal enforcement and compliance program. EPA will continue to ensure the security and integrity of these systems, and will use ICIS data to support Superfund-related regulatory enforcement program activities.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved EMP as a result of EPA assistance.	72	50	50	50	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	Percentage of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or eliminated pollution, as a result of EPA assistance.	13	25	15	15	Percentage

EPA's Compliance Assistance Program achieves pollutant reductions, improvements in regulated entities environmental management practices, and increases regulated entities understanding of environmental requirements through direct compliance assistance provided by EPA personnel, and through on-line compliance assistance centers and the clearinghouse. There are many programs evaluated under the Civil Enforcement PART. These programs include Compliance Assistance, Compliance Incentives, Compliance Monitoring, Civil Enforcement, Enforcement Training, Forensics, Superfund Enforcement, and categorical grant programs for toxic substances and sectors. One of the key Civil Enforcement PART program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

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- (+$11.2) This increase will support ongoing enhancements for the Information Compliance Information System (ICIS).

Statutory Authority:

RCRA; CERCLA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NAAEC; LPA-US/MX-BR; NEPA.

Compliance Incentives

Program Area: Compliance
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$10,135.7	$9,412.0	$9,702.2	$290.2
Hazardous Substance Superfund	***$148.9***	***$186.0***	***$142.7***	***($43.3)***
Total Budget Authority / Obligations	$10,284.6	$9,598.0	$9,844.9	$246.9
Total Workyears	78.5	76.8	76.6	-0.2

Program Project Description:

To improve compliance with Superfund-related environmental laws, EPA actively encourages business owners and operators that run similar operations at multiple facilities to disclose their violations to the Agency. These disclosures allow entities to review their operations holistically, and often nationally, which more effectively benefits the environment. Under the Audit Policy, when companies voluntarily discover and promptly correct environmental violations, EPA may waive or substantially reduce civil penalties. Activities are tracked and reported using the Integrated Compliance Information System (ICIS). For more information visit: www.epa.gov/compliance/incentives/programs/index.html.

FY 2007 Activities and Performance Plan:

In FY 2007, the Compliance Incentives program will provide Superfund support for ICIS and ongoing enhancements to continue support of the federal enforcement and compliance program. EPA will continue to ensure the security and integrity of these systems, and will use ICIS data to support Superfund-related regulatory enforcement program activities.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

EPA's Compliance Incentive Programs, which encourage regulated entities to monitor and quickly correct environmental violations, achieves pollutant reductions, and improvements in regulated entities environmental management practices. There are many programs evaluated under the Civil Enforcement PART. These programs include Compliance Assistance, Compliance Incentives, Compliance Monitoring, Civil Enforcement, Enforcement Training, Forensics, Superfund Enforcement, and categorical grant programs for toxic substances and sectors. One of the key Civil Enforcement PART program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. For more information on measures and results pertaining to reduction in pollution from enforcement actions, please see the Civil Enforcement and Compliance Incentives program projects in the

Environmental Programs & Management section of this report. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made of future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. A baseline was established in FY 2006. Work under this program supports Improve Compliance objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$8.7) This decrease reduces funding for the Compliance Incentives program.

- (-$34.6) This decrease is the net effect of increase for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

RCRA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NEPA; NAAEC; LPA-US/MX-BR.

Compliance Monitoring

Program Area: Compliance
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$85,297.9	$85,463.0	$93,018.8	$7,555.8
Hazardous Substance Superfund	***$1,452.4***	***$955.0***	***$1,144.1***	***$189.1***
Total Budget Authority / Obligations	$86,750.3	$86,418.0	$94,162.9	$7,744.9
Total Workyears	625.7	627.6	632.0	4.4

The FY 2005 Obligations include a redistribution of resources from the IT/Data Management program project to the core programs that these resources support: Compliance Monitoring and Civil Enforcement program projects.

Program Project Description:

The Compliance Monitoring program focuses on providing information system support for monitoring compliance with Superfund-related environmental regulations and contaminated site clean-up agreements. The program also will ensure the security and integrity of its compliance information systems.

FY 2007 Activities and Performance Plan:

Superfund-related compliance monitoring activities are mainly reported and tracked through the Agency's Integrated Compliance Information System (ICIS). In FY 2007, the Compliance Monitoring program will provide Superfund support for ICIS and the ongoing enhancements to ICIS for continued support of the federal enforcement and compliance program. EPA will continue to ensure the security and integrity of these systems, and will use ICIS data to support Superfund-related regulatory enforcement program activities.

Performance Assessment:
The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

EPA will continue to make Superfund-related compliance monitoring information available to the public through the Enforcement and Compliance History On-line (ECHO) Internet website during FY 2007. This site provides communities with knowledge of compliance status and will continue to develop additional tools and data for public use. ECHO is a valuable tool, averaging about 65,000 queries per month.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Pounds of pollution estimated to be	1,100	300	450	500	Million Pounds

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)					

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percentage of concluded enforcement cases (including SEPs) requiring that pollution be reduced, treated, or eliminated.	28.80	30	30	30	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percentage of concluded enforcement cases including SEPs requiring implementation of improved environmental management practices.	72.50	60	65	70	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations.	19	10	25	30	Percentage

EPA's Monitoring and Enforcement Program achieves pollutant reductions, and improvements in regulated entities environmental management practices through the settlement of enforcement cases. There are many programs evaluated under the Civil Enforcement PART. These programs include Compliance Assistance, Compliance Incentives, Compliance Monitoring, Civil Enforcement, Enforcement Training, Forensics, Superfund Enforcement, and categorical grant programs for toxic substances and sectors. One of the key Civil Enforcement PART program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. A baseline was established in 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$195.1) This increase also supports enhancements to the enforcement program's data systems including the Integrated Compliance Information System (ICIS).

- (-$6.0) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

RCRA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NAAEC; LPA-US/MX-BR; NEPA.

Program Area: Enforcement

Civil Enforcement

Program Area: Enforcement
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$113,719.7	$117,807.0	$120,777.7	$2,970.7
Oil Spill Response	$1,900.7	$1,910.0	$1,826.3	($83.7)
Hazardous Substance Superfund	***$625.2***	***$796.0***	***$883.0***	***$87.0***
Total Budget Authority / Obligations	$116,245.6	$120,513.0	$123,487.0	$2,974.0
Total Workyears	933.9	960.7	958.5	-2.2

The FY 2005 Obligations include a redistribution of resources from the IT/Data Management program project to the core programs that these resources support: Compliance Monitoring and Civil Enforcement program projects.

Program Project Description:

The overarching goal of the Civil Enforcement program is to protect human health and the environment, targeting Superfund-related enforcement actions according to degree of health and environmental risk. The program works with the Department of Justice (DOJ) to ensure consistent and fair enforcement of Superfund-related environmental laws and regulations. The program aims to level the economic playing field by ensuring that violators do not realize an economic benefit from noncompliance, and seeks to deter future violations. The civil enforcement program develops, litigates and settles administrative and civil judicial cases against serious violators of environmental laws. For more information visit: www.epa.gov/compliance/civil/index.html; www.epa.gov/epaoswer/hazwaste/ca/backgnd.htm.

FY 2007 Activities and Performance Plan:

Financial assurance requirements ensure that adequate funds are available to address closure and clean up of facilities that handle hazardous wastes, hazardous substances, toxic materials, or other pollutants. EPA has selected financial responsibility as an enforcement program priority under both RCRA and CERCLA beginning in FY 2006. Placing more emphasis on financial responsibility will facilitate timely clean-up at contaminated sites, and closure of waste management units that are no longer being actively used, and will also keep closure and remediation costs from being shifted to the public.

Performance Assessment:
The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

EPA's Monitoring and Enforcement Program achieves pollutant reductions, and improvements in regulated entities environmental management practices through the settlement of enforcement cases. There are many programs evaluated under the Civil Enforcement PART. These

programs include Compliance Assistance, Compliance Incentives, Compliance Monitoring, Civil Enforcement, Enforcement Training, Forensics, Superfund Enforcement, and categorical grant programs for toxic substances and sectors. One of the key Civil Enforcement PART program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. A baseline was established in FY 2006. Work under this program supports Improve Compliance objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$4.2) This increase will support the program's review of financial responsibility issues under CERCLA.

- (+$59.8) This increase reflects funds for IT and telecommunications under the civil enforcement program.

- (+$23.0) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

RCRA; CERCLA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NAAEC; LPA-US/MX-BR; NEPA; SBLRBRERA; PPA; CERFA; AEA; UMTRLWA.

Criminal Enforcement

Program Area: Enforcement
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$35,109.3	$37,565.0	$37,793.5	$228.5
Hazardous Substance Superfund	***$8,070.1***	***$8,275.0***	***$8,502.2***	***$227.2***
Total Budget Authority / Obligations	$43,179.4	$45,840.0	$46,295.7	$455.7
Total Workyears	251.8	273.5	270.8	-2.7

Program Project Description:

The Criminal Enforcement program, mandated by the Pollution Prosecution Act of 1990, forcefully deters violations of Superfund and Superfund related laws by demonstrating that the regulated community will be held accountable, through jail sentences and criminal fines, for serious, willful statutory violations. The program thus serves as a deterrent for potential violators, thereby enhancing aggregate compliance with laws and regulations.

The Criminal Enforcement program conducts investigations and refers for prosecution cases which reduce pollution and helps secure plea agreements or sentencing conditions that will require defendants to improve their environmental management practices (e.g., by securing permits or developing environmental management systems to enhance performance). The Agency also develops information to support grand jury inquiries and decisions, and works with other law enforcement agencies to present a highly visible and effective force in the Agency's overall enforcement strategy. Cases are referred to the Department of Justice for prosecution, with special agents serving as key witnesses in the proceedings.

The program also participates in task forces with state and local law enforcement, and provides specialized training at the Federal Law Enforcement Training Center (FLETC) in Glynco, GA. FLETC provides one of the few opportunities for state, local, and tribal environmental enforcement professionals to obtain criminal investigation training. For more information visit: http://www.epa.gov/compliance/criminal/index.html

FY 2007 Activities and Performance Plan:

In FY 2007, the Criminal Enforcement Program will continue implementing its strategic approach by emphasizing investigations and prosecutions of national and regional CERCLA-related enforcement priorities, as well as "complex" cases that have the most significant impact upon human health and the environment. The Criminal Enforcement Program will also continue to enhance its coordination with the civil enforcement program by expanding the Regional case screening process and by taking criminal enforcement actions against long-term, or repeat significant non-compliers where appropriate.

In FY 2007, the Criminal Case Reporting System (which replaces the existing CRIMDOC system and will come "on-line" in FY 2006) will complete a series of enhancements to permit "real time" entry of data associated with all closed criminal enforcement cases. This information will be used to systematically compile a "profile" of criminal cases, including the extent to which the cases support Agency-wide, program-specific, or Regional enforcement priorities. The profile will also describe the impact of the cases in terms of pollution released into the environment and resulting environmental harm such as the degradation of drinking water wells, human populations injured or made ill, and aquatic or animal life harmed.

Performance Assessment: The Criminal Enforcement Program was rated adequate with the addition of new outcome measures. The program created a measure implementation plan to set targets and milestones for performance measures. Case Conclusion Data Sheet improvements will collect new data for Criminal Enforcement PART measures. EPA anticipates collecting performance information for pollution reduction and recidivism performance targets in 2006. The targets for the Improved Environmental Management and the Pollutant Impact measures will be developed in FY2007 and FY2008 respectively.

Performance Targets:

In FY 2007, the criminal program's Pollution Reduction measure will be reported against the baseline and target set in FY 2006, which uses an average of pollutant reduction data from three fiscal years (FY 2003-2005). The results of this measure are likely to fluctuate annually due to the specific characteristics of the enforcement cases concluded during a given fiscal year, however, applied over the long-term, this information will help the program to identify and prioritize cases that present the most serious threats to public health and the environment.

In addition, in FY 2007 the Criminal Enforcement Program will report its PART-approved measures on "improved environmental management" and "recidivism" after the targets and baselines are developed in FY 2006. The program will also develop the targets and baselines for its "pollutant impact" measure (i.e., the amount of illegal pollution released into the environment that cannot be treated, remediated or otherwise reduced) in order to begin external reporting of that measure in FY 2008. Work under this program supports Improve Compliance objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.7 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.
- (+$158.6) This increase will support the Agency's criminal investigations.
- (+$68.6) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CERCLA; EPCRA; Powers of Environmental Protection Agency; Fraud and False Statements Act; Pollution Prosecution Act.

Enforcement Training

Program Area: Enforcement
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$3,766.2	$2,945.0	$2,503.7	($441.3)
Hazardous Substance Superfund	***$897.8***	***$581.0***	***$621.9***	***$40.9***
Total Budget Authority / Obligations	$4,664.0	$3,526.0	$3,125.6	($400.4)
Total Workyears	25.0	17.0	16.9	-0.1

Program Project Description:

As mandated by the Pollution Prosecution Act, the Agency's Enforcement Training program provides environmental enforcement training nationwide, through EPA's National Enforcement Training Institute (NETI). The program oversees the design and delivery of core and specialized Superfund enforcement courses that sustain a well-trained workforce to carry out the Agency's enforcement goals. Courses are provided to lawyers, inspectors, civil and criminal investigators, and technical experts at all levels of government.

FY 2007 Activities and Performance Plan:

In FY 2007, the Enforcement Training program will develop and deliver training to support national teams formed to address national Superfund enforcement priority areas. The program also maintains a training center on the Internet, "NETI Online." NETI Online offers targeted technical training courses and a clearinghouse of training information to national and international audiences. The site also provides for tracking individual training plans, as well as developing, managing and improving the program's training delivery processes.
For more information visit: http://www.epa.gov/compliance/training/neti/index.html.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)	1,100	300	450	500	Million Pounds

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate based on development of a Measures Implementation Plan. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. A baseline was established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$16.7) This decrease reduces support for the National Enforcement Training Institute (NETI).

- (+$57.6) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

PPA; CERCLA.

Environmental Justice
Program Area: Enforcement
Goal: Healthy Communities and Ecosystems
Objective(s): Communities

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$4,853.2	$5,569.0	$3,859.0	($1,710.0)
Hazardous Substance Superfund	***$921.5***	***$827.0***	***$756.7***	***($70.3)***
Total Budget Authority / Obligations	$5,774.7	$6,396.0	$4,615.7	($1,780.3)
Total Workyears	21.6	18.0	17.9	-0.1

Program Project Description:

The Environmental Justice program provides a central point of contact for the Agency to address environmental and human health concerns in all communities, especially minority and/or low-income communities -- segments of the population that have been disproportionately exposed to environmental harms and risks. The Agency provides education, outreach, and data to communities, and manages two national competitive grant programs which focus on building capacity and addressing environmental and/or public health issues at the local level. For more information on the Environmental Justice program visit: http://www.epa.gov/compliance/environmentaljustice/index.html.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will enhance and maintain the Online Environmental Justice Geographical Information System Assessment Tool to help individuals, government, industry, and organizations better identify and address environment and public health issues that may affect them. The Environmental Justice Geographical Information System Assessment Tool provides ready access to environmental, public health, economic, and social demographic information from EPA and other government sources.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

In FY 2007, the Environmental Justice program also will continue to assist community-based organizations in developing solutions to Superfund-related and other local environmental issues as a part of the Environmental Justice Small Grants program. The Small Grants Program has awarded more than 1,000 grants of up to $20,000 each to community-based organizations and others such as universities, Tribes, and schools.

Performance Targets:

This program was included in the Civil Enforcement PART assessment in 2004, which received an overall rating of Adequate based on development of a Measures Implementation Plan. One of

the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure. Work under this program supports Healthy Communities objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$418.8) This reflects an increase in resources for activities related to Environmental Justice.

- (-$489.1) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

Executive Order 12898; CERCLA, as amended.

Forensics Support
Program Area: Enforcement
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance; Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	$13,377.9	$13,129.0	$13,185.2	$56.2
Hazardous Substance Superfund	***$3,599.5***	***$3,643.0***	***$4,184.2***	***$541.2***
Total Budget Authority / Obligations	$16,977.4	$16,772.0	$17,369.4	$597.4
Total Workyears	104.1	108.6	107.8	-0.8

Program Project Description:

The Forensics Support program provides specialized scientific and technical support for the nation's most complex Superfund civil enforcement cases, and provides technical expertise for non-routine Agency compliance efforts. EPA's National Enforcement Investigations Center (NEIC) is the only accredited environmental forensics center in the nation. NEIC's Accreditation Standard has been customized to cover the civil, criminal, and special program work conducted by the program.

NEIC collaborates with state, local and Tribal agencies, providing technical assistance, consultation, and on-site investigation and inspection activities in support of the Agency's civil program. In addition, the program coordinates with the Department of Justice and other Federal, state and local law enforcement organizations in support of criminal investigations. For more information visit: http://www.epa.gov/compliance/neic/index.html

FY 2007 Activities and Performance Plan:

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Efforts to stay at the forefront of environmental enforcement in FY 2007, will include the refinement of successful multi-media inspection approaches; use of customized laboratory methods to solve unusual enforcement case problems; applied research and development for both laboratory and field applications. In response to Superfund case needs, the NEIC will conduct applied research and development to identify and deploy new capabilities, and to test and/or enhance existing methods and techniques involving environmental measurement and forensic situations. As part of this activity, NEIC will also evaluate the scientific basis and/or technical enforceability of select EPA regulations that may impact Superfund program activities.

In FY 2007, the Forensics program will continue to function under more stringent International Standards of Operation for environmental data measurements to maintain its accreditation. The

program also will continue development of emerging technologies in field measurement techniques and laboratory analytical techniques, as well as identifying sources of pollution at abandoned Superfund and other waste sites.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)	1,100	300	450	500	Million Pounds

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. The baseline was established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$140.8) This decrease reduces support for the National Enforcement Investigations Center's (NEIC) forensics laboratory which provides support to the civil and criminal enforcement programs.

- (+$682.0) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CERCLA; EPCRA.

Superfund: Enforcement
Program Area: Enforcement
Goal: Land Preservation and Restoration
Objective(s): Restore Land

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund	***$165,634.0***	***$156,653.0***	***$163,650.5***	***$6,997.5***
Total Budget Authority / Obligations	$165,634.0	$156,653.0	$163,650.5	$6,997.5
Total Workyears	973.3	1,002.4	1,000.9	-1.5

Program Project Description:

EPA negotiates cleanup and removal agreements with Potentially Responsible Parties (PRPs) at hazardous waste sites and, where negotiations fail, the Agency either takes enforcement actions to require cleanup or expends Hazardous Substances Superfund (Trust Fund) dollars to remediate the sites. When Trust Fund dollars are used, the Superfund Enforcement program takes action against PRPs to recover the costs of the cleanup. The Department of Justice (DOJ) supports EPA's Superfund Enforcement program through negotiations and judicial actions to compel PRP clean-up and litigation to recover Trust Fund monies spent.

The Agency encourages its Regional offices to establish and use Special Accounts. These Special Accounts segregate site-specific funds obtained from responsible parties who complete settlement agreements with EPA. These funds also act as an incentive for other PRPs to perform work they might not be willing to perform or used by the Agency to fund clean up. The result is the Agency can sustain the "polluter pays" principle, clean up more sites and also preserve appropriated dollars for sites without viable PRPs.

EPA's financial management community maintains a strong partnership with the Superfund program, providing a full array of financial management support services necessary to pay Superfund bills and recover cleanup and oversight costs for the Trust Fund. This component of the program allows the Agency to centrally manage Superfund budget formulation, justification, and execution, as well as financial cost recovery. It also manages oversight billing for Superfund site cleanups (cost of overseeing the responsible party's cleanup activities), Superfund cost documentation (the Federal cost of cleaning up a Superfund site), and refers delinquent accounts receivable and oversight debts to the DOJ for collection.

FY 2007 Activities and Performance Plan:

The Agency's Superfund program pursues an "enforcement first" policy to ensure that sites for which there are viable, liable responsible parties are cleaned up by those parties. In tandem with

this approach, various Superfund reforms have been implemented to increase fairness, reduce transaction costs, and promote economic redevelopment. For more information about EPA's Superfund enforcement program, and its various components visit: http://www.epa.gov/ compliance/cleanup/superfund/.

Throughout FY 2007, the Superfund Enforcement program will maximize PRP participation in cleanups while promoting fairness in the enforcement process and will continue to recover costs from PRPs when EPA expends money from the Trust Fund. The Agency will maximize PRP participation by reaching a settlement or taking an enforcement action by the time of a remedial action start at 95 percent of non-Federal Superfund sites that have viable, liable parties. The Agency will also continue to ensure Trust Fund stewardship through cost recovery efforts that include addressing 100 percent of past costs at sites with a statute of limitations and where total past costs are equal to or greater than $200,000.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

In 2007, the Agency will provide $26 million in funding to the DOJ, through an Interagency Agreement (IAG) to provide support for EPA's Superfund Enforcement program through such actions as negotiating consent decrees with PRPs, preparing judicial actions to compel PRP clean-up, and litigating to recover Trust Fund monies spent in cleaning up contaminated sites. EPA's Superfund enforcement program is responsible for case development and preparation, referral to DOJ, and post-filing actions as well as for providing case and cost documentation support for the docket of current cases with DOJ. The program also ensures that EPA meets cost recovery statute of limitation deadlines, resolves cases, issues bills for oversight, and makes collections in a timely manner.

In 2007, the Agency will negotiate remedial design/remedial action cleanup agreements and removal agreements at contaminated properties. Where negotiations fail, the Agency will either take unilateral enforcement actions to require PRP cleanup or use appropriated dollars to remediate sites. When appropriated dollars are used to clean up sites, the program will recover this money from the PRPs. The Agency also will continue its efforts to establish and use special accounts to facilitate clean up.

By pursuing cost recovery settlements, the program promotes the principle that polluters should perform or pay for cleanups and preserves the Trust Fund to address contaminated sites which have no viable, liable PRPs. The Agency's expenditures will be recouped through administrative actions, through CERCLA section 107 case referrals, and through settlements reached with the use of alternative dispute resolution.

During FY 2007, the Agency will also continue its efforts in support of Superfund cost recovery and collections. These efforts include managing Superfund delinquent debt, maintaining the Superfund cost documentation system, and preparing cost documentation packages. The Agency continues to refine and streamline the cost documentation process to gain further efficiencies; provide DOJ case support for Superfund sites; and calculate indirect cost rates to be applied to direct costs incurred by EPA for site cleanup. The Agency will also continue to maintain the

accounting and billing of Superfund oversight costs attributable to responsible parties. These costs represent EPA's cost of overseeing Superfund site clean-up efforts by responsible parties as stipulated in the terms of settlement agreements.

A critical component of many response actions selected by EPA is institutional controls. These are established to ensure that property is used and maintained in an appropriate manner after construction of the selected cleanup is complete. The Superfund program will oversee the implementation and enforcement of institutional controls as part of its remedies, focusing on sites where construction of engineered remedies has been completed.

EPA also plans further improvements to its budgeting and planning system, financial data warehouse, business intelligence tools, and reporting capabilities. These improvements will support EPA's "green" score in financial performance on the President's Management Agenda scorecard by providing more accessible data to support accountability, budget and performance integration, and management decision-making. During FY 2007, EPA will also continue reorganizing its financial services to achieve greater efficiency.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of Superfund sites at which settlement or enforcement action taken before the start of RA.	100	90	95	95	Percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Refer to DOJ, settle, or write off 100% of Statute of Limitations (SOLs) cases for SF sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered.	99	100	100	100	Percent

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate based on development of a Measures Implementation Plan. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure.

Although the estimated pollution reductions as a result of the enforcement actions taken by EPA have grown over the past 5 years, they are projections made from future pollution reduction based on the settlement agreements entered during each specific fiscal year. One or two cases can have a significant affect on the end-of-year results. A baseline was established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$3,179.6) This increase reflects additional funding for PRP searches, funding available to recover costs from PRPs, and other CERCLA litigation support.

- (-9.3 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$94.8) This decrease reflects costs savings in IT and telecommunications resources.

- (+7.8 FTE) This change represents a technical correction to bring FTE levels for the Financial Services portion of this program in line with historic utilization. The 7.8 FTE were transferred to this program from the Superfund portion of Central Planning, Budgeting and Finance.

- (+$3,912.7) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CERCLA; SBLRBRERA; CERFA; NEPA; AEA; UMTRLWA; PHSA; SDWA; CCA; FGCAA; FAIR; Federal Acquisition Regulations; FMFIA; FOIA; GMRA; IPIA; IGA; PRA; Privacy Act; CFOA; GPRA; The Prompt Payment Act; Executive Order 12241; Executive Order 12656.

Superfund: Federal Facilities Enforcement

Program Area: Enforcement
Goal: Land Preservation and Restoration
Objective(s): Restore Land

Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund	***$8,900.3***	***$9,410.0***	***$10,196.9***	***$786.9***
Total Budget Authority / Obligations	$8,900.3	$9,410.0	$10,196.9	$786.9
Total Workyears	64.1	82.7	81.3	-1.4

Program Project Description:

The Superfund: Federal Facilities Enforcement program ensures that all Federal facility sites on the National Priority List sign Inter-Agency agreements (IAGs), which provide enforceable schedules for the progression of the entire cleanup. After years of service and operation, some Federal facilities contain environmental contamination, such as hazardous wastes, unexploded ordnance, radioactive wastes or other toxic substances. To reduce the cost of cleanup and reuse of such sites, the Federal Facilities Enforcement program coordinates creative solutions that protect both human health and the environment. These enforcement solutions help restore facilities so they can once again serve an important role in the economy and welfare of local communities and our country.

FY 2007 Activities and Performance Plan:

Pursuant to CERCLA, Section 120, EPA will enter into interagency agreements (IAGs) to ensure protective cleanup at a timely pace in FY 2007. EPA will also monitor milestones in existing IAGs, resolve disputes, and oversee all remedial work being conducted by Federal facilities. EPA will also continue its work with affected agencies to resolve outstanding policy issues relating to the cleanup of Federal facilities.

Performance Assessment:
The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. The Agency is exploring methodologies to extend the measure by analyzing the risk associated with the pollutants reduced. This may entail analysis of pollutant hazards and population exposure. Work under

this program supports Improve Compliance, although currently no specific performance measures exist for the program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$112.7) This increase will be used to negotiate and facilitate interagency agreements with other Federal agencies.

- (-1.4 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+$674.2) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CERCLA; SBLRBRERA; DBCRA; Defense Authorization Amendments; BRAC; PPA; CERFA; NEPA; AEA; UMTRLWA; PHSA; DRAA; SDWA; Executive Order 12241; Executive Order 12656.

Program Area: Homeland Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$5,432.4	$6,475.0	$6,799.7	$324.7
Hazardous Substance Superfund	***$0.0***	***$296.0***	***$300.0***	***$4.0***
Total Budget Authority / Obligations	$5,432.4	$6,771.0	$7,099.7	$328.7
Total Workyears	7.4	13.0	13.0	0.0

Program Project Description:

This program coordinates development and implementation of homeland security policy and related information security for the Superfund program. EPA works to ensure rapid access to relevant communication tools, accelerated transfers of data, the development of models and maps to support response activities, and effective Agency wide communication in emergency situations.

FY 2007 Activities and Performance Plan:

EPA's FY 2007 homeland security resources for information systems will continue support for the Agency's rapid response infrastructure by delivering increased network capacity. In FY 2007, EPA will ensure emergency access to the Agency's information resources by continuing deployment of an integrated Internet/WAN/LAN solution – Mobile Laboratory LAN-in-a-Box -- that can be immediately deployed anywhere to equip mobile laboratories with high speed, secure access to the Internet and the EPA WAN, and the ability to share information on scene. In addition, Homeland Security information technology efforts are closely coordinated with the Agency-wide Information Security and Infrastructure activities coordinated and managed in the Information Security and IT/Data Management programs.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$4.0) This increase will support continued deployment of an integrated mobile Laboratory LAN-in-a-Box.

Statutory Authority:

National Oil and Hazardous Substances Pollution Contingency Plan (NCP); CERCLA; SDWA, Clean Water Act; Clean Air Act, BioTerrorism Act; Homeland Security Act of 2002; Defense Against Weapons of Mass Destruction Act (Title XIV of Public Law 104-201).

Homeland Security: Critical Infrastructure Protection
Program Area: Homeland Security
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$6,700.6	$6,787.0	$7,242.7	$455.7
Science & Technology	$17,952.2	$12,393.0	$45,251.0	$32,858.0
Hazardous Substance Superfund	***$1,348.2***	***$1,442.0***	***$1,571.6***	***$129.6***
Total Budget Authority / Obligations	$26,001.0	$20,622.0	$54,065.3	$33,443.3
Total Workyears	47.9	59.0	59.0	0.0

Program Project Description:

This program involves Superfund activities that coordinate and support protection of the nation's critical public infrastructure from terrorist threats. Through this program, EPA provides subject matter expertise and training support for terrorism-related environmental investigations to support responses authorized under CERCLA. The program coordinates the Agency's law enforcement / crisis management activities and participates in Homeland Security Presidential Directives 5, 7, 8 and 10 activities while also having direct responsibilities pursuant to the National Response Plan, Emergency Support Functions 10 and 13 and the Oil and Hazardous Materials Annex.

FY 2007 Activities and Performance Plan:

EPA will focus on its goal, to train all EPA criminal investigators in the National Counter Terrorism Evidence Response Team (NCERT) areas of Weapons of Mass Destruction and Environmental Crime Scene/ Forensic Evidence Collection. In FY 2007, the program will continue this multi-year effort to train and provide these agents with the necessary specialized response and evidence collection equipment. This will enable EPA criminal investigators to collect evidence and process a crime scene safely and effectively in a contaminated environment (hot zone).

EPA criminal investigators support criminal cases and the FBI and DHS in the event of a terrorist attack anywhere in the United States.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted (Dollars in Thousands):

- (+$126.1) This reflects an increase for payroll and cost of living for existing FTE.
- (+$3.5) This minor increase reflects recalculated workforce support contract costs.

Statutory Authority:

CERCLA as amended; EPCRA; FFSA; Pollution Prosecution Act.

Homeland Security: Preparedness, Response, and Recovery

Program Area: Homeland Security
Goal: Land Preservation and Restoration
Objective(s): Restore Land

Goal: Healthy Communities and Ecosystems
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$2,620.2	$3,252.0	$3,328.7	$76.7
Science & Technology	$33,417.3	$35,752.0	$44,498.1	$8,746.1
Hazardous Substance Superfund	***$38,131.8***	***$37,579.0***	***$49,774.9***	***$12,195.9***
Total Budget Authority / Obligations	$74,169.3	$76,583.0	$97,601.7	$21,018.7
Total Workyears	143.2	160.6	165.6	5.0

Program Project Description:

EPA's Homeland Security Emergency Preparedness and Response program develops and maintains an agency-wide capability to respond to incidents of national significance with emphasis on those that may involve Weapons of Mass Destruction (WMD). The program builds upon EPA's 30 year-old emergency response and removal program which is responsible for responding and cleaning-up both oil and hazardous substance releases. EPA's homeland security effort expands these responsibilities to include threats associated with radiological, biological, and chemical agents. Over the next several years the Agency will focus on building the capacity to respond to multiple simultaneous incidents of national significance. To meet this challenge the Agency will use a comprehensive approach that brings together all Agency emergency response assets to implement efficient and effective responses. Another priority for this program is increasing the state of knowledge of potential threats and response protocols through research, development and technical support.

FY 2007 Activities and Performance Plan:

In FY 2007, efforts to develop the capability described above will concentrate on four key areas: 1) developing and maintaining a highly skilled, well-trained and equipped response workforce that can rise to the challenge of responding to simultaneous incidents as well as threats involving WMD substances; 2) developing decontamination options, methods, and protocols to ensure that the nation can quickly recover from a terrorism event; 3) establishing a nationwide environmental laboratory network capability to enhance coordination and standardization of laboratory support; and 4) implementing the EPA's National Approach to Response to effectively manage EPA's emergency response assets during large-scale activations. EPA activities in support of these efforts include the following:

- Developing and maintaining the skills of EPA's On-Scene Coordinators (OSCs) through specialized training, equipment and exercises. The Environmental Response Team, a key component of EPA's response community, will provide responders with WMD training, as well as training on field response, monitoring and sampling equipment. It will also support responders during drills and exercises to test their skills and abilities in utilizing this specialized equipment. The National Decontamination Team, with expertise in health and safety, will provide them with information on WMD decontamination protocols, methods and techniques.

- Participating in national events that require a heightened level of security. EPA estimates it will pre-deploy its emergency response personnel and response assets to six such national security events.

- Developing data portability tools for field responders. This includes full integration of the decontamination portfolio in the emergency portal which will use the Internet and enable downloading on multiple types of portable devices. EPA will continue to manage, collect and validate the portfolio content for new and existing WMD agents as new decontamination techniques are developed or other information emerges from the scientific community.

- Establishing a national laboratory capability to coordinate with other established laboratory networks that can provide lab analysis in the aftermath of a terrorist attack. Activities will include participation with the Integrated Consortium of Lab Networks, maintaining and updating a laboratory compendium of Federal, state and commercial capabilities, developing an additional lab capability with State lab community and developing standard operating procedures and standards of performance.

- Implementing the National Approach to Response to maximize regional interoperability and to ensure that EPA's OSCs will be able to respond to terrorist threats and incidents in an effective, nationally consistent manner.

- Continue to develop and validate environmental sampling and analysis and human health risk assessment methods for known and emerging biological threat agents in accordance with Homeland Security Presidential Directive-10. These sampling and analysis methods are critical to ensuring appropriate response and recovery actions and developing necessary laboratory support capacity. The human health risk assessment methods also are extremely important to decisions makers who are faced with determining when decontaminated facilities and equipment can be returned to service. This decontamination and consequence management research will produce data, information, and technologies to assist EPA in developing standards, protocols, and capabilities to recover from and mitigate the risks associated with biological attacks.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+ $9,500.0 and +5 FTE) This increase is requested for a new initiative to develop an environmental laboratory preparedness and response capability. The initiative will improve coordination with other established laboratory networks that can provide lab analysis in the aftermath of a terrorist attack. This includes $641.5 to support payroll for 5 additional FTE.

- (+$1,731.1) This increase supports acquisition of emergency equipment for decontamination and pre-deployment of personnel and resources to national security events.

- (+$1,006.7) This reflects an increase for payroll and cost of living for existing FTE, but does not include payroll for the 5 FTE requested to support the environmental laboratory capability initiative.

- (-$41.9) This decrease reflects a minor recalculation of base workforce support contract costs for decontamination research.

Statutory Authority:

CERCLA Section 104, 105, 106; CWA; Oil Pollution Act.

Homeland Security: Protection of EPA Personnel and Infrastructure

Program Area: Homeland Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$9,102.2	$6,199.0	$6,268.9	$69.9
Science & Technology	$2,517.6	$2,050.0	$2,079.0	$29.0
Building and Facilities	$12,936.5	$11,331.0	$11,385.1	$54.1
Hazardous Substance Superfund	***$694.2***	***$588.0***	***$594.2***	***$6.2***
Total Budget Authority / Obligations	$25,250.5	$20,168.0	$20,327.2	$159.2
Total Workyears	4.4	3.0	3.0	0.0

Program Project Description:

This program involves activities to ensure that EPA's physical structures and assets are secure and operational and that the Agency is prepared to conduct its essential functions during an emergency or threat situation. This involves safeguarding EPA's staff, ensuring the continuity of operations, and protecting EPA's vital infrastructure assets.

FY 2007 Activities and Performance Plan:

The Agency will continue to update its physical security vulnerability assessments and continue the mitigation of medium vulnerabilities at our most sensitive facilities. The Agency will also conduct rehearsal of (1) Continuity Of Operations (COOP) site activation, (2) movement of COOP site and (3) the mission essential functions from its remote alternate site, including interagency operations.

In FY 2007 EPA plans to support training activities and to participate in a major interagency COOP exercise, and one EPA internal COOP exercise.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$6.2) This increase will support activities to ensure continuity of operations.

Statutory Authority:

Public Health Security and Bioterrorism Emergency and Response Act of 2002; CERCLA.;104-102 (Nunn-Lugar II) National Response Plan; and National Security Act of 1947, as amended (50 U.S.C. 401 et seq.)

Program Area: Information Exchange / Outreach

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$48,407.3	$50,291.0	$52,142.7	$1,851.7
Hazardous Substance Superfund	***$111.7***	***$48.0***	***$130.4***	***$82.4***
Total Budget Authority / Obligations	$48,519.0	$50,339.0	$52,273.1	$1,934.1
Total Workyears	396.2	370.2	381.1	10.9

Program Project Description:

The Congressional, Intergovernmental, External Relations program disseminates information about Superfund enforcement actions, compliance monitoring and the availability of compliance assistance. Monthly Enforcement Alerts, regular news briefs about Superfund enforcement and compliance assistance activities and a website with easily accessible tools for retrieving information are some of the tools used to inform stakeholders. Comprehensive reports and Agency documents are also posted in a timely manner.

FY 2007 Activities and Performance Plan:

During FY 2007, the Agency will continue to foster public awareness of Superfund environmental issues and the Federal government's role in monitoring compliance and enforcing Superfund laws. This awareness and support are critical to public support and to the Agency's success in meeting its goals. The Agency will issue the following informational materials: enforcement alerts; accomplishments reports; daily updating of the website; weekly news alerts**;** specialized list-servers with periodic postings; and news releases as Superfund major cases are concluded.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$24.1) This reduction reduces funding for preparation of information on Superfund environmental issues.

- (+$106.5) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CERCLA.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$16,723.0	$17,700.0	$16,048.5	($1,651.5)
Hazardous Substance Superfund	***$2,330.3***	***$1,650.0***	***$1,432.4***	***($217.6)***
Total Budget Authority / Obligations	$19,053.3	$19,350.0	$17,480.9	($1,869.1)
Total Workyears	24.6	24.0	24.0	0.0

Program Project Description:

This program supports the Superfund development and maintenance of the Environmental Information Exchange Network (the Exchange Network), an integrated information system that facilitates information sharing among EPA and its partners using standardized data formats and definitions. The Exchange Network provides a centralized approach to receiving and distributing information, and improving access to timely and reliable environmental information. This program provides resources for the development, implementation, operation and maintenance for the Agency's Central Data Exchange (CDX, www.epa.gov/cdx), the point of entry on the Exchange Network for data submissions to the Agency. The program also develops the regulatory framework to ensure that electronic submissions are legally acceptable, establishes partnerships with states, tribes, territories and tribal consortia; and, supports the e-Rulemaking e-Government initiative. E-Rulemaking is designed to improve the public's ability to find, view, understand and comment on Federal regulatory actions, and EPA is providing the leadership role on this effort.

FY 2007 Activities and Performance Plan:

In FY 2007, the major focus is on fulfilling the Agency's e-Government (e-Gov) commitments and support of EPA's information technology initiatives. These activities build upon efforts started in FY 2004-2006 to enhance the availability, quality and analytical usefulness of environmental information for EPA and its partners and stakeholders. These efforts support the data exchange of States, Tribes and other partners, through the use of the Exchange Network and EPA's node on the Exchange Network, the Central Data Exchange (CDX).

The Exchange Network is the cornerstone of the Agency's efforts to partner with states, tribes and territories to exchange secure, accurate and timely information that supports environmental and health decisions. In FY 2007, EPA, states, tribes, and territories will continue to re-engineer

data systems so that information that was previously not available or not easily available can be exchanged using common data standards and computer language called schemas. In FY 2007, all 50 states and approximately 10 tribes will have established nodes on the Exchange Network and will be mapping data to the new schemas for sharing with partners and submission to EPA. These efforts will be closely coordinated with the Agency's Program Offices, as well as data system registries.

EPA's efforts capitalize on the Exchange Network and CDX to continue to improve access to and availability of relevant program data including data systems supporting the Superfund program (e.g., Risk Management Plan and Institutional Control data flows) for states, tribes and direct reporting participants. Additional data flow capability will increase information accuracy through tools that check data before submission, increase timeliness of data, improve analytical capability, and create economies of scale as standards and schemas are reused and additional efficiencies are found through re-engineering.

In addition, EPA will be implementing electronic reporting standards that will support the authentication and electronic signatures of report submitters. EPA will work to provide assistance to states, tribes and territories in implementing these standards.

Effective implementation of the Exchange Network activities relies on close coordination with the Information Security and Agency Architecture and data management activities. Coordination helps to ensure necessary system security measures are adhered to, system platforms follow the Agency's Enterprise Architecture, and data management follows documented data standards.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Number of major EPA environmental systems that use the CDX electronic requirements enabling faster receipt, processing, and quality checking of data. The baseline is 70 data flows.	22	12	29	36	Systems

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Number of users from states, tribes, laboratories, and others that choose CDX to report environmental data electronically to EPA. The baseline of	45,000	20,000	47,000	55000	Users

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	users for the scheduled deployments of data flows is approximately 75,000 users.					

Work under this program supports multiple objectives.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$217.6) The reduction in resources reflects the Superfund portion of a shift in the emphasis of the Central Data Exchange from infrastructure to adding data flows and Web services; and scheduling Enterprise Content Management System and enterprise solutions deployments to better align with Agency readiness, and with the lifecycle phase of the e-Rulemaking project.

Statutory Authority:

Federal Advisory Committee Act; Government Information Security Reform Action; CERCLA; CAA and amendments; CWA and amendments; Environmental Research, Development, and Demonstration Act; TSCA; FIFRA; Food Quality Protection Act; Safe Drinking Water Act and amendments; Federal Food, Drug and Cosmetic Act; Emergency Planning and Community Right-to-Know; SARA; GPRA; GRMA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; Privacy Act; EFOIA; EPAct.

Program Area: IT / Data Management / Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$4,745.6	$3,751.0	$5,562.1	$1,811.1
Hazardous Substance Superfund	***$234.6***	***$341.0***	***$788.6***	***$447.6***
Total Budget Authority / Obligations	$4,980.2	$4,092.0	$6,350.7	$2,258.7
Total Workyears	14.3	14.3	15.8	1.5

Program Project Description:

The Superfund portion of the Information Security program protects the confidentiality, availability, and integrity of the EPA's Superfund information assets. The program: establishes a risk-based cyber security program using a defense-in-depth approach that includes partnering with other Federal agencies and the states; implements aggressive efforts to respond to evolving threats and computer security alerts and incidents, and integrates information security into its day-to-day business; manages the Federal Information Security Management Act (FISMA) data collection and reporting requirements; and, supports the development, implementation and operations and maintenance of the security documentation system ASSERT.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue its technical and system analyses, evaluations, and assessments to maintain the security of EPA's Superfund information. The constant system and network monitoring is essential to detect and identify any potential weaknesses or vulnerabilities that might compromise EPA's information assets. These proactive efforts allow EPA to develop cost-effective solutions that extend EPA's long-term goal of building analytical capacity. EPA will also coordinate information security activities with the Homeland Security IT, Exchange Network and IT/Data Management program requirements and where possible identify and implement more efficient solutions.

In FY 2007, Information Security continues to be a critical factor in the effective management of a Continuity of Operations (COOP) Plan. The Information Security program will continue to coordinate with the IT/Data Management to prepare the Agency for successful identification and implementation of the necessary information management infrastructure, telecommunications, and standard operating procedures to ensure that EPA can promptly respond to emergency situations. In FY 2005 and early FY 2006, EPA's COOP Program met the challenge of

Hurricanes Katrina and Rita with support that included emergency response access to the web and internet, IT, communications, and other critical services.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of Federal Information Security Management Act reportable systems that are certified and accredited.	94	75	100	100	Percent

Work under this program supports multiple objectives.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$387.9) The increase will support development of the national Information Systems Security Line of Business (ISS LOB), and OMB e-Government initiatives.

- (+$59.7) This increase reflects a shift of payroll resources from IT Data Management to Information Security programs to better align resources, skills, and Agency priorities.

- (+0.5 FTE) The FTE increase reflects a shift from the IT Data Management program to the IT Security Program to better align resources, skills, and Agency priorities.

Statutory Authority:

FISMA; GPRA; GMRA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; Privacy Act; EFOIA.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$84,371.1	$94,567.0	$96,807.2	$2,240.2
Science & Technology	$4,141.3	$4,173.0	$4,268.0	$95.0
Leaking Underground Storage Tanks	$108.0	$182.0	$175.9	($6.1)
Oil Spill Response	$39.5	$31.0	$32.5	$1.5
Hazardous Substance Superfund	***$17,734.0***	***$17,053.0***	***$17,120.4***	***$67.4***
Total Budget Authority / Obligations	$106,393.9	$116,006.0	$118,404.0	$2,398.0
Total Workyears	510.4	486.4	488.0	1.6

Project Description:

The Superfund IT/Data Management program manages and coordinates the Agency's Enterprise Architecture and develops analytical tools (e.g., Environmental Indicators) to ensure sound environmental decision-making. The program implements the Agency's e-Government responsibilities as well as designs, develops and manages the Agency's Internet and Intranet resources including the Integrated Portal. In addition, the IT/Data Management program supports the development, collection, management, and analysis of environmental data (to include both point source and ambient data) to manage statutory programs. The program supports the Agency in strategic planning at the national, program, and regional levels, and provides a secure, reliable, and capable information infrastructure based on a sound enterprise architecture which includes data standardization, integration, and public access. The program manages the Agency's Quality System ensuring EPA's processes and data are of quality and adhere to Federal guidelines, and supports Regional Superfund information technology infrastructure, administrative and environmental programs, and telecommunications. These functions are integral to the implementation of Agency information technology programs and systems like the Exchange Network, the Central Data Exchange (CDX, http://www.epa.gov/cdx) and Permit Compliance System (PCS, http://www.epa.gov/enviro/html/pcs/index.html) Agency Offices rely on the IT/Data Management program and its capabilities to develop and implement tools for ready access to accurate and timely data. Recent internal partnerships include portal projects with the Research and Development program and the Air and Radiation program to access scientific and program data.

FY 2007 Activities and Performance Plan:
In FY 2007, EPA's Information Technology community will continue to focus on the Agency's Technology Initiative and fulfilling the Agency's e-Government (e-Gov) commitments. The Agency's Technology Initiative builds on efforts started in FY 2004 and FY 2005 to enhance environmental analytical capacity for EPA, its partners and stakeholders. The Initiative is designed with the understanding that the majority of environmental data are collected by states and Tribes, not directly by EPA that ready access to real time quality environmental data and analytical tools is essential to making sound environmental decisions. The Agency's IT/Data Management program forms the core of this effort with its focus on building and implementing the Agency's Integrated Portal and Enterprise Content Management System (ECMS), developing improved Environmental Indicators, and deploying enterprise-wide IT infrastructure solutions. The ECMS, and EPA's enterprise-wide IT infrastructure solutions, combined with the Exchange Network (e.g., Central Data Exchange, CDX), provides the foundation for improved information, data access and sharing opportunities among the states, the Tribes, the public, the regulated community, and EPA.

In FY 2007 EPA's Integrated Portal activities continue implementing identity and access management solutions, integrating geospatial tools, and linking the CDX in support of the Superfund Program. The Portal is the Technology Initiative's link to diverse data sets and systems giving users the ability to perform complex environmental data analyses on data stored at other locations. It provides a single business gateway for EPA's Superfund program, partners, and stakeholders to access, exchange and integrate standardized local, Regional and national environmental and public health data.

Using a collaborative process, the Agency will continue to implement the ECMS project, an enterprise-wide, multi-media solution designed to manage and organize environmental data and documents for EPA programs, regional offices, field offices and laboratories. Previously fragmented data storage approaches will be converted into a single tool on a standard platform which is accessible to everyone, reducing data and document search time and assisting in security and information retention efforts.

EPA's infrastructure program will continue to deliver secure information services to ensure that the Agency and the Superfund programs have a full range of information technology infrastructure components (e.g., user equipment, network connectivity, e-mail, application hosting, and remote access) that make information accessible across the spectrum of mission needs at all locations.

In addition to supporting key components of EPA's Technology Initiative, Superfund program will continue to provide regional offices with critical support for hardware requirements, software programming and applications, records management systems, data base services, local area network activities, intranet web design, and desktop support. EPA's environmental information needs require the Agency to ensure that it is keeping pace with the States in the areas of data collection, management and utilization. Additionally, this program will continue to focus on information security and the need for each regional office to have an internal IT security capacity. The regional offices will implement Agency information resource management policies in areas such as data and technology standards, central data base services, and

telecommunications. The regional offices will also continue to work on the implementation of cost accounting procedures to capture in detail all IT expenditures for EPA offices.

Information Technology continues to be a critical factor in the effective management of a Continuity of Operations (COOP) Plan. The IT/Data Management program continues to prepare the Agency for successful identification and implementation of the necessary information management infrastructure, telecommunications, and standard operating procedures to ensure that EPA can promptly respond to emergency situations. In FY 2005 and early FY 2006, EPA's COOP Program met the challenge of Hurricanes Katrina and Rita with support that included emergency response access to the web and internet, IT, communications, and other critical services.

The Superfund Program efforts are integral to the Exchange Network and Information Security programs. Together these programs work to design, develop, and deploy secure systems and analytical tools to promote sound environmental decision-making.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$982.2) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs. In addition, this decrease reflects a $59.7 shift associated with the 0.5 FTE shift below from this program project to Information Security within Superfund.

- (+$1,049.6) This resource increase supports enhanced IT/Data Management regional requirements including records support, local area network activities, data systems support (e.g. ECMS), and hardware needs.

- (-0.5 FTE) The FTE decrease reflects a shift from the IT Data management program to the Information Security program to support ASSERT and EISS.

Statutory Authority:

Federal Advisory Committee Act; Government Information Security Reform Action; CERCLA; CAA and amendments; CWA and amendments; Environmental Research, Development, and Demonstration Act; TSCA; FIFRA; Food Quality Protection Act; Safe Drinking Water Act and amendments; Federal Food, Drug and Cosmetic Act; Emergency Planning and Community Right-to-Know; RCRA; SARA; GPRA; GMRA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; Computer Security Act; Privacy Act; EFOIA; EPAct.

Program Area: Legal / Science / Regulatory / Economic Review

Alternative Dispute Resolution

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$1,531.0	$1,048.0	$1,229.8	$181.8
Hazardous Substance Superfund	***$980.4***	***$975.0***	***$887.2***	***($87.8)***
Total Budget Authority / Obligations	$2,511.4	$2,023.0	$2,117.0	$94.0
Total Workyears	11.6	7.9	7.6	-0.3

Program Project Description:

The General Counsel and Regional Counsel offices will provide environmental Alternative Dispute Resolution services (ADR). Funding supports the use of ADR in the Superfund program's extensive legal work with Potentially Responsible Parties (PRPs).

FY 2007 Activities and Performance Plan:

In FY 2007, the Agency will provide conflict prevention and alternative dispute resolution services to EPA Headquarters and Regional Offices and external stakeholders on environmental matters. The national ADR program assists in developing effective ways to anticipate, prevent and resolve disputes and makes neutral third parties – such as facilitators and mediators – more readily available for those purposes. Under EPA's ADR Policy, the Agency encourages the use of ADR techniques to prevent and resolve disputes with external parties in many contexts, including adjudications, rulemaking, policy development, administrative and civil judicial enforcement actions, permit issuance, protests of contract awards, administration of contracts and grants, stakeholder involvement, negotiations and litigation.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.3 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$25.7) This reflects a minimal reduction to the ADR Superfund resources.

- (-$62.1) This reduction is the net effect of an increase for payroll and cost of living for existing FTE, combined with a recalculation of base workforce costs.

Statutory Authority:

EPA's General Authorizing Statutes

Legal Advice: Environmental Program

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$32,764.8	$35,931.0	$37,525.5	$1,594.5
Hazardous Substance Superfund	***$722.8***	***$755.0***	***$690.8***	***($64.2)***
Total Budget Authority / Obligations	$33,487.6	$36,686.0	$38,216.3	$1,530.3
Total Workyears	236.3	250.9	249.8	-1.1

Program Project Description:

The Agency's General Counsel and Regional Counsel offices will provide legal representational services, legal counseling and legal support for all Agency environmental activities. Funding supports the use of legal advice in the Superfund programs extensive legal work with Potentially Responsible Parties (PRPs).

FY 2007 Activities and Performance Plan:

In FY 2007, legal advice to environmental programs will include but is not limited to: representing EPA and providing litigation support in cases where EPA is a defendant as well as those cases where EPA is not a defendant but may have an interest in the case: providing legal advice, counsel and support to Agency management and program offices on matters involving environmental issues including, for example, providing interpretations of relevant and applicable laws, regulations, directives, policy and guidance documents and other materials.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures for this specific program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.6 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$48.5) This reduction is the net effect of an increase for payroll and cost of living for existing FTE, combined with a recalculation of base workforce costs.

- (-$15.7) This reflects a minimal reduction to Superfund environmental legal services resources.

Statutory Authority:

EPA's General Authorizing Statutes

Program Area: Operations and Administration

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$22,223.9	$23,168.0	$21,847.0	($1,321.0)
Hazardous Substance Superfund	***$3,109.3***	***$3,060.0***	***$2,920.8***	***($139.2)***
Total Budget Authority / Obligations	$25,333.2	$26,228.0	$24,767.8	($1,460.2)
Total Workyears	195.1	164.8	163.3	-1.5

Program Project Description:

Grants and Interagency Agreements comprise over half of the Agency's budget. Superfund resources in this program support activities related to the management of Financial Assistance Grants/Interagency Agreements (IAGs), and of suspension and debarment at Headquarters and within Regions. The key components of this program are ensuring that EPA's management of meets the highest fiduciary standards, and that grant funding produces measurable environmental results. This program focuses on maintaining a high level of integrity in the management of EPA's assistance agreements, and fostering relationships with state and local governments to support the implementation of environmental programs. A substantial portion of the Superfund program is implemented through IAGs with the Army Corps of Engineers and the Coast Guard. Sound grants management fosters efficiency and effectiveness assisting all of EPA's programs.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will achieve key objectives under its long-term Grants Management Plan. These objectives include strengthening accountability, competition and positive environmental outcomes, and aggressively implementing new and revised policies on at-risk grantees. [1] The Grants Management Plan has provided a framework for extensive improvements in grants management at the technical administrative level, programmatic oversight level and at the executive decision-making levels of the Agency. EPA will continue to reform grants management by conducting on-site and pre-award reviews of grant recipients and applicants, performing indirect cost rate reviews, providing Tribal technical assistance, and implementing its Agency wide training program for project officers, grant specialists, and managers.

[1] US EPA, EPA Grants Management Plan. EPA-216-R-03-001, April 2003. Available at http://www.epa.gov/ogd/EO/finalreport.pdf

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from the FY 2006 Enacted Budget (Dollars in Thousands):

- (-$227.8) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$88.6) This increase will support activities for conducting on-site and pre-award reviews of grant recipients and applicants.

Statutory Authority:

EPA's environmental statutes; Annual Appropriations Act; FGCAA Section 40; CFR Parts: 30, 31, 35, 40, 45, 46, and 47

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$317,744.7	$343,908.0	$294,760.1	($49,147.9)
Science & Technology	$8,892.1	$8,511.0	$70,239.5	$61,728.5
Building and Facilities	$32,244.5	$28,295.0	$28,430.9	$135.9
Leaking Underground Storage Tanks	$982.9	$894.0	$916.8	$22.8
Oil Spill Response	$552.1	$500.0	$499.3	($0.7)
Hazardous Substance Superfund	***$65,156.8***	***$69,667.0***	***$73,944.7***	***$4,277.7***
Total Budget Authority / Obligations	$425,573.1	$451,775.0	$468,791.3	$17,016.3
Total Workyears	364.1	437.2	438.6	1.4

Program Project Description:

Superfund resources in the Facilities Infrastructure and Operations Program Project are used to fund rent, utilities, and security, and also to manage activities and support services in many centralized administrative areas such as health and safety, environmental compliance, occupational health, medical monitoring, fitness/wellness and safety, and environmental management functions at EPA. Resources for this program also support a full range of ongoing facilities management services including: facilities maintenance and operations; Headquarters security; space planning; shipping and receiving; property management; printing and reproduction; mail management; and transportation services.

FY 2007 Activities and Performance Plan:

The Agency will continue to manage its lease agreements with GSA and other private landlords by conducting rent reviews and verifying that monthly billing statements are correct. The Agency also reviews space needs on a regular basis.

These resources also help to improve operating efficiency and encourage the use of new, advanced technologies and energy. EPA will continue to direct resources towards acquiring alternative fuel vehicles and more fuel-efficient passenger cars and light trucks to meet the goals set by Executive Orders (EO) 13149[2], *Greening the Government through Federal Fleet and*

[2] Information available at http://www.epa.gov/fedsite/eo13149.htm

Transportation Efficiency and EO 13123[3], *Greening the Government through Efficient Energy Management*. Additionally, the Agency will attain the Executive Orders' goals through several initiatives including comprehensive facility energy audits, sustainable building design in Agency construction and alteration projects, energy savings performance contracts to achieve energy efficiencies, the use of off-grid energy equipment, energy load reduction strategies, green power purchases, and the use of Energy Star products and Energy Star rated buildings.

EPA will provide transit subsidy to eligible applicants as directed by Executive Order (EO) 13150[4] "Federal Workforce Transportation." EPA will continue the implementation of the Safety and Health Management Systems to ensure a safe working environment. As a result of an ongoing review of indirect cost charging in FY 2007, the Agency is reviewing the allocation of rent, security and utilities costs among EPA's various appropriations. The largest shift is to the Science and Technology appropriation, but other appropriations proportions have been adjusted. Charging reflects actual costs for personnel within the Superfund appropriation.

In FY 2007, the Agency will complete its Headquarters space consolidation project for the offices in Crystal City, VA. The move to the new facility in Region 8 (Denver, CO) will begin.

Performance Targets:

Work under this program supports multiple objectives. Performance information is included in the Program Performance and Assessment section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+843.2) This is not an increase to the overall program, but a shift from the Environmental Programs and Management account. It is due to a recalculation of the Superfund allocation for rent, security and utilities in the Superfund program. This change reflects the restructuring of cost allocation methodologies. In the past, direct laboratory rent, security, and utilities have been included under the EPM appropriation. This methodology change will better reflect actual costs for personnel with S&T funds.

- (+$2,252.3) This adjustment represents an increase in costs associated with rising utilities, resulting from increases in natural gas and oil prices as well as increase costs associated with security. The increase in security includes a base shift from Rent to Security, and represents the cost of the Federal Protective Service and Building Specific Guard contracts previously included in GSA Rent/Lease bills. These costs will now be billed to EPA directly from the Department of Homeland Security.

- (+$1,278.5) This change provides additional resources for the new Region 8 facility in Denver, CO and the new Region 1 facility in Boston, MA – these moves align with lease expirations and are required by GSA.

[3] Information available at http://www.epa.gov/fedsite/eo13123.htm
[4] Additional information available at http://ceq.eh.doe.gov/nepa/regs/eos/eo13150.html

- (-$289.2) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$876.0) Provides additional resources to cover basic facilities management services in EPA's Headquarters and ten regions.

- (-$683.1) This change represents the expected on-time completion of the Crystal City consolidation project at Potomac Yards.

Statutory Authority:

FPASA; PBA; annual Appropriations Acts; CWA; CAA; D.C. Recycling Act; EO 10577 and 12598; United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Homeland Security PDD 63 (Critical Infrastructure Protection).

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$21,830.4	$23,265.0	$25,418.3	$2,153.3
Leaking Underground Storage Tanks	$337.0	$358.0	$360.8	$2.8
Hazardous Substance Superfund	***$17,464.2***	***$19,727.0***	***$23,514.3***	***$3,787.3***
Total Budget Authority / Obligations	$39,631.6	$43,350.0	$49,293.4	$5,943.4
Total Workyears	343.5	364.8	357.2	-7.6

Program Project Description:

Sound contract management fosters efficiency and effectiveness assisting all of EPA's programs. Resources in this program support contract and acquisition management at Headquarters, Regions, Research Triangle Park, North Carolina and Cincinnati, Ohio. Much of the Superfund program is implemented through contracts. EPA focuses on maintaining a high level of integrity in the management of its procurement activities and fostering relationships with state and local governments to support the implementation of environmental programs.

FY 2007 Activities and Performance Plan:

EPA's Acquisition Management System has reached the end of its useful life. Staff increasingly spends time making the system work as opposed to using the system to accomplish their work. The system is obsolete; therefore an upgrade is not feasible. In FY 2007, EPA plans to acquire and to begin implementing a new acquisition system. The new system will provide data on contracts that support mission oriented planning and evaluation. The new system will allow the Agency to reach President's Management Agenda (PMA) goals, e-government requirements and the needs of Agency personnel resulting in more efficient process implementation. Some of the benefits of the new system are: 1) Program offices will be able to track the progress of individual actions; 2) Extensive querying and reporting capabilities to meet internal and external demands. In addition, the system will integrate with the Agency's financial systems and Government-wide shared services.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$764.8) This reflects increases for payroll and cost of living for existing FTE.

- (+$2,000) This change reflects an increase to support the development and deployment of the Agency's new Acquisition Management System. A total of $4,000.0 is requested ($2.0M EPM and $2.0M Superfund). The new Acquisition Management System is required because the existing system is obsolete and impedes efficiency. The new system will be capable of integrating with the GSA Integrated Acquisition Environment (IAE). The IAE is an initiative under the President's Management Agenda effort to expand E-Government.

- (+$1,022.5) This increase will support the Agency in enhancing the education of its contract workforce. The increase will also help support the central contractor registry, which is the single government-wide database for vendor data and part of the IAE.

- (-7.6 FTE) This reduction is in accordance with the Agency-wide workforce adjustment. This reduction also reflects efforts to strategically realign projected workload and skill requirements with updated cost estimates for FTE usage in the Acquisition Management program.

Statutory Authority:

EPA's environmental statutes; Annual Appropriations Acts; contract law.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$46,795.7	$41,275.0	$40,202.5	($1,072.5)
Leaking Underground Storage Tanks	$5.0	$3.0	$3.0	$0.0
Hazardous Substance Superfund	***$5,250.8***	***$5,665.0***	***$5,270.2***	***($394.8)***
Total Budget Authority / Obligations	$52,051.5	$46,943.0	$45,475.7	($1,467.3)
Total Workyears	344.6	297.7	297.6	-0.1

Program Project Description:

Superfund resources in this program support activities related to the provision of human capital and human resources management services to the entire Agency. EPA supports organizational development and management activities through Agency-wide and interagency councils and committees and through participation in interagency management improvement initiatives. The Agency continually evaluates and improves Superfund-related human resource and workforce functions, employee development, leadership development, workforce planning, and succession management.

FY 2007 Activities and Performance Plan:

EPA is committed to fully implementing "Investing in Our People II, EPA's Strategy for Human Capital" [5], which was issued in December 2003 and reviewed in 2005. As a result of that review, the desired outcomes for each strategy were strengthened to focus on measurable results. In FY 2007, the Agency will continue its efforts to implement a Workforce Planning System that will include: closing competency gaps in senior leadership positions; significantly reducing the time to hire for senior executives; and reducing the overall number of vacancies for non-SES positions processed beyond 45-days; and increasing the emphasis on the EPA Environmental Intern Program and other innovative recruitment and hiring flexibilities that address personnel shortages in mission-critical occupations (MCOs).

In accordance with OMB Circular A-76 "Implementation of the Federal Activities Inventory Reform Act of 1998[6] (Public Law 105-270) (FAIR Act), the Agency will build on competitive

[5] US EPA Investing in OUR People II, EPA's Strategy for Human Capital. Available at http://www.epa.gov/oarm/strategy.pdf
[6] Available at http://www.whitehouse.gov/omb/fedreg/fair2002notice4.html

sourcing principles to identify the most efficient, cost effective resources for performing functions critical to the EPA mission.

Performance Targets:

Performance information for this program is included in the corresponding narrative in the Environmental Program and Management section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$713.6) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (+$318.8) This increase will support activities for human resource and workforce planning activities.

Statutory Authority:

Title V USC.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$68,045.9	$73,680.0	$83,548.1	$9,868.1
Leaking Underground Storage Tanks	$730.4	$1,010.0	$1,014.8	$4.8
Hazardous Substance Superfund	***$20,620.3***	***$24,349.0***	***$25,540.8***	***$1,191.8***
Total Budget Authority / Obligations	$89,396.6	$99,039.0	$110,103.7	$11,064.7
Total Workyears	520.6	548.1	537.7	-10.4

Program Project Description:

EPA's financial management community maintains a strong partnership with the Superfund program. The Agency provides a full array of financial management support services necessary to pay Superfund bills and recoup cleanup and oversight costs for the Trust Fund. The Chief Financial Officer (CFO) manages Superfund budget formulation, justification, and execution as well as financial cost recovery. OCFO manages oversight billing for Superfund site cleanups (cost of overseeing the responsible party's cleanup activities), Superfund cost documentation (the federal cost of cleaning up a Superfund site), and refers delinquent accounts receivable and oversight debts to the Department of Justice for collection. (See http://www.epa.gov/ocfo/functions.htm for more information).

FY 2007 Activities and Performance Plan:

EPA will continue efforts to modernize the Agency's financial systems and business processes. The modernization effort will reduce cost, comply with Congressional direction and new Federal financial systems requirements. This work is framed by the Agency's Enterprise Architecture and will make maximum use of enabling technologies for e-Gov initiatives including e-Procurement, e-Payroll, and e-Travel.

EPA plans further improvements to its budgeting and planning system, financial data warehouse, business intelligence tools, and reporting capabilities. These improvements will support EPA's "green" score in financial performance on the President's Management Agenda scorecard by providing more accessible data to support accountability, cost accounting, budget and performance integration, and management decision-making.

In FY 2007, EPA will continue to strengthen its accountability and effectiveness of operations through improved coordination and integration of internal control assessments as required under Revised OMB Circular A-123. Improvements in internal controls will further support EPA's President's Management Agenda initiatives for improved financial performance.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$105.3) This increase will further support activities relating to the assessment and strengthening of internal controls over financial reporting pursuant to OMB Circular A-123, Management for Responsibility for Internal Control.

- (+$1,780.0) This increase continues the modernization process of major Agency financial systems by funding the Financial Replacement System (FinRS) Capital Investment.

- (-$370.4) This decrease reflects costs savings in IT and telecommunications resources.

- (-$323.1) This decrease reflects the net effect of payroll and cost of living increases combined with a reduction based on the recalculation of base workforce costs.

- (-1.7 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-7.8 FTE) This change represents a technical correction to bring FTE levels of the Financial Services portion of this program in line with historic utilization. The 7.8 FTE were transferred to the Financial Services portion of the Superfund Enforcement program.

Statutory Authority:

Annual Appropriations Act; Clinger-Cohen Act; CERCLA; Computer Security Act; E-Government Act of 2002; EFOIA; EPA's Environmental Statutes, and the Federal Grant and Cooperative Agreement Act; Federal Activities Inventory Reform Act; Federal Acquisition Regulations, contract law and EPA's Assistance Regulations (40CFR Parts 30, 31, 35, 40,45,46, 47); Federal Manager's Financial Integrity Act (1982); FOIA; GMRA (1994); Improper Payments Information Act; Inspector General Act of 1978 and Amendments of 1988; Paperwork Reduction Act; Privacy Act; The Chief Financial Officers Act (1990); GPRA (1993); The Prompt Payment Act (1982); Title 5 United States Code; EPAct.

Program Area: Research: Human Health and Ecosystems

Human Health Risk Assessment

Program Area: Research: Human Health and Ecosystems
Goal: Healthy Communities and Ecosystems
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	$33,247.5	$35,637.0	$34,488.5	($1,148.5)
Hazardous Substance Superfund	***$3,848.8***	***$3,755.0***	***$3,847.2***	***$92.2***
Total Budget Authority / Obligations	$37,096.3	$39,392.0	$38,335.7	($1,056.3)
Total Workyears	177.9	184.0	183.9	-0.1

Program Project Description:

The Human Health Risk Assessment (HHRA) program provides health hazard assessments and develops assessment methods to support Superfund in the following areas:

The Integrated Risk Information System (IRIS)[7], Provisional Peer-Reviewed Toxicity Values, and other health hazard assessments: Based on the expressed needs of EPA's Solid Waste and Emergency Response program, this program prepares hazard characterization and dose-response profiles for environmental pollutants and issues of specific relevance to site assessments and remediation. Where IRIS values are unavailable, the HHRA program develops provisional peer-reviewed toxicity values for evaluating chemical specific exposures at Superfund sites. Support for these assessments is provided through the Superfund Technical Support Centers. (R&D Criteria: Quality, Relevance)

Risk assessment guidance, methods, and model development: Improved risk assessment guidance, methods, and models to support Superfund includes the development of dermal absorption tools to better estimate potential human exposures at Superfund sites, and the consultative support necessary for the application of these methods. (R&D Criteria: Quality, Relevance)

Superfund research is guided by the long term *Waste Research Strategy*[8], which was developed with participation from major clients and outlines research needs and priorities. These research efforts are guided by multi-year plans (MYPs)[9], developed with input from across the Agency, which outline steps for meeting the needs of Agency programs and for evaluating progress through annual performance goals and measures. Application of the research results and existing

[7] Available at: <http://www.epa.gov/iris>

[8] U.S. EPA, Office of Research and Development, *Waste Research Strategy (Washington: EPA)*. For additional information please go to: http://www.epa.gov/ord/htm/documents/wastepub.pdf

[9] For additional information, please go to: http://www.epa.gov/osp/myp
The *Waste Research Strategy* outlines the research needs and priorities at the time it was prepared. To guide these research efforts as progress is made and new needs emerge, EPA develops multi-year research plans that are revised periodically. EPA is currently merging the Contaminated Sites and RCRA Multi-Year Plans (MYPs) into one cohesive Land Research MYP, with input from across the Agency, to ensure research conducted continues to support the Agency's mission to protect human health and the environment.

published scientific information to risk assessment needs is described in the HHRA MYP[10]. These MYPs were developed with participation from scientific staff in the Superfund program and the regional offices.

FY 2007 Activities and Performance Plan:

The FY 2007 HHRA program directly supports key elements of EPA's Strategic Plan relating to Superfund--particularly the characterization of risks, reduction of contaminant exposures, and cleanup of contaminated sites. Risk assessment activities relevant to Superfund cleanups will include (R&D Criteria: Relevance):

- Completing IRIS health hazard assessments for high priority chemicals found at multiple Superfund sites and thereby contributing to decision-making needs for Superfund and other Agency programs;
- Completing 25 new and 25 revised provisional peer reviewed toxicity values at the request of the Solid Waste and Emergency Response program;
- Completing a technical summary of dermal exposure methods, thereby providing the latest science for application to human exposure estimates at contaminated sites; and,
- Providing technical support to Superfund site and program managers on human health risk assessment through the Superfund Technical Support Centers.

Performance Targets:

Work under this program supports community and ecosystem protection. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$24.9 / +1.5 FTE) This shift represents realignment from the contaminated sites program in the Land Preservation program under Goal 3 to the HHRA program for the preparation of Provisional Peer Reviewed Toxicity Values (PPRTVs) for use by the Superfund program. Work will continue to support critical needs as the PPRTV values are a priority to the Superfund program.

- (+$67.3) This reflects an increase for payroll and cost of living for existing FTE.

- (-0.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

SWDA; HSWA; SARA; CERCLA.

[10] U.S. EPA, Office of Research and Development, Human Health Risk Assessment Multi-Year Plan (2005). Intranet site to be provided.

Program Area: Research: Land Protection

Research: Land Protection and Restoration

Program Area: Research: Land Protection
Goal: Land Preservation and Restoration
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	$10,257.6	$11,606.0	$10,552.8	($1,053.2)
Leaking Underground Storage Tanks	$699.3	$634.0	$651.3	$17.3
Oil Spill Response	$841.0	$838.0	$903.1	$65.1
Hazardous Substance Superfund	***$23,322.6***	***$22,927.0***	***$21,963.9***	***($963.1)***
Total Budget Authority / Obligations	$35,120.5	$36,005.0	$34,071.1	($1,933.9)
Total Workyears	138.9	135.4	142.8	7.4

Program Project Description:

In order to accelerate cleanup of contaminated sites and reduce risk of contaminant exposure, research focuses on three main themes: addressing questions in characterizing sites and deriving more definitive sediments, multi-media, and ecological risk assessments; reducing specific gaps in our understanding of human exposure; and expanding the number of remedial alternatives with documented performance.

Research within this program project is responsive to the Superfund law requirements under Section 209(a) of Pub. L. 99-499. The law states "...a comprehensive and coordinated Federal program of research, development, demonstration, and training for the purpose of promoting the development of alternative and innovative treatment technologies that can be used in response actions under the CERCLA program, to provide incentives for the development and use of such technologies, and to improve the scientific capability to assess, detect, and evaluate the effects on and risks to human health from hazardous substances."

Research is guided by the long term *Waste Research Strategy*[11], which was developed with participation from major clients and outlines research needs and priorities. These research efforts are guided by multi-year plans (MYPs)[12], developed with input from across the Agency, which outline steps for meeting the needs of Agency programs and for evaluating progress through annual performance goals and measures. Specific human health risk and exposure assessments and methods are discussed and conducted under the Human Health Risk Assessment program.

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[11] EPA, Office of Research and Development, *Waste Research Strategy (Washington: EPA)*. For additional information please go to: http://www.epa.gov/ord/htm/documents/wastepub.pdf

[12] For additional information, please go to: http://www.epa.gov/osp/myp
The *Waste Research Strategy* outlines the research needs and priorities at the time it was prepared. To guide these research efforts as progress is made and new needs emerge, EPA develops multi-year research plans that are revised periodically. EPA is currently merging the Contaminated Sites and RCRA Multi-Year Plans (MYPs) into one cohesive Land Research MYP, with input from across the Agency, to ensure research conducted continues to support the Agency's mission to protect human health and the environment.

EPA requested an independent review of the Contaminated Sites and RCRA multi-year plans by the Science Advisory Board (SAB)[13]. The review panel found the plans to be programmatically and scientifically sound (R&D Criteria: Quality) and commended the research and development program's close coordination with the program office (R&D Criteria: Relevance) and use of leveraging opportunities. The panel endorsed EPA's proposal to merge the two plans, which in part address closely related research needs.

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and products. The Land Protection and Restoration research program was reviewed by the BOSC in FY 2006 (December, 2005). The BOSC will report its findings to the Agency in the 2nd quarter of 2006.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Land Research and Restoration program is scheduled for PART review in 2006. The program has begun developing and refining outcome-based performance measures in order to demonstrate results.

In FY 2007, research will continue to advance EPA's ability to accurately characterize the risks posed by contaminated sediments, and determine the range and scientific foundation for remedy selection options by improving risk characterization, site characterization, and understanding of remedial options (R&D Criteria: Relevance). In FY 2007, contaminated sediments research will provide a consensus framework for modeling remedial alternatives in large water bodies and estuaries, and evaluate the significance of changes (R&D Criteria: Relevance, Performance) in bioavailability of organic and inorganic contaminants following resuspension into the water column and resettlement to the sediment bed. EPA will continue to develop remediation alternatives, conduct evaluations of their short- and long-term performance, and test several remedies to identify approaches that have potential cost and performance advantages (R&D Criteria: Performance). The research is responsive to program office priorities to evaluate conventional and innovative treatment options so that site managers can better select cost effective remedies (R&D Criteria: Relevance, Performance).

In the area of ground water, products in FY 2007 will include assessments of the utility of geophysical techniques for characterizing dense non-aqueous phase liquid (DNAPL) distribution in the subsurface and of the long term impacts of source treatment and characterization of reactive minerals responsible for natural attenuation of DNAPLs (R&D Criteria: Performance). Treatment technologies will be combined to accelerate successful DNAPL site cleanup, with a focus on advanced thermal treatment and flushing processes. EPA developed alternative approaches, such as permeable reactive barriers (PRBs) that will also be evaluated for their applicability to remediate ground water contaminants such as arsenic and mercury. Although PRBs are a recently-developed technology, they are being selected more often for Superfund

[13] EPA-SAB-05-009 Advisory on the Office of Research and Development's Contaminated Sites and RCRA Multi-Year Plans. For additional information please go to: http://www.epa.gov/sab/pdf/contaminated_sites_rcra_sab-05-009.pdf

sites based on documented performance and cost advantages of the systems[14] (R&D Criteria: Performance).

In FY 2007, research will continue toward developing a synthesis document in FY 2008 on experience with alternative landfill covers to continue transferring the results of this research to project managers (R&D Criteria: Performance). High interest in this area of research is evident from substantial participation in EPA's 2005 Third International Phytotechnologies Conference[15] (R&D Criteria: Relevance).

EPA will continue to provide technical support to Superfund project managers via seven technical support centers (TSCs) and two modeling assistance websites that provide site-specific technical support to more than 100 cleanup program sites in the form of responses to scientific questions (e.g., human health and environmental toxicity), and technology transfer products to EPA program offices and other stakeholders (R&D Criteria: Performance). TSCs provide direct, practical, expert assistance to EPA program offices, Regions and other stakeholders. They also provide information based on research results to increase the speed and quality of Superfund cleanups and reduce associated cleanup costs (R&D Criteria: Quality, Performance). Development of human health toxicity values and technical support activities are discussed and conducted under the Human Health Risk Assessment program.

Performance Targets:

Work under this program supports restoring land. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$847.4) This reflects an increase for payroll and cost of living for existing FTE.

- (+9.7 FTE) This change in workyears reflects a redirection of workyears from the SITE program which is being terminated in FY 2007. These workyears will support research in the areas of contaminated sediments remediation, groundwater transport, and landfill research.

- (-$1,631.7) This reflects a reduction of funding for work to develop field deployable bioanalytical measurement techniques for Superfund analytes, statistical guidances for field sampling, and measurement methods for organic chemicals in soils in support of Superfund.

[14] U.S. EPA, Office of Research and Development. *Capstone Report on the Application, Monitoring, and Performance of Permeable Reactive Barriers for Ground-Water Remediation.* (EPA/600/R-03/045) Washington D.C.: U.S. Government Printing Office. (2003).

[15] For more information please go to: (http://clu-in.org/phytoconf/agenda.cfm).

- (-$178.8, -1.5 FTE) This shift represents a realignment of work years from the Contaminated Sites program to the Human Health Risk Assessment (HHRA) program for the preparation of Provisional Peer Reviewed Toxicity Values (PPRTVs) for use by the Superfund program. Work will continue to support critical needs as the PPRTVs are a priority to the Superfund program. This decrease in work years is in alignment with our Human Capital Planning priorities.

Statutory Authority:

SWDA; HSWA; SARA; CERCLA; RCRA; OPA; BRERA.

Research: SITE Program
Program Area: Research: Land Protection
Goal: Land Preservation and Restoration
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund	***$6,730.9***	***$1,206.0***	***$0.0***	***($1,206.0)***
Total Budget Authority / Obligations	$6,730.9	$1,206.0	$0.0	($1,206.0)
Total Workyears	6.1	9.7	0.0	-9.7

Program Project Description:

The Superfund Innovative Technology Evaluation (SITE)[16] program has conducted high-quality field demonstrations of remediation technologies at sites that pose high risks to human health and the environment. Complex sites where existing remediation methods are inadequate, do not exist, are unsafe for the surrounding communities, and/or are too costly were the focus of these advances in technology. Since 1987, the SITE program has helped private sector technology developers accelerate implementation of their innovative technologies and gain market share.

FY 2007 Activities and Performance Plan:

In FY 2007, the SITE program will be terminated. As the Superfund program matured, innovative approaches evaluated through the SITE program and other mechanisms became standard tools for remediation (R&D Criteria: Quality, Relevance, Performance).

Performance Targets:

Work under this program supports restoring land. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$508.0) This is a reduction of the funds from the SITE program, which is being terminated. The SITE program concluded demonstration of innovative remediation, monitoring, and measurement approaches in FY 2006.

- (-$698.0) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

[16] For more information about EPA's SITE program, see http://www.epa.gov/ORD/SITE/

- (-9.7 FTE) Workyears associated with the SITE program are being redirected to land protection and restoration research.

Statutory Authority:

SWDA; HSWA; SARA; CERCLA; RCRA; OPA; BRERA.

Program Area: Research: Sustainability

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	$36,354.6	$25,803.0	$21,404.9	($4,398.1)
Hazardous Substance Superfund	***$501.0***	***$292.0***	***$0.0***	***($292.0)***
Total Budget Authority / Obligations	$36,855.6	$26,095.0	$21,404.9	($4,690.1)
Total Workyears	111.1	76.2	77.3	1.1

In FY 2006, Program/Project Research: Pollution Prevention (B6) was eliminated and Program/Projects Research: Economics and Decision Sciences (EDS) (H7) and Research: Sustainability (H8) established.

Program/Project Description:

In addition to conducting research related to human health and environmental threats, EPA is committed to promoting sustainability—achieving economic prosperity while protecting natural systems and quality of life. One of the specific sustainability research areas includes the Small Business Innovation Research (SBIR) Program.[17] As required by the Small Business Act as amended,[18] EPA sets aside 2.5% of its extramural research budget for contracts to small businesses to develop and commercialize new environmental technologies. EPA is drafting a new sustainability research strategy and Multi-Year Plan. In the interim, research will be guided by the agency's Pollution Prevention Research Strategy[19] and draft Multi-Year Plan.[20]

Performance Targets:

Work under this program supports compliance and environmental stewardship. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$292.0) This reflects an adjustment for Small Business Innovation Research (SBIR).

Statutory Authority:

CAA; CWA; FIFRA; PPA; RCRA; SDWA; SBA; SARA; TSCA.

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[17] For more information, visit: <http://es.epa.gov/ncer/sbir>
[18] U.S. Public Law 219. 79th Congress, 2nd session, 22 July 1982. *Small Business Innovation Development Act of 1982.* More information is available on the Internet at: <http://thomas.loc.gov/cgi-bin/bdquery/z?d097:s.881:>
[19] EPA, Office of Research and Development, *Pollution Prevention Research Strategy (Washington: EPA, 1998).* Available on the Internet at: <http://www.epa.gov/ord/htm/documents/p2.pdf>
[20] EPA, Office of Research and Development, *Draft Pollution Prevention and New Technologies for Environmental Protection Multi-Year Plan (Washington: EPA, 2003).*

Program Area: Superfund Cleanup

Superfund: Emergency Response and Removal
Program Area: Superfund Cleanup
Goal: Land Preservation and Restoration
Objective(s): Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund	***$197,032.3***	***$193,584.0***	***$192,398.9***	***($1,185.1)***
Total Budget Authority / Obligations	$197,032.3	$193,584.0	$192,398.9	($1,185.1)
Total Workyears	290.1	293.8	281.4	-12.4

Program Project Description:

The Emergency Response and Removal Program ensures all releases of chemical, biological, and radiological incidents to the environment are appropriately addressed through either a Federally-funded lead action or by providing technical support to state, local, and other Federal responders. Through authorities spelled out in various statutes and the National Contingency Plan (NCP), EPA, as the Federal On-Scene Coordinator (OSC), evaluates and responds to thousands of small to large releases. This activity ensures that spills are appropriately addressed to protect human health and the environment. EPA leads and/or provides support at over 365 removal actions each year, including emergencies, time-critical incidents, and important but less urgent non-time critical threats. This activity also supports the development and maintenance of the necessary response infrastructure to enable EPA to effectively respond to accidental and intentional releases as well as natural disasters like Hurricane Katrina.

FY 2007 Activities and Performance Plan:

In FY 2007, funding for Removal and Removal Support activities will assist Federal OSCs, who conduct and/or provide support at removal assessments, respond to emergency responses, and complete 315 removal actions. This number excludes actions at Federal facilities and actions by potentially responsible parties with enforcement instruments.

Performance Assessment: The Superfund Removal Program received its first PART review in FY 2003 and its second PART review in FY 2005. It addresses releases, and threats of releases, of hazardous substances into the environment that present a threat to the public health or welfare. The initial PART review completed in FY 2003 had an overall rating of "Results Not Demonstrated" because the program lacked adequate performance measures or an efficiency measure. In FY 2005, the Removal program received an overall rating of "Moderately Effective" from OMB's PART review because it established performance and efficiency measures. In addition to implementing the new measures, EPA is taking steps to improve data accuracy and completeness through continuing efforts to modernize the program's data repository (CERCLIS).

The Agency will continue to improve its effectiveness and efficiency for responses conducted at removal sites that may require more complicated cleanup options. These complicated sites involve more expertise and expensive resources and frequently take longer to complete. In addition, they often require personnel with specific knowledge on harmful substances, health and safety issues, complex options or the utilization of emerging technologies.

EPA will improve its ability to respond effectively to incidents that may involve harmful chemical, biological, and radiological substances. As part of its strategy for improving effectiveness, the Agency will improve response readiness using data provided in the after-action reports prepared by EPA emergency responders. Lessons learned from these reports are used to develop smarter technical solutions for the OSC community. The Agency will continue to maintain highly skilled technical personnel in the field, ensuring their readiness to respond to releases of dangerous materials without compromising health and safety. EPA also will continue to strengthen its site communications as well as collection and exchange of information.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Superfund-lead removal actions completed annually.	172	195	195	195	removals

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Voluntary removal actions, overseen by EPA, completed.	137	105	110	115	removals

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Superfund-lead removal actions completed annually per million dollars.	1.54	2.10	0.91	0.92	removals

During the FY 2005 PART process, EPA developed four new performance measures for its Removal program, including two annual output measures and two long-term output measures as well as an efficiency measure. EPA has developed baselines for each of these performance measures using FY 2004 data. The Agency will now track annual and long-term Superfund-lead removal action completions and voluntary removal action completions overseen by EPA. Measuring removal actions will assess the reduction and/or elimination of exposure risks to human health and the environment. Measuring voluntary removal actions will assess the reduction in the need for EPA intervention, thereby allowing EPA's technical expertise to be used to reduce the risks to human health and the environment at other removal sites. The efficiency measure will track the total number of removal actions completed by EPA per total EPA resources obligated for each of those removal actions.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$1,877.1) This reflects a reduction to Headquarters technical support activities related to training opportunities provided to regional emergency response personnel.

- (+$692.0) This reflects an increase for payroll and cost of living for existing FTE.

- (-2.4 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-10 FTE) This change reflects a redirection of FTE from the Emergency Removal program to the Remedial program to properly characterize activities performed by the Environmental Response Team.

Statutory Authority:

CERCLA Sections 104, 105, 106; CWA; OPA.

Superfund: EPA Emergency Preparedness
Program Area: Superfund Cleanup
Goal: Land Preservation and Restoration
Objective(s): Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund	***$11,387.4***	***$10,540.0***	***$8,863.1***	***($1,676.9)***
Total Budget Authority / Obligations	$11,387.4	$10,540.0	$8,863.1	($1,676.9)
Total Workyears	32.8	44.5	44.1	-0.4

Program Project Description:

EPA implements the Emergency Preparedness Program in coordination with the Department of Homeland Security (DHS) and other Federal agencies to deliver Federal assistance to states, local, and Tribal governments during natural disasters and other major environmental incidents. The Agency carries out this responsibility under multiple statutory authorities as well as the National Response Plan (NRP), which provides the framework and structure for managing national emergencies. EPA is the designated lead for the NRP's Emergency Support Function covering hazardous materials, oil, and other contaminants. As such, the Agency participates in high-level DHS and other interagency committees and workgroups to develop national planning and implementation policies at the operational level.

EPA also chairs the interagency National Response Team (NRT) and co-chairs multiple Regional Response Teams (RRTs) throughout the U.S. The teams coordinate the actions of Federal partners to prevent, prepare for, and respond to emergencies.

In addition to helping the Federal government respond to natural or accidental environmental emergencies, the NRP framework is critical to help the Federal government respond to chemical, biological, and radiological releases resulting from terrorists incidents. EPA efforts to effectively prepare for and respond to terrorist incidents are funded under the Homeland Security: Preparedness, Response, and Recovery Program.

FY 2007 Activities and Performance Plan:

Preparedness on a national level is essential to ensure that EPA, other Federal agencies, and state and local emergency responders are able to deal with multiple emergencies. This program will continue to enhance the Agency's readiness capabilities by improving internal and external coordination with those agencies.

EPA chairs the 16-Agency NRT and co-chairs the 13 RRTs throughout the U.S. The NRT and RRTs coordinate Federal partner actions to prevent, prepare for, and respond to releases of hazardous substances and other emergencies, whether accidental or intentional. Building on current efforts to enhance national emergency response management, NRT agencies will

continue implementation of the National Incident Management System (NIMS) and the NRP. NRT agencies will improve notification and response procedures, develop response technical assistance documents, and continue to implement and test incident command/unified command systems across all levels of government and the private sector as well as assist in the development of Regional Contingency Plans and Local Area Plans. Technical assistance, training, and exercises will be provided to continue fostering a working relationship between state, local, and Federal responders implementing the system. The NRT will also continue to assist web-based responder training and innovative use of incident notification technologies, hazardous material research, and health and safety issues.

EPA will continue to provide staff support as needed during a national disaster, emergency and other high profile, large-scale responses enacted under the NRP. As required under the NRP, the EPA and other coordinating agencies were activated during Hurricane Katrina/Rita response activities. EPA supported activities at the NRT, RRTs, National Response Coordination Center and the Interagency Incident Management Group.

EPA will also provide support to the Homeland Security Operations Center as needed during a nationally significant incident, including a terrorist event. EPA staff will deliver presentations on the NRP to national forums and will participate in nationwide exercises to test and improve the Federal government's preparedness and response system and its capabilities.

Performance Targets:

Work under this program supports restoring land. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.4 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$23.9) This decrease is the net effect of increases for payroll and cost of living increase for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

- (-$1,653.0) This reduces funding for EPA participation in committees, including those with cross-Agency membership, which provide guidance to state and local governments on emergency preparedness concerns, such as developing and exercising federal emergency plans and developing local hazardous material team capabilities.

Statutory Authority:

CERCLA; CWA; OPA; Stafford Act.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund	***$31,063.4***	***$31,336.0***	***$31,486.6***	***$150.6***
Total Budget Authority / Obligations	$31,063.4	$31,336.0	$31,486.6	$150.6
Total Workyears	138.2	134.5	133.0	-1.5

Program Project Description:

From nuclear weapons plants and military bases to landfills and fuel distribution stations, the U.S. government operates thousands of facilities across the country that promote the security and welfare of American citizens. After years of vital service and operation, some of these facilities, however, have releases of environmental contamination, such as hazardous wastes, unexploded ordnance, radioactive wastes or other toxic substances. EPA collaborates with other Federal agencies, states, Tribes, state associations and others to implement its responsibilities to ensure that cleanup and property reuse decisions are made in a transparent manner.[21] The Superfund Federal Facilities Response Program also works with other EPA cleanup programs (Superfund Remedial, Federal Facility Enforcement, RCRA Corrective Action, Brownfields, and Underground Storage Tanks) in expediting the cleanup and property transfer of Federal lands. The Agency also has statutory responsibilities regarding the transfer of contaminated Federal properties including, but not limited to: reviewing and commenting on documents related to the transfer of property; assisting local reuse authorities; certifying that the cleanup remedy is operating properly and successfully; and facilitating early transfers.[22]

Federal facility cleanups face unique challenges due to the types of contamination present, the size of the facility, complex community interactions, ongoing operations/missions and the complexities of use/reuse related to environmental issues, as in the case at military base closures.

FY 2007 Activities and Performance Plan:

EPA will continue its core mission of remedy selection and overseeing the cleanup of Federal facilities on the NPL with a goal of achieving site-wide construction completions and facilitating property transfer. Of those Federal facilities that need response, 158 are on the National Priorities List (NPL) – and another 14 were deleted, and 6 are currently proposed to be added. By the end of FY 2005, 47 sites had achieved site construction completion and 61 sites had a final remedy selected. Even with this success, there still remains extensive work to be performed. As of October 2005, there are 410 ongoing Remedial Investigations/Feasibility Studies and 220 ongoing Remedial Actions at the NPL facilities.

[21] For more information on this program of EPA's efforts to work closely with other agencies, please visit www.epa.gov/fedfac/ and www.epa.gov/fedfac/stakeholder.htm.
[22] For more information on EPA's responsibilities in the Federal land transfer process, please visit http://www.epa.gov/fedfac/documents/baseclosure.htm.

The Superfund Federal Facilities Response Program will continue monitoring the progress of five-year reviews being conducted at Federal sites where waste has been left in place, and land use is restricted as a result of that contaminated waste. These reviews are statutorily mandated and also make an important statement to the public about remedy protectiveness where waste has been left in place and, were the remedy to fail, the public would no longer be protected. There are currently 117 Federal facility sites with completed five-year reviews. The program is currently planning on reviewing 19 five-year review reports at Federal facility NPL sites in FY 2007.

The Program will continue to support and encourage citizen involvement by working with the Department of Defense (DoD) and the Department of Energy (DOE), and the 181 Restoration/Site Specific Advisory Boards (RABs)/(SSABs), respectively. EPA will continue addressing concerns cited in a May 2005 National Environmental Justice Advisory Committee report on environmental justice issues at Federal facilities.

EPA will continue managing the Federal Agency Hazardous Waste Compliance Docket, which is mandated by CERCLA 120(c). The Docket identifies Federal facilities which have released or have the potential to release hazardous substances to the environment. In addition to identifying Federal facilities which require site characterization, the Docket also serves as a reference tool for Federal and state regulators as well as the general public for identifying areas which could pose a threat to human health and the environment.

The Program will continue supporting DoD at selected BRAC 1-4 installations. EPA's participation in the acceleration process of the first four rounds of BRAC has been funded through an interagency agreement which expires on September 30, 2008. BRAC Round 5, which was finalized on November 9, 2005, will likely result in additional EPA work requirements at selected BRAC 5 installations beginning in FY 2006. This includes, but is not limited to, meeting and expediting statutory obligations related to cleanup to facilitate property transfer. This FY 2007 request does not include support for BRAC-related services to DoD at BRAC 5 facilities; if EPA services related to BRAC 5 facilities are required, the Agency assumes DoD will reimburse EPA for the costs the Agency incurs to provide BRAC-related services.

Performance Assessment: The purpose of the Superfund Federal Facilities Response Program is to facilitate faster, more effective and less costly cleanup and reuse of Federal Facilities while ensuring protection of human health and the environment from releases of hazardous substances. The Superfund Federal Facilities Response Program focuses oversight on those sites on the NPL where cleanup is being done by other Federal agencies, such as the Department of Defense and the Department of Energy. By definition, NPL sites are the Nation's highest priority sites. The program underwent a PART assessment in FY 2005, and received an overall rating of "Moderately Effective." As follow-up to the PART, the program will be working with the other Federal agencies to attain long-term environmental measures and will conduct an evaluation on an aspect of the program in FY 2006.

There will be continued EPA involvement at DoD's military munitions response sites including oversight of some Formerly Used Defense Sites (FUDS) with munitions such as the Spring Valley site in Washington, DC. FUDS are properties formerly owned, leased, possessed, or operated by DoD that are now owned by a non-DoD party. The Government Accountability Office estimates that over 15 million acres no longer under DoD control in the U.S. may be contaminated with military munitions and

related constituents.[23] EPA is working on several initiatives with DoD, states, and Federal land managers to address DoD's military munitions challenges. EPA will continue working with DOE to accelerate cleanup across DOE sites.

In FY 2007, EPA will continue addressing emerging contaminants as new science, toxicity values and occurrence data becomes available. These include chemicals such as perchlorate, 1, 4-Dioxane, trichloroethylene (TCE), naphthalene, and tungsten alloys.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Program dollars expended annually per operable unit completing cleanup activities.	647	1,100	1,000	960	thousand

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of Federal Facility Superfund sites where all remedies have completed construction.	47	46	51	56	sites

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Federal Facility Superfund sites with contaminated groundwater under control (exposure pathways eliminated or potential exposures under health-based levels for current use of land/water resources.	84	80	81	82	sites

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Number of Federal Facility Superfund sites where the final	61	56	61	67	remedies

[23] GAO. "Military Munitions: DOD Needs to Develop a Comprehensive Approach for Cleaning Up Contaminated Sites." Available through the Internet: http://www.gao.gov/new.items/d04147.pdf.

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	remedial decision for contaminants at the site has been determined.					

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Federal Facility Superfund sites with human exposures under control (exposure pathways are eliminated or potential exposures are under health-based levels for current use of land or water resources).	131	127	129	132	sites

During the FY 2005 PART process, EPA developed a new efficiency measure which focuses on the average program dollar obligated annually for each Operable Unit (OU) completing remedial activities. The targets project an increasing efficiency by reducing the annual dollars obligated annually per OU. An OU is a discrete portion of a facility or site where a certain remedy will be employed to address the contamination present.

Performance goals and measures for the Superfund Federal Facilities Response Program are currently a component of the overall Superfund Remedial Program's measures. The Agency's ability to meet its annual Superfund targets is partially dependent on work performed at NPL Federal facility sites. In FY 2007, the Superfund Federal Facilities Response Program is expected to achieve five construction completions.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-1.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (-$444.2) This decrease will result in less support for Department of Defense and Department of Energy's accelerated cleanup and property reuse efforts.

- (+$594.8) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

CERCLA/SARA; RCRA; Defense Base Closure and Realignment Act of 1988, 1990, 1992, and 1994, as amended by the National Defense Authorization Acts and the Base Closure Community Redevelopment and Homeless Assistance Act; CERFA; DERA; and NEPA.

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund	***$711,969.6***	***$588,905.0***	***$581,594.9***	***($7,310.1)***
Total Budget Authority / Obligations	$711,969.6	$588,905.0	$581,594.9	($7,310.1)
Total Workyears	970.4	948.3	950.2	1.9

Program Project Description:

The Superfund Remedial Program manages the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and makes land available for reuse. The technical support provided by this program is used by other programs including RCRA Corrective Action, Underground Storage Tanks, Brownfields and state voluntary cleanup programs. Resources in this program are used to: (1) collect and analyze data on sites to determine the need for an EPA Federal CERCLA response; (2) conduct or oversee investigations and studies to select remedies; (3) design and construct or oversee construction of remedies and post-construction activities at non-Federal facility sites; (4) facilitate participation of other Federal agencies, state, local, and Tribal governments and communities in the program; and (5) provide sound science and continually integrate smarter technical solutions into protection strategies. In addition to Agency research, EPA stays abreast of state-of-the-art analytical methods and remediation technologies, working in partnership with academia, other Federal agencies, and industry to identify and deploy promising technologies and strategies. For more information about the program, please refer to www.epa.gov/superfund/about.htm.

FY 2007 Activities and Performance Plan:

In FY 2007, the Superfund Remedial Program will continue to give a priority to its cleanup and response work to reduce current and direct human exposures to hazardous pollutants. For example, the Superfund Remedial Program will provide alternative drinking water supplies, when appropriate, to people at all Superfund sites to protect them from contaminated ground and surface water. In addition, the program will relocate people at all Superfund sites where life and health are threatened by uncontrolled hazardous wastes. Finally, the program will address costly issues, such as contaminated soil in residential areas, which can cause human health problems. All of these efforts demonstrate the Agency's commitment to protecting human health and groundwater from site-related contamination.

The program's ongoing priorities are reflected in its five performance measures, which are: (1) making final site assessment decisions at all sites under review; (2) selecting final remedies (clean-up targets) at National Priorities List (NPL) sites; (3) preventing any unacceptable human exposure to hazardous contaminants under current site conditions at NPL sites; (4) preventing

migration of contaminant groundwater at NPL sites; and 5) completing construction of the selected remedies at NPL sites. In FY 2007, the program plans to accomplish the following:

(1) 350 Remedial Final Site Assessment Decisions, for a cumulative total of 39,372;
(2) 25 Final Remedy Selections, for a cumulative total of 1,139;
(3) 10 sites with Human Exposures under Control, for a cumulative total of 1,250;
(4) 10 sites with Groundwater Migration under Control, for a cumulative total of 918; and
(5) 40 Construction Completions, for a cumulative total of 1,046.

Through FY 2005, cleanups have been completed at 966 sites. For more information regarding the program's cumulative accomplishments through FY 2005, please refer to the Goal 3 Chapter of the Agency's *FY 2005 Performance and Accountability Report* at www.epa.gov/ocfo.

In addition, Superfund is emphasizing several additional areas to improve program management and increase efficiency. In FY 2007, the Agency will have four major Superfund program efforts in this regard: (1) groundwater optimization; (2) institutional controls; (3) benchmarking of site-specific charging; and (4) use of the latest advancements in science and technology.

Groundwater optimization is an effort to examine the use and effectiveness of groundwater pump and treat systems utilized at Superfund sites, with a goal of applying successful strategies for improved performance throughout the program. Institutional Controls (ICs) are legal and administrative tools, such as environmental easements, that are used to minimize the potential for human exposure to contamination and to protect the integrity of the cleanup remedy. EPA is exploring ways to ensure the long-term durability, reliability and effectiveness of remedies involving institutional controls, with an emphasis on sites that have reached the stage of construction complete. The Agency also will review its site-specific payroll charging process due to the importance of properly accounting for Superfund staff time and resources. EPA expects to implement best practices based on the results of this review in FY 2007.

Performance Assessment: The Superfund Remedial Action program was initially assessed under PART in FY 2004, and received an overall rating of "Adequate". The PART Program Summary found the Program's two long-term outcome-based measures, Human Exposures Under Control and Groundwater Migration Under Control, support the cleanup and reuse of contaminated land by tracking progress in controlling all unacceptable human exposure contaminant pathways at sites listed on the NPL. EPA agreed to measure the efficiency of the program, as represented by the percentage of the Superfund appropriation obligated site-specifically. This interim efficiency measure will be replaced in FY 2007 by a new efficiency measure that will track NPL sites with human exposures under control per million dollars. As follow-up to the PART, EPA is working to modernize the program's data repository (CERCLIS) to ensure accurate and complete information on program performance and financial management, and will implement the recommendations of the Agency's 120-day study on management of the Superfund program.

The Superfund program also will continue to improve the efficiency and effectiveness of remediation through the use of the latest advancements in science and technology. Four major types of activities are anticipated, including: a) use of the Triad approach at one or more projects in each region, which has been shown to decrease lifecycle costs for site investigation, cleanup, and monitoring while increasing confidence in the protectiveness of project decisions; b) development and use of better/optimized practices for

operating cleanup facilities and long-term monitoring of groundwater; c) initiatives to better assess and treat sites with difficult to manage groundwater pollutants by improving the information available to project managers; and d) improved data management at sites by leading projects that integrate electronic data and decision support software and help deploy new advancements in sensor technology.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Annual number of Superfund sites with remedy construction completed.	40	40	40	40	completions

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Superfund final site assessment decisions completed.	551	500	419	350	assessments

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Percentage of Superfund spending that is obligated to individual sites each year.	54.30	56	54.8	discontinued	percent

The Superfund program also has developed a new outcome-oriented human health measure that better describes human health protection resulting from cleanup actions. This measure, the Long-Term Human Health Environmental Indicator, indicates whether contamination levels at a site fall within the levels specified by EPA as safe, or if they do not, whether adequate controls are in place to prevent unacceptable human exposure to contamination. The new measure will track the progress in achieving human exposure control at Superfund sites for both current conditions and long term remediation. For example, it will allow the Agency to describe successes made in reducing health threats in one or more contaminated media but not all; or where main parts of very large sites have been cleaned up but some work remains to be done. For GPRA purposes, EPA will continue to report the net number of sites that achieve human exposure under control (or greater). First year reporting will begin in FY 2006 based on a revised FY 2005 baseline.

Even though the Superfund program met its FY 2005 targets for a majority of its existing performance measures, challenges remain for the coming years. The program has a number of projects ready for construction, while it also needs to fund several large, complex remedial projects at an optimal pace. In addition, as the program has matured, it has become necessary for

the Agency to devote more resources toward post construction activities, including long-term remedial actions and five-year reviews.

Therefore, the Agency proposes to redirect resources from earlier phase activities toward construction in FY 2007. Combined with the impact of reduced resources overall, it is anticipated that Remedial Final Assessment Decisions will be affected, with performance decreasing from 419 in FY 2006 to 350 in FY 2007. The program does not anticipate any other changes to its current year performance targets as a result of changes in funding.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$4,384.2) This reflects an increase for payroll and cost of living for existing FTE.

- (-8.1 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

- (+10 FTE) This change reflects a redirection of FTE from the Emergency Removal Program to the Remedial Program to properly characterize activities performed by the Environmental Response Team.

- (-$11,694.3) Reduces funds to support activities under this program project.

Statutory Authority:

CERCLA of 1980, Section 104, as amended by SARA of 1986, as reauthorized through October 1994 as part of the Omnibus Budget Reconciliation Act of 1990.

Superfund: Support to Other Federal Agencies
Program Area: Superfund Cleanup
Goal: Land Preservation and Restoration
Objective(s): Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Hazardous Substance Superfund	***$5,444.0***	***$9,540.0***	***$8,575.4***	***($964.6)***
Total Budget Authority / Obligations	$5,444.0	$9,540.0	$8,575.4	($964.6)
Total Workyears	0.7	0.0	0.0	0.0

Program Project Description:

Other Federal agencies contribute to the Superfund program by providing services in areas where EPA does not possess the necessary specialized expertise. These agencies provide numerous Superfund-related services which Superfund resources support. Contributors include the Department of Interior (DOI), the Federal Emergency Management Agency (FEMA), the National Oceanic and Atmospheric Administration (NOAA), the Occupational Safety and Health Administration (OSHA), and the United States Coast Guard (USCG).

FY 2007 Activities and Performance Plan:

In FY 2007, the Agency will continue to provide resources through Interagency Agreements to support other Federal agencies. The following table illustrates the levels of funding proposed to be provided to each Federal agency in EPA's FY 2007 request:

Other Federal Agency Funding

Agency	FY 2006 Enacted	FY 2007 Pres Bud
DOI	$ 891.6	$ 801.1
FEMA	$ 980.7	$ 324.1
NOAA	$ 2,184.3	$ 1,963.0
OSHA	$ 579.5	$ 520.8
USCG	$ 4,903.9	$ 4,966.4
Total	**$ 9,540.0**	**$ 8,575.4**

DOI will provide response preparedness and management assistance that supports the National Response Team/Regional Response Teams (NRT/RRTs). DOI also provides Trustee Assistance and Damage Assessment Capability (TA/DAC) which builds capacity among state and Federal trustee officials for conducting natural damage assessments resulting from hazardous substance releases.

FEMA will provide technical and financial assistance to support the National Contingency Plan through development of preparedness exercises and hazardous materials training.

NOAA will continue to provide technical support during hazardous waste site investigations, to identify and evaluate the severity of risks posed to natural resources from hazardous waste sites, and evaluate strategies/methods of minimizing those risks. NOAA will also assist in developing and conducting field testing of advanced chemical sampling and analytical equipment used for efficient response operations. In addition, NOAA will apply new technology and information to identify effective countermeasures during response operations.

OSHA, under existing safety and health standards, has the primary responsibility for worker protection at Superfund sites. OSHA will continue to carry out this responsibility by inspecting Superfund sites for compliance with OSHA standards. As a function of its responsibility, OSHA will also continue to provide EPA with immediate access to its technical experts so that EPA has the most up to date information to assist our health and safety personnel in protecting EPA employees and others at Superfund sites.

The USCG, serving as a Federal On-Scene Coordinator (OSC), will conduct small scale Superfund removals in the coastal zone of any release or threatened release into the environment of hazardous substances, or pollutants or contaminants which may present an imminent and substantial danger to the public health or welfare or the environment.

Performance Targets:

Work under this program supports preserving and restoring land. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$964.6) Reduces funding for specialized services from other Federal agencies supporting the Superfund program. The USCG is funded slightly above the FY 2006 Enacted level because EPA's need for its services to respond to natural disasters and homeland security events has increased in recent years. Funding will support the USCG's efforts to conduct Superfund removals via its support of EPA's National Response Center. To mitigate the impact of the other reductions, specialized services from other Federal agencies will be targeted to the regional offices most in need of support.

Statutory Authority:

CERCLA Sections 104, 105, 106; CWA; OPA.

Superfund

Acquisition Management.....2, 5, 75, 76
Air Toxics.....1, 7, 8
Air Toxics and Quality.....1, 8
Alternative Dispute Resolution.....1, 4, 65
Audits, Evaluations, and Investigations.....1, 11
Brownfields.....6, 11, 101, 106
Brownfields Projects.....6
Central Planning, Budgeting, and Finance.....2, 5, 79
Civil Enforcement.....1, 2, 16, 18, 20, 21, 24, 25, 30, 32, 34, 37, 39
Clean Air.....8, 43
Clean Water.....43
Compliance..1, 2, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25, 26, 27, 29, 33, 35, 39, 40, 44, 60, 93, 102
Compliance Assistance and Centers.....1, 2, 15
Compliance Incentives.....1, 2, 16, 18, 19, 22, 25
Compliance Monitoring.....1, 2, 16, 18, 20, 22, 24, 25
Congressional, Intergovernmental, External Relations.....1, 4, 52
Corrective Action.....101, 106
Criminal Enforcement.....1, 2, 26, 27
Decontamination.....3, 47
Drinking Water.....56, 63
Energy Star.....73
Enforcement.....1, 2, 16, 18, 20, 21, 23, 24, 25, 26, 29, 30, 31, 33, 34, 35, 36, 39, 52, 80, 101
Enforcement Training.....1, 2, 16, 18, 22, 25, 26, 29, 30
Environmental Information.....11, 42, 49, 52, 54, 58, 60, 65, 67, 70, 72, 75, 77, 79
Environmental Justice.....1, 2, 31, 32, 102
Exchange Network.....1, 4, 54, 55, 58, 60, 61, 62
Facilities Infrastructure and Operations.....2, 4, 72
Financial Assistance Grants / IAG Management.....2, 4, 70
Forensics Support.....1, 2, 33
Homeland Security.....1, 2, 3, 4, 41, 42, 43, 44, 46, 47, 49, 58, 73, 74, 99, 100
Communication and Information.....1, 2, 42
Critical Infrastructure Protection.....1, 3, 44
Preparedness, Response, and Recovery.....1, 3, 46, 99
Protection of EPA Personnel and Infrastructure.....1, 3, 49
Human Health Risk Assessment.....2, 5, 82, 83, 87, 88, 89
Human Resources Management.....2, 5, 77
Information Exchange / Outreach.....1, 4, 51, 52, 54
Information Security.....1, 4, 12, 42, 55, 56, 58, 59, 62
IT / Data Management.....1, 4, 57, 58, 60
IT / Data Management / Security.....1, 4, 57, 58, 60
Laboratory Preparedness and Response.....2, 3

Land Protection **2, 85, 87**
Land Protection and Restoration **87**
Legal / Science / Regulatory / Economic Review **1, 4, 64, 65, 67**
Legal Advice
Environmental Program 2, 4, 67
Oil **15, 24, 43, 44, 48, 60, 72, 86**
Operations and Administration **2, 4, 5, 69, 70, 72, 75, 77, 79**
Pollution Prevention **93**
Radiation
Protection 1, 8
Research
Human Health and Ecosystems 5, 82
Land Protection 2, 5, 86, 90
Land Protection and Restoration 2, 5, 86
SITE Program 2, 5, 90
Sustainability 2, 5, 92, 93
Science Advisory Board **87**
Superfund
Emergency Response and Removal 2, 5, 96
Enforcement 1, 2, 35
EPA Emergency Preparedness 2, 5, 99
Federal Facilities 2, 5, 101
Federal Facilities Enforcement 1, 2, 39
Remedial 2, 6, 106
Support to Other Federal Agencies 2, 6, 110
Superfund Cleanup **2, 5, 6, 95, 96, 99, 101, 106, 110**
Underground Storage Tanks **15, 60, 72, 75, 77, 79, 86, 101, 106**

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Leaking Underground Storage Tanks

Resource Summary Table **1**
Program Projects in LUST **1**
Program Area: Compliance **3**
Compliance Assistance and Centers 4
Program Area: IT / Data Management / Security **6**
IT / Data Management 7
Program Area: Operations and Administration **9**
Acquisition Management 10
Central Planning, Budgeting, and Finance 12
Facilities Infrastructure and Operations 14
Human Resources Management 16
Program Area: Research: Land Protection **17**
Research: Land Protection and Restoration 18
Program Area: Underground Storage Tanks (LUST / UST) **20**
LUST / UST 21
LUST Cooperative Agreements 24

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION: Leaking Underground Storage Tanks
Resource Summary Table
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Leaking Underground Storage Tanks				
Budget Authority / Obligations	$70,589.5	$79,953.0	$72,759.0	($7,194.0)
Total Workyears	72.1	77.4	76.9	-0.5

BILL LANGUAGE: LEAKING UNDERGROUND STORAGE TANK PROGRAM

For necessary expenses to carry out leaking underground storage tank cleanup activities authorized by section 205 of the Superfund Amendments and Reauthorization Act of 1986, and for construction, alteration, repair, rehabilitation, and renovation of facilities, not to exceed $85,000 per project, [$73,027,000] ***$72,759,000,*** *to remain available until expended. [For an additional amount for ``Leaking Underground Storage Tank Program'', not to exceed $85,000 per project, $8,000,000, to remain available until expended, for necessary expenses related to the consequences of hurricanes in the Gulf of Mexico in calendar year 2005: Provided, That the amount provided under this heading is designated as an emergency requirement pursuant to section 402 of H. Con. Res. 95 (109th Congress), the concurrent resolution on the budget for fiscal year 2006.]*

Program Projects in LUST
(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Compliance				
Compliance Assistance and Centers	$531.6	$711.0	$839.1	$128.1
IT / Data Management / Security				
IT / Data Management	$108.0	$182.0	$175.9	($6.1)
Operations and Administration				
Acquisition Management	$337.0	$358.0	$360.8	$2.8
Central Planning, Budgeting, and Finance	$730.4	$1,010.0	$1,014.8	$4.8
Facilities Infrastructure and Operations	$982.9	$894.0	$916.8	$22.8
Human Resources Management	$5.0	$3.0	$3.0	$0.0

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Subtotal, Operations and Administration	$2,055.3	$2,265.0	$2,295.4	$30.4
Research: Land Protection				
Research: Land Protection and Restoration	$699.3	$634.0	$651.3	$17.3
Underground Storage Tanks (LUST / UST)				
LUST / UST	$10,146.4	$10,514.0	$10,590.1	$76.1
LUST Cooperative Agreements	$57,048.9	$65,647.0	$58,207.2	($7,439.8)
Subtotal, LUST Cooperative Agreements	$57,048.9	$65,647.0	$58,207.2	($7,439.8)
Subtotal, Underground Storage Tanks (LUST / UST)	$67,195.3	$76,161.0	$68,797.3	($7,363.7)

Program Area: Compliance

Compliance Assistance and Centers
Program Area: Compliance
Goal: Land Preservation and Restoration
Objective(s): Preserve Land; Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$27,207.0	$27,935.0	$28,890.7	$955.7
Leaking Underground Storage Tanks	***$531.6***	***$711.0***	***$839.1***	***$128.1***
Oil Spill Response	$270.1	$284.0	$280.2	($3.8)
Hazardous Substance Superfund	$0.0	$11.0	$22.2	$11.2
Total Budget Authority / Obligations	$28,008.7	$28,941.0	$30,032.2	$1,091.2
Total Workyears	200.4	212.4	212.1	-0.3

Program Project Description:

To improve compliance with environmental laws, regulated entities, Federal agencies and the public benefit from easy access to tools that help them understand these laws and find efficient, cost-effective means for putting them into practice. To protect our Nation's groundwater and drinking water from petroleum releases from underground storage tanks, EPA will continue to provide compliance assistance tools, technical assistance, and training to promote and enforce UST systems compliance. For more information visit: www.epa.gov/swerust1/cat/index.htm.

FY 2007 Activities and Performance Plan:

During FY 2007 the Agency will continue its work to obtain states' commitments to increase their inspection and enforcement presence, where state-specific UST compliance goals are not met. The Agency and states will use innovative compliance approaches, along with outreach and education tools, to bring more underground storage tanks into compliance. The Agency will also continue to provide guidance to foster the use of new technology to enhance compliance.

Performance Assessment:
The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. We are exploring methodologies to extend the measure by: 1) adding components that deal with pollutant hazard; and 2) identifying an indicator of the population that would have been exposed to the pollutant. Work under this program supports the Preserve Land Goal. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$2.6) This reflects an increase in resources that support training to promote and enforce UST systems compliance.

- (+$125.5) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

PPA; CERFA; NEPA; AEA; UMTRLWA.

Program Area: IT / Data Management / Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$84,371.1	$94,567.0	$96,807.2	$2,240.2
Science & Technology	$4,141.3	$4,173.0	$4,268.0	$95.0
Leaking Underground Storage Tanks	***$108.0***	***$182.0***	***$175.9***	***($6.1)***
Oil Spill Response	$39.5	$31.0	$32.5	$1.5
Hazardous Substance Superfund	$17,734.0	$17,053.0	$17,120.4	$67.4
Total Budget Authority / Obligations	$106,393.9	$116,006.0	$118,404.0	$2,398.0
Total Workyears	510.4	486.4	488.0	1.6

Program Project Description:

The LUST IT/Data Development supports the Agency's Enterprise Architecture and develops analytical tools (e.g., Environmental Indicators) to ensure sound environmental decision-making. The program implements the Agency's e-Government responsibilities as well as designs, develops and manages the Agency's Internet and Intranet resources including the Integrated Portal. In addition, the IT/Data Management program supports the development, collection, management, and analysis of environmental data (to include both point source and ambient data) to manage statutory programs and to support the Agency in strategic planning at the national, program, and regional levels, and provides a secure, reliable, and capable information infrastructure based on a sound enterprise architecture which includes data standardization, integration, and public access. The program manages the Agency's Quality System ensuring EPA's processes and data are of quality and adhere to Federal guidelines, and supports LUST information technology infrastructure, administrative and environmental programs, and telecommunications. These functions are integral to the implementation of Agency information technology programs and systems like the Exchange Network, the Central Data Exchange (CDX, http://www.epa.gov/cdx) and Permit Compliance System (PCS, http://www.epa.gov/enviro/html/pcs/index.html) Agency Offices rely on the IT/Data Management program and its capabilities to develop and implement tools for ready access to accurate and timely data.

FY 2007 Activities and Performance Plan:

In FY 2007 the LUST resources continue to support EPA's 'Readiness to Serve' infrastructure program. The program delivers secure information services to ensure that the Agency and

program have a full range of information technology infrastructure components (e.g., user equipment, network connectivity, e-mail, application hosting, and remote access) that make information accessible across the spectrum of mission needs at all locations.

Performance Targets:

Work under this program supports multiple objectives. Currently there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$6.1) The reduction reflects efficiencies gained in the 'Readiness to Serve' infrastructure program.

Statutory Authority:

Federal Advisory Committee Act; Government Information Security Reform Action; CERCLA; CAA and amendments; CWA and amendments; Environmental Research, Development, and Demonstration Act; TSCA; FIFRA; Food Quality Protection Act; Safe Drinking Water Act and amendments; Federal Food, Drug and Cosmetic Act; Emergency Planning and Community Right-to-Know; RCRA; SARA; GPRA; GMRA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; Computer Security Act; Privacy Act; EFOIA; EPAct.

Program Area: Operations and Administration

Acquisition Management
Program Area: Operations and Administration

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$21,830.4	$23,265.0	$25,418.3	$2,153.3
Leaking Underground Storage Tanks	***$337.0***	***$358.0***	***$360.8***	***$2.8***
Hazardous Substance Superfund	$17,464.2	$19,727.0	$23,514.3	$3,787.3
Total Budget Authority / Obligations	$39,631.6	$43,350.0	$49,293.4	$5,943.4
Total Workyears	343.5	364.8	357.2	-7.6

Program Project Description:

Sound contract management fosters efficiency and effectiveness assisting all of EPA's programs. LUST resources in this program support contract and acquisition management activities at Headquarters, regional offices, Research Triangle Park and Cincinnati offices. EPA focuses on maintaining a high level of integrity in the management of its LUST-related procurement activities, and in fostering relationships with state and local governments, to support the implementation of environmental programs.

FY 2007 Activities and Performance Plan:

The Agency will improve electronic government capabilities and enhance the education of its contract workforce. The Agency will work to eliminate paper-processing in the LUST acquisition process and manage acquisition records electronically. In FY 2007 EPA plans to acquire and to begin implementing a new acquisition system. The new system will provide data on contracts that support mission oriented planning and evaluation. This will allow the Agency to reach President's Management Agenda (PMA) goals, e-government requirements and the needs of Agency personnel resulting in more efficient process implementation.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1.6) This reflect an increase for payroll and cost-of-living for existing FTE.

- (+$1.2) This increase will support the Agency in improving its electronic government capabilities and in enhancing the education of its contract workforce.

Statutory Authority:

EPA's environmental statutes; Annual Appropriations Act; FAR; contract law.

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$68,045.9	$73,680.0	$83,548.1	$9,868.1
Leaking Underground Storage Tanks	***$730.4***	***$1,010.0***	***$1,014.8***	***$4.8***
Hazardous Substance Superfund	$20,620.3	$24,349.0	$25,540.8	$1,191.8
Total Budget Authority / Obligations	$89,396.6	$99,039.0	$110,103.7	$11,064.7
Total Workyears	520.6	548.1	537.7	-10.4

Program Project Description:

Activities under the Central Planning, Budgeting and Finance program/project support the management of integrated planning, budgeting, financial management, performance and accountability processes and systems to ensure effective stewardship of resources. (See http://www.epa.gov/ocfo/functions.htm for additional information).

FY 2007 Activities and Performance Plan:

EPA will continue efforts to modernize the Agency's financial systems and business processes. The modernization effort will reduce cost, comply with Congressional direction, and new Federal financial systems requirements. This work is framed by the Agency's Enterprise Architecture and will make maximum use of enabling technologies for e-Gov initiatives including e-Procurement, e-Payroll, and e-Travel.

EPA plans further improvements to its budgeting and planning system, financial data warehouse, business intelligence tools and reporting capabilities. These improvements will support EPA's "green" score in financial performance on the President's Management Agenda scorecard by providing more accessible data to support accountability, cost accounting, budget and performance integration, and management decision-making.

In FY 2007, EPA will continue to strengthen its accountability and effectiveness of operations through improved coordination and integration of internal control assessments as required under Revised OMB Circular A-123. Improvements in internal controls will further support EPA's President's Management Agenda initiatives for improved financial performance.

Performance Targets:

Work under this program supports multiple objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$5.3) This increase will support costs associated with the financial management in support of the Leaking Underground Storage Tanks program.

- (-$0.5) This decrease is the net effect of increases for payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

Annual Appropriations Act; Clinger-Cohen Act; CERCLA; Computer Security Act; E-Government Act of 2002; EFOIA; EPA's Environmental Statutes, and the Federal Grant and Cooperative Agreement Act; Federal Activities Inventory Reform Act; Federal Acquisition Regulations, contract law and EPA's Assistance Regulations (40CFR Parts 30, 31, 35, 40,45,46, 47); Federal Manager's Financial Integrity Act (1982); FOIA; GMRA (1994); Improper Payments Information Act; Inspector General Act of 1978 and Amendments of 1988; Paperwork Reduction Act; Privacy Act; The Chief Financial Officers Act (1990); GPRA (1993); The Prompt Payment Act (1982); Title 5 United States Code; EPAct.

Facilities Infrastructure and Operations

Program Area: Operations and Administration

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$317,744.7	$343,908.0	$294,760.1	($49,147.9)
Science & Technology	$8,892.1	$8,511.0	$70,239.5	$61,728.5
Building and Facilities	$32,244.5	$28,295.0	$28,430.9	$135.9
Leaking Underground Storage Tanks	***$982.9***	***$894.0***	***$916.8***	***$22.8***
Oil Spill Response	$552.1	$500.0	$499.3	($0.7)
Hazardous Substance Superfund	$65,156.8	$69,667.0	$73,944.7	$4,277.7
Total Budget Authority / Obligations	$425,573.1	$451,775.0	$468,791.3	$17,016.3
Total Workyears	364.1	437.2	438.6	1.4

Program Project Description:

LUST resources in the Facilities Infrastructure and Operations Program Project are used to manage activities and support services in many centralized administrative areas such as health and safety, environmental compliance, occupational health, medical monitoring, fitness/wellness and safety, and environmental management functions at EPA. LUST Resources for this program also support a full range of ongoing facilities management services including: facilities maintenance and operations; Headquarters security; space planning; shipping and receiving; property management; printing and reproduction; mail management; and transportation services.

FY 2007 Activities and Performance Plan:

- The Agency will continue to manage its lease agreements with GSA and other private landlords by conducting rent reviews and verifying that monthly billing statements are correct.

- EPA will provide transit subsidy to eligible applicants as directed by Executive Order 13150[1] "Federal Workforce Transportation."

[1] Additional information available at http://ceq.eh.doe.gov/nepa/regs/eos/eo13150.html

Performance Targets:

Work under this program supports multiple objectives. Performance information is included in the Program Performance and Assessment section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$28.4) This reflects an increase for payroll and cost-of-living for existing FTE.

- (-$5.6) This reduces resources for basic facilities management services in EPA's Headquarters and ten regions.

Statutory Authority:

FPASA; PBA; annual Appropriations Acts; CWA; CAA; D.C. Recycling Act; EO 10577 and 12598; United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Homeland Security PDD 63 (Critical Infrastructure Protection).

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$46,795.7	$41,275.0	$40,202.5	($1,072.5)
Leaking Underground Storage Tanks	***$5.0***	***$3.0***	***$3.0***	***$0.0***
Hazardous Substance Superfund	$5,250.8	$5,665.0	$5,270.2	($394.8)
Total Budget Authority / Obligations	$52,051.5	$46,943.0	$45,475.7	($1,467.3)
Total Workyears	344.6	297.7	297.6	-0.1

Program Project Description:

LUST resources in this program support activities related to the provision of human capital and human resources management services to the entire Agency. EPA supports organizational development and management activities through Agency-wide and interagency councils and committees and through participation in interagency management improvement initiatives. The Agency continually evaluates human resource and workforce functions, employee development, leadership development, workforce planning, and succession management.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to meet the Department of Labor requirements for distributing workmen's compensation and disability.

Performance Targets:

Performance information for this program is included in the corresponding narrative in the Environmental Program and Management section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Title V USC.

Program Area: Research: Land Protection

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	$10,257.6	$11,606.0	$10,552.8	($1,053.2)
Leaking Underground Storage Tanks	***$699.3***	***$634.0***	***$651.3***	***$17.3***
Oil Spill Response	$841.0	$838.0	$903.1	$65.1
Hazardous Substance Superfund	$23,322.6	$22,927.0	$21,963.9	($963.1)
Total Budget Authority / Obligations	$35,120.5	$36,005.0	$34,071.1	($1,933.9)
Total Workyears	138.9	135.4	142.8	7.4

Program Project Description:

Research applicable to leaking underground storage tanks (LUSTs) addresses assessment and cleanup of leaks for fuels and various fuel additives, including methyl tertiary butyl ether (MTBE). Assessment focuses on development of source term and transport modeling modules that can be applied by state project managers. Remediation research addresses multiple remediation approaches applicable to spilled fuels, with or without oxygenates.

Research is guided by the long term *Waste Research Strategy*[2], which was developed with participation from major clients and outlines research needs and priorities. These research efforts are guided by multi-year plans (MYPs)[3], developed with input from across the Agency, which outline steps for meeting the needs of Agency programs and for evaluating progress through annual performance goals and measures. Specific human health risk and exposure assessments and methods are discussed and conducted under the Human Health Risk Assessment program.

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and products. The Land Protection and Restoration research program was

[2] EPA, Office of Research and Development, *Waste Research Strategy (Washington: EPA)*. For additional information please go to: http://www.epa.gov/ord/htm/documents/wastepub.pdf

[3] For additional information, please go to: http://www.epa.gov/osp/myp
The *Waste Research Strategy* outlines the research needs and priorities at the time it was prepared. To guide these research efforts as progress is made and new needs emerge, EPA develops multi-year research plans that are revised periodically. EPA is currently merging the Contaminated Sites and RCRA Multi-Year Plans (MYPs) into one cohesive Land Research MYP, with input from across the Agency, to ensure research conducted continues to support the Agency's mission to protect human health and the environment.

reviewed by the BOSC in FY 2006 (December, 2005). The BOSC will report its findings to the Agency in the 2nd quarter of 2006.

FY 2007 Activities and Performance Plan:

Leaking underground storage tanks (LUSTs) assessment research will focus on the development of online transport models that can be used by state project managers (R&D Criteria: Relevance). Remedies being investigated include active water treatment and monitored natural attenuation, with performance influenced by the nature of the fuel oxygenate. A capstone report on *ex situ* biological treatment methods will be produced so that the program office and project managers can evaluate alternative remedies (R&D Criteria: Performance).

Performance Assessment: The Land Research and Restoration program is scheduled for PART review in FY 2006. The program has begun developing and refining outcome-based performance measures in order to demonstrate results.

A major concern of EPA is the fate of pollutants released from leaking underground tanks into ground water (R&D Criteria: Relevance). The Tools for Analysis of Contaminated Sites (TACS) version 2 contains methodologies and software to aid in the analysis of field data from these types of sites. The TACS utilizes a two-tiered structure, allowing for analysis of sites with either limited or extensive data sets to address important site management issues such as: contaminant plumes (contracting, stable, or expanding); and the occurrence (or non-occurrence) of biodegradation. (R&D Criteria: Relevance, Performance)

Performance Targets:

Work under this program supports restoring land. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$16.1) This change is the net result of technical adjustments of support resources to more accurately align with Agency research priorities. This includes a net increase for payroll and cost of living for existing FTE.

- (+$1.2) This change is the net result of technical adjustments of support resources to more accurately align with Agency research priorities.

Statutory Authority:

SWDA; HSWA; SARA; CERCLA; RCRA; OPA; BRERA.

Program Area: Underground Storage Tanks (LUST / UST)

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$6,459.2	$7,763.0	$11,713.7	$3,950.7
Leaking Underground Storage Tanks	***$10,146.4***	***$10,514.0***	***$10,590.1***	***$76.1***
Total Budget Authority / Obligations	$16,605.6	$18,277.0	$22,303.8	$4,026.8
Total Workyears	112.5	114.1	131.3	17.2

Program Project Description:

The Leaking Underground Storage Tanks (LUST) program promotes rapid and effective responses to releases from Federally-regulated underground storage tanks (USTs) containing petroleum by enhancing state, local, and Tribal enforcement and response capability.

EPA provides technical information, forums for information exchange and training opportunities to states, Tribes and Intertribal Consortia to encourage program development and/or implementation of the LUST program and helps to address groundwater and drinking water contamination from oxygenates. These activities support the LUST cooperative agreements, awarded by EPA to states to assist them in implementing their oversight and programmatic role. For more information, visit http://www.epa.gov/swerust1/20clenup.htm.

EPA works with state UST programs to clean up LUST sites, promote innovative approaches to corrective action to streamline the remediation process, and measure and evaluate national program progress and performance. The Agency has primary responsibility for implementing the LUST program in Indian Country, and uses a portion of its LUST funding to implement the program in Indian Country (including, but not limited to cleanup activities and enforcement).

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to work with the states to complete more cleanups each year in an effort to reduce the backlog of 119,240 cleanups not yet completed.[4] Since the beginning of the LUST program, EPA has cleaned up almost 74 percent of all reported releases (332,799).

EPA's LUST Program priorities are to continue to focus on cleaning up LUST sites; address contaminants of concern; and promote the continued use, reuse, and long-term management of

[4] U.S. Environmental Protection Agency Memorandum, *FY 2005 Semi-Annual End-of-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division Directors, Regions 1-10, dated December 15, 2005. See http://www.epa.gov/swerust1/cat/ca_05_34.pdf

LUST sites. EPA also will continue to measure and improve LUST program performance reporting and tracking, e.g., projecting cleanup goals, analyzing trends, looking at new and existing performance measures and their definitions, and developing diagnostic tools to help EPA and state managers optimize cleanups. (See http://www.epa.gov/OUST/cat/index.htm.)

EPA also will continue to:

- Coordinate the efforts of the LUST program and EPA's Water program to jointly work with the states to address contamination in areas that are the sources of drinking water.
- Work with its partners in making progress in assessing, cleaning up and reusing abandoned gas stations and other sites with USTs while exploring ways to encourage public and private partnerships to leverage financial, technical, and managerial resources to advance the cleanup and reuse of abandoned gas station sites (see http://www.epa.gov/OUST/rags/index.htm).
- Help state and EPA regulators respond to releases and sites in a proactive manner, by providing a national web-based training module that addresses topics such as basic hydrogeology, source control, sampling techniques, remediation technologies, and performance monitoring (see http://www.epa.gov/OUST/virtual.htm).
- Encourage the use of multi-site cleanup approaches (see http://www.epa.gov/OUST/cat/ms_refs.htm) to expedite the cleanup, identifying ways to optimize traditional cleanup methods, and use performance-based contracting to achieve LUST program objectives. UST owners and operators undertake nearly all cleanups under the supervision of state or local agencies.
- Carry out LUST cleanup activities, including those with methyl tertiary butyl ether (MTBE) contamination[5]
- Perform its oversight responsibilities.

To educate owners and operators about the requirements for addressing leaking USTs in Indian Country, EPA will continue to provide support for site assessments, investigations and remediation; enforcement against responsible parties; cleanup of soil and/or groundwater; alternate water supplies and cost recovery against UST owners and operators; technical expertise and assistance by utilizing in-house personnel, contractors and grants/cooperative agreements to Tribal entities; response activities;

Performance Assessment: The Leaking Underground Storage program was initially assessed under PART in 2002, and in FY 2004, received an overall rating of "Adequate" from OMB's third PART review. To achieve an adequate rating, EPA was asked to create two long-term performance measures that focus on environmental outcomes reducing the number of cleanups that exceed state risk-based standards for human exposure and groundwater migration a new measure of program efficiency compares LUST cleanups completed over a three-year rolling average with public and private sector cleanup costs. Due to the recent legislative changes from the Energy Act of 2005, EPA and the states are re-evaluating this measure.

[5]For more information, http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_public_laws&docid=f:publ058.109.pdf (scroll to Title XV - Ethanol and Motor Fuels, Subtitle B – Underground Storage Tank Compliance, on pages 500-513 of the pdf file) for information on the UST/LUST provisions.

oversight of responsible party lead cleanups; and support and assistance to Tribal governments. The Agency estimates that cleaning up all known and yet-to-be-discovered releases in Indian Country will take several years.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of cleanups that meet risk-based standards for human exposure and groundwater migration on Indian Country.	53	30	30	30	cleanups

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-0.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills and Agency priorities.
- (+$159.4) This reflects an increase for payroll and cost of living for existing FTE.
- (-$83.3) This reduces assistance to educate owners and operators about the requirements for addressing leaking USTs.

Statutory Authority:

States: Solid Waste Disposal Act (SWDA) of 1976, as amended by the Superfund Reauthorization Amendments of 1986 (Subtitle I), Section 9003(h); Section 8001(a) Tribal Grants: P.L. 105-276.

LUST Cooperative Agreements

Program Area: Underground Storage Tanks (LUST / UST)
Goal: Land Preservation and Restoration
Objective(s): Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Leaking Underground Storage Tanks	***$57,048.9***	***$65,647.0***	***$58,207.2***	***($7,439.8)***
Total Budget Authority / Obligations	$57,048.9	$65,647.0	$58,207.2	($7,439.8)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Leaking Underground Storage Tanks (LUST) program promotes rapid and effective responses to releases from Federally-regulated underground storage tanks (USTs) containing petroleum by enhancing state, local, and Tribal enforcement and response capability. EPA provides resources to 49 states, the District of Columbia, and five territories (Puerto Rico, Virgin Islands, the Northern Mariana Islands, American Samoa, and Guam) through cooperative agreements authorized under Section 9003(h) of the Solid Waste Disposal Act (SWDA) for the oversight and cleanup of petroleum releases from USTs. EPA will also continue to fund research, studies and training under Section 8001 (a)(1) of the Solid Waste Disposal Act that directly supports state oversight and cleanup of LUST sites under Section 9003(h) of the SWDA.

States are the primary implementing agencies (except in Indian country). Forty-nine states receive LUST funding from EPA to implement the program (see http://www.epa.gov/swerust1/20clenup.htm). These states and territories have the authority to respond to petroleum releases from USTs using LUST Trust funds where owners and operators are unknown, unwilling, or unable to take corrective actions. States and territories use the LUST Trust Fund to administer their corrective action programs, oversee cleanups by responsible parties, undertake necessary enforcement actions, and pay for cleanups in cases where a responsible party cannot be found or is unwilling or unable to pay for a cleanup (see http://www.epa.gov/OUST/ltffacts.htm). States and territories may also oversee and enforce responsible party cleanups and cost recover from responsible parties who are unwilling to pay for cleanups. When the LUST Trust Fund is used, tank owners/operators are liable to the state for costs incurred and are subject to cost recovery actions.

Performance Assessment: The Leaking Underground Storage program was initially assessed under PART in 2002, and in FY 2004, received an overall rating of "Adequate" from OMB's third PART review. To achieve an adequate rating, EPA was asked to create two long-term performance measures that focus on environmental outcomes reducing the number of cleanups that exceed state risk-based standards for human exposure and groundwater migration a new measure of program efficiency compares LUST cleanups completed over a three-year rolling average with public and private sector cleanup costs. Due to the recent legislative changes from the Energy Act of 2005, EPA and the states are re-evaluating this measure.

EPA, with few exceptions, does not perform the cleanup of LUSTs. Thirty-seven states have active state cleanup funds to pay for the

majority of owners' and operators' cleanup costs. The vast majority of LUST cleanups are paid for by state LUST cleanup funds and not by private parties; state funds are separate from the Federal LUST Trust Fund. For statutory reasons, EPA will not use LUST appropriations to implement any provision of the Underground Storage Tank Compliance Act of 2005 (USTCA) that is not also a leaking underground storage tank activity authorized by Section 205 of SARA.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to work with the states to achieve more cleanups completed each year, and reduce the FY 2005 backlog of 119,240 cleanups not yet completed. Since the beginning of the UST program, EPA has cleaned up almost 74 percent (or 332,799) of all reported releases. At the FY 2007 request level the Agency will provide not less than 80 percent (80%) of LUST appropriated funds to states to carry out specific purposes.[6] EPA will distribute LUST funding to states under a previously established allocation process.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of cleanups that meet state risk-based standards for human exposure and groundwater migration (tracked as the number LUST cleanups completed).	14,583	14,500	18,300	13,000	cleanups

In FY 2005, EPA and state tank programs completed 14,583 cleanups in states and territories; 53 cleanups were completed in Indian Country.

The LUST Program developed a measure of program efficiency in FY 2004 that will compare LUST cleanups completed over a 3-year rolling average with public and private sector cleanup costs. The rolling average of cleanups will create a more meaningful and stable measure of efficiency as cleanups completed can vary significantly from year to year. EPA is in the process of developing and re-evaluating this efficiency measure with the states based on legislative changes to the program.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$560.2) This increase will support the states' activities to achieve more cleanups completed.

[6] Underground Storage Tank Compliance Act of 2005 (USTCA), which was enacted as Title XV, Subtitle B of the Energy Policy Act of 2005, Solid Waste Disposal Act (SWDA) of 1976, as amended by the Superfund Reauthorization Amendments of 1986 (Subtitle I), Section 9004(f).

- (-$8,000.0) Reduction reflects funds received in FY 2006 supplemental for Katrina Relief activities.

Statutory Authority:

States: Solid Waste Disposal Act (SWDA) of 1976, as amended by the Superfund Reauthorization Amendments of 1986 (Subtitle I), Section 9003(h); Section 9004(f); Section 8001(a)(1); Tribal Grants: P.L. 105-276.

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

Leaking Underground Storage Tanks

Acquisition Management **1, 2, 10**
Central Planning, Budgeting, and Finance **1, 2, 12**
Civil Enforcement **4**
Compliance **1, 3, 4, 7, 23, 26**
Compliance Assistance and Centers **1, 4**
Drinking Water **8**
Environmental Information **7, 10, 12, 14, 16**
Exchange Network **7**
Facilities Infrastructure and Operations **1, 2, 14**
Gulf of Mexico **1**
Homeland Security **15**
Human Health Risk Assessment **19**
Human Resources Management **1, 2, 16**
Information Security **8**
IT / Data Management **1, 6, 7**
IT / Data Management / Security **1, 6, 7**
Land Protection **1, 18, 20**
Land Protection and Restoration **20**
LUST / UST **1, 2, 22**
LUST Cooperative Agreements **1, 2, 25**
Oil **4, 7, 14, 19**
Operations and Administration **1, 2, 9, 10, 12, 14, 16**
Puerto Rico **25**
Research
Land Protection 1, 2, 19
Land Protection and Restoration 1, 2, 19
Underground Storage Tanks **1, 2, 4, 7, 10, 12, 13, 14, 16, 19, 21, 22, 25, 28**
Underground Storage Tanks (LUST / UST) **1, 2, 21, 22, 25**

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Oil Spill

Resource Summary Table **1**
Program Projects in Oil Spills **1**
Program Area: Compliance **2**
Compliance Assistance and Centers 3
Program Area: Enforcement **5**
Civil Enforcement 6
Program Area: IT / Data Management / Security **8**
IT / Data Management 9
Program Area: Oil **11**
Oil Spill: Prevention, Preparedness and Response 12
Program Area: Operations and Administration **15**
Facilities Infrastructure and Operations 16
Program Area: Research: Land Protection **18**
Research: Land Protection and Restoration 19

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION: Oil Spill Response
Resource Summary Table
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Oil Spill Response				
Budget Authority / Obligations	$17,594.9	$15,629.0	$16,506.0	$877.0
Total Workyears	91.9	99.2	98.7	-0.5

BILL LANGUAGE: OIL SPILL RESPONSE

For expenses necessary to carry out the Environmental Protection Agency's responsibilities under the Oil Pollution Act of 1990, [$15,863,000] $16,506,000, to be derived from the Oil Spill Liability trust fund, to remain available until expended.

Program Projects in Oil Spill
(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Compliance				
Compliance Assistance and Centers	$270.1	$284.0	$280.2	($3.8)
Enforcement				
Civil Enforcement	$1,900.7	$1,910.0	$1,826.3	($83.7)
IT / Data Management / Security				
IT / Data Management	$39.5	$31.0	$32.5	$1.5
Oil				
Oil Spill: Prevention, Preparedness and Response	$13,991.5	$12,066.0	$12,964.6	$898.6
Operations and Administration				
Facilities Infrastructure and Operations	$552.1	$500.0	$499.3	($0.7)
Research: Land Protection				
Research: Land Protection and Restoration	$841.0	$838.0	$903.1	$65.1
Subtotal, Research: Land Protection and Restoration	$841.0	$838.0	$903.1	$65.1

Program Area: Compliance

Compliance Assistance and Centers
Program Area: Compliance
Goal: Land Preservation and Restoration
Objective(s): Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$27,207.0	$27,935.0	$28,890.7	$955.7
Leaking Underground Storage Tanks	$531.6	$711.0	$839.1	$128.1
Oil Spill Response	***$270.1***	***$284.0***	***$280.2***	***($3.8)***
Hazardous Substance Superfund	$0.0	$11.0	$22.2	$11.2
Total Budget Authority / Obligations	$28,008.7	$28,941.0	$30,032.2	$1,091.2
Total Workyears	200.4	212.4	212.1	-0.3

Program Project Description:

The Compliance Assistance program is designed to prevent oil spills using Compliance Assistance and Civil Enforcement tools and strategies, and to prepare for and respond to any oil spill affecting the inland waters of the United States. EPA's oil program has a long history of effective response to major oil spills, and the lessons learned have helped to improve our country's prevention and response capabilities.

FY 2007 Activities and Performance Plan:

Pursuant to the Clean Water Act Section 311 (oil spill and hazardous substances) requirements, in FY 2007 the Agency will continue to provide compliance assistance to regulated entities to assist them in understanding their legal requirements under the Clean Water Act, and to provide them with cost effective compliance strategies to help prevent oil spills.

Performance Assessment:
The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved EMP as a result of EPA assistance.	72	50	30	50	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percentage of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or eliminated pollution, as a result of EPA assistance.	13	25	10	12	Percentage

This program was included in the Civil Enforcement PART assessment for 2004 which received an overall rating of Adequate. More information is included in the Program Performance and Assessment Section. For more information, visit: http://www.epa.gov/oilspill/prevent.htm.

No prior data exists to evaluate the performance of these measures over a multi-year period. A baseline will be established in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$13.9) This reflects a decrease in resources for Oil Spills enforcement.
- (+$10.1) This reflects an increase for payroll and cost of living increases for existing FTE.

Statutory Authority:

OPA; CWA; CERCLA; PPA; NEPA; PHSA; DREAA; SDWA; Executive Order 12241; Executive Order 12656.

Program Area: Enforcement

Civil Enforcement
Program Area: Enforcement
Goal: Land Preservation and Restoration
Objective(s): Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$113,719.7	$117,807.0	$120,777.7	$2,970.7
Oil Spill Response	***$1,900.7***	***$1,910.0***	***$1,826.3***	***($83.7)***
Hazardous Substance Superfund	$625.2	$796.0	$883.0	$87.0
Total Budget Authority / Obligations	$116,245.6	$120,513.0	$123,487.0	$2,974.0
Total Workyears	933.9	960.7	958.5	-2.2

Program Project Description:

This portion of the Civil Enforcement program is designed to prevent oil spills using civil enforcement and compliance assistance approaches, and to prepare for, and respond to, any oil spills affecting the inland waters of the United States. EPA's oil program has a long history of effective response to oil spills, including several major incidents. The lessons learned have helped to improve our country's prevention and response capabilities. For more information visit: www.epa.gov/oilspill/index.htm.

FY 2007 Activities and Performance Plan:

Pursuant to Clean Water Act Section 311 (Oil Spill and Hazardous Substances) requirements, EPA's Civil Enforcement program will develop policies; issue administrative cleanup orders and/or judicial actions for injunctive relief; assess civil penalties for violations of those orders or for spills into the environment; and assist in the recovery of cleanup costs expended by the government. In FY 2007, the program will also provide support for field investigations and inspections of spills, as well as Spill Control Countermeasure compliance assistance.

Performance Assessment:
The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

This program was included in the Civil Enforcement PART assessment in 2004, which received an overall rating of Adequate. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. We are exploring methodologies to extend the measure by: 1) adding components that deal with pollutant hazard; and 2) identifying an indicator of the population that would have been exposed to the pollutant. Work under this program supports the Preserve Land Goal. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$12.3) This increase will be used to issue administrative cleanup orders and other civil enforcement actions relating to the oil spills requirements under the Clean Water Act, Section 311.

- (-$96.0) This decrease is the net effect of increases for payroll and cost of living for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

OPA; CWA; CERCLA; NEPA; Pollution Prosecution Act.

Program Area: IT / Data Management / Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$84,371.1	$94,567.0	$96,807.2	$2,240.2
Science & Technology	$4,141.3	$4,173.0	$4,268.0	$95.0
Leaking Underground Storage Tanks	$108.0	$182.0	$175.9	($6.1)
Oil Spill Response	***$39.5***	***$31.0***	***$32.5***	***$1.5***
Hazardous Substance Superfund	$17,734.0	$17,053.0	$17,120.4	$67.4
Total Budget Authority / Obligations	$106,393.9	$116,006.0	$118,404.0	$2,398.0
Total Workyears	510.4	486.4	488.0	1.6

Program Project Description:

The Oil IT/Data Management program supports the development of the Agency's Enterprise Architecture and develops analytical tools (e.g., Environmental Indicators) to ensure sound environmental decision-making. The program implements the Agency's e-Government responsibilities as well as designs, develops and manages the Agency's Internet and Intranet resources including the Integrated Portal. In addition, the IT/Data Management program supports the development, collection, management, and analysis of environmental data (to include both point source and ambient data) to manage statutory programs and to support the Agency in strategic planning at the national, program, and regional levels, and provides a secure, reliable, and capable information infrastructure based on a sound enterprise architecture which includes data standardization, integration, and public access. The program manages the Agency's Quality System ensuring EPA's processes and data are of quality and adhere to Federal guidelines, and supports Oil information technology infrastructure, administrative and environmental programs, and telecommunications. These functions are integral to the implementation of Agency information technology programs and systems like the Exchange Network, the Central Data Exchange (CDX, http://www.epa.gov/cdx) and Permit Compliance System (PCS, http://www.epa.gov/enviro/html/pcs/index.html) Agency Offices rely on the IT/Data Management program and its capabilities to develop and implement tools for ready access to accurate and timely data.

FY 2007 Activities and Performance Plan:

In FY 2007 the Oil Spill resources continue to support EPA's 'Readiness to Serve' infrastructure program. This program delivers secure information services to ensure that the Agency and

program have a full range of information technology infrastructure components (e.g., user equipment, network connectivity, e-mail, application hosting, remote access) that make information accessible across the spectrum of mission needs at all locations.

Performance Targets:

Work under this program supports multiple performance objectives. Currently there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 President's Budget (Dollars in Thousands):

- (+$1.5) This resource adjustment reflects additional use of Agency's information technology infrastructure components for the Oil appropriation.

Statutory Authority:

Federal Advisory Committee Act; Government Information Security Reform Action; CERCLA; CAA and amendments; CWA and amendments; Environmental Research, Development, and Demonstration Act; TSCA; FIFRA; Food Quality Protection Act; Safe Drinking Water Act and amendments; Federal Food, Drug and Cosmetic Act; Emergency Planning and Community Right-to-Know; RCRA; SARA; GPRA; GMRA; Clinger-Cohen Act; Paperwork Reduction Act; FOIA; Computer Security Act; Privacy Act; EFOIA; EPAct.

Program Area: Oil

Oil Spill: Prevention, Preparedness and Response

Program Area: Oil
Goal: Land Preservation and Restoration
Objective(s): Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Oil Spill Response	***$13,991.5***	***$12,066.0***	***$12,964.6***	***$898.6***
Total Budget Authority / Obligations	$13,991.5	$12,066.0	$12,964.6	$898.6
Total Workyears	81.9	82.5	82.0	-0.5

Program Project Description:

The Oil Program protects U.S. waters by effectively preventing, preparing for, responding to and/or monitoring oil spills. EPA conducts oil spill prevention, preparedness, and enforcement activities associated with the over half million non-transportation-related oil storage facilities that EPA regulates through its spill prevention program. The Spill Prevention, Control and Countermeasures (SPCC) regulation and the Facility Response Plan (FRP) regulations establish EPA's oil program regulatory framework. In addition to its prevention responsibilities, EPA serves as the lead responder for cleanup of all inland zone spills, including transportation-related spills from pipelines, trucks, and other transportation systems. EPA accesses the Oil Spill Liability Trust Fund, administered by the U.S. Coast Guard, to obtain reimbursement for site specific spill response activities. Over 24,000 oil spills occur in the U.S. every year, with half of these spills to the inland zone over which EPA has jurisdiction. On average, one spill of greater than 100,000 gallons occurs every month from EPA-regulated oil storage facilities and the inland oil transportation network.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA intends to finalize regulatory changes that are to be proposed in mid-2006. These changes are designed to clarify a number of technical issues associated with the SPCC rule requirements and to address specific sector adjustments that arise from regulatory work to be completed in calendar year 2006 on small businesses, farms and other sectors. Substantial supporting work, including data gathering activities and responding to public comments on the proposed rule, will be necessary to complete rule finalization by June 2007. EPA also expects to revise and update guidance that was issued in calendar year 2005 to ensure it reflects current rule requirements

Performance Assessment: EPA's Oil Spill Program was assessed under PART in FY 2005. The program's purpose is to carry out, in part, the national policy that prohibits oil discharge from vessels and facilities. EPA's role is to prevent, prepare for and respond to oil discharges from non-transportation-related onshore facilities to navigable waters of the US and adjoining shorelines. Program resources are allocated to EPA headquarters, which provides regulatory support and coordinates regional activities and EPA's ten regional offices, which implement the regulations, perform inspections and maintain spill response infrastructure. In 2005, the Oil Program received an overall rating of "Adequate" from OMB's PART review because it established performance and efficiency measures. EPA will issue draft guidance in spring 2006 to regional program managers for use in understanding and reporting on performance measures.

and input from stakeholders. The Agency also intends to complete a proposed rulemaking for the National Oil and Hazardous Substances Pollution Contingency Plan, Subpart J, which required EPA to prepare a schedule of chemical and biological oil spill countermeasures. In 2007, the Agency expects to respond to or monitor 300 oil spill responses.

The largest oil storage facilities and refineries must prepare Facility Response Plans (FRPs) to identify response resources and ensure their availability in the event of a worst case discharge. FRPs establish communication, address security, identify an individual with authority to implement removal actions, and describe training and testing drills at the facility. In FY 2007, EPA will continue to review/approve FRPs and conduct inspections at 200 FRP facilities. EPA will emphasize emergency preparedness, particularly through the use of unannounced drills and exercises, to ensure facilities and responders can effectively implement response plans.

Working with area committees (state, local and Federal officials in a given geographic location), EPA will continue to enhance the existing National Preparedness for Response Exercise Program by strengthening area and regional contingency plans (ACPs, RCPs). The ACPs detail the responsibilities of various parties in the event of a spill/release, describe unique geographical features, sensitive ecological resources, and drinking water intakes for the area covered, and identify available response equipment and its location. EPA conducts a small number of ACP exercises each year to evaluate and strengthen the plans.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Compliance rate of inspected facilities subject to Facility Response Plan (FRP) regulations.	77	100	100	100	percent

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Compliance rate of inspected facilities subject to Spill Prevention, Control and Countermeasures (SPCC) regulations.	100	100	100	100	percent

As part of the 2005 PART process, EPA developed five new performance measures for its Oil Program, including two annual output measures, one long-term outcome measure, one efficiency measure and one long-term output measure. EPA has also developed baselines for each of these performance measures using data from 2003 and 2004.

To increase data accuracy and completeness for the new measures, EPA will take the following steps: 1) issue guidance in spring 2006 to Regional program managers to be utilized during

assessing performance measures; 2) implement a web-based performance measure reporting system by the end of FY 2006; and 3) complete analysis of the National Response Center's database and report recommendations for changes to improve data quality by the end of FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$771.9) This reflects an increase for payroll and cost of living for existing FTE.
- (+$126.7) This increase will support continued audits and inspections at regulated facilities.
- (-0.5 FTE) This decrease reflects a change in EPA's workforce management strategy that will help the Agency better align resources, skills, and Agency priorities.

Statutory Authority:

Federal Water Pollution Control Act as amended by the OPA of 1990. The regulatory framework includes the Oil and Hazardous Substances NCP (40 CFR Part 300) and the Oil Pollution Prevention regulation (40 CFR Part 112) which covers the SPCC, and FRP program requirements.

Program Area: Operations and Administration

Facilities Infrastructure and Operations

Program Area: Operations and Administration

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$317,744.7	$343,908.0	$294,760.1	($49,147.9)
Science & Technology	$8,892.1	$8,511.0	$70,239.5	$61,728.5
Building and Facilities	$32,244.5	$28,295.0	$28,430.9	$135.9
Leaking Underground Storage Tanks	$982.9	$894.0	$916.8	$22.8
Oil Spill Response	***$552.1***	***$500.0***	***$499.3***	***($0.7)***
Hazardous Substance Superfund	$65,156.8	$69,667.0	$73,944.7	$4,277.7
Total Budget Authority / Obligations	$425,573.1	$451,775.0	$468,791.3	$17,016.3
Total Workyears	364.1	437.2	438.6	1.4

Program Project Description:

Oil Spill account resources in the Facilities Infrastructure and Operations Program Project are used to manage activities and support services in many centralized administrative areas such as health and safety, environmental compliance, occupational health, medical monitoring, fitness/wellness and safety, and environmental management functions at EPA. Oil appropriation resources for this program also support a full range of ongoing facilities management services including: facilities maintenance and operations; Headquarters security; space planning; shipping and receiving; property management; printing and reproduction; mail management; and transportation services.

FY 2007 Activities and Performance Plan:

- The Agency will continue to manage its lease agreements with the General Services Administration (GSA) and other private landlords by conducting rent reviews and verifying that monthly billing statements are correct.

- EPA will provide transit subsidy to eligible applicants as directed by Executive Order 13150[1] "Federal Workforce Transportation."

[1] Additional information available at http://ceq.eh.doe.gov/nepa/regs/eos/eo13150.html

Performance Targets:

Work under this program supports multiple objectives. Performance information is included in the Program Performance and Assessment section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$0.7) This decrease is the net effect of increases for facility operations support, and payroll and cost of living increases for existing FTE, combined with a reduction based on the recalculation of base workforce costs.

Statutory Authority:

FPASA; PBA; annual Appropriations Acts; CWA; CAA; D.C. Recycling Act; Executive Orders 10577 and 12598; United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Homeland Security Presidential Decision Directive 63 (Critical Infrastructure Protection).

Program Area: Research: Land Protection

Research: Land Protection and Restoration

Program Area: Research: Land Protection
Goal: Land Preservation and Restoration
Objective(s): Enhance Science and Research

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Science & Technology	$10,257.6	$11,606.0	$10,552.8	($1,053.2)
Leaking Underground Storage Tanks	$699.3	$634.0	$651.3	$17.3
Oil Spill Response	***$841.0***	***$838.0***	***$903.1***	***$65.1***
Hazardous Substance Superfund	$23,322.6	$22,927.0	$21,963.9	($963.1)
Total Budget Authority / Obligations	$35,120.5	$36,005.0	$34,071.1	($1,933.9)
Total Workyears	138.9	135.4	142.8	7.4

Program Project Description:

Land protection research in the oil spills area focuses on three aspects: test protocol development, fate and transport modeling, and remediation. EPA develops and uses protocols for testing various spill response product classes to pre-qualify products as required by the preparedness and response requirements of the Oil Pollution Act of 1990.

Research is guided by the long term *Waste Research Strategy*[2], which was developed with participation from major clients and outlines research needs and priorities. Testing products ensures they work as claimed and provides access to effective means to reduce damage when an oil spill occurs. These research efforts are guided by multi-year plans (MYPs)[3], developed with input from across the Agency, which outline steps for meeting the needs of Agency programs and for evaluating progress through annual performance goals and measures. Specific human health risk and exposure assessments and methods are discussed and conducted under the Human Health Risk Assessment program.

The Board of Scientific Counselors (BOSC), a distinguished body of scientists and engineers who are recognized non-government experts from academia and industry, evaluates the Agency's research programs, national laboratories, centers, and offices, and management practices, and provides peer review, including evaluation of the program's peer review policies and research plans and products. The Land Protection and Restoration research program was

[2] EPA, Office of Research and Development, *Waste Research Strategy (Washington: EPA)*. For additional information please go to: http://www.epa.gov/ord/htm/documents/wastepub.pdf

[3] For additional information, please go to: http://www.epa.gov/osp/myp
The *Waste Research Strategy* outlines the research needs and priorities at the time it was prepared. To guide these research efforts as progress is made and new needs emerge, EPA develops multi-year research plans that are revised periodically. EPA is currently merging the Contaminated Sites and RCRA Multi-Year Plans (MYPs) into one cohesive Land Research MYP, with input from across the Agency, to ensure research conducted continues to support the Agency's mission to protect human health and the environment.

reviewed by the BOSC in FY 2006 (December 2005). The BOSC will report its findings to the Agency in the 2nd quarter of 2006.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Land Research and Restoration program is scheduled for PART review in 2006. The program has begun developing and refining outcome-based performance measures in order to demonstrate results.

Oil spill model development will include linkage of EPA's Research Object Oriented Oil Spill Model (ERO3s) to uncertainty analysis tools (R&D Criteria: Performance), and incorporation of exposure simulation with various modeled response actions (R&D Criteria: Relevance). Remediation research continues on physical, chemical, and biological risk management methods for petroleum and non-petroleum oils spilled to freshwater and marine environments. Research products are presented at meetings and posted or linked on EPA's oil spills web site for use by oil spill managers (R&D Criteria: Quality, Performance).

For example, research on dispersion has led to development of a wave tank that more accurately simulates breaking wave conditions and the effectiveness of dispersants (R&D Criteria: Quality, Performance). This research is also highlighted on the Oil Spills Program's website[4]. Research products are posted on this website for easy access by spill managers and responders[5].

Performance Targets:

Work under this program supports restoring land. Research milestones are identified in the program's multi-year planning documents, but there are currently no annual performance measures that meet the requirements of the PART guidance (i.e., that can demonstrate progress toward established long-term outcome goals).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$56.7) This increase for research will support efforts in remediation research and oil spill model uncertainty analysis.

- (+$8.4) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

SWDA; HSWA; SARA; CERCLA; RCRA; OPA; BRERA.

[4] For additional information please go to: http://www.epa.gov/oilspill/wavetank.htm
[5] For additional information please go to: http://www.epa.gov/oilspill/science.htm

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Oil Spill

Civil Enforcement **1, 4, 5, 7**
Clean Water **4, 7, 8**
Compliance **1, 3, 4, 10, 14**
Compliance Assistance and Centers **1, 4**
Drinking Water **11**
Enforcement **1, 4, 6, 7**
Environmental Information **10, 17**
Exchange Network **10**
Facilities Infrastructure and Operations **1, 17**
Homeland Security **18**
Human Health Risk Assessment **20**
Information Security **11**
IT / Data Management **1, 9, 10**
IT / Data Management / Security **1, 9, 10**
Land Protection **1, 19, 20**
Land Protection and Restoration **20**
Oil **1, 4, 5, 7, 10, 11, 13, 14, 15, 17, 20, 21, 22**
Oil Spill
Prevention, Preparedness and Response 1, 13
Operations and Administration **1, 16, 17**
Pollution Prevention **15**
Research
Land Protection 1, 20
Land Protection and Restoration 1, 20
Underground Storage Tanks **4, 10, 17, 20**

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - State and Tribal Assistance Grants

Resource Summary Table **1**
Program Projects in STAG **3**
Program Area: Air Toxics And Quality **14**
Clean School Bus Initiative 15
Program Area: Brownfields **16**
Brownfields Projects 17
Program Area: Infrastructure Assistance **20**
Infrastructure Assistance: Alaska Native Villages 21
Infrastructure Assistance: Clean Water SRF 23
Diesel Emissions Reduction Grant Program 25
Infrastructure Assistance: Drinking Water SRF 27
Infrastructure Assistance: Mexico Border 29
Infrastructure Assistance: Puerto Rico 31
Program Area: Categorical Grants **32**
Categorical Grant: Beaches Protection 33
Categorical Grant: Brownfields 35
Categorical Grant: Environmental Information 37
Categorical Grant: Hazardous Waste Financial Assistance 39
Categorical Grant: Homeland Security 41
Categorical Grant: Lead 43
Categorical Grant: Nonpoint Source (Sec. 319) 45
Categorical Grant: Pesticides Enforcement 48
Categorical Grant: Pesticides Program Implementation 50
Certification and Training/Worker Protection 50
Categorical Grant: Pollution Control (Sec. 106) 52
Categorical Grant: Pollution Prevention 56
Categorical Grant: Public Water System Supervision (PWSS) 58
Categorical Grant: Radon 60
Categorical Grant: Sector Program 62
Categorical Grant: State and Local Air Quality Management 64
Categorical Grant: Targeted Watersheds 67
Categorical Grant: Toxics Substances Compliance 69
Categorical Grant: Tribal Air Quality Management 71
Categorical Grant: Tribal General Assistance Program 73
Categorical Grant: Underground Injection Control (UIC) 76
Categorical Grant: Underground Storage Tanks 79
Categorical Grant: Wetlands Program Development 82

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION: State and Tribal Assistance Grants
Resource Summary Table
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants				
Budget Authority / Obligations	$3,608,479.6	$3,147,709.0	$2,797,448.0	($350,261.0)
Total Workyears	0.0	0.0	0.0	0.0

BILL LANGUAGE: STATE AND TRIBAL ASSISTANCE GRANT

For environmental programs and infrastructure assistance, including capitalization grants for State revolving funds and performance partnership grants, [$3,261,696,000] $2,797,448,000 to remain available until expended, of which [$900,000,000] $687,555,000 shall be for making capitalization grants for the Clean Water State Revolving Funds under title VI of the Federal Water Pollution Control Act, as amended (the ``Act");[of which up to $50,000,000 shall be available for loans, including interest free loans as authorized by 33 U.S.C. 1383(d)(1)(A), to municipal, inter-municipal, interstate, or State agencies or nonprofit entities for projects that provide treatment for or that minimize sewage or stormwater discharges using one or more approaches which include, but are not limited to, decentralized or distributed stormwater controls, decentralized wastewater treatment, low-impact development practices, conservation easements, stream buffers, or wetlands restoration; $850,000,000] $841,500,000 shall be for capitalization grants for the Drinking Water State Revolving Funds under section 1452 of the Safe Drinking Water Act, as amended[, except that, notwithstanding section 1452(n) of the Safe Drinking Water Act, as amended, hereafter none of the funds made available under this heading in this or previous appropriations Acts shall be reserved by the Administrator for health effects studies on drinking water contaminants;][$50,000,000]; $24,750,000 shall be for architectural, engineering, planning, design, construction and related activities in connection with the construction of high priority water and wastewater facilities in the area of the United States-Mexico Border, after consultation with the appropriate border commission;[$35,000,000] $14,850,000 shall be for grants to the State of Alaska to address drinking water and waste infrastructure needs of rural and Alaska Native Villages [:Provided, That, of these funds: (1) the State of Alaska shall provide a match of 25 percent; (2) no more than 5 percent of the funds may be used for administrative and overhead expenses; and (3) not later than October 1, 2005 the State of Alaska shall make awards consistent with the State-wide priority list established in 2004 for all water, sewer, waste disposal, and similar projects carried out by the State of Alaska that are funded under section 221 of the Federal Water Pollution Control Act (33 U.S.C. 1301) or the Consolidated Farm and Rural Development Act (7 U.S.C. 1921 et seq.) which shall allocate not less than 25 percent of the funds provided for projects in regional hub communities; $200,000,000 shall be for making special project grants for the construction of drinking water, wastewater and storm water infrastructure and for water quality protection in accordance with the terms and conditions specified for such grants in the joint explanatory statement of the

managers accompanying this Act, and, for purposes of these grants, each grantee shall contribute not less than 45 percent of the cost of the project unless the grantee is approved for a waiver by the Agency; $90,000,000]; $89,119,400 shall be to carry out section 104(k) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, including grants, interagency agreements, and associated program support costs; $49,500,000 for grants under sections 791-797 of the Energy Policy Act of 2005; and [$7,000,000 for making cost-shared grants for school bus retrofit and replacement projects that reduce diesel emissions;] [and $1,129,696,000] $1,089,183,600 shall be for grants, including associated program support costs, to States, federally recognized tribes, interstate agencies, tribal consortia, and air pollution control agencies for multi-media or single media pollution prevention, control and abatement and related activities, including activities pursuant to the provisions set forth under this heading in Public Law 104-134, [and for making grants under section 103 of the Clean Air Act for particulate matter monitoring and data collection activities subject to terms and conditions specified by the Administrator,] of which [$50,000,000] $49,494,900 shall be for carrying out section 128 of CERCLA, as amended, [$20,000,000] $14,850,000 shall be for Environmental Information Exchange Network grants, including associated program support costs,$18,500,000 of the funds available for grants under section 106 of the Act shall be for water quality monitoring activities that meet EPA standards for statistically representative monitoring programs, $37,566,700 to make grants to States under section 2007(f)(2) of the Solid Waste Disposal Act, as amended, and to federally recognized tribes under Public Law 105-276, and to provide financial assistance to states and federally-recognized tribes for the purposes authorized by Title XV, Subtitle B of the Energy Policy Act of 2005, with the exception of leaking underground storage tank cleanup activities that are authorized by section 205 of Superfund Amendments and Reauthorization Act of 1986, and [$16,856,000] $6,930,000 shall be for making competitive targeted watershed grants: Provided further, That [for fiscal year 2006 and thereafter, State authority under section 302(a) of Public Law 104-182 shall remain in effect: Provided further, That] notwithstanding section 603(d)(7) of the Federal Water Pollution Control Act, the limitation on the amounts in a State water pollution control revolving fund that may be used by a State to administer the fund shall not apply to amounts included as principal in loans made by such fund in fiscal year [2006] 2007 and prior years where such amounts represent costs of administering the fund to the extent that such amounts are or were deemed reasonable by the Administrator, accounted for separately from other assets in the fund, and used for eligible purposes of the fund, including administration: Provided further, That for fiscal year [2006] 2007, and notwithstanding section 518(f) of the Act, the Administrator is authorized to use the amounts appropriated for any fiscal year under section 319 of that Act to make grants to federally recognized Indian tribes pursuant to sections 319(h) and 518(e) of that Act: Provided further, That for fiscal year [2006] 2007, notwithstanding the limitation on amounts in section 518(c) of the Act, up to a total of 1 1/2 percent of the funds appropriated for State Revolving Funds under title VI of that Act may be reserved by the Administrator for grants under section 518(c) of that Act: Provided further, That no funds provided by this [legislation] appropriations Act to address the water, wastewater and other critical infrastructure needs of the colonias in the United States along the United States-Mexico border shall be made available to a county or municipal government unless that government has established an enforceable local ordinance, or other zoning rule, which prevents in that jurisdiction the development or construction of any additional colonia areas, or the development within an existing colonia the construction of any new home, business, or other structure which

lacks water, wastewater, or other necessary infrastructure [:Provided further, That, notwithstanding this or any other appropriations Act, heretofore and hereafter, after consultation with the House and Senate Committees on Appropriations and for the purpose of making technical corrections, the Administrator is authorized to award grants under this heading to entities and for purposes other than those listed in the joint explanatory statements of the managers accompanying the Agency's appropriations Acts for the construction of drinking water, wastewater and stormwater infrastructure and for water quality protection. In addition, $80,000,000 is hereby rescinded from prior year funds in appropriation accounts available to the Environmental Protection Agency: Provided, That such rescissions shall be taken solely from amounts associated with grants, contracts, and interagency agreements whose availability, under the original project period for such grant or interagency agreement or contract period for such contract, has expired: Provided further, That such rescissions shall include funds that were appropriated under this heading for special project grants in fiscal year 2000 or earlier that have not been obligated on an approved grant by September 1, 2006].

Program Projects in STAG
(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Air Toxics and Quality				
Clean School Bus Initiative	$0.0	$6,897.0	$0.0	($6,897.0)
Brownfields				
Brownfields Projects	$88,065.1	$88,676.0	$89,119.4	$443.4
Infrastructure Assistance				
Infrastructure Assistance: Alaska Native Villages	$50,866.5	$34,485.0	$14,850.0	($19,635.0)
Infrastructure Assistance: Clean Water SRF	$1,110,473.7	$886,759.0	$687,555.0	($199,204.0)
Diesel Emissions Reduction Grant Program	$0.0	$0.0	$49,500.0	$49,500.0
Infrastructure Assistance: Drinking Water SRF	$847,519.2	$837,495.0	$841,500.0	$4,005.0
Infrastructure Assistance: Mexico Border	$66,176.9	$49,264.0	$24,750.0	($24,514.0)
Infrastructure Assistance: Puerto Rico	$0.0	$0.0	$990.0	$990.0
Subtotal, Infrastructure Assistance	$2,075,036.3	$1,808,003.0	$1,619,145.0	($188,858.0)
STAG Infrastructure Grants / Congressional Priorities				
Congressionally Mandated Projects	$255,255.6	$197,058.0	$0.0	($197,058.0)
Categorical Grants				
Categorical Grant: Beaches Protection	$13,262.7	$9,853.0	$9,900.0	$47.0
Categorical Grant: Brownfields	$47,411.0	$49,264.0	$49,494.9	$230.9
Categorical Grant: Environmental Information	$19,837.0	$19,706.0	$14,850.0	($4,856.0)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Categorical Grant: Hazardous Waste Financial Assistance	$105,786.4	$101,944.0	$103,345.5	$1,401.5
Categorical Grant: Homeland Security	$4,988.8	$4,926.0	$4,950.0	$24.0
Categorical Grant: Lead	$14,169.0	$13,499.0	$13,563.1	$64.1
Categorical Grant: Nonpoint Source (Sec. 319)	$225,194.2	$204,278.0	$194,040.0	($10,238.0)
Categorical Grant: Pesticides Enforcement	$20,468.4	$18,622.0	$18,711.0	$89.0
Categorical Grant: Pesticides Program Implementation	$13,347.2	$12,907.0	$12,968.9	$61.9
Categorical Grant: Pollution Control (Sec. 106)				
Water Quality Monitoring Grants	$0.0	$18,228.0	$18,500.0	$272.0
Categorical Grant: Pollution Control (Sec. 106) (other activities)	$211,124.6	$197,944.0	$203,161.0	$5,217.0
Subtotal, Categorical Grant: Pollution Control (Sec. 106)	$211,124.6	$216,172.0	$221,661.0	$5,489.0
Categorical Grant: Pollution Prevention	$5,161.7	$4,926.0	$5,940.0	$1,014.0
Categorical Grant: Public Water System Supervision (PWSS)	$104,043.6	$98,279.0	$99,099.0	$820.0
Categorical Grant: Radon	$8,739.4	$7,439.0	$8,073.5	$634.5
Categorical Grant: Sector Program	$2,464.3	$2,217.0	$2,227.5	$10.5
Categorical Grant: State and Local Air Quality Management	$233,758.6	$220,261.0	$185,179.5	($35,081.5)
Categorical Grant: Targeted Watersheds	$17,706.0	$16,608.0	$6,930.0	($9,678.0)
Categorical Grant: Toxics Substances Compliance	$5,516.4	$5,074.0	$5,098.5	$24.5
Categorical Grant: Tribal Air Quality Management	$12,977.1	$10,887.0	$10,939.5	$52.5
Categorical Grant: Tribal General Assistance Program	$72,212.5	$56,654.0	$56,925.0	$271.0
Categorical Grant: Underground Injection Control (UIC)	$11,537.5	$10,838.0	$10,890.0	$52.0
Categorical Grant: Underground Storage Tanks	$12,073.1	$11,774.0	$37,566.7	$25,792.7
Categorical Grant: Wastewater Operator Training	$943.0	$1,182.0	$0.0	($1,182.0)
Categorical Grant: Water Quality Cooperative Agreements	$12,372.9	$0.0	$0.0	$0.0
Categorical Grant: Wetlands Program Development	$15,027.2	$15,765.0	$16,830.0	$1,065.0
Subtotal, Categorical Grant: Wetlands Program Development	$15,027.2	$15,765.0	$16,830.0	$1,065.0
Subtotal, Categorical Grants	$1,190,122.6	$1,113,075.0	$1,089,183.6	($23,891.4)

FY 2007 President's Request

STAG Resources

(Dollars in Thousands)

	FY 2005 Obligations*	FY 2006 Enacted Budget**	FY 2007 Pres Bud
Alaska - Above Ground Leaking Fuel Tanks	$3,968.0	$0.0	$0.0
Alaskan Native Villages	$50,866.5	$34,485.0	$14,850.0
Brownfields Infrastructure Projects	$88,065.1	$88,676.0	$89,119.4
Clean School Bus Initiative****	$0.0	$6,897.0	$0.0
Clean Water State Revolving Fund	$1,110,473.7	$886,759.0	$687,555.0
Congressional Projects	$251,287.6	$197,058.0	$0.0
Diesel Emission Reduction Grants	$0.0	$0.0	$49,500.0
Drinking Water State Revolving Fund	$847,519.2	$837,495.0	$841,500.0
Mexico Border	$66,176.9	$49,264.0	$24,750.0
State/Tribal Categorical Grant Assistance	$1,190,122.6	$1,113,075.0	$1,089,183.6
Puerto Rico	$0.0	$0.0	$990.0
Unallocated	$0.0	-$66,000.0***	$0.0
TOTAL	**$3,608,479.6**	**$3,147,709.0**	**$2,797,448.0**

* Reflects FY 2005 Enacted 0.83% rescission.

** Reflects FY 2006 1.0% and 0.476% rescission.

*** Part of the FY 2006 $80 M rescission of prior year funds.

**** The Clean School Bus Initiative activities are now part of the Diesel Emission Reduction Grants program.

Program Projects In STAG

(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Request v. FY 2006 Enacted
Brownfields Projects	$88,065.1	$88,676.0	$89,119.4	$443.4
Categorical Grant: Beaches Protection	$13,262.7	$9,853.0	$9,900.0	$47.0
Categorical Grant: Brownfields	$47,411.0	$49,264.0	$49,494.9	$230.9
Categorical Grant: Environmental Information	$19,837.0	$19,706.0	$14,850.0	($4,856.0)
Categorical Grant: Hazardous Waste Financial Assistance	$105,786.4	$101,944.0	$103,345.5	$1,401.5
Categorical Grant: Homeland Security	$4,988.8	$4,926.0	$4,950.0	$24.0
Categorical Grant: Lead	$14,169.0	$13,499.0	$13,563.1	$64.1
Categorical Grant: Nonpoint Source (Sec. 319)	$225,194.2	$204,278.0	$194,040.0	($10,238.0)
Categorical Grant: Pesticides Enforcement	$20,468.4	$18,622.0	$18,711.0	$89.0
Categorical Grant: Pesticides Program Implementation	$13,347.2	$12,907.0	$12,968.9	$61.9
Categorical Grant: Pollution Control (Sec. 106)	$211,124.6	$216,172.0	$221,661.0	$5,489.0
Categorical Grant: Pollution Prevention	$5,161.7	$4,926.0	$5,940.0	$1,014.0
Categorical Grant: Public Water System Supervision (PWSS)	$104,043.6	$98,279.0	$99,099.0	$820.0
Categorical Grant: Radon	$8,739.4	$7,439.0	$8,073.5	$634.5
Categorical Grant: Sector Program	$2,464.3	$2,217.0	$2,227.5	$10.5
Categorical Grant: State and Local Air Quality Management	$233,758.6	$220,261.0	$185,179.5	($35,081.5)
Categorical Grant: Targeted Watersheds	$17,706.0	$16,608.0	$6,930.0	($9,678.0)
Categorical Grant: Toxics Substances Compliance	$5,516.4	$5,074.0	$5,098.5	$24.5
Categorical Grant: Tribal Air Quality Management	$12,977.1	$10,887.0	$10,939.5	$52.5
Categorical Grant: Tribal General Assistance Program	$72,212.5	$56,654.0	$56,925.0	$271.0
Categorical Grant: Underground Injection Control (UIC)	$11,537.5	$10,838.0	$10,890.0	$52.0
Categorical Grant: Underground Storage Tanks	$12,073.1	$11,774.0	$37,566.7	$25,792.7
Categorical Grant: Wastewater Operator Training	$943.0	$1,182.0	$0.0	($1,182.0)
Categorical Grant: Water Quality Cooperative Agreements	$12,372.9	$0.0	$0.0	$0.0
Categorical Grant: Wetlands Program Development	$15,027.2	$15,765.0	$16,830.0	$1,065.0
Clean School Bus Initiative*	$0.0	$6,897.0	$0.0	($6,897.0)

Program Projects In STAG

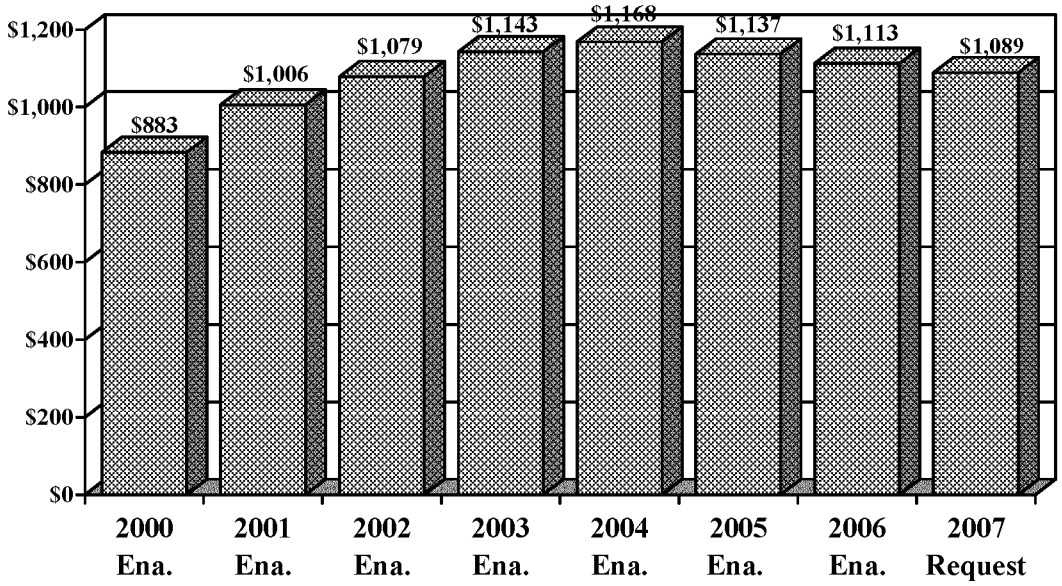
(Dollars in Thousands)

Congressionally Mandated Projects	$255,255.6	$197,058.0	$0.0	($197,058.0)
Infrastructure Assistance: Alaska Native Villages	$50,866.5	$34,485.0	$14,850.0	($19,635.0)
Infrastructure Assistance: Clean Water SRF	$1,110,473.7	$886,759.0	$687,555.0	($199,204.0)
Infrastructure Assistance: Drinking Water SRF	$847,519.2	$837,495.0	$841,500.0	$4,005.0
Infrastructure Assistance: Mexico Border	$66,176.9	$49,264.0	$24,750.0	($24,514.0)
Infrastructure Assistance: Puerto Rico	$0.0	$0.0	$990.0	$990.0

*Clean School Bus Initiative activities are now part of the Diesel Emission Reduction Grants program.

CATEGORICAL GRANTS PROGRAM (STAG)

(Dollars in millions)



In FY 2007, the President's Budget requests a total of $1,089 million for 22 "categorical" program grants for state, interstate organizations, non-profit organizations, intertribal consortia, and Tribal governments. EPA will continue to pursue its strategy of building and supporting state, local and Tribal capacity to implement, operate, and enforce the Nation's environmental laws. Most environmental laws envision establishment of a decentralized nationwide structure to protect public health and the environment. In this way, environmental goals will ultimately be achieved through the actions, programs, and commitments of state, Tribal and local governments, organizations and citizens.

In FY 2007, EPA will continue to offer flexibility to state and Tribal governments to manage their environmental programs as well as provide technical and financial assistance to achieve mutual environmental goals. First, EPA and its state and Tribal partners will continue implementing the National Environmental Performance Partnership System (NEPPS). NEPPS is designed to allow states more flexibility to operate their programs, while increasing emphasis on measuring and reporting environmental improvements. Second, Performance Partnership Grants (PPGs) will continue to allow states and Tribes funding flexibility to combine categorical program grants to address environmental priorities.

To improve both of these processes, EPA will develop a standardized template that all states will use to develop and submit their state grant agreements. This new template will include clear linkages to EPA's Strategic Plan and long-term and annual goals, as well as consistent requirements for regular performance reporting. It also will allow for meaningful comparisons between various states' past and planned activities and performance, making progress more visible and programs more transparent.

HIGHLIGHTS:

State & Local Air Quality Management, Radon, and Tribal Air Quality Management Grants

The FY 2007 request includes $204.2 million for Air State and Local Assistance grants to support state, local, and Tribal air programs as well as radon programs. State and Local Air Quality Management and Tribal Air Quality Management grant funding is requested in the amount of $185.2 million and $10.9 million, respectively. These funds provide resources to state, local, and Tribal air pollution control agencies for the development and implementation of programs for the prevention and control of air pollution or for the implementation of national primary and secondary ambient air standards. In FY 2007, EPA will place particular emphasis on implementing the Clean Air Interstate Rule (CAIR) and developing 8-hour ozone state implementation plans (SIPs), which states must submit to EPA in FY 2007. States also will begin work on fine particle (PM-2.5) SIPs, and will incorporate regional haze reduction strategies, developed by regional planning organizations, into their Regional Haze SIPs. States must submit both the PM and Regional Haze SIPs to EPA in January 2008. Lastly, this request includes $8.1 million for Radon grants, to provide funding for state radon programs. In FY 2007, EPA expects 190,000 additional homes to have radon reducing features (90,000 mitigations and 100,000 new homes with radon resistant new construction), bringing the cumulative number of U.S. homes with radon reducing features to 2.4 million.

Pesticide Enforcement, Toxics Substance Compliance, & Sector Program Grants

In FY 2007, the President's Budget includes $26.0 million to build environmental enforcement partnerships with states and Tribes and to strengthen their ability to address environmental and public health threats. The enforcement state grants request consists of $18.7 million for Pesticides Enforcement, $5.1 million for Toxic Substances Enforcement Grants, and $2.2 million for Sector Grants. State and Tribal enforcement grants will be awarded to assist in the implementation of compliance and enforcement provisions of the Toxic Substances Control Act (TSCA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). These grants support state and Tribal compliance activities to protect the environment from harmful chemicals and pesticides.

Under the Pesticides Enforcement Grant program, EPA provides resources to states and Indian Tribes to conduct FIFRA compliance inspections and take appropriate enforcement actions and implement programs for farm worker protection. Under the Toxic Substances Compliance Grant program, states receive funding for compliance inspections of asbestos and polychlorinated biphenyls (PCBs) and for implementation of the state lead abatement enforcement program. The funds will complement other Federal program grants for building state capacity for lead abatement, and enhancing compliance with disclosure, certification and training requirements.

Pesticides Program Implementation Grants

The President's FY 2007 Budget includes $13.0 million for Pesticides Program Implementation grants. These resources will assist states and Tribes in implementing the safer use of pesticides, including: worker protection; certification and training of pesticide applicators; protection of

endangered species; Tribal pesticide programs; and integrated pest management and environmental stewardship. In FY 2007, EPA plans to complete a cumulative 96 percent of all Reregistration Eligibility Decisions which often include changes to allowable use patterns for pesticides already in the market. Pesticides Program Implementation Grants help state programs stay current with changing requirements.

Lead Grants

The President's FY 2007 Budget includes $13.6 million for Lead grants. This funding will support the development of authorized programs in both states and Tribes to prevent lead poisoning through the training of workers who remove lead-based paint, the accreditation of training programs, the certification of contractors, and renovation education programs. Another activity that this funding will support is the collection of lead data to determine the nature and extent of the lead problem within an area so that states, Tribes and the Agency can better target remaining areas of high risk. In FY 2007, EPA expects to reduce the number of child lead poisoning cases by 17,000.

Pollution Prevention Grants

The FY 2007 request includes $6.0 million for Pollution Prevention grants. The program provides grant funds to deliver technical assistance to small and medium-sized businesses. The goal is to assist businesses and industries with identifying improved environmental strategies and solutions for reducing waste at the source. The program demonstrates that source reduction can be a cost-effective way of meeting or exceeding Federal and state regulatory requirements. In FY 2007, EPA is targeting a cumulative 30 percent reduction in annual pollution releases to the environment.

Environmental Information Grants

In FY 2007, the President's Budget includes $14.9 million to continue the Environmental Information Exchange Network (Exchange Network) grant program. Started in 2002, the Exchange Network grant program provides states, territories, Tribes, and Tribal consortia assistance to develop the information management and technology (IM/IT) capabilities they need to participate in the Exchange Network and thus improve environmental decision making, increase environmental data quality and accuracy, and reduce burdens on those who provide and those who access information. In FY 2007, EPA, states, Tribes, and territories will continue to re-engineer data systems so that information previously not available or not easily available can be exchanged using common data standards. By the end of 2007 all fifty states and approximately ten Tribes will have established nodes on the Exchange Network and will be mapping data for sharing with partners and submission to EPA.

State and Tribal Underground Storage Tanks Program

The President's FY 2007 Budget includes $37.6 million for Underground Storage Tank grants. In FY 2007, EPA will provide assistance to states to help them meet their new responsibilities under the Energy Policy Act of 2005. This includes performing additional inspections,

developing operator training requirements, prohibiting fuel deliveries at non-compliant UST facilities, and requiring secondary containment for new and replaced tanks and piping or financial responsibility for tank installers and manufacturers. States and tribes will use these resources to ensure that UST owners and operators routinely and correctly monitor all regulated tanks and piping in accordance with regulations, and also to develop programs with sufficient authority and enforcement capabilities to operate in lieu of the Federal program.

Hazardous Waste Financial Assistance Grants

In FY 2007, the President's Budget includes $103.3 million for Hazardous Waste Financial Assistance grants. Hazardous Waste Financial Assistance grants are used for the implementation of the Resource Conservation and Recovery Act (RCRA) hazardous waste program, which includes permitting, authorization, waste minimization, enforcement, and corrective action activities. In FY 2007, EPA expects to increase the number of hazardous waste facilities with permits by 2.4% in order to meet the 2008 goal of 95% coverage and increase the percent of annual permit renewals in line with 2008 requirements of a 50% annual renewal rate.

Brownfields Grants

In FY 2007, the President's Budget includes $49.5 million to continue the Brownfields grant program that provides assistance to states and Tribes to develop and enhance their state and Tribal response programs. This funding will help states and Tribes develop legislation, regulations, procedures, and guidance, to establish or enhance the administrative and legal structure of their response programs. In addition, grant funding will help states and Tribes capitalize Revolving Loan Funds for Brownfields cleanup, purchase environmental insurance, and conduct site-specific related activities such as assessments at Brownfields sites. In FY 2007, the funding provided will result in the assessment of 1,000 Brownfields properties. Brownfields grantees will leverage $900,000 in cleanup and redevelopment funding.

Water Pollution Control (Clean Water Act Section 106) Grants

In FY 2007, the President's Budget includes $221.7 million for Water Pollution Control grants. These funds enable National Pollution Discharge Elimination System (NPDES) permitting, enhance water quality monitoring activities, support Total Maximum Daily Load (TMDL) development, and will lead to improved water quality standards. In 2007 EPA will work with states to implement the new rules governing discharges from Concentrated Animal Feeding Operations (CAFOs) such that most CAFOs will be permitted by 2008. EPA will also review and update state and Tribe water quality standards so that over 91 percent of submissions will be approvable in 2007. Lastly, EPA's goal for 2007 is that over 66 percent of states will have updated their standards to reflect the latest scientific information in the past three years.

Wetlands Grants

In FY 2007, the President's Budget includes $16.8 million for Wetlands Program Grants. Through Wetlands Program Development Grants, states, Tribes, and local governments receive technical and financial assistance that will support the Administration's goal of protecting,

restoring, and enhancing 3 million acres of wetlands These grants will do this through the development and implementation of state and Tribal wetland programs that improve water quality in watersheds throughout the country as well as assist private landowners, educate local governments, and monitor and assess wetland quantity and quality.

Public Water System Supervision Grants

In FY 2007, the President's Budget includes $99.1 million for Public Water System Supervision (PWSS) grants. These grants provide assistance to implement and enforce National Primary Drinking Water Regulations to ensure the safety of the Nation's drinking water resources and to protect public health. In FY 2007, the Agency will emphasize that states use their PWSS funds to ensure that drinking water systems of all sizes achieve or remain in compliance and drinking water systems of all sizes are meeting new health-based standards that came into effect in FY 2006, e.g. arsenic and uranium.

Indian General Assistance Program Grants

In FY 2007, the President's Budget includes $56.9 million for the Indian General Assistance Program (GAP) to help Federally recognized Tribes and inter-Tribal consortia develop, implement and assume environmental programs. In FY 2007, 517 federally-recognized Tribes and inter-Tribal Consortia, or 90 percent of a universe of 572 eligible entities, will have access to an environmental presence, or representative, to administer environmental programs.

Homeland Security Grants

In FY 2007, the President's Budget includes $5.0 million for homeland security grants to support states' efforts to work with drinking water and wastewater systems to develop and enhance emergency operations plans; conduct training in the implementation of remedial plans in small systems; and develop detection, monitoring and treatment technology to enhance drinking water and wastewater security. EPA homeland security grants will be awarded to 56 states and territories.

Underground Injection Control (UIC) Grants

The FY 2007 President's Budget includes $10.9 million for the Underground Injection Control grants program. Ensuring safe underground injection of waste materials is a fundamental component of a comprehensive source water protection program. Grants are provided to states that have primary enforcement authority (primacy) to implement and maintain UIC programs. EPA and the states will address 95 percent or higher of Classes I, II, and III existing wells determined to be in violation and Class V existing wells determined to be in violation in FY 2007. Additionally, EPA and the states will close or permit 80 percent of Motor Vehicle Waste Disposal wells (Class V) identified during FY 2007.

Targeted Watershed Grants

The President's FY 2007 Budget funds Targeted Watershed grants at $6.9 million. The program supports competitive grants to watershed stakeholders ready to undertake immediate action to improve water quality, and to improve watershed protection measures with tools, training and technical assistance. Special emphasis will be given to projects that promote water quality trading opportunities to more efficiently achieve water quality benefits through market-based approaches.

BEACH Act Grants

The President's FY 2007 budget includes $9.9 million for the 35 states and territories with Great Lakes or coastal shorelines to protect public health at the Nation's beaches. The Beaches Environmental Assessment and Coastal Health Act (BEACH Act) of October 2000 authorizes EPA to award grants to help eligible states and territories develop and implement beach bacteria monitoring and notification programs. These programs inform the public about the risk of exposure to disease-causing microorganisms in coastal waters (including the Great Lakes).

Non-Point Source Program Grants (NPS – Section 319)

In FY 2007, the President's Budget includes $194.0 million for Non-Point Source Program grants to states, territories, and Tribes. These grants enable states to use a range of tools to implement their programs including: both non-regulatory and regulatory programs, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects. The request also eliminates the statutory one-third of one-percent cap on Clean Water Act Section 319 Non-point Source Pollution grants that may be awarded to Tribes. The annual output measures are to annually reduce the amount of runoff of phosphorus, nitrogen, and sediment through 319-funded projects by 4.5 million pounds, 8.5 million pounds, and 700,000 tons, respectively.

Program Area: Air Toxics and Quality

Clean School Bus Initiative
Program Area: Air Toxics and Quality
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$0.0***	***$6,897.0***	***$0.0***	***($6,897.0)***
Total Budget Authority / Obligations	$0.0	$6,897.0	$0.0	($6,897.0)
Total Workyears	0.0	0.0	0.0	0.0

The FY 2005 Budget Authority for this program was $7,440.0M. The funds will be obligated in FY 2006.

Program Project Description:

This program includes development, implementation, and evaluation of a competitive grant program to equip school buses with diesel retrofit technology or to replace older school buses in order to reduce toxics air emissions. Because school buses often remain in service for 20 or more years, this program helps equip our nation's school bus fleet with low-emission technologies and practices sooner than would otherwise occur through normal turnover of the bus fleet to newer vehicles meeting more stringent emission standards. Older school buses can be retrofitted with pollution controls through the use of ultra-low sulfur diesel fuel and the installation of particulate matter (PM) filters, with the potential of reducing PM emissions by up to 95 percent. Other strategies include anti-idling programs, which lower engine idling time and reduce harmful emissions, and other projects designed to raise awareness about the need to reduce diesel emissions from school buses.

FY 2007 Activities and Performance Plan:

The Diesel Emissions Reduction Grant program has assumed all responsibilities formerly associated with the Clean School Bus Grants program.

Performance Targets:

There are no FY 2007 performance targets associated with this Program Project because the funds are transferred to Diesel Emissions Reduction Grant program in the State and Tribal Assistance Grants (STAG) appropriation.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$6,897.0) Funding and program responsibilities have been transferred to the Diesel Emissions Reduction Grant program in the State and Tribal Assistance Grants (STAG) appropriation.

Program Area: Brownfields

Brownfields Projects
Program Area: Brownfields
Goal: Healthy Communities and Ecosystems
Objective(s): Communities

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$88,065.1***	***$88,676.0***	***$89,119.4***	***$443.4***
Hazardous Substance Superfund	$2,299.0	$0.0	$0.0	$0.0
Total Budget Authority / Obligations	$90,364.1	$88,676.0	$89,119.4	$443.4
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Economic changes over several decades have left thousands of communities with contaminated properties and abandoned sites known as Brownfields. The Agency's Brownfields program coordinates a Federal, state, Tribal, and local government approach to assist in addressing environmental site assessment and cleanup through grants and cooperative agreements authorized by CERCLA Section 104(k).

The Agency's Brownfields program assists in addressing environmental site assessment and cleanup through competitive grants to eligible entities and cooperative agreements authorized by CERCLA Section 104(k). The statute requires the Brownfields program to allocate 25% of the total available funds for CERCLA 104(k) grants to address sites contaminated by petroleum. With the funds requested, EPA will provide: (1) assessment and cleanup grants for recipients to inventory, characterize, assess, and conduct cleanup and redevelopment planning related to Brownfields sites; (2) capitalization grants for Revolving Loan Funds (RLFs) to provide low interest loans for cleanups; (3) job training grants; (4) petroleum grants and (5) financial assistance to localities, states, Tribes, and non-profit organizations for research, training, and technical assistance.

In cooperation with other Federal agencies, EPA developed the Brownfields Federal Partnership Action Agenda in November 2002. The Action Agenda describes the commitment of over 20 Federal agencies to help communities more effectively prevent, assess, safely clean up, and reuse Brownfields.

FY 2007 Activities and Performance Plan:

Funding requested for FY 2007 will be used to support the following activities:

- Funding and technical support for 95 assessment grants for recipients to inventory, assess, and conduct cleanup and redevelopment planning at Brownfields sites. In FY 2007, the funding provided will result in the assessment of 1,000 Brownfields properties. Brownfields

grantees will leverage 5,000 cleanup and redevelopment jobs and $900 million in cleanup and redevelopment funding.

- Capitalize RLF and award cleanup grants for 53 communities; enabling eligible entities to develop cleanup strategies, make loans to clean up properties, and encourage communities to leverage other funds into their RLF pools and cleanup grants. The Agency will award cooperative agreements to capitalize RLF grants of up to $1,000,000 each and award direct cleanup grants of up to $200,000 per site to communities and non-profits.

Performance Assessment: In 2003, the Brownfields Program received an "adequate" PART rating, citing a clear purpose and achievement of performance targets. The Program continues to implement recommend-dations on performance measurement and evaluation. In 2006, the Program adopted "acres made ready for reuse" as a long-term measure and "acres made ready for reuse per million dollars" as an efficiency measure. The Program will also begin working with other Federal agencies to create a cross-agency Brownfields measure to determine the number of acres actually returned to productive use. To reduce data lags and improve information quality, the Program is modernizing its information collection system. Additionally, the Program has adopted a protocol and schedule for conducting regional reviews.

- Assessment and cleanup of abandoned underground storage tanks (USTs) and other petroleum contamination found on Brownfields properties to address approximately 45 Brownfields communities.

- Award Brownfields job training and development grants of up to $200,000 each over two years. This funding will provide for 10 new job training grants for community residents to take advantage of new jobs leveraged by the assessment and cleanup of Brownfields. Also, $2,000,000 for the National Institute of Environmental Health Sciences will supplement its minority worker training programs that focus on Brownfields workforce development activities.

- Training, research and technical assistance grants and cooperative agreements as authorized under CERCLA Section 104(k)(6).

- In addition, EPA will continue to support the existing 28 showcase communities that demonstrate the benefits of interagency cooperative efforts in addressing environmental and economic issues related to Brownfields.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Brownfield properties assessed.		1,000	1,000	1,000	assessments

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Billions of dollars of cleanup and redevelopment funds		$0.9B	0.9	0.9	funds

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	leveraged at Brownfields sites.					

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+443.7) This increase will support additional training, research and technical assistance grants.

Statutory Authority:

CERCLA as amended by SBLRBRA (P.L. 107-118); RCRA Section 8001; GMRA (1990); SWDA; FGCAA.

Program Area: Infrastructure Assistance

Infrastructure Assistance: Alaska Native Villages

Program Area: Infrastructure Assistance
Goal: Clean and Safe Water
Objective(s): Protect Water Quality

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$50,866.5***	***$34,485.0***	***$14,850.0***	***($19,635.0)***
Total Budget Authority / Obligations	$50,866.5	$34,485.0	$14,850.0	($19,635.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Alaska Rural and Native Village Program addresses the lack of basic drinking water and sanitation infrastructure (i.e., flushing toilets and running water) in rural and Native Alaska communities. In many of these communities, honeybuckets and pit privies are the sole means of sewage collection and disposal. The grant to the State of Alaska provides funding to construct drinking water and wastewater facilities for these communities, thereby, improving the health and sanitation conditions. This program also supports training, technical assistance, and educational programs related to the operation and maintenance of sanitation systems. (For more information, visit http://www.epa.gov/owm/mab/indian/anvrs.htm.)

FY 2007 Activities and Performance Plan:

In FY 2007, the Agency will continue to provide grant funding to the State of Alaska to meet the sanitation infrastructure needs of rural communities and Native Villages as effectively and efficiently as possible despite harsh weather and poor soil conditions that pose unique challenges to the region. In FY 2005, EPA made personnel and policy changes to enable more focused and intensive oversight of the Alaska Native Village grant program, through cost analysis, post-award monitoring and project close-out. EPA also collaborated with Alaska to establish program goals and objectives which are now incorporated directly into the state priority system for selecting candidate projects. EPA also collaborated with Alaska to establish program goals and objectives which are now incorporated directly into the state priority system for selecting candidate projects.

Performance Assessment: During FY 2004, the Alaska Native Village Program underwent a PART review and received a rating of ineffective. EPA is negotiating a memorandum of understanding (MOU) with the State which will include the development and maintenance of tools for tracking specific progress made to date by the State of Alaska in addressing management issues and to determine if further steps, such as the promulgation of regulations are necessary. The MOU will be executed in FY 2006. EPA also will develop program regulations to improve accountability, and ensure that the funds benefit the intended recipients. EPA is establishing baselines and targets for their measures for reporting in FY 2006.

Performance Targets:

The Alaska Native Village Program is administered by the State of Alaska and provides infrastructure funding to Alaska Native Villages and rural Alaska communities which lack access to basic sanitation. The Agency is working to develop baselines and targets for performance measures established during the PART review process. The Agency expects to have the baseline information available during the spring 2006 and will report on the status of accomplishments at the end of fiscal year 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$19,635.0) This reduction is a result of program management and financial deficiencies identified in audits by the State of Alaska, EPA's IG and the PART review. EPA will continue to work with the program to improve management and fiscal practices.

Statutory Authority:

SDWA Amendments of 1996.

Infrastructure Assistance: Clean Water SRF

Program Area: Infrastructure Assistance
Goal: Clean and Safe Water
Objective(s): Protect Water Quality

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$1,110,473.7***	***$886,759.0***	***$687,555.0***	***($199,204.0)***
Total Budget Authority / Obligations	$1,110,473.7	$886,759.0	$687,555.0	($199,204.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Clean Water State Revolving Fund (CWSRF) provides funds to capitalize state revolving loan funds that finance infrastructure improvements for public wastewater systems and projects to improve water quality. The CWSRF is the largest source of Federal funds for states to provide loans and other forms of assistance for construction of wastewater treatment facilities, implementation of nonpoint source management plans, and development and implementation of estuary conservation and management plans. This program also includes a provision for a set-aside of funding for tribes to better address serious water infrastructure problems and attendant health impacts. The Federal investment is designed to be used in concert with other sources of funds to address water quality needs. (For more information, visit http://www.epa.gov/owm/cwfinance/cwsrf.)

CWSRFs provide low interest loans to help finance wastewater treatment facilities and other water quality projects. These projects are critical to the continuation of the public health and water quality gains of the past 30 years. As of early 2006, the Federal government had invested $23 billion in the CWSRFs. The revolving nature of the funds and substantial additions from states have magnified that investment to make available more than $55 billion for loans since the program's inception.[1] The CWSRF program measures and tracks the average national rate at which available funds are loaned, assuring that the fund is working hard to support water quality infrastructure.

FY 2007 Activities and Performance Plan:

Recognizing the substantial remaining need for wastewater infrastructure, EPA will provide annual capitalization to the CWSRFs through 2011. This continued Federal investment, along with other traditional sources of financing (including increased local revenues), will result in substantial progress toward addressing the

Performance Assessment: The Clean Water State Revolving Fund (CWSRF) Grant Program underwent the PART for the first time in 2003. The purpose of this program is to support states in helping wastewater systems finance the cost of infrastructure improvements needed to achieve or maintain compliance with the CWA requirements and to protect public health and the environment. The program received a PART rating of adequate in 2004.

[1] Clean Water State Revolving Fund National Information Management System. US EPA, Office of Water, National Information Management System Reports: Clean Water State Revolving Fund (CWSRF). Washington, DC. Available at http://www.epa.gov/owm/cwfinance/cwsrf.)

Nation's wastewater treatment needs which will significantly contribute to the long-term environmental goal of watershed's attaining designated uses.

EPA continues to work with states to meet several key objectives: fund projects designed as part of an integrated watershed approach; link projects to environmental results; and maintain the CWSRFs' excellent fiduciary condition.

The 2002 World Summit in Johannesburg adopted the goal of reducing the number of people lacking access to safe drinking water and basic sanitation by 50 percent by 2015. EPA will support this goal through the Indian Set-Aside, which will provide for the development of sanitation facilities in tribes and Alaska Native Villages.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Fund utilization rate for the CWSRF	95.4%	90%	93.3%	93.4%	Rate

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Annual percentage of waterbody segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained (cumulative).	8	2	5	9	% Miles/Acres

- Nationally since 2001, fund utilization has remained relatively stable and strong at over 90%. The national ratio is an aggregate of fund activity in the 51 individual CWSRF programs (50 states and Puerto Rico). As such, small year-to-year fluctuations in the value of the national ratio are to be expected and reflect annual funding decisions made by each state based on its assessment and subsequent prioritization of state water quality needs and the availability of financial resources. The Agency expects the loan commitment rate to continue to be strong. In addition, because the total capitalization relatively remains the same, the program is projected to meet its long-term revolving level target of $3.4 billion. As of June 30, 2005, approximately $2.6 billlion was available for loans.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$199,204.0) The FY 2007 budget funds the CWSRF at $688 million. At this funding level, the total capitalization provided between FYs 2004 through 2011 will total $6.8 billion and the program is projected to meet its long-term revolving level target of $3.4 billion.

Statutory Authority:

CWA.

Diesel Emissions Reduction Grant Program
Program Area: Infrastructure Assistance
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$0.0***	***$0.0***	***$49,500.0***	***$49,500.0***
Total Budget Authority / Obligations	$0.0	$0.0	$49,500.0	$49,500.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

These grant funds, authorized in Sections 791-797 of the Energy Policy Act of 2005, will support the National Clean Diesel program. Through this program EPA will focus on reducing particulate matter (PM) by up to 95% from existing diesel engines, including both on-highway and nonroad equipment. This program will also reduce other smog-forming emissions such as nitrogen oxides and hydrocarbons. Existing diesel engines are not subject to new, more stringent emissions standards that take effect in 2007 and later. These engines often remain in service for 20 or more years, and this program will help provide immediate reductions by retrofitting these engines with emission control technologies sooner than would otherwise occur through normal turnover of the fleet.

This program will support diesel engine retrofits, rebuilds and replacements, and anti-idling measures. Five sectors are targeted for emissions reductions from the existing fleet: freight, construction, school buses, agriculture, and ports. Grants will be provided to eligible entities in areas of the country that are not meeting ambient air quality standards. Up to 30 percent of the funds appropriated for diesel emissions reduction grants will be used to provide formula grants to states to establish and support state grant or loan programs.

FY 2007 Activities and Performance Plan:

EPA expects to fund at least 200 new grants deploying technology in various sectors using diesel engines. Funds will continue to support the Agency's well established Clean School Bus Program. Specifically, a portion of these funds will be used to award competitive grants for replacing older buses, repowering and retrofitting them with emission control technology, such as diesel particulate filters (DPFs), with the potential of reducing PM emissions by up to 95 percent. Other strategies include anti-idling programs, which lower engine idling time and reduce harmful emissions.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Tons of PM-2.5	61,217	61,217	73,460	85,704	Tons

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	Reduced since 2000 from Mobile Sources					

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

Through the National Clean Diesel Campaign, EPA awarded a total of approximately 30 grants in FY05 and FY06. The Clean School Bus USA program awarded a total of approximately 70 grants in FY 2003 through FY 2005. By the end of FY 2006, approximately 10,000 buses will have been switched to a cleaner fuel, retrofitted with emissions control equipment, or replaced. EPA estimates that the $49.5 million for National Clean Diesel Campaign grants will leverage at least an additional $100 million in funding assistance and reduce PM by approximately 7,000 tons, achieving up to an estimated two billion dollars in health benefits.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$49,500.0) This increase is provided under Sections 791-797 of the Energy Policy Act of 2005 to support grants for diesel retrofits. EPA estimates that the $49.5 million for National Clean Diesel Campaign grants will leverage at least an additional $100 million in funding assistance and reduce PM by approximately 7,000 tons, achieving up to an estimated two billion dollars in health benefits. This funding is for financial assistance to eligible entities. This includes $6,897,000 transferred from the Clean School Bus USA program in the State and Tribal Assistance Grants (STAG) appropriation account and $4,679,300 transferred from the National Clean Diesel Campaign in the Environmental Programs Management (EPM) appropriation account

Statutory Authority:

CAA Amendments, Title I (NAAQS); CAA Amendments, Title III (Air Toxics); CAA, Sections 103, 105, and 106 (Grants), Energy Policy Act of 2005, Sections 741 and 791-797.

Infrastructure Assistance: Drinking Water SRF
Program Area: Infrastructure Assistance
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$847,519.2***	***$837,495.0***	***$841,500.0***	***$4,005.0***
Total Budget Authority / Obligations	$847,519.2	$837,495.0	$841,500.0	$4,005.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

This program is designed to support states in helping public water systems finance the costs of infrastructure improvements needed to achieve or maintain compliance with Safe Drinking Water Act requirements and to protect public health. Capitalization grant funds may also be used by states to provide other types of assistance to promote prevention and to encourage stronger drinking water system management programs. To reduce occurrences of serious public health threats and to ensure safe drinking water sources nationwide, EPA is authorized to make capitalization grants to states, so that they can provide low-cost loans and other assistance to eligible public water systems. Resources may also fund Interagency Agreements to other Federal agencies, such as the Indian Health Service in the Department of Health and Human Services, that provide safe drinking water activities in support of the tribes. The program also emphasizes providing funds to small and disadvantaged communities and to programs that encourage pollution prevention as a tool for ensuring safe drinking water. (See http://www.epa.gov/safewater/dwsrf.html for more information.)

FY 2007 Activities and Performance Plan:

Performance Assessment: The Drinking Water State Revolving Fund (DWSRF) Grant Program underwent a PART assessment for the first time in 2002. The purpose of this program is to support states in helping public water systems finance the costs of infrastructure improvements needed to achieve or maintain compliance with Safe Drinking Water Act requirements and to protect public health. The program received an OMB rating of adequate in 2004.

Providing drinking water that meets health safety standards often requires an investment in the construction or maintenance of drinking water infrastructure. Through the Drinking Water State Revolving Fund (DWSRF) program, states offer low interest loans to help public water systems across the nation make improvements or upgrades to their infrastructure. Also, the DWSRF provides additional financial support to small and disadvantaged communities through low or zero-interest loans. Every state that administers DWSRF funds must provide a minimum of 15 percent of available funds for loans to small communities, and has the option of providing up to 30 percent of available funds to state-defined disadvantaged communities. In November 2006, the DWSRF program will report on the resources made available to finance infrastructure improvement projects nationwide and the number of projects that have been financed in FY 2006. For FY 2007, the DWSRF program has

set a target of providing over 600 additional loans to public water systems for infrastructure improvement projects.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Fund utilization rate for the DWSRF.	84.7	81.9	83.3	84	% Rate

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Number of additional projects initiating operations.	439	415	425	433	Projects

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent community water systems in compliance with drinking water standards.	89.2	93	93.5	94	% Systems

This program was included in the DWSRF PART review for 2002, which received an overall rating of Adequate. The 2004 reassessment of the program found that the Drinking Water SRF program had implemented acceptable performance measures. The program also tracks the national long-term average revolving level of the fund to assess long-term sustainability. Currently, the program is on target to reach the long-term revolving level target of $1.2 billion by 2018.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$4,005.0) This increase will support safe drinking water activities by offering additional low interest loans to public water systems for improvements or upgrades to their infrastructure.

Statutory Authority:

SDWA.

Infrastructure Assistance: Mexico Border
Program Area: Infrastructure Assistance
Goal: Healthy Communities and Ecosystems
Objective(s): Communities

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$66,176.9***	***$49,264.0***	***$24,750.0***	***($24,514.0)***
Total Budget Authority / Obligations	$66,176.9	$49,264.0	$24,750.0	($24,514.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The United States and Mexico share more than 2,000 miles of common border. More than 12.6 million people live in the border area, mostly in fifteen "sister city pairs". The rapid increase in population and industrialization in the border cities has overwhelmed existing wastewater treatment and drinking water supply facilities. Untreated and industrial sewage often flows north into the U.S. from Tijuana, Mexicali, and Nogales, and into the Rio Grande. EPA works closely with the appropriate partners to evaluate environmental needs and to facilitate the construction of environmental infrastructure through the provision of grant funding for the planning, design, and construction of high priority water and wastewater treatment facilities along the border. Further information about this program can be found at http://www.epa.gov/r6border/index.htm.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Mexico Border program underwent the PART for the first time in FY 2004. The purpose of the program is to serve the U.S. – Mexico border area population with drinking water, wastewater collection, and wastewater treatment services. The program submitted 3 long-term measures and one efficiency measure, and is currently working on baselines and targets for reporting in FY 2006. The program received a PART rating of adequate in 2004.

The U.S. – Mexico Border 2012 Program, in a joint effort between the U.S. and Mexican governments, will continue to work with the 10 border states and local communities to improve the region's public and environmental health. The U.S. and Mexican governments will work to improve water quality along the border through a range of pollution control sanitation projects, with the goal of restoring the quality of the majority of the currently impaired significant shared and transboundary surface waters by the year 2012. This effort will reduce health risks to residents who may currently lack access to safe drinking water. Similarly, by increasing the number of homes with access to basic sanitation by the same amount, EPA and its partners will reduce the discharge of untreated domestic wastewater into surface and ground water.

In order to enhance fiscal management, the Agency has taken specific actions in FY 2005 to strengthen the program and establish new controls to manage the Border Environment Infrastructure Fund (BEIF). These actions will allow timely outlaying of funds, and include: new program guidance that establishes time limits for project development and project

construction phases; a deadline to start BEIF disbursements; and a "by-pass" provision policy for stalled projects.

In FY 2007, EPA will continue to support the construction of infrastructure that will connect and serve the homes of the border area residents with safe drinking water and wastewater treatment. The Agency also will continue to support the planned assessment of shared and transboundary surface waters to facilitate the collection, management, and exchange of environmental data essential for effective water management. In addition, the Agency will support the protection of public health at the border area coastal beaches and improvements in efficiency of service provider operations.

Performance Targets:

The Agency is working to develop baselines and targets for performance measures established during the PART review. We expect to have the baseline information available during the spring 2006 and anticipate reporting on the status of our accomplishments at the end of fiscal year 2006.

The results of the recently implemented prioritization process indicate that the FY 2007 investment of $25 million will leverage funding to provide clean and safe water to approximately 90,000 people.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$24,514.0) The program has sufficient resources to carry out currently approved projects and provides $25 million to address new needs in FY 2007.

Statutory Authority:

Treaty entitled "Agreement between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area, August 14, 1983, CWA.

Infrastructure Assistance: Puerto Rico
Program Area: Infrastructure Assistance
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$0.0***	***$0.0***	***$990.0***	***$990.0***
Total Budget Authority / Obligations	$0.0	$0.0	$990.0	$990.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

This program focuses on the design for an upgrade of Metropolitano's Sergio Cuervas drinking water treatment plant in San Juan, Puerto Rico.

FY 2007 Activities and Performance Plan:

EPA will support the design of infrastructure improvements for the largest drinking system in Puerto Rico to strengthen its infrastructure and, in turn, reduce the health risk to its consumers. Less than 30 percent of the population in Puerto Rico receives drinking water that meets all health-based standards.[2] To improve public health protection in Puerto Rico, the Agency will support the next phase of the design of necessary infrastructure improvements.

Performance Targets:

This program will contribute significantly to the drinking water program measure regarding the percent of the population served by community water systems that meets all applicable health-based drinking water standards through effective treatment and source water protection. The Agency estimates that approximately 1.5 million people will benefit from safer, cleaner drinking water[2] and risks of cancer, gastroenteritis, and other waterborne diseases will be reduced when all upgrades are completed at this plant.

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$990.0) This increase provides funding to design an upgrade of the drinking water treatment plant in San Juan, Puerto Rico.

Statutory Authority:

SDWA.

[2] U.S. Environmental Protection Agency Safe Drinking Water Information System (SDWIS/FED), http://www.epa.gov/safewater/data/getdata.html
[2] U.S. Environmental Protection Agency Safe Drinking Water Information System (SDWIS/FED), http://www.epa.gov/safewater/data/getdata.html

Program Area: Categorical Grants

Categorical Grant: Beaches Protection

Program Area: Categorical Grants
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$13,262.7***	***$9,853.0***	***$9,900.0***	***$47.0***
Total Budget Authority / Obligations	$13,262.7	$9,853.0	$9,900.0	$47.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

EPA awards grants to eligible coastal and Great Lakes states, territories, and tribes to improve water quality monitoring at beaches and to notify the public of beach warnings and closings. The BEACH grant program is a collaborative effort between EPA and states, territories, local governments, and tribes to help ensure that recreational waters are safe for swimming. Congress created the program with the passage of the Beaches Environmental Assessment and Coastal Health Act (BEACH Act) in October 2000, with the goal of improving water quality testing at beaches and to help beach managers better inform the public when there are water quality problems.

EPA awards grants to eligible states, territories, and tribes using an allocation formula developed in 2002 in consultation with states and other organizations that takes into consideration: beach season length, beach miles, and beach use. During FY 2006, the allocation formula will be reviewed in consultation with Agency stakeholders to update the FY 2007 allocations. (See http://www.epa.gov/waterscience/beaches for more information.)

FY 2007 Activities and Performance Plan:

States and territories currently monitor 3,574 beaches. To continue making progress on monitoring beaches in FY 2007, EPA expects to:

- Make grant funds available to all 35 eligible states and territories to monitor beach water quality and to notify the public of beach warnings and closings;
- Continue to make available to the public information, through EPA's Beach Advisory Closing On-line Notification (BEACON) system, on the status of beach closings at all monitored beaches; and
- Continue to work with coastal and Great Lakes states, territories, and tribes to address monitoring issues.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Days (of beach season) that coastal and Great Lakes beaches monitored by State beach safety programs are open and safe for swimming.	96	94	94	95	% Days/Season

EPA expects to see a continued increase in the percentage of beach season days that coastal and Great Lakes beaches are open and safe for swimming as states continue their implementation of the BEACH Act program.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$47.0) This increase will allow states and territories to perform additional monitoring at beaches.

Statutory Authority:

CWA; BEACH Act of 2000.

Categorical Grant: Brownfields
Program Area: Categorical Grants
Goal: Healthy Communities and Ecosystems
Objective(s): Communities

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$47,411.0***	***$49,264.0***	***$49,494.9***	***$230.9***
Total Budget Authority / Obligations	$47,411.0	$49,264.0	$49,494.9	$230.9
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Unlike Superfund sites, generally Brownfields are not highly contaminated properties and, therefore, present lesser health risks. Economic changes over several decades have left thousands of communities with these contaminated properties and abandoned sites. The Agency's Brownfields program coordinates a Federal, state, Tribal, and local government approach to assist in addressing environmental site assessment and cleanup.

Under CERCLA Section 128(a), grants are provided to states and Tribes for their Brownfields response programs. The state/Tribal programs address contaminated sites that do not require Federal action, but need cleanup before the sites are considered for reuse. States and Tribes may use grant funding to develop a public record, capitalize a Revolving Loan Fund for Brownfields cleanup under CERCLA Section 104(k)(3), purchase environmental insurance, and conduct site-specific related activities such as assessments at Brownfield sites.

FY 2007 Activities and Performance Plan:

Building the capacity of states and Tribes to regulate and oversee the cleanup and redevelopment of Brownfields will mean more sustained success at the local level, and potentially even higher leveraging of Federal dollars to revitalize communities across the country. The Agency requests funds to establish or enhance state and Tribal response programs in 50 states, 30 Tribes, and two territories.

EPA has signed 22 Voluntary Cleanup Program (VCP) memoranda of agreement (MOAs) with states through the end of FY 2005. VCP MOAs clarify the roles and responsibilities of the Federal/state relationship. These agreements encourage the cleanup and redevelopment of contaminated properties. In FY 2007, EPA will continue to negotiate with states, signing additional MOAs. Under the Brownfields law, state response programs that have a VCP MOA are automatically eligible for CERCLA 128(a) grant funding, therefore streamlining the grant award process.

Performance Targets:

Work under this program project supports the Healthy Communities and Ecosystems Objective and contributes to achievement of performance measures identified under the Brownfields Projects program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$230.9) This increase provides additional grant funding to Tribes or states, supporting efforts to clean up additional Brownfields properties.

Statutory Authority:

CERCLA as amended by SBLRBRA (P.L. 107-118): GMRA (1990); FGCAA.

Categorical Grant: Environmental Information

Program Area: Categorical Grants
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Environmental Performance through Pollution Prevention and Innovation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$19,837.0***	***$19,706.0***	***$14,850.0***	***($4,856.0)***
Total Budget Authority / Obligations	$19,837.0	$19,706.0	$14,850.0	($4,856.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Exchange Network grants provide funding to states, territories, federally recognized Indian tribes, and inter-tribal consortia to support their participation in the Environmental Information Exchange Network. The Network is an Internet and standards-based, secure information network that facilitates electronic reporting and the sharing, integration, analysis, and use of environmental data from many different sources. The funding supports the acquisition and development of computer hardware and software EPA's partners need to connect to the Exchange Network.

FY 2007 Activities and Performance Plan:

In FY 2007, the Exchange Network Grants Program will emphasize activities in three areas. First, the development of tribal and territorial infrastructure will be emphasized, as all states are expected to have operating nodes at that point. Second, the core focus of the Grants program will be on supporting all partners in the development and exchange of regulatory and non-traditional data flows through the Exchange Network. Exchange Network partners will continue to need support in the build out of the data available through their nodes. These efforts will support the exchange of data for regulatory programs, but more importantly, for the business needs of the Exchange Network partners in terms of facilitating better environmental and health decisions. Finally, the Grants Program will support multi-partner projects that facilitate collaborative efforts to plan, mentor, and train Exchange Network partners, as well as develop and exchange data. These projects help to encourage broader participation of existing and new partners, support innovation, and improve grant products because more input is obtained and the products are used by a greater number of partners.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$4,856.0) The reduction in resources reflects the shift in the Grant Program's emphasis from infrastructure needs to building data flows and Web services.

Statutory Authority:

Annual Appropriations Act.

Categorical Grant: Hazardous Waste Financial Assistance

Program Area: Categorical Grants
Goal: Land Preservation and Restoration
Objective(s): Preserve Land; Restore Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$105,786.4***	***$101,944.0***	***$103,345.5***	***$1,401.5***
Total Budget Authority / Obligations	$105,786.4	$101,944.0	$103,345.5	$1,401.5
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Resource Conservation and Recovery Act (RCRA) authorizes EPA to assist state governments through the Hazardous Waste Financial Assistance Grants program. The states propose legislation and upgrade regulations to achieve equivalence with the Federal Hazardous Waste Management Program, and apply to EPA for authorization to administer the program. The state grants provide for the implementation of an authorized hazardous waste management program for the purpose of controlling the generation, transportation, treatment, storage, and disposal of hazardous wastes, including controlling and cleaning up past and continuing releases from hazardous waste management facilities through corrective action. This program also provides funding for the direct implementation of the RCRA program for the States of Iowa and Alaska. Funding distributed through State and Tribal Assistance Grants (STAG) also supports Tribes, where appropriate, in conducting hazardous waste work on Tribal lands.

FY 2007 Activities and Performance Plan:

In FY 2007, the following activities will be accomplished by states and by EPA for Iowa and Alaska, using RCRA Hazardous Waste Financial Assistance funds:

- Increase the number of RCRA hazardous waste management facilities with permits or other approved controls by 2.4% in 2007 in order to meet the 2008 GPRA goal of 95%. This includes the following activities:
  - Issue operating and post-closure permits or use appropriate enforcement mechanisms to address environmental risk at inactive land-based facilities.
  - Approve closure plans for interim status treatment and storage facilities that are not seeking permits to operate, and work with the facilities to clean/close those units.
- Issue permit renewals for hazardous waste management facilities to keep permit controls up to date. Permit renewals are part of new GPRA targets for the 2006-2008 cycle requiring 50 permit renewals to be done nationally each year.
- Issues permit modifications as needed.

- Issue post-closure permits or use appropriate enforcement mechanisms to address environmental risk at inactive land disposal facilities and put approved controls in place, as part of efforts toward the 2008 strategic goals and report on GPRA status.
- Approve post-closure plans for interim status treatment and storage facilities that are not seeking permits to operate, so these facilities can be brought under "approved controls" as part of the efforts toward the 2008 strategic goals.
- Review and decide on permit renewals and modifications for hazardous waste management facilities to keep permit controls up to date.
- Operate comprehensive compliance monitoring and enforcement actions related to the RCRA hazardous waste program.
- Provide funding for the direct implementation of the RCRA program by Region 7 for the State of Iowa and for the State of Alaska, which have not become authorized for the program.
- Work with facilities to complete site assessments, control human exposures, control the migration of contaminated groundwater, select final remedies, and make determinations that construction of final remedies has been completed as part of the efforts toward meeting the 2008 GPRA goals for the RCRA Corrective Action Program.
- Work with facilities to make determinations that construction of final remedy components are complete as part of the efforts toward improving program efficiency under the RCRA Corrective Action Program efficiency measure.

Performance Targets:

This program was included in the PART review of the RCRA Base, Permits and Grants Program for FY 2006 which received an overall rating of Adequate. This evaluation included OMB discussions with states that are the recipients of STAG funds for support of hazardous waste activities. During the PART, EPA developed an efficiency measure that will show, over time, the RCRA facilities under control (permitted) per the total permitting costs. Included in these costs will be estimate of the permitting costs of the regulated entities plus appropriated dollars for the program, based on a three year rolling average. The baseline is currently under development. FY 2007 will be the first year in which the RCRA program will report on the permits and approved controls efficiency measure, based on calculations using data from FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1,401.5) This increase will support additional state hazardous waste facility permitting activities and cleanups under the RCRA corrective action program.

Statutory Authority:

SDWA; Sections 3011 (a) and (c) as amended RCRA of 1976, as amended; Public Law 94-580, 42 U.S.C. 6901 et seq. Department of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations Act; Public Law 105-276; 112 Stat, 2461, 2499 (1988).

Categorical Grant: Homeland Security
Program Area: Categorical Grants
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$4,988.8***	***$4,926.0***	***$4,950.0***	***$24.0***
Total Budget Authority / Obligations	$4,988.8	$4,926.0	$4,950.0	$24.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

EPA provides grants for coordination activities for critical water infrastructure protection efforts that include work with drinking water systems as well as with state, local, and Federal agencies. These activities include coordinating and providing technical assistance, training, and education within the state or territory on homeland security issues (particularly with homeland security offices and emergency response officials) relating to: ensuring the quality of drinking water systems' vulnerability assessments and associated security enhancements; and developing and overseeing emergency response and recovery plans. Emergency response and recovery plan implementation activities include table-top workshops, exercises, drills, response protocols, or other activities focusing on implementing security enhancements and improving the readiness of individuals and groups involved in first response at a drinking water system.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will award homeland security grants to states and territories to support their efforts to work with drinking water and wastewater systems to:

- Develop and enhance facility emergency operations plans to improve response and preparedness capabilities;
- Conduct training in the implementation of remedial plans in small systems;
- Improve emergency response coordination and communications; and
- Develop specific materials focused on improving security.

EPA homeland security grants will be awarded to 56 states and territories. These grants will improve operations of drinking water utilities through training and improved emergency response coordination, communications, and preparedness. In addition, these resources will facilitate the development of materials (e.g., documents, training materials) focused on improving security and emergency response.

In the past, EPA grants have provided support for assisting community water systems to undertake vulnerability assessments, develop emergency response plans, run emergency

response exercises, and develop mutual aid compacts. As a result, 100% of the more than 900 large and medium community water systems (serving 50,000 people or more, each) and 96% of the nearly 8,000 community water systems that each serve 3,301 – 50,000 people have completed required vulnerability assessments. As an example of the multiple benefits of water security preparedness activities, mutual aid compacts developed by Gulf Coast states with these funds enhanced response capabilities during recent hurricane seasons.

See http://cfpub.epa.gov/safewater/watersecurity/financeassist.cfm for more information.

Performance Targets:

Work under this program supports EPA's protect human health objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$24.0) This increase will support coordination activities for critical infrastructure protection grants to states and territories.

Statutory Authority:

SDWA; CWA; Public Health Security and Bioterrorism Emergency and Response Act of 2002.

Categorical Grant: Lead

Program Area: Categorical Grants
Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$14,169.0***	***$13,499.0***	***$13,563.1***	***$64.1***
Total Budget Authority / Obligations	$14,169.0	$13,499.0	$13,563.1	$64.1
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Lead Categorical Grant Program will continue providing assistance to states, territories, the District of Columbia, and Tribes to develop and implement authorized programs for lead-based paint remediation. These programs provide specialized individual training, accreditation of training programs, and the certification of contractors engaged in lead-based paint remediation. This grant program, with its focus on reducing the number of childhood lead poisoning cases, is an Agency priority and part of the *Strategic Plan*.

EPA will continue to implement the lead-based paint activities in the Training and Certification program through EPA-authorized state, territorial and Tribal programs and, in areas without authorization, through direct implementation by the Agency. Activities conducted as part of this program include issuing grants for the training and certification of individuals and firms engaged in lead-based paint abatement and inspection activities and the accreditation of qualified training providers. Since their inception in 1998, the state, Tribal and Federal programs have certified more than 24,000 individuals.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to allocate grant funding through its new grant initiative to address areas with high incidences of lead poisoning. EPA will continue its competitive grant program to address populations still at risk for elevated blood lead levels. The grants are available to a wide range of applicants, including state and local governments, Federally-recognized Indian Tribes and Tribal consortia, territories, institutions of higher learning, and nonprofit organizations.

Performance Assessment: The Lead program provides human health standards, abatement program national oversight and certification and training, notification standards, and public outreach and education for lead hazards. The program underwent its first PART in FY 2005, receiving a Moderately Effective rating. In response to the PART, EPA is introducing a new long-term measure and annual results measure (Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old), and a new efficiency measure (Annual percentage of lead-based paint certification and refund applications that require less than 40 days of EPA effort to process) in the FY 2007 Budget Justification and Request. In FY 2007, EPA will be implementing PART-recommended Improvement Plans to improve the consistency of grantee and regional accountability mechanisms, ensure a clear link between program goals and resource allocations, and target program resources and activities on populations that face a significant risk of being exposed to lead.

In addition to the Categorical Grant, the Lead program has a companion, "Lead Risk Reduction Program." This program focuses on EPA activities (e.g., rulemaking) other than assistance to states, territories, the District of Columbia and Indian Tribes. Both of these programs contribute to the achievement of common strategic targets and annual performance goals. For more information, visit www.epa.gov/oppt.

Performance Targets:

Activities for this appropriation are supported by PART measures listed for Toxic Substances: Lead Risk Reduction Program (EPM).

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$64.1) This increase will support expanded work by states to train and certify lead-based paint professionals, demand for whose services will increase upon promulgation of the recently proposed anticipated final Lead-Based Paint Renovation, Repair and Painting rule and EPA's work to review state and Tribal applications for program authorization.

Statutory Authority:

TSCA.

Categorical Grant: Nonpoint Source (Sec. 319)

Program Area: Categorical Grants
Goal: Clean and Safe Water
Objective(s): Protect Water Quality

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$225,194.2***	***$204,278.0***	***$194,040.0***	***($10,238.0)***
Total Budget Authority / Obligations	$225,194.2	$204,278.0	$194,040.0	($10,238.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The national nonpoint source (NPS) program is EPA's primary program to combat the greatest remaining source of surface and ground water quality impairments and threats in the United States.[3] Grants under Section 319 of the Clean Water Act (CWA) are provided to states, territories, and tribes to help them implement their EPA-approved nonpoint source (NPS) management programs by remediating NPS pollution that has occurred in the past and by preventing or minimizing new NPS pollution.

Section 319 broadly authorizes states to use a range of tools to implement their programs, including: both non-regulatory and regulatory programs; technical assistance, financial assistance; education; training; technology transfer; and demonstration projects. States currently focus $100 million of their Section 319 funds on the development and implementation of watershed-based plans that are designed to restore impaired (listed under Section 303(d)) waters to meet water quality standards. For more information, visit http://www.epa.gov/OWOW/NPS/.

FY 2007 Activities and Performance Plan:

The pervasive nature of NPS pollution will require cooperation and involvement from EPA, other Federal agencies, the states and concerned citizens to solve NPS pollution problems. Therefore, EPA will work closely with and support the many efforts of states, interstate agencies, tribes, local governments and communities, watershed groups, and others to develop and implement their local watershed-based plans and restore surface and ground waters nationwide.

Performance Assessment: In calendar year 2004, the Section 319 Nonpoint Source Program received an overall rating of "adequate" through PART review. The purpose of the program is to provide grants to State, Territories, and Tribes to support a wide variety of activities that result in the reduction of polluted runoff. Funded activities may include: technical assistance, financial assistance, education, training, technology transfer, demonstration projects, watershed plans, and monitoring. The program created three annual output measures and one long-term measure for the PART.

[3] United States. Environmental Protection Agency. 2000 National Water Quality Report. Washington, DC: GPO, August 2002. EPA Document Number EPA-841-1R-02-001.

States will continue to develop and implement watershed-based plans to restore impaired waterbodies to meet water quality standards. These watershed-based plans, a key emphasis of the national nonpoint source control program, will move EPA toward the strategic goal of more waters attaining designated uses. These plans will also enable states to determine the most cost-effective means to meet their water quality goals through the analysis of sources of pollutants of concern; the sources' relative significance; available cost-effective techniques to address those sources; the availability of needed resources, authorities and community buy-in to effect change; and monitoring that will enable states and local communities to track progress and make changes over time as they deem necessary to meet their water quality goals.

EPA will continue to forge and strengthen strategic partnerships with agricultural, forestry, development, and other communities that have an interest in achieving water quality goals in a cost-effective manner. Most particularly, because agriculture is the most significant source of most remaining water quality impairments in the United States, EPA will work with the US Department of Agriculture (USDA) to ensure that Federal resources, including both Section 319 grants and Farm Bill funds, are managed and coordinated in an effective manner to protect water quality. More broadly, EPA will work with states to ensure that they develop and implement their watershed-based plans in close cooperation and consultation with state conservationists, soil and water conservation districts, and all other interested parties within the watersheds.

EPA will continue to track the steady increases in the cumulative dollar value and number of projects financed with CWSRF loans that prevent polluted runoff, a major contributor to NPS issues.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Additional pounds (in millions) of reduction to total phosphorus loadings	4.5	4.5	4.5	4.5	lbs in millions

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Additional pounds (in millions) of reduction to total nitrogen loadings	8.5	8.5	8.5	8.5	lbs in millions

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Additional pounds of reduction to total sediment loadings	700,000	700,000	700,000	700,000	lbs

The annual output measures track the reduction of phosphorus, nitrogen, and sediment runoff through 319-funded projects by 4.5 million pounds, 8.5 million pounds, and 700,000 tons, respectively. These measures were met in 2003. In 2004, the measures were greatly exceeded with regard to sediment, but the phosphorus and nitrogen totals fell somewhat below the annual target. EPA believes that these differences reflect the natural variability of the type and scope of projects implemented each year. For example, some states are currently focusing on remediating waters that have been 303(d)-listed for other pollutants not amenable to load reduction calculations, such as pathogens, temperature, or acidity. The long-term outcome measure is: 250 waterbodies identified as being primarily NPS-impaired will partially attain or fully attain designated uses by 2008 (and 700 primarily NPS-impaired waterbodies will attain designated uses by 2012). EPA plans to begin tracking its progress towards meeting this outcome measure in FY 2006.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$10,238.0) Funding provided by the Farm Bill programs will ensure that Federal agencies continue to strongly support high priority nonpoint source activities. EPA will continue the current practice of dedicating $100 million towards the development and implementation of watershed-based plans that are designed to restore impaired (listed under Section 303(d)) waters to meet water quality standards. EPA will also continue to coordinate with USDA to improve the effectiveness and efficiency of both agencies' nonpoint source efforts.

Statutory Authority:

Annual Appropriations Acts; Certain Alaskan Cruise Ship Operations Act (PL 106-554); Clean Vessel Act; CWA; FIFRA; MPPRCA of 1987; MPRSA; NEPA; National Invasive Species Act of 1996; Ocean Dumping Ban Act of 1988; OAPCA; PPA; RCRA; SDWA; Shore Protection Act of 1988; TSCA; WRDA; WWWQA of 2000; CZARA of 1990; and NAFTA

Categorical Grant: Pesticides Enforcement

Program Area: Categorical Grants
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$20,468.4***	***$18,622.0***	***$18,711.0***	***$89.0***
Total Budget Authority / Obligations	$20,468.4	$18,622.0	$18,711.0	$89.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Pesticide Enforcement grants are used to ensure pesticide product and user compliance with provisions of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Areas of focus include problems relating to pesticide worker safety protection, ineffective antimicrobial products, food safety, adverse effects, and e-commerce. The program provides compliance assistance to the regulated community through such resources as EPA's National Agriculture Compliance Assistance Center, seminars, guidance documents, brochures, and outreach and of communication, to foster knowledge of and compliance with environmental laws pertaining to pesticides. For additional information visit: http://epa.gov/compliance/state/grants/fifra.html.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will award state and Tribal enforcement grants to assist in the implementation of the compliance and enforcement provisions of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). These grants support state and Tribal compliance and enforcement activities designed to protect the environment from harmful chemicals and pesticides. EPA's support to state and Tribal pesticide programs will emphasize pesticide worker protection standards, high risk pesticide activities including antimicrobials, pesticide misuse in urban areas, and the misapplication of structural pesticides. States also will continue to conduct compliance monitoring inspections on core pesticide requirements.

Performance Assessment: EPA refined PART measure data collection procedures with a federal and state workgroup in 2005. EPA will negotiate final commitments for the collection of 2006 data for pesticide enforcement grant PART measures with states and tribes based on PART approved measures. EPA anticipates that preliminary data for these PART measures will be available in January 2007. This data will be used in developing three-year rolling average baselines and targets.

Performance Targets:

This program received an ineffective rating from the PART assessment completed in 2004. The score reflected the absence of data needed to implement program outcome and efficiency measures called for by the PART. To address this problem, new measures were developed by the program, and approved by OMB during the FY 2004 PART review. For FY 2005, EPA

negotiated with grantees to report the data needed for the new outcome and efficiency measures. In FY 2007, grantees will begin reporting this new data, and EPA will analyze and use the data to help improve program management and demonstrate results. There are new PART measures for FY 2007. No prior data exists to evaluate the performance of these measures over a multi-year period. Work under this program supports Improve Compliance objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$89.0) This increase will support the implementation of the compliance and enforcement provisions of FIFRA.

Statutory Authority:

FIFRA.

Categorical Grant: Pesticides Program Implementation

Program Area: Categorical Grants
Goal: Clean and Safe Water
Objective(s): Protect Human Health

Goal: Healthy Communities and Ecosystems
Objective(s): Chemical, Organism, and Pesticide Risks

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$13,347.2***	***$12,907.0***	***$12,968.9***	***$61.9***
Total Budget Authority / Obligations	$13,347.2	$12,907.0	$12,968.9	$61.9
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

State and Tribal Assistance Grants (STAG) ensure that pesticide regulatory decisions made at a national level are translated into results on the local level. States and Tribes provide essential support in implementing pesticides field programs, giving input regarding effectiveness and soundness of regulatory decisions, and developing data to measure performance. Under pesticide statutes, responsibility for ensuring proper pesticide use is in large part delegated to states and Tribes. Grant resources allow states and Tribes to be effective regulatory partners. EPA's philosophy is to put the resources at the level closest to the potential risks from pesticides, since they are in a position to better evaluate risks and implement risk reduction measures. The Agency provides grants to states, Tribes, partners, and supporters for implementation of the following Field Programs:

- Certification and Training / Worker Protection
- Endangered Species Protection Program (ESPP) Field Activities
- Tribal Program
- Pesticide Environmental Stewardship Program

FY 2007 Activities and Performance Plan:

Certification and Training/Worker Protection

Through the Certification and Training/Worker Protection programs, EPA protects workers, pesticide applicators/handlers, employers, and the public from the potential risks posed by pesticides in their homes and work environments. EPA will continue to provide assistance and grants to implement the Certification and Training/Worker Protection programs. Grant funding will provide for maintenance and improvements in training networks, safety training to workers and handlers, development of Train the Trainer courses, workshops, and development and distribution of outreach materials. The Agency's partnership with states and Tribes in educating workers, farmers and employers on the safe use of pesticides and worker safety will continue to

be a major keystone in the success of the program. For additional information, please visit http://www.epa.gov/oppfod01/safety/applicators/applicators.htm.

Tribal

The Agency will support Tribal activities in implementing pesticide field programs through grants. Tribal Program outreach activities support Tribal capacity to reduce risk from pesticides in Indian country. This task is made more challenging because of the uniqueness of Native Americans' lifestyles, which may involve unique chemical exposure scenarios. For additional information, please visit http://www.epa.gov/oppfead1/tribes/.

Endangered Species Protection Program Field Activities (ESPP)

The ESPP protects animals and plants whose populations are threatened by risks associated with pesticide use. EPA complies with Endangered Species Act requirements to ensure that its regulatory decisions are not likely to jeopardize species listed as endangered and threatened, or harm habitat critical to those species' survival. EPA will provide grants to states and Tribes for projects supporting endangered species protection. Program implementation includes outreach, communications, education related to use limitations, county bulletins development and distribution, and mapping and development of endangered species protection plans.

Pesticide Environmental Stewardship Program (PESP)

The PESP is a grant program that supports voluntary partnerships among EPA and national, state, and local organizations for projects that reduce the risks from pesticide use in agricultural and non-agricultural settings. EPA will continue to support risk reduction by providing grants promoting the use of safer alternatives to traditional chemical methods of pest control. EPA grants will also support the development and evaluation of new pest management technologies through Integrated Pest Management and PESP, thus contributing to reduction in both health and environmental risks from pesticide use. For additional information, please visit http://www.epa.gov/oppbppd1/PESP/index.htm.

Performance Targets:

Work under this program supports the *Chemical, Organism, and Pesticides Risks* objective. Currently there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 President's Budget (Dollars in Thousands):

- (+$61.9) This increase will support one or more of the Implementation grants.

Statutory Authority:

PRIA; FIFRA; FFDCA; FQPA; ESA.

Categorical Grant: Pollution Control (Sec. 106)

Program Area: Categorical Grants
Goal: Clean and Safe Water
Objective(s): Protect Water Quality

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$211,124.6***	***$216,172.0***	***$221,661.0***	***$5,489.0***
Total Budget Authority / Obligations	$211,124.6	$216,172.0	$221,661.0	$5,489.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Section 106 of the Clean Water Act (CWA) authorizes EPA to provide Federal assistance to states (including Territories and the District of Columbia), Tribes qualified under section 518(e), and interstate agencies to establish and maintain adequate measures for the prevention and control of surface and ground water pollution from point and nonpoint sources. Prevention and control measures supported through these grants include permitting, pollution control studies, water quality planning, monitoring and standards and Total Maximum Daily Load (TMDL) development, surveillance and enforcement, pretreatment programs, advice and assistance to local agencies, training, public information, and oil and hazardous materials response. The grants may also be used to fund services from non-profit organizations, through the Senior Environmental Employment Program (SEEP). The grants may also be used to provide "in-kind" support through an EPA contract if a state or tribe requests that part of their allotment be used to purchase equipment or services. For more information, visit http://www.epa.gov/owm/cwfinance/pollutioncontrol.htm.

FY 2007 Activities and Performance Plan:

Performance Assessment: The Pollution Control State Grants Program underwent the PART for the first time in FY 2005 and received a rating of adequate. The purpose of this program is to make grants to states to carry out their Water Quality Programs which implement and enforce the National Clean Water Act Regulations and policies. The program submitted one long-term measure, six annual measures, and one efficiency measure.

This program enables states to implement key CWA programs that will restore and improve the quality of rivers, lakes and streams which will allow the Agency to achieve the long-term national goal of restoring the quality of 25 percent of impaired waters by 2012. Through the Section 106 grant program, the Agency continues to support prevention and control measures supported by State Water Quality management programs which include standards development, monitoring, permitting and enforcement; advice and assistance to local agencies; and the provision of training and public information. The Water Pollution Control Program is helping to foster a watershed protection approach at the state level by encouraging states to address water quality problems holistically, thereby targeting the use of limited resources available for effective program management.

In FY 2007, EPA will collaborate with state and Tribal partners to continue supporting the monitoring initiative that began in 2005 by collaborating on a statistically valid survey of the nation's waters. EPA state and tribal partners will take steps toward use of statistically valid methods to assess the condition of their waters. This work will build on the 2004 National Coastal Condition Report and the 2006 wadeable streams study, with a report on baseline conditions of lakes due at the end of 2008. The intent is that surveys of the Nation's waters will be repeated periodically to track trends in water quality, giving decision makers and the public the information they need to determine effectiveness of the Agency's investments in water quality protection. In FY 2007, $18.5 million will be designated for States that participate in collecting this statistically valid water monitoring data.

States, interstate agencies, and tribes continue to foster a "watershed approach' as the guiding principle of their clean water programs. Development of TMDLs for an impaired waterbody is a critical tool for meeting water restoration goals. In watersheds where quality standards are not attained, states will be developing TMDLs, watershed plans or other appropriate mechanisms that, when implemented, will result in attainment of water quality standards. Watershed plans and TMDLs will focus pollution control and restoration efforts for impaired waters on a range of pollutant sources, including point sources and nonpoint sources. States and EPA have made significant progress in the development and approval of TMDLs (cumulatively over 18,000 completed through FY 2005) and expect to maintain the current pace of more than 3,000 TMDLs per year.

The states and tribes will continue to implement the "*Permitting for Environmental Results Strategy,*" which focuses limited resources on the most critical environmental problems by targeting three key areas: developing and strengthening systems to ensure the integrity of the program; focusing on environmental results in the permitting program; and fostering efficiency in permitting program operations. Additionally, EPA will finalize a rule that incorporates financial incentives for States that implement adequate NPDES fee systems.

New rules have been finalized for discharges from Concentrated Animal Feeding Operations (CAFOs) and the states will work to assure that permits cover most CAFOs by 2008. In addition, States will continue to work toward the 2008 goal of 100 percent of National Pollution Discharge Elimination System (NPDES) programs having issued general permits requiring storm water management programs for Phase II municipal separate storm sewer systems (MS4s) and requiring storm water pollution prevention plans for construction sites covered by Phase II of the storm water program.

States and authorized Tribes will continue to review and update their water quality standards as required by the CWA. The Agency's goal is that over 85 percent of state and Tribal submissions will be approvable in 2007. EPA also encourages states to continually review and update water quality criteria in their standards to reflect the latest scientific information from EPA and other sources. EPA's goal for 2007 is that over 67 percent of states will have updated their standards to reflect the latest scientific information in the past three years.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Number of TMDL's that are established by States and approved by EPA on schedule consistent with national policy (cumulative)	15,338	14,462	16,896	21,329	TMDLs

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of high priority state NPDES permits that are scheduled to be reissued.	102	95	95	95	% permits

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Cost per water segment restored.	828.6		1,358.4	1,058.8	water segment

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of majors in Significant Noncompliance (SNC) at any time during the fiscal year	20.5	Maintain or Improve Baseline of 22.5	Maintain or Improve Baseline of 22.5	Maintain or Improve Baseline of 22.5	% majors

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	% of S/Terr/authorized Tribes that, within the preceeding 3-yr period, submitted new or rvsd WQ criteria acceptable to EPA that reflect new science info from EPA/or sources not considered in prev std	62	62	66	67	% S/T/Terr

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Annual percentage of waterbody segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained (cumulative).	8	2	5	9	% Miles/Acres

A key performance measure for the Surface Water Protection program is the percentage of water body segments, identified by States in 2000 as not attaining standards, where water quality standards are now attained. EPA state partners play a key role in developing and implementing plans and documenting progress made in reaching the FY 2012 target for this measure. EPA is working with States to develop detailed plans documenting how stakeholders will work together to achieve these goals.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$5,489.0) This increase funding for the Section 106 base will help states implement high priority CAFOs and storm water permitting activities.

Statutory Authority:

CWA.

Categorical Grant: Pollution Prevention

Program Area: Categorical Grants
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Environmental Performance through Pollution Prevention and Innovation

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$5,161.7***	***$4,926.0***	***$5,940.0***	***$1,014.0***
Total Budget Authority / Obligations	$5,161.7	$4,926.0	$5,940.0	$1,014.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

EPA's Pollution Prevention (P2) programs are focused on approaches that merge business, community and consumer needs with environmental protection by identifying processes, products and opportunities that save time and money, as well as prevent pollution. The expertise that EPA's regulatory program has developed in the industrial chemistry, chemical engineering, and chemical risk assessment areas is now used to develop new and innovative approaches to the next level of environmental protection.

The program employs a combination of collaborative efforts, innovative programs, and technical assistance and education to support stakeholder efforts to not just minimize adverse environmental impacts, but to prevent them.

The program provides grant funds to states and state entities (i.e., colleges and universities) and Federally-recognized Tribes and Intertribal Consortia in order to deliver technical assistance to small and medium-sized businesses. The goal of the grant program is to assist businesses and industries with identifying improved environmental strategies and solutions for reducing waste at the source. The program demonstrates that source reduction can be a cost-effective way of meeting or exceeding Federal and state regulatory requirements.

EPA's *2003-2008 Strategic Plan* established a number of long-term strategic targets for EPA's Pollution Prevention Program including the following:

- Reducing pollution by 76 billion pounds;
- Conserving 360 billion BTUs of energy and 2.7 billion gallons of water; and
- Achieving environmentally-related business cost savings of $400 million from 2003 levels.

FY 2007 Activities and Performance Plan:

The P2 Grant Program will focus on stronger review of the applicant's ability to measure the results of the grants, particularly environmental outcomes. EPA will expect grant applicants to demonstrate and document either outcome or output measures. EPA will give preference to

applicants whose work plans address outcome-based measures derived from the P2 targets in EPA's Strategic Plan. Within the national grant guidance, EPA will provide ranking criteria which will be used to evaluate the applicant's ability to measure expected results. Primarily, applicants will be evaluated on their use of the National Pollution Prevention Results System (a database of core P2 metrics being developed by EPA and state P2 organizations) or documentation in their work plan of past experience in measuring outcomes or outputs from previous grants. EPA has reinforced the importance of tracking environmental outcomes from P2 grants in two ways:

- The addition of the key P2 environmental outcome targets from EPA's Strategic Plan to the reporting measures in the annual program guidance for EPA's P2 grants managers; and,
- The revision of the GranTrack database, to add the core P2 metrics from the National Pollution Prevention Results System to its menu of grant information.

In FY 2007, EPA will use additional resources to expand these grants to States and Tribes and will continue to support and expand the services of a network of regional centers, collectively called the Pollution Prevention Resource Exchange (P2Rx), that provides information and help to state technical assistance centers.

Performance Targets:

Work under this program supports Improve Compliance. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$1,014.0) This increase reflects investment to support expanded grants to States and Tribes to provide pollution prevention services to small businesses and expansion of services provided by the Pollution Prevention Resource Exchange (P2Rx), that provides information and help to state technical assistance centers.

Statutory Authority:

PPA; TSCA.

Categorical Grant: Public Water System Supervision (PWSS)

Program Area: Categorical Grants
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$104,043.6***	***$98,279.0***	***$99,099.0***	***$820.0***
Total Budget Authority / Obligations	$104,043.6	$98,279.0	$99,099.0	$820.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Public Water System Supervision (PWSS) Grant program provides grants to states with primary enforcement authority (primacy) to implement and enforce National Primary Drinking Water Regulations (NPDWRs). These grants help to ensure the safety of the Nation's drinking water resources and thereby protect public health.

NPDWRs set forth monitoring, reporting, compliance tracking, and enforcement elements to ensure that the Nation's drinking water supplies do not contain substances at levels that may pose adverse health effects. These grants are a key implementation tool under the Safe Drinking Water Act and support the states' role in a Federal/state partnership of providing safe drinking water supplies to the public. Grant funds are used by states to:

- Provide technical assistance to owners and operators of water systems;
- Maintain compliance data systems and compile and analyze compliance information;
- Respond to violations;
- Certify laboratories;
- Conduct laboratory analyses;
- Conduct sanitary surveys;
- Draft new regulations and legislative provisions where necessary; and
- Build state capacity.

Not all states and tribes have primacy. Funds allocated to the State of Wyoming, the District of Columbia, and Indian tribes without primacy are used: to support direct implementation activities by EPA; for developmental grants and "Treatment in a similar manner as a State" (TAS) grants to Indian tribes to develop the PWSS program on Indian lands with the goal of Indian Tribal authorities achieving primacy. A portion of the funds allocated to primacy states that have not yet acquired the necessary statutory/regulatory authorities to implement new requirements may be used by EPA to ensure compliance with the new requirements in these states. (See http://www.epa.gov/safewater/pws/pwss.html for more information.)

FY 2007 Activities and Performance Plan:

Performance Assessment: The Public Water System Supervision (PWSS) Grant Program underwent the PART for the first time in 2004. The purpose of this program is to implement and enforce National Primary Drinking Water Regulations. Through PWSS grants, states ensure that the systems within their jurisdiction are in compliance with drinking water rules. The program submitted one long-term, two annual, and two efficiency measures. The program received an OMB rating of adequate in 2004.

EPA will continue to support state and Tribal efforts to meet new and existing drinking water standards through the Public Water Systems Supervision (PWSS) grant program. In FY 2007, the Agency will emphasize that states use their PWSS funds to ensure that:

1) Drinking water systems of all sizes achieve or remain in compliance;
2) Drinking water systems of all sizes are meeting new health-based standards that came into effect in FY 2006, e.g. arsenic and uranium; and
3) Data quality and other data issues have been addressed and resolved.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent community water systems in compliance with drinking water standards.	89.2	93	93.5	94	% Systems

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of States conducting sanitary surveys at community water systems once every three years.	94	94	98	98	% of States

The states are the primary implementers of the national drinking water program and ensure that the systems within their jurisdiction are in compliance with drinking water rules. Thus, while there is not a separate measure for the PWSS grant program to the states, it directly contributes to the measure on the number of community water systems that supply drinking water meeting all health-based standards. This program was included in the 2004 PWSS PART review and received an overall rating of Adequate.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$820.0) This increase will support state and Tribal efforts in meeting new and existing drinking water standards such as implementation and enforcement of the National Primary Drinking Water Regulations and in ensuring high-quality performance data.

Statutory Authority:

SDWA.

Categorical Grant: Radon
Program Area: Categorical Grants
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Indoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$8,739.4***	***$7,439.0***	***$8,073.5***	***$634.5***
Total Budget Authority / Obligations	$8,739.4	$7,439.0	$8,073.5	$634.5
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

EPA assists states and tribes through the State Indoor Radon Grant Program (SIRG), which provides categorical grants to develop, implement, and enhance programs to assess and mitigate radon risks. States and tribes are the primary implementers of radon testing and mitigation programs.

FY 2007 Activities and Performance Plan:

EPA has established four areas of priority to double radon mitigation in new construction by 2012. EPA will: build new national partnerships and increase national outreach; through state partnerships, EPA will increase the number of states, tribes, and localities with active and comprehensive radon programs; continue to work with partners to accelerate action in the marketplace to incorporate radon protection as a normal part of doing business; and in conjunction with its partners, expand scientific knowledge and technologies to support and drive aggressive action on radon.

Performance Assessment: The Indoor Air Program, assessed by OMB in 2005 through the PART process, received a rating of "Adequate." The program does not issue regulations, so it works toward its goal by conducting research and promoting appropriate risk reduction actions through voluntary education and outreach programs. The Program will be focusing on making efficiency improvements.

In FY 2007, states receiving SIRG funds will continue to focus their efforts on priority activities to achieve risk reduction. These activities include promoting radon testing and mitigation, with emphasis on testing in conjunction with real estate transactions, promoting radon-resistant new construction, addressing radon in schools, setting results targets, developing action-oriented coalitions, and conducting innovative activities to achieve measurable results.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of additional homes (new and	Data Avail. 06	173,000	180,000	190,000	Homes

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	existing) with radon reducing features					

In FY 2007, EPA expects 190,000 additional homes to have radon reducing features (90,000 mitigations and 100,000 new homes with radon resistant new construction), bringing the cumulative number of U.S. homes with radon reducing features to 2.4 million. EPA estimates that this cumulative number will result in over 700 future premature cancer deaths prevented (each year these radon reducing features are in place.)

These program goals are a result of the total funding the program area receives through EPM, S&T, and SIRG funding.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$634.5) This increase will support state and local radon risk reduction activities.

Statutory Authority:

TSCA, Section 6, Titles II, and Title III (15 U.S.C. 2605 and 2641-2671), and Section 10.

Categorical Grant: Sector Program

Program Area: Categorical Grants
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$2,464.3***	***$2,217.0***	***$2,227.5***	***$10.5***
Total Budget Authority / Obligations	$2,464.3	$2,217.0	$2,227.5	$10.5
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

A strong state and Tribal Enforcement and Compliance Assurance program is essential to EPA's long-term strategic objective: to identify and reduce significant noncompliance in high priority areas, while maintaining a strong enforcement presence in all regulatory program areas. Effective partnerships between EPA and government co-implementers are crucial for success in implementing sector approaches.

Sector program grants will be used to build environmental partnerships with states and Tribes to strengthen their ability to address environmental and public health threats, including contaminated drinking water, pesticides in food, hazardous waste, toxic substances, and air pollution. These grants also will support state agencies implementing authorized, delegated, or approved environmental programs. For more information visit: www.epa.gov/sectors/pubs.html.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to support state agencies and Tribes in their efforts to build, implement, or improve compliance capacity for authorized, delegated, or approved environmental programs. The sector program also seeks to foster innovation.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

FY 2007 annual funding priorities for the multi-media grants program include improving compliance data quality; modernizing data systems; improving public access to enforcement and compliance data; improving outcome measurement; providing on-site compliance assistance to Tribes. The grants and/or cooperative agreements are competed for nationally and each funding priority is targeted towards enhancing state and Tribal capacity and capability. Additionally, funding priority is targeted towards addressing needs identified by states, Tribes or state and Tribal associations.

Performance Targets:

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate based on development of a Measures Implementation Plan. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. We are exploring methodologies to extend the measure by: 1) adding components that deal with pollutant hazard; and 2) identifying an indicator of the population that would have been exposed to the pollutant. Work under this program supports Improve Compliance objective, although no performance measures exist for the program project. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$10.5) This increase provides additional resources for states and Tribes to help modernize data systems and facilitate public access enforcement and compliance assurance data.

Statutory Authority:

RLBPHRA; RCRA; CWA; SDWA; CAA; TSCA; EPCRA; RLBPHRA; FIFRA; ODA; NAAEC; LPA-US/MX-BR; NEPA.

Categorical Grant: State and Local Air Quality Management

Program Area: Categorical Grants
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$233,758.6***	***$220,261.0***	***$185,179.5***	***($35,081.5)***
Total Budget Authority / Obligations	$233,758.6	$220,261.0	$185,179.5	($35,081.5)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

This program includes funding support for state and local air pollution control agencies and regional planning organizations (RPOs). Section 105 of the Clean Air Act provides EPA with the authority to award grants to state and local air pollution control agencies to develop and implement programs for the prevention and control of air pollution and the implementation of primary and secondary National Ambient Air Quality Standards (NAAQS). Section 103 of the Act provides EPA with the authority to award grants to state and local air pollution control agencies, and other appropriate public or private agencies, institutions, and organizations to conduct and promote certain types of research, investigations, experiments, demonstrations, surveys, studies, and training related to air pollution.

On November 12, 1999, the Agency issued "Guidance for Funding Air and Radiation Activities Using the STAG Appropriation," which describes organizations and activities eligible for STAG funding. Under the policy, EPA will award STAG funds only to state and local air pollution control agencies, regional planning organizations, and multi-state organizations comprised of the directors of state and local air pollution control agencies. Under section 106 of the Clean Air Act, EPA may fund interstate air pollution transport commissions to develop or carry out plans for designated air quality control regions.

FY 2007 Activities and Performance Plan:

This program funds over 100 state and local air pollution control agencies and five RPOs to implement requirements of the Clean Air Act. In FY 2007, EPA will place particular emphasis on implementing the Clean Air Interstate Rule (CAIR) and developing 8-hour ozone state

Performance Assessment: In 2003, OMB assessed the Acid Rain program through the PART process, and gave it a rating of "Moderately Effective." The program is designed to reduce the harmful effects of acid rain through reductions in emissions of sulfur dioxide and nitrogen oxides and employs a market-based emissions trading system to minimize costs and maximize compliance. The Program is working to develop an efficiency measure.

Performance Assessment: The Air Quality Grants and Permitting programs, assessed by OMB in the 2005 PART process, received a rating of "Ineffective." These programs support the prevention and control of air pollution at the state and local level. Grants are provided for program implementation and research and development. Permits are issued to manage pollution from new and existing facilities. The programs have developed new performance measures and will be working to developing efficiency measures to assess program progress.

implementation plans (SIPs), which states must submit to EPA in FY 2007. States also will begin work on fine particle (PM-2.5) SIPs, and will incorporate regional haze reduction strategies, developed by the RPOs, into their Regional Haze SIPs. States must submit both the PM and Regional Haze SIPs to EPA in January 2008. States with areas classified as moderate and above for the 8-hour ozone NAAQS will prepare and submit reasonable further progress (RFP) and reasonably available control technology (RACT) SIPs. In FY 2006, states will prepare revisions to their New Source Review (NSR) SIPs consistent with the NSR Reform measures. In response to EPA's final National Core (NCore) ambient monitoring rule, states will begin implementing phase I of the NCore monitoring network requirements. The requirements are part of EPA's integrated monitoring strategy.

The Office of Air and Radiation will enhance EPA's existing long-term environmental assessment capability. To improve our current understanding of ecosystem conditions due to changes in air quality requires increasing access to and linkage of long-term ecological datasets that spatially and temporally complement our current long-term air quality and deposition monitoring programs. Ecological assessment approaches will be developed to evaluate existing goals to improve their efficacy in assessing our environmental programs.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percent reduction in the number of days with Air Quality Index (AQI) values over 100 since 2003, weighted by population and AQI value.	13	13	17	21	Percentage

- EPA and the states will continue to focus their resources on the ozone and PM programs.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$15,581.5) Substantial progress has made in attaining the NAAQS for lead and carbon monoxide (CO). State efforts are now focused on maintaining compliance with the lead and CO NAAQS and therefore funding for these activities reflects this shift. The federal motor vehicle control program and existing state and local programs will maintain carbon monoxide at levels meeting NAAQS. In addition, new national programs, such as CAIR, will reduce SO2 and NOx as part of the program for reducing particulate emissions and the implementation of these programs will allow states to leverage existing resources to maximize cost-effectiveness of their efforts.

- (-$2,500.0) Funding will be reduced for the Regional Planning Organizations. The RPOs have completed much of the analysis for the regional haze plans and, with the ozone and PM SIPs due, the States will incorporate this work into their plans. EPA will work closely with the RPOs to ensure that the most critical work is done and available for the States to incorporate in their SIPs.

- (-$17,000.0) In 2007, the Agency will begin using the grant authority in Section 105 of the Clean Air Act to fund the particulate matter (PM) monitoring network. Since 1999, the agency had been issuing the grants under Section 103 of the Act. Section 105 grants fund state or local air planning agencies to implement and maintain the National Ambient Air Quality Standards and require a 40% match from recipients. The Section 103 authority is specifically for research and demonstration efforts and has no matching requirement. The PM network is beyond the demonstration phase and is now an operational system. As with other NAAQS monitoring efforts, states should bear some of the burden for operation and maintenance of the network.

Statutory Authority:

CAA, Sections 103, 105, and 106.

Categorical Grant: Targeted Watersheds

Program Area: Categorical Grants
Goal: Healthy Communities and Ecosystems
Objective(s): Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$17,706.0***	***$16,608.0***	***$6,930.0***	***($9,678.0)***
Total Budget Authority / Obligations	$17,706.0	$16,608.0	$6,930.0	($9,678.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Targeted Watersheds Grant Program is designed to encourage successful community-based approaches and management techniques to protect and restore the nation's waters. This is a competitive grant program predicated on the following fundamental principles of environmental improvement: collaboration, new technologies, market incentives, and results-oriented strategies. The watershed organizations receiving grants exhibit strong partnerships with a wide variety of support, creative, socio-economic approaches to water restoration and protection, and explicit monitoring and environmentally-based performance measures.

The program enhances community watershed groups' efforts through two different types of grants. Implementation grants provide monetary assistance directly to watershed organizations to implement restoration/protection activities within their watershed. Money is used to stabilize stream banks, demonstrate innovative nutrient management schemes, establish pollutant credits and trading projects, and work with local governments and private citizens to promote sustainable practices and strategies. Grants range from $300,000 to $1,300,000, with an additional 25% leveraged from other sources. Capacity building grants support established watershed service providers in their effort to increase the viability, sustainability and effectiveness of local watershed groups by providing tools, training, and education. These grants range from $150,000 to $700,000. For more information, visit: http://www.epa.gov/owow/watershed/initiative.

FY 2007 Activities and Performance Plan:

The fundamental premise of the Targeted Watersheds Grant Program is that strong partnerships lead to measurable environmental results. Hence, the continuing goal of this program is to build on the success of strong public/private partnerships that have provided a basis for improving the state of the nation's waterways. In FY 2007, the program will focus on achieving incremental yet measurable "on-the-ground" results in a relatively short time period. The program will continue an emphasis on water quality trading, supporting market-based approaches to meeting watershed restoration goals. In addition, the program will increase emphasis on establishing a nationwide network of training services to provide watershed groups across the country with the tools and information needed to implement environmental change at a local or regional level.

Performance Targets:

Planning for and tracking environmental results are key components of the Targeted Watershed Grants program. Grantees must list the water quality threats and/or impairments that will be addressed by implementing the proposed project(s) and provide a description of expected environmental outcomes. The workplan must contain a method to measure the environmental improvement that is expected to result from the project(s) and a description of how the project(s) will be evaluated. A monitoring and evaluation component with identified environmental indicators must also be included in the workplan.

Work under this program supports EPA's healthy communities and ecosystems. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$9,678.0) This reduction will allow EPA to fund other higher priority activities.

Statutory Authority:

Department of the Interior, Environment, and Related Agencies Appropriations Act, 2006, Public Law 109-54.

Categorical Grant: Toxics Substances Compliance

Program Area: Categorical Grants
Goal: Compliance and Environmental Stewardship
Objective(s): Improve Compliance

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$5,516.4***	***$5,074.0***	***$5,098.5***	***$24.5***
Total Budget Authority / Obligations	$5,516.4	$5,074.0	$5,098.5	$24.5
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Toxic Substances Compliance program builds environmental partnerships with states and Tribes to strengthen their ability to address environmental and public health threats from toxic substances such as Polychlorinated Biphenyls (PCBs), asbestos and lead. State grants are used to ensure the proper use, storage and disposal of PCBs proper handling prevents persistent bio-accumulative toxic substances from contaminating food and water. The asbestos funds ensure compliance with standards to prevent exposure to school children, teachers and staff to asbestos fibers in school buildings. The program also assures that asbestos and lead abatement workers have received proper training and they are certified to ensure protection during the abatement process and minimize the public's exposure to these harmful toxic substances.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA's Enforcement and Compliance Assurance program will continue to award state and Tribal compliance monitoring grants to assist in the implementation of compliance and enforcement provisions of the Toxic Substances Control Act (TSCA). These grants support state and Tribal compliance monitoring and enforcement activities to protect the public and the environment from PCBs, asbestos and lead.

Performance Assessment: The Civil Enforcement Program was rated adequate in the last PART review completed for the Program in 2004 based on preparation of a Measures Improvement Plan (MIP) to better characterize pollutant reductions with respect to hazard and exposure.

Performance Targets:

This program was included in the Civil Enforcement PART review in 2004, which received an overall rating of Adequate. One of the program measures, pounds of pollutants reduced, looks at the overall reduction in pollution as a result of enforcement actions. We are exploring methodologies to extend the measure by: 1) adding components that deal with pollutant hazard; and 2) identifying an indicator of the population that would have been exposed to the pollutant. Work under this program supports the Improve Compliance objective. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$24.5) This increase will support asbestos and lead abatement workers training and certification to ensure protection during the abatement process and minimize the public's exposure to harmful toxic substances.

Statutory Authority:

TSCA.

Categorical Grant: Tribal Air Quality Management

Program Area: Categorical Grants
Goal: Clean Air and Global Climate Change
Objective(s): Healthier Outdoor Air

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$12,977.1***	***$10,887.0***	***$10,939.5***	***$52.5***
Total Budget Authority / Obligations	$12,977.1	$10,887.0	$10,939.5	$52.5
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

This program includes funding for tribes and for Tribal air pollution control agencies. Through Clean Air Act (CAA) section 105 Grants, tribes may develop and implement programs for the prevention and control of air pollution or implementation of national primary and secondary ambient air standards. Through CAA Section 103 grants, Tribal air pollution control agencies or tribes, colleges, universities, or multi-tribe jurisdictional air pollution control agencies and/or non-profit organizations may conduct and promote research, investigations, experiments, demonstrations, surveys, studies and training related to air pollution. Allowable activities are described in "Guidance for Funding Air and Radiation Activities Using the STAG Appropriation," issued by EPA's Air and Radiation program on November 12, 1999.

FY 2007 Activities and Performance Plan:

With EPA funding, tribes will assess environmental and public health conditions on Tribal lands and, where appropriate, site monitors. Tribes will continue to develop and implement air pollution control programs. EPA will continue to fund organizations for the purpose of providing technical support, tools and training for tribes to build capacity as appropriate.

Performance Assessment: The Air Quality Grants and Permitting program, assessed by OMB in the 2005 PART process, received a rating of "Ineffective." These programs support the prevention and control of air pollution at the state and local level. Grants are provided for program implementation and research and development. Permits are issued to manage pollution from new and existing facilities. The programs have developed new performance measures and will be working to developing efficiency measures to assess program progress.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Cumulative percent reduction in the number of days with Air Quality Index (AQI) values over 100	13	13	17	21	Percentage

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	since 2003, weighted by population and AQI value.					

EPA is planning to develop at least one efficiency measure that adequately reflects program efficiency.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$52.5) This increase will support activities for assessment and mitigation of air pollution problems on or affecting tribal lands.

Statutory Authority:

CAA, Sections 103 and 105.

Categorical Grant: Tribal General Assistance Program

Program Area: Categorical Grants
Goal: Compliance and Environmental Stewardship
Objective(s): Build Tribal Capacity

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$72,212.5***	***$56,654.0***	***$56,925.0***	***$271.0***
Total Budget Authority / Obligations	$72,212.5	$56,654.0	$56,925.0	$271.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

In 1992, Congress established the Indian Environmental General Assistance Program (GAP) to provide a mechanism for Federal efforts to assist Tribal governments in assuring environmental quality on Indian lands. The purpose of the GAP is to support the development of a core Tribal environmental protection program. For more information, please visit http://www.epa.gov/indian/laws3.htm.

GAP provides general assistance grants to build capacity to administer environmental regulatory programs that may be delegated by EPA in Indian country, and to provide technical assistance in the development of multimedia programs to address environmental issues on Indian lands. GAP grants cover the costs of planning, developing, and establishing environmental protection programs consistent with other applicable provisions of law providing for enforcement of such laws by Indian Tribes on Indian lands. GAP funds are used to:

Performance Assessment: The Tribal GAP program underwent a PART assessment in FY 2003. In FY 2003, the GAP received an overall rating of adequate from OMB's PART review. In FY 2005, EPA improved program accountability by implementing a new database system, the Objective 5.3 Reporting System, to standardize, centralize, and integrate regional data and assign accountability for data quality. In addition, EPA developed and deployed the Indian General Assistance Program (GAP) Tracking System that improved data management and permits real-time access to grant information.

- Assess the status of a Tribe's environmental condition;
- Develop appropriate environmental programs and ordinances;
- Conduct public education and outreach efforts to ensure that Tribal communities are informed and able to participate in environmental decision-making; and
- Promote communication and coordination between Federal, state, local and Tribal environmental officials.

FY 2007 Activities and Performance Plan:

In FY 2007, GAP grants will build Tribal environmental capacity to assess environmental conditions, utilize available Federal information, and build an environmental program tailored to the Tribe's needs. The grants will also develop environmental education and outreach programs,

develop and implement integrated solid waste management plans, and alert EPA to serious conditions involving immediate public health and ecological threats.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Efficiency	Number of environmental programs implemented in Indian Country per million dollars.	12.3	11.1	12.4	12.5	Programs

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of Tribes with delegated and non-delegated programs (cumulative).	47	44	48	49	% Tribes

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of Tribes with EPA-reviewed monitoring and assessment occurring (cumulative).	29	25	30	31	% Tribes

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percent of Tribes with EPA-approved multimedia workplans (cumulative).	33	39	39	42	% Tribes

Under the PART review, the GAP program developed the efficiency measure, "*Number of environmental programs implemented in Indian Country per million dollars.*" This measure reflects environmental program implementation in Indian country in relation to the level of dollars available to Tribes under the EPA program statutorily targeted to this objective. It is expressed as a ratio between environmental programs implemented and million dollars of GAP funding available to Tribes.

- In FY 2007, EPA will operate at an efficiency of approximately 12.5 programs per million dollars. This efficiency level is consistent with prior fiscal years.

- In FY 2007, 517 federally-recognized Tribes and Intertribal Consortia, or 90 percent of a universe of 572 eligible entities, will have access to an environmental presence.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+271.0) This increase will provide at least two additional Tribes with an environmental presence to operate an environmental program.

Statutory Authority:

Indian General Assistance Program Act, 42 U.S.C. § 4368b (1992).

Categorical Grant: Underground Injection Control (UIC)

Program Area: Categorical Grants
Goal: Clean and Safe Water
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$11,537.5***	***$10,838.0***	***$10,890.0***	***$52.0***
Total Budget Authority / Obligations	$11,537.5	$10,838.0	$10,890.0	$52.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Underground Injection Control (UIC) program is implemented by Federal, state, and local governments that oversee underground injection activities in order to prevent contamination of underground sources of drinking water. Underground injection is the technology of disposing of fluids beneath the earth's surface in porous rock formations through wells or other similar conveyance systems.

When wells are properly sited, constructed, and operated, underground injection is an effective and environmentally safe method to dispose of fluids. The Safe Drinking Water Act established the UIC program to provide safeguards so that injection wells do not endanger current and future underground sources of drinking water. The most accessible underground fresh water is stored in shallow geological formations (i.e., shallow aquifers) and is the most vulnerable to contamination.

EPA provides financial assistance in the form of grants to states that have primary enforcement authority (primacy) to implement and maintain UIC programs. Eligible Indian tribes who demonstrate intent to achieve primacy may also receive a grant for the initial development of UIC programs and be designated for treatment as a "state" if their programs are approved. Where a jurisdiction is unable or unwilling to assume primacy, EPA uses grant funds for direct implementation of Federal UIC requirements. (See http://www.epa.gov/safewater/uic/index.html for more information.)

FY 2007 Activities and Performance Plan:

Ensuring safe underground injection of fluids, including waste-fluids, is a fundamental component of a comprehensive source water protection program that, in turn, is a key element in the Agency's multi-barrier approach. Management or closure of the

Performance Assessment: The Underground Injection Control (UIC) Grant Program underwent a PART assessment for the first time in 2004. The purpose of this program is to assist states with development and implementation of State UIC programs. State programs must adequately implement and enforce regulations designed to protect public health by preventing injection practices that might endanger underground sources of drinking water. The program submitted two long-term, three annual, and two efficiency measures. An annual outcome measure is currently being developed. The program received an OMB rating of adequate in 2004.

approximately 700,000 shallow injection wells (Class V) nationwide remains a top priority for the Agency's UIC program.

EPA will continue to carry out its regulatory functions for all well types with states and stakeholders. The Agency will also continue working with states and tribes to: educate and assist underground injection control well operators of all classes of UIC wells; work with stakeholders to collect and evaluate data on high priority endangering Class V wells; and explore best management practices for protecting ground water resources used for drinking water.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Output	Percentage of source water areas (both surface and ground water) for community water systems will achieve minimized risk to public health.	20	20	20	30	% Areas

The PART measures directly related to the UIC program are still under development.

The states are the primary implementers of the national drinking water program and ensure that the systems within their jurisdiction are in compliance with drinking water rules.

EPA has developed annual measures for the UIC Program that support the long-term targets. These measures are indicators of the effectiveness of the UIC Program in preventing contamination of underground sources of drinking water (USDWs) and protecting public health. Based on preliminary data collected for FY 2005, these measures are already showing public health protection from EPA's UIC Program.

- In FY 2005, EPA and the states determined that 98 percent of Class I, II wells and Class III salt solution mining wells maintained mechanical integrity. Mechanical integrity tests are conducted by UIC programs to insure that fluids injected through the well go into the injection zone and do not leak into the well bore, or outside the well into other formations or USDWs. The program will continue to conduct mechanical integrity tests regularly to prevent contamination of drinking water resources.

- By 2005, EPA and states will have closed or permitted 70 percent of identified Motor Vehicle Waste Disposal (MVWD) wells (Class V). In a parallel effort, UIC programs are actively identifying previously unidentified Class V wells. Through this effort, hundreds of MVWD wells have been identified. EPA and states will continue to identify and close or permit MVWD wells and are on track to meet the 2008 target of 100 percent of the MVWD wells closed or permitted.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$52.0) This increase will support oversight of underground injection activities.

Statutory Authority:

SDWA.

Categorical Grant: Underground Storage Tanks

Program Area: Categorical Grants
Goal: Land Preservation and Restoration
Objective(s): Preserve Land

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$12,073.1***	***$11,774.0***	***$37,566.7***	***$25,792.7***
Total Budget Authority / Obligations	$12,073.1	$11,774.0	$37,566.7	$25,792.7
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

EPA provides funding to states, Tribes, and/or Intertribal Consortia through the Underground Storage Tanks (UST) categorical grants to encourage owners and operators to properly operate and maintain their USTs. In FY 2007, EPA will make grants or cooperative agreements to states for new activities authorized by the Underground Storage Tank Compliance Act of 2005 (USTCA). In addition, EPA will use funds for direct implementation of release detection or release prevention (spill, overfill, and corrosion protection requirements) programs on Tribal lands when EPA is legally responsible for carrying out the UST program.

EPA recognizes that the size and diversity of the regulated community puts state authorities in the best position to regulate USTs and to set priorities. For more information, visit http://www.epa.gov/swerust1/overview.htm. Major activities focus on ensuring that owners and operators routinely and correctly monitor all regulated tanks and piping in accordance with UST regulations and developing state programs with sufficient authority and enforcement capabilities to operate in lieu of the Federal program. For more information, visit http://www.epa.gov/OUST /fedlaws /cfr.htm. This grant funding may be used in Performance Partnership Agreements with states and Tribes. A state or Tribe could elect to consolidate this and other categorical media grants into one or more multimedia or single media grant. The state or Tribe could then target its most pressing environmental problems and use the performance partnership grant for a number of activities including pollution control, abatement, and enforcement.

Prior to FY 2007, EPA provided funding to states under the authority of Section 2007(f)(2) of the Solid Waste Disposal Act (SWDA), and to Federally recognized Tribes, and/or Intertribal Consortia under Public Law 105-276 through the UST categorical grants for release detection and release prevention activities to encourage owners and operators to properly operate and maintain their underground storage tanks. In FY 2007, EPA will make grants or cooperative agreements for new activities authorized by the USTCA, which was enacted as Title XV, Subtitle B of the Energy Policy Act of 2005 that are not otherwise provided for in Section 2007 of the SWDA. EPA will not use STAG funds for leaking underground storage tank cleanup activities that are authorized by Section 205 of the Superfund Amendments and Reauthorization Act of 1986, even if those activities are also authorized by the USTCA.

FY 2007 Activities and Performance Plan:

In FY 2007, EPA will continue to assist states and Tribes in implementing the UST program and will provide assistance to states to help them meet their new responsibilities authorized under the USTCA (e.g., performing additional inspections so that tanks are inspected every three years, developing operator training requirements, prohibiting fuel deliveries at non-compliant UST facilities, requiring secondary containment for new and replaced tanks and piping or financial responsibility for tank installers and manufacturers); ensuring owners and operators routinely and correctly monitor all regulated USTs and piping in accordance with regulations; (see http://www.epa.gov/OUST/ustsystm/tanko&m.htm). EPA has the primary responsibility for implementation of the UST Program in Indian Country. Grants under P.L. 105-276 will continue to help Tribes develop the capacity to administer UST programs. For example, funding is used to support training for Tribal staff, educate owners and operators in Indian Country about UST requirements, and maintain information on USTs located in Indian Country.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Number of confirmed UST releases nationally.	7,421	<10,000	<10,000	<10,000	UST releases

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Percent increase of UST facilities that are in significant operational compliance with both release detection and release prevention (spill, overfill, and corrosion protection requirements).	2	+1	+1	+1	percent

In FY 2007, through its compliance activities, the program will strive to maintain the number of confirmed releases at UST facilities to 10,000 or fewer. The actual number of confirmed releases in FY 2005 was 7,421.

At the end of FY 2005, EPA exceeded its goal of a one percent increase of UST facilities in operational compliance with both release detection and release prevention (spill, overfill, and corrosion protection) requirements[4] by achieving a two percent increase (from 64 percent at the

[4] U.S. Environmental Protection Agency Memorandum, *FY 2005 Semi-Annual End-of-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division Directors, Regions 1-10, dated December **15**, 2005. **See http://www.epa.gov/swerust1/cat/ca_05_34.pdf**

end of FY 2004 to 66 percent at the end of FY 2005) of the estimated universe of approximately 246,650 UST facilities.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$25,792.7) This increase in grants or cooperative agreements is for new activities authorized by the Underground Storage Tank Compliance Act of 2005 (USTCA). The funds will provide assistance to states to help them meet their new responsibilities under the USTCA (e.g., performing additional inspections, developing operator training requirements, prohibiting fuel deliveries at non-compliant UST facilities, requiring secondary containment for new and replaced tanks and piping or financial responsibility for tank installers and manufacturers).

Statutory Authority:

States: Solid Waste Disposal Act (SWDA) of 1976, as amended by the Superfund Reauthorization Amendments of 1986 (Subtitle I) and the Underground Storage Tank Compliance Act of 2005; Section 2007(f); Tribal Grants: P.L. 105-276.

Categorical Grant: Wetlands Program Development

Program Area: Categorical Grants
Goal: Healthy Communities and Ecosystems
Objective(s): Ecosystems

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
State and Tribal Assistance Grants	***$15,027.2***	***$15,765.0***	***$16,830.0***	***$1,065.0***
Total Budget Authority / Obligations	$15,027.2	$15,765.0	$16,830.0	$1,065.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Wetlands Program Development Grants enable EPA to provide technical and financial support to states, tribes, and local governments to restore improve and protect wetlands consistent with the national goal of an overall increase in the Nation's wetlands. Grants are used to develop new or refine existing state and Tribal wetland protection, management and restoration programs and to implement programs where environmental results can be demonstrated. Since the Wetland Program Development Grants Program started in FY 1990, grant funds have been and are awarded on a competitive basis under the authority of section 104(b)(3) of the CWA. Grants support development of state and Tribal wetland programs that further the goals of the CWA and improve water quality in watersheds throughout the country. Many states and some Tribes have developed wetland protection programs that assist private landowners, educate local governments, and monitor and assess wetland quantity and quality. (For more information, visit http://yosemite.epa.gov/water/grant.nsf.)

FY 2007 Activities and Performance Plan:

Achieving the strategic goal and the Administration's wetlands commitment to increase wetlands necessitates stronger state, Tribal, and local programs to monitor, manage and protect wetlands. Grant resources in FY 2007 will provide aid to states and tribes to develop, enhance, implement, and administer wetland programs, including helping states and tribes build capacity in the areas of monitoring, regulation, restoration, water quality standards, mitigation compliance and partnership building. EPA will continue in FY 2007 with a focus on state/Tribal wetlands environmental outcomes. Toward that end, EPA will follow through on the state/Tribal Environmental Outcome Wetland Demonstration Pilot, a 3-year pilot designed to demonstrate effectiveness of using Wetland Program Development Grants for program implementation. The pilot is part of EPA's effort to strengthen state/Tribal capacity to protect their wetlands.

Performance Targets:

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Annually, in	Data lag	No Net	No Net	No Net	Acres

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
	partnership with the Corps of Engineers and States, achieve no net loss of wetlands in the Clean Water Act Section 404 regulatory program		Loss	Loss	Loss	

Measure Type	Measure	FY 2005 Actual	FY 2005 Target	FY 2006 Target	FY 2007 Target	Units
Outcome	Working with partners, achieve a net increase of wetlands	Data lag	100,000	100,000	100,000	Acres/year

- New data on the status and trends of the nation's wetlands from the U.S. Fish and Wildlife Service's National Wetlands Inventory will be available in the Service's Status and Trends report due out in spring 2006. Meanwhile, information describing progress toward the broader wetland goals, identified by the President is available. A report titled "Preserving America's Wetlands, Implementing the President's Goal" (CEQ, April 2005)[5], indicates that since April 2004, federal agencies and their partners took actions to restore, create, protect or improve 832,000 acres of wetlands in the U.S. This reflects total acres of restoration improvement and protection efforts and not the actual net change in total national wetlands acres.

- Under EPA's 2005 National Water Program Guidance, the Wetlands Program provided technical or financial assistance to 13 additional Tribes, bringing the total number of Tribes that have received such assistance from EPA to 80. In addition, the Wetlands Program met its commitment of helping 12 states remain on track to report on changes in wetlands condition by 2008.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$,1,065.0) This increase will provide technical tools necessary to adequately monitor, regulate and restore wetlands and support the Administration's wetlands initiative.

Statutory Authority:

1990 Great Lakes Critical Programs Act; 2002 Great Lakes and Lake Champlain Act; CWA; Coastal Wetlands Planning, Protection, and Restoration Act of 1990; Estuaries and Clean Waters Act of 2000; North American Wetlands Conservation Act; WRDA; 1909 The Boundary Waters Treaty; 1978 GLWQA; 1987 GLWQA; 1996 Habitat Agenda; 1997 Canada-U.S. Great Lakes Binational Toxics Strategy; and US-Canada Agreements.

[5] United States. Council on Environmental Quality (CEQ). Conserving America's Wetlands, Implementing the President's Goal. Washington, D.C., Coastal America, 2005. www.coastalamerica.gov

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

State and Tribal Assistance Grants

Air Toxics **1, 2, 17, 18, 30**
Air Toxics and Quality **2, 18**
Alaska Native Villages **1, 25, 27**
Brownfields **1, 3, 6, 7, 13, 19, 20, 21, 22, 40, 41**
Brownfields Projects **1, 3, 7, 20, 41**
Categorical Grant
- Beaches Protection 1, 3, 7, 38
- Brownfields 1, 4, 7, 40
- Environmental Information 1, 4, 7, 42
- Hazardous Waste Financial Assistance 1, 4, 7, 44
- Homeland Security 1, 4, 7, 47
- Lead 1, 4, 7, 49
- Nonpoint Source (Sec. 319) 1, 4, 7, 51
- Pesticides Enforcement 2, 4, 7, 54
- Pesticides Program Implementation 2, 4, 7, 56
- Pollution Control (Sec. 106) 2, 4, 7, 58
- Pollution Prevention 2, 4, 7, 62
- Public Water System Supervision (PWSS) 2, 4, 7, 64
- Radon 2, 4, 7, 67
- Sector Program 2, 5, 7, 69
- State and Local Air Quality Management 2, 5, 7, 71
- Targeted Watersheds 2, 5, 8, 74
- Toxics Substances Compliance 2, 5, 8, 76
- Tribal Air Quality Management 2, 5, 8, 78
- Tribal General Assistance Program 2, 5, 8, 80
- Underground Injection Control (UIC) 2, 5, 8, 83
- Underground Storage Tanks 2, 5, 8, 86
- Wastewater Operator Training 5, 8
- Water Quality Cooperative Agreements 5, 8
- Wetlands Program Development 2, 5, 8, 89

Categorical Grants **1, 3, 5, 37, 38, 40, 42, 44, 47, 49, 51, 54, 56, 58, 62, 64, 67, 69, 71, 74, 76, 78, 80, 83, 86, 89**
Civil Enforcement **70, 76**
Clean Air **1, 11, 18, 29, 67, 71, 73, 78**
Clean School Bus Initiative **1, 2, 6, 8, 9, 18**
Clean Water **1, 6, 14, 16, 26, 51, 58, 90, 91**
Compliance **5, 11, 12, 42, 54, 55, 62, 63, 69, 70, 76, 77, 80, 86, 88**
Congressionally Mandated Projects **3, 8**
Corrective Action **45**

Diesel Emissions Reduction Grant Program **1, 3, 29**
Drinking Water **1, 6, 14, 31, 32, 35, 64, 66, 83**
Drinking Water SRF **32**
Enforcement **11, 54, 69, 76**
Environmental Information **2, 12, 42**
Exchange Network **2, 12, 42**
Great Lakes **15, 38, 39, 91**
Hazardous Waste Financial Assistance **1, 13, 44**
Homeland Security **1, 15**
Indoor Air **67**
Infrastructure Assistance **1, 3, 8, 9, 24, 26, 29, 31, 33, 35**
Alaska Native Villages 1, 3, 8, 24
Clean Water SRF 1, 3, 8, 26
Drinking Water SRF 1, 3, 8, 31
Mexico Border 1, 3, 8, 33
Puerto Rico 1, 3, 9, 35
Lake Champlain **91**
Lead **12, 49, 50**
Mexico Border **1, 6, 33**
NAAQS **30, 71, 72, 73**
Pesticides Enforcement **11**
Pesticides Program Implementation **12**
Pollution Prevention **12, 42, 62, 63**
Pollution Prevention Program **62**
Public Water System Supervision (PWSS) **14, 64**
Puerto Rico **6, 27, 35, 36**
Radon **11, 67**
Resource Conservation and Recovery Act (RCRA) **13, 44**
Sector Program **11**
STAG Infrastructure Grants / Congressional Priorities **3**
State and Local Air Quality Management **11**
Surface Water Protection **61**
Targeted Watersheds **74**
Toxic Substances
Lead Risk Reduction Program 50
Tribal Air Quality Management **11**
Underground Storage Tanks **13, 86, 88**
Waste Management **44**
Water Quality **4, 24, 26, 51, 58**
Water Quality Monitoring **4**
Wetlands **1, 14, 89, 90, 91**
Wetlands Program Development **14, 89**

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Program Performance and Assessment

Performance Assessment Rating Tool (PART) Follow-Up Actions 1
Performance Assessment Rating Tool (PART) Supplemental Information 21
Annual Performance Goals and Measures 35
GOAL: Clean Air and Global Climate Change 35
GOAL: Clean and Safe Water 48
GOAL: Land Preservation and Restoration 59
GOAL: Healthy Communities and Ecosystems 69
GOAL: Compliance and Environmental Stewardship 91
Annual Performance Goals and Measures 101
NPM: Office of Administration & Resources Management 101
NPM: Office of Environmental Information 103
NPM: Office of the Inspector General 107

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	Air Quality Grants and Permitting	Develop a measure that assesses the State permitting programs' quality, efficiency, and compliance.	Work will begin in 2006.
2006	Air Quality Grants and Permitting	Develop at least one efficiency measure that adequately reflects program efficiency.	Work will begin in 2006.
2006	Air Quality Grants and Permitting	Develop policy and criteria for transitioning the fine particulate matter (PM2.5) monitoring program from Clean Air Act Section 103 grant funding to Clean Air Act Section 105 grant funding.	Work will begin in 2006.
2006	Air Quality Grants and Permitting	Review and update current grant allocation processes to ensure resources are properly targeted.	Work will begin in 2006.
2006	Alaska Native Village Water Infrastructure	Develop program regulations that improve oversight and accountability and reduce chances for waste, fraud, and abuse.	No action taken
2006	Alaska Native Village Water Infrastructure	Reduce program funding by $20 million until there is greater confidence that the funds are achieving the desired results.	Not enacted
2005	Brownfields Revitalization	Complete performance measures that are under development including a new cross-agency measure that tracks brownfields redevelopment.	Action taken, but not completed
2005	Brownfields Revitalization	Conduct regional program reviews to share and implement best practices among regional offices that will improve the program's overall performance and efficiency.	Action taken, but not completed
2005	Brownfields Revitalization	Improve grantee use of electronic reporting systems to reduce data lags in performance information.	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2004	Clean Water State Revolving Fund	EPA will focus on improving the quality and breadth of CWSRF performance data. In particular, EPA needs to focus on collecting data on minor systems, which receive a significant proportion of CWSRF funding, and waterborne disease.	Action taken, but not completed
2006	Drinking Water Research	Develop a performance measure which tracks the efficiency with which the program delivers its services to its primary client, the EPA Office of Water.	No action taken
2006	Drinking Water Research	Develop baselines and targets for all long term and annual performance measures. These will allow the program to set quantitative goals and assess progress through time.	Action taken, but not completed
2006	Drinking Water Research	Improve oversight of non-grant partners and require non-grant partners to work towards the annual and long term goals of the program.	No action taken
2005	Drinking Water State Revolving Fund	Develop a new long-term outcome performance measure to assess the impact of drinking water compliance improvements on public health.	Action taken, but not completed
2005	Drinking Water State Revolving Fund	Implement recommendations from the second triennial drinking water data quality review which are designed to improve the overall quality of the data in EPA's drinking water compliance reporting system.	Action taken, but not completed
2004	Endocrine Disruptors	Articulate clearly R&D priorities to ensure compelling, merit-based justifications for funding allocations.	Completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2005	Endocrine Disruptors	By the end of CY 2006, develop baseline data for an efficiency measure that compares dollars/labor hours in validating chemical assays.	Action taken, but not completed
2004	Endocrine Disruptors	Maintain funding at approximately the FY 2005 President's Budget level.	Completed
2006	EPA Acid Rain Program	Remove statutory requirements that prevent program from having more impact including (but not limited to) barriers that; set maximum emissions reduction targets, exempt certain viable facilities from contributing, and limit the scope of emission reduction credit trading. The Administration's Clear Skies proposal adequately addresses these and other statutory impediments. Program should work as appropriate to promote the enactment of the Clear Skies legislation.	Action taken, but not completed
2006	EPA Acid Rain Program	Program should develop efficiency measures to track and improve overall program efficiency. Measures should consider the full cost of the program, not just the federal contribution.	Action taken, but not completed
2006	EPA Climate Change Programs	EPA will complete an assessment and comparison of the potential benefits and efforts of the Clean Automotive Technology program to other agency´s efforts with similar goals by April 1, 2005.	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	EPA Climate Change Programs	The Clean Automotive Technology program will work to develop better performance measures that more clearly link to greenhouse gas reduction potential in the near term.	Action taken, but not completed
2006	EPA Ecological Research	Develop a program-specific customer survey to improve the program's utility to the Agency.	Work will begin in 2006.
2006	EPA Ecological Research	Link budget resources to annual and long-term performance targets by requesting and reporting Human Health Research and Ecosystem Research funding separately.	Work will begin in 2006.
2006	EPA Ecological Research	Refine the questions used in independent scientific reviews to improve EPA's understanding of program utility and performance in relationship to environmental outcomes.	Work will begin in 2006.
2004	EPA Enforcement of Environmental Laws (Civil)	Calculate and evaluate recidivism rates.	Action taken, but not completed
2003	EPA Enforcement of Environmental Laws (Civil)	Continue to expand and improve use of statistically valid non-compliance rates.	Action taken, but not completed
2003	EPA Enforcement of Environmental Laws (Civil)	Develop meaningful baseline and targets for outcome oriented performance measures, with particular emphasis on pounds of pollutants reduced characterized for risk.	Action taken, but not completed
2004	EPA Enforcement of Environmental Laws (Civil)	Direct funds toward completion of the Permit Compliance System (PCS)	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2005	EPA Enforcement of Environmental Laws (Civil)	EPA will consider contracting for an independent evaluation of the program that can serve as the basis for further improvements.	No action taken
2004	EPA Enforcement of Environmental Laws (Civil)	Target resources based on workload analysis and take into account recommendations by the intra-agency Superfund Review completed in April 2004.	Action taken, but not completed
2004	EPA Enforcement of Environmental Laws (Criminal)	Created standardized definitions (completed) and merging data bases from within the agency to allow easier implementation and evaluation of measures.	Action taken, but not completed
2004	EPA Enforcement of Environmental Laws (Criminal)	Developing baselines and targets to measure recidivism.	Action taken, but not completed
2004	EPA Enforcement of Environmental Laws (Criminal)	Developing a baseline and targets for the outcome measure, pounds of pollutants reduced, that is characterized as to risk.	Action taken, but not completed
2006	EPA Environmental Education	The administration is continuing its recommendation to terminate the program at EPA and rely on NSF programs to fulfill scientific education initiatives.	Action taken, but not completed
2003	EPA Existing Chemicals Program	Create outcome measures for AEGLs.	Action taken, but not completed
2005	EPA Existing Chemicals Program	Develop a cost efficiency measure for management of the Toxic Substances Control Act 8(e) Hazard Notification process.	Action taken, but not completed
2003	EPA Existing Chemicals Program	Develop a long-term outcome efficiency measure.	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	EPA Existing Chemicals Program	Develop an efficiency measure for Acute Exposure Guidance Levels	Action taken, but not completed
2003	EPA Existing Chemicals Program	Maintain funding at the 2004 President's Budget level.	Completed
2005	EPA Human Health Research	Develop ambitious long-term performance targets that clearly define what outcomes would represent a successful program.	Action taken, but not completed
2006	EPA Human Health Research	Improve ability to link budget resources to annual and long-term performance targets by requesting and reporting Human Health research and Ecosystem research funding as separate program-projects.	No action taken
2006	EPA Indoor Air Quality	Improve transparency by making State radon grantee performance data available to the public via a website or other easily accessible means.	No action taken
2006	EPA Indoor Air Quality	Link budget requests more explicitly to accomplishment of performance goals, specifically by stipulating how adjustments to resource levels would impact performance.	No action taken
2006	EPA Indoor Air Quality	Use efficiency measures to demonstrate improved efficiencies or cost effectiveness in achieving program goals.	No action taken
2006	EPA Lead-Based Paint Risk Reduction Program	Develop and implement a method of measuring the impacts of the program's outreach and education efforts.	Work will begin in 2006.

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	EPA Lead-Based Paint Risk Reduction Program	Improve the consistency of grantee and regional office accountability mechanisms and develop a system that ensures all relevant performance data from grantees and the Regional offices is being collected for the purposes of focusing program actions.	Work will begin in 2006.
2006	EPA Lead-Based Paint Risk Reduction Program	Improve the linkage between program funding and the associated contributions towards progress in achieving program goals, especially for program grant and contractor funding.	Work will begin in 2006.
2005	EPA New Chemicals Program	Develop an efficiency measure to target improvements in the initial phases of EPA's management of Pre-Manufacture Notices (PMNs).	Action taken, but not completed
2003	EPA New Chemicals Program	Establish targets and timeframes for its measures, including efficiency measures.	Action taken, but not completed
2003	EPA New Chemicals Program	Maintain funding at the 2004 President's Budget level.	Completed
2003	EPA New Chemicals Program	Propose appropriations language to change the Toxic Substances Control Act to lift the cap on fees that the Agency can collect for new chemical reviews.	Completed
2006	EPA Oil Spill Control	Develop a forum for sharing and implementing best practices among regional offices that will improve the program's overall performance and efficiency.	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	EPA Oil Spill Control	Develop a second long-term outcome measure and at least one annual outcome measure.	No action taken
2006	EPA Oil Spill Control	Develop stronger strategic planning procedures to ensure continuous improvement in the program, including regular procedures that will track and document key decisions and work products.	No action taken
2006	EPA Oil Spill Control	Evaluate the data quality of key data sources used by the program to improve the accuracy and reliability of performance information.	No action taken
2005	EPA Pesticide Enforcement Grant Program	Develop targets and baselines.	Action taken, but not completed
2005	EPA Pesticide Enforcement Grant Program	Evaluate why cost effectiveness appears inversely proportional to amount of Federal funding.	Action taken, but not completed
2005	EPA Pesticide Enforcement Grant Program	Work to develop appropriate outcome performance measures.	Completed
2005	EPA Support for Cleanup of Federal Facilities	Conduct one evaluation on an aspect of the program to identify areas and means for program improvements.	Action taken, but not completed
2005	EPA Support for Cleanup of Federal Facilities	Work with other Federal agencies to support attainment of long-term environmental and human health goals.	No action taken
2003	EPA Tribal General Assistance Program	EPA will develop ambitious performance targets for its annual and efficiency measures.	Action taken, but not completed
2003	EPA Tribal General Assistance Program	EPA will improve the program's accountability.	Completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	EPA Tribal General Assistance Program	Improving data quality both in terms of scope and reliability to assist in setting meaningful targets for program improvement.	Action taken, but not completed
2006	EPA Tribal General Assistance Program	Work to increase the implementation and delegation of environmental programs on Indian lands.	Action taken, but not completed
2006	EPA's Recycling, Waste Minimization, and Waste Management Program	Continuously improving the program by identifying where compliance costs are excessive and reducing the cost of compliance where appropriate (i.e. RCRA manifest rule).	Action taken, but not completed
2006	EPA's Recycling, Waste Minimization, and Waste Management Program	Develop an efficiency measure for the waste minimization component of the RCRA base program.	Action taken, but not completed
2006	EPA's Recycling, Waste Minimization, and Waste Management Program	Develop a new regulatory definition of solid waste that satisfies the judicial requirements while ensuring that costs are not inappropriately shifted to the Superfund or other corrective action programs by narrowing the exclusion of previously regulated substances.	Action taken, but not completed
2006	Leaking Underground Storage Tank Cleanup Program	In response to initial findings that the program needed better long-term outcome goals with adequate baselines and targets, the program has been participating in an Office of Pesticide	Completed
2006	Leaking Underground Storage Tank Cleanup Program	Programs initiative on performance indicators. The program has proposed new measures for this reassessment.	Action taken, but not completed
2006	Leaking Underground Storage Tank Cleanup Program	Seek out regular independent evaluations and a systematic process to review the program's strategic planning.	Completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2005	Mobile Source Air Pollution Standards and Certification	Begin collecting data to support two new efficiency measures - one long and one short-term - to enable the program to measure further efficiency improvements.	Action taken, but not completed
2005	Mobile Source Air Pollution Standards and Certification	Request $66 million for EPA´s mobile source programs, $1.5 million more than the 2005 President´s Budget request.	Completed
2005	Mobile Source Air Pollution Standards and Certification	Systematically review existing regulations to maintain consistency and ensure that regulations maximize net benefits. Conduct thorough ex ante economic analyses and evaluations of alternatives in support of regulatory development.	Action taken, but not completed
2006	National Ambient Air Quality Standards and Regional Haze Programs	Develop at least one efficiency measure that adequately reflects program efficiency.	Work will begin in 2006.
2006	National Ambient Air Quality Standards and Regional Haze Programs	Implement improvements within current statutory limitations that address deficiencies in design and implementation and identify and evaluate needed improvements that are beyond current statutory authority.	Work will begin in 2006.
2006	National Ambient Air Quality Standards and Regional Haze Programs	Improve the linkage between program funding and the associated contributions towards progress in achieving program goals.	Work will begin in 2006.
2006	National Ambient Air Quality Standards Research	Develop an annual measure that more directly demonstrates progress on toward the long-term goal of reducing uncertainty in identified research areas of high priority.	Work will begin in 2006.

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	National Ambient Air Quality Standards Research	Develop and implement adequate methods for determining progress on the program's two new long-term measures (uncertainty and source-to-health linkage measures) as well as for the new annual measure (customer survey measure).	Work will begin in 2006.
2006	National Ambient Air Quality Standards Research	Improve multi-year plan (MYP) and financial data tracking systems and procedures to better and more transparently integrate grantee and program performance with financial information.	Work will begin in 2006.
2006	National Ambient Air Quality Standards Research	The program must develop at least one efficiency measure that adequately reflects the efficiency of the program.	Work will begin in 2006.
2005	Nonpoint Source Pollution Control Grants	EPA will consider contracting for an independent evaluation of the program that can serve as the basis for further improvements.	No action taken
2005	Nonpoint Source Pollution Control Grants	To continue to improve this program and meet its long-term goals, EPA will focus on ensuring its funds are used for the most beneficial projects.	Action taken, but not completed
2006	Ocean, Coastal, and Estuary Protection	Develop an additional performance measure for non-estuary program activities.	Work will begin in 2006.
2006	Ocean, Coastal, and Estuary Protection	Develop an annual performance measure for the Ocean Dumping Program.	Work will begin in 2006.

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	Ocean, Coastal, and Estuary Protection	Developing more ambitious targets for the National Estuary Program's annual and long term measures on habitat acres protected and restored.	Work will begin in 2006.
2004	Pesticide Field Programs	Develop and implement a method of compiling and disseminating Field Programs grantee performance data in a manner easily accessible to the public.	Action taken, but not completed
2004	Pesticide Field Programs	Develop and implement annual goals and efficiency measures and continue development of baselines and targets for long-term outcome measures for all Field Programs.	Action taken, but not completed
2004	Pesticide Field Programs	Make the Field Programs budgeting more transparent and more clearly link to adequate and relevant program-specific measures.	Action taken, but not completed
2003	Pesticide Registration	The Administration recommends maintaining funding at the 2004 President's Budget level adjusted for the annual pay increase.	Completed
2003	Pesticide Registration	The program will also work on long-term outcome efficiency measures.	Action taken, but not completed
2003	Pesticide Registration	The program will develop long-term risk-based outcome performance measures that will supplement the existing long-term measures.	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2004	Pesticide Reregistration	Per the Agency targets develop and finalize appropriate regional performance targets.	Action taken, but not completed
2005	Pollution Prevention and New Technologies Research	Address the issue; priorities among goals and activities; human and capital resources anticipated; and intended program outcomes against which success may later be assessed.	Action taken, but not completed
2004	Pollution Prevention and New Technologies Research	Establish performance measures, including efficiency measures.	Action taken, but not completed
2006	Pollution Prevention and New Technologies Research	Institute a plan for regular, external reviews of the quality of the program's research and research performers, including a plan to use the results from these reviews to guide future program decisions.	Action taken, but not completed
2004	Pollution Prevention and New Technologies Research	Shift funding from this research program to another Environmental Protection Agency pollution prevention program that has shown results (see New Chemicals PART).	Completed
2006	Public Water System Supervision Grant Program	Develop a new long-term outcome performance measure to assess the impact of drinking water compliance improvements on public health.	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	Public Water System Supervision Grant Program	Implement recommendations from the second triennial drinking water data quality review which are designed to improve the overall quality of the data in EPA´s drinking water compliance reporting system.	Action taken, but not completed
2006	Resource Conservation and Recovery Act Corrective Action	Program must define a new baseline for performance measures and establish appropriate annual targets to make goals more ambitious in achieving long-term objectives of the program.	Completed
2006	Resource Conservation and Recovery Act Corrective Action	Program should establish appropriate efficiency measures to adequately track program efficiency over time.	Action taken, but not completed
2005	Stratospheric Ozone Protection	Continue to monitor progress to ensure that the program is on track to meet goals.	Action taken, but not completed
2005	Stratospheric Ozone Protection	Continue to support the Multilateral Fund for the Implementation of the Montreal Protocol.	Action taken, but not completed
2005	Stratospheric Ozone Protection	Convert long-term health effects measure into a rate of skin cancer prevalence so that an actual baseline can be established once statistics are available.	Completed
2006	Stratospheric Ozone Protection	Program will develop a long-term performance measure and set ambitious targets for reduced incidence of non-melanoma skin cancers.	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	Stratospheric Ozone Protection	Program will develop a performance measure and targets to track intermediate outcomes by measuring "thickness" of the ozone layer in the atmosphere. Many of the program's outcome performance measures are extremely long-term, so it is important to establish measurable performance objectives for the near term.	Action taken, but not completed
2005	Superfund Remedial Action	Implement the recommendations of the Agency's 120-day study on management of the Superfund program.	Action taken, but not completed
2002	Superfund Remedial Action	Modernize the program's data repository (CERCLIS) to ensure accurate and complete information on program performance and financial management.	Action taken, but not completed
2005	Superfund Remedial Action	Validate the reporting method for performance data and develop a new Superfund cleanup efficiency measure.	Action taken, but not completed
2006	Superfund Removal	Develop a plan for regular, comprehensive and independent assessments of program performance.	No action taken
2005	Superfund Removal	Investigate the feasibility of outcome oriented measures that test the linkage between program activities and impacts on human health and the environment.	Action taken, but not completed

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2002	Superfund Removal	Modernize the program's data repository (CERCLIS) to ensure accurate and complete information on program performance and financial management.	Action taken, but not completed
2006	Surface Water Protection	Require that 106 State workplans and performance data are formatted and reported consistently and directly support specific goals in EPA's strategic plan.	Work will begin in 2006.
2006	Surface Water Protection	Working with States and other partners, EPA will assess 100% of rivers, lakes, and streams in the lower 48 states using statistically-valid surveys by 2010.	Work will begin in 2006.
2006	Surface Water Protection	Working with States and other partners, EPA will issue water quality reports based on the statistically-valid surveys in the lower 48 states by 2011.	Work will begin in 2006.
2003	Toxic Air Pollutants - Regulations and Federal Support	Establish better performance measures, including an appropriate efficiency measure.	Action taken, but not completed
2003	Toxic Air Pollutants - Regulations and Federal Support	Focus on maximizing programmatic net benefits and minimizing the cost per deleterious health effect avoided.	Action taken, but not completed
2003	Toxic Air Pollutants - Regulations and Federal Support	Increase funding for toxic air pollutant programs by $7 million in State grants for monitoring to help fill data gaps.	Completed
2006	Toxic Air Pollutants - Regulations and Federal Support	Use the newly developed efficiency measure to demonstrate efficiency improvements.	No action taken

Program Assessment Rating Tool (PART) – Follow-Up Actions

Year Work Started	PART Program Title	Follow-Up Action	Action Taken**
2006	U. S.-Mexico Border Water Infrastructure	Develop baselines and targets for its long-term and efficiency measures.	Action taken, but not completed
2006	U. S.-Mexico Border Water Infrastructure	Follow-up on the results of the business process review to help EPA implement program changes that could improve effectiveness.	No action taken
2006	Underground Injection Control Grant Program	Develop an outcome-based annual performance measure and an efficiency measure, which demonstrate the protection of source water quality.	Action taken, but not completed
2006	Underground Injection Control Grant Program	Implement recommendations from the second triennial drinking water data quality review which are designed to improve the overall quality of the data in EPA´s drinking water compliance reporting system.	Action taken, but not completed
2006	Water Pollution Control Grants	Provide incentives for States to implement or improve their permit fee programs, increasing the resources available for water quality programs.	Work will begin in 2006.
2006	Water Pollution Control Grants	Require that State workplans and performance data are formatted and reported consistently and directly support specific goals in EPA's strategic plan.	Work will begin in 2006.
2006	Water Pollution Control Grants	Target additional program funding to States implementing probabilistic monitoring activities in support of the national probabilistic monitoring survey.	Work will begin in 2006.

Program Assessment Rating Tool (PART) – Follow-Up Actions

****Action Taken -**

Explanation provided in OMB PARTWeb Update Guidance. EPA updated this list of actions following OMB guidance in November 2005. EPA has added additional language to indicate follow-up actions that will begin in 2006.

- *No action taken* – The agency/program has not taken steps to implement the follow-up action.
- *Action taken, but not completed* – The agency/program has not taken steps to implement the follow-up action.
- *Completed* – The agency/program has completed the follow-up action.
- *Not enacted* – This category should only be used for actions categorized as budgetary or legislative, such as when the President's Budget included a funding proposal that the Congress did not enact or the Administration submitted legislation that the Congress did not enact.

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Goal 1:	**Clean Air and Global Climate Change**	
	Long-Term Performance Measure	
Stratospheric Ozone Protection	Elimination of U.S. consumption of Class II Ozone Depleting substances measured in tons/yr. of Ozone Depleting Potential (ODP).	FY 2010
EPA Indoor Air Quality	Estimated future premature lung cancer deaths prevented annually through lowered radon exposure.	FY 2012
EPA Climate Change Programs	Million metric tons of carbon equivalent (mmcte) of greenhouse gas in the building sector.	FY 2012
EPA Climate Change Programs	Million metric tons of carbon equivalent (mmtce) of greenhouse gas in the industry sector.	FY 2012
EPA Climate Change Programs	Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the transportation sector.	FY 2012
Mobile Source Air Pollution Standards and Certification	Millions of tons of nitrogen oxides (NOX) reduced since 2000 from mobile sources.	FY 2010
Mobile Source Air Pollution Standards and Certification	Millions of tons of volcanic organic compounds (VOCs) reduced since 2000 from mobile sources.	FY 2010
EPA Indoor Air Quality	Number of people taking all essential actions to reduce exposure to indoor environmental asthma triggers.	FY 2006
NAAQS and Regional Haze Programs	Regional Haze Program Measure: Percent improvement in visibility on 20% worst days, on average, for all eastern Class I areas.	FY 2018
NAAQS and Regional Haze Programs	Regional Haze Program Measure: Percent improvement in visibility on 20% worst days, on average, for all western Class I areas.	FY 2018
EPA Acid Rain Program	Percent of change in number of chronically acidic waterbodies in acid sensitive regions.	FY 2030

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
NAAQS and Regional Haze Programs Air Quality Grants and Permitting	NAAQS Program Measure: Percent reduction in population-weighted ambient concentration of fine particulate matter (PM 2.5) in all monitored counties from 2003 baseline.	FY 2015
NAAQS and Regional Haze Programs Air Quality Grants and Permitting	NAAQS Program Measure: Percent reduction in population-weighted ambient concentration of ozone in all monitored counties from 2003 baseline.	FY 2015
National Ambient Air Quality Standards Research	Percentage of ORD-developed outputs appearing in the Office of Air and Radiation National Ambient Air Quality Standard Staff Paper (SP)	2010
Toxic Air Pollutants	Percentage reduction in tons toxicity-weighted cancer risk emissions from 1993 baseline.	FY 2010
Toxic Air Pollutants	Percentage reduction in tons toxicity-weighted of non-cancer risk emissions from 1993 baseline.	FY 2010
National Ambient Air Quality Standards Research	Progress in assessing the linkage between health impacts and air pollutant sources and reducing the uncertainties that impede the understanding and usefulness of these linkages.	UD
National Ambient Air Quality Standards Research	Progress toward reducing uncertainty in the science that supports standard setting and air quality management decisions.	UD
Stratospheric Ozone Protection	Reductions in melanoma and non-melanoma skin cancers, measured by millions of skin cancer cases avoided (melanoma and nonmelanoma).	FY 2050
Mobile Source Air Pollution Standards and Certification	Tons of fine particulate matter (PM 2.5) since 2000 from mobile sources.	FY 2010

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
EPA Acid Rain Program	Tons of sulfur dioxide emissions reduced from electric power generation sources.	FY 2010
EPA Indoor Air Quality	Total number of schools implementing an effective indoor air quality plan.	FY 2006
	Annual Performance Measure	
National Ambient Air Quality Standards Research	Percent improvement in customer satisfaction and product usefulness survey score.	UD
	Efficiency Performance Measure	
EPA Indoor Air Quality	Annual Cost to EPA per person with asthma taking all essential actions to reduce exposure to indoor environmental asthma triggers.	FY 2006
EPA Indoor Air Quality	Average cost to EPA per student per year in a school that is implementing an Indoor Air Quality plan.	FY 2006
Mobile Source Air Pollution Standards and Certification	Percent reduction in time (days) per certificate approval for large engines (nonroad ci, Heavy duty gas and diesel engines)	FY 2012
EPA Climate Change Programs	Tons of greenhouse gas emissions (mmtce) prevented per societal dollar in the building sector.	FY 2010
EPA Climate Change Programs	Tons of greenhouse gas emissions (mmtce) prevented per societal dollar in the industry sector.	FY 2010
EPA Climate Change Programs	Tons of greenhouse gas emissions (mmtce) prevented per societal dollar in the transportation sector.	FY 2010
Mobile Source Air Pollution Standards and Certification	Tons of pollutants (VOC, NOX, PM, CO) reduced per total emission reduction dollars spent.	UD

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Toxic Air Pollutants - Regulations and Federal Support	Tons of toxicity-weighted (for cancer and noncancer risk) emissions reduced per total cost ($).	UD
EPA Indoor Air Quality	Total Cost (public and private) per future premature cancer death prevented through lowered radon exposure.	FY 2006
Goal 2:	**Clean and Safe Water**	
	Long-Term Performance Measure	
Surface Water Protection, Water Pollution Control Grants	Percentage of waterbody segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained.	FY 2006
Alaska Native Village Water Infrastructure	By 2011, provide wastewater and drinking water systems to the remaining Alaska and Native Village population living in unserved homes (under development).	UD
Clean Water State Revolving Fund	CWSRF Long-Term Revolving Level ($billions/yr).	FY 2006
Drinking Water State Revolving Fund	DWSRF Long-Term Revolving Level ($billions/yr).	FY 2005
Drinking Water Research	Indep. Exp. Rev. Panel summary score on tool designed to measure the use of ORD data, tools, and technologies for key decisions leading to scientifically-sound 6 Year Review Decisions made by OW.	UD
Drinking Water Research	Indep. Exp. Rev. Panel summary score on tool designed to measure the use of ORD data, tools, and technologies for key decisions leading to scientifically-sound CCL decisions made by the OW	UD
Ocean, Coastal, and Estuary Protection	National Coastal Condition Report (NCCR) score for overall aquatic ecosystem health of coastal waters nationally (1-5 scale).	UD

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Nonpoint Source Pollution Control Grants	Number of waterbodies identified by States (in 2000 or subsequent years) as being primarily NPS-impaired that are partially or fully restored.	FY 2006
Tribal General Assistance Program	Percent decrease in the number of homes in Indian Country with inadequate wastewater sanitation systems.	UD
Tribal General Assistance Program	Percent decrease in the number of homes on tribal lands lacking access to safe drinking water.	FY 2007
Alaska Native Village Water Infrastructure	Percent of Alaska rural and Native households with drinking water that meets SDWA requirements.	UD
Clean Water State Revolving Fund	Percentage of water miles/acres identified by States or Tribes as having fish consumption advisories in 2002 where increased consumption of safe fish is allowed. (485,205 river miles; 11,277,276 lake acres)	UD
Clean Water State Revolving Fund	Percentage of waterbodies previously designated nonattainment, now meeting all water quality standards.	FY 2006
Clean Water State Revolving Fund	Number of waterborne disease outbreaks attributable to swimming in, or other recreational contact with, the ocean, rivers, lakes, or streams, measured as a five year average.	FY 2006
Tribal General Assistance Program	Show at least a 10% improvement for each of four parameters - total nitrogen, total phosphorus, dissolved oxygen, and fecal coliforms - at not fewer than 90 monitoring stations in Tribal waters.	FY 2007
Underground Injection Control	Percentage of source water areas (both surface and ground water) for community water systems will achieve minimized risk to public health.	FY 2005

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Underground Injection Control, Public Water System Supervision, Drinking Water State Revolving Fund	Percent population served by community water systems in compliance with health-based drinking water standards	FY 2005
	Annual Performance Measure	
Alaska Native Village Water Infrastructure	Percent of Alaska rural and Native households with drinking water and wastewater systems (under development).	FY 2006
Underground Injection Control	Percentage of Class I, II, and III wells that maintain mechanical integrity without a failure that releases contaminants to underground sources of drinking water (under development).	UD
Clean Water State Revolving Fund	Percentage of all major publicly-owned treatment works (POTWs) that comply with their permitted wastewater discharge standards.	UD
Underground Injection Control	Percentage of identified Class V motor vehicle waste disposal wells closed or permitted.	UD
Underground Injection Control	Percentage of prohibited Class IV and high-priority, identified, potentially endangering Class V wells closed or permitted in ground-water based source water areas.	UD
Drinking Water Research	Percentage of research products used by the Office of Water as the basis of or in support of Contaminant Candidate List Decisions.	UD
Drinking Water Research	Percentage of research products used by the Office of Water as the basis of or in support of Six Year Review Decisions.	UD
Drinking Water Research	Use of Drinking Water Research Program's Contaminant Candidate List research products by the Office of Water and other key clients.	UD

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Drinking Water Research	Use of Drinking Water Research Program's Six Year Review research products by the Office of Water and other key clients.	UD
	Efficiency Performance Measure	
Drinking Water State Revolving Fund	Average funding (millions of dollars) per project initiating operations.	FY 2006
Underground Injection Control Grant Program	Dollars per well to move Class V wells back into compliance.	UD
Alaska Native Village Water Infrastructure	Number of households served with wastewater and drinking water systems per million dollars (EPA and State)	UD
Clean Water State Revolving Fund	Number of waterbodies protected per million dollars of CWSRF assistance provided.	UD
Clean Water State Revolving Fund	Number of waterbodies restored or improved per million dollars of CWSRF assistance provided.	UD
Drinking Water State Revolving Fund, Underground Injection Control, Public Water System Supervision	People receiving drinking water in compliance with health-based drinking water standards per million dollars (Federal and State).	FY 2006
Public Water System Supervision, Drinking Water State Revolving Fund	Dollars per community water system in compliance with health-based drinking water standards	FY 2006
Nonpoint Source Pollution Control Grants	Section 319 funds ($ million) expended per partially or fully restored waterbody.	FY 2006

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Source Water Protection	Loading (pounds) of pollutants removed per program dollar expended	FY 2006
Water Pollution Control Grants	Cost per water segment restored.	FY 2006
Goal 3:	**Land Preservation and Restoration**	
	Long-Term Performance Measure	
Superfund Remedial	Acres of land ready for re-use at Superfund sites.	FY 2010
EPA's Recycling, Waste Minimization, and Waste Management Program	By 2008, update controls for preventing releases at 150 RCRA HWM facilities due for permit renewal.	FY 2008
EPA Oil Spill Control	Compliance rate of all facilities subject to Facility Response Plan (FRP) regulations.	FY 2005
EPA Oil Spill Control	Gallons of oil spilled to navigable waters by facilities subject to the Facility Response Plan (FRP) regulations.	FY 2005
Leaking Underground Storage Tank Cleanup Program	Increase the number of cleanups that meet state risk-based standards for human exposure and groundwater migration on Indian County.	FY 2008
Leaking Underground Storage Tank Cleanup Program	Increase the number of cleanups that meet state risk-based standards for human exposure and groundwater migration.	FY 2008
Resource Conservation and Recovery Act Corrective Action	Percent of RCRA construction completions using 2005 baseline.	FY 2006

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Resource Conservation and Recovery Act Corrective Action	Percent of final remedies (cleanup targets) selected at RCRA sites using 2005 baseline.	FY 2006
Resource Conservation and Recovery Act Corrective Action	Percent of site assessments at RCRA facilities using 2005 baseline.	FY 2006
EPA's Recycling, Waste Minimization, and Waste Management Program	Reduce hazardous waste combustion facility emissions of dioxins and furan.	UD
Superfund Remedial Action	Superfund sites with contaminated groundwater migration under control.	FY 2005
Superfund Remedial Action	Superfund sites with human health protection achieved (exposure pathways are eliminated or potential exposures are under health-based levels for current use of land or water resources).	FY 2005
Superfund Removal	Total Superfund-lead removal actions completed.	FY 2005
Superfund Removal	Total voluntary removal actions, overseen by EPA, completed.	FY 2005
	Efficiency Performance Measure	
Leaking Underground Storage Tank Cleanup Program	Cleanups complete (3-year rolling average) per total cleanup dollars.	FY 2008

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
EPA's Recycling, Waste Minimization, and Waste Management Program	Facilities under control (permitted) per total permitting costs.	UD
EPA Oil Spill Control	Gallons of oil spilled to navigable waters per million program dollar spent annually on prevention and preparedness at Facility Response Plan (FRP) facilities.	FY 2005
Resource Conservation and Recovery Act Corrective Action	Number of final remedy components constructed at RCRA corrective action facilities per federal, state, and private sector dollars.	FY 2007
Goal 4:	**Healthy Communities and Ecosystems**	
	Long-Term Performance Measure	
Human Health Research	Percentage of peer-reviewed EPA risk assessments in which ORD methods, models or data for assessing risk to susceptible subpops is cited as supporting a decision to move away from or apply default risk assessment assumptions	None
Human Health Research	Percentage of peer-reviewed EPA risk assessments in which ORD's characterization of aggregate/cumulative risk is cited as supporting a decision to move away from or to apply default risk assessment assumptions	None
Brownfields Revitalization	Acres of brownfields made ready for reuse.	UD
Brownfields Revitalization	Assessed or cleaned Brownfields properties redeveloped.	UD
Endocrine Disruptors	Determination of the extent of the impact of endocrine disruptors on humans, wildlife, and the environment to better inform the federal and scientific communities.	UD
Human Health Research	Percentage of human health program publications rated as highly cited papers.	None

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Human Health Research	Percentage of peer-reviewed EPA risk assessments in which ORD's mechanistic information is cited as supporting a decision to move away from or to apply default risk assessment assumptions.	None
Endocrine Disruptors	Reduction in uncertainty regarding the effects, exposure, assessment, and management of endocrine disruptors so that EPA has a sound scientific foundation for environmental decision-making	UD
Human Health Research	Risk assessors and risk managers use ORD's methods and models to evaluate the effectiveness of public health outcomes (as evaluated by external expert review)	UD
Human Health Research	Risk assessors and risk managers use ORD's methods, models and data to characterize aggregate and cumulative risk in order to manage risk of humans exposed to multiple environmental stresors	UD
Human Health Research	Risk assessors and risk managers use ORD's methods, models and data to characterize and provide adequate protection of susceptible subpopulations (as evaluated by external expert review)	UD
Human Health Research	Risk assessors and risk managers use ORD's methods, models and data to use mechanistic (mode of action) information to reduce uncertainty in risk assessment (as evaluated by external expert review)	UD
Ecological Research	States use a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of programs and policies.	None
Ecological Research	States, tribes and EPA offices improved their ability to determine causes of eco degradation through the application of recently developed (within 5 years) ORD causal diagnostic tools and methods	UD
Ecological Research	States, tribes and EPA offices improved their ability to forecast eco impacts of actions through the application of recently developed (within 5 years) ORD environmental forecasting tools and methods	UD

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Ecological Research	States, tribes and EPA offices improved their ability to protect/restore eco condition and services through the application of recently dev. (within 5 years) ORD environ. restoration tools and methods	UD
Existing Chemicals Program	Percent cumulative reduction of chronic human health risk from environmental releases of industrial chemicals in commerce since 2001.	2008
Existing Chemicals Program	Percentage of high-priority chemicals for which EPA has developed short-term exposure limits.	2008
New Chemicals Program	Risks avoided to workers and the general population from prevention of the entry of new chemicals into commerce (under development).	UD
Pesticide Registration	Percent reduction in terrestrial and aquatic wildlife mortality incidents involving pesticides	2008
Pesticide Reregistration	Cumulative reduction in the number of systemic poisoning incidents associated with exposure from organophosphate pesticides as reported to Poison Control Centers.	2008
Pesticide Reregistration	Percent reduction in terrestrial and aquatic wildlife incidents and mortalities caused by certain high-risk pesticides.	UD
U.S.-Mexico Border Water Infrastructure	Percentage of water quality standards met in shared and transboundary surface waters.	2012
Pesticide Field Programs	Cumulative reduction in the number of occupational poisoning incidents associated with exposure from pesticides.	UD
Lead-Based Paint Risk Reduction Program	Number of cases of children (aged 1-5 years) with elevated blood lead levels (>10ug/dl)	2010
Lead-Based Paint Risk Reduction Program	Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old.	2008

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
Ocean, Coastal, and Estuary Protection	Acres protected or restored in NEP study areas	2008
	Annual Performance Measure	
Existing Chemicals Program	Reduction in the current year production-adjusted hazard-based score of releases and transfers of toxic chemicals.	UD
New Chemicals Program	Number of TSCA 8(e) notices received for PMN-reviewed chemicals.	UD
Human Health Research	Average score of customer satisfaction survey for use of Human Health Program methods, models and data.	UD
U.S.-Mexico Border Water Infrastructure	Increase in the number of homes connected to potable water supply and wastewater collection and treatment systems (under development)	FY 2006
Pesticide Field Programs	Reduction in number of occupational poisoning incidents associated with pesticide exposure (cum)	UD
	Efficiency Performance Measure	
New Chemicals Program	Review costs per chemical (for EPA and indusry) (under development).	UD
Pesticide Registration	Percent reduction in review time for registration of conventional pesticides.	UD
Pesticide Reregistration	Reduction in cost per Reregistration Eligibility Decision.	2008
Endocrine Disruptors	Cost per labor hour of contracted validation studies.	UD
Goal 5:	**Compliance and Environmental Stewardship**	
	Long-Term Performance Measure	

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
EPA's Recycling, Waste Minimization, and Waste Management Program	By 2008, reduce priority list chemicals in hazardous waste streams reported by businesses to the Toxic Release Inventory by 10% (8.4 million tons) from a 2001 baseline.	FY 2008
EPA Enforcement of Environmental Laws (Criminal)	Change in behavior to use Improved management practices. (criminal enf)	FY 2007
EPA Environmental Education	Number of states adopting or aligning Guidelines for Learning curricula and standards to state academic standards or number of states developing new env edu standards based on Guidelines for Learning.	FY 2008
EPA Environmental Education	Percent of all students and teachers targeted demonstrate increased environmental knowledge, as measured by Guidelines for Learning K-12, developed by North American Assoc for Environmental Education.	FY 2008
EPA Enforcement of Environmental Laws (Civil)	Pounds of pollution reduced, treated, or eliminated. (civil enf) characterized as to risk	FY 2007
EPA Enforcement of Environmental Laws (Criminal)	Pounds of pollution reduced, treated, or eliminated. (criminal enf) characterized as to risk	FY 2007
EPA Enforcement of Environmental Laws (Criminal)	Reduction in recidivism. (criminal enf)	FY 2007
EPA Tribal General Assistance Program	Percent decrease in the number of homes in Indian Country with inadequate wastewater sanitation systems	FY 2007
EPA Tribal General Assistance Program	Percent decrease in the number of homes on tribal lands lacking access to safe drinking water.	FY 2007

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
EPA Tribal General Assistance Program	Show at least a 10 percent improvement for each of four parameters -- total nitrogen, total phosphorus, dissolved oxygen, and fecal coliforms – at not fewer than 90 monitoring stations in tribal waters for which baseline data are available.	FY 2007
	Annual Performance Measure	
EPA Environmental Education	Number of NNEMS fellows who pursue environmental careers.	FY 2007
EPA Enforcement of Environmental Laws (Criminal)	Change in behavior to use Improved Management practices. (criminal enf)	FY 2007
EPA Pesticide Enforcement Grant Program	Percent of compliance actions taken as a result of inspection/enforcement. (pest. enf)	FY 2007
EPA Pesticide Enforcement Grant Program	Percent of violators committing subsequent violations. (pest. enf)	FY 2007
EPA Enforcement of Environmental Laws (Criminal)	Pollutant impact.	FY2008
EPA Enforcement of Environmental Laws (Criminal)	Pounds of pollution reduced, treated or eliminated. (criminal enf) characterized as to risk	FY 2007
EPA Enforcement of Environmental Laws (Criminal)	Reduction in recidivism (criminal enf).	FY 2007
	Efficiency Performance Measure	
EPA Pesticide Enforcement Grant Program	Number of enforcement actions taken (Federal + State) per million dollars of cost (Federal + State). (pest enf)	FY 2007

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Supplemental PART Information

This table includes program performance measures that do not report results annually (long-term performance measures) or have targets under development (UD).

PART Program	PART Measures	Year Data Available
EPA Enforcement of Environmental Laws (Criminal)	Pounds of pollutant reduction per FTE. (criminal enf) Pollution characterized as to risk	FY 2007
EPA Enforcement of Environmental Laws (Civil)	Pounds of pollutants reduced, treated, or eliminated per FTE. (civil enf) Pollution characterized as to risk	FY 2007
EPA's Recycling, Waste Minimization, & Waste Management Program	Pounds of priority chemicals reduced in waste streams per federal and private sector costs.	FY 2007
EPA Environmental Education	Ratio of number of students/teachers that have improved environmental knowledge per total dollars expended.	FY 2008

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

GOAL: CLEAN AIR AND GLOBAL CLIMATE CHANGE

Protect and improve the air so it is healthy to breathe and risks to human health and the environment are reduced. Reduce greenhouse gas intensity by enhancing partnerships with businesses and other sectors.

OBJECTIVE: HEALTHIER OUTDOOR AIR

Through 2010, working with partners, protect human health and the environment by attaining and maintaining health-based air-quality standards and reducing the risk from toxic air pollutants.

Reduce Exposure to Unhealthy PM Levels - PM-10[1]

In 2007	The number of people living in areas with monitored ambient PM concentrations below the NAAQS for the PM-10 standard.[2]
In 2006	The number of people living in areas with monitored ambient PM concentrations below the NAAQS for the PM-10 standard will increase by 4% (relative to 2005) for a cumulative total of 11% (relative to 1992).
In 2005	Most of the data will be available in 2006.
In 2004	Maintained healthy air quality for 120 million people who lived in areas designated in attainment of the clean air standards for PM-10.
In 2003	Maintained healthy air quality for 6.1 million people living in monitored areas attaining the PM standards; increased by 228 thousand the number of people living in areas with healthy air quality that have newly attained the standard.
In 2002	Maintained healthy air quality for 3.4 million people living in monitored areas attaining the PM standards; and increased by 2.7 million the number of people living in areas with healthy air quality that have newly attained the standard.

[1] Measures developed for the 2005 NAAQS Grants and Permitting PART Assessment that support this APG are included under "Reduce Exposure to Unhealthy Ozone Levels - 8 Hour." EPA will reevaluate presentation of these measures in future budget documents. EPA will reevaluate presentation of these measures in future planning and budget documents

[2] This metric is no longer used and will be revised for the FY 2007 Performance and Accountability Report and the FY 2008 planning and budget documents.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Tons of PM-10 Reduced since 2000 from Mobile Sources	*23,000*	*37,297*	*49,729*	*62,161*	*74,594*	*87,026*	*Tons*
Tons of PM-2.5 Reduced since 2000 from Mobile Sources	*17,250*						*Tons*

Baseline: The 1992 baseline for population is the population in areas not classified or designated as attainment for the clean air national ambient air quality standards. The 1992 baseline for areas is those areas that are designated as non-attainment of the NAAQs but not meeting the standard (50 areas).. Through FY 2003, 120,279,036 are living in areas designated to attainment; 5 areas are designated to attainment for this/these pollutants. The 1995 baseline for PM-10 reduced from mobile sources is 880,000 tons. Beginning in FY 2005, the 2000 MOBILE6 inventory is used as the baseline for mobile source emissions. The 2000 baseline for PM-10 from mobile source is 613,000 tons.

Reduce Exposure to Unhealthy Ozone Levels - 8 Hour

In 2007 The number of people living in areas with monitored ambient ozone concentrations below the NAAQS for the 8-hour ozone standard.[3]

In 2006 The number of people living in areas with monitored ambient ozone concentrations below the NAAQS for the 8-hour ozone standard will increase by 1% (relative to 2004) for a cumulative total of 7% (relative to 2001).

In 2005 Data will be available in 2006.

In 2004 EPA designated the attainment status for all areas in April 2004. Based upon these designations, 126 areas of the United States encompassing 159.3 million people were determined to be nonattainment.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Cumulative percent reduction in population-weighted ambient concentration of ozone in monitored counties from 2003 baseline.			3	3	*5*	*6*	*Percentage*
Cumulative percent reduction in the number of days with Air Quality Index (AQI) values over 100 since 2003,			*15.5*	*13*	*17*	*21*	*Percentage*

[3] This metric is no longer used and will be revised for the FY 2007 Performance and Accountability Report and the FY 2008 budget.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
weighted by population and AQI value. 15.5							
Percent of major NSR permits issued within one year of receiving a complete permit application.			*61*	*65*	*70*	*75*	*Percentage*
Percent of significant Title V operating permit revisions issued within 18 months of receiving a complete permit application.			*85*	*88*	*91*	*94*	*Percentage*
Percent of new Title V operating permits issued within 18 months of receiving a complete permit application.			*75*	*79*	*83*	*87*	*Percentage*
Limit the increase of CO emissions (in tons) from mobile sources compared to a 2000 baseline.		*0.51M*	*0.67M*	*Data Avail. 06*	*1.01 M*	*1.18M*	*Tons*
Millions of Tons of Volcanic Organic Compounds (VOCs) Reduced since 2000 from Mobile Sources		*0.51M*	*0.68M*	*Data Avail. 06*	*1.03 M*	*1.20M*	*Tons*
Millions of Tons of Nitrogen Oxides (NOx) Reduced since 2000 Reduced from Mobile Sources		*1.02M*	*1.35M*	*Data Avail. 06*	*2.03 M*	*2.37M*	*Tons*

Baseline: The ozone concentration measure reflects improvements (reductions) in ambient ozone concentrations across all monitored counties, weighted by the populations in those areas. To calculate this weighting, pollutant concentrations in monitored counties are multiplied by the associated county populations. The units for this measure are therefore "million people-parts per billion" (million people-ppb). The 2003 baseline is 15,972 million people-ppb. AQI data is gathered from monitors using EPA-approved federal reference and/or equivalent methods. EPA assumes the collecting agency has properly maintained each monitor and that the data sent to EPA have passed at least an automated QA/QC check. The monitoring networks that provide the data have been doing so for decades. The baseline for the AQI was targeted at 8 percent but 15.5 percent was achieved. The 1995 baseline was 8.1M tons for mobile source VOC emissions, and 12.0M tons for mobile source NOx emissions. Beginning in FY 2005, the MOBILE6 inventory is used as the baseline year for mobile source emissions. The 2000 baseline was 7.7M tons for mobile source VOC emissions, and 11.8M tons for mobile source NOx emissions.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Reduce Exposure to Unhealthy PM Levels - PM- 2.5[4]

In 2007 The number of people living in areas with monitored ambient PM concentrations below the NAAQS for the PM-2.5 standard.[5]

In 2006 The number of people living in areas with monitored ambient PM concentrations below the NAAQS for the PM-2.5 standard will increase by 1% (relative to 2005) for a cumulative total of less than 1% (relative to 2001).

In 2005 Data will available in 2006.

In 2004 Areas were designated for PM 2.5 and 20% increase in the number of people who live areas with ambient PM2.5 concentrations below the level of the NAAQS.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Cumulative percent reduction in population-weighted ambient concentration of fine particulate matter (PM 2.5) in all monitored counties.					*9*	*11*	*Percentage*
Tons of PM-2.5 Reduced since 2000 from Mobile Sources		*36,370*	*48,974*	*61,217*	*73,460*	*85,704*	*Tons*

Baseline: The PM2.5 concentration reduction annual measure reflects improvements (reductions) in the ambient concentration of fine particulate matter (PM2.5) pollution across all monitored counties, weighted by the populations in those areas. To calculate this weighting, pollutant concentrations in monitored counties are multiplied by the associated county populations. Therefore the units for this measure are "million people-micrograms per meter cubed" (million people-ug/m3). The 2003 baseline is 2,581 million people-ug/m3. Beginning in FY 2005, the 2000 MOBILE6 inventory is used as the baseline for mobile source emissions. The 2000 baseline for PM 2.5 from mobile sources is 510,000 tons.

[4] Measures developed for the 2005 NAAQS Grants and Permitting PART Assessment that support this APG are included under "Reduce Exposure to Unhealthy Ozone Levels - 8 Hour." EPA will reevaluate presentation of these measures in future budget documents.
[5] This metric is no longer used and will be revised for the FY 2007 Performance and Accountability Report and the FY 2008 budget.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Acid Rain

In 2007 Reduce total annual average nitrogen deposition and total ambient nitrate concentrations 10% from baseline. Baseline for annual targets up through 2010 is 1990 monitored levels.

In 2007 Reduce total annual average sulfur deposition and ambient sulfate concentrations 29% from baseline.

In 2006 Reduce total annual average nitrogen deposition and total ambient nitrate concentrations 5% from baseline. Baseline for annual targets up through 2010 is 1990 monitored levels.

In 2006 Reduce total annual average sulfur deposition and ambient sulfate concentrations 27% from baseline. Baseline for annual targets up through 2010 is 1990 monitored levels.

In 2005 Data will be available in late 2006

In 2005 Data will be available in late 2006.

In 2004 Reduced total annual average nitrogen deposition and ambient nitrate concentrations by 7% from baseline.

In 2004 Reduced total annual average sulfur deposition and ambient sulfate concentrations by 31% from baseline.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percent change in average nitrogen deposition and mean total ambient nitrate concentrations reduced.			*7*	*No Targets Established*	*No Targets Established*	*10*	*Percentage*
Percent change in average sulfur deposition and mean ambient sulfate concentrations reduced.			*31*	*No Targets Established*	*No Targets Established*	*29*	*Percentage*
Tons of sulfur dioxide emissions from electric power generation sources	*7 million*	*6,800,000*	*7,100,000*	*Data Lag*	*7,000,000*	*7,500,000*	*Tons Reduced*

Baseline: The base of comparison for assessing progress on the annual performance goal is the 1980 emissions baseline. The 1980 SO2 emissions inventory totals 17.4 million tons for electric utility sources. This inventory was developed by National Acid Precipitation Assessment Program (NAPAP) and used as

the basis for reductions in Title IV of the Clean Air Act Amendments. This data is also contained in EPA's National Air Pollutant Emissions Trends Report. Statutory SO2 emissions cap for year 2010 and later is at 8.95 million tons which is approximately 8.5 million tons below 1980 emissions level. "Allowable SO2 emission level" consists of allowance allocations granted to sources each year under several provisions of the Act and additional allowances carried over, or banked, from previous years.

Sulfur and nitrogen deposition contribute to acidification of lakes and streams, making them unable to support fish and other aquatic life. Reductions in both total sulfur and nitrogen deposition is critical to reducing the number of chronically acidic water bodies. Ambient sulfate and ambient nitrate ("acid rain" particulate") contributes to unhealthy air and respiratory problems in humans, especially children and other sensitive populations. The baseline is established from monitored site levels based on consolidated map of 1989-1991 showing a three year of deposition levels produced from the CASTNET sites (http://www.epa.gov/castnet/sites.html).

The base of comparison for assessing progress on the annual performance goal is the 1980 emissions baseline. The 1980 SO2 emissions inventory totals 17.4 million tons for electric utility sources. This inventory was developed by National Acid Precipitation Assessment Program (NAPAP) and used as the basis for reductions in Title IV of the Clean Air Act Amendments. This data is also contained in EPA's National Air Pollutant Emissions Trends Report. Statutory SO2 emissions cap for year 2010 and later is at 8.95 million tons which is approximately 8.5 million tons below 1980 emissions level. "Allowable SO2 emission level" consists of allowance allocations granted to sources each year under several provisions of the Act and additional allowances carried over, or banked, from previous years.

Air Toxicity-Weighted

In 2007 Reduction in tons of toxicity-weighted for cancer and non-cancer emissions of air toxics from 1993 baseline.

In 2006 Reduction in tons of toxicity-weighted for cancer and non-cancer emissions of air toxics from 1993 baseline.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics from 1993 baseline.					*22*	*22*	*Percentage*
Cumulative percentage reduction in tons of toxicity-weighted (for noncancer risk) emissions of air toxics from 1993 baseline.					*55*	*56*	*Percentage*

Baseline: The baseline begins in 1993. Air Toxics emissions data are revised every three years to generate inventories for the National Emissions Inventory (NEI), which replaced the National Toxics Inventory (NTI). In intervening years between updates of the NEI, the model EMS-HAP (Emissions

Modeling System for Hazardous Air Pollutants) is used to estimate and project annual emissions of air toxics. As new inventories are completed and improved inventory data is added, the baseline (or total tons of air toxics) is adjusted. The toxicity-weighted emission inventory will also utilize the NEI for air toxics along with the Agency's compendium of cancer and noncancer health risk criteria to develop a risk metric that can be tabulated and tracked on an annual basis. The baseline is based on emission inventory data from 1990-1993.

OBJECTIVE: HEALTHIER INDOOR AIR

By 2008, 22.6 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings.

Healthier Residential Indoor Air

In 2007 Additional people will be living in homes with radon reducing features.

In 2006 Additional people will be living in homes with healthier indoor air.

In 2005 Data will be available in late 2006.

In 2004 For FY 2004, EPA estimates that it met its goal of approximately 834,400 additional people living in healthier residential indoor environments. This result is based upon information gathered from the Indoor Environment Partner Network which includes traditional partners and grantees, as well as analysis of various results data efforts including public service announcements and outreach, as well as information from the National Association of Home Builders and radon mitigation fan sales. This is a compound measure which includes results from the secondhand smoke, Asthma, and Radon Programs.

In 2003 EPA estimates that it met its goal of approximately 834,400 additional people living in healthier residential indoor environments.

In 2002 An additional 834,400 are living in healthier residential indoor environments.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of additional homes (new and existing) with radon reducing features		*149,000*	*Data Avail. 06*	*Data Avail. 06*	*180,000*	*190,000*	*Homes*
Percent of public that is aware of the asthma program's media campaign.		*27*	*27*	*31*	*>20*	*>20*	*Percentage*

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Additional health care professionals trained annually by EPA and its partner on the environmental management of asthma triggers.		*2,360*	*3,080*	*3,380*	*2000*	*2000*	*Number*

Baseline: The baseline for the performance measure was 1996 (107,000 homes). Annual Surveys are conducted by our partners to gather information such as types of houses built, lot sizes, foundation designs, types of lumber used, types of doors and windows used, etc. Also, the surveys gather information on the use of radon-resistant design features in new houses. Each year, the survey of building practices is typically mailed out to home builders. The survey responses are analyzed, with respect to State market areas and Census Divisions in the United States, to assess the percentage and number of homes built each year that incorporate radon-reducing features. The data are also used to assess the percentage and number of homes built with radon-reducing features in high radon potential areas in the United States (high risk areas). Other analyses include radon-reducing features as a function of housing type, foundation type, and different techniques for radon-resistant new home construction.

Healthier Indoor Air in Schools

In 2007 Students, faculty and staff will experience improved indoor air quality in their schools.

In 2006 Students, faculty and staff will experience improved indoor air quality in their schools.

In 2005 Data will be available in late 2006.

In 2004 For FY 2004, EPA estimates that it met its goal of approximately 1.63M students, faculty, and staff will experience improved indoor air quality in their schools.

In 2003 Based on EPA reviews and analyses of partner/grantees' reports and consulting with partners of EPA's indoor environment network, EPA is confident that more than 1 million students and staff are experiencing improved IAQ in schools. In particular, EPA has seen an increase in IAQ planning progress and/or IAQ TfS implementation in 12 of the 15 largest US school district representing more than 4700 schools. This includes the school districts of Los Angles, Miami, and Dallas.

In 2002 EPA is confident that 1.2 million students, faculty and staff experienced improve indoor air quality in their schools.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Estimated annual number of schools establishing indoor air quality programs based on EPA's Tools for Schools guidance.		3200	3100	*3000*	*1200*	*1100*	*Number*

Baseline: The nation has approximately 118,000 (updated to include new construction)* schools. Each school has an average of 525 students, faculty, and staff for a total estimated population of 62,000,000. The IAQ "Tools for Schools" Guidance implementation began in 1997. Results from a 2002 IAQ practices in schools survey suggest that approximately 20-22% of U.S. schools report an adequate effective IAQ management plan that is in accordance with EPA guidelines.

OBJECTIVE: PROTECT THE OZONE LAYER

By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet (UV) radiation, particularly among susceptible subpopulations, such as children, will be reduced.

Restrict Domestic Consumption of Class II HCFCs

In 2007 Remaining US consumption of class II HCFCs below 9,900 ODP-weighted metric tonnes (ODP MTs) and restrict domestic exempted production and import of newly produced class I CFCs and halons below 10,000 ODP MTs.

In 2006 Restrict domestic annual consumption of class II HCFCs below 9,900 ODP-weighted metric tonnes (ODP MTs) and restrict domestic exempted production and import of newly produced class I CFCs and halons below 10,000 ODP MTs.

In 2005 Data for this annual performance goal are reported at the end of the calender year. Then, EPA conducts reviews and quality control checks before final numbers are reported. We expect data will be available in late 2006.

In 2004 EPA met its FY 2004 goal, verifying that domestic consumption of Class II HCFCs was 5,500 metric tons and newly produced domestic exempted production and import of class I CFCs and halons was 1,225 metric tons.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2003 EPA met its FY 2003 goal, verifying that domestic consumption of Class II HCFCs was 7,110 metric tons and newly produced domestic exempted production and import of class I CFCs and halons was 2,049 metric tons in compliance with EPA's phaseout regulations.

In 2002 EPA met its FY 2002 goal, verifying that domestic consumption of Class II HCFCs was 13,950 metric tons and newly produced domestic exempted production and import of class I CFCs and halons were 2,347 metric tons in compliance with EPA's phaseout regulations.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Remaining US Consumption of HCFCs in tons of Ozone Depleting Potential (ODP).	*13,950*	*7,110*	*5,500*	*Data lag*	*<9,900*	*<9,900*	*ODP MTs*
Cumulative federal dollars spent per school joining the SunWise program.					*560*	*525*	*Dollars*

Baseline: The base of comparison for assessing progress on the 2005 annual performance goal is the domestic consumption cap of class II HCFCs as set by the Parties to the Montreal Protocol. Each Ozone Depleting Substance (ODS) is weighted based on the damage it does to the stratospheric ozone - this is its ozone-depletion potential (ODP). Beginning on January 1, 1996, the cap was set at the sum of 2.8 percent of the domestic ODP-weighted consumption of CFCs in 1989 plus the ODP-weighted level of HCFCs in 1989. Consumption equals production plus import minus export.

OBJECTIVE: RADIATION

Through 2008, working with partners, minimize unnecessary releases of radiation and be prepared to minimize impacts to human health and the environment should unwanted releases occur.

EPA is developing new outcome-oriented performance measures for this program in preparation for a 2006 PART assessment. The program will have new performance information to report in FY 2008. EPA will continue to track progress on routine program indicators such as preparedness and response capability for radiological incidents.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

OBJECTIVE: REDUCE GREENHOUSE GAS INTENSITY

Through EPA's voluntary climate protection programs, contribute 45 million metric tons of carbon equivalent (MMTCE) annually to the President's 18 percent greenhouse gas intensity improvement goal by 2012. (An additional 75 MMTCE to result from the sustained growth in the climate programs are reflected in the Administration's business-as-usual projection for greenhouse gas intensity improvement.)

Reduce Greenhouse Gas Emissions

In 2007 Greenhouse gas emissions will be reduced from projected levels by approximately 98.0 MMTCE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.

In 2006 Greenhouse gas emissions will be reduced from projected levels by approximately 89.3 MMTCE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.

In 2005 Data for this measure will be available in October 2006.

In 2004 Greenhouse gas emissions were reduced from projected levels by approximately 87.9 MMCTE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.

In 2003 EPA's Climate Protection Programs reduced greenhouse gas emissions by 82.4 million metric tons of carbon equivalent in 2003.

In 2002 EPA's Climate Protection Programs reduced greenhouse gas emissions by 71 million metric tons of carbon equivalent in 2002

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the buildings sector.	*19.6*	*23*	*26.2*	*Data Avail. 06*	*26.5*	*29.4*	*MMTCE*
Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the transportation sector.	*2.1*	*2.3*	*2.6*	*Data Avail. 06*	*3.3*	*4.2*	*MMTCE*
Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the industry sector.			*53.2*	*Data Avail. 06*	*59.5*	*64.5*	*MMCTE*

Baseline: The baseline for evaluating program performance is a projection of U.S. greenhouse gas emissions in the absence of the U.S. climate change programs. The baseline was developed as part of an interagency evaluation of the U.S. climate change programs in 2002, which built on similar baseline forecasts developed in 1997 and 1993. Baseline data for carbon emissions related to energy use is based on data from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model of the U.S. electric power sector. Baseline data for non-carbon dioxide (CO2) emissions, including nitrous oxide and other high global warming potential gases are maintained by EPA. Baseline information is discussed at length in the U.S. Climate Action Report 2002 (www.epa.gov/globalwarming/publications/car/index.html), which provides a discussion of differences in assumptions between the 1997 baseline and the 2002 update, including which portion of energy efficiency programs are included in the estimates. EPA develops the non-CO2 emissions baselines and projections using information from partners and other sources. EPA continues to develop annual inventories as well as update methodologies as new information becomes available.

OBJECTIVE: ENHANCE SCIENCE AND RESEARCH

Through 2010, provide and apply sound science to support EPA's goal of clean air by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 1.

Research

PM Effects Research

In 2007 Increased use of particulate matter research program products

In 2006 BY 2006, develop and report on new data on the effects of different PM sizes or components to improve understanding of the health risks associated with short-term exposure to PM in healthy and select susceptible populations so that, by 2010, OAR has improved assessments of health risks to develop PM standards that maximize protection of human health, as determined by independent expert review.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Integrated report on the health effects of different particle sizes or particle components in healthy and select susceptible subgroups.					1		Report

Percentage of NAAQS program publications rated as highly cited papers	*35.7*	*Percent*
Percent progress toward completion of a hierarchy of air pollutant sources based on the risk they pose to human health.	*30*	*Percent*
Percent planned actions accomplished toward the long-term goal of reducing uncertainty in the science that support standard setting and air quality management decisions.	*100*	*Percent*

Baseline: To assess progress towards its goal of increased use of particulate matter research program products, ORD is measuring the percentage of program publications rated as highly cited papers, the percent progress toward completion of a hierarchy of air pollutant sources based on the risk they pose to human health, and the percent of planned actions ORD has accomplished toward reducing uncertainty in the science that supports standard setting and air quality management decisions.

In 2003, ORD obtained baseline data for the percentage of program publications rated as highly cited papers, finding that 29.4% of papers fit this criteria. In 2004, 27.6% of program publications were rated as highly cited papers.

In 2005, ORD obtained baseline data for the progress toward completion of a hierarchy of pollutant sources. The hierarchy was 5% complete. ORD is targeting to have 10% of the hierarchy completed by 2006, and 30% by 2007.

ORD has collected baseline data on the percent of planned actions accomplished toward reducing uncertainty in the science that supports standard setting and air quality management decisions, with 71% in 2003, 84% in 2004, and 94% in 2005 of the actions planned met each year.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

GOAL: CLEAN AND SAFE WATER

Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

OBJECTIVE: PROTECT HUMAN HEALTH

Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.

Safe Drinking Water

In 2007	93% of the population served by community water systems in Indian country will receive drinking water that meets all applicable health-based drinking water standards.
In 2007	94% of the population will be served by community water systems in compliance with health-based drinking water standards.
In 2006	90% of the population served by community water systems in Indian country will receive drinking water that meets all applicable health-based drinking water standards.
In 2006	93% of the population will be served by community water systems in compliance with health-based drinking water standards.
In 2005	86.3% of the population served by community water systems in Indian country received drinking water that met all applicable health-based drinking water standards.
In 2005	88.5% of the population was served by community water systems in compliance with health-based drinking water standards.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percent of the population served by community water systems in Indian country that receive drinking water that meets all applicable health-based drinking water standards				86.3	90	93	% Population

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percent population served by community water systems in compliance with health based drinking water standards.				*88.5*	*93*	*94*	*% population*
Fund utilization rate for the DWSRF				*84.4*	*83.3*	*84*	*% Rate*
Number of additional projects initiating operations				*439*	*425*	*433*	*Projects*
Percent of states conducting sanitary surveys at community water systems once every three years				*94*	*98*	*98*	*% States*
Percent community water systems in compliance with drinking water standards.				*89.2*	*93.5*	*94*	*% Systems*

Baseline: In 1998, 85% of the population that was served by community water systems and 96% of the population served by non-community, non-transient drinking water systems received drinking water for which no violations of Federally enforceable health standards had occurred during the year. Year-to-year performance is expected to change as new standards take effect. Covered standards include: Stage 1 disinfection by-products/interim enhanced surface water treatment rule/long-term enhanced surface water treatment rule/arsenic.

Drinking Water Small Systems

In 2007 Reduce the number of households on Tribal lands lacking access to safe drinking water.

In 2006 Reduce the number of households on Tribal lands lacking access to safe drinking water.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of household on Tribal lands lacking access to safe drinking water.				35,400	30,800	30,500	Households

Baseline: 2003 Baseline: In 2003, Indian Health Service indicates that 39,000 homes lack access to safe drinking water (12% of tribal homes nationwide).

River/Lake Assessments for Fish Consumption

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2007	91% of the shellfish growing acres monitored by states are approved or conditionally approved for use.
In 2007	At least 2% of the water miles/acres identified by states or tribes as having a fish consumption advisory in 2002 will have improved water and sediment quality so that increased consumption of fish and shellfish is allowed.
In 2006	91% of the shellfish growing acres monitored by states are approved or conditionally approved for use.
In 2006	At least 1% of the water miles/acres identified by states or tribes as having a fish consumption advisory in 2002 will have improved water and sediment quality so that increased consumption of fish and shellfish is allowed.
In 2005	1% of the water miles/acres identified by states or tribes as having a fish consumption advisory in 2002 did not have improved water and sediment quality so that increased consumption of fish and shellfish is allowed.
In 2005	EPA and states are working to approve or conditional approve for use 80% of shellfish growing acres monitored by states.
In 2004	24% of the nation's river miles and 35% of nation's lake acres have been assessed to determine if they contain fish and shellfish that should not be eaten or should be eaten in only limited quantities.
In 2003	15% of the nation's river miles and 33% of nation's lake acres have been assessed to determine if they contain fish and shellfish that should not be eaten or should be eaten in only limited quantities.
In 2002	14% of the nation's river miles and 28% of nation's lake acres have been assessed to determine if they contain fish and shellfish that should not be eaten or should be eaten in only limited quantities.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percent of water miles/acres, identified by states or tribes as having fish consumption advisories in 2002, where increased consumption of fish is allowed.				0.00	1	2	% Miles/Acres
Percent of the shellfish growing acres monitored by states that are approved or conditionally approved for use				Data unavail	91	91	% Areas
Lake acres assessed for the need for fish advisories and compilation of state-issued fish consumption advisory	28	33.00	35%				% Lake acres

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
methodologies. (cumulative)							
River miles assessed for the need for fish consumption advisories & compilation of state-issued fish consumption advisory methodologies. (cumulative)	14 %	15.00	24%				% River miles

Baseline: In 2002, fish consumption advisories were 13.4 million (32.9%) lake acres and 544,000 (15.3%) river miles. In 1995, 77% of assessed estuary square miles met the designated use for shell fish consumption.

Increase Information on Beaches

In 2007 Coastal and Great Lakes beaches monitored by State beach safety programs will be open and safe for swimming in over 95% of the days of the beach season.

In 2007 Restore water quality to allow swimming in not less than 4% of the stream miles and lake acres identified by states in 2000 as having water quality unsafe for swimming.

In 2006 Coastal and Great Lakes beaches monitored by State beach safety programs will be open and safe for swimming in over 94% of the days of the beach season.

In 2006 Restore water quality to allow swimming in not less than 3% of the stream miles and lake acres identified by states in 2000 as having water quality unsafe for swimming.

In 2005 Coastal and Great Lakes beaches monitored by State beach safety programs were open and safe for swimming in 96% of the days of the beach season.

In 2005 EPA is working to restore water quality to allow swimming in not less than 2% of the stream miles and lake acres identified by states in 2000 as having water quality unsafe for swimming.

In 2004 Reduced exposure to contaminated recreation waters by providing monitoring and closure data on 1,857 beaches to the public and decision-makers.

In 2003 Reduced exposure to contaminated recreation waters by providing monitoring and closure data on 2,823 beaches to the public and decision-makers..

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2002 Reduced exposure to contaminated recreation waters by providing monitoring and closure data on 2,445 beaches to the public and decision-makers.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Days (of beach season) that coastal and Great Lakes beaches monitored by State beach safety programs are open and safe for swimming.				96%	94	95	% Days/Season
Restore water quality to allow swimming in stream miles and lake acres identified by states				Available 2006	3	4	% Miles/Acres
Beaches for which monitoring and closure data is available to the public at http://www.epa.gov/waterscience/beaches/. (cumulative)	2,445	2,823	1,857.00				Beaches

Baseline: By the end of FY 1999, 33 states had responded to EPA's first annual survey on state and local beach monitoring and closure practices and EPA made available to the public via the internet. An average of 9 recreational contact waterborne disease outbreaks reported per year by the Centers for Disease Control for the years 1994-1998, based on data housed in EPA/ORD internal database. In 2002, monitored beaches were opened 94% of the days during the beach season.

Source Water Protection

In 2007 30% of source water areas for community water systems will achieve minimized risk to public health.

In 2006 20% of source water areas for community water systems will achieve minimized risk to public health.

In 2005 Data available in 2006.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percentage of source water areas (both surface and ground water) for community water systems will achieve minimized risk to public health.				*Available 2006*	*20*	*30*	*% Areas*

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Baseline: EPA defines "achieve minimized risk" as substantial implementation of source water protection actions, as determined by a State's source water protection strategy. Approximately 268 million people were estimated to be served by Community Water Systems (CWSs) in 2002. This equates to 5% of source water areas for community systems achieving minimized risk in 2002.

OBJECTIVE: PROTECT WATER QUALITY

Protect the quality of rivers, lakes, and streams on a watershed basis and protect coastal and ocean waters.

Watershed Protection

In 2007 Water quality standards are fully attained in over 25% of miles/acres of waters by 2012, with an interim milestone of restoring 8.0% of these waters - identified in 2000 as not attaining standards - by 2005.

In 2006 Water quality standards are fully attained in over 25% of miles/acres of waters by 2012, with an interim milestone of restoring 5% of these waters - identified in 2000 as not attaining standards - by 2005.

In 2005 Of the 21,632 water bodies in the U.S. identified by states in 2000 as impaired (i.e., not attaining state water quality standards), 8 percent were restored in FY 2005.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Annual percentage of waterbody segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained (cumulative).				*8.00*	*5*	*9.0*	*% Miles/Acres*
Fund utilization rate for the CWSRF						*93.4%*	*Rate*
Additional pounds (in millions) of reduction to total phosphorus loadings						*4.5*	*lbs in millions*
Additional pounds (in millions) of reduction to total nitrogen loadings						*8.5*	*lbs in millions*
Additional pounds of reduction to total sediment loadings						*700,000*	*lbs*

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of TMDL's that are established by States and approved by EPA on schedule consistent with national policy (cumulative)						*21,329*	*TMDLs*
Percentage of high priority state NPDES permits that are scheduled to be reissued.						*95*	*% permits*
Cost per water segment restored.						*1,058.8*	*water segment*
Percentage of majors in Significant Noncompliance (SNC) at any time during the fiscal year						*22.5*	*% majors*
% of S/Terr/authorized Tribes that, within the preceding 3-yr period, submitted new or rvsd WQ criteria acceptable to EPA that reflect new science info from EPA/or sources not considered in prev std						*67*	*% S/T/Terr*
Percentage of submissions of new or revised water quality standards from States, and Territories that are approved by EPA						*85*	*% submissions*
Loading (pounds) of pollutants removed per program dollar expended						*285.34*	*lbs*
Number of TMDL's required that are established or approved by EPA on a schedule consistent with national policy (cummulative)						*24,967*	*TMDLs*
Percentage of waters accessed using statistically valid surveys						*54*	*% waters*

Baseline: As of 2002 states report 453 watersheds had met the criteria that greater than 80% of assessed waters met all water quality standards. For a watershed to be counted toward this goal, at least 25% of the segments in the watershed must be assessed within the past 4 years consistent with assessment

guidelines developed pursuant to section 305(b) of the Clean Water Act. In 2002, 0% of the 255,408 miles/and 6,803,419 acres of waters identified on 1998/2000 lists of impaired waters developed by States and approved by EPA under section 303(d) of the Clean Water Act.

Dredged Material/Ocean Disposal

In 2007 Scores for overall aquatic system health of coastal waters nationally, and in each coastal region, is improved on the (good/fair/poor) scale of the National Coastal Condition Report by at least 0.1 point

In 2006 Scores for overall aquatic system health of coastal waters nationally, and in each coastal region, is improved on the (good/fair/poor) scale of the National Coastal Condition Report by at least 0.1 point

In 2005 Maintain water clarity and dissolved oxygen in coastal waters at the national levels reported in the 2002 National Coastal Condition Report.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
National Coastal Condition Report (NCCR) score for overall aquatic ecosystem health of coastal waters nationally (1-5 scale).				*2.7*	*2.7*	*2.8*	*Scale score*

Baseline: National rating of "fair/poor" or 2.4 where the rating is based on a 5-point system where 1 is poor and 5 is good and is expressed as an aerially weighted mean of regional scores using the 2002 National Coastal Condition Report indicators [i.e., water clarity, dissolved oxygen, coastal wetlands loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination]. The 2002 National Coastal Condition Report indicated 4.3 for water clarity and 4.5 for dissolved oxygen, 1.4 for coastal wetlands loss; 1.3 for contamination of sediments in coastal waters; 1.4 for benthic quality; & 1.7 for eutrophic condition.

State/Tribal Water Quality Standards

In 2007 In coordination with other federal partners reduce, by 23%, households on tribal lands lacking access to basic sanitation.

In 2006 In coordination with other federal partners reduce, by 17%, households on tribal lands lacking access to basic sanitation.

In 2005 In coordination with other federal partners households on tribal lands lacking access to basic sanitation was reduced by 34 percent.

Performance Measures	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

	Actuals	Actuals	Actuals	Actuals	Enacted	Pres Bud	
Number of households on tribal lands lacking access to basic sanitation.				34%	17	23	% Households

Baseline: The performance measure of state submissions (above) thus represents a "rolling annual total" of updated standards acted upon by EPA, and so are neither cumulative nor strictly incremental. EPA must review and approve or disapprove state revisions to water quality standards within 60-90 days after receiving the state's package. In 2002, there will be four key parameters available at 900 sampling stations in Indian country. In 2002, Indian Health Service indicated that 71,000 households on Tribal lands lack access to basic sanitation.

OBJECTIVE: ENHANCE SCIENCE AND RESEARCH

Provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 2.

Research

Scientific Rationale for Surface Water Criteria

In 2007 Provide the scientific foundation and information for the development of a water quality model of the Gulf of Mexico hypoxic zone

In 2006 By 2006, provide demonstrations of bioassessment methods for Mid-Western U.S. rivers, so that, by 2010, the Office of Water, states, and tribes have approaches and methods to develop and apply criteria for habitat alteration, nutrients, suspended and bedded sediments, pathogens, and toxic chemicals that will support designated uses for aquatic ecosystems, as determined by independent expert review.

In 2005 By 2005, provided methods for developing water quality criteria so that, by 2008, approaches and methods will be available to States and Tribes for their use in developing and applying criteria for habitat alteration, nutrients, suspended and bedded sediments, pathogens, and toxic chemicals that will support designated uses for aquatic ecosystems and increase the scientific basis for listing and delisting impaired water bodies under Section 303(d) of the Clean Water Act.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Methods for developing water quality criteria based on population-level risks of multiple stressors to aquatic life and aquatic-dependent wildlife.				methods			methods
Report on bioassessment methods for a range of designated uses in freshwater systems within Mid-Western U.S. rivers					1		Report
Report on the conditions and seasonal trends of water quality in the Gulf of Mexico hypoxic zone						1	report

Baseline: This research supports the Hypoxia Action Plan's goal of reducing nutrient loading from the Mississippi RIver Basin and ultimately reducing the size of the Hypoxic Zone in the Gulf of Mexico to less than 5,000 square kilometers by the year 2015 and EPA's Strategic Plan Goal 4 (Healthy Communities and Ecosystems), Objective 3 (Ecosystems), Subobjective 5 (Improve the Health of the Gulf of Mexico). Moreover, the activity supports the recommendations of the White House Council onn Environmental Quality and the Ocean Commission Report, which urged an integrated ecosystem approach to improve Gulf water quality and reduce nutrient loading and which led to the formation of the Gulf of Mexico Alliance, led by the governors of the five Gulf states.

Drinking Water Research

In 2007 Increased use of drinking water research products

In 2006 By 2006, provide results of full-scale treatment demonstration projects and evaluations of other approaches for managing arsenic in drinking water, so that by 2010, the Office of Water, states, local authorities and utilities have scientifically sound data and approaches to manage risks to human health posed by exposure to arsenic, as determined by independent expert review.[6]

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Final reports of full-scale demonstrations of arsenic					3		Reports

[6] This metric is no longer used and will be revised for the FY 2007 Performance and Accountability Report and the FY 2008 planning and budget documents.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
treatment technologies							
Percentage of planned outputs delivered in support of Six Year Review decisions.		*100*	*69*	*90*	*100*	*100*	*Percent*
Percentage of planned outputs delivered in support of Contaminate Candidate List Decisions.		*73*	*78*	*60*	*100*	*100*	*Percent*

Baseline: To assess progress toward its goal of increased used of drinking water research products, ORD is tracking the percentage of planned outputs delivered in support of Six Year Review decisions and the percentage of planned outputs delivered in support of Contaminant Candidate List decisions. The Drinking Water Research Program Multi-Year Plan, developed by ORD, Office of Water, and other key clients, identifies the critical outputs and their due dates. This plan is used as the baseline to track the percent of planned outputs delivered each year in support of these decisions.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

GOAL: LAND PRESERVATION AND RESTORATION

Preserve and restore the land by using innovative waste management practices and cleaning up contaminated properties to reduce risks posed by releases of harmful substances.

OBJECTIVE: PRESERVE LAND

By 2008, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper management of waste and petroleum products at facilities in ways that prevent releases.

Municipal Solid Waste Source Reduction

In 2007	Divert 34.2% (85.2 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.5 pounds per day.
In 2006	Divert 33.2% (83.1 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.5 pounds per day.
In 2005	End of year data for 2005 will be available in 2009 to verify diversion of 35% (80 million tons) of municipal solid waste from landfilling and combustion, and to determine whether the national average MSW generation rate is maintained at no more than 4.5 pounds per person per day.
In 2004	End of year 2004 data will be available in 2006 to verify diversion of 33.4% (80 million tons) of municipal solid waste from land filling and combustion, and maintain the national average municipal solid waste generation rate at no more than 4.5 pounds per person per day.
In 2003	The per capita waste generation rate was maintained at less than 4.5 lbs but 30.6% of MSW was diverted from land filling and combustion (which does not meet the target of 32%).
In 2002	The per capita waste generation rate was maintained at less than 4.5 lbs and 29.6% of MSW was diverted from land filling and combustion.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Millions of tons of municipal solid waste diverted.	*70.50*	*72.30*	*data lag*	*data lag*	*83.1*	*85.2*	*million tons*

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Daily per capita generation of municipal solid waste.	*4.50*	*4.40*	*data lag*	*data lag*	*4.5*	*4.5*	*lbs. MSW*

Baseline: An analysis conducted in FY 2001 shows approximately 68 million tons (29.2%) of municipal solid waste diverted and 4.4 lbs of MSW per person daily generation. While data indicates that the growth in recycling rates has slowed, EPA has maintained the goal of a 35% recycling rate as part of the FY 2003-2008 Strategic Plan.

Waste and Petroleum Management Controls

In 2007 Reduce releases to the environment by managing hazardous wastes and petroleum products properly.

In 2006 Reduce releases to the environment by managing hazardous wastes and petroleum products properly.

In 2005 In FY 2005, 66% of UST facilities achieved operational compliance with both release detection and release prevention requirements. Confirmed UST releases were less than 10,000 (or exactly 7,421). The RCRA program established permits or approved controls at 84 additional hazardous waste management facilities (or 3.1% of 2,751 regulated facilities).

In 2004 In FY 2004, 72% of UST facilities were in significant operational compliance with release detection requirements (a decrease of -4% from the target of 76%) and 77% of UST facilities were in significant operational compliance with release prevention requirements (a decrease of -6% from the target of 83%). Confirmed UST releases in FY2004 were less than 10,000 (or exactly 7,848). The RCRA program established permits or approved controls at 103 additional hazardous waste management facilities (or 3.7% of 2,752 regulated facilities).

In 2003 For UST facilities, 72% are in operational compliance with leak detection (a decrease of -8% from the target of 80%), and 79% are in operational compliance with spill prevention requirements (a decrease of -6% from the target of 85%). An additional 4.1% of the RCRA facilities have permits or approved controls, and 600 oil facilities are in compliance with spill requirements.

In 2002 1.8% of RCRA hazardous waste management facilities received permits or other approved controls, and 580 oil facilities were in compliance with spill prevention, control and countermeasure provisions of the oil pollution regulations.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Annual increase in the percentage of RCRA hazardous waste management facilities with permits or other	*1.8%*	*4.1%*	*3.7%*	*3.1%*	*2.5%*	*2.4%*	*percentage pts.*

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
approved controls.							
Number of confirmed UST releases nationally.			7,848.00	7,421.00	<10,000	<10,000	UST releases
Percent increase of UST facilities that are in significant operational compliance with both release detection and release prevention (spill, overfill, and corrosion protection requirements).				2.00	+1	+1	percent

Baseline: For 2005, 64% of the estimated universe of 246,650 facilities were in significant operational compliance with both release detection and release prevention (spill, overfill, and corrosion protection) requirements.

OBJECTIVE: RESTORE LAND

By 2008, control the risks to human health and the environment by mitigating the impact of accidental or intentional releases and by cleaning up and restoring contaminated sites or properties to appropriate levels.

Superfund Cost Recovery

In 2007 Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than $200,000.

In 2006 Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than $200,000.

In 2005 The goal was not met. Cost recovery was addressed at 195 NPL sites, of which 94 of the 95 cost recovery cases had outstanding unaddressed past costs greater than $200,000 and pending SOL concerns.

In 2004 EPA achieved its goal of addressing through enforcement, settlement or compromise/write-off all of the pending cost recovery cases with outstanding unaddressed past costs greater than $200,000 and pending SOL concerns.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2003 Ensured trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Addressed cost recovery at all NPL and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than $200,000.

In 2002 The goal was met. Cost recovery was addressed at 204 NPL and non-NPL sites of which 101 had total past costs greater than or equal to $200,000 and potential statute of limitations (SOL) concerns. EPA secured cleanup and cost recovery commitments from private parties in excess of $645 million.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Refer to DOJ, settle, or write off 100% of Statute of Limitations (SOLs) cases for SF sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered.	100	100	100%	99%	100	100	Percent

Baseline: In FY 98 the Agency will have addressed 100% of Cost Recovery at all NPL & non-NPL sites with total past costs equal or greater than $200,000.

Superfund Potentially Responsible Party Participat

In 2007 Reach a settlement or take an enforcement action by the time of the Remedial Action start at 95 percent of non-Federal Superfund sites that have viable, liable parties.

In 2006 Reach a settlement or take an enforcement action by the time of the Remedial Action start at 95 percent of non-Federal Superfund sites that have viable, liable parties.

In 2005 EPA reached a settlement or took an enforcement action by the start of remedial action at more than 90% of those Superfund sites having known non-Federal, viable, liable parties.

In 2004 EPA reached a settlement or took an enforcement action by the start of remedial action at more than 98% of those Superfund sites having known non-Federal, viable, liable parties.

In 2003 Maximized all aspects of PRP participation which included maintaining PRP work at 87% of the new remedial construction starts at non-Federal Facility Superfund, and emphasized fairness in the settlement process.

In 2002 In FY 2002 the percentage of remedial construction starts initiated by responsible parties exceeded the target by one percent.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
PRPs conduct 70% of the work at new construction starts	71	87					Percent
Percentage of Superfund sites at which settlement or enforcement action taken before the start of RA.			98%	100%	95	95	Percent

Baseline: In FY 98 approximately 70% of new remedial work at NPL sites (excluding Federal facilities) was initiated by private parties. In FY2003, a settlement was reached or an enforcement action was taken with non-Federal PRPs before the start of the remedial action at approximately 90 percent of Superfund sites.

Assess and Cleanup Contaminated Land

In 2007 Control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse.

In 2006 Control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse.

In 2005 Superfund made 551 final assessment decisions, completed remedy construction at 40 sites, and selected final remedies at 39 sites. The RCRA CA program controlled human exposure to toxins at 209 sites and toxic releases to ground water at 142 sites. State LUST programs completed 14,583 cleanups that exceeded state standards.

In 2004 Superfund made 548 final assessment decisions, completed remedy construction at 40 sites, and selected final remedies at 30 sites. The RCRA corrective action program controlled human exposures and groundwater migration at 195 and 150 high priority RCRA facilities, respectively, which reflects strong EPA/state partnership. State LUST programs completed 14,285 cleanups.

In 2003 917 final Superfund site assessment decisions were made.

In 2003 Superfund completed final site assessment decisions at 917 sites, completed remedy construction at 40 sites, and initiated 380 removal actions. The RCRA program controlled human exposures at 230 sites and groundwater migration at 175 sites. There were 18,518 LUST cleanups.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2002 Human exposures to toxins were controlled at 205 RCRA facilities and toxic releases to groundwater were controlled at 171 RCRA facilities. 15.769 leaking underground storage tank cleanups were completed, and 42 Superfund construction completions were achieved.

In 2002 Superfund completed final site assessment decisions at 587 sites and completed remedy construction at 42 sites. The LUST program completed 15, 769 cleanups and the RCRA program controlled human exposures to toxins at 205 sites and toxic releases to ground water at 171 sites.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of cleanups that meet state risk-based standards for human exposure and groundwater migration (tracked as the number LUST cleanups completed).	*15,769.00*	*18,518.00*	*14,285.00*	*14,583.00*	*18,300*	*13,000*	*cleanups*
Number of cleanups that meet risk-based standards for human exposure and groundwater migration on Indian Country.				*53.00*	*30*	*30*	*cleanups*
Superfund final site assessment decisions completed.	*587*	*917*	*548.00*	*551.00*	*419*	*350*	*assessments*
Annual number of Superfund sites with remedy construction completed.	*42*	*40.00*	*40.00*	*40.00*	*40*	*40*	*completions*
Number of final remedies (cleanup targets) selected at Superfund sites.			*30.00*	*39.00*	*20*	*20*	*remedies*
Percentage of Superfund spending that is obligated to individual sites each year.				*54.30*	*54.8*	*Dis-continued*	*percent*
Federal Facility Superfund sites with human exposures under control (exposure pathways are eliminated or potential exposures are under health-based levels for current use of land or water resources).				*131.00*	*129*	*132*	*sites*
Federal Facility Superfund sites with contaminated groundwater under control (exposure pathways eliminated or potential exposures under health-based levels for current use of land/water resources.				*84.00*	*81*	*82*	*sites*
Number of Federal Facility Superfund sites where all				*47.00*	*51*	*56*	*sites*

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
remedies have completed construction.							
Number of Federal Facility Superfund sites where the final remedial decision for contaminants at the site has been determined.				*61.00*	*61*	*67*	*remedies*
Program dollars expended annually per operable unit completing cleanup activities.				*$647*	*$1,000*	*$960*	*thousand*
Percentage of RCRA CA facilities with current human exposures under control (using 2005 baseline).					*82*	*89*	*percent*
Percentage of RCRA CA facilities with migration of contaminated groundwater under control (using 2005 baseline).					*68*	*75*	*percent*

Baseline: In FY 2005, Superfund controlled groundwater migration at 69% (898 of 1,306) of eligible NPL sites, completed construction at 62% (926 of 1,498) of the eligible NPL sites, and selected final remedies at 67% (1,003 of 1,498) of the eligible NPL sites. Included in these cumulative figures are Federal Facility NPL sites: groundwater migration controlled at 83 sites, construction completion at 47 sites and final remedy selection at 61 sites.
In FY 2005, the Superfund program adjusted its baseline for Final Assessment Decisions to 38,603 by taking out sites where only removal work is done to focus efforts on those sites where long-term remedial work may be needed. Formal data extraction methods for the Superfund efficiency measure were developed and the baseline for the measure is 54.3 percent. The average amount of program dollars spent for each operable unit completing remedial activity at Federal Facilities was $647,000. Of the 1,714 RCRA Corrective Action highest priority facilities, 96% (1,649) have human exposures controlled and 78% (1,341) have groundwater migration controlled, reflecting the strong EPA/state partnership in this program. Beginning in FY 2006, the performance measures for the RCRA program will be based on an updated number of facilities (1,968) established in October 2004. Through the end of FY 2005, EPA completed 332,799 leaking underground storage tank cleanups.

Prepare/Respond to Accidental/Intentional Release

In 2007 Reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our Nation's capability to prepare for and respond more effectively to these emergencies.

In 2006 Reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our Nation's capability to prepare for and respond more effectively to these emergencies.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2005 172 Superfund-lead removal actions and 137 voluntary removal actions, overseen by EPA, were completed. EPA was involved in 260 oil spill responses during FY 2005. The compliance rates of inspected facilities subject to SPCC and FRP regulations were 100 and 77 percent, respectively.

In 2004 385 removal actions were initiated in FY2004 for a total of over 8,280 actions initiated since 1980. The core emergency response readiness deficit was reduced by 56%. EPA was involved in 308 oil spill responses during FY2004. The Agency typically responds to or monitors 300 oil spill cleanups every year.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percentage of emergency response readiness improvement.			56%		10%	10%	percent
Superfund-lead removal actions completed annually.				*172.00*	*195*	*195*	*removals*
Voluntary removal actions, overseen by EPA, completed.				*137.00*	*110*	*115*	*removals*
Superfund-lead removal actions completed annually per million dollars.				*1.54*	*0.91*	*0.92*	*removals*
Oil spills responded to or monitored by EPA.			308.00	260.00	300	300	spills
Number of inspections and exercises conducted at oil storage facilities that are required to have Facility Response Plans.				335.00	100	200	inspections/ exercises
Compliance rate of inspected facilities subject to Spill Prevention, Control and Countermeasures (SPCC) regulations.				*100.00*	*100*	*100*	*percent*
Compliance rate of inspected facilities subject to Facility Response Plan (FRP) regulations.				*77.00*	*100*	*100*	*percent*

Baseline: Based on data assessment methods with EPA regional offices, the number of facilities subject to FRP regulations has been determined to be 5,000 rather than 6,000.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

OBJECTIVE: ENHANCE SCIENCE AND RESEARCH

Through 2008, provide and apply sound science for protecting and restoring land by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 3.

Research

Scientifically Defensible Decisions for Site Cleanup

In 2007 Deliver 100 percent of planned outputs in support of Superfund/Oil/LUST projects.

In 2006 Document the performance, including cost savings, of innovative characterization and remediation options, so that newer approaches with cost or performance advantages are applied for Superfund and other cleanup projects.

In 2005 Completed at least 4 SITE demonstrations, with emphasis on NAPLs and sediments, in order to, by 2010, develop or evaluate 40 scientific tools, technologies, methods, and models, and provide technical support that enables practitioners to 1) characterize the nature and extent of multimedia contamination; 2) assess, predict and communicate risks to human health and the environment; 3) employ improved remediation options; and 4) respond to oil spills effectively.

In 2004 Provided risk assessors and managers with site-specific data sets on three applications detailing the performance of conventional remedies for contaminated sediments to help determine the most effective techniques for remediating contaminated sites and protecting human health and the environment.

In 2003 Delivered state-of-the-science report and methods to EPA and other stakeholders for risk management of fuel oxygenates; organic and inorganic contamination of sediments, ground water and/or soils; and oil spills to ensure cost-effective and technically sound site clean-up.

In 2002 EPA provided evaluation information on six innovative approaches that reduce human health and ecosystem exposure from dense non-aqueous phase liquids (DNAPLs) and methyl tertiary butyl-ether (MTBE) in soils and groundwater, and from oil and persistent organics in aquatic systems.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Draft of FY05 Annual SITE Report to Congress					1		Report

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percentage of planned outputs delivered in support of Superfund/Oil/LUST projects.						100	Percent

Baseline: The percentage delivered will be determined by dividing the number of planned outputs (as shown in the Multi-Year Plan for OSWER and tracked in ORD's internal tracking system) by the actual number of outputs delivered on time.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

GOAL: HEALTHY COMMUNITIES AND ECOSYSTEMS

Protect, sustain, or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

OBJECTIVE: CHEMICAL, ORGANISM, AND PESTICIDE RISKS

Prevent and reduce pesticide, chemical, and genetically engineered biological organism risks to humans, communities, and ecosystems.

Decrease Risk from Agricultural Pesticides

In 2007	Ensure new pesticide registration actions (including new active ingredients, new uses) meet new health standards and are environmentally safe.
In 2007	Percentage of acre treatments that will use applications of reduced-risk pesticides.
In 2006	Ensure new pesticide registration actions (including new active ingredients, new uses) meet new health standards and are environmentally safe.
In 2006	Percentage of acre treatments that will use applications of reduced-risk pesticides.
In 2005	Ensured new pesticide registration actions (including new active ingredients, new uses) meet new health standards and are environmentally safe.
In 2005	Percentage of acre treatments that use applications of reduced-risk pesticides.
In 2004	Decreased adverse risk from agricultural uses from 1995 levels.
In 2003	Adverse risk from agricultural pesticides was decreased to ensure that new pesticides entering the market are safe for humans and the environment.
In 2002	In FY 2002, EPA continued to register pest control products, including "safer" pesticides, thus ensuring that growers have an adequate number of pest control options available to them.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Register safer chemicals and biopesticides	107.00	124	143.00	135.00	143	157	Regist. (Cum)

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
New Chemicals (Active Ingredients)	*60*	*72*	*79.00*	*82.00*	*94*	*100*	*Regist. (Cum)*
New Uses	2329	425	3,142.00	3,306.00	3879	3900	Actions (Cum)
Percentage of agricultural acres treated with reduced-risk pesticides.	*7.5%*	*8%*	*13%*	*13%*	*9%*	*10.0%*	*Acre-Treatments*
Maintain timeliness of S18 decisions				42.00	45	45	Days
Percent reduction in review time for registration of conventional pesticides.				*(7%)*	*10%*	*5.4%*	*Reduction*
Reduce registration decision times for reduced risk chemicals				*47%*	*3.5%*	*2.4%*	*Reduction*

Baseline: The year FQPA was enacted (1996) was the initial year for counting registration of reduced risk pesticides, new chemicals, and new uses. Progress is measured (from zero) cumulatively since 1996. The baseline for acres-treated with reduced-risk pesticides is 3.6% (30,332,499 acres) of a total 843,063,644 all pesticide acre-treatments in 1998. Annual total acre-treatments, reported by USDA's National Agricultural Statistical Survey, serve as the basis for computing the percentage of acre-treatments using reduced risk pesticides. Acre-treatments count the total number of pesticide treatments each acre receives each year. Conventional chemicals FY 2002 baseline for reducing time is 44 months; reduced risk pesticides FY 2002 baseline for reducing time is 32.5 months. The S18 2005 baseline is 45 days.

Reassess Pesticide Tolerances

In 2007 Ensure that through ongoing data reviews, pesticide active ingredients, and products that contain them are reviewed to assure adequate protection for human health and the environment, taking into consideration exposure scenarios such as subsistence lifestyles of the Native Americans

In 2006 Ensure that through ongoing data reviews, pesticide active ingredients, and products that contain them are reviewed to assure adequate protection for human health and the environment, taking into consideration exposure scenarios such as subsistence lifestyles of the Native Americans

In 2005 Ensured that through ongoing data reviews, pesticide active ingredients, and products that contain them are reviewed to assure adequate protection for human health and the environment, taking into consideration exposure scenarios such as subsistence lifestyles of the Native Americans.

In 2004 Despite having not met its targets in previous years, the Agency is committed to meeting its 2008 deadline.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2003 Assured that pesticides active ingredients registered prior to 1984 and the products that contain them were reviewed to assure adequate protection for human health & the environment. Also considered the unique exposure scenarios such as subsistence lifestyles of Native Americans in regulatory decisions.

In 2002 Reregistration efforts delayed to focus on reviewing and testing pesticides against anthrax.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Tolerance Reassessments	*66.90*	*68*	*73%*	*7,816 (80.4%)*	*100%*		*Tolerances(Cum)*
Cumulative percent of Reregistration Eligibility Decisions Completed.	*72.7%*	*75%*	*77.6%*	*82.3% (504)*	*92.7%*	*588 (96%)*	*Decisions (Cum)*
Product Reregistration	*314.00*	*306*	*127.00*	*377.00*	*400*	*320*	*Actions*
Kids Top 20 Tolerance Reassessements	65.60	65.6	68.9%	74.4% (664)	100%		Tolerances(Cum)
Number of inert ingredients tolerances reassessed			28.00	168.00	100	100	tolerances
Reduction in time required to issue Reregistration Eligibility Decisions.				*3.5%*	*10%*	*12%*	*Reduction*

Baseline: The baseline value for tolerance reassessments is the 9,721 tolerances that must be reassessed by 2006 using FQPA health and safety standards. The baseline for REDS is the 612 REDs that must be completed by 2008. The baseline for inerts tolerances is 870 that must be reassessed by 2006. The baseline for the top 20 foods eaten by children is 893 tolerances that must be reassessed by 2006. Reregistration decision time baseline 38-40 months.

Through 2005, the Agency completed reassessing 80 percent of 9,721 tolerances, 82 percent of 612 REDs.

Testing of Chemicals in Commerce for Endocrine Disruptors

In 2007 Endocrine Disruptor Screening Program will continue its progress toward completing the validation of endocrine test methods.

In 2006 Endocrine Disruptor Screening Program will continue its progress toward completing the validation of endocrine test methods.

In 2005 Endocrine Disruptor Screening Program will continue its progress toward completing the validation of endocrine test methods.

In 2004 EPA did not meet its goal for standardization and validation of screening assays as described in FY 2004 and will begin tracking a more meaningful set of measures in FY 2006.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Detailed Review Papers Completed.					*18*	*18*	*Papers*
Prevalidation Studies Completed.					*58*	*60*	*Pre-val Studies*
Validation Studies Completed.					*80*	*102*	*Valid. Studies*
Peer Reviews.					*10*	*14*	*Peer Reviews*
Cumulative number of screening assays that have been validated.					*11*	*14*	*Assays*

Baseline: The Food Quality Protection Act of 1996 (FQPA) requires EPA to use validated assays to screen chemicals for their potential to affect the endocrine system. The development and validation of assays is currently the principal effort in implementing the Endocrine Disruptor Screening Program (EDSP). The validation process consists of several discrete steps: Detailed Review Paper is the first stage of the overall validation process. It is a review of the scientific literature relevant to an assay and discusses the scientific principles on which the assay is based, reviews candidate protocols and makes recommendations as to which is most suitable as a starting point for assay refinement and validation. Prevalidation consists of studies to optimize and standardize the protocol and verify the ability of the protocol to accurately measure the endpoints of concern. Validation determines the transferability of the protocol to other laboratories and determines inter-laboratory variability. Peer review is the review by an independent group of experts of the scientific work establishing the validity of the protocol.

Reduce Wildlife Incidents and Mortalities

In 2007 Reduce from 1995 levels the number of incidents involving mortalities to nontargeted terrestrial and aquatic wildlife caused by pesticides

In 2006 Reduce from 1995 levels the number of incidents involving mortalities to nontargeted terrestrial and aquatic wildlife caused by pesticides

In 2005 Reduced from 1995 levels the number of incidents involving mortalities to nontargeted terrestrial and aquatic wildlife caused by pesticides.

In 2004 The amount of data for wildlife incidents and mortalities was insufficient for analysis.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percent reduction in terrestrial and aquatic wildlife mortality incidents involving pesticides				*Data lag*	*14%*	*20%*	*% reduction*

Baseline: 80 bird incidents involving 1150 estimated bird casualties and 65 fish incidents involving 632,000 estimated fish casualties were reported in 1995.

Exposure to Industrial / Commercial Chemicals

In 2007 Reduce exposure to and health effects from priority industrial/commercial chemicals.

In 2006 Reduce exposure to and health effects from priority industrial/commercial chemicals.

In 2005 Reduced exposure to and health effects from priority industrial / commercial chemicals.

In 2004 2930 participants joined hospitals for a healthy environment reducing mercury use and generation in hospital waste.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Safe Disposed of Transformers.			7,015.00	0.00	5,000	0	Transformers
Safe Disposed of Capacitors .			1,457.00	0.00	9,000	0	Capacitors
Annual percentage of lead-based paint certification and refund applications that require less than 40 days of EPA effort to process.				69%	*71%*	*72%*	*% Certif/Refund*
Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old.					*29%*	*29%*	*Percent*
Number of cases of children (aged 1-5 years) with			*Data lag*	*Data lag*	*216,000*	*199,000*	*children*

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud

elevated blood lead levels (>10ug/dl).

Baseline: 1999/2000 baseline released in January 2003: Approximately 400,000 cases of childhood lead poisoning cases according to NHANES data. In 2004 a larger data set will be included as we will be expanding to include more EPA Regional efforts that will include all federally administered and State administered programs. Introduced the "number of children aged 1-5 years" measure in FY2004. Since the baseline is 1999/2000 data we are unable to project targets for 2004 and 2005 due to the data-lag. The FY2003 data for a new baseline may not be available until 2005. The baseline for PCB transformers is estimated at 2.2 million units and for capacitors is estimated at 1.85 million units as of 1988 as noted in the 1989 PCB Notification and Manifesting Rule. From 1991-2001 there was a declining trend in PCB disposal due to failing equipment and environmental liability: the total number of PCB large capacitors safely disposed of 436,485 and the total number of PCB transformers safely disposed of 172,672 as of 2002. Baseline for Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old is 1991-1994 at 37%.

Risks from Industrial / Commercial Chemicals

In 2007 Identify, restrict, and reduce risks associated with industrial/commercial chemicals.

In 2006 Identify, restrict, and reduce risks associated with industrial/commercial chemicals.

In 2005 Identify, restrict, and reduce risks associated with industrial/commercial chemicals.

In 2004 98 High Production Volume chemicals with complete Screening Information Data Sets (SIDS) were submitted to the OECD SIDS Initial Assessment Meeting.

In 2004 EPA reviewed all 1,377 Pre-manufacturing Notices reviewed during FY 2004, ensuring that those new chemicals marketed were safe for humans and the environment.

In 2003 Of the approximately 1,633 applications for new chemicals and microorganisms submitted by industry ensured those marketed are safe for humans and the environment. Increased proportion of commercial chemicals that have undergone PMN review to signify they are properly managed and may be potential green alternatives to existing chemicals.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2002 EPA reviewed all 1,943 Pre-manufacturing Notices received during FY 2002. At the end of 2002, 21.5 percent of all chemicals in commerce had been assessed for risks. A large fraction of these chemicals also may be "green" alternatives to existing chemicals in commerce.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Reduction in the current year production-adjusted hazard-based score of releases and transfers of toxic chemicals.			Data lag	Data lag	3%	3%	Index Reduction
Cumulative number of chemicals with proposed, interim, and/or final values for Acute Exposure Guideline Levels (AEGL).	78	101	133	*165*	*145*	*163*	*Total Chemicals*
Number of chemicals or organisms introduced into commerce that pose unreasonable risks to workers, consumers, or the environment.					*0*	*0*	*Chemicals*
Percentage of HPV chemicals identified as priority concerns through assessment of Screening Information Data Sets (SIDS) and other information with risks eliminated or effectively managed.					100%	100%	% of HPV Chemicals
Cumulative number of chemicals for which VCCEP data needs documents are issued by EPA in response to Industry sponsored Tier 1 risk assessments.					8	9	Cumulative Chemicals.
Total EPA cost per chemical for which proposed AEGL value sets are developed.						$34,160 (2%)	Cost (% cost savings)
Annual number of pre-screened new chemical alternatives generated through industry's participation during the earliest stages of research and development.						*40*	*Notices*

Baseline: The baseline for TSCA PMNs in FY2004 is zero. (EPA receives about 1,700 PMNs per year for chemicals about to enter commerce. From 1979-2002, EPA reviewed about 40,000 PMNs. Of the 78,000 chemicals potentially in commerce, 16,618 have gone through the risk-screening process of Notice of Commencement). The baseline for HPV measure is zero chemicals in 1998. The baseline for relative risk index for chronic human health associated

with environmental releases of industrial chemicals in commerce the 2001 Risk Screening Environmental Indicators Model index. The baseline for the AEGL program is derived from the sum of AEGL values (10 minute, 1 hour, 4 hour and 24 hour exposure periods) and the numbers of chemicals addressed. Performance data are provided as percentages because the number of chemical on the highest priority list is subject to change in response to stakeholder needs. In FY 2005, there are 236 highest priority chemicals. These chemicals were identified by the AEGL FACA committee: 99 chemicals are on List 1 that was generated at the program's inception in 1996 and 137 chemicals are on List 2 that was generated in 2001. The total EPA cost per chemical for which proposed AEGL value sets were developed in 2006 was $34,857. Measurement Development Plans exist for HPV, VCCEP, and New Chemicals.

Chemical Facility Risk Reduction

In 2007 Protect human health, communities, and ecosystems from chemical risks and releases through facility risk reduction efforts and building community infrastructures.

In 2006 Protect human health, communities, and ecosystems from chemical risks and releases through facility risk reduction efforts and building community infrastructures.

In 2005 EPA audited 885 risk management plans.

In 2004 EPA audited 730 risk management plans.

In 2003 EPA audited 300 risk management plans.

In 2002 Data not available.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of risk management plan audits completed.	Not Available	300	730.00	885.00	400	400	audits

Baseline: Baseline: Nearly 3,100 risk management plan audits were completed between FY 2000 and FY 2005.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

OBJECTIVE: COMMUNITIES

Sustain, clean up, and restore communities and the ecological systems that support them.

World Trade Organization - Regulatory System

In 2006 Assist key trade partner countries in assessing environmental effects of trade liberalization

In 2005 APG is on track.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of environmental reviews initiated by FTAA countries following the enactment of the 2002 Trade Promotion Act (TPA). (incremental)				0.00	3		countries
Latin American countries initiating environmental assessments of trade liberalization					3		countries

Baseline: As of the end of FY 2003, two environmental reviews (Chile and Singapore) have been initiated since the enactment of the 2002 Trade Promotion Act.

Revitalize Properties

In 2007 Assess, clean up and promote the reuse of Brownfields properties, and leverage jobs and cleanup/redevelopment funding.

In 2006 Assess, clean up and promote the reuse of Brownfields properties, and leverage jobs and cleanup/redevelopment funding.

In 2005 Data will be available in 2006.

In 2004 2250 jobs were generated from Brownfields activities

In 2003 $1.49B in cleanup and redevelopment funds were leveraged through Brownfields revitalization efforts.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2003 By the end of FY 2003, the Brownfields program leveraged 5,023 jobs, achieving a 62% placement rate for Brownfields Job Training Program participants, and leveraged of $1.49 billion in cleanup and redevelopment funding.

In 2002 $0.7 billion of cleanup and redevelopment was leveraged.

In 2002 2,091 jobs were generated from Brownfields activities.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Brownfield properties assessed.	*3,807.00*	*1,052.00*	*1,076.00*		*1,000*	*1,000*	*assessments*
Properties cleaned up using Brownfields funding.			17.00	Data lag	60	60	properties
Jobs leveraged from Brownfields activities.	2091	5,023.00	2,250.00	Data lag	5,000	5,000	jobs
Percentage of Brownfields job training trainees placed.		62%	61%	Data lag	65%	65%	trainees placed
Billions of dollars of cleanup and redevelopment funds leveraged at Brownfields sites.	*0.70*	*0.90*	*0.70*	*Data lag*	*0.9*	*0.9*	*funds*

Baseline: By the end of FY 2004, the Brownfields program assessed 6,993 properties, leveraged 31,397 jobs, achieved a 61% placement rate for Brownfields job training program participants, and leveraged $7.1B in cleanup and redevelopment funding.

OBJECTIVE: ECOSYSTEMS

Protect, sustain, and restore the health of natural habitats and ecosystems.

Protecting and Enhancing Estuaries

In 2007 Working with NEP partners, protect or restore an additional 25,000 acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program (NEP).

In 2006 Working with NEP partners, protect or restore an additional 25,000 acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program (NEP).

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2005 Working with NEP partners, EPA protected or restored an additional 25,000 acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program (NEP).

In 2004 Restored and protected 107,000 acres of estuary habitat through the implementation of Comprehensive Conservation and Management Plans (CCMPs).

In 2003 Restored and protected 118,171 acres of estuary habitat through the implementation of Comprehensive Conservation and Management Plans (CCMPs).

In 2002 Restored and protected over 137,000 acres of estuary habitat through the implementation of Comprehensive Conservation and Management Plans (CCMPs).

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Acres of habitat restored and protected nationwide as part of the National Estuary Program. (incremental)	137,710	118,171	107,000.00	25,000.00	25,000	25,000	Acres
Program dollars per acre of habitat protected or restored						*505*	*Dollars*
Acres protected or restored in NEP study areas. (incremental)						*75,000*	*Acres*

Baseline: As of January 2000, there were over 600,000 acres of habitat preserved, restored, and/or created.

Gulf of Mexico

In 2007 Prevent water pollution and protect aquatic species in order to improve the health of the Gulf of Mexico.

In 2006 Prevent water pollution and protect aquatic species in order to improve the health of the Gulf of Mexico.

In 2005 Assisted the Gulf States to reduce the size of the hypoxic zone to 12,700 square kilometers.

In 2004 Assisted the Gulf States in implementing watershed restoration actions in 71.2 impaired coastal river and estuary segments.

In 2003 Assisted the Gulf States in implementing watershed restoration actions in 95 impaired coastal river and estuary segments.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2002 Assisted the Gulf States in implementing restoration actions by supporting the identification of place-based projects in 137 State priority coastal river and estuary segments.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Impaired Gulf coastal river and estuary segments implementing watershed restoration actions (incremental).	137	95	71.20	Data lag			Segments
Prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters of the Gulf of Mexico is improved				Data lag	2.4	2.4	5-point National Coastal Condition Index (1= poor; 5=good)
Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico, as measured by the five year running average				12,700.00	14,128	14,128	sq km

Baseline: There are 95 coastal watersheds at the 8-digit hydrologic unit code (HUC) scale on the Gulf coast. The Gulf of Mexico Program has identified 12 priority coastal areas for assistance. These 12 areas include 30 of the 95 coastal watersheds. Within the 30 priority watersheds, the Gulf States have identified 354 segments that are impaired and not meeting full designated uses under the States' water quality standards. 71 or 20% is the target proposed to reinforce Gulf State efforts to implement 5-year basin rotation schedules. The target of 71 is divided by 5 to achieve the goal for assistance provided in at least 14 impaired segments each year for the next 5 years. The 1996-2000 running average size = 14,128 km2. In 2002, the Gulf of Mexico rating of fair/poor was 1.9 where the rating is based on a 5-point system in which 1 is poor and 5 is good and is expressed as an aerially weighted mean of regional scores using the National Coastal Condition Report indicators.

Great Lakes Implementation Actions

In 2007 Prevent water pollution and protect aquatic systems so that overall ecosystem health of the Great Lakes is improved.

In 2006 Prevent water pollution and protect aquatic systems so that overall ecosystem health of the Great Lakes is improved.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2005 Reduced by 5% average concentrations of PCBs in whole lake trout and walleye samples.

In 2004 The reduction in the phosphorus concentration in Lake Erie was not met; the problem continues to be studied in conjunction with the Canadian government.

In 2003 Phosphorus concentrations were exceeded.

In 2002 By removing or containing contaminated sediments, 100,000-200,000 pounds of persistent toxics which could adversely affect human health will no longer be biologically available through the food chain. This contributes to decreasing fish contaminants and advances the goal of removing fish advisories

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Prevent water pollution and protect aquatic systems so that overall ecosystem health of the Great Lakes is improved (cumulative)				21.9 points		21	40 point Great Lakes Ecosystem Scale (1=poor; 40=excellent)
Cubic yards (in millions) of contaminated sediment remediated in the Great Lakes. (cumulative from 1997)				3.7 M cubic yds		4.5 M	Cubic yards/M
Total phosphorus concentrations (long-term) in the Lake Erie Central Basin.	Mixed	18.40	21.2 ug/l	11 ug/l			ug/l
Average concentrations of PCBs in whole lake trout and walleye samples will decline.	Declining	Data lag	10%	5%	5%	5%	Annual Decrease
Average concentrations of toxic chemicals in the air in the Great Lakes basin will decline	declining	Data lag	8.4%	5%	7%	7%	Annual Decrease
Restore and delist Areas of Concern (AOCs) within the Great Lakes basin				0	3	4	AOC

Baseline: In 2003, Great Lakes rating of 20 on a 40 point scale where the rating uses select Great Lakes State of the Lakes Ecosystem indicators based on a 1 to 5 rating system for each indicator, where 1 is poor and 5 is good. The trend (starting with 1972 data) for toxics in Great Lakes top predator fish is expected to be less than 2 parts per million (the FDA action level) but far above the Great Lakes Initiative target or levels at which fish advisories can

be removed. The trend (starting with 1992 data) for PCB concentrations in the air is expected to range from 50 to 250 picograms per cubic meter. In 2002, no Areas of Concern had been delisted. The 2.1 million yards of remediated sediments are the cumulative number of yards from 1997 to 2001.

Wetland and River Corridor Projects

In 2007 Working with partners, achieve no net loss of wetlands.

In 2006 Working with partners, achieve no net loss of wetlands.

In 2005 EPA is working with partners to achieve an increase of wetlands with additional focus on biological and functional measures. Annually, in partnership with the Corps of Engineers and states, EPA is working to achieve no net loss of wetlands in the Clean Water Act Section 404 regulatory program.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Working with partners, achieve a net increase of wetlands				Data lag	100,000	100,000	Acres/year
Annually, in partnership with the Corps of Engineers and States, achieve no net loss of wetlands in the Clean Water Act Section 404 regulatory program				Data lag	No Net Loss	No Net Loss	Acres

Baseline: Annual net loss of an estimated 58,500 acres. In partnership with the Corps of Engineers, a baseline and initial reporting will begin in FY 2004 on net loss of wetlands in the CWA Section 404 regulatory programs.

Chesapeake Bay Habitat

In 2007 Prevent water pollution and protect aquatic systems so that overall aquatic system health of the Chesapeake Bay is improved enough so that there are 100,000 acres of submerged aquatic vegetation. (cumulative)

In 2007 Reduce nitrogen loads by 80 million pounds per year; phosphorus loads by 9.0 million pounds per year, and sediment loads by 1.16 million tons per year from entering the Chesapeake Bay, from 1985 levels.

In 2006 Prevent water pollution and protect aquatic systems so that overall aquatic system health of the Chesapeake Bay is improved enough so that there are 90,000 acres of submerged aquatic vegetation. (cumulative)

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2006 Reduce nitrogen loads by 74 million pounds per year; phosphorus loads by 8.7 million pounds per year, and sediment loads by 1.06 million tons per year from entering the Chesapeake Bay, from 1985 levels.

In 2005 Prevented water pollution and protected aquatic systems so that overall aquatic system health of the Chesapeake Bay was improved enough so that there was 89,659 acres of submerged aquatic vegetation. (cumulative)

In 2005 EPA reduced nitrogen loads by 67 million pounds per year; phosphorus loads by 8.4 million pounds per year, and sediment loads by 0.92 million tons per year from entering the Chesapeake Bay, from 1985 levels.

In 2004 Due to record wet weather in 2003, massive amounts of nutrients and sediments were washed into the Chesapeake Bay, which resulted in a 30% decline in submerged aquatic vegetation in a single year.

In 2003 Improved habitat in the Chesapeake Bay.

In 2002 Meeting the annual performance goal to improve habitat in the Bay requires adherence to commitments made by the Chesapeake 2000 agreement partners and monumental effort/resources from all levels of government (local, state, and a range of Federal agencies) and from private organizations/citizens.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Reduction, from 1985 levels, of nitrogen (M/lbs), phosphorus (M/lbs), and sediment loads (tons) entering Chesapeake Bay. (cumulative)				67/8.4/0.92	74/8.7/1.06	80/9.0/1.16	Lbs/Lbs/Tons
Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay. (cumulative)	85,252	89,659	64,709.00	89,659	90,000	100,000	Acres

Baseline: In 1984, there were 37,000 acres of submerged aquatic vegetation in the Chesapeake Bay. In 2002, baseline for nitrogen loads was 51 million pounds per year; phosphorus loads was 8.0 million pounds per year; and sediment loads was 0.8 million tons per year.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

OBJECTIVE: ENHANCE SCIENCE AND RESEARCH

Through 2008, provide a sound scientific foundation for EPA's goal of protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 4.

Research

Research on Commercial Chemicals and Microorganism

In 2007 Reduction of uncertainty in characterizing the impacts of biotechnology (genetically modified crops) on ecosystems.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Improved risk assessment tools and characterization of ecological risks of genetically modified crops.						6	reports

Baseline: EPA has developed performance indicators that monitor research activities and outputs. The targets referenced for biotechnology research include products that contribute to reducing scientific uncertainty such as reports on the development of tools and their applications in assessments to characterize the impacts of genetically modified crops on ecosystems.

Global Change Research - Human Health and Ecosyste

In 2007 A preliminary evaluation of the direct effects of climate change on regional air quality for input to the Climate Change Science Program's Synthesis and Assessment Products.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Conduct numerical air quality simulations using as input regional climate modeling, emissions modeling, and driver scenarios.						1	evaluation

Baseline: This goal represents an important new contribution because it focuses on the effects of climate change on air quality, rather than the effects of air quality on climate change. This represents a unique contribution by EPA, as a member agency in the U.S. Climate Change Science Program (CCSP). This work is important due to its potentially significant implications for the ability of states and cities to meet EPA's air quality standards. Also, the results of this work are supporting the production of CCSP Synthesis & Assessment (S&A) Reports, due to be completed in December 2007. For this reason, communication and dissemination of the results of this work will be closely coordinated with the CCSP. This effort responds to President Bush's direction that climate change research activities be accelerated to provide the best possible scientific information to support public discussion and decision making on climate-related issues.

Estuarine Ecosystem Conditions

In 2007 30 states having estuarine resources use a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of programs and policies.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of states using a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of national programs and policies.						30	States

Baseline: ORD has developed a standard protocol for monitoring the ecological condition of estuaries; including, probabilistic sampling designs, response designs for indicators, laboratory analyses, statistical analyses and reporting formats. By 2007, ORD is targeting that 30 states having estuarine resources used a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of programs and policies. In 2005, 22 states used a common monitoring design.

Human Health Risk Assessment Research

In 2007 Complete 16 human health assessments of high priority chemicals for interagency or external peer review so that EPA program offices and regions, states and local risk assessors have state-of-the-science health hazard assessment information on priority substances

In 2007 Complete the Air Quality Criteria Document (AQCD) for Lead in support of the EPA/OAQPS review and promulgation of the National Ambient Air Quality Standard (NAAQS).

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2006 By 2006, deliver at least 20 dose-response assessments, provisional values, or pathogen risk assessments so that by 2010, at least 100 assessments have been made available through the Integrated Risk Information System (IRIS) database and other communications to EPA program offices, regions, states and Tribes providing the necessary information to predict risk and make risk management decisions that protect public health.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Completed dose-response assessments, provisional values, or pathogen risk assessments					20		Assessments
Complete 16 human health assessments of high priority chemicals for interagency or external peer review, including acrylonitrile, methanol, methylene, chloride, trichloroethylene, and dioxin.						16	assessments
Final AQCD for Lead which serves as the basis for the EPA/OAQPS staff paper for the National Ambient Air Quality Standard (NAAQS)						1	AQCD

Baseline: The Integrated Risk Information System (IRIS) is an electronic data base used in risk assessments, decision-making, and regulatory activities. EPA produces many of its major health assessments under the auspices of IRIS, the primary EPA database containing the Agency's scientific positions on human health effects that might result from exposure to various substances found in the environment. Through the IRIS Program, ORD administers an Agency-wide process of chemical nomination, assessment, consensus building, and peer review through which assessments on IRIS are produced and updated. The schedule of IRIS products for FYs 2006 and 2007 represent the highest program priorities.

National Ambient Air Quality Standard (NAAQS) are required by the Clean Air Act to protect against health and welfare (environmental) effects of ambient concentrations of widespread major air pollutants (particulate matter, ozone, carbon monoxide, nitrogen oxides, sulfur oxides and lead). The NAAQS and its scientific bases ("criteria") must periodically be reviewed and revised as appropriate. The last Lead NAAQS review was 1990. Criteria for review of the Lead NAAQS are developed in the Lead Air Quality Criteria Document (AQCD) which covers chemical and physical properties, sources and emissions, environmental concentrations, human exposure, toxicology, epidemiology, and environmental effects.The Lead AQCD will be used by the Office of Air Quality, Planning and Standards to develop a Staff Paper risk assessment.

Research on Endocrine Disrupting Chemicals

In 2007 By 2007, develop improved protocols for screening and testing for the Agency's Endocrine Disruptors Screening Program and reduce scientific uncertainty on effects, exposure, and risk management issues

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

In 2006 By 2006, develop and transfer standardized protocols for screening chemicals for their potential effects on the endocrine system, so that EPA's Office of Prevention, Pesticides, and Toxic Substances has the necessary protocols to validate for use in the Agency's Endocrine Disruptors Screening Program, mandated by the Food Quality Protection Act, as determined by independent expert review.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Report on a protocol to screen environmental chemicals for their ability to interact with the male hormone receptor					1		Report
Improved protocols for screening and testing						*6*	*Reports*
Effects and exposure milestones met						*4*	*Reports*
Assessment milestones met						*0*	*Reports*
Risk management milestones met						*3*	*Reports*

Baseline: The Endocrine Disruptors program provides EPA with the scientific information necessary for the Agency to reduce or prevent potential unreasonable risks to human health and wildlife from exposures to chemicals that adversely affect the endocrine system, called endocrine disrupting chemicals (EDCs). In 1998, the Endocrine Disruptors Screening and Testing Advisory Committee, a FACA convened by EPA to provide advice on the development and implementation of a screening program, identified a few assays to use as starting points. However, as they affirmed, no assays were considered to be "validated" at the time. EPA's endocrine disruptor research program refined these assays and developed new ones when the starting point assays were found to be unreliable or inadequate. Between FY 2000 and FY 2006, EPA will have completed 22 milestones associated with this APG, including reducing scientific uncertainty regarding the mechanisms by which chemicals interfere with the endocrine system, developing reports on a variety of screening assays in different animal species (e.g., fish, frogs, rats), and transferring protocols that have been standardized in our laboratories and accompanying background documentation to OPPTS. OPPTS will have the protocols validated by an external peer review panel and will implement a screening program using them. The data that will be developed from the application of the validated protocols will enable the Agency to conduct risk assessments from which decisions can be made that will reduce or prevent unreasonable risks to humans and wildlife from exposure to endocrine disruptors.

Beginning in FY 2005, regular evaluations by independent and external panels will provide reviews of EPA research programs' relevance, quality, and successful performance to date, and will determine whether EPA has been successful in meeting its annual and long-term commitments for research.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Homeland Security Research

In 2007 Enhance public health and safety and mitigate adverse effects of the purposeful introduction of hazardous chemical, biological, or radiological materials into the environment.

In 2006 Provide methods, guidance documents, technologies and tools to first responders and decision-makers to enhance safety and to mitigate adverse effects of the purposeful introduction of hazardous chemical or biological materials into the environment.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Comprehensive guidance document for building owners and managers on restoration of buildings after terrorist contamination with biological or chemical hazards					1		Guidance
Guidance document for emergency and remedial response personnel and water utility operators for the restoration of water systems after terrorist contamination with biological or chemical hazards					1		Guidance
Comprehensive guidance package including data, methodologies, and other risk assessment tools that will assist emergency responders in establishing remediation goals at incident sites					1		Guidance
Provide guidance documents to support efficient and effective outdoor clean-ups and safe disposal of decontamination wastes.						3	products
Develop emergency/laboratory capacity documents to improve the standardization of methods and/or safety of personnel involved with the collection of environmental samples during a significant event.						3	protocols
Test and evaluate homeland security-related technologies, producing technology evaluation reports.						13	reports

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Provide products to enhance security of water systems through early detection and prepare for a terrorist attack on water system for treatment of the water and decontamination of the infrastructure.						3	reports
Evaluate relevant health and risk-related data to support risk assessors in the rapid assessment of risk.						40	advisory levels

Baseline: The goal of the National Homeland Security Research Center is to provide appropriate and effective threat and consequence assessment guidance and technologies to help decision-makers prepare for and respond to attacks involving chemical, biological and radiological contaminants. This goal encompasses improving ways to detect and contain contaminants, and providing improved methods to decontaminate buildings, water infrastructure systems and outdoor environments. The Center is also committed to providing emergency response support, expanded laboratory capacity and capabilities, and evaluations of homeland security-related technologies. The Center was created in recognition of terrorists threats to the United States and its citizens and the need to improve the nation's domestic preparedness and response to intentional attacks.

Computational Toxicology

In 2007 Initiation of a research program (ToxCast) to categorize the potential hazard of chemicals using modern tools of computational toxicology.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Identification and evaluation of in silico and molecular indicators that can be used to validate the predictiveness of high through put tools for categorizing potential for toxicity						1	method

Baseline: Despite pressing needs of a number of EPA Program Offices, there is no scientifically acceptable method for efficiently and effectively prioritizing broad lists of chemicals (e.g., endocrine disrupting chemicals, high production volume chemicals) for toxicological testing. This research program will create the foundation for such a method.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Human Health Research

In 2007 Increased use of human health research products

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percentage of planned outputs delivered in support of public health outcomes long-term goal.						*100*	*Percent*
Percentage of planned outputs delivered in support of mechanistic data long-term goal.						*100*	*Percent*
Percentage of planned outputs delivered in support of aggregate and cumulative risk long-term goal.						*100*	*Percent*
Percentage of planned outputs delivered in support of the susceptible subpopulations long-term goal.						*100*	*Percent*
Average time (in days) to process research grant proposals from RFA closure to submittal to EPA's GAD, while maintaining a credible and efficient competitive merit review system						*292*	*Average Days*

Baseline: To assess progress toward the goal of increased use of human health research products, ORD will measure the percentage of planned outputs delivered on time for each long-term goal. As an efficiency measure, the program will also track the average time to process research grants proposals.

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

GOAL: COMPLIANCE AND ENVIRONMENTAL STEWARDSHIP

Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation and providing incentives for governments, businesses, and the public that promote environmental stewardship.

OBJECTIVE: IMPROVE COMPLIANCE

By 2008, maximize compliance to protect human health and the environment through compliance assistance, compliance incentives, and enforcement by achieving a 5 percent increase in the pounds of pollution reduced, treated, or eliminated, and achieving a 5 percent increase in the number of regulated entities making improvements in environmental management practices.

Non-Compliance Reduction

In 2007	Through monitoring and enforcement actions, EPA will increase complying actions, pollutant reduction or treatment, and improve environmental management practices.
In 2006	Through monitoring and enforcement actions, EPA will increase complying actions, pollutant reduction or treatment, and improve environmental management practices.
In 2005	Through monitoring and enforcement actions, EPA increased complying actions, pollutant reduction or treatment, and improved environmental management practices (EMP), reducing 1.1 billion pounds of pollutants in FY 2005.
In 2004	Enforcement actions taken in 2004 required defendants to reduce, treat, or eliminate 1 billion pounds of illegal emissions and discharges, and establish improved EMPs that will help detect and prevent potential future non-compliance; the 21,000 inspections, 425 criminal investigations, and 455 civil investigations conducted maintain an effective deterrent to violations of federal environmental laws.
In 2003	EPA directed enforcement actions to maximize compliance and address environmental and human health problems.
In 2002	Based upon one measure, this APG was not met.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year.(core optional)	261	600	1,000				Million pounds
Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)				*1,100*	*450*	*500*	*Million pounds*
Percentage of concluded enforcement cases (including SEPs) requiring that pollution be reduced, treated, or eliminated.				*28.8*	*30*	*30*	*Percentage*
Percentage of concluded enforcement cases including SEPs requiring implementation of improved environmental management practices.				*72.5*	*65*	*70*	*Percentage*
Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations.				19	25	30	Percentage
Dollars invested in improved environmental performance or improved environmental management practices as a result of concluded enforcement actions (i.e., injunctive relief and SEPs)				$10 Billion	$4.1 Billion	$4.2 Billion	Dollars
Percent of concluded enforcement actions that require an action that results in environmental benefits and/or changes in facility management or information practices.	77	63	83				Percent

Baseline: The FY2005 baseline for the number of facilities taking complying actions to address deficiencies identified during on-site compliance inspections and evaluations is 947 facilities that took complying actions. The 2008 strategic target is a 5% increase in complying actions taken during inspections compared to the FY2005 baseline of 947 facilities. The FY2005 baseline for the percent of enforcement actions requiring that pollutants be reduced, treated, or eliminated is 28.8%. The strategic target is a 5% increase in the percent of enforcement actions requiring that pollutants be reduced, treated,

or eliminated by FY 2008 based on the FY2005 baseline. The FY2005 baseline for the percent of enforcement actions requiring improvement of EMPs is 72.5%. The FY2005 baseline for the increase in the pounds of pollution reduced, treated, or eliminated is 620 million pounds. The baseline for the number of regulated entities making improvements in EMPs is 5,220 regulated entities. The strategic target is a 5% increase in the percent of enforcement actions requiring improvement in environmental management practices by FY2008.

Compliance Incentives

In 2007 Identify and correct noncompliance and reduce environmental risks through an increase in the percent of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce, treat, or eliminate pollution or improve environmental management practices.

In 2006 Through self-disclosure policies, EPA will increase the percentage of audits or other actions reducing pollutants or improving EMP.

In 2005 Through self-disclosure policies, EPA increased the percentage of audits or other actions reducing 1.9 million pounds of pollutants & improved environmental management practices.

In 2004 In FY2004, over 900 facilities voluntarily self-disclosed and corrected violations for reduced or eliminated penalties. The incentives programs have helped return thousands of facilities to compliance, furthering environmental stewardship through the provision of information, incentives and innovation approaches to reduce or eliminate pollution.

In 2003 Increased opportunities through new targeted sector initiatives for industries to voluntarily self-disclose and correct violations on a corporate-wide basis.

In 2002 The number of facilities that participated in voluntary self-audit programs, disclosed and corrected violations greatly exceeded the target.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Pounds of pollutants reduced, treated, or eliminated, as a result of audit agreements.				*1.9 million*	*0.4 million*	*0.4 million*	*Pounds*
Facilities voluntarily self-disclose and correct violations with reduced or no penalty as a result of EPA self-disclosure policies.	1,467	848	969				Facilities

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Baseline: The FY2005 baseline for the number of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce, treat, or eliminate pollution or improve EMPs is 1,095 regulated entities. The strategic target by FY2008 is a 5% increase in the percent of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce, treat, or eliminate pollution or improve environmental management practices. The baseline for the pounds of pollutants reduced, treated or eliminated as a result of audits or other actions and for the dollars invested in improved environmental performance or improved EMPs will be developed in FY2006.

Regulated Communities

In 2007 Prevent noncompliance or reduce environmental risks through EPA compliance assistance by achieving: an increase in the percent of regulated entities that improve their understanding of environmental requirements; an increase in the number of regulated entities that improve environmental management practices; and an increase in the percentage of regulated entities that reduce, treat, or eliminate pollution.

In 2006 Through compliance assistance, EPA will increase the understanding of regulated entities, improve Environmental Management Practices, and reduce pollutants.

In 2005 Through compliance assistance, EPA increased the understanding of regulated entities, improved Environmental Management Practices, and reduced pollutants. Seventy-eight percent of the Compliance Assistance Centers' survey respondents from the regulated community improved environmental management practices as a result of information provided by the Centers.

In 2004 In FY 2004, EPA provided compliance assistance to 731,000 entities. Providing compliance assistance to businesses, local governments, and federal facilities, improved understanding of regulations, promoted best management practices and reduced pollution while saving regulated entities money.

In 2003 Increased the regulated community's compliance with environmental requirements through their expanded use of compliance assistance. The Agency continued to support small business compliance assistance centers and developed compliance assistance tools such as sector notebooks and compliance guides.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved EMP as a result of EPA assistance.				72	50	50	Percentage
Percentage of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or				13	15	15	Percentage

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud

eliminated pollution, as a result of EPA assistance.

Baseline: The FY 2005 baseline for the percent of regulated entities that improve their understanding of environmental requirements is 80%. The strategic target is a 5% increase in the number of regulated entities that increase their understanding of environmental requirements by FY2008. The FY2005 baseline for the percent increase in the number of regulated entities that improve environmental management practices is 1,602 entities. The strategic target for increasing environmental management practices through compliance assistance is a 5% increase (1,682 regulated entities) by FY 2008. The FY2005 baseline for the percent of regulated entities that reduce, treat, or eliminate pollution as a result of EPA compliance assistance is 10%. The strategic target for increasing the percentage of compliance assistance recipients that reduce, treat, or eliminate pollution is 5% by FY2008.

OBJECTIVE: IMPROVE ENVIRONMENTAL PERFORMANCE THROUGH POLLUTION PREVENTION AND INNOVATION

By 2008, improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption of results-based, innovative, and multimedia approaches.

Reducing PBTs in Hazardous Waste Streams

In 2007 Reduce pollution in business operations.

In 2006 Reduce pollution in business operations.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of pounds reduced (in millions) in generation of priority list chemicals from 2001 baseline of 84 million pounds.					1.2 million	0.6 million	Pounds

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Baseline: In FY 2001, the baseline of priority chemicals in waste streams was initially established at 88 million pounds; however, the baseline changes from year to year as industrial facilities correct past reporting errors. This necessitates adjustments to annual targets. The FY 2008 goal is a reduction of 8.4 million pounds (10%). This is a two-year lag reporting actual reductions.

Innovation Activities

In 2007 Performance Track facilities collectively will meet 4 of the 6 annual performance improvement targets for 3.7 billion gallons of water use, 16.3 million MMBTUs of energy use, 1,050 tons materials use, 460,000 tons of non-hazardous solid waste, 66,000 tons of air releases, and 12,400 tons of discharges to water.

In 2006 Performance Track members collectively will meet targets for annual performance improvement targets for water use, energy use, materials use, non-hazardous solid waste, air releases, and discharges to water.

In 2005 In FY 2005, Performance Track members collectively reduced water use by 528 million gallons, increased energy use by 22 million MMBTUs, increased solid waste by 22,000 tons, reduced air releases by 7,700 tons, reduced water discharges by 7,700 tons, and increased materials use by 125,000 tons.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Specific annual reductions in six media/resource areas: water use, energy use, solid waste, air releases, water discharges, & materials use.				1			Media Reductions
Reduce 3.7 billion gallons of water use; 16.3 million MMBTUs of energy use; 1,050 tons of materials use; 460,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges.						4	Media Reductions
Reduce 3.5 billion gallons of water use; 15.5 million MMBTUs of energy use; 1,000 tons of materials use; 440,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges.					6		Media Reductions

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Baseline: Annual performance goals are based on the collective normalized (production adjusted) improvements achieved by Performance Track members in FY 2004 in 6 media areas. The FY 2004 improvements, normalized to FY 2003 economic activity levels were a reduction of 3,387,333,545 gallons of water use; a reduction of 14,809,395 MMBTUs of energy use; an increase of 1,752 tons of materials use; a reduction of 418,421 tons of non-hazardous solid waste; a reduction of 63,123 tons of air releases and a reduction of 12,109 tons of water discharges.

Reduction of Industrial /Commercial Chemicals

In 2007 Prevent, reduce and recycle hazardous industrial/commercial chemicals and municipal solid wastes.

In 2006 Prevent, reduce and recycle hazardous industrial/commercial chemicals and improve environmental stewardship practices.

In 2005 FY 2005 data will be available in FY 2007.

In 2004 FY 2004 data will be available in FY 2006 to verify whether the quantity of Toxic Release Inventory (TRI) pollutants released, disposed of, treated or combusted for energy recovery in 2004, (normalized for changes in industrial production) was reduced by 200 million pounds, or 2%, from 2002.

In 2003 The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2003 decreased by 622 million pounds of TRI pollutants.

In 2002 The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2002, (normalized for changes in industrial production) increased by 366 million pounds of TRI pollutants, or 2%, from 2002.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Reduction of TRI non-recycled waste (normalized)	366 M Lbs	622 M	Data Avail. FY 2006				Pounds
Quantity of hazardous chemicals/solvents eliminated through the Green Chemistry Challenge Awards Program			460				Pounds
Percent reduction in both Toxics Release Inventory (TRI) chemical releases to the environment from the business sector per unit of production ("Clean Index")				Data Avail. FY 2007	28%	28%	Releases (Cum)
Percent reduction in TRI chemicals in production-related wastes generated by the business sector per unit of				Data Avail. FY 2007	14%	14.5%	Waste (Cum)

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
production ("Green Index").							
Reduction in overall pounds of pollution.				Data Avail. FY 2006	42 Billion	40.8 Billion	Pounds (Cum)
Millions of dollars saved through reductions in pollution.				Data Avail. FY 2006	$170 Million	$175 Million	Dollars (Cum)
Annual cumulative quantity of water conserved.				Data Avail. FY 2006	1.5 Billion	1.6 Billion	Gallons
Billions of BTUs of energy conserved.				Data Avail. FY 2006	175 Billion	176 Billion	BTUs (Cum)
Annual cumulative quantity of water conserved.					Data Avail. FY 2007	*600 Million*	*Gallons*
Cumulative conservation of millions of BTUs of energy and gallons of water.					Data Avail. FY 2007	*25/600*	*BTUs/Gallons (in millions)*
Cumulative reduction of hazardous chemical releases to the environment and hazardous chemicals in industrial waste, in millions of pounds.						*820 Million*	*Pounds*

Baseline: The baseline for TRI non-recycled wastes is 622M pounds based on 2003 TRI data reported in FY2005. The 2003 baseline for cumulative reduction of industrial hazardous chemical releases to the environment and hazardous chemicals in industrial wastes is 326 million pounds. The FY 2005 baseline for conservation of BTUs is 15 billion BTUs. The FY 2002 baseline for gallons of water is 330 million gallons. The 2005 baseline for money saved is $2.9 million. The 2003 baseline for the Clean Index is 8.1% of releases and the FY 2003 baseline for the Green Index is 7.5% of waste.

OBJECTIVE: BUILD TRIBAL CAPACITY

Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.

6-Year Performance Data
Annual Performance Goals and Measures
(Program Assessment Rating Tool (PART) measures are italicized)

Build Tribal Capacity

In 2007	Assist federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.
In 2006	Assist federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.
In 2005	EPA assisted Federally recognized tribes with assessing the condition of their environment, helped build their capacity to implement environmental programs where needed to improve tribal health and environments, and implemented programs in Indian Country where needed to address environmental issues.
In 2004	86% of Tribes have an environmental presence (e.g. one or more persons to assist in building Tribal capacity to develop and implement environmental programs).
In 2003	In 2003, AIEO evaluated non-Federal sources of environmental data pertaining to conditions in Indian Country to enrich the Tribal Baseline Assessment Project.
In 2002	A cumulative total of 331 environmental assessments have been completed.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percent of Tribes with EPA-approved multimedia workplans (cumulative).			*26*	*33*	*39*	*42*	*% Tribes*
Percent of Tribes with delegated and non-delegated programs (cumulative).			*28*	*47*	*48*	*49*	*% Tribes*
Percent of Tribes with EPA-reviewed monitoring and assessment occurring (cumulative).			*44*	*29*	*30*	*31*	*% Tribes*
Number of environmental programs implemented in Indian Country per million dollars.				*12.3*	*12.4*	*12.5*	*Programs*

Baseline: There are 572 tribal entities that are eligible for GAP program funding. The FY 2005 baseline for the percent of tribes with EPA-approved multimedia workplans is 33% of tribes. The FY 2005 baseline for the percent of tribes with delegated and non-delegated programs is 47% of tribes. The FY 2005 baseline for the percent of tribes with EPA-reviewed monitoring and assessment occurring is 29% of tribes. The FY 2005 baseline for the number of environmental programs implemented in Indian Country per million dollars is 12.3 programs.

OBJECTIVE: ENHANCE SCIENCE AND RESEARCH

Through 2008, strengthen the scientific evidence and research supporting environmental policies and decisions on compliance, pollution prevention, and environmental stewardship.

Research

Pollution Prevention Tools and Methodologies

In 2007 Ten percent increase in Pollution Prevention/Sustainability program publications rated as highly cited papers

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percentage of Pollution Prevention/Sustainability program publications rated as highly cited papers (top 1%) in research journals.						44.2	%

Baseline: Bibliometric analysis will be used to assess the impact of peer-reviewed publications. Recent results from a bibliometric analysis completed for the P2/Sustainability research program will be used as the baseline for assessing impact in the scientific community. In 2005, 34.2% of P2 papers qualified as highly cited. The P2/Sustainability research program proposes to quantify citation rate increases for the program's top publications.

NPM: OFFICE OF ADMINISTRATION & RESOURCES MANAGEMENT

Energy Consumption Reduction

In 2007 As required by the Energy Policy Act of 2005, EPA will achieve a 4% reduction in energy consumption from the Agency's 2003 baseline.

In 2006 As required by the Energy Policy Act of 2005, EPA will achieve a 2% reduction in energy consumption from the Agency's 2003 baseline.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Cumulative percentage reduction in energy consumption.					2	4	Percent

Baseline: For the Agency's 29 reporting facilities, the 2003 energy consumption of British Thermal Units (BTUs) per square foot is 341,123 BTUs per square foot.

Human Capital

In 2007 EPA will develop workforce planning strategies that link current and future Human Capital needs to mission accomplishments which will result in significant reductions in skill gaps for Mission Critical Occupations. In addition, EPA's recruitment strategy will focus on hiring needs that will encourage the use of hiring flexibilities, build on centralized and local recruitment approaches, and focus on attracting applicants who are talented, diverse, and committed to EPA's mission.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Percent to which competency/skill gaps are reduced (beginner to intermediate) in Mission Critical Occupations.						25	Percent
Percent to which competency/skill gaps are reduced (intermediate to expert) in Mission Critical Occupations.						15	Percent
Number of new hires recruited through EPA's Environmental Intern Program in Mission Critical Occupations.						100	Percent

Enabling/Support Programs
Annual Performance Goals and Measures

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Average time to hire non-SES positions from date vacancy closes to date offer is extended, expressed in working days.						45	Days
For SES positions, the average time from date vacancy closes to date offer is extended, expressed in working days.						90	Days

Baseline: Baseline will be established by FY 2007.

NPM: OFFICE OF ENVIRONMENTAL INFORMATION

Information Exchange Network

In 2007 Improve the quality, comparability, and availability of environmental data for sound environmental decision-making through the Central Data Exchange (CDX).

In 2006 Improve the quality, comparability, and availability of environmental data for sound environmental decision-making through the Central Data Exchange (CDX).

In 2005 Progress in developing the Central Exchange Network continues.

In 2004 Significant progress has been made in developing the Exchange Network over the past three years. The numbers of Exchange Network nodes and data flows have increased making it possible to exchange and integrate large volumes of environmental data to enhance environmental decision-making. A key component to the Network is EPA's Central Data Exchange (CDX) and its ability to facilitate data exchange and information sharing. As a result, EPA has experienced a tremendous growth in users of CDX and the Network.

In 2003 Continued to improve data access to ensure that decision makers have access to the environmental data that EPA collects and manages to make sound environmental decisions while minimizing the reporting burden on data providers.

In 2002 The Central Data Exchange (CDX), a key component of the environmental information exchange network, became fully operational and 45 states are using it to send data to EPA; thereby improving data consistency with participating states.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
States using the Central Data Exchange (CDX) to send data to EPA.	45	49					States
Number of major EPA environmental systems that use the CDX electronic requirements enabling faster receipt, processing, and quality checking of data.				22	29	36	Systems
States will be able to exchange data with CDX through state nodes in real time, using new web-based data standards that allow for automated data-quality checking.				40	50		States
Number of users from states, tribes, laboratories, and				45,000	47,000	55000	Users

Enabling/Support Programs
Annual Performance Goals and Measures

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
others that choose CDX to report environmental data electronically to EPA.							
Percent of customer help desk calls resolved in a timely manner.				96	96	96	Percent
In preparation for increasing the exchange of information through CDX, implement four data standards in 13 major systems and develop four additional standards in 2003.		7					Data Standards
Number of private sector and local government entities, such as water authorities, will use CDX to exchange environmental data with EPA.			7,050				Entities
CDX offers online data exchange for all major national systems by the end of FY 2004.			13				Systems
Number of states using CDX as the means by which they routinely exchange environmental data with two or more EPA media programs or Regions.			49				States

Baseline: The Central Data Exchange program began in FY 2001, the baseline is 70 data flows. The baseline of users for the scheduled deployment of data flows is approximately 75,000 users.

Data Quality

In 2007 EPA will improve the quality and scope of information available to the public for environmental decision-making.

In 2006 EPA will improve the quality and scope of information available to the public for environmental decision-making.

In 2005 EPA continues to improve the quality and scope of information available to the public for environmental decision-making.

In 2004 In FY 2004, EPA developed a management report on options for enhancing access to the next Report on the Environment by making it easily available electronically.

In 2003 The public had access to a wide range of Federal, state, and local information about local environmental conditions and features in an area of their choice.

In 2002 100% of the publicly available facility data from EPA's national systems accessible on the EPA Website is part of the Integrated Error Correction Process; thereby reducing data error.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Publicly available facility data from EPA's national systems, accessible on the EPA Website, will be part of the Integrated Error Correction Process.	100						Percent
Responders to the baseline questionnaire on customer satisfaction on the EPA Website report overall satisfaction with their visit to EPA.GOV.				63			Percent
Window-to-My Environment is nationally deployed and provides citizens across the country with Federal, state, and local environmental information specific to an area of their choice.		Nationally					Deployed
Establish the baseline for the suite of indicators that are used by EPA's programs and partners in the Agency's strategic planning and performance measurement process.			1				Report

Baseline: An effort to develop a State of the Environment report based on environmental indicators was initiated in FY 2002.

Information Security

In 2007 OMB reports that all EPA information systems meet/exceed established standards for security.

In 2006 OMB reports that all EPA information systems meet/exceed established standards for security.

In 2005 EPA continues to make progress in improving its information security program.

Enabling/Support Programs
Annual Performance Goals and Measures

In 2004 EPA has made significant progress over the last 4 years in improving its information security program. For example, EPA succeeded for a second year in achieving 100% intrusion detection, and the Agency's compliance with OMB's security program criteria increased from 75% in FY 2003 to 91% in FY 2004.

In 2003 OMB reported that all EPA information systems meet/exceed established standards for security.

In 2002 Completed risk assessments on the Agency's critical infrastructure systems (12), critical financial systems (13), and mission critical environmental systems (5).

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Critical infrastructure systems risk assessment findings will be formally documented and transmitted to systems owners and managers in a formal Risk Assessment document.	12						Systems
Critical financial systems risk assessment findings will be formally documented and transmitted to systems owners and managers in a formal Risk Assessment document.	13						Systems
Mission critical environmental systems risk assessment findings will be formally documented and transmitted to systems owners and managers in a formal Risk Assessment document.	5						Systems
Percent of Federal Information Security Management Act reportable systems that are certified and accredited.		75	91	94	100	100	Percent
Percent of intrusion detection monitoring sensors installed and operational.		75	100				Percent

Baseline: In FY 2002, the Agency started planning an effort to expand and strengthen its information security infrastructure.

Enabling/Support Programs
Annual Performance Goals and Measures

NPM: OFFICE OF THE INSPECTOR GENERAL

Fraud Detection and Deterrence

In 2007 In 2007, the OIG will improve Agency business and program operations by identifying 840 recommendations, potential savings and recoveries equal to 150 percent of the annual investment in the OIG, 230 actions for better business operations, and 80 criminal, civil, or administrative actions reducing risk or loss of integrity.

In 2006 In 2006, the OIG will improve Agency business and program operations by identifying 820 recommendations, potential savings and recoveries equal to 150 percent of the annual investment in the OIG, 225 actions for better business operations, and 80 criminal, civil, or administrative actions reducing risk or loss of integrity.

In 2005 The OIG has begun including the non-monetary results of "Single Audits" and audits performed for OIG in its targets and results. Therefore, OIG adjusted its original targets submitted to OMB to account for the large increase in the expected and actual number of improved business practices and systems and the number of business recommendations, risks, and best practices identified. The number of criminal, civil and administrative actions has increased, reflecting a greater number of debarments and suspensions of contractors, and the number of cases involving laboratories, which are time-lag results of prior years' performance. The 285 percent return on the dollar investment in OIG represent $143.8 million in questioned costs, recommended efficiencies and fines, recoveries, and penalties.

In 2004 The OIG exceeded its annual targets except it only achieved a 48% potential dollar return on its budget.

In 2003 The OIG exceeded the targets for this goal by including measures of results in promoting economy and efficiency and preventing and detecting fraud, waste, and abuse in EPA programs and operations in addition to measures of environmental recommendations and improvement.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of improved business practices and systems.			133	724	225	230	Improvements
Number of criminal, civil, and administrative actions.			108	125	80	80	Actions
Number of business recommendations, risks, and best practices identified.		312	390	1,119	820	840	Recommenda-tions
Return on the annual dollar investment in the OIG.		856	48	285	150	150	Percent

Baseline: In FY 2002, the OIG established a baseline of 150 business recommendations, 70 improved business practices, and 50 criminal, civil, and administrative actions for improving Agency management; and a 100% potential dollar return on the investment in the OIG from savings and recoveries.

Enabling/Support Programs
Annual Performance Goals and Measures

Audit and Advisory Services

In 2007 In 2007, the OIG will contribute to improved environmental quality and human health by identifying 115 environmental recommendations, best practices, risks, or opportunities for improvement; contributing to the reduction or elimination of 33 environmental or infrastructure security risks; and 55 actions influencing environmental improvements or program changes.

In 2006 In 2006, the OIG will contribute to improved environmental quality and human health by identifying 105 environmental recommendations, best practices, risks, or opportunities for improvement; contributing to the reduction or elimination of 28 environmental or infrastructure security risks; and 50 actions influencing environmental improvements or program changes.

In 2005 These performance results generally represent complex environmental actions to be taken subsequently to OIG recommendations, risks, and best practices identified. While the results for Environmental Actions and Improvements indicate the measure was not met, the system used to track this information currently does not capture actions taken by EPA program managers prior to the issuance of the Inspector General's final report, which means the number of actions taken (35) is probably artificially low from errors of omission. Further, there are a considerable number of primary and secondary actions and improvements that are time lagged, occurring beyond the immediate scope of recognition as reportable results because of their complexity and expanded residual effect, thereby making them difficult to track. Therefore, the reported results for this measure are conservative and do not fully reflect the scope or number of actions taken and improvements made.

In 2004 Exceeded its targets by identifying 116 environmental recommendations, risks, and best practices; contributing to the reduction of 45 environmental risks; and 49 actions influencing positive environmental or health impacts.

In 2003 Improved environmental quality and human health by identifying 312 environmental recommendations, risks, and best practices; contributing to the reduction of 92 environmental risks, and 185 actions influencing positive environmental or health impacts.

Performance Measures	FY 2002 Actuals	FY 2003 Actuals	FY 2004 Actuals	FY 2005 Actuals	FY 2006 Enacted	FY 2007 Pres Bud	
Number of environmental risks reduced.		92	45	35	28	33	Risks
Number of environmental actions.		185	49	35	50	55	Improvements
Number of environmental recommendations, risks, and best practices identified.		485	116	112	105	115	Recommendations

Baseline: In FY 2002, the OIG established a baseline of: 75 recommendations, best practices and risks identified contributing to improved Agency environmental goals; 15 environmental actions; and the reduction of 15 environmental risks.

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Enabling/Support Programs
Annual Performance Goals and Measures

Environmental Protection Agency

FY 2007 Annual Performance Plan and Congressional Justification

Program Performance and Assessment

Air Toxics 44, 130, 131, 134, 140
Alaska Native Villages 212
Brownfields 2, 30, 81, 82, 263, 264
Chesapeake Bay 87, 88, 285, 286, 287, 288, 289, 290
Civil Enforcement 301
Clean Air 2, 20, 43, 44, 91, 118, 119, 120, 122, 139, 152, 153, 301
Clean Water .. 3, 23, 24, 25, 26, 27, 59, 61, 86, 184, 185, 187, 189, 190, 191, 193, 194, 196, 199, 204, 206, 207, 208, 209, 210, 269, 270, 298, 300, 301
Climate Protection Program 49
Compliance 6, 28, 34, 70, 96, 98, 99, 194, 195, 203, 204, 207, 208, 223, 289, 298, 299, 300, 301, 302, 303
Compliance Incentives 98
Computational Toxicology 94
Corrective Action 15, 28, 29, 30, 69, 233
Criminal Enforcement 298, 300
Drinking Water .. 1, 3, 23, 24, 25, 26, 27, 52, 53, 61, 62, 165, 166, 167, 168, 169, 170, 171, 173, 174, 175, 176, 218, 253, 273
Endocrine Disruptor 3, 4, 31, 34, 75, 76, 91, 92, 164, 237, 238, 239, 319
Endocrine Disruptors 3, 4, 31, 34, 75, 91, 92, 164, 319
Energy Star 162
Enforcement 5, 6, 9, 34, 35, 36, 37, 96, 195, 203, 204, 208, 236, 299, 300, 301, 302
Environmental Education 6, 35, 36, 38
Environmental Information 133, 138, 195, 215, 227, 230, 233, 299, 324
Exchange Network 109, 309
Global Change 89
Great Lakes 55, 56, 85, 86, 181, 182, 183, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285
Gulf of Mexico 1, 61, 83, 84, 213, 217, 290, 292
Homeland Security 92, 94, 156, 157
Human Health Risk Assessment 90
Indoor Air 7, 20, 22, 23, 45, 46, 142, 150, 151
Information Security 111, 112, 325, 326
Lead 7, 8, 33, 90, 91, 233, 250, 293, 305
Long Island Sound 266
Marine Pollution 183, 266
Mexico Border 18, 33
NAAQS 20, 21, 39, 40, 42, 50, 90, 91, 122, 126, 163, 293
Oil 8, 9, 28, 30, 70, 71, 72, 156, 208, 223, 224
Pollution Prevention .. 14, 105, 250, 252, 254, 255, 256, 257, 260, 303, 304, 305, 306, 307, 308, 309, 310, 318

Public Water System Supervision (PWSS) **166, 171**
Puerto Rico **179, 213**
Radon **45, 142, 144, 145**
Science Advisory Board **134, 139, 155, 254**
Surface Water Protection **17, 23**
Sustainability **105, 264, 318**
Tribal General Assistance Program **9, 10, 24, 25, 35, 36**
Underground Storage Tanks **222, 223, 234, 235**
Waste Management **10, 28, 29, 30, 34, 38, 158, 308**
Water Quality **60, 169, 184, 188, 192, 193, 194, 196, 198, 199, 206, 207, 211, 266, 267, 282**
Wetlands **265, 267, 268, 270, 272**

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Inspector General

Resource Summary Table **1**
Program Projects in IG **1**
Program Area: Audits, Evaluations And Investigations **2**
Audits, Evaluations, and Investigations 3

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION: Inspector General
Resource Summary Table
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Inspector General				
Budget Authority / Obligations	$45,007.1	$36,904.0	$35,100.0	($1,804.0)
Total Workyears	270.8	267.7	267.7	0.0

BILL LANGUAGE: OFFICE OF INSPECTOR GENERAL

For necessary expenses of the Office of Inspector General in carrying out the provisions of the Inspector General Act of 1978, as amended, and for [construction,] alteration, repair, rehabilitation, and renovation of facilities, not to exceed $85,000 per project, $35,100,000, [$37,455,000], to remain available until September 30, [2007] 2008.

Program Projects in IG
(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	$44,580.7	$36,904.0	$35,100.0	($1,804.0)
Inspector General Congressionally Mandated Projects				
Congressionally Mandated Projects	$426.4	$0.0	$0.0	$0.0
Subtotal, Congressionally Mandated Projects	$426.4	$0.0	$0.0	$0.0

Program Area: Audits, Evaluations and Investigations

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Inspector General	***$44,580.7***	***$36,904.0***	***$35,100.0***	***($1,804.0)***
Hazardous Substance Superfund	$15,182.0	$13,337.0	$13,316.0	($21.0)
Total Budget Authority / Obligations	$59,762.7	$50,241.0	$48,416.0	($1,825.0)
Total Workyears	357.8	361.8	361.8	0.0

Program Project Description:

EPA's Inspector General (IG) provides audit, evaluation, investigative, public liaison, and advisory services that fulfill the requirements of the Inspector General Act, as amended, by contributing to improved human health and environmental quality and promoting the economy, efficiency, and effectiveness of Agency operations. These activities add value and enhance public trust by providing the Agency and Congress with best practices, independent analyses, and recommendations to address management challenges, efficiently accomplish environmental objectives, achieve Government Performance and Results Act goals, and safeguard resources. They also result in the prevention, detection, and prosecution of financial fraud, laboratory fraud, and cyber crime. The EPA IG also serves as the Inspector General for the U.S. Chemical Safety and Hazard Investigation Board (CSB).

FY 2007 Activities and Performance Plan:

The Office of Inspector General seeks to assist the Agency in its efforts to reduce environmental and human health risks, improve business systems and program operations, save taxpayer dollars, and resolve major management challenges. Work in FY 2007 will emphasize improved Agency business systems including strengthening accountability and data integrity leading to positive environmental impacts and the attainment of EPA's Strategic Goals. Further, issues relating to environmental stewardship, watershed management, voluntary programs, state and Federal roles, grants and contracts will increasingly become integrative elements of OIG work.

Audits and Evaluations

Air

Evaluations will focus on how EPA can: 1) maximize the effectiveness of its fine particulate matter (PM 2.5) ambient monitoring and emissions control strategies; 2) better execute its ozone reduction strategies; 3) improve the effectiveness of major risk reduction strategies, including

multi-pollutant strategies; and 4) obtain air data more cost-effectively while improving its reliability in relation to program needs. The OIG will also focus on the use of market mechanisms, such as emissions trading, to promote achievement of air quality goals.

Water

Evaluations will determine how EPA can cost effectively achieve water quality goals. We will evaluate: 1) how EPA works with its state partners to more effectively and efficiently control, protect, and monitor watersheds, non-point sources of pollution, and water quality; 2) how EPA can effectively use and improve regulatory and non-regulatory tools to reduce water pollution loadings; 3) EPA's use of market mechanisms and economic incentives to help communities finance and support new and existing wastewater and drinking water infrastructure; and 4) how EPA can improve the quality of its water data to support incentives for compliance, infrastructure financing, and conservation. Further, the Office of Inspector General will determine how effective EPA's plans, approaches and investments are in addressing the need for critical and expensive repairs and improvements to the nation's water infrastructure.

Land

In addition to the Superfund work, evaluations will focus on: 1) opportunities to improve cost effectiveness in providing oversight and assistance to states implementing hazardous material management programs and underground storage tank programs; and 2) factors underlying EPA's progress in achieving reductions of priority chemicals and other voluntary initiatives to achieve resource conservation and environmental protection.

Cross-Media

Evaluations will concentrate on how EPA can: 1) best execute its Homeland Security Strategic Plan to prevent, prepare for, and respond to a possible terrorist attack to minimize adverse impacts on human health and the environment; 2) determine which voluntary programs are cost effectively achieving their environmental goals; 3) employ established environmental protection tools, programs and approaches to protect, sustain, and restore community health; and 4) optimize the use of traditional and market-based enforcement techniques to cost effectively improve regulatory compliance.

Evaluations of the U.S. Chemical Safety and Hazard Investigation Board (CSB) will focus on how efficiently and effectively the CSB: 1) protects its customers and their surrounding communities from hazardous chemical plant practices; 2) minimizes risks from both natural and intentional events, and 3) reduces chemical accident rates.

Good Government

Audits will focus on whether EPA (1) assistance agreements and contracts are efficiently and effectively administered to accomplish the Agency's mission; (2) information technology systems have cost-effective controls to provide timely, accurate, complete, useful and secure financial and performance data for decision making and accountability; (3) systems, including planning, budgeting, management, and human capital, effectively support accomplishment of

environmental goals; and (4) financial statements are fairly presented. A significant portion of audit resources will be devoted to mandated work involving the financial statements of EPA and the Chemical Safety and Hazard Investigation Board (CSB), the information security practices of EPA and CSB required by the Federal Information Security Management Act, financial audits of costs claimed by recipients of EPA assistance agreements conducted pursuant to the Single Audit Act, and the processing of financial audits of EPA contractors performed by the Defense Contract Audit Agency. Discretionary work will involve: (1) financial audits of costs claimed by certain assistance agreement recipients and EPA contractors; (2) audits of grant and contract administration, including Superfund contracts; (3) results achieved with Clean Water and Drinking Water Revolving Funds; and (4) audits and studies of EPA's business systems.

Investigations

The OIG will conduct investigations into allegations or indications, and seek prosecution, of criminal activity and serious misconduct in EPA programs and operations that undermine the integrity of or confidence in programs and create imminent environmental risks. Investigations focus on: (1) fraudulent activities in the awarding, performance, and payment of funds under EPA contracts, grants, and other assistance agreements to individuals, companies and organizations; (2) criminal activity or serious misconduct affecting EPA programs or involving EPA personnel (such as false certifications for asbestos removal and fraudulent use of the Agency seal) which could undermine or erode the public trust; (3) laboratory fraud focusing on erroneous environmental testing data and results that could undermine the bases for EPA decision-making, regulatory compliance, and enforcement actions; and (4) intrusions into and attacks against EPA's network as well as incidents of computer misuse and theft of intellectual property. In addition, we assist EPA in testing its network infrastructure to provide a threat and vulnerability assessment used to minimize or mitigate hostile infrastructure attacks. In response to an attack, the OIG will provide protection of EPA information and resources, will coordinate with state, local, and other Federal law enforcement authorities, will increase awareness of fraud indicators, and will create a network of potential resources.

Public Liaison

Public liaison work will continue addressing critical public and governmental concerns in FY 2007. This activity involves responding to requests from the public, Congress, EPA employees, or other government entities to provide information and to conduct reviews in response to complaints or allegations of fraud, waste, abuse, or mismanagement in EPA programs. To accomplish this work, the Office of Inspector General initiates reviews and if needed contracts with subject matter experts to assist with such reviews, and coordinates these efforts with ongoing audits, evaluations, or investigations.

Performance Targets:

Work under this program supports multiple objectives. The performance measures are included in the Program Performance and Assessment section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (-$2,579.9) This decrease reflects a general reduction to the Inspector General Appropriation.
- (-$500.0) This decrease reflects a reduction to the Chemical Safety and Hazard Investigation Board activities.
- (+$1,276.0) This reflects an increase for payroll and cost of living for existing FTE.

Statutory Authority:

Inspector General Act, as amended; Government Management Reform Act; Reports Consolidation Act; Single Audit Act; and Pesticides Registration Improvement Act; CFO Act; CERLA; FFMIA; FISMA; FQPA.

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

Inspector General

Audits, Evaluations, and Investigations 1, 3
Clean Water 5
Congressionally Mandated Projects 1
Drinking Water 5
Environmental Information 3
Homeland Security 4
Information Security 5, 6
Inspector General Congressionally Mandated Projects 1

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Buildings and Facilities

Resource Summary Table **1**
Program Projects in B&F **1**
Program Area: Homeland Security **2**
Homeland Security: Protection of EPA Personnel and Infrastructure **3**
Program Area: Operations and Administration **5**
Facilities Infrastructure and Operations **6**

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

APPROPRIATION: Building and Facilities
Resource Summary Table
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Building and Facilities				
Budget Authority / Obligations	$45,181.0	$39,626.0	$39,816.0	$190.0
Total Workyears	0.0	0.0	0.0	0.0

BILL LANGUAGE: BUILDINGS AND FACILITIES

For construction, repair, improvement, extension, alteration, and purchase of fixed equipment or facilities of, or for use by, the Environmental Protection Agency, [$40,218,000] $39,816,000, to remain available until expended.

Program Projects in B&F
(Dollars in Thousands)

Program Project	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Homeland Security				
Homeland Security: Protection of EPA Personnel and Infrastructure	$12,936.5	$11,331.0	$11,385.1	$54.1
Operations and Administration				
Facilities Infrastructure and Operations	$32,244.5	$28,295.0	$28,430.9	$135.9
Subtotal, Facilities Infrastructure and Operations	$32,244.5	$28,295.0	$28,430.9	$135.9

Program Area: Homeland Security

Homeland Security: Protection of EPA Personnel and Infrastructure

Program Area: Homeland Security

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$9,102.2	$6,199.0	$6,268.9	$69.9
Science & Technology	$2,517.6	$2,050.0	$2,079.0	$29.0
Building and Facilities	***$12,936.5***	***$11,331.0***	***$11,385.1***	***$54.1***
Hazardous Substance Superfund	$694.2	$588.0	$594.2	$6.2
Total Budget Authority / Obligations	$25,250.5	$20,168.0	$20,327.2	$159.2
Total Workyears	4.4	3.0	3.0	0.0

Program Project Description:

This program involves activities to ensure that EPA's physical structures and assets are secure and that the Agency is prepared to conduct its essential functions during an emergency or threat situation. This involves safeguarding EPA's staff, ensuring the continuity of operations and protecting the capability of EPA's vital infrastructure assets.

FY 2007 Activities and Performance Plan:

The Agency will continue to update physical security vulnerability assessments in accordance with the Department of Justice, United States Marshals Service, Vulnerability Assessment of Federal Facilities guidelines at its 191 facilities and continue the mitigation of vulnerabilities at our most sensitive facilities. In FY 2007, the Agency will conduct physical security vulnerability assessments and mitigation efforts; perform window security vulnerability assessments, engineering analyses and post mitigation analyses; ensure new construction, new leased, and major modernization projects meet physical security requirements; and expand or realign existing laboratories for homeland security support activities.

Performance Targets:

Work under this program supports multiple performance objectives. Currently, there are no performance measures specific to this program project.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$54.1) This increase will support physical security activities.

Statutory Authority:

Public Health Security and Bioterrorism Emergency and Response Act of 2002; and Secure Embassy Construction and Counterterrorism Act (Sections 604 and 629).

Program Area: Operations and Administration

Goal: Provide Agency-wide support for multiple goals to achieve their objectives. This support involves Agency-wide activities primarily provided by EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	FY 2007 Pres Bud v. FY 2006 Enacted
Environmental Program & Management	$317,744.7	$343,908.0	$294,760.1	($49,147.9)
Science & Technology	$8,892.1	$8,511.0	$70,239.5	$61,728.5
Building and Facilities	***$32,244.5***	***$28,295.0***	***$28,430.9***	***$135.9***
Leaking Underground Storage Tanks	$982.9	$894.0	$916.8	$22.8
Oil Spill Response	$552.1	$500.0	$499.3	($0.7)
Hazardous Substance Superfund	$65,156.8	$69,667.0	$73,944.7	$4,277.7
Total Budget Authority / Obligations	$425,573.1	$451,775.0	$468,791.3	$17,016.3
Total Workyears	364.1	437.2	438.6	1.4

Program Project Description:

Facilities activities in Buildings and Facilities Appropriation include design, construction, repair and improvement projects costing over $85,000 for buildings occupied by EPA, whether federally owned or leased.

FY 2007 Activities and Performance Plan:

These resources help to improve operating efficiency and encourage the use of new, advanced technologies and advanced energy sources. Additionally, the Agency will also meet the Federal Facility environmental objectives of Executive Orders related to efficient building management practices. Efforts will include comprehensive facility energy audits, sustainable building design in Agency construction and alteration projects, energy savings performance contracts to achieve energy efficiencies, the use of off-grid energy equipment, energy load reduction strategies, green power purchases, and the use of Energy Star products and Energy Star rated buildings.

Performance Targets:

Work under this program supports multiple objectives. Performance information is included in the Program Performance and Assessment section.

FY 2007 Change from FY 2006 Enacted Budget (Dollars in Thousands):

- (+$135.9) This increase will support repair and improvement activities in Agency facilities.

Statutory Authority:

FPASA; PBA; annual Appropriations Acts; CWA; CAA; D.C. Recycling Act; EO 10577 and 12598; United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Homeland Security PDD 63 (Critical Infrastructure Protection).

Buildings and Facilities

Energy Star **6**
Environmental Information **3, 6**
Facilities Infrastructure and Operations **1, 6**
Homeland Security **1, 2, 3, 7**
Protection of EPA Personnel and Infrastructure 1, 3
Oil **6**
Operations and Administration **1, 5, 6**
Underground Storage Tanks **6**

Environmental Protection Agency
2007 Annual Performance Plan and Congressional Justification

Table of Contents - Appendix

Coordination with Other Federal Agencies - Environmental Programs 1
Coordination with Other Federal Agencies - Enabling Support Programs 31
Major Management Challenges 36
EPA User Fee Program 50
Working Capital Fund 53
Acronyms for Statutory Authorities 54
STAG Categorical Program Grants - Statutory Authority and Eligible Uses 59
Infrastructure / STAG Project Financing 70
Program Projects by Appropriation 74

COORDINATION WITH OTHER AGENCIES ENVIRONMENTAL PROGRAMS

Goal 1- Clean Air and Global Climate Change

Objective: Healthier Outdoor Air

The Environmental Protection Agency (EPA) cooperates with other Federal, state, Tribal, and local agencies in achieving goals related to ground level ozone and PM. EPA continues to work closely with the Department of Agriculture and the Forest Service in developing its burning policy and reviewing practices that can reduce emissions. EPA, the Department of Transportation (DOT), and the Army Corps of Engineers (COE) work with state and local agencies to integrate transportation and air quality plans, reduce traffic congestion, and promote livable communities. EPA continues to work with the Department of the Interior (DOI), National Park Service (NPS), in developing its regional haze program and deploying the IMPROVE visibility monitoring network. The operation and analysis of data produced by the particulate matter (PM) monitoring system is an example of the close coordination of effort between the EPA and state and Tribal governments.

For pollution assessments and transport, EPA is working with the National Aeronautics and Space Administration (NASA) on technology transfer using satellite imagery. EPA will be working to further distribute NASA satellite products to and NOAA air quality forecast products to Regions, states, local agencies, and Tribes to provide better understanding of air quality on a day-to-day basis and to assist with PM forecasting. EPA will also work with NASA to develop a better understanding of PM formation using satellite data. EPA works with the Department of the Army, Department of Defense (DoD) on advancing emission measurement technology and with the National Oceanic and Atmospheric Administration (NOAA), Department of Commerce for meteorological support for our modeling and monitoring efforts.

To better understand the magnitude, sources, and causes of mobile source pollution, EPA works with the Departments of Energy (DOE) and DOT to fund research projects. A program to characterize the exhaust emissions from light-duty gasoline vehicles is being co-funded by DOE and DOT. Other DOT mobile source projects include TRANSIMS (TRansportation ANalysis and SIMulation System) and other transportation modeling projects; DOE is funding these projects through the National Renewable Energy Laboratory. EPA also works closely with DOE on refinery cost modeling analyses and the development of clean fuel programs. For mobile sources program outreach, the Agency is participating in a collaborative effort with DOT's Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) designed to educate the public about the impacts of transportation choices on traffic congestion, air quality, and human health. This community-based public education initiative also includes the Centers for Disease Control (CDC). In addition, EPA is working with DOE to identify opportunities in the Clean Cities program. EPA also works with other Federal agencies such as the U.S. Coast Guard (USCG) on air emission issues. Other programs targeted to reduce air toxics from mobile sources are coordinated with DOT. These partnerships can involve policy assessments and toxic emission reduction strategies in different regions of the country.

To develop new continuous source monitoring technology for toxic metals emitted from smokestacks, EPA has partnered with the DoD. This partnership will provide a new source monitoring tool that will streamline source monitoring requirements that a number of DoD incinerators are required to meet and improve the operation of DoD incinerators with real-time emissions information resulting in reduced releases of air toxics to the environment. In time, this technology is expected to be available for use at non-DoD facilities.

For the clean fuel programs, EPA works closely with the DOE on refinery cost modeling analyses. For mobile sources program outreach, the Agency is participating in a collaborative effort with FHWA and FTA designed to educate the public about the impacts of transportation choices on traffic congestion, air quality, and public health. This community-based public education initiative also includes the CDC. In addition, EPA works with DOE to identify opportunities in the Clean Cities program. EPA also works cooperatively with DOE to better characterize gasoline PM emissions and characterize the contribution of gasoline vehicles and engine emissions to ambient PM levels.

To reduce air toxic emissions that do not inadvertently increase worker exposures, EPA is continuing to work closely with the Department of Labor's Occupational Safety and Health Administration (OSHA) to coordinate the development of EPA and OSHA standards. EPA also works closely with other health agencies such as the CDC, the National Institute of Environmental Health Sciences (NIEHS), and the National Institute for Occupational Safety and Health on health risk characterization. To assess atmospheric deposition and characterize ecological effects, EPA works with NOAA and the Department of the Interior's U.S. Fish and Wildlife Service (USFWS).

The Agency has worked extensively with the Department of Health and Human Services (HHS) on the National Health and Nutritional Evaluation Study to identify mercury accumulations in humans. EPA also has worked with DOE on the 'Fate of Mercury' study to characterize mercury transport and traceability in Lake Superior.

To determine the extent to which agricultural activities contribute to air pollution, EPA will continue to work closely with the USDA through the joint USDA/EPA Agricultural Air Quality Task Force (AAQTF). The AAQTF is a workgroup set up by Congress to oversee agricultural air quality-related issues and to develop cost-effective ways in which the agricultural community can improve air quality. In addition, the AAQTF coordinates research on agricultural air quality issues to avoid duplication and ensure data quality and sound interpretation of data.

In developing regional and international air quality programs and projects and working on regional agreements, EPA works primarily with the Department of State, the Agency for International Development (USAID), and the DOE as well as with regional organizations. EPA's international air quality management program will complement EPA's programs on children's health, Trade and the Environment, and trans-boundary air pollution. In addition, EPA will partner with others worldwide, including international organizations such as the United Nations Environment Programme, the European Union, the Organization for Economic

Development and Co-operation (OECD), the World Bank, the Asian Development Bank, and our colleagues in Canada, Mexico, Europe, and Japan.

Objective: Healthier Indoor Air

EPA works closely through a variety of mechanisms with a broad range of Federal, state, Tribal, and local government agencies, industry, non-profit organizations, and individuals, as well as other nations, to promote more effective approaches to identifying and solving indoor air quality problems. At the Federal level, EPA works closely with several departments or agencies:

- Department of Health and Human Services (HHS) to develop and conduction programs aimed at reducing children's exposure to known indoor triggers of asthma, including secondhand smoke;
- Department of Housing and Urban Development (HUD) on home health and safety issues, especially those affecting children;
- Consumer Product Safety Commission (CPSC) to identify and mitigate the health hazards of consumer products designed for indoor use;
- Department of Education (DoEd) to encourage construction and operation of schools with good indoor air quality; and
- Department of Agriculture (USDA) to encourage USDA Extension Agents to conduct local projects designed to reduce risks from indoor air quality. EPA plays a leadership role on the President's Task Force on Environmental Health Risks and Safety Risks to Children, particularly with respect to asthma and school environmental health issues.

As Co-chair of the interagency Committee on Indoor Air Quality (CIAQ), EPA works with the CPSC, DOE, the National Institute for Occupational Safety and Health, and OSHA to review EPA draft publications, arrange the distribution of EPA publications, and coordinate the efforts of Federal agencies with those of state and local agencies concerned with indoor air issues.

Objective: Protect the Ozone Layer

In an effort to curb the illegal importation of ozone depleting substances (ODSs), an interagency task force was formed consisting of representatives from EPA, the Departments of Justice (DOJ), Department of Homeland Security (DHS), Department of State, Department of Commerce, and the Internal Revenue Service (IRS). Venting of illegally imported chemicals has the potential to prevent the United States from meeting the goals of the Montreal Protocol to restore the ozone layer.

EPA works very closely with the Department of State and other Federal agencies as appropriate in international negotiations among Parties to the Protocol. EPA works with the Office of the United States Trade Representative to analyze potential trade implications in stratospheric protection regulations that affect imports and exports.

EPA is working with USDA and the Department of State to facilitate research and development of alternatives to methyl bromide. EPA collaborates with these agencies to prepare U.S. requests

for emergency and critical use exemptions of methyl bromide. EPA is providing input to USDA on rulemakings for methyl bromide-related programs. EPA consults with the Food and Drug Administration (FDA) on the potential for domestic methyl bromide needs.

EPA also coordinates closely with FDA to ensure that sufficient supplies of chlorofluorocarbons (CFCs) are available for the production of life-saving metered-dose inhalers for the treatment of asthma and other lung diseases. This partnership between EPA and FDA combines the critical goals of protecting public health and limiting damage to the stratospheric ozone layer.

EPA works with the CDC and the National Weather Service (NWS) to coordinate the Ultraviolet Radiation (UV) Index and the health messages that accompany index reports. EPA is a member of the Federal Council on Skin Cancer Prevention, which educates and protects all Federal employees from the risks of overexposure to UV radiation.

In addition to collecting its own UV data, EPA coordinates with NASA and NOAA to monitor the state of the stratospheric ozone layer. EPA works with NASA on assessing essential uses and other exemptions for critical shuttle and rocket needs, as well as effects of direct emissions of high-speed aircraft flying in the stratosphere.

EPA coordinates with the Small Business Administration (SBA) to ensure that proposed rules are developed in accordance with the Small Business Regulatory Flexibility Act.

Objective: Radiation

In addition to the specific activities described above, EPA continues to work with Federal agencies including Nuclear Regulatory Commission (NRC), DOE, and DHS to prevent metals and finished products suspected of having radioactive contamination from entering the country. EPA also works with the DOT on initiatives to promote use of non-nuclear density gauges for highway paving, and with the DOE and NRC to develop state-of-the-art tracking systems for radioactive sources in U.S. commerce.

Objective: Reduce Greenhouse Gas Intensity

Voluntary climate protection programs government-wide stimulate the development and use of renewable energy technologies and energy efficient products that will help reduce greenhouse gas emissions. The effort is led by EPA and DOE with significant involvement from USDA, HUD and the National Institute of Standards and Technology (NIST).

Agencies throughout the government make significant contributions to the climate protection programs. For example, DOE will pursue actions such as promoting the research, development, and deployment of advanced technologies (for example, renewable energy sources). The Treasury Department will administer proposed tax incentives for specific investments that will reduce emissions. EPA is working with DOE to demonstrate technologies that oxidize ventilation air methane from coal mines. EPA is broadening its public information transportation choices campaign as a joint effort with DOT. EPA coordinates with each of the above-mentioned agencies to ensure that our programs are complementary and in no way duplicative.

This coordination is evident in work recently completed by an interagency task force, including representatives from the Department of State, EPA, DOE, USDA, DOT, Office of Management and Budget (OMB), Department of Commerce, USGCRP, NOAA, NASA, and the DoD, to prepare the Third National Communication to the Secretariat as required under the Framework Convention on Climate Change (FCCC). The FCCC was ratified by the United States Senate in 1992. A portion of the Third National Communication describes policies and measures (such as ENERGY STAR and EPA's Clean Automotive Technology initiative) undertaken by the U.S. to reduce greenhouse gas emissions, implementation status of the policies and measures, and their actual and projected benefits. One result of this interagency review process has been a refinement of future goals for these policies and measures which were communicated to the Secretariat of the FCCC in 2002. The "U.S. Climate Action Report 2002: Third National Communication of the United States of America under the United Nations Framework Convention on Climate Change" is available at: http://unfccc.int/resource/docs/natc/usnc3.pdf .

EPA works primarily with the Department of State, USAID and DOE as well as with regional organizations in implementing climate-related programs and projects. In addition, EPA partners with others worldwide, including international organizations such as the United Nations Environment Programme, the United Nations Development Programme, the International Energy Agency, the OECD, the World Bank, the Asian Development Bank, and our colleagues in Canada, Mexico, Europe and Japan.

EPA works primarily with the Department of State, the Agency for International Development as well as local and regional foreign governments in implementing climate-related programs and projects. In addition, EPA partners with others worldwide, including international organizations such as the United Nations Environment Programme, the United Nations Development Programme, the International Energy Agency, the OECD, the World Bank, the Asian Development Bank, and our colleagues in Canada, Mexico, Europe, and Japan.

Objective: Enhance Science and Research

EPA works with the National Park Service in operating Clean Air Status and Trends Network (CASTNET). In addition, DOE will pursue actions such as promoting the research, development, and deployment of advanced technologies (for example, renewable energy sources). In the case of fuel cell vehicle technology, EPA is working closely with DOE as the Administration's FreedomCAR initiative develops, taking the lead on emissions-related issues.

The President's call for a greatly expanded and coordinated inter-agency particulate matter (PM) research effort led to the creation in 1999 of the Particulate Matter Workgroup, which is administered by the Air Quality Research Subcommittee of the Committee on Environment and Natural Resources (CENR). This workgroup, co-chaired by EPA and NIEHS, has completed its Strategic Research Plan for Particulate Matter[1] to guide the coordinated Federal research program over the next five to ten years.

[1] Committee on Environment and Natural Resources, Air Quality Research Subcommittee, *Strategic Research Plan for Particulate Matter (Washington: CENR, 2002)*. Available at: <http://www.al.noaa.gov/AQRS/reports/SRPPM.pdf>

The body of national PM research dealing with atmospheric sciences is coordinated under North American Research Strategy for Tropospheric Ozone) NARSTO.[2] Its membership of more than 65 organizations, which includes all major Federal, state, and provincial governments, private industry, and utilities, recently released an assessment[3] of PM atmospheric science to help policy makers implement air quality standards for PM. It presents the latest understanding of PM atmospheric phenomena over North America and recommends additional work to fill identified gaps.

EPA's air toxics research is coordinated as needed with other Federal agencies, such as the National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (as a source of toxicity testing data). EPA also supports the Health Effects Institute (HEI),[4] which coordinates with industry partners. In addition, EPA conducts research on advanced source measurement approaches jointly with the Department of Defense through the Strategic Environmental Research and Development Program (SERDP).[5]

Goal 2- Clean and Safe Water

Objective: Protect Human Health

The 1996 SDWA amendments include a provision that mandates joint EPA/CDC study of waterborne diseases and occurrence studies in public water supplies. CDC is involved in assisting EPA in training health care providers (doctors, nurses, public health officials, etc.) on public health issues related to drinking water contamination and there is close CDC/EPA coordination on research on microbial contaminants in drinking water. EPA has in place a MOU and an Interagency Agreement (IAG) with the CDC to implement this provision.

In implementing its source water assessment and protection efforts, the Agency coordinates many of its activities with other Federal agencies. There are three major areas of relationships with other agencies concerning source water assessments and protection.

Public Water Systems (PWS)

Some Federal agencies, (i.e., USDA (Forest Service), DoD, DOE, DOI/NPS, and USPS), own and operate public water systems. EPA's coordination with these agencies focuses primarily on ensuring that they cooperate with the states in which their systems are located, and that they are accounted for in the states' source water assessment programs as mandated in the 1996 amendments to the SDWA.

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[2] Formerly an acronym for the North American Research Strategy for Tropospheric Ozone, the term NARSTO now describes a public-private partnership across the U.S., Canada, and Mexico for dealing with tropospheric pollution, including ozone and suspended particulate matter. For more information, visit: <http://www.cgenv.com/narsto>

[3] NARSTO, *Particulate Matter Science for Policy Makers: A NARSTO Assessment (London: Cambridge University Press, 2004).* Available at: <http://www.cambridge.org/us/catalogue/catalogue.asp?isbn=0521842875>

[4] For more information, visit: <http://www.healtheffects.org>

[5] For more information, visit: <http://www.serdp.org>

Data Availability, Outreach and Technical Assistance

EPA coordinates with USGS, USDA (Forest Service, Natural Resources Conservation Service, Cooperative State Research, Education, and Extension Service (CSREES), Rural Utilities Service); DOT, DoD, DOE, DOI (NPS and Bureau of Indian Affairs (BIA), Land Management, and Reclamation); HHS (Indian Health Service) and the Tennessee Valley Authority (TVA).

Tribal Access Coordination

EPA will continue to work with other Federal agencies to develop a coordinated approach to improving tribal access to safe drinking water. In response to commitments made during the 2002 World Summit in Johannesburg, the EPA committed to the goal of coordinating with other Federal agencies to reduce by half the number of households on tribal lands lacking access to safe drinking water by 2015. United Nations. 2002. *Report of the World Summit on Sustainable Development: Johannesburg, South Africa, 26 August – 4 September, 2002.* New York, NY: United Nations.

Collaboration with USGS

EPA and USGS have identified the need to engage in joint, collaborative field activities, research and testing, data exchange, and analyses, in areas such as the occurrence of unregulated contaminants, the environmental relationships affecting contaminant occurrence, evaluation of currently regulated contaminants, improved protection area delineation methods, laboratory methods, and test methods evaluation. EPA has an IAG with USGS to accomplish such activities. This collaborative effort has improved the quality of information to support risk management decision-making at all levels of government, generated valuable new data, and eliminated potential redundancies.

Collaboration with Public and Private Partners on Critical Water Infrastructure Protection

EPA coordinates with other Federal agencies, primarily DHS, CDC, FDA and DoD on biological, chemical, and radiological contaminants, and how to respond to their presence in drinking water and wastewater systems. A close linkage with the FBI, particularly with respect to ensuring the effectiveness of the ISAC, will be continued. The Agency is strengthening its working relationships with the American Water Works Association Research Foundation, the Water Environment Research Federation and other research institutions to increase our knowledge on technologies to detect contaminants, monitoring protocols and techniques, and treatment effectiveness.

Collaboration with FDA

EPA and FDA have issued joint national fish consumption advisories to protect the public from exposure to mercury in commercially and recreationally caught fish, as well as fish caught for subsistence. EPA's advisory covers the recreational and subsistence fisheries in fresh waters where states and Tribes have not assessed the waters for the need for an advisory. ibid. http://map1.epa.gov/html/federaladv FDA's advisory covers commercially caught fish, and fish

caught in marine waters. Ibid. http://map1.epa.gov/html/federaladv EPA works closely with FDA to distribute the advisory to the public. In addition, EPA works with FDA to investigate the need for advisories for other contaminants and to ensure that these federal advisories support and augment advisories issued by states and Tribes.

Beach Monitoring and Public Notification

The BEACH Act requires that all Federal agencies with jurisdiction over coastal and Great Lakes recreation waters adjacent to beaches used by the public implement beach monitoring and public notification programs. These programs must be consistent with guidance published by EPA. ibid. "National Beach Guidance and Required Performance Criteria for Grants." EPA will continue to work with the USPS and other Federal agencies to ensure that their beach water quality monitoring and notification programs are technically sound and consistent with program performance criteria published by EPA.

Objective: Protect Water Quality

Watersheds

Protecting and restoring watersheds will depend largely on the direct involvement of many Federal agencies and state, Tribal and local governments who manage the multitude of programs necessary to address water quality on a watershed basis. Federal agency involvement will include USDA (Natural Resources Conservation Service, Forest Service, Agriculture Research Service), DOI (Bureau of Land Management, Office of Surface Mining, USGS, USFWS, and the Bureau of Indian Affairs), NOAA, DOT, and DoD (Navy and COE). At the state level, agencies involved in watershed management typically include departments of natural resources or the environment, public health agencies, and forestry and recreation agencies. Locally, numerous agencies are involved, including Regional planning entities such as councils of governments, as well as local departments of environment, health and recreation who frequently have strong interests in watershed projects.

National Pollutant Discharge Elimination System Program (NPDES)

Since inception of the NPDES program under Section 402 of the CWA, EPA and the authorized states have developed expanded relationships with various Federal agencies to implement pollution controls for point sources. EPA works closely with USFWS and the National Marine Fisheries Service on consultation for protection of endangered species through a Memorandum of Agreement. EPA works with the Advisory Council on Historic Preservation on National Historic Preservation Act implementation. EPA and the states rely on monitoring data from USGS to help confirm pollution control decisions. The Agency also works closely with SBA and the Office of Management and Budget (OMB) to ensure that regulatory programs are fair and reasonable. The Agency coordinates with the NOAA on efforts to ensure that NPDES programs support coastal and national estuary efforts; and with the DOI on mining issues.

Joint Strategy for Animal Feeding Operations

The Agency is working closely with the USDA to implement the Unified National Strategy for Animal Feeding Operations finalized on March 9, 1999. The Strategy sets forth a framework of actions that USDA and EPA will take to minimize water quality and public health impacts from improperly managed animal wastes in a manner designed to preserve and enhance the long-term sustainability of livestock production. EPA's recent revisions to the CAFO Regulations (effluent guidelines and NPDES permit regulations) will be a key element of EPA and USDA's plan to address water pollution from CAFOs. EPA and USDA senior management meet routinely to ensure effective coordination across the two agencies.

Clean Water State Revolving Fund (CWSRF)

Representatives from EPA's SRF program, HUD's Community Development Block Grant program, and USDA's Rural Utility Service have signed a MOU committing to assisting state or Federal implementers in: (1) coordination of the funding cycles of the three Federal agencies; (2) consolidation of plans of action (operating plans, intended use plans, strategic plans, etc.); and (3) preparation of one environmental review document, when possible, to satisfy the requirements of all participating Federal agencies. A coordination group at the Federal level has been formed to further these efforts and maintain lines of communication. In many states, coordination committees have been established with representatives from the three programs.

In implementation of the Indian set-aside grant program under Title VI of the CWA, EPA works closely with the Indian Health Service to administer grant funds to the various Indian Tribes, including determination of the priority ranking system for the various wastewater needs in Indian Country. In 1998, EPA and the Rural Utilities Service of the USDA formalized a partnership between the two agencies to provide coordinated financial and technical assistance to Tribes.

Construction Grants Program - US Army Corps of Engineers

Throughout the history of the construction grants program under Title II of the CWA, EPA and the delegated states have made broad use of the construction expertise of the COE to provide varied assistance in construction oversight and administrative matters. EPA works with the Corps to provide oversight for construction of the special projects that Congress has designated. The mechanism for this expertise has been and continues to be an IAG between the two agencies.

Nonpoint Sources

EPA will continue to work closely with its Federal partners to achieve the ambitious strategic objective of reducing pollutant discharges, including at least 20 percent from 1992 erosion levels. Most significantly, EPA will continue to work with the USDA, which has a key role in reducing sediment loadings through its continued implementation of the Environmental Quality Incentives Program, Conservation Reserve Program, and other conservation programs. USDA also plays a major role in reducing nutrient discharges through these same programs and through

activities related to the AFO Strategy. EPA will also continue to work closely with the Forest Service and Bureau of Land Management, whose programs can contribute significantly to reduced pollutant loadings of sediment, especially on the vast public lands that comprise 29 percent of all land in the United States. EPA will work with these agencies, USGS, and the states to document improvements in land management and water quality.

EPA will also work with other Federal agencies to advance a watershed approach to Federal land and resource management to help ensure that Federal land management agencies serve as a model for water quality stewardship in the prevention of water pollution and the restoration of degraded water resources. Implementation of a watershed approach will require coordination among Federal agencies at a watershed scale and collaboration with states, Tribes and other interested stakeholders.

Vessel Discharges

Regarding vessel discharges, EPA will continue working closely with the USCG on addressing ballast water discharges domestically, and with the interagency work group and U.S. delegation to Marine Environmental Protection Committee (MEPC) on international controls. EPA will continue to work closely with the USCG, Alaska and other states, and the International Council of Cruise Lines regarding regulatory and non-regulatory approaches to managing wastewater discharges from cruise ships. EPA will also continue to work with the Coast Guard regarding the vessel sewage discharge standards and with the Navy on developing Uniform National Discharge Standards for Armed Forces vessels. Regarding dredged material management, EPA will continue to work closely with the COE on standards for permit review, as well as site selection/designation and monitoring.

OIA also serves as the primary point-of-contact and liaison with USAID. Specially drawing on expertise from throughout EPA, OIA administers a number of interagency agreements for environmental assistance.

EPA works closely with a number of other Federal agencies with environmental, health, or safety mandates. These include (among others) the DOL, DOT, USDA, DOI, HHS and FDA.

EPA works with the Department of State, NOAA, USCG, Navy, and other Federal agencies in developing the technical basis and policy decisions necessary for negotiating global treaties concerning marine antifouling systems, invasive species, and air pollution from ships. EPA also works with the same Agencies in addressing land-based sources of marine pollution in the Gulf of Mexico and Wider Caribbean Basin.

Objective: Enhance Science and Research

While EPA is the Federal agency mandated to ensure safe drinking water, other Federal and non-Federal entities are conducting research that complements EPA's research program on priority contaminants in drinking water. For example, the CDC and NIEHS conduct health effects and exposure research. FDA also performs research on children's risks.

Many of these research activities are being conducted in collaboration with EPA scientists. The private sector, particularly the water treatment industry, is conducting research in such areas as analytical methods, treatment technologies, and the development and maintenance of water resources. Cooperative research efforts have been ongoing with the American Water Works Association Research Foundation and other stakeholders to coordinate drinking water research. EPA is also working with USGS to evaluate performance of newly developed methods for measuring microbes in potential drinking water sources.

EPA has developed joint research initiatives with NOAA and USGS for linking monitoring data and field study information with available toxicity data and assessment models for developing sediment criteria.

The issue of eutrophication, hypoxia, and harmful algal blooms (HABs) is a priority with the Committee on Environment and Natural Resources (CENR). An interagency research strategy for pfiesteria and other harmful algal species was developed in 1998, and EPA is continuing to implement that strategy. EPA is working closely with NOAA on the issue of nutrients and risks posed by HABs. This CENR is also coordinating the research efforts among Federal agencies to assess the impacts of nutrients and hypoxia in the Gulf of Mexico.

Urban wet weather flow research is being coordinated with other organizations such as the Water Environment Research Foundation's Wet Weather Advisory Panel, the ASCE Urban Water Resources Research Council, the COE, and USGS. Research on the characterization and management of pollutants from agricultural operations (e.g., CAFOs) is being coordinated with USDA through workshops and other discussions.

EPA is pursuing collaborative research projects with the USGS to utilize water quality data from urban areas obtained through the USGS National Ambient Water Quality Assessment (NAWQA) program, showing levels of pesticides that are even higher than in many agricultural area streams. These data have potential uses for identifying sources of urban pesticides, and EPA will evaluate how the USGS data could be integrated into the Geographic Information System (GIS) database system.

Goal 3-Land Preservation and Restoration

Objective: Preserve Land

Pollution prevention activities entail coordination with other Federal departments/agencies, such as the General Services Administration (GSA) (use of safer products for indoor painting and cleaning), the DoD (use of safer paving materials for parking lots), and Defense Logistics Agency (safer solvents). The program also works with the NIST, the International Standards Organization, and other groups to develop standards for Environmental Management Systems.

In addition to business, industry and other non-governmental organizations, EPA will work with Federal, state, Tribal, and local governments to encourage reduced generation as well as the safe recycling of wastes. Frequently, successful programs require multiple partners to address the

multi-media nature of effective source reduction and recycling. The Agency has brought together a range of stakeholders to examine alternatives in specific industrial sectors, and several regulatory changes have followed which encourage hazardous waste recycling. Partners in this effort include the Environmental Council of States, the Tribal Association on Solid Waste and Emergency Response, and the Association of State and Territorial Solid Waste Management Officials.

As Federal partners, EPA and the USPS work together on several municipal solid waste projects. For instance, rather than dispose of returned or unwanted mail, EPA and the USPS developed and implemented successful recycling procedures and markets. For example, unwanted mail (advertisements, catalogues, etc.) is being returned to the Post Office for recycling rather than disposal by the recipient. In addition, Integrated Solid Waste Management Plans are being implemented at parks in western states because of Regional offices' assistance to the NPS. EPA also works with the SBA to provide support to recycling businesses.

The Federal government is the single largest potential source for "green" procurement in the country for office products as well as products for industrial use. EPA works with other Federal agencies and departments in advancing the purchase and use of recycled-content and other "green" products. In particular, the Agency is currently engaged with other organizations within the Executive Branch to foster compliance with Executive Order 13101 and in tracking and reporting purchases of products made with recycled contents.

In addition, the Agency is currently engaged with the DoD, DoEd, DOE, USPS, and other agencies to foster proper management of surplus electronics equipment, with a preference for reuse and recycling. With these agencies, and in cooperation with the electronics industry, EPA participated in developing a draft interagency MOU which will lead to increased reuse and recycling of an array of computers and other electronics hardware used by civilian and military agencies. Implementation of this MOU will divert substantial quantities of plastic, glass, lead, mercury, silver, and other materials from disposal. Currently, EPA works with USDA and FDA on a variety of issues related to the disposal of agricultural products (food and/or animals), contaminated with chemical or biological pathogens.

Concerns about the use of contaminants of concern (e.g., methyl-tertiary-butyl-ether, or MTBE) in gasoline further underscores EPA's and the state's emphasis on promoting compliance with all Underground Storage Tanks (UST) requirements. EPA provides technical information, forums for information exchanges and training opportunities to sates, Tribes and Intertribal Consorita to encourage program development and/or implementation of the UST program. In FY 2007, EPA will continue to promote cross media opportunities (e.g. targeted public health protection through UST and Source Water Protection Programs, support core development and implementation of state and Tribal UST programs, strengthen partnerships among stakeholders and provide technical assistance, compliance assistance, and training to promote and enforce UST facilities' compliance.

Objective: Restore Land

Superfund Remedial Program

The Superfund Remedial program coordinates with many other Federal and state agencies in accomplishing its mission. Currently, EPA has active interagency agreements with NOAA, DOI, OSHA, the Federal Emergency Management Agency (FEMA), and USCG.

These agencies provide numerous Superfund related services such as providing technical support during hazardous waste site investigations and identifying and evaluating the severity of risks posed to natural resources from hazardous waste sites; providing scientific support for response operations in EPA's Regional offices; supporting the national response system by providing emergency preparedness expertise and administrative support to the National Response Team and the Regional Response Teams; assisting in the coordination among Federal and state natural resource trustee agencies; conducting outreach to states, Indian Tribes and Federal natural resource trustee officials regarding natural resource damage assessments; conducting compliance assistance visits to review site safety and health plans and developing guidelines for assessing safety and health at hazardous waste sites; supporting the Superfund program in the management and coordination of training programs for local officials through the Emergency Management Institute and the National Fire Academy; responding to actual or potential releases of hazardous substances involving the coastal zones, including the Great Lakes and designated inland river ports; and, litigating and settling cleanup agreements and cost recovery cases.

Superfund Federal Facilities Program

The Superfund Federal Facilities Program coordinates with Federal agencies (e.g. DoD, DOE, DOI, etc.), states, Tribes and state associations and others to implement its statutory responsibilities to ensure cleanup and property reuse. The Federal Facilities Program provides technical and regulatory oversight at Federal facilities to ensure human health and environment are protected. Executive Order 12580 delegates certain authorities for implementing Superfund to other Federal agencies. EPA's participation in the acceleration process of the first four rounds of Base Realignment and Closures (BRAC) was funded through an IAG which expires on September 30, 2008. BRAC Round 5, finalized in 2005, will result in additional work requirements in FY 2006 and outyears. In expediting DOE's cleanup program, DOE has signed IAGs with EPA for technical input regarding innovative and flexible regulatory approaches, streamlining of documentation, integration of projects, deletion of sites from the NPL, field assessments, and development of management documents and processes. The IAGs have received recognition by DOE as a model for potential use at other DOE field offices.

The Agency also works in partnership with state and Tribal governments to strengthen their hazardous waste programs and improve the efficiency and effectiveness of the nation's overall hazardous waste response capability. EPA assists the states in developing their Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) implementation programs through infrastructure support, financial and technical assistance, and training. Partnerships with states increase the number of site cleanups, improve the timeliness of responses, and make land

available for economic redevelopment earlier in the process, while allowing for more direct local involvement in the cleanup process.

EPA partners with other Federal agencies, state and local governments, and private industry to fulfill Superfund program priorities when a site is radioactively contaminated. Under CERCLA, radioactively contaminated sites are addressed in a manner consistent with how chemically contaminated sites are addressed, accounting for the technical differences. The radiation program provides radiological scientific and technical expertise and leadership in evaluating projects as well as providing field and laboratory support.

Resource Conservation and Recovery Act

The Agency maintains a close relationship with the state agencies that are authorized to implement the Resource Conservation and Recovery Act (RCRA) Permitting and Corrective Action Programs. EPA expects states to achieve the same level of Federal standards as the Agency, including annual performance goals of human exposures and groundwater releases controlled, as well as the number of facilities brought under approved controls. As part of the state grant process, Regional offices negotiate with the states their progress in meeting the corrective action environmental indicator goals.

Encouraging states to become authorized for the RCRA Corrective Action Program remains a priority. Currently, 41 states and territories have been authorized to implement the program. EPA also encourages states to use alternate (non-RCRA) authorities to accomplish the goals of the Corrective Action Program. These include state Superfund and voluntary programs.

The RCRA Permitting and Corrective Action Programs also coordinate closely with other Federal agencies, primarily the DoD and DOE, which have many sites in the corrective action universe. Encouraging Federal facilities to meet the RCRA Corrective Action program's goals remains a top priority.

Leaking Underground Storage Tanks

EPA, with very few exceptions, does not perform the cleanup of leaking underground storage tanks (LUST). States and territories use the LUST Trust Fund to administer their corrective action programs, oversee cleanups by responsible parties, undertake necessary enforcement actions, and pay for cleanups in cases where a responsible party cannot be found or is unwilling or unable to pay for a cleanup. Thirty-seven states have their own cleanup funds to pay for the majority of owners' and operators' cleanup costs. The vast majority of LUST cleanups are paid for by state LUST cleanup funds and not by private parties; state funds are separate from the Federal LUST Trust Fund.

States are key to achieving the objectives and long-term strategic goals. Except in Indian Country, EPA relies on state agencies to implement the LUST Program, including overseeing cleanups by responsible parties and responding to emergency LUST releases. LUST cooperative agreements awarded by EPA are directly given to the states to assist them in implementing their

oversight and programmatic role. The EPA LUST Program also coordinates its efforts with EPA's Office of Water to jointly work with the states to address contamination in areas that are the sources of drinking water.

Emergency Preparedness and Response

EPA plays a major role in reducing the risks accidental and intentional releases of harmful substances and oil pose to human health and the environment. This requires continuous coordination with many Federal, state and local agencies. As the Federal on-scene coordinator (OSC) in the inland zone, EPA evaluates and responds to thousands of releases annually as part of the National Response Plan (NRP). The NRP is a multi-agency preparedness and response mechanism that includes the following key components: the National Response Center (NRC); the National Response Team (NRT), composed of 16 Federal agencies; 13 Regional Response Teams (RRTs); and Federal OSCs. These organizations work with state and local officials to develop and maintain contingency plans will enable the Nation to respond effectively to hazardous substance and oil emergencies.

In addition, the Agency plays a leadership role in crisis management, requiring participation on a number of interagency committees and workgroups. Building on current efforts to enhance national emergency response management, EPA and its role on the NRT will continue implementation of the new National Incident Management System (NIMS).

The NRP, under the direction of DHS provides for the delivery of Federal assistance to states to help them deal with the consequences of terrorist events as well as natural and other significant disasters. EPA has the lead responsibility for the plan's Emergency Support Function covering hazardous materials and inland petroleum releases. Accordingly, EPA participates in the Federal Emergency Support Function Leaders Group which addresses NRP planning and implementation at the operational level. Through this interagency organization, Federal agencies handle issue formulation and resolution, review after-action reports, and evaluate the need for changes to NRP planning and implementation strategies. They also participate in NRP exercises, training and post event evaluation actions, coordinating these activities closely with the NRT.

EPA coordinates its preparedness activities with DHS, FEMA, Federal Bureau of Investigation (FBI), other Federal agencies, states and local governments. EPA will also continue to clarify its roles and responsibilities to ensure that Agency security programs are consistent with the national homeland security strategy.

EPA provides staff support to the Homeland Security Operations Center (HSOC) during national disasters and emergencies, response to terrorist incidents and other responses under the NRP. EPA will also continue to develop and participate in training courses on emergency support function responsibilities, deliver presentations on the NRP to national forums and participate in nationwide exercises to test and improve the Federal government's preparedness and response system as well as its capabilities.

Under the Oil Spill Program, EPA works with other Federal agencies such as USFWS, NOAA, USCG, FEMA, DOI, DOT, DOE, and other Federal agencies and states, as well as with local government authorities to develop Area Contingency Plans. DOJ also provides assistance to agencies with judicial referrals when enforcement of violations becomes necessary. EPA and the USCG work in coordination with other Federal authorities to implement the National Preparedness for Response Program.

The COE and the Bureau of Reclamation contribute to the cleanup of Superfund sites by providing technical support for the design and construction of many remediation projects through site-specific interagency agreements. These Federal partners have the technical design and construction expertise and contracting capability needed to assist EPA regions in implementing most of Superfund's high-cost fund-financed remedial action projects. The two agencies also provide technical on-site support to Regions in the enforcement oversight of numerous construction projects performed by Potentially Responsible Parties (PRPs).

EPA expends substantial effort coordinating its research with other Federal agencies, including work with DoD in its Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program, DOE and its Office of Health and Environmental Research. EPA also conducts collaborative laboratory research with DoD, DOE, DOI (particularly the USGS), and NASA to improve characterization and risk management options for dealing with subsurface contamination.

Other research efforts involving coordination include the unique controlled-spill field research facility designed in cooperation with the Bureau of Reclamation. Geophysical research experiments and development of software for subsurface characterization and detection of contaminants are being conducted with the USGS and DOE's Lawrence Berkeley National Laboratory. The USGS also has a number of programs, such as the Toxic Substances Hydrology Program, that support studies related to contamination of surface water and groundwater by hazardous materials.

The Agency is also working with NIEHS, which manages a large basic research program focusing on Superfund issues, to advance fundamental Superfund research. The Agency for Toxic Substances and Disease Registry (ATSDR) also provides critical health-based information to assist EPA in making effective cleanup decisions. EPA works with these agencies on collaborative projects, information exchange, and identification of research issues and has a MOU with each agency. Additionally, the Interstate Technology Regulatory Council (ITRC) has proved an effective forum for coordinating Federal and state activities and for defining continuing research needs through its teams on topics including permeable reactive barriers, radionuclides, and Brownfields EPA has developed an MOU[6] with several other agencies [DOE, DoD, NRC, USGS, NOAA, and USDA] for multimedia modeling research and development.

[6] For more information please go to: Interagency Steering Committee on Multimedia Environmental Models MOU, http://www.iscmem.org/Memorandum.htm

Goal 4-Healthy Communities and Ecosystems

Objective: Chemical, Organism and Pesticide Risks

Coordination with state lead agencies and with the USDA provides added impetus to the implementation of the Certification and Training program. States also provide essential activities in developing and implementing the Endangered Species and Worker Protection programs and are involved in numerous special projects and investigations, including emergency response efforts. The Regions provide technical guidance and assistance to the states and Tribes in the implementation of all pesticide program activities.

EPA uses a range of outreach and coordination approaches for pesticide users, agencies implementing various pesticide programs and projects, and the general public. Outreach and coordination activities are essential to effective implementation of regulatory decisions. In addition coordination activities protect workers and endangered species, provide training for pesticide applicators, promote integrated pest management and environmental stewardship, and support for compliance through EPA's Regional programs and those of the states and Tribes.

In addition to the training that EPA provides to farm workers and restricted use pesticide applicators, EPA works with the State Cooperative Extension Services designing and providing specialized training for various groups. Such training includes instructing private applicators on the proper use of personal protective equipment and application equipment calibration, handling spill and injury situations, farm family safety, preventing pesticide spray drift, and pesticide and container disposal. Other specialized training is provided to public works employees on grounds maintenance, to pesticide control operators on proper insect identification, and on weed control for agribusiness.

EPA coordinates with and uses information from a variety of Federal, state and international organizations and agencies in our efforts to protect the safety of America's health and environment from hazardous or higher risk pesticides. In May 1991, the USDA implemented the Pesticide Data Program (PDP) to collect objective and statistically reliable data on pesticide residues on food commodities. This action was in response to public concern about the effects of pesticides on human health and environmental quality. EPA uses PDP data to improve dietary risk assessment to support the registration of pesticides for minor crop uses.

PDP is critical to implementing the Food Quality Protection Act (FQPA). The system provides improved data collection of pesticide residues, standardized analytical and reporting methods, and sampling of foods most likely consumed by infants and children. PDP sampling, residue, testing and data reporting are coordinated by the Agricultural Marketing Service using cooperative agreements with ten participating states representing all regions of the country. PDP serves as a showcase for Federal-state cooperation on pesticide and food safety issues.

FQPA requires EPA to consult with other government agencies on major decisions. EPA, USDA and FDA work closely together using both a MOU and working committees to deal with

a variety of issues that affect the involved agencies' missions. For example, agencies work together on residue testing programs and on enforcement actions that involve pesticide residues on food, and we coordinate our review of antimicrobial pesticides. The Agency coordinates with USDA/ARS in promotion and communication of resistance management strategies. Additionally, we participate actively in the Federal Interagency Committee on Invasive Animals and Pathogens (ITAP) which includes members from USDA, DOL, DoD, DHS and CDC to coordinate planning and technical advice among Federal entities involved in invasive species research, control and management.

While EPA is responsible for making registration and tolerance decisions, the Agency relies on others to carry out some of the enforcement activities. Registration-related requirements under FIFRA are enforced by the states. The HSS/FDA enforces tolerances for most foods and the USDA/Food Safety and Inspection Service enforces tolerances for meat, poultry and some egg products.

Internationally, the Agency collaborates with the Intergovernmental Forum on Chemical Safety (IFCS), the CODEX Alimentarius Commission, the North American Commission on Environmental Cooperation (NACEC), the Organization for Economic Cooperation and Development (OECD) and NAFTA Commission. These activities serve to coordinate policies, harmonize guidelines, share information, correct deficiencies, build other nations' capacity to reduce risk, develop strategies to deal with potentially harmful pesticides and develop greater confidence in the safety of the food supply.

One of the Agency's most valuable partners on pesticide issues is the Pesticide Program Dialogue Committee (PPDC), which brings together a broad cross-section of knowledgeable individuals from organizations representing divergent views to discuss pesticide regulatory, policy and implementation issues. The PPDC consists of members from industry/trade associations, pesticide user and commodity groups, consumer and environmental/public interest groups and others.

The PPDC provides a structured environment for meaningful information exchanges and consensus building discussions, keeping the public involved in decisions that affect them. Dialogue with outside groups is essential if the Agency is to remain responsive to the needs of the affected public, growers and industry organizations.

EPA works closely with Federal agencies to improve the health of children and older adults. Working with the CDC, the Environmental Council of the States (ECOS), and the Association of State and Territorial Health Officials (ASTHO), a national action agenda to reduce environmental triggers of childhood asthma was developed and implemented.

The Agency continues to work with other Federal agencies in the development of children's environmental health indicators used to monitor the outcomes of children's health efforts. The Agency collaborates with the CDC, National Center for Health Statistics and obtains approval from the Federal Interagency Forum on Child and Family Statistics (www.childstats.gov) on the reporting of appropriate children's health indicators and data. EPA also participates in the

development of the annual report entitled "America's Children: Key National Indicators of Well-Being."

As a member of the Interagency Forum on Aging Related Statistics, EPA helps to assure that key indicators associated with important aspects of older Americans' lives are considered in reports such as "Older Americans 2004: Key Indicators of Well-Being."

EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) support the Pediatric Environmental Health Specialty Units (PEHSUs) which provide education and consultation services on children's environmental health issues to health professionals, public health officials, and the public.

EPA works closely with other Federal agencies to improve children's health in schools. For example, EPA has incorporated into the new Healthy School Environments Assessment Tool (HealthySEAT), a number of recommendations and requirements from the Department of Education, the CDC, DOT, DOE, CPSC and OSHA.

EPA relies on data from HHS to help assess the risk of pesticides to children. Other collaborative efforts that go beyond our reliance on the data they collect include developing and validating methods to analyze domestic and imported food samples for organophosphates, carcinogens, neurotoxins and other chemicals of concern. These joint efforts protect Americans from unhealthful pesticide residue levels.

EPA's chemical testing data provides information for the OSHA worker protection programs, NIOSH for research, and the Consumer Product Safety Commission (CPSC) for informing consumers about products through labeling. EPA frequently consults with these Agencies on project design, progress and the results of chemical testing projects.

The Agency works with a full range of stakeholders on homeland security issues: USDA, CDC, other Federal agencies, industry and the scientific community. Review of the agents that may be effective against anthrax has involved GSA, State Department, Research Institute for Infectious Disease, FDA, EOSA, USPS, and others, and this effort will build on this network.

The Acute Exposure Guidelines (AEGL) program is a collaborative effort that includes ten Federal agencies (EPA, DHS, DOE, DoD, DOT, NIOSH, OSHA, CDC, ATSDR, and FDA), numerous state agencies, private industry, academia, emergency medical associations, unions, and other organizations in the private sector. The program also has been supported internationally by the OECD and includes active participation by the Netherlands, Germany and France.

The success of EPA's lead program is due in part to effective coordination with other Federal agencies, states and Indian Tribes through the President's Task Force on Environmental Health Risks and Safety Risks to Children. EPA will continue to coordinate with HUD to clarify how new rules may affect existing EPA and HUD regulatory programs, and with the FHWA and OSHA on worker protection issues. EPA will continue to work closely with state and Federally

recognized Tribes to ensure that authorized state and Tribal programs continue to comply with requirements established under TSCA, that the ongoing Federal accreditation certification and training program for lead professionals is administered effectively, and states and Tribes adopt the Renovation and Remodeling and the Buildings and Structures Rules when these rules become effective.

EPA has a MOU with HUD on coordination of efforts on lead-based paint issues. As a result of the MOU, EPA and HUD have co-chaired the President's Task Force since 1997. There are fourteen other Federal agencies including CDC and DoD on the Task Force. HUD and EPA also maintain the National Lead Information Center and share enforcement of the Disclosure Rule.

Mitigation of existing risk is a common interest for other Federal agencies addressing issues of asbestos and PCBs. EPA will continue to coordinate interagency strategies for assessing and managing potential risks from asbestos and other fibers. Coordination on safe PCB disposal is an area of ongoing emphasis with the DoD, and particularly with the U.S. Navy, which has special concerns regarding PCBs encountered during ship scrapping. PCBs and mercury storage and safe disposal are also important issues requiring coordination with the Department of Energy and DoD as they develop alternatives and explore better technologies for storing and disposing high risk chemicals.

To effectively participate in the international agreements on POPs, heavy metals and PIC substances, EPA must continue to coordinate with other Federal agencies and external stakeholders, such as Congressional staff, industry, and environmental groups. For example, EPA has an interest in ensuring that the listing of chemicals, including the application of criteria and processes for evaluating future chemicals for possible international controls, is based on sound science. Similarly, the Agency typically coordinates with FDA's National Toxicology Program, the CDC/ATSDR, NIEHS and/or the Consumer Product Safety Commission (CPSC) on matters relating to OECD test guideline harmonization.

EPA's objective is to promote improved health and environmental protection, both domestically and worldwide. The success of this objective is dependent on successful coordination not only with other countries, but also with various international organizations such as the Intergovernmental Forum on Chemical Safety (IFCS), the North American Commission on Environmental Cooperation (NACEC), OECD, the United Nations Environment Program (UNEP) and the CODEX Alimentarius Commission. NAFTA and cooperation with Canada and Mexico play an integral part in the harmonization of data requirements.

EPA is a leader in global discussions on mercury and was instrumental in the launch of UNEP's Global Mercury Program, and we will continue to work with developing countries and with other developed countries in the context of that program. In addition, we have developed a strong network of domestic partners interested in working on this issue, including the DOE and the USGS.

EPA has developed cooperative efforts on persistant organic pollutants (POPs) with key international organizations and bodies, such as the United Nations Food and Agricultural

Organization, the United Nations Environment Program, the Arctic Council, and the World Bank. EPA is partnering with domestic and international industry groups and foreign governments to develop successful programs.

Objective: Communities

The Governments of Mexico and the United States agreed, in November 1993, to assist communities on both sides of the border in coordinating and carrying out environmental infrastructure projects. The agreement between Mexico and the United States furthers the goals of the North American Free Trade Agreement and the North American Agreement on Environmental Cooperation. To this purpose, the governments established two international institutions, the Border Environmental Cooperation Commission (BECC) and the North American Development Bank (NADBank), which manages the Border Environmental Infrastructure Fund (BEIF), to support the financing and construction of much need environmental infrastructure.

The BECC, with headquarters in Ciudad Juarez, Chihuahua, Mexico, assists local communities and other sponsors in developing and implementing environmental infrastructure projects. The BECC also certifies projects as eligible for NADBank financing. The NADBank, with headquarters in San Antonio, Texas, is capitalized in equal shares by the United States and Mexico. NADBank provides new financing to supplement existing sources of funds and foster the expanded participation of private capital.

A significant number of residents along the U.S.-Mexico border area are without basic services such as potable water and wastewater treatment and the problem has become progressively worse in the last few decades. Over the last several years, EPA has continued to work with the U.S. and Mexican Sections of the International Boundary and Water Commission to further efforts to improve water and wastewater services to communities within 100 km of the U.S.-Mexico border. Recently, EPA has been involved in efforts to plan, design and construct more than 10 water and wastewater facilities in the border region.

EPA's environmental mandate and expertise make it uniquely qualified to represent the nation's environmental interests abroad. While the Department of State is responsible for the conduct of overall U.S. foreign policy, implementation of particular programs, projects, and agreements is often the responsibility of other agencies with specific technical expertise and resources. Relations between EPA and DOS cut across several offices and/or bureaus in both organizations.

EPA works extensively with the Office of the U.S. Trade Representative (USTR), as well as the USTR-chaired interagency Trade Policy Staff Committee (TPSC) system, to ensure that U.S. trade and environmental polices are mutually supportive. (The TPSC system consists of various interagency workgroups that develop trade policy for political level review and decision.) For example, through the Agency's participation in the negotiation of both regional and bilateral trade agreements and the World Trade Organization Agreements, EPA works with USTR to ensure that U.S. obligations under international trade agreements do not hamper the ability of Federal and state governments to maintain high levels of domestic environmental protection.

The two agencies also work together to ensure that new obligations are consistent with U.S. law and EPA's rules, regulations, and programs. In addition to the work with USTR, EPA also cooperates with many other Federal agencies in the development and execution of U.S. trade policy, and in performing environmental reviews of trade agreements, developing and implementing environmental cooperation agreements associated with each new FTA, and developing and implementing the associated environmental capacity building projects. EPA works most closely with the Department of State, USAID and USTR in the capacity building area. Finally, the Agency also serves as the co-lead (with USTR) of the Trade and Environment Policy Advisory Committee (TEPAC), a formally-constituted advisory body made up of respected experts from industry, NGOs and academia.

Brownfields

Under the Brownfields Federal Partnership Action Agenda, EPA and its partnering agencies work together to prevent, assess, safely clean up, and sustainably reuse brownfields. More than 20 federal agencies dedicated to brownfields cleanup and redevelopment have committed their resources to help revitalize communities throughout the nation. Building on these partnerships, EPA is initiating a collaborative effort with other agencies involved in brownfields revitalization to develop a shared performance standard that focuses on property reuse. Through this effort, EPA and its partners will analyze methods to demonstrate and measure the transition of brownfields into productive reuse.

Objective: Ecosystems

National Estuary Program

Effectively implementing successful comprehensive management plans for the estuaries in the NEP depends on the cooperation, involvement, and commitment of Federal and state agency partners that have some role in protecting and/or managing those estuaries. Common Federal partners include NOAA, USFWS, COE, and USDA. Other partners include state and local government agencies, universities, industry, non-governmental organizations (NGO), and members of the public.

Wetlands

Federal agencies share the goal of increasing wetlands functions and values, and implementing a fair and flexible approach to wetlands regulations. In addition, EPA has committed to working with ACOE to ensure that the Clean Water Act Section 404 program is more open, consistent, predictable, and based on sound science.

Coastal America

In efforts to better leverage our collaborative authorities to address coastal communities' environmental issues (e.g., coastal habitat losses, nonpoint source pollution, endangered species,

invasive species, etc.), EPA, by memorandum of agreement in 2002 entered into an agreement with Multi-agency signatories. November 2002. *Coastal America 2002 Memorandum of Understanding.* Available online at http://www.coastalamerica.gov/text/mou02.htm

Great Lakes

Pursuant to the mandate in Section 118 of the Clean Water Act to "coordinate action of the Agency with the actions of other Federal agencies and state and local authorities..." Great Lakes National Program Office (GLNPO) is engaged in extensive coordination efforts with state, Tribal, and other Federal agencies, as well as with our counterparts in Canada. EPA and its local, state, tribal and Federal partners are coordinating restoration of the Great Lakes pursuant to a Great Lakes Regional Collaboration. EPA previously joined with states, Tribes, and Federal agencies that have stewardship responsibilities for the Lakes in developing the new Great Lakes Strategy. In addition to the eight Great Lakes States and interested Tribes, partners include the COE, USCG, USFWS, USGS, NOAA and NRCS. The Strategy joins environmental protection agencies with natural resource agencies in pursuit of common goals. These organizations meet semi-annually as the Great Lakes U.S. Policy Committee to strategically plan and prioritize environmental actions. GLNPO monitoring involves extensive coordination among these partners, both in terms of implementing the monitoring program, and in utilizing results from the monitoring to manage environmental programs. GLNPO's sediments program works closely with the states and the Corps regarding dredging issues. Implementation of the Binational Toxics Strategy involves extensive coordination with Great Lakes States. GLNPO works closely with states, Tribes, FWS, and NRCS in addressing habitat issues in the Great Lakes. EPA also coordinates with these partners regarding development and implementation of Lakewide Management Plans for each of the Great Lakes and for Remedial Action Plans for the 31 U.S./binational Areas of Concern.

Chesapeake Bay

The Chesapeake Bay Program has a Federal Agencies Committee, chaired by EPA, which was formed in 1984 and has met regularly ever since. There are currently over 20 different Federal agencies actively involved with the Bay Program through the Federal Agencies Committee. The Federal agencies have worked together over the past decade to implement the commitments laid out in the 1994 *Agreement of Federal Agencies on Ecosystem Management in the Chesapeake Bay* and the 1998 *Federal Agencies Chesapeake Ecosystem Unified Plan* (*FACEUP*). The Federal Agencies Committee has been focusing on how its members can help to achieve the 104 commitments contained in the *Chesapeake 2000* agreement adopted by the Chesapeake Bay Program in June 2000. Through this interagency partnership Federal agencies have contributed to some major successes, such as the U.S. Forest Service helping to meet the year 2010 goal to restore 2,010 miles of riparian forest buffers eight years early; the NPS the effort to establish over 500 miles of water trails three years early; and the USFWS in reaching the Program's fish passage goal of reopening 1,357 miles of formerly blocked river habitat in 2004. Also in 2004, through the Federal Agencies Committee, the members sought better coordination of agency budgets and other programs to try to leverage maximum benefit to the state, private, and Federal efforts protect and restore the Bay.

Gulf of Mexico

Key to the continued progress of the Gulf of Mexico Program is a broad multi-organizational Gulf states-led partnership comprised of regional; business and industry; agriculture; state and local government; citizens; environmental and fishery interests; and, numerous Federal departments and agencies. This Gulf partnership is comprised of members of the Gulf Program's Policy Review Board, subcommittees, and workgroups. Established in 1988, the Gulf of Mexico Program is designed to assist the Gulf States and stakeholders in developing a regional, ecosystem-based framework for restoring and protecting the Gulf of Mexico through coordinated Gulf-wide as well as priority area-specific efforts. The Gulf States strategically identify the key environmental issues and work at the regional, state, and local level to define, recommend, and voluntarily implement the supporting solutions. To achieve the Program's environmental objectives, the partnership must target specific Federal, state, local, and private programs, processes, and financial authorities in order to leverage the resources needed to support state and community actions.

Objective: Enhance Science and Research

Several Federal agencies sponsor research on variability and susceptibility in risks from exposure to environmental contaminants. EPA collaborates with a number of the Institutes within the NIH and CDC. For example, NIEHS conducts multi-disciplinary biomedical research programs, prevention and intervention efforts, and communication strategies. The NIEHS program includes an effort to study the effects of chemicals, including pesticides and other toxics, on children. EPA collaborates with NIEHS in supporting the Centers for Children's Environmental Health and Disease Prevention, which study whether and how environmental factors play a role in children's health.

Research in ecosystems protection is coordinated government-wide through the Committee on Environment and Natural Resources (CENR). EPA is an active participant in the CENR, and all work is fully consistent and complementary with other Committee member activities. EPA researchers work within the CENR on the Environmental Monitoring and Assessment Program (EMAP) and other ecosystems protection research, including the restoration of habitats and species, impacts of landscape change, invasive species and inventory and monitoring programs.

The Mid-Atlantic Landscape Atlas represents one of the EMAP's first regional-scale ecological assessments, and was developed in cooperation with NOAA, USFWS, the University of Tennessee, and DOE's Oak Ridge National Laboratory. Development of the Networking and Information Technology Research & Development (NITR) Modeling System is coordinated with the COE, USDA and DOE. Through interagency agreements with USGS, EPA has worked to investigate and develop tools for assessing the impact of hydrogeology on riparian restoration efforts. The collaborative work with the USGS continues to play a vital role in investigating the impact and fate of atmospheric loadings of nitrogen and nitrogen applications as part of restoration technologies on terrestrial and aquatic ecosystems. All of these efforts have

significant implications for risk management in watersheds, total maximum daily load (TMDL) implementation, and management of non-point source pollutants.

The Agency, through partnerships with private sector companies, non-profits, other Federal agencies, universities, and states, including California EPA, has worked to identify and control human exposure to methyl-mercury. EPA has also been working with DOE and USGS to address risk management issues associated with mercury emissions from utilities.

Homeland Security research is conducted in collaboration with numerous agencies, leveraging funding across multiple programs and producing synergistic results. EPA's National Homeland Security Research Center (NHSRC) works closely with the DHS to assure that EPA's efforts are directly supportive of DHS priorities. EPA is also working with DHS to provide support and guidance to DHS in the startup of their University Centers of Excellence program. Recognizing that the DoD has significant expertise and facilities related to biological and chemical warfare agents, the NHSRC works closely with the Edgewood Chemical and Biological Center (ECBC), the Technical Support Working Group, the Army Corps of Engineers, and other Department of Defense organizations to address areas of mutual interest and concern. In conducting biological agent research, the NHSRC is also collaborating with CDC. The NHSRC works with DOE to access and support research conducted by DOE's National Laboratories, as well as to obtain data related to radioactive materials.

In addition to these major collaborations, the NHSRC has relationships with numerous other Federal agencies, including the U.S. Air Force, U.S. Navy, FDA, USGS, and NIST. Also, the NHSRC is working with state and local emergency response personnel to understand better their needs and build relationships, which will enable the quick deployment of NHSRC products. In the water infrastructure arena, the NHSRC is providing information to the Water Information Sharing and Analysis Center (WaterISAC) operated by the Association of Metropolitan Water Agencies (AMWA). The National Academy of Sciences has also been engaged to provide advice on the long-term direction of the water research and technical support program.

Goal 5-Compliance and Environmental Stewardship

Objective: Improve Compliance

The Enforcement and Compliance Assurance Program coordinates closely with DOJ on all enforcement matters. In addition, the program coordinates with other agencies on specific environmental issues as described herein.

The Office of Enforcement and Compliance Assurance (OECA) coordinates with the Chemical Safety and Accident Investigation Board, OSHA, and Agency for Toxic Substances and Disease Registry in preventing and responding to accidental releases and endangerment situations, with the BIA on Tribal issues relative to compliance with environmental laws on Tribal Lands, and with the SBA on the implementation of the Small Business Regulatory Enforcement Fairness Act (SBREFA). OECA also shares information with the IRS on cases which require defendants to pay civil penalties, thereby assisting the IRS in assuring compliance with tax laws. In

addition, it coordinates with the SBA and a number of other Federal agencies in implementing the Business Compliance One-Stop Project, an "E-Government" project that is part of the President's Regulatory Management Agenda. OECA also works with a variety of Federal agencies including the DOL and the IRS to organize a Federal Compliance Assistance Roundtable to address cross cutting compliance assistance issues. Coordination also occurs with the COE on wetlands.

Due to changes in the Food Security Act, the USDA/NRCS has a major role in determining whether areas on agricultural lands meet the definition of wetlands and are therefore regulated under the CWA. Civil Enforcement coordinates with USDA/NRCS on these issues also. The program coordinates closely with the USDA on the implementation of the Unified National Strategy for Animal Feedlot Operations. EPA's Enforcement and Compliance Assurance Program also coordinates with USDA on food safety issues arising from the misuse of pesticides, and shares joint jurisdiction with Federal Trade Commission (FTC) on pesticide labeling and advertising. Coordination also occurs with Customs on pesticide imports. EPA and the FDA share jurisdiction over general-purpose disinfectants used on non-critical surfaces and some dental and medical equipment surfaces (e.g., wheelchairs). The Agency has entered into a MOU with HUD concerning lead poisoning.

The Criminal Enforcement program coordinates with other Federal law enforcement agencies (i.e. FBI, Customs, DOL, U.S. Treasury, USCG and DOJ) and with state and local law enforcement organizations in the investigation and prosecution of environmental crimes. EPA also actively works with DOJ to establish task forces that bring together Federal, state and local law enforcement organizations to address environmental crimes. In addition, the program has an Interagency Agreement with the DHS to provide specialized criminal environmental training to Federal, state, local, and tribal law enforcement personnel at the Federal Law Enforcement Training Center (FLETC) in Glynco, GA.

Under Executive Order 12088, EPA is directed to provide technical assistance to other Federal agencies to help ensure their compliance with all environmental laws. The Federal Facility Enforcement Program coordinates with other Federal agencies, states, local, and tribal governments to ensure compliance by Federal agencies with all environmental laws.

OECA collaborates with the states and Tribes. States perform the vast majority of inspections, direct compliance assistance, and enforcement actions. Most EPA statutes envision a partnership between EPA and the states under which EPA develops national standards and policies and the states implement the program under authority delegated by EPA. If a state does not seek approval of a program, EPA must implement that program in the state. Historically, the level of state approvals has increased as programs mature and state capacity expands, with many of the key environmental programs approaching approval in nearly all states. EPA will increase its effort to coordinate with states on training, compliance assistance, capacity building and enforcement. EPA will continue to enhance the network of state and tribal compliance assistance providers.

The Office of Enforcement and Compliance Assurance chairs the Interagency Environmental Leadership Workgroup established by Executive Order 13148. The Workgroup consists of over 100 representatives from most Federal departments and agencies. Its mission is to assist all Federal agencies with meeting the mandates of the Executive Order, including implementation of environmental management systems and environmental compliance auditing programs, reducing both releases and uses of toxic chemicals, and compliance with pollution prevention and pollution reporting requirements. In FY 2007, the OECA will work directly with a number of other Federal agencies to improve CWA compliance at Federal facilities. OECA and other agencies will jointly investigate the underlying causes of persistent CWA violations and design and implement fixes to the problems to keep facilities in compliance over the long term. OECA anticipates that FY 2007 will see the completion of a multiple-year partnership with the Veterans Health Administration (VHA), a part of the Department of Veterans Affairs (VA). OECA and the VHA formed the partnership in 2002 to improve compliance at VHA medical centers across the nation. Since then, EPA and VHA have jointly designed and begun implementing environmental management systems at all VHA medical centers, completed multi-day onsite reviews at more than 20 medical centers to assess the strengths and weaknesses of their environmental programs and to guide the VHA in making program improvements at all its medical centers, and delivered multiple environmental compliance courses for VHA staff and managers.

EPA works directly with Canada and Mexico bilaterally and in the trilateral Commission for Environmental Cooperation (CEC). EPA's border activities require close coordination with the Bureau of Customs and Border Protection, the Fish and Wildlife Service, the Department of Justice, and the States of Arizona, California, New Mexico, and Texas.

Objective: Improve Environmental Performance through Pollution Prevention and Innovation

EPA is involved in a broad range of pollution prevention (P2) activities which can yield reductions in waste generation and energy consumption in both the public and private sectors. For example, the EPP initiative, which implements Executive Orders 12873 and 13101, promotes the use of cleaner products by Federal agencies. This is aimed at stimulating demand for the development of such products by industry.

This effort includes a number of demonstration projects with other federal Departments and agencies, such as the NPS (to use Green Purchasing as a tool to achieve the sustainability goals of the parks), DoD (use of environmentally preferable construction materials), and Defense Logistics Agency (identification of environmental attributes for products in its purchasing system). The program is also working within EPA to "green" its own operations. The program also works with NIST to develop a life-cycle based decision support tool for purchasers.

Under the Suppliers' Partnership for the Environment program and its umbrella program, the GSN, EPA's P2 Program is working closely with NIST and its Manufacturing Extension Partnership Program to provide technical assistance to the process of "greening" industry supply

chains. The EPA is also working with the DOE's Industrial Technologies Program to provide energy audits and technical assistance to these supply chains.

The Agency is required to review environmental impact statements and other major actions impacting the environment and public health proposed by all Federal agencies, and make recommendations to the proposing Federal agency on how to remedy/mitigate those impacts. Although EPA is required under § 309 of the Clean Air Act (CAA) to review and comment on proposed Federal actions, neither the National Environmental Policy Act nor § 309 CAA require a Federal agency to modify its proposal to accommodate EPA's concerns. EPA does have authority under these statutes to refer major disagreements with other Federal agencies to the Council on Environmental Quality. Accordingly, many of the beneficial environmental changes or mitigation that EPA recommends must be negotiated with the other Federal agency. The majority of the actions EPA reviews are proposed by the Forest Service, Department of Transportation (including FHWA and FAA), COE, DOI (including Bureau of Land Management, Minerals Management Service and NPS), DOE (including Federal Regulatory Commission), and DoD.

EPA and DOI are coordinating an Interagency Tribal Information Steering Committee that includes the Bureau of Reclamation, DOE, HUD, USGS, Federal Geographic Data Committee, BIA, Indian Health Service, Department of the Treasury, and DOJ. This Interagency effort is aimed to coordinate the exchange of selected sets of environmental, resource, and programmatic information pertaining to Indian Country among Federal agencies in a "dynamic" information management system that is continuously and automatically updated and refreshed, to be shared equally among partners and other constituents.

Under a two-party interagency agreement, EPA works extensively with the Indian Health Service to cooperatively address the drinking water and wastewater infrastructure needs of Indian Tribes. EPA is developing protocols with the Indian Health Service Sanitation Facilities Construction Program for integration of databases of the two agencies, within the framework of the Tribal Enterprise Architecture.

EPA has organized a Tribal Data Working Group under the Federal Geographic Data Committee, and, along with BIA, is the co-chair of this group. EPA will play a lead role in establishing common geographic data and metadata standards for Tribal data, and in establishing protocols for exchange of information among Federal, non-Federal and Tribal cooperating partners.

EPA is developing protocols with the Bureau of Reclamation, Native American Program, for integration of databases of the two agencies, within the framework of the Tribal Enterprise Architecture. EPA is also developing agreements to share information with the Alaska District, COE.

To promote mutual goals as leadership programs with industry, the Office of Policy, Economics, and Innovation (OPEI) through its National Environmental Performance Track, works with the Voluntary Protection Programs (VPP) in the Occupational Safety and Health Administration

(OSHA). EPA and OSHA collaborate in developing incentives for members, identifying potential members, providing joint recognition, and sharing best practices from their experience in managing leadership programs.

Under a MOU, EPA and NPS established a partnership to share resources for promoting environmental management system approaches that are good for both the environment and business. The MOU promotes the implementation of cost-effective environmental management practices for businesses in the tourism industry, including the approximately 600 NPS concessionaires that provide various visitor services in more than 130 national parks.

Information on regulations and other issues that may have an adverse impact on small businesses is shared regularly with the Small Business Administration's Office of Advocacy. An ongoing activity includes the coordination of interactions among the Office of Air and Radiation, the State Small Business Assistance Program's National Steering Committee, and the Office of Advocacy in the development of the proposed 55 area source Maximum Achievable Control Technology (MACT) rules that will impact small businesses and state programs.

The Sector Strategies program addresses issues that directly affect the environmental performance of selected industries and other sectors of the economy. At times, actions taken to enhance sector-wide performance involve other Federal agencies. This work tends to be informal and issue-specific, as opposed to formal inter-agency partnerships. For example, previous work on Agribusiness sector issues involved the Natural Resource Conservation Service of the USDA. Energy conservation work with the Metal Foundry sector involved the DOE's innovative technologies program. In 2005, Port sector stakeholders include the U.S. Maritime Administration (DOT), COE and NOAA. Data work with the Cement sector involves USGS contacts. And future "green highway" work of the Construction Sector may involve the FHWA.

Activities associated with the Environmental Education Program are coordinated with other Federal agencies in a variety of ways:

EPA currently funds approximately $1.5M for eight interagency agreements with four Federal agencies. Current projects are focused on helping these agencies to better coordinate their environmental education efforts (see www.handsontheland.org) and improving capacity to measure environmental education program outcomes. All of the activities are funded jointly by the cooperating Federal agency and a third non-profit partner. Detailed information about the interagency agreements is available at http://www.epa.gov/enviroed/iag.html.

EPA chairs the Task Force on Environmental Education which meets periodically to share information. The current focus involves sharing information on linking environmental education programs to the strategic planning initiatives of Federal agencies and developing program impact measures.

As a participant on the following interagency workgroups, EPA remains informed of related efforts across the government and provides coordination assistance as necessary: The Interagency Committee on Education (Chair: Department of Education); Partners in Resource Education (Chair: National Environmental Education and Training Foundation); the Federal Interagency Committee on Interpretation (Chair: National Park Service); Ocean Education Task Force (workgroup of the U.S. Ocean Commission); and the Afterschool.gov (Chair: General Services Administration).

EPA's web portal of all Federal environmental education program web sites is: http://www.epa.gov/enviroed/FTFmemws.html.

Objective: Enhance Science and Research

EPA is coordinating with DoD's Strategic Environmental Research and Development Program (SERDP) in an ongoing partnership, especially in the areas of pollution prevention research and incorporation of materials lifecycle analysis into the manufacturing process for weapons and military equipment. The agency has also made contact with USDA regarding lifecycle analysis of biologically- and genetically-altered products. EPA and the COE will address the costs and benefits associated with new engineering projects and technologies in order to respond to the economic impacts of environmental innovation. EPA's People, Prosperity, and Planet (P3) student design competition for sustainability will partner with NASA, NSF, OFEE, USAID, USDA, CEQ, and OSTP.

EPA will continue work under the MOA with the USCG and the State of Massachusetts on ballast water treatment technologies and mercury continuous emission monitors. The agency also coordinates technology verifications with NOAA (multiparameter water quality probes); DOE (mercury continuous emission monitors); DoD (explosives monitors, PCB detectors, dust suppressants); USDA (ambient ammonia monitors); Alaska and Pennsylvania (arsenic removal); Georgia, Kentucky, and Michigan (storm water treatment); and Colorado and New York (waste-to-energy technologies).

COORDINATION WITH OTHER AGENCIES
ENABLING SUPPORT PROGRAMS

Office of the Administrator (OA)

EPA collaborates with other Federal agencies in the collection of economic data used in the conduct of economic benefit-cost analyses of environmental regulations and policies. The Agency collaborates with the Department of Commerce, Bureau of the Census on the Pollution Abatement Costs and Expenditure (PACE) survey in order to obtain information on pollution abatement expenditures by industry. In our effort to measure the beneficial outcomes of Agency programs, we co-sponsor with several other agencies the U.S. Forest Service's National Survey on Recreation and the Environment (NSRE), which measures national recreation participation and recreation trends. EPA also collaborates with other natural resource agencies (e.g., USDA, Department of Interior, Forest Service, NOAA) to foster improved interdisciplinary research and reporting of economic information by collaboratively supporting workshops and symposiums on environmental economics topics (ecosystem valuation resource evaluation); economics of invasive species; and measuring health benefits.

The Agency also continues to work with other Federal agencies in the development of children's environmental health indicators used to monitor the outcomes of children's health efforts. The Agency collaborates with the Centers for Disease Control and Prevention and the National Center for Health Statistics to obtain approval of the Federal Interagency Forum on Child and Family Statistics (www.childstats.gov) on the reporting of appropriate children's health indicators and data.

The Office of Homeland Security (OHS) continues to focus on broad, Agency and government-wide homeland security policy issues that *cannot* be adequately addressed by a single program office, as well as ensuring implementation of EPA's *Homeland Security Strategy*. A significant amount of the responsibilities require close coordination with Federal partners, through Policy Coordinating Committees (PCCs), briefings and discussions with individual senior Federal officials. OHS represents the Administrator, Deputy Administrator, and other senior Agency officials at meetings with personnel from the White House and Department of Homeland Security (DHS), and other high-level stakeholders. OHS coordinates the development of responses to inquiries from the White House, DHS, the Congress, and others with oversight responsibilities for homeland security efforts. EPA's ability to effectively implement its broad range of homeland security responsibilities is significantly enhanced though these efforts. OHS helps to reduce/eliminate redundancy in homeland security efforts, therefore ensuring consistent development and implementation of the Agency's policies and procedures, while building an external network of partners so that EPA's efforts can be integrated into, and build upon, the efforts of other Federal agencies.

The Science Advisory Board (SAB) primarily provides the Administrator with independent peer reviews and advice on the scientific and technical aspects of environmental issues to inform the Agency's environmental decision-making. Often, the Agency program office seeking the SAB's

review and advice has identified the Federal agencies interested in the scientific topic at issue. The SAB coordinates with those Federal agencies by providing notice of its activities through the Federal Register, and as appropriate, inviting Federal agency experts to participate in the peer review or advisory activity. The SAB, from time to time, also convenes science workshops on emerging issues, and invites Federal agency participation through the greater Federal scientific and research community.

EPA's Office of Small and Disadvantaged Business Utilization (OSDBU) works with the Small Business Administration (SBA) and other federal agencies to increase the participation of small and disadvantaged businesses in EPA's procurement of goods, services, equipment, and construction. OSDBU works with the SBA to develop EPA's goals for contracting with small and disadvantaged businesses; address bonding issues that pose a roadblock for small businesses in specific industries, such as environmental clean-up and construction; and address data-collection issues that are of concern to OSDBUs throughout the federal government. EPA's OSDBU works closely with the Center for Veterans Enterprise and EPA's regional and program offices to increase the amount of EPA procurement dollars awarded to Service-Disabled Veteran-Owned Small Businesses. It also works with the Department of Education and the White House HBCU (Historically Black College and University) Workgroup to increase opportunities for HBCUs to partner with small businesses and federal agencies, especially in the area of scientific research and development. Work is also coordinated with the Minority Business Development Agency to fund opportunities for small disadvantaged businesses, and to collaborate to provide outreach to small disadvantage businesses and Minority-Serving Institutions throughout the United States and the trust territories. EPA's OSDBU Director is an active participant in the federal OSDBU Council (www.osdbu.gov), and served as the Council's Chairperson in FY 2004 and FY 2006. The OSDBU Directors collaborate to the extent possible to support major outreach efforts to small and disadvantaged businesses, Service-Disabled Veteran-Owned Small Businesses, and minority-serving educational institutions via conferences, business fairs, and speaking engagements.

Office of the Chief Financial Officer (OCFO)

To achieve its mission, EPA has undertaken specific coordination efforts with Federal and state agencies and departments through two separate vehicles: 1) the National Academy of Public Administration's Consortium on Improving Government Performance; 2) active contributions to standing interagency management committees, including the Chief Financial Officers Council and the Federal Financial Managers' Council. These groups are focused on improving resources management and accountability throughout the Federal government. EPA also coordinates appropriately with Congress and other Federal agencies, such as Department of Treasury, Office of Management of Budget, and the Government Accountability Office.

Office of Administration and Resources Management (OARM)

EPA is committed to working with federal partners that focus on improving management and accountability throughout the federal government. The Agency provides leadership and

expertise to Government–wide activities in various areas of human resources, grants administration, contracts management and Homeland Security. These activities include specific collaboration efforts with Federal agencies and departments through the following activities:

Chief Human Capital Officers, a group of senior leaders that discuss human capital initiatives across the federal government;

Legislative & Policy Committee, a committee comprised of other federal agency representatives who assist Office of Personnel Management in developing plans and policies for training and development across the government;

The Agency is participating in the government's implementation of Public Law 106-107 to improve the effectiveness and performance of Federal financial assistance programs, simplify application and reporting requirements, and improve the delivery of services to the public. This includes membership on the Grants Policy Committee, the Grants Executive Board, and the Grants.gov Users Group. EPA also participates in the Federal Demonstration Partnership to reduce the administrative burdens associated with research grants;

The Chief Acquisition Officers Council, the principal interagency forum for monitoring and improving the federal acquisition system. The Council also is focused on promoting the President's Management Agenda in all aspects of the acquisition system, as well as the President's specific acquisition-related initiatives and policies; and

EPA is working with the Office of Management and Budget, General Services Administrations, and Department of Commerce's National Institute of Standards and Technology to implement Homeland Security Presidential Directive No. 12 - Policy for a Common Identification Standard for Federal Employees and Contractors.

Office of Environmental Information (OEI)

EPA is a leader in many areas, such as E-dockets. EPA has a modern well-supported system that can host other Agencies' docket systems, thereby reducing their costs to develop or deploy such a system. EPA will also continue to coordinate with state agencies on IT infrastructure and security issues through state organizations such as the National Association of State Information Resources Executives. In addition, EPA, along with other Federal agencies, is involved in the OMB led e-Gov initiatives. As part of this effort, EPA, OMB, the Department of Transportation, and ten other Federal agencies are examining the expansion of EPA's Regulatory Public Access System, a consolidated on-line rule-making docket system providing a single point of access for all Federal rules. EPA is also coordinating efforts with the National Archives and Records Administration on an e-records initiative. This effort is aimed at establishing uniform procedures, requirements, and standards for electronic record keeping of Federal e-Gov records.

EPA works with its state partners under the State/EPA Information Management Workgroup and the Network Steering Board. This workgroup has created action teams to jointly develop key

information projects. Action teams consist of EPA, state, and Tribal members. They are structured to result in consensus solutions to information management issues which affect states, tribes, and EPA, such as the development and use of environmental data standards, and implementation of new technologies for collecting and reporting information.

EPA also participates in multiple workgroups with other Federal agencies including the United States Geological Survey (USGS), Federal Geographic Data Committee (FGDC), and CIO Council (http://www.cio.gov/). The Agency is actively involved with several agencies in developing government-wide e-government reforms, and continues to participate with the Office of Homeland Security and national security agencies on homeland security. These multi-agency workgroups are designed to ensure consistent implementation of standards and technologies across Federal agencies in order to support efficient data sharing.

EPA will continue to coordinate with key Federal data sharing partners including the USGS, Bureau of Indian Affairs, and the Fish and Wildlife Service as well as state and local data sharing partners in public access information initiatives. With respect to community-based environmental programs, EPA coordinates with state, Tribal, and local agencies, and with non-governmental organizations, to design and implement specific projects.

The nature and degree of EPA's interaction with other entities varies widely, depending on the nature of the project and the location(s) in which it is implemented. EPA is working closely with the FGDC and the USGS to develop and implement the infrastructure for national spatial data. EPA is coordinating its program with other state and Federal organizations, including the Council for Environmental Quality and the Environmental Council of States, to insure that the appropriate context is represented for observed environmental and human health conditions.

EPA will continue to coordinate with other Federal agencies on IT infrastructure and security issues by participating on the Federal CIO Council. For example, EPA (along with the Department of Labor) recently co-chaired a Federal government committee on security. EPA will continue to participate on the CIO Council committees on security, capital planning, workforce development, interoperability, and e-Gov, and will engage with other Federal agencies in ensuring the infrastructure for homeland security.

Office of the Inspector General (OIG)

The EPA Inspector General is a member of the President's Council on Integrity and Efficiency (PCIE), an organization comprised of Federal Inspectors General (IG). The PCIE coordinates and improves the way IGs conduct audits and investigations, and completes projects of government-wide interest. The EPA IG chairs the PCIE's Environmental Consortium, GPRA Roundtable, and Human Resources Committee. The Consortium, which seeks effective solutions to cross-cutting environmental issues, currently includes representatives from 19 executive agencies and GAO. The OIG Computer Crimes Unit coordinates activities with other law enforcement organizations that have computer crimes units such as the Federal Bureau of Investigation, the Secret Service, and the Department of Justice. In addition, the OIG

participates with various inter-governmental audit forums, professional associations, and other cross-governmental forums to exchange information, share best practices, and direct collaborative efforts.

MAJOR MANAGEMENT CHALLENGES

In April 2005, EPA's Office of Inspector General (OIG) and the Government Accountability Office (GAO) identified areas they consider to be EPA's most pressing management challenges. While OIG identified the majority of the areas, GAO raised a number of the same concerns, such as human capital and assistance agreements. Notably, neither OIG nor GAO suggested elevating any of the issues to the level of a material weakness—a reportable condition that could adversely impact the integrity of Agency programs and activities. Most of the challenges identified are recurring issues that take time to resolve. EPA has been working to address these long-standing issues and has made great progress.

EPA senior managers are committed to resolving current issues and identifying and addressing emerging issues before they become serious problems. EPA continues to strengthen its management practices by maintaining a system of internal controls that helps identify and resolve potential management vulnerabilities. In FY 2005, for the fourth consecutive year, EPA reported no material weaknesses under the Federal Managers Financial Integrity Act (FMFIA). The Agency resolved two of its internal Agency-level weaknesses, which are reportable conditions less severe than material weaknesses, but that merit the attention of the Administrator. Currently, EPA has elevated three management challenges (human capital, assistance agreement, and homeland security) to the level of Agency-level weaknesses under FMFIA. EPA leaders meet periodically to review and discuss the progress the Agency is making to address the issues, and each year the Agency reports on the status of its efforts in its Performance and Accountability Report and Budget Submissions.

OMB continues to recognize EPA's efforts to maintain effective and efficient management controls. Since June 2003, the Agency has maintained its "green" status score for Improved Financial Performance under the President's Management Agenda (PMA). Following are discussions of the Agency's management challenges and the progress made in addressing them.

Challenges in Addressing the Air Toxics Regulatory Program Goals

Scope of Challenge: *While EPA has achieved its Phase I goal of issuing technology-based standards, there are concerns about EPA's efforts to assess and implement Phase 2, residual risk standards, as well as the accuracy of air toxics data used in measuring progress.*

Agency Response: The Air Toxics Program faces significant challenges because much remains to be done to address requirements of the Clean Air Act (CAA) Amendments (e.g., issuance of final standards for 70 stationary area source categories). However, the Agency has made great progress in reducing air toxic emissions. In FY 2004, EPA closed Air Toxics Program as an Agency-level weakness because it had developed a strategy for achieving toxic risk reductions. EPA issued 96 MACT standards that apply to 174 industrial categories. These MACT standards have resulted in annual reductions of 1.5 million tons of toxic emissions. By 2007, even greater reductions will be achieved when all major stationary sources come into compliance under the MACT program. To date, EPA has completed 16 area source standards and is working to

develop standards for an additional 25 (4 of which are under court-ordered deadlines). Once completed, standards for the 25 area source categories will address a significant portion of urban hazardous air pollutant (HAP) emissions, as outlined in EPA's FY 1999 Integrated Urban Air Toxics Strategy. EPA also expects to have completed the first eight residual risk standards by the end of 2006.

Implementing the residual risk program, as dictated by the Clean Air Act, remains a significant time and resource challenge. The statute requires a comprehensive quantitative assessment of the exposures and risks associated with air emissions from all of the sources in each category to inform the potential development of a standard for the category which is more stringent than the original standard. It also, therefore, requires knowledge of the methods available to reduce emissions and risks beyond those required in the original standard, as well as the quantitative knowledge of the emission reductions expected from implementation of each of those methods. Each of these assessments is turning out to be quite extensive in terms of the resources and time required to conduct, and the uncertainties associated with the results remain fairly large compared to the desired outcome and the decisions required. For example, we estimate that the development of the average residual risk regulation, from start to finish, requires significant funding and FTE over the course of 4 years. Given the fact that this requirement extends to about 170 source categories over 10 years, it is easy to see that the entire program will entail significant resources to complete, and all of this is occurring in a time of dwindling resources for EPA in general and the air toxics program specifically

In the meantime, we have embarked on developing a voluntary process rule, which may reduce any potential cost burden associated with residual risk rules, and which will allow the residual risk program to focus its resources on addressing the most significant risks associated with major stationary sources of air toxics. This rule, the Total Facility Low Risk Demonstration (TFLRD) rule, will allow individual facilities which are currently subject to technology-based standards to conduct their own risk assessments in order to demonstrate to us and to their local permitting authority that they present negligible health and environmental risks to their surrounding community, and thereby ensure their future compliance with any subsequently developed residual risk rules. This will provide EPA with more accurate site-specific emissions information about low-risk sources and help to focus residual risk requirements on those sources which present significant risks. This should help to reduce the resource burden required to develop residual risk standards in addition to reducing the implementation burden associated with standards which are developed.

Modeling studies, such as the National Air Toxics Assessment (NATA), predict that the air toxic risks to the public occur on two distinct geographic scales. To improve our ability to characterize these risks, EPA along with its state, local government, and tribal partners recently started a national air toxic monitoring network with regional and local components to measure ambient levels of key air toxics pollutants. Several air toxic pollutants have been predicted to contribute to widespread regional and/or national exposures and risks. The regional component of the national air toxic monitoring network, the National Air Toxic Trends Sites (NATTS), comprises 22 sites nationwide designed to capture the impacts of these pollutants. The first year

of NATTS monitoring was completed. The local component of the monitoring network comprises unique local scale monitoring projects designed to answer specific questions pertaining to local air toxic issues. Thirteen local scale projects awarded in 2005 are nearing completion. In early 2006, the Agency will award grants to communities to initiate 19 new local scale monitoring projects.

The NATA provides nationwide census tract resolution of cancer and non-cancer risk estimates from HAPs. The Agency uses NATA information to help set priorities, measure progress against goals, and develop study plans for more detailed local assessments. These detailed local assessments will help identify areas where potentially higher exposures (i.e., hotspots) may exist in urban environments and link these concerns to local risk reductions. The NATA is updated periodically.

The Agency will continue to make Air Toxics Program tracking a high priority and will adjust its strategy as necessary to comport with legal constraints and to maximize air toxic risk reduction.

Highlights of Progress:

- Completed one residual risk standard for coke ovens.
- Proposed 5 additional residual risk rules.
- Continue to work on seven residual risk assessments for the 2-, 4-year source categories with court-ordered dates.
- In addition to EPA's 23 National Air Toxics Trends Sites (NATTS), EPA funded $6.3 million in 19 separate grants to State and local agencies to support additional local-scale monitoring efforts and methods development in FY06.

Plans for Further Improvements:

- Continue to develop tools and databases to more accurately perform and improve the quality and the timeliness of risk characterization.
- Continue to develop a performance measure, toxicity-weight emission, to act as a surrogate for risk reduction progress.
- Exploring pollution prevention approaches for area sources and engaging with five industry groups to explore and pilot these ideas.
- Developing an "Area Source Program White Paper" to provide flexibility in how the states and /or EPA address the area source program.
- Continuing to improve the quality and timeliness of EPA's air toxic emissions inventories.
- Developing an air toxic monitoring network to supplement "toxicity-weighted emissions" as a measure of progress in risk reduction.
- Developing a mobile source air toxics rulemaking to examine the need for and feasibility of additional mobile source controls options for gasoline, motor vehicles, and portable gasoline containers.

- Conducting research on near-roadway exposure to assist federal, state, and local transportation and air quality planners.

Superfund Evaluation and Policy Identification

Scope of Challenge: *OIG believes EPA faces significant challenges in its ability to effectively meet current and future Superfund fiscal and program management challenges and needs to establish a strong working relationship between states and tribes in order to achieve its environmental goals.*

Agency Response: While acknowledging its fiscal and program management challenges, EPA does not believe it has any weaknesses in the area of Superfund evaluation and policy identification. Despite the program's complexity and unique administrative structure, the Agency has made and continues to make significant progress in cleaning up Superfund sites and reducing risk to human health and the environment.

With regard to OIG's concern that EPA has failed to proactively identify or communicate current fiscal and other program management challenges, EPA has taken a number of actions to improve program performance and address management challenges. During FY 2004, EPA completed and published an internal review of its Superfund program, *Superfund: Building on the Past, Looking to the Future*. The purpose of this 120-Day Study was to identify opportunities for program efficiencies that would enable the Agency to begin and ultimately complete more long-term cleanups with current resources. An in-house workgroup has been established to review and implement the recommendations and to track progress made in improving the Superfund program. Some of the recommendations that have been or are being addressed include: establishing the Superfund Board of Directors, which issued the "Principles for Superfund Cleanup in the 21st Century" and set a hierarchy of goals for the program; increasing the number of Records of Decisions that will be reviewed by the Remedy Review Board by 5 to 10 percent; and establishing a new enforcement performance measure to implement the "Enforcement First" policy.

The Agency's three major initiatives since 1998 have produced some positive results and lessons that have been incorporated into its current strategy for managing the tribal role. To ensure tribal needs are addressed, EPA established the Superfund tribal forum as a mechanism for sharing information among regions to provide learning or improvement opportunities. The Superfund program will continue to coordinate with tribes and EPA regions in implementing a final Superfund tribal strategy.

Highlights of Progress:

- Published *Superfund: Building on the Past, Looking to the Future*, an internal review of the Superfund program that contains recommendations for program improvements.
- Published the *120-Day Study Action Plan*, which outlines how EPA will carry out the recommendations of the study (February 2005).

- Initiated a formal benchmarking program to identify best practices that can be used throughout the program.
- Benchmarked site-specific payroll charging practices in the regions to identify and transfer best practices to properly account for staff time spent working on site-specific activities for cost recovery and public accountability purposes.
- Improved communication of site cleanup progress in new and innovative ways through the recently released Superfund Site Progress Profiles on the internet.
- Completed the Superfund Tribal Strategy and Implementation Plan (June 2005).

Plans for Further Improvements:

- Continue to develop an Out-year Liability Model to support forecasting costs and accomplishments of the Superfund Program over a 30-year period.
- Analyze all unliquidated obligations balances to determine whether they can be made available through the deobligation process.
- Initiate a workforce analysis on the effects of workload changes on FTE needs for Agency programs.
- Develop a brochure for EPA Superfund staff working with tribes that provides ideas for consultation.

Information System Security

Scope of Challenge: *Due to the dynamic nature of information security, EPA needs to continue its emphasis and vigilance on strong information security.*

Agency Response: EPA acknowledges that as technology evolves, security of all types (personnel, physical and cyber) remains a key concern for both public and private sector organizations. While OIG commends EPA for its efforts to enhance its security program through strengthened management controls, risk assessments, penetration testing, and monitoring of the Agency's firewalls, the dynamics of security require continued emphasis and vigilance. In FY 2004, EPA closed Information Security as an Agency-level weakness because it had addressed OIG's specific management control concerns.

OIG stated that the Agency needs to develop and ensure implementation of a training program for employees with significant security responsibilities. EPA currently has a robust training program that requires all EPA employees with significant security responsibilities to complete at least two role-based security training courses. This requirement is in addition to the annual mandatory Security Awareness Training that EPA employees are required to complete. The status of all employee security training is tracked in a web-based database.

In FY 2005, OMB identified EPA as one of only eight agencies deemed "green" in its color coded scorecard for progress and status under the President's Management Agenda (PMA). The Agency will continue to implement a PMA "green" security program which includes all

necessary and many innovative security processes to ensure the collection and analysis of quality data now and in the future.

Highlights of Progress:

- Established a robust training program that requires all EPA employees with significant security responsibilities to complete at least two role-based security training courses.
- Developed a draft EPA Certification & Accreditation (C&A) Guide, a tool designed to help assist EPA staff in conducting C&A for EPA information systems.
- Continued to use the Plan of Action and Milestones process to effectively monitor program offices' mitigation progress for IT security weaknesses identified and reported to the Chief Information Officer.

Plans for Further Improvements:

- Continue to implement a PMA "green" security program which includes innovative security processes to ensure the collection and analysis of quality data now and in the future.

Information Resources Management (IRM) and Data Quality

Scope of Challenge: *EPA faces a number of challenges (e.g., implementing data standards to facilitate data sharing; establishing quality assurance practices to improve the reliability, accuracy, and scientific basis of environmental data) with the data it uses to make decisions and monitor progress against environmental goals.*

Agency Response: EPA has made significant progress in addressing this challenge. In FY 2001, EPA acknowledged both laboratory quality system practices and data management practices as Agency-level weaknesses. In FY 2004, the Agency corrected its laboratory quality system practices as a FMFIA weakness. The Agency's actions to address and validate the effectiveness of corrective actions included providing tools, technical evaluations, and training for environmental laboratories and coordinating discussions with internal and external representatives on how to assure the quality of laboratory data. Additionally, the Science Policy Council's Forum on Environmental Measurement developed an approach to ensure and document the competency of Agency laboratories, which was issued as a policy directive in February 2004. Under this policy, Agency laboratories must demonstrate on-going performance through independent external assessments and participation in inter-laboratory comparison studies.

In FY 2005, the Agency corrected its data management practices as an Agency-level weakness. EPA completed specific corrective actions for this weakness and validated those actions to ensure deficiencies identified were effectively eliminated. Specifically, EPA developed an effective data standards program and promulgated six Reinventing Environmental Information Data Standards for the Agency. Additionally, EPA developed an Agency Data Architecture which serves as a blueprint for the information needed to support cross-organizational activities. Having a well-defined and reliable architecture to guide information management decisions

promotes improved data quality and enables multiple and secondary uses of the data. In FY 2005, the Agency developed a process for ensuring data management policies and procedures are planned, maintained, and revised as appropriate. For example, the Agency changed the structure and operating procedures of the Quality and Information Council (QIC) to better fulfill its role as the information-policy-making body.

Data standards are an essential component of EPA's information program. As part of its process for developing data standards, EPA has established a System of Registries that provides a reference point for implementing the standards. However, coordinating data standards in information collections, from initial planning to data analysis, is not yet routine in all programs. EPA requires a process for ensuring that each data standard adopted by the Agency is fully implemented in a cost-effective and timely manner. Therefore, EPA is proposing a new Agency-level weakness, Implementation of Data Standards, to address the issue.

Highlights of Progress:

- Developed an Agency-approved planning process to identify key data gaps by building on data gaps information included in EPA's *Draft Report on the Environment* 2003. [7]
- Proposed a new Agency-level weakness, Implementation of Data Standards, to ensure that new standards adopted by the Agency are fully implemented in a cost effective and timely manner.

Plans for Further Improvements:

- Establish a procedure for reporting on the process of implementation across the Agency to the QIC and the Chief Financial Officer on a regular basis.
- Develop a detailed description of the Agency's strategy to correct the *Implementation of Data Standards* weakness, including major milestones and a validation plan.

Human Capital Strategy Implementation/Employee Competencies

Scope of Challenge: *While EPA has made progress in addressing human capital concerns, OIG believes EPA continues to face challenges in developing and sustaining a highly skilled, diverse, result-oriented workforce with the right mix of technical expertise, experience and leadership capabilities.*

Agency Response: OIG and GAO acknowledge the Agency's progress in addressing human capital concerns, but believe EPA needs to continue monitoring its Agency-wide implementation of human capital activities. In FY 2005, EPA initiated a number of activities that helped the Agency make progress in addressing many of its human capital challenges. Specifically, EPA implemented a human capital accountability system to monitor and report on the Agency's

[7] U.S. EPA, *EPA Draft Report on the Environment 2003* (EPA-260-R-02-006). Available at http://www.epa.gov/indicators/roe/index.htm

progress in human capital management. This allows EPA to gauge the overall effectiveness of its *Strategy for Human Capital* and to determine whether the Agency is achieving its desired results. Additionally, each headquarters program and regional office was required to develop a local-level human capital action plan by adopting the required goals and strategies identified in the Agency's *Strategy for Human Capital* and reporting on its results. To further the Agency's workforce planning efforts in developing an agency-level Strategic Workforce Plan (SWP), each headquarters and regional office submitted workforce (occupation-based) needs using a planning template. This information was used to develop a high-level SWP to identify competency needs and frame the Agency's comprehensive National Recruitment and Outreach Strategy that coordinates outreach activities for a variety of positions and Agency programs, particularly focusing on Hispanics, African Americans, and American Indians/Alaska Natives.

EPA is committed to addressing its human capital challenges. The Agency will continue to implement an aggressive corrective action plan to ensure that deficiencies identified do not impair the Agency's ability to accomplish its mission.

Highlights of Progress:

- Established a Senior Human Capital Official in each program and regional office.
- Completed a review of the Human Capital Strategy conducted by EPA's Human Resources Council resulting in improved outcome-based goals.
- Revised EPA's approach to its Agency-wide strategic workforce planning and began integrating workforce planning into the Agency's planning and budgeting process.
- Developed human capital measures and achievements for inclusion in the FY 2007 Annual Plan.
- Completed advertising for EPA's eighth Intern Program class to facilitate outreach and recruitment efforts.

Plans for Further Improvements:

- Develop a Strategic Workforce Plan for the Agency that will be revised in conjunction with the Agency's *Strategic Plan*.
- Continue to train and develop coaches to increase the Agency's diverse "Coaching Cadre."
- Identify a competency assessment tool and/or survey instrument to capture workforce competencies mission critical occupations (MCO), including leaders (Senior Executive Service and GS-13, 14, and 15 supervisors and managers). Technical competencies will be developed for MCOs throughout FY 2006.
- Work with programs and regions to report on effective strategies and solutions used to close competency gap.

Agency Efforts in Support of Homeland Security (*formerly, Protecting Critical Infrastructure from Non-traditional Attacks*)

Scope of Challenge: *EPA needs to continue to work with stakeholders to develop performance measures for water security, identify impediments preventing water systems from addressing vulnerabilities in computer systems, take steps to ensure it is performing all designated BioWatch responsibilities, and develop a better process for identifying, obtaining, maintaining, and tracking response equipment necessary for Nationally Significant Incidents.*

Agency Response: EPA continues to refine its role and strengthen its efforts in Homeland Security. In FY 2005, EPA declared Homeland Security an Agency weakness and is developing a detailed strategy to correct the weakness, including major milestones, a validation plan, and anticipated correction date.

The Agency has done extensive research on various aspects of water security and is making important progress on the WaterSentinel surveillance and monitoring project, including beginning a pilot testing program. EPA continues to work with state and local stakeholders to develop comprehensive and accurate performance measures for water security and to identify impediments preventing water systems from addressing vulnerabilities in computer systems. EPA has taken multiple steps to ensure that all of its BioWatch responsibilities are performed. The Agency has on-going dialogue with the Department of Homeland Security (DHS), as well as state and local stakeholders, to ensure strong lines of communication on this critical project. EPA is involved in many aspects of BioWatch: from the technical recommendations that aid in developing the monitors to their installation in the field. Additionally, EPA is directly involved with emergency response activities regarding BioWatch. The Agency is currently developing a better process for identifying, obtaining, maintaining, and tracking response equipment necessary for Nationally Significant Incidents using the lessons learned from the response to Hurricane Katrina. Using real-world examples like these will ensure the accuracy of the process and its applicability to the Agency's actual needs.

Highlights of Progress:

- Updated EPA's Homeland Security Strategic Plan to identify the range of EPA's homeland security activities, taking into consideration the evolving role of the DHS.
- Began the WaterSentinel pilot. This pilot will gather valuable information that will be used to design EPA's most important water monitoring projects.
- Strengthened relationships with the DHS, as well as with state and local stakeholders, relative to BioWatch. Constantly evaluating and revising techniques and standards of operation to ensure maximum efficiency.

Plans for Further Improvements:

- Continue to enhance and improve the WaterSentinel, based on lessons learned from the pilot.
- Finalize a process for identifying, obtaining, maintaining, and tracking response equipment necessary for Nationally Significant Incidents.
- Develop performance measures for EPA's major homeland security projects.

Linking Mission and Management

Scope of Challenge: *OIG believes that while EPA has begun linking costs to goals, it must continue to work with its partners to develop appropriate outcome measures and accounting systems that track environmental and human health results across the Agency's new goal structure. This information must then become an integral part of the Agency's decision-making process.*

Agency Response: EPA has sustained its commitment to improving the way the Agency manages for results and uses cost and performance information in decision making. During FY 2005, the Agency developed and implemented a new performance tracking feature in its Annual Commitment System (ACS). This function supports the entry and tracking of actual performance data against annual regional performance commitments, most of which are directly linked to national performance goals that support the Agency's *Strategic Plan*. The Agency continues to experience a high demand for access to the ACS as more national programs begin to use the system to track regional performance against key program measures. To date, six national program offices and all ten regional offices use the ACS. Also in FY 2005, the Agency redefined its cost accounting unit from Sub-Objective to Program/Project to allow EPA to develop a variety of reports to address financial requirements of Statement of Federal Financial Accounting Standards No. 4, Managerial Cost Accounting.

OMB continues to recognize EPA for its efforts to improve the way the Agency manages for results and uses cost and performance information in decision making. Since September 2003 (eight consecutive quarters), EPA has maintained a "green" status score for Improved Financial Performance under PMA. EPA has also received a progress score of "green" for Budget and Performance Integration for all but one consecutive quarter since June 2002.

Highlights of Progress:

- Developed and implemented a new performance tracking feature in the Agency's Annual Commitment System that supports the entry and tracking of annual performance data against annual regional performance commitments.
- Improved PART scores. (As of July 2005, 6 of the 32 EPA programs assessed show results not demonstrated.)
- Enhanced the Office of the Chief Financial Officer's Reporting and Business Intelligence Tool (ORBIT) functionality by expanding the programmatic and performance reporting capability and adding additional data sources (Administrative Data Mart).
- Began to develop the Agency's *2006-2011 Strategic Plan*, including outreach to partners and stakeholders and consultation with state and tribal partners.
- Implemented a comprehensive strategy to integrate PART measures and related performance information into EPA's external GPRA documents (i.e., OMB Submission, Annual Plan & Congressional Justification, Performance and Accountability Report).

Plans for Further Improvements:

- Continue to develop the Agency's *2006-20011 Strategic Plan*, including outreach to partners and stakeholders and consultation with state and tribal partners to develop outcome-oriented goals and objectives.
- Continue to improve PART scores by developing efficiency measures for environmental programs.

Grants Management and Use of Assistance Agreements

Scope of Challenge: *EPA needs to improve oversight for awarding and administering assistance agreements to ensure effective and efficient use of resources in attaining environmental goals. Recent OIG and GAO audits continue to identify problems in the use of assistance agreements.*

Agency Response: Assistance agreements are one of EPA's primary mechanisms for carrying out its mission to protect human health and the environment. The Agency awards approximately half of its budget to organizations through assistance agreements. Thus it is imperative that the Agency use good management practices in awarding and overseeing these agreements to ensure they contribute cost effectively to attaining environmental goals.

EPA acknowledges OIG and GAO concerns regarding the management of assistance agreements, and tracks this issue as an Agency weakness in the FMFIA process. The Agency has made significant progress in developing and implementing a comprehensive system of management controls to correct grants management problems. EPA issued its first long-term Grants Management Plan,[8] with associated performance measures, in April 2003. The plan, which GAO recognizes as a comprehensive and coordinated plan for strengthening grants management, outlines an aggressive approach to ensure that the commitments are fully implemented and that employees are held accountable for managing grants effectively. Also, EPA established a Grants Management Council, composed of EPA's Senior Resource Officials, to provide the leadership, coordination, and accountability needed to implement the plan.

Highlights of Progress:

- Issued a long-term Training Plan that outlines the Agency's strategy for ensuring that employees and grant applicants are knowledgeable about their grant management obligations.
- Issued a revised Grants Competition Policy that substantially reduced the competition threshold from $75,000 to $15,000. In FY 2005, EPA competed approximately 87% of new non-profit grants covered by the policy.
- Posted grant opportunities and application packages to www.grants.gov making it easier for potential recipients to obtain information about Federal grants and submit application for those grants.
- Established a new "Grant Awards Database" to improve the transparency and accessibility of grants data to the public. The database contains a summary of records for all non-construction EPA grants awarded in the last 10 years and can be accessed at http://yosemite.epa.gov/oarm/igms_egf.nsf/HomePage?ReadForm
- Issued a new Environment Results Order designed to ensure that grants are outcome-oriented and linked to EPA strategic goals.

[8] U.S. EPA, EPA Grants Management Plan. Available at http://www.epa.gov/ogd/EO/finalreport.pdf

- Issued a new policy on the internal review of discretionary grants. The policy requires Assistant and Regional Administrators to certify that non-competitive discretionary grants and competitive announcements have appropriate environmental outcomes and support program goals.
- Issued a new Order designed to assess, at the pre-award stage, the administrative and programmatic capabilities of non-profit organizations applying for EPA assistance agreements.

Plans for Further Improvements:

- Improve the delivery and availability of training programs by developing on-line training for project officers, grant specialists, managers and supervisors, and grant recipients.
- Strengthen external peer review of competitive grant applications to ensure that taxpayer dollars are used appropriately and promote accountability, transparency and results.
- Improve EPA project officers' efficiency and effectiveness by developing project officer workforce plans. In 2006, each EPA office/region will be required to develop a strategy for managing its workforce to promote more accountable grants management.
- Strengthen Agency processes under the Environmental Results Order for identifying and reporting on significant grant results information (e.g., highlighting results achieved through grants in the FY 2005 *Performance and Accountability Report*).
- Enhance accountability by incorporating grants management responsibilities in the Agency's new Performance Assessment Rating System.
- Begin pilot testing a statistical approach for selecting recipients for post-award monitoring reviews, which should help the Agency obtain more accurate information on trends in grantee compliance.

Inconsistency Among EPA's Regional Offices

Scope of Challenge: *GAO feels that inconsistency in program delivery among EPA's regional offices has often gone beyond the level that should be expected to take into account geographical diversity.*

GAO has reported inconsistent approaches in program delivery among regions, particularly in approving or disapproving proposals by states to change their water quality standards and in enforcement philosophy. GAO feels that while EPA attempts to achieve some level of consistency to ensure that the public is afforded equal protection under environmental laws and that regulated parties, taxpayers, and rate payers are not subjected to widely varying costs of environmental compliance, the extent of variations is well beyond the level that should be expected.

While EPA has mechanisms in place to ensure basic consistency in environmental programs, the Agency expects and encourages some variation in regional-state interaction. States are allowed, by statute, to have variations in their programs, and some states have chosen to put standards in place that are more stringent than federal requirements. States and regions have differing ecological, economic, and other factors that influence which environmental laws and regulations

require the most immediate attention, and the manner in which they can be most effectively managed.

EPA has a significant effort underway with the states to better align state, regional, and national planning processes and better define performance expectations. This effort, which began in 2004, provides expanded opportunities for states to participate in all aspects of the EPA planning process—setting mutual goals and priorities and accountability for results. Efforts underway include:

- The EPA Strategic Plan is the overarching framework for all of the planning, budgeting and priority setting systems. The EPA Annual Plan and Budget establishes annual performance targets and funding levels for the fiscal year to support accomplishment of the Strategic Plan. Regional Plans, new in 2005, explain how regional offices will make progress toward the Agency's strategic goals over the next three to five years.
- Workplans for Performance Partnership Agreements and Performance Partnership Grants reflect the results of previous joint planning and priority setting efforts.
- An automated Annual Commitment System through which the regions identify their performance commitments for the upcoming fiscal year. The system allows states and tribes to review and comment on draft commitments, offering an unprecedented level of transparency and collaboration and increasing opportunities to align national, regional, state and tribal priorities.
- Several Strategic Planning Pilots are underway, through a cooperative agreement with the Environmental Council of the States. The pilots help build states' planning capabilities, stimulate state-regional joint planning, improve performance reporting, and support improvements to Performance Partnership Agreements and other state-EPA agreements. For example, Texas focused on improving alignment of EPA and state performance measures. A crosswalk of the measures showed that 43% to 53% of water measures and 55% of air measures were highly related. Region 6 and Texas are now striving to revise or establish complementary measures.

Some additional activities and studies are underway that will also look at the issues of flexibility and consistency in environmental programs. First, the U.S. Senate Environment and Public Works (EPW) Committee is initiating a review of oversight of enforcement approaches among EPA regions. EPW staff will visit EPA's regional offices to review enforcement consistency. This is expected to be a major, comprehensive study. Second, GAO is scoping a potential study that will focus on the EPA-state relationship with regard to enforcement: how priorities are established, and how the programs are implemented. Third, EPA expects to receive a report from the National Academy of Public Administration by the end of 2006 that discusses how environmental services are delivered in the nation.

Highlights of Progress:

- Improved alignment of EPA and state planning and budgeting processes to better define performance expectations (as discussed above).

- Developed the State Enforcement Program Review Framework to achieve greater consistency among state and regional enforcement programs.
- Established various internal and external working groups to improve program consistency, communications and coordination on water quality standards issues across regions and states.

Plans for Further Improvements:

- Continue to convene monthly meetings of the Water Quality Standards (WQS) Managers Association, Regional WQS Coordinators, and Regional Endangered Species Act Coordinators to discuss issues of national significance and ensure an appropriate level of consistency.
- Reflect regional and state priorities in EPA's FY2007 Regional Plans and include a strong measurement component and better link priorities to PART, the EPA Annual Commitment System, and the Agency's budget and accounting system.

EPA USER FEE PROGRAM

In FY 2007, EPA will have several user fee programs in operation. These user fee programs and proposals are as follows:

Current Fees: Pesticides

The FY 2007 President's Budget reflects the continued collection of Maintenance Fees for review of existing pesticide registrations, and Enhanced Registration Service Fees for the accelerated review of new pesticide registration applications.

- **Pesticides Maintenance Fee Extension**

  The Maintenance Fee provides funding for the Reregistration program and a certain percentage supports the processing of applications involving "me-too" or inert ingredients. The Agency is scheduled to complete issuance of Reregistration Eligibility Decisions for the Reregistration program in 2008. In FY 2007, the Agency expects to collect $21,000,000 in Maintenance fees.

- **Enhanced Registration Services**

  Entities seeking to register pesticides for use in the United States pay a fee at the time the registration action request is submitted to EPA specifically for accelerated pesticide registration decision service. This process has introduced new pesticides to the market more quickly. In FY 2007, the Agency expects to collect $10,000,000 in Enhanced Registration Service fees under current law.

Current Fees: Other

- **Pre-Manufacturing Notification Fee**

  Since 1989, the Pre-Manufacturing Notifications (PMN) fee has been collected for the review and processing of new chemical pre-manufacturing notifications submitted to EPA by the chemical industry. These fees are paid at the time of submission of the PMN for review by EPA's Office of Prevention, Pesticides and Toxic Substances. PMN Fees are authorized by the Toxic Substances Control Act and contain a cap on the amount the Agency may charge for a PMN review. EPA is authorized to collect up to $1,800,000 in PMN Fees in FY 2007 under current law.

- **Lead Accreditation and Certification Fee**

  The Toxic Substances Control Act, Title IV, Section 402(a)(3), mandates the development of a schedule of fees for persons operating lead training programs accredited under the 402/404 rule and for lead-based paint contractors certified under this

rule. The training programs ensure that lead paint abatement is done safely. Fees collected for this activity are deposited in the U.S. Treasury. EPA estimates that less than $500,000 will be deposited in FY 2007.

- **Motor Vehicle and Engine Compliance Program Fee**

  This fee is authorized by the Clean Air Act of 1990 and is managed by the Office of Air and Radiation. Fee collections began in August 1992. This fee is imposed on manufacturers of light-duty vehicles, light and heavy trucks and motorcycles. The fees cover EPA's cost of certifying new engines and vehicles and monitoring compliance of in-use engines and vehicles. In 2004, EPA promulgated a rule that updated existing fees and established fees for newly-regulated vehicles and engines. The fees established for new compliance programs are also imposed on heavy-duty, in-use, and nonroad industries, including large diesel and gas equipment (earthmovers, tractors, forklifts, compressors, etc), handheld and non-handheld utility engines (chainsaws, weed-whackers, leaf-blowers, lawnmowers, tillers, etc.), marine (boat motors, tugs, watercraft, jet-skis), locomotive, aircraft and recreational vehicles (off-road motorcycles, snowmobiles). In FY 2007, EPA expects to collect $19,000,000 from this fee.

Fee Proposals: Pesticides

- **Registration Review Fees**

  As the Reregistration program approaches completion, the Registration Review program, through periodic 15-year cycle reviews, will be initiated to ensure that registered pesticides in the marketplace continue to be safe for use in accordance with the latest scientific information. In 2007, the President's Budget proposes to collect $22,000,000 through a new Registration Review fee aligned with estimated costs associated with registration review and evaluating potential effects of pesticides on endangered species.

- **Pesticides Tolerance Fee**

  A tolerance is the maximum legal limit of a pesticide residue in and on food commodities and animal feed. In 1954, the Federal Food, Drug, and Cosmetic Act (FFDCA) authorized the collection of fees for the establishment of tolerances on raw agricultural commodities and in food commodities. The collection of this fee has been blocked by Congressional action through 2008. Language will be submitted to eliminate the prohibition on collecting pesticide Tolerance fees. In FY 2007, the President's Budget proposes to collect $13,000,000 in Tolerance Fees.

- **Enhanced Registration Services**

  In FY 2007, the President's Budget proposes to publish a new fee schedule and restructuring proposal for registration services to collect an additional $12,000,000.

- **Pesticides Maintenance Fee Extension**

  Under current law, the Agency expects to collect $21,000,000 in Maintenance fees in FY 2007. Language will be submitted to increase the authorized level of collections and restructure the fee in 2007 to collect an additional $9,000,000 in order to align more closely with program costs.

Fee Proposals: Other

- **Pre-Manufacturing Notification Fee**

  Under the current fee structure, the Agency would collect $1,800,000 in FY 2007. Language will be submitted to remove the statutory cap in the Toxic Substances Control Act on Pre-Manufacturing Notification Fees. In FY 2007, EPA expects to collect an additional $4,000,000 by removing the statutory cap.

WORKING CAPITAL FUND

In FY 2007, the Agency begins its eleventh year of operation of the Working Capital Fund (WCF). It is a revolving fund authorized by law to finance a cycle of operations, where the costs of goods and services provided are charged to users on a fee-for-service basis. The funds received are available without fiscal year limitation, to continue operations and to replace capital equipment. EPA's WCF was implemented under the authority of Section 403 of the Government Management Reform Act of 1994 and EPA's FY 1997 Appropriations Act. Permanent WCF authority was contained in the Agency's FY 1998 Appropriations Act.

The Chief Financial Officer initiated the WCF in FY 1997 as part of an effort to: (1) be accountable to Agency offices, the Office of Management and Budget, and the Congress; (2) increase the efficiency of the administrative services provided to program offices; and (3) increase customer service and responsiveness. The Agency has a WCF Board which provides policy and planning oversight and advises the CFO regarding the WCF financial position. The Board, chaired by the Associate Chief Financial Officer, is composed of eighteen permanent members from the program and regional offices.

Two Agency Activities begun in FY 1997 will continue into FY 2007. These are the Agency's information technology and telecommunications operations, managed by the Office of Environmental Information, and Agency postage costs, managed by the Office of Administration. A third Activity, Financial Management, will be provided pending a successful WCF pilot program in FY 2006. This Activity provides the Integrated Financial Management System (IFMS), which is the core accounting system for the Agency, and it is managed by the Office of the Chief Financial Officer.

The Agency's FY 2007 budget request includes resources for these three Activities in each National Program Manager's submission, totaling approximately $170.0 million. These estimated resources may be increased to incorporate program office's additional service needs during the operating year. To the extent that these increases are subject to Congressional reprogramming notifications, the Agency will comply with all applicable requirements. In FY 2007, the Agency will continue to market its information technology services to other Federal agencies in an effort to deliver high quality services external to EPA, which will result in lower costs to EPA customers.

Environmental Protection Agency
FY 2007 Annual Performance Plan and Congressional Justification

ACRONYMS FOR STATUTORY AUTHORITIES

AEA: Atomic Energy Act, as amended, and Reorganization Plan #3

AHERA: Asbestos Hazard Emergency Response Act

AHPA: Archaeological and Historic Preservation Act

ASHAA: Asbestos in Schools Hazard Abatement Act

APA: Administrative Procedures Act

ASTCA: Antarctic Science, Tourism, and Conservation Act

BEACH Act of 2000: Beaches Environmental Assessment and Coastal Health Act

BRERA: Brownfields Revitalization and Environmental Restoration Act

CAA: Clean Air Act

CAAA: Clean Air Act Amendments

CCA: Clinger Cohen Act

CCAA: Canadian Clean Air Act

CEPA: Canadian Environmental Protection Act

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act (1980)

CFOA: Chief Financial Officers Act

CFR: Code of Federal Regulations

CICA: Competition in Contracting Act

CSA: Computer Security Act

CWPPR: Coastal Wetlands Planning, Protection, and Restoration Act of 1990

CWA: Clean Water Act

CZARA: Coastal Zone Management Act Reauthorization Amendments

CZMA: Coastal Zone Management Act

DPA: Deepwater Ports Act

DREAA: Disaster Relief and Emergency Assistance Act

ECRA: Economic Cleanup Responsibility Act

EFOIA: Electronic Freedom of Information Act

EPAA: Environmental Programs Assistance Act

EPAAR: EPA Acquisition Regulations

EPCA: Energy Policy and Conservation Act

EPACT: Energy Policy Act

EPCRA: Emergency Planning and Community Right to Know Act

ERD&DAA: Environmental Research, Development and Demonstration Authorization Act

ESA: Endangered Species Act

ESECA: Energy Supply and Environmental Coordination Act

FACA: Federal Advisory Committee Act

FAIR: Federal Activities Inventory Reform Act

FCMA: Fishery Conservation and Management Act

FEPCA: Federal Environmental Pesticide Control Act; enacted as amendments to FIFRA.

FFDCA: Federal Food, Drug, and Cosmetic Act

FGCAA: Federal Grant and Cooperative Agreement Act

FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act

FLPMA: Federal Land Policy and Management Act

FMFIA: Federal Managers' Financial Integrity Act

FOIA: Freedom of Information Act

FPA: Federal Pesticide Act

FPPA: Federal Pollution Prevention Act

FPR: Federal Procurement Regulation

FQPA: Food Quality Protection Act

FRA: Federal Register Act

FSA: Food Security Act

FUA: Fuel Use Act

FWCA: Fish and Wildlife Coordination Act

FWPCA: Federal Water Pollution and Control Act (aka CWA)

GISRA: Government Information Security Reform Act

GMRA: Government Management Reform Act

GPRA: Government Performance and Results Act

HMTA: Hazardous Materials Transportation Act

HSWA: Hazardous and Solid Waste Amendments

IGA: Inspector General Act

IPA: Intergovernmental Personnel Act

IPIA: Improper Payments Information Act

ISTEA: Intermodal Surface Transportation Efficiency Act

LPA-US/MX-BR: 1983 La Paz Agreement on US/Mexico Border Region

MPPRCA: Marine Plastic Pollution, Research and Control Act of 1987

MPRSA: Marine Protection Research and Sanctuaries Act

NAAEC: North American Agreement on Environmental Cooperation

NAAQS: National Ambient Air Quality Standard

NAWCA: North American Wetlands Conservation Act,

NEPA: National Environmental Policy Act

NHPA: National Historic Preservation Act

NIPDWR: National Interim Primary Drinking Water Regulations

NISA: National Invasive Species Act of 1996

ODA: Ocean Dumping Act

OPA: The Oil Pollution Act

PFCRA: Program Fraud Civil Remedies Act

PHSA: Public Health Service Act

PLIRRA: Pollution Liability Insurance and Risk Retention Act

PR: Privacy Act

PRA: Paperwork Reduction Act

QCA: Quiet Communities Act

RCRA: Resource Conservation and Recovery Act

RLBPHRA: Residential Lead-Based Paint Hazard Reduction Act

RFA: Regulatory Flexibility Act

RICO: Racketeer Influenced and Corrupt Organizations Act

SARA: Superfund Amendments and Reauthorization Act of 1986

SBREFA: Small Business Regulatory Enforcement Fairness Act of 1996

SBLRBRERA: Small Business Liability Relief and Brownfields Revitalization and Environmental Restoration Act

SDWA: Safe Drinking Water Act

SICEA: Steel Industry Compliance Extension Act

SMCRA: Surface Mining Control and Reclamation Act

SPA: Shore Protection Act of 1988

SWDA: Solid Waste Disposal Act

TCA: Tribal Cooperative Agreement

TSCA: Toxic Substances Control Act

UMRA: Unfunded Mandates Reform Act.

UMTRLWA: Uranium Mill Tailings Radiation Land Withdrawal Act

USC: United States Code

USTCA: Underground Storage Tank Compliance Act

WQA: Water Quality Act of 1987

WRDA: Water Resources Development Act

WSRA: Wild and Scenic Rivers Act

WWWQA: Wet Weather Water Quality Act of 2000

FY 2007 STAG CATEGORICAL PROGRAM GRANTS

Statutory Authority and Eligible Uses
(Dollars in Thousands)

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
State and Local Air Quality Management	Clean Air Act, §103	Air pollution control agencies as defined in section 302(b) of the CAA	S/L monitoring and data collection activities in support of the establishment of a $PM_{2.5}$ monitoring network and associated program costs	$42,500.0	Goal 1, Obj. 1	$0.0
State and Local Air Quality Management	Clean Air Act, §103	Multi-jurisdictional organizations (non-profit organizations whose boards of directors or membership is made up of CAA section 302(b) agency officers and Tribal representatives and whose mission is to support the continuing environmental programs of the states)	Coordinating or facilitating a multi-jurisdictional approach to addressing regional haze	$5,000.0	Goal 1, Obj. 1	$2,500.0

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
State and Local Air Quality Management	Clean Air Act, Sections 103, 105, 106	Air pollution control agencies as defined in section 302(b) of the CAA; Multi-jurisdictional organizations (non-profit organizations whose boards of directors or membership is made up of CAA section 302(b) agency officers and whose mission is to support the continuing environmental programs of the states); Interstate air quality control region designated pursuant to section 107 of the CAA or of implementing section 176A, or section 184 NOTE: only the Ozone Transport Commission is eligible as of 2/1/99	Carrying out the traditional prevention and control programs required by the CAA and associated program support costs; Coordinating or facilitating a multi-jurisdictional approach to carrying out the traditional prevention and control programs required by the CAA; Supporting training for CAA section 302(b) air pollution control agency staff; and Coordinating or facilitating a multi-jurisdictional approach to control interstate air pollution	$172,761.0	Goal 1, Obj. 1	$182,679.5

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
Tribal Air Quality Management	Clean Air Act, Sections 103 and 105; Tribal Cooperative Agreements (TCA) in annual Appropriations Acts	Tribes; Intertribal Consortia; State/ Tribal college or university	Conducting air quality assessment activities to determine a Tribe's need to develop a CAA program; Carrying out the traditional prevention and control programs required by the CAA and associated program costs; Supporting training for CAA for federally recognized Tribes	$10,887.0	Goal 1, Obj. 1	$10,939.5
Radon	Toxic Substances Control Act, Sections 10 and 306; TCA in annual Appropriations Acts	State Agencies, Tribes, Intertribal Consortia	Assist in the development and implementation of programs for the assessment and mitigation of radon	$7,439.0	Goal 1, Obj. 2	$8,073.5
Water Pollution Control (Section 106)	FWPCA, as amended, §106; TCA in annual Appropriations Acts	States, Tribes and Intertribal Consortia, and Interstate Agencies	Develop and carry out surface and ground water pollution control programs, including NPDES permits, TMDL's, WQ standards, monitoring, and NPS control activities.	$216,172.0	Goal 2, Obj. 2	$221,661.0

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
Nonpoint Source (NPS – Section 319)	FWPCA, as amended, § 319(h); TCA in annual Appropriations Acts	States, Tribes, Intertribal Consortia	Implement EPA-approved state and tribal nonpoint source management programs and fund priority projects as selected by the State.	$204,278.0	Goal 2, Obj. 2	$194,040.0
Wetlands Program Development	FWPCA, as amended, §104 (b)(3); TCA in annual Appropriations Acts	States, Local Governments, Tribes, Interstate Organizations, Intertribal Consortia, and Non-Profit Organizations	To develop new wetland programs or enhance existing programs for the protection, management and restoration of wetland resources.	$15,765.0	Goal 4, Obj. 3	$16,830.0
Targeted Watershed Grants	Department of Interior, Environment and Related Agencies Appropriation Act, 2006 Public Law 109-54	States, Local Governments, Tribes, Interstate Organizations, Intertribal Consortia, and Non-Profit Organizations	Assistance for watersheds to expand and improve existing watershed protection efforts.	$16,608.0	Goal 4, Obj. 3	$6,930.0
Public Water System Supervision (PWSS)	Safe Drinking Water Act, §1443(a); TCA in annual Appropriations Acts.	States, Tribes, and Intertribal Consortia	Assistance to implement and enforce National Primary Drinking Water Regulations to ensure the safety of the Nation's drinking water resources and to protect public health.	$98,279.0	Goal 2, Obj. 1	$99,099.0
Homeland Security Grants	Safe Drinking Water Act, 1442; TCA in annual Appropriations Acts.	States, Tribes, and Intertribal Consortia	To assist States and Tribes in coordinating their water security activities with other homeland security efforts.	$4,926.0	Goal 2, Obj. 1	$4,950.0

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
Underground Injection Control [UIC]	Safe Drinking Water Act, § 1443(b); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Implement and enforce regulations that protect underground sources of drinking water by controlling Class I-V underground injection wells.	$10,838.0	Goal 2, Obj. 1	$10,890.0
Beaches Protection	Beaches Environmental Assessment and Coastal Health Act of 2000; TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia, Local Governments	Develop and implement programs for monitoring and notification of conditions for coastal recreation waters adjacent to beaches or similar points of access that are used by the public.	$9,853.0	Goal 2, Obj. 1	$9,900.0
Hazardous Waste Financial Assistance	Resource Conservation Recovery Act, § 3011; FY 1999 Appropriations Act (PL 105-276); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Development & Implementation of Hazardous Waste Programs	$101,944.0	Goal 3, Obj. 1 Obj. 2	$103,345.5

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
Brownfields	Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, Section 128	States, Tribes, Intertribal Consortia	Build and support Brownfields programs which will assess contaminated properties, oversee private party cleanups, provide cleanup support through low interest loans, and provide certainty for liability related issues.	$49,264.0	Goal 4, Obj. 2	$49,494.9

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
Underground Storage Tanks [UST]	Solid Waste Disposal Act of 1976, Section 2007(f)(2), as amended, 42 U.S.C. 6916(f)(2) and implemented by regulations at 40 CFR 35.330; Resource Conservation and Recovery Act; Section 204 of the Demonstration Cities and Metropolitan Development Act, as amended at 42 U.S.C. 3334; Departments of Veterans Affairs, Housing and Urban Development, and Independent Agencies Appropriations Act of 1999, Public Law 105-276, (112 Stat. 2461, 2499; 42 U.S.C. 6908a); Underground Storage Tank Compliance Act of 2005; Section 2007 (f)	States, federally-recognized Tribes and Intertribal Consortia	Develop and/or implement state or Indian UST program; provide funding for SEE enrollees to work on the state's underground storage tanks and to support direct UST implementation programs.	$11,774.0	Goal 3 Obj. 1	$37,566.7

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
Pesticides Program Implementation	The Federal Insecticide, Fungicide, and Rodenticide Act § 20 & 23; the FY 1999 Appropriations Act (PL 105-276); FY 2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	States, Tribes and Intertribal Consortia	Assist States and Tribes to develop and implement pesticide programs, including programs that protect workers, ground-water, and endangered species from pesticide risks , and other pesticide management programs designated by the Administrator; develop and implement programs for certification and training of pesticide applicators; develop Integrated Pesticides Management (IPM) programs; support pesticides education, outreach, and sampling efforts for Tribes.	$12,907.0	Goal 4, Obj. 1	$12,968.9
Lead	Toxic Substances Control Act, § 404 (g); TSCA 10; FY2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	To support and assist States and Tribes to develop and carry out authorized state lead abatement certification, training and accreditation programs; and to assist tribes in development of lead programs.	$13,499.0	Goal 4, Obj. 1	$13,563.1

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
Toxic Substances Compliance	Toxic Substances Control Act, §28(a) and 404 (g); TCA in annual Appropriations Acts.	States, Territories, Tribes, Intertribal Consortia	Assist in developing and implementing toxic substances enforcement programs for PCBs, asbestos, and lead-based paint	$5,074.0	Goal 5, Obj. 1	$5,098.5
Pesticide Enforcement	FIFRA § 23(a)(1); FY 2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	States, Territories, Tribes, Intertribal Consortia	Assist in implementing cooperative pesticide enforcement programs	$18,622.0	Goal 5, Obj. 1	$18,711.0

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
National Environmental Information Exchange Network (NEIEN, aka "the Exchange Network")	As appropriate, Clean Air Act, Sec. 103; Clean Water Act, Sec. 104; Solid Waste Disposal Act, Sec. 8001; FIFRA, Sec 20; TSCA, Sec. 10 and 28; Marine Protection, Research and Sanctuaries Act, Sec. 203; Safe Drinking Water Act, Sec. 1442; Indian Environmental General Assistance Program Act of 1992, as amended; FY 2000 Appropriations Act (P.L. 106-74); Pollution Prevention Act, Sec. 6605; FY 2002 Appropriations Act and FY 2003 Appropriations Acts.	States, tribes, interstate agencies, tribal consortium, and other agencies with related environmental information activities.	Assists states and others to better integrate environmental information systems, better enable data-sharing across programs, and improve access to information.	$19,706.0	Goal 4 Obj. 2	$14,850.0
Pollution Prevention	Pollution Prevention Act of 1990, §6605; TSCA 10; FY2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	To assist state and tribal programs to promote the use of source reduction techniques by businesses and to promote other Pollution Prevention activities at the state and tribal levels.	$4,926.0	Goal 4, Obj. 1	$5,940.0

Grant Title	Statutory Authorities	Eligible Recipients*	Eligible Uses	FY 2006 Enacted Dollars(X1000)	FY 2007 Goal/ Objective	FY 2007 Request Dollars(X1000)
Sector Program (previously Enforcement & Compliance Assurance)	As appropriate, Clean Air Act, Sec. 103; Clean Water Act, Sec. 104; Solid Waste Disposal Act, Sec. 8001; FIFRA, Sec 20; TSCA, Sec. 10 and 28; Marine Protection, Research and Sanctuaries Act, Sec. 203; Safe Drinking Water Act, Sec. 1442; Indian Environmental General Assistance Program Act of 1992, as amended; FY 2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	State, Territories, Tribes, Intertribal Consortia, Multi-jurisdictional Organizations	Assist in developing innovative sector-based, multi-media, or single-media approaches to enforcement and compliance assurance	$2,217.0	Goal 5, Obj. 1	$2,227.5
Tribal General Assistance Program	Indian Environmental General Assistance Program Act of 1992, as amended; TCA in annual Appropriations Acts.	Tribal Governments and Intertribal Consortia	Plan and develop Tribal environmental protection programs.	$56,654.0	Goal 5, Obj. 3	$56,925.0

INFRASTRUCTURE / STAG PROJECT FINANCING
(Dollars in Millions)

	FY 2006 Enacted Budget	FY 2007 President's Budget Request
Infrastructure Financing		
Clean Water State Revolving Fund (CWSRF)	$886.8	$687.6
Drinking Water State Revolving Fund (DWSRF)	$837.5	$841.5
STAG Projects		
Brownfields Environmental Projects	$88.7	$89.1
Clean School Bus Initiative	$6.9	$0.0
Diesel Emissions Reduction Program	$0.0	$49.5
Mexico Border Projects	$49.3	$24.8
Alaska Native Villages	$34.5	$14.9
Targeted Projects - Puerto Rico	$0.0	$1.0
TOTAL	***$1,903.7***	***$1,708.4***

Infrastructure and Special Projects Funds

The President's Budget includes a total of $1,708.4 million in 2007 for EPA's Infrastructure programs and State and Tribal Assistance Grant (STAG) projects. Approximately $1,545 million will support EPA's Goal 2: Clean and Safe Water, $114 million will support EPA's Goal 4: Healthy Communities and Ecosystems and $50 million will support Goal 1: Clean Air and Global Climate Change.

Infrastructure and targeted projects funding under the STAG appropriation provides financial assistance to states, municipalities, interstates, and Tribal governments to fund a variety of drinking water, wastewater, air and Brownfields environmental projects. These funds are essential to fulfill the Federal government's commitment to help our state, Tribal and local partners obtain adequate funding to construct the facilities required to comply with Federal environmental requirements and ensure public health and revitalize contaminated properties.

Providing STAG funds to capitalize State Revolving Fund (SRF) programs, EPA works in partnership with the states to provide low-cost loans to municipalities for infrastructure construction. As set-asides of the SRF programs, grants are available to Indian Tribes and Alaska Native Villages for drinking water and wastewater infrastructure needs based on national priority lists. The Brownfields Environmental Program provides states, Tribes, and political subdivisions (including cities, towns, and counties) the necessary tools, information, and strategies for promoting a unified approach to environmental assessment, cleanup, characterization, and redevelopment at sites contaminated with hazardous wastes and petroleum contaminants.

The resources included in this budget will enable the Agency, in conjunction with EPA's state, local, and Tribal partners, to achieve several important goals for 2007. Some of these goals include:

- 94 percent of the population served by community water systems will receive drinking water meeting all health-based standards.

- Award 101 assessment grants under the Brownfields program, bringing the cumulative total grants awarded to 1,081 by the end of FY 2007 paving the way for productive reuse of these properties. This will bring the total number of sites assessed to 9,000 while leveraging a total of $10 billion in cleanup and redevelopment funds since 1995.

Goal 1: Clean Air and Global Climate Change

Diesel Emissions Reduction Grant Program

In FY 2007, EPA will support the National Clean Diesel program, authorized in Sections 791-797 of the Energy Policy Act of 2005. This program focuses on reducing particulate matter (PM) by up to 95% from existing diesel engines, including on-highway and nonroad equipment and reducing other, smog-forming emissions such as nitrogen oxides and hydrocarbons. Five sectors are targeted for reduction: freight, construction, school buses, agriculture, and ports. Grants will be provided to eligible entities in areas of the country that are not meeting ambient air quality standards. This program will help provide immediate reductions by retrofitting the engines with emission control technologies sooner than would otherwise occur through normal turnover of the fleet because these engines often remain in service for 20 or more years. In 2007, up to 30 percent of the appropriated funds will be used to provide formula grants to states for the purpose of establishing state grant and loan programs. EPA expects to fund at least 200 new grants deploying technology in various sectors using diesel engines. These funds will also support competitive grants for replacing, repowering and retrofitting older school buses with emission control technology, potentially reducing PM emissions by up to 95 percent.

Goal 2: Clean and Safe Water

Capitalizing Clean Water and Drinking Water State Revolving Funds

The Clean Water and Drinking Water State Revolving Fund programs demonstrate a true partnership between states, localities and the Federal government. These programs provide Federal financial assistance to states, localities, and Tribal governments to protect the nation's water resources by providing funds for the construction of drinking water and wastewater treatment facilities. The state revolving funds are two important elements of the nation's substantial investment in sewage treatment and drinking water systems, which provides Americans with significant benefits in the form of reduced water pollution and safe drinking water.

EPA will continue to provide financial assistance for wastewater and other water projects through the Clean Water State Revolving Fund (CWSRF). CWSRF projects include nonpoint source, estuary, storm water, and sewer overflow projects. The dramatic progress made in improving the quality of wastewater treatment since the 1970s is a national success. In 1972, only 84 million people were served by secondary or advanced wastewater treatment facilities. Today, 99 percent of community wastewater treatment plants, serving 181 million people, use secondary treatment or better. Water infrastructure projects supported by the program contribute to direct ecosystem improvements by lowering the amount of nutrients and toxic pollutants in all types of surface waters. While great progress has been made, many rivers, lakes and ocean/coastal areas still suffer an enormous influx of pollutants after heavy rains. The contaminants result in beach closures, infect fish and degrade the ability of the watersheds to sustain a healthy ecosystem. Improvements to our cities infrastructure remain a top priority if we are to reclaim our water resources.

The FY 2007 President's Budget Request includes $687.6 million in funding for the CWSRF. More than $23 billion has already been provided to capitalize the CWSRF, well over twice the original Clean Water Act authorized level of $8.4 billion. Total CWSRF funding available for loans since 1987, reflecting loan repayments, state match dollars, and other funding sources, is approximately $55 billion, of which more than $52 billion has been provided to communities as financial assistance.

The dramatic progress made in improving the quality of wastewater treatment since the 1970s is a national success. In 1972, only 84 million people were served by secondary or advanced wastewater treatment facilities. Today, 99 percent of community wastewater treatment plants, serving 181 million people, use secondary treatment or better.

The DWSRF will be self-sustaining in the long run and will help offset the costs of ensuring safe drinking water supplies and assisting small communities in meeting their responsibilities. Since its inception in 1997, the Drinking Water State Revolving Fund (DWSRF) program has made available $11.1 billion to finance 4,196 infrastructure improvement projects nationwide, with a return of $1.73 for every $1 of Federal funds invested.

Set-Asides for Tribes: To improve public health and water quality on Tribal lands, the Agency will continue the 1 ½ percent CWSRF set-aside for funding wastewater grants to tribes as provided in the Agency's 2002 appropriation. The 2002 World Summit in Johannesburg adopted the goal of reducing the number of people lacking access to basic sanitation by 50 percent by 2015. Through this program, EPA contributes to this goal which will provide for the development of sanitation facilities for tribes and Alaska Native Villages.

Alaska Native Villages

The President's Budget provides $15 million for Alaska native villages for the construction of wastewater and drinking water facilities to address serious sanitation problems. EPA will continue to work with the Department of Health and Human Services' Indian Health Service, the

State of Alaska, the Alaska Native Tribal Health Council and local communities to provide needed financial and technical assistance.

Puerto Rico

The President's Budget includes $1.0 million for the next design phase of upgrades to Metropolitano's Sergio Cuevas treatment plant in San Juan, Puerto Rico. EPA and Puerto Rico provided $7 million to date ($3.8 and $3.2 million, respectively). When all upgrades are complete, EPA estimates that about 1.4 million people will enjoy safer, cleaner drinking water.

Goal 4: Healthy Communities and Ecosystems

Brownfields Environmental Projects

The President's Budget includes $89.0 million for Brownfields environmental projects. EPA will award grants for assessment activities, cleanup, and revolving loan funds (RLF). Additionally, this includes cleanup of sites contaminated by petroleum or petroleum products and environmental job training grants. In FY 2007, the funding provided will result in the assessment of 1,000 Brownfields properties. Brownfields grantees will leverage cleanup and redevelopment jobs and $900,000 in cleanup and redevelopment funding.

Mexico Border

The OMB Submission includes a total of $25.0 million for water infrastructure projects along the U.S./Mexico Border. The goal of this program is to reduce environmental and human health risks along the U.S./Mexico Border. EPA's U.S./Mexico Border program provides funds to support the planning, design and construction of high priority water and wastewater treatment projects along the border. The Agency's goal is to provide protection of people in the U.S.-Mexico border area for health risks by increasing the number of homes connected to potable water supply and wastewater collection and treatment systems. The program has sufficient resources to carry out currently approved projects and provides $25 million to address new needs in FY 2007.

PROGRAM PROJECTS BY APPROPRIATION
(Dollars in Thousands)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Science & Technology				
Air Toxics and Quality				
Clean Air Allowance Trading Programs	$8,476.1	$8,527.0	$9,259.4	$732.4
Federal Support for Air Quality Management	$10,747.8	$10,012.0	$10,272.9	$260.9
Federal Support for Air Toxics Program	$3,040.8	$2,225.0	$2,264.7	$39.7
Federal Vehicle and Fuels Standards and Certification				
Energy Policy Act & Related Authorities Implementation	$0.0	$0.0	$11,400.0	$11,400.0
Federal Vehicle and Fuels Standards and Certification (other activities)	$60,614.9	$58,613.0	$56,924.5	($1,688.5)
Subtotal, Federal Vehicle and Fuels Standards and Certification	$60,614.9	$58,613.0	$68,324.5	$9,711.5
Radiation: Protection	$2,552.0	$2,086.0	$2,054.3	($31.7)
Radiation: Response Preparedness	$2,460.0	$3,468.0	$3,585.9	$117.9
Subtotal, Air Toxics and Quality	**$87,891.6**	**$84,931.0**	**$95,761.7**	**$10,830.7**
Climate Protection Program				
Climate Protection Program	$20,448.0	$18,648.0	$12,549.6	($6,098.4)
Enforcement				
Forensics Support	$13,377.9	$13,129.0	$13,185.2	$56.2
Homeland Security				
Homeland Security: Critical Infrastructure Protection				
Water sentinel and related training	$0.0	$8,131.0	$41,735.2	$33,604.2
Homeland Security: Critical Infrastructure Protection (other activities)	$17,952.2	$4,262.0	$3,515.8	($746.2)
Subtotal, Homeland Security: Critical Infrastructure Protection	$17,952.2	$12,393.0	$45,251.0	$32,858.0
Homeland Security: Preparedness, Response, and Recovery				
Decontamination	$0.0	$16,868.0	$24,666.7	$7,798.7
Laboratory Security: Preparedness, Response, and Recovery	$0.0	$591.0	$600.0	$9.0
Safe Building	$0.0	$3,722.0	$4,000.0	$278.0
Homeland Security: Preparedness, Response, and Recovery (other activities)	$33,417.3	$14,571.0	$15,231.4	$660.4
Subtotal, Homeland Security: Preparedness, Response, and Recovery	$33,417.3	$35,752.0	$44,498.1	$8,746.1
Homeland Security: Protection of EPA Personnel and Infrastructure	$2,517.6	$2,050.0	$2,079.0	$29.0
Subtotal, Homeland Security	**$53,887.1**	**$50,195.0**	**$91,828.1**	**$41,633.1**

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Indoor Air				
Indoor Air: Radon Program	$696.7	$429.0	$442.2	$13.2
Reduce Risks from Indoor Air	$909.5	$810.0	$828.7	$18.7
Subtotal, Indoor Air	**$1,606.2**	**$1,239.0**	**$1,270.9**	**$31.9**
IT / Data Management / Security				
IT / Data Management	$4,141.3	$4,173.0	$4,268.0	$95.0
Operations and Administration				
Facilities Infrastructure and Operations	$8,892.1	$8,511.0	$70,239.5	$61,728.5
Pesticides Licensing				
Pesticides: Registration of New Pesticides	$2,473.1	$2,463.0	$2,766.1	$303.1
Pesticides: Review / Reregistration of Existing Pesticides	$2,471.1	$2,480.0	$2,820.4	$340.4
Subtotal, Pesticides Licensing	**$4,944.2**	**$4,943.0**	**$5,586.5**	**$643.5**
Research / Congressional Priorities	$74,485.5	$32,919.0	$0.0	($32,919.0)
Research: Clean Air				
Research: Air Toxics	$14,472.5	$16,226.0	$12,274.2	($3,951.8)
Research: Global Change	$19,395.9	$18,619.0	$17,456.4	($1,162.6)
Research: NAAQS	$63,156.4	$66,777.0	$65,455.6	($1,321.4)
Subtotal, Research: Clean Air	**$97,024.8**	**$101,622.0**	**$95,186.2**	**($6,435.8)**
Research: Clean Water				
Research: Drinking Water	$46,824.0	$45,170.0	$49,242.5	$4,072.5
Research: Water Quality	$46,243.2	$51,269.0	$56,988.2	$5,719.2
Subtotal, Research: Clean Water	**$93,067.2**	**$96,439.0**	**$106,230.7**	**$9,791.7**
Research: Human Health and Ecosystems				
Human Health Risk Assessment	$33,247.5	$35,637.0	$34,488.5	($1,148.5)
Research: Computational Toxicology	$12,002.9	$12,327.0	$14,983.1	$2,656.1
Research: Endocrine Disruptor	$12,559.5	$10,494.0	$9,081.2	($1,412.8)
Research: Fellowships	$14,476.8	$11,691.0	$8,383.0	($3,308.0)
Research: Human Health and Ecosystems	$169,805.8	$167,703.0	$161,312.7	($6,390.3)
Subtotal, Research: Human Health and Ecosystems	**$242,092.5**	**$237,852.0**	**$228,248.5**	**($9,603.5)**
Research: Land Protection				
Research: Land Protection and Restoration	$10,257.6	$11,606.0	$10,552.8	($1,053.2)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Research: Sustainability				
Research: Economics and Decision Science(EDS)	$2,465.6	$2,361.0	$2,494.6	$133.6
Research: Environmental Technology Verification (ETV)	$3,364.9	$2,990.0	$0.0	($2,990.0)
Research: Sustainability	$36,354.6	$25,803.0	$21,404.9	($4,398.1)
Subtotal, Research: Sustainability	**$42,185.1**	**$31,154.0**	**$23,899.5**	**($7,254.5)**
Toxic Research and Prevention				
Research: Pesticides and Toxics	$28,276.0	$30,357.0	$26,223.7	($4,133.3)
Water: Human Health Protection				
Drinking Water Programs	$3,326.0	$3,092.0	$3,243.1	$151.1
Rescission of Prior Year Expired Contracts, Grants, and Interagency Agreements	$0.0	($1,000.0)	$0.0	$1,000.0
Total, Science & Technology	**$785,903.1**	**$729,810.0**	**$788,274.0**	**$58,464.0**
Environmental Program & Management				
Air Toxics and Quality				
Clean Air Allowance Trading Programs	$17,513.5	$17,708.0	$19,126.4	$1,418.4
Federal Stationary Source Regulations	$20,555.3	$23,215.0	$25,678.3	$2,463.3
Federal Support for Air Quality Management				
Energy Policy Act Implementation	$0.0	$0.0	$2,800.0	$2,800.0
Clean Diesel Initiative	$0.0	$5,867.0	$0.0	($5,867.0)
Federal Support for Air Quality Management (other activities)	$89,350.1	$90,082.0	$85,265.6	($4,816.4)
Subtotal, Federal Support for Air Quality Management	$89,350.1	$95,949.0	$88,065.6	($7,883.4)
Federal Support for Air Toxics Program	$23,518.7	$25,405.0	$25,513.7	$108.7
Radiation: Protection	$11,694.4	$11,178.0	$10,648.6	($529.4)
Radiation: Response Preparedness	$2,284.4	$2,632.0	$2,688.7	$56.7
Stratospheric Ozone: Domestic Programs	$4,478.1	$4,938.0	$5,221.4	$283.4
Stratospheric Ozone: Multilateral Fund	$9,920.0	$8,600.0	$13,365.0	$4,765.0
Subtotal, Air Toxics and Quality	**$179,314.5**	**$189,625.0**	**$190,307.7**	**$682.7**
Brownfields				
Brownfields	$27,248.4	$24,534.0	$24,637.3	$103.3
Climate Protection Program				
Climate Protection Program				
Energy Star	$0.0	$49,536.0	$45,722.8	($3,813.2)
Methane to Markets	$0.0	$1,971.0	$4,420.5	$2,449.5

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Climate Protection Program (other activities)	$92,457.2	$39,327.0	$41,700.0	$2,373.0
Subtotal, Climate Protection Program	$92,457.2	$90,834.0	$91,843.3	$1,009.3
Subtotal, Climate Protection Program	**$92,457.2**	**$90,834.0**	**$91,843.3**	**$1,009.3**
Compliance				
Compliance Assistance and Centers				
Energy Policy Act Implementation	$0.0	$0.0	$111.2	$111.2
Compliance Assistance and Centers (other activities)	$27,207.0	$27,935.0	$28,779.5	$844.5
Subtotal, Compliance Assistance and Centers	$27,207.0	$27,935.0	$28,890.7	$955.7
Compliance Incentives	$10,135.7	$9,412.0	$9,702.2	$290.2
Compliance Monitoring				
Energy Policy Act Implementation	$0.0	$0.0	$986.9	$986.9
Compliance Monitoring (other activities)	$85,297.9	$85,463.0	$92,031.9	$6,568.9
Subtotal, Compliance Monitoring	$85,297.9	$85,463.0	$93,018.8	$7,555.8
Subtotal, Compliance	**$122,640.6**	**$122,810.0**	**$131,611.7**	**$8,801.7**
Enforcement				
Civil Enforcement				
Energy Policy Act Implementation	$0.0	$0.0	$753.2	$753.2
Civil Enforcement (other activities)	$113,719.7	$117,807.0	$120,024.5	$2,217.5
Subtotal, Civil Enforcement	$113,719.7	$117,807.0	$120,777.7	$2,970.7
Criminal Enforcement	$35,109.3	$37,565.0	$37,793.5	$228.5
Enforcement Training	$3,766.2	$2,945.0	$2,503.7	($441.3)
Environmental Justice	$4,853.2	$5,569.0	$3,859.0	($1,710.0)
NEPA Implementation	$13,016.8	$12,640.0	$13,787.5	$1,147.5
Subtotal, Enforcement	**$170,465.2**	**$176,526.0**	**$178,721.4**	**$2,195.4**
Environmental Protection / Congressional Priorities	$89,868.8	$49,799.0	$0.0	($49,799.0)
Geographic Programs				
Geographic Program: Chesapeake Bay	$22,886.6	$22,118.0	$26,397.7	$4,279.7
Geographic Program: Great Lakes	$21,098.8	$21,164.0	$20,577.1	($586.9)
Geographic Program: Gulf of Mexico	$3,739.8	$4,809.0	$4,310.7	($498.3)
Geographic Program: Lake Champlain	$686.3	$1,926.0	$933.8	($992.2)
Geographic Program: Long Island Sound	$2,132.7	$470.0	$466.9	($3.1)
Geographic Program: Other				
Geographic Program: Puget Sound	$0.0	$1,971.0	$0.0	($1,971.0)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Community Action for a Renewed Environment (CARE)	$0.0	$2,862.0	$4,448.4	$1,586.4
Geographic Program: Other (other activities)	$6,786.1	$5,124.0	$4,601.6	($522.4)
Subtotal, Geographic Program: Other	$6,786.1	$9,957.0	$9,050.0	($907.0)
Regional Geographic Initiatives	$8,057.0	$8,060.0	$9,137.3	$1,077.3
Subtotal, Geographic Programs	**$65,387.3**	**$68,504.0**	**$70,873.5**	**$2,369.5**
Homeland Security				
Homeland Security: Communication and Information				
Laboratory Preparedness and Response	$0.0	$1,212.0	$1,200.0	($12.0)
Homeland Security: Communication and Information (other activities)	$5,432.4	$5,263.0	$5,599.7	$336.7
Subtotal, Homeland Security: Communication and Information	$5,432.4	$6,475.0	$6,799.7	$324.7
Homeland Security: Critical Infrastructure Protection				
Decontamination	$0.0	$98.0	$99.0	$1.0
Homeland Security: Critical Infrastructure Protection (other activities)	$6,700.6	$6,689.0	$7,143.7	$454.7
Subtotal, Homeland Security: Critical Infrastructure Protection	$6,700.6	$6,787.0	$7,242.7	$455.7
Homeland Security: Preparedness, Response, and Recovery				
Decontamination	$2,620.2	$3,252.0	$3,328.7	$76.7
Subtotal, Homeland Security: Preparedness, Response, and Recovery	$2,620.2	$3,252.0	$3,328.7	$76.7
Homeland Security: Protection of EPA Personnel and Infrastructure	$9,102.2	$6,199.0	$6,268.9	$69.9
Subtotal, Homeland Security	**$23,855.4**	**$22,713.0**	**$23,640.0**	**$927.0**
Indoor Air				
Indoor Air: Radon Program	$5,986.6	$5,159.0	$5,519.2	$360.2
Reduce Risks from Indoor Air	$21,464.4	$23,137.0	$23,464.3	$327.3
Subtotal, Indoor Air	**$27,451.0**	**$28,296.0**	**$28,983.5**	**$687.5**
Information Exchange / Outreach				
Children and Other Sensitive Populations: Agency Coordination	$7,135.8	$5,633.0	$6,063.8	$430.8
Congressional, Intergovernmental, External Relations	$48,407.3	$50,291.0	$52,142.7	$1,851.7
Environmental Education	$8,648.1	$8,889.0	$0.0	($8,889.0)
Exchange Network	$16,723.0	$17,700.0	$16,048.5	($1,651.5)
Small Business Ombudsman	$3,691.3	$3,343.0	$3,501.7	$158.7
Small Minority Business Assistance	$2,245.7	$2,503.0	$2,646.6	$143.6

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
State and Local Prevention and Preparedness	$11,327.5	$11,377.0	$12,508.4	$1,131.4
TRI / Right to Know	$15,380.7	$14,289.0	$15,243.4	$954.4
Tribal - Capacity Building	$10,937.7	$11,049.0	$11,435.7	$386.7
Subtotal, Information Exchange / Outreach	**$124,497.1**	**$125,074.0**	**$119,590.8**	**($5,483.2)**
International Programs				
Commission for Environmental Cooperation	$3,370.5	$4,116.0	$4,137.0	$21.0
Environment and Trade	$2,211.7	$1,766.0	$1,861.2	$95.2
International Capacity Building	$10,548.5	$6,138.0	$6,390.3	$252.3
POPs Implementation	$3,196.5	$1,697.0	$1,808.7	$111.7
US Mexico Border	$5,951.5	$5,749.0	$6,061.0	$312.0
Subtotal, International Programs	**$25,278.7**	**$19,466.0**	**$20,258.2**	**$792.2**
IT / Data Management / Security				
Information Security	$4,745.6	$3,751.0	$5,562.1	$1,811.1
IT / Data Management	$84,371.1	$94,567.0	$96,807.2	$2,240.2
Subtotal, IT / Data Management / Security	**$89,116.7**	**$98,318.0**	**$102,369.3**	**$4,051.3**
Legal / Science / Regulatory / Economic Review				
Administrative Law	$4,784.2	$4,607.0	$4,860.9	$253.9
Alternative Dispute Resolution	$1,531.0	$1,048.0	$1,229.8	$181.8
Civil Rights / Title VI Compliance	$10,905.7	$10,575.0	$11,053.7	$478.7
Legal Advice: Environmental Program	$32,764.8	$35,931.0	$37,525.5	$1,594.5
Legal Advice: Support Program	$13,864.0	$13,206.0	$13,465.9	$259.9
Regional Science and Technology	$3,424.8	$3,522.0	$3,520.7	($1.3)
Regulatory Innovation	$21,215.1	$21,511.0	$25,853.6	$4,342.6
Regulatory/Economic-Management and Analysis	$13,875.1	$16,551.0	$17,554.8	$1,003.8
Science Advisory Board	$4,660.8	$4,402.0	$4,615.7	$213.7
Subtotal, Legal / Science / Regulatory / Economic Review	**$107,025.5**	**$111,353.0**	**$119,680.6**	**$8,327.6**
Operations and Administration				
Acquisition Management	$21,830.4	$23,265.0	$25,418.3	$2,153.3
Central Planning, Budgeting, and Finance	$68,045.9	$73,680.0	$83,548.1	$9,868.1
Facilities Infrastructure and Operations	$317,744.7	$343,908.0	$294,760.1	($49,147.9)
Financial Assistance Grants / IAG Management	$22,223.9	$23,168.0	$21,847.0	($1,321.0)
Human Resources Management	$46,795.7	$41,275.0	$40,202.5	($1,072.5)
Subtotal, Operations and Administration	**$476,640.6**	**$505,296.0**	**$465,776.0**	**($39,520.0)**

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Pesticides Licensing				
Pesticides: Field Programs	$25,649.5	$24,516.0	$24,926.3	$410.3
Pesticides: Registration of New Pesticides	$39,321.6	$41,604.0	$39,767.6	($1,836.4)
Pesticides: Review / Reregistration of Existing Pesticides	$49,074.7	$57,458.0	$51,814.6	($5,643.4)
Science Policy and Biotechnology	$1,961.5	$1,694.0	$1,754.0	$60.0
Subtotal, Pesticides Licensing	**$116,007.3**	**$125,272.0**	**$118,262.5**	**($7,009.5)**
Resource Conservation and Recovery Act (RCRA)				
RCRA: Corrective Action	$36,575.0	$39,396.0	$40,372.3	$976.3
RCRA: Waste Management	$67,842.9	$65,793.0	$67,887.3	$2,094.3
RCRA: Waste Minimization & Recycling	$10,878.7	$11,825.0	$12,235.1	$410.1
Subtotal, Resource Conservation and Recovery Act (RCRA)	**$115,296.6**	**$117,014.0**	**$120,494.7**	**$3,480.7**
Toxics Risk Review and Prevention				
Toxic Substances: Chemical Risk Management	$8,462.3	$9,008.0	$7,736.5	($1,271.5)
Toxic Substances: Chemical Risk Review and Reduction	$45,781.1	$46,542.0	$44,637.0	($1,905.0)
Endocrine Disruptors	$8,696.4	$8,767.0	$7,985.4	($781.6)
Toxic Substances: Lead Risk Reduction Program	$13,280.9	$10,162.0	$11,367.6	$1,205.6
Pollution Prevention Program	$15,889.3	$16,621.0	$21,292.4	$4,671.4
Subtotal, Toxics Risk Review and Prevention	**$92,110.0**	**$91,100.0**	**$93,018.9**	**$1,918.9**
Underground Storage Tanks (LUST / UST)				
LUST / UST	$6,459.2	$7,763.0	$11,713.7	$3,950.7
Water: Ecosystems				
Great Lakes Legacy Act	$13,946.6	$28,989.0	$49,600.0	$20,611.0
National Estuary Program / Coastal Waterways	$25,902.3	$23,773.0	$18,417.2	($5,355.8)
Wetlands	$20,126.7	$19,416.0	$20,992.2	$1,576.2
Subtotal, Water: Ecosystems	**$59,975.6**	**$72,178.0**	**$89,009.4**	**$16,831.4**
Water: Human Health Protection				
Beach / Fish Programs	$3,723.7	$3,156.0	$2,653.9	($502.1)
Drinking Water Programs	$94,559.1	$95,656.0	$99,121.0	$3,465.0
Subtotal, Water: Human Health Protection	**$98,282.8**	**$98,812.0**	**$101,774.9**	**$2,962.9**
Water Quality Protection				
Marine Pollution	$13,114.0	$12,212.0	$12,462.4	$250.4
Surface Water Protection				

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Water Quality Monitoring	$0.0	$7,193.0	$7,120.7	($72.3)
Surface Water Protection (other activities)	$186,745.5	$182,019.0	$184,466.5	$2,447.5
Subtotal, Surface Water Protection	$186,745.5	$189,212.0	$191,587.2	$2,375.2
Subtotal, Water Quality Protection	**$199,859.5**	**$201,424.0**	**$204,049.6**	**$2,625.6**
Rescission of Prior Year Expired Contracts, Grants, and Interagency Agreements	$0.0	($2,000.0)	$0.0	$2,000.0
Total, Environmental Program & Management	**$2,309,238.0**	**$2,344,711.0**	**$2,306,617.0**	**($38,094.0)**
Inspector General				
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	$44,580.7	$36,904.0	$35,100.0	($1,804.0)
Inspector General Congressionally Mandated Projects	$426.4	$0.0	$0.0	$0.0
Total, Inspector General	**$45,007.1**	**$36,904.0**	**$35,100.0**	**($1,804.0)**
Building and Facilities				
Homeland Security				
Homeland Security: Protection of EPA Personnel and Infrastructure	$12,936.5	$11,331.0	$11,385.1	$54.1
Operations and Administration				
Facilities Infrastructure and Operations	$32,244.5	$28,295.0	$28,430.9	$135.9
Total, Building and Facilities	**$45,181.0**	**$39,626.0**	**$39,816.0**	**$190.0**
Hazardous Substance Superfund				
Air Toxics and Quality				
Radiation: Protection	$1,969.4	$2,120.0	$2,323.3	$203.3
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	$15,182.0	$13,337.0	$13,316.0	($21.0)
Compliance				
Compliance Assistance and Centers	$0.0	$11.0	$22.2	$11.2
Compliance Incentives	$148.9	$186.0	$142.7	($43.3)
Compliance Monitoring	$1,452.4	$955.0	$1,144.1	$189.1
Subtotal, Compliance	**$1,601.3**	**$1,152.0**	**$1,309.0**	**$157.0**
Enforcement				

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Civil Enforcement	$625.2	$796.0	$883.0	$87.0
Criminal Enforcement	$8,070.1	$8,275.0	$8,502.2	$227.2
Enforcement Training	$897.8	$581.0	$621.9	$40.9
Environmental Justice	$921.5	$827.0	$756.7	($70.3)
Forensics Support	$3,599.5	$3,643.0	$4,184.2	$541.2
Superfund: Enforcement	$165,634.0	$156,653.0	$163,650.5	$6,997.5
Superfund: Federal Facilities Enforcement	$8,900.3	$9,410.0	$10,196.9	$786.9
Subtotal, Enforcement	**$188,648.4**	**$180,185.0**	**$188,795.4**	**$8,610.4**
Homeland Security				
Homeland Security: Communication and Information				
Laboratory Preparedness and Response	$0.0	$296.0	$300.0	$4.0
Subtotal, Homeland Security: Communication and Information	$0.0	$296.0	$300.0	$4.0
Homeland Security: Critical Infrastructure Protection				
Decontamination	$0.0	$197.0	$198.0	$1.0
Homeland Security: Critical Infrastructure Protection (other activities)	$1,348.2	$1,245.0	$1,373.6	$128.6
Subtotal, Homeland Security: Critical Infrastructure Protection	$1,348.2	$1,442.0	$1,571.6	$129.6
Homeland Security: Preparedness, Response, and Recovery				
Decontamination	$0.0	$10,395.0	$12,271.3	$1,876.3
Laboratory Preparedness and Response	$0.0	$0.0	$9,500.0	$9,500.0
Homeland Security: Preparedness, Response, and Recovery (other activities)	$38,131.8	$27,184.0	$28,003.6	$819.6
Subtotal, Homeland Security: Preparedness, Response, and Recovery	$38,131.8	$37,579.0	$49,774.9	$12,195.9
Homeland Security: Protection of EPA Personnel and Infrastructure	$694.2	$588.0	$594.2	$6.2
Subtotal, Homeland Security	**$40,174.2**	**$39,905.0**	**$52,240.7**	**$12,335.7**
Information Exchange / Outreach				
Congressional, Intergovernmental, External Relations	$111.7	$48.0	$130.4	$82.4
Exchange Network	$2,330.3	$1,650.0	$1,432.4	($217.6)
Subtotal, Information Exchange / Outreach	**$2,442.0**	**$1,698.0**	**$1,562.8**	**($135.2)**
IT / Data Management / Security				
Information Security	$234.6	$341.0	$788.6	$447.6
IT / Data Management	$17,734.0	$17,053.0	$17,120.4	$67.4
Subtotal, IT / Data Management / Security	**$17,968.6**	**$17,394.0**	**$17,909.0**	**$515.0**

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Legal / Science / Regulatory / Economic Review				
Alternative Dispute Resolution	$980.4	$975.0	$887.2	($87.8)
Legal Advice: Environmental Program	$722.8	$755.0	$690.8	($64.2)
Subtotal, Legal / Science / Regulatory / Economic Review	**$1,703.2**	**$1,730.0**	**$1,578.0**	**($152.0)**
Operations and Administration				
Financial Assistance Grants / IAG Management	$3,109.3	$3,060.0	$2,920.8	($139.2)
Facilities Infrastructure and Operations	$65,156.8	$69,667.0	$73,944.7	$4,277.7
Acquisition Management	$17,464.2	$19,727.0	$23,514.3	$3,787.3
Human Resources Management	$5,250.8	$5,665.0	$5,270.2	($394.8)
Central Planning, Budgeting, and Finance	$20,620.3	$24,349.0	$25,540.8	$1,191.8
Subtotal, Operations and Administration	**$111,601.4**	**$122,468.0**	**$131,190.8**	**$8,722.8**
Research: Human Health and Ecosystems				
Human Health Risk Assessment	$3,848.8	$3,755.0	$3,847.2	$92.2
Research: Land Protection				
Research: Land Protection and Restoration	$23,322.6	$22,927.0	$21,963.9	($963.1)
Research: SITE Program	$6,730.9	$1,206.0	$0.0	($1,206.0)
Subtotal, Research: Land Protection	**$30,053.5**	**$24,133.0**	**$21,963.9**	**($2,169.1)**
Research: Sustainability				
Research: Sustainability	$501.0	$292.0	$0.0	($292.0)
Superfund Cleanup				
Superfund: Emergency Response and Removal	$197,032.3	$193,584.0	$192,398.9	($1,185.1)
Superfund: EPA Emergency Preparedness	$11,387.4	$10,540.0	$8,863.1	($1,676.9)
Superfund: Federal Facilities	$31,063.4	$31,336.0	$31,486.6	$150.6
Superfund: Remedial	$711,969.6	$588,905.0	$581,594.9	($7,310.1)
Superfund: Support to Other Federal Agencies	$5,444.0	$9,540.0	$8,575.4	($964.6)
Brownfields Projects	$2,299.0	$0.0	$0.0	$0.0
Subtotal, Superfund Cleanup	**$959,195.7**	**$833,905.0**	**$822,918.9**	**($10,986.1)**
Rescission of Prior Year Expired Contracts, Grants, and Interagency Agreements	$0.0	($11,000.0)	$0.0	$11,000.0
Total, Hazardous Substance Superfund	**$1,374,889.5**	**$1,231,074.0**	**$1,258,955.0**	**$27,881.0**
(Transfer to Office of Inspector General)	**($15,182.0)**	**($13,337.0)**	**($13,316.0)**	**$21.0**

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
(Transfer to Science and Technology)	**($38,821.1)**	**($30,156.0)**	**($27,811.1)**	**$2,344.9**
Leaking Underground Storage Tanks				
Compliance				
Compliance Assistance and Centers	$531.6	$711.0	$839.1	$128.1
IT / Data Management / Security				
IT / Data Management	$108.0	$182.0	$175.9	($6.1)
Operations and Administration				
Acquisition Management	$337.0	$358.0	$360.8	$2.8
Central Planning, Budgeting, and Finance	$730.4	$1,010.0	$1,014.8	$4.8
Facilities Infrastructure and Operations	$982.9	$894.0	$916.8	$22.8
Human Resources Management	$5.0	$3.0	$3.0	$0.0
Subtotal, Operations and Administration	**$2,055.3**	**$2,265.0**	**$2,295.4**	**$30.4**
Research: Land Protection				
Research: Land Protection and Restoration	$699.3	$634.0	$651.3	$17.3
Underground Storage Tanks (LUST / UST)				
LUST / UST	$10,146.4	$10,514.0	$10,590.1	$76.1
LUST Cooperative Agreements	$57,048.9	$65,647.0	$58,207.2	($7,439.8)
Subtotal, Underground Storage Tanks (LUST / UST)	**$67,195.3**	**$76,161.0**	**$68,797.3**	**($7,363.7)**
Total, Leaking Underground Storage Tanks	**$70,589.5**	**$79,953.0**	**$72,759.0**	**($7,194.0)**
Oil Spill Response				
Compliance				
Compliance Assistance and Centers	$270.1	$284.0	$280.2	($3.8)
Enforcement				
Civil Enforcement	$1,900.7	$1,910.0	$1,826.3	($83.7)
IT / Data Management / Security				
IT / Data Management	$39.5	$31.0	$32.5	$1.5
Oil				
Oil Spill: Prevention, Preparedness and Response	$13,991.5	$12,066.0	$12,964.6	$898.6
Operations and Administration				
Facilities Infrastructure and Operations	$552.1	$500.0	$499.3	($0.7)

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Research: Land Protection				
Research: Land Protection and Restoration	$841.0	$838.0	$903.1	$65.1
Total, Oil Spill Response	**$17,594.9**	**$15,629.0**	**$16,506.0**	**$877.0**
State and Tribal Assistance Grants				
Air Toxics and Quality				
Clean School Bus Initiative	$0.0	$6,897.0	$0.0	($6,897.0)
Brownfields				
Brownfields Projects	$88,065.1	$88,676.0	$89,119.4	$443.4
Infrastructure Assistance				
Infrastructure Assistance: Alaska Native Villages	$50,866.5	$34,485.0	$14,850.0	($19,635.0)
Infrastructure Assistance: Clean Water SRF	$1,110,473.7	$886,759.0	$687,555.0	($199,204.0)
Diesel Emissions Reduction Grant Program	$0.0	$0.0	$49,500.0	$49,500.0
Infrastructure Assistance: Drinking Water SRF	$847,519.2	$837,495.0	$841,500.0	$4,005.0
Infrastructure Assistance: Mexico Border	$66,176.9	$49,264.0	$24,750.0	($24,514.0)
Infrastructure Assistance: Puerto Rico	$0.0	$0.0	$990.0	$990.0
Subtotal, Infrastructure Assistance	**$2,075,036.3**	**$1,808,003.0**	**$1,619,145.0**	**($188,858.0)**
STAG Infrastructure Grants / Congressional Priorities	$255,255.6	$197,058.0	$0.0	($197,058.0)
Subtotal, State and Tribal Assistance Grants (excluding categorical grants)	**$2,418,357.0**	**$2,100,634.0**	**$1,708,264.4**	**($392,369.6)**
Categorical Grants				
Categorical Grant: Beaches Protection	$13,262.7	$9,853.0	$9,900.0	$47.0
Categorical Grant: Brownfields	$47,411.0	$49,264.0	$49,494.9	$230.9
Categorical Grant: Environmental Information	$19,837.0	$19,706.0	$14,850.0	($4,856.0)
Categorical Grant: Hazardous Waste Financial Assistance	$105,786.4	$101,944.0	$103,345.5	$1,401.5
Categorical Grant: Homeland Security	$4,988.8	$4,926.0	$4,950.0	$24.0
Categorical Grant: Lead	$14,169.0	$13,499.0	$13,563.1	$64.1
Categorical Grant: Nonpoint Source (Sec. 319)	$225,194.2	$204,278.0	$194,040.0	($10,238.0)
Categorical Grant: Pesticides Enforcement	$20,468.4	$18,622.0	$18,711.0	$89.0
Categorical Grant: Pesticides Program Implementation	$13,347.2	$12,907.0	$12,968.9	$61.9
Categorical Grant: Pollution Control (Sec. 106)				
Water Quality Monitoring Grants	$0.0	$18,228.0	$18,500.0	$272.0
Categorical Grant: Pollution Control (Sec. 106) (other activities)	$211,124.6	$197,944.0	$203,161.0	$5,217.0
Subtotal, Categorical Grant: Pollution Control (Sec. 106)	$211,124.6	$216,172.0	$221,661.0	$5,489.0

	FY 2005 Obligations	FY 2006 Enacted	FY 2007 Pres Bud	Pres Bud vs. Enacted
Categorical Grant: Pollution Prevention	$5,161.7	$4,926.0	$5,940.0	$1,014.0
Categorical Grant: Public Water System Supervision (PWSS)	$104,043.6	$98,279.0	$99,099.0	$820.0
Categorical Grant: Radon	$8,739.4	$7,439.0	$8,073.5	$634.5
Categorical Grant: Sector Program	$2,464.3	$2,217.0	$2,227.5	$10.5
Categorical Grant: State and Local Air Quality Management	$233,758.6	$220,261.0	$185,179.5	($35,081.5)
Categorical Grant: Targeted Watersheds	$17,706.0	$16,608.0	$6,930.0	($9,678.0)
Categorical Grant: Toxics Substances Compliance	$5,516.4	$5,074.0	$5,098.5	$24.5
Categorical Grant: Tribal Air Quality Management	$12,977.1	$10,887.0	$10,939.5	$52.5
Categorical Grant: Tribal General Assistance Program	$72,212.5	$56,654.0	$56,925.0	$271.0
Categorical Grant: Underground Injection Control (UIC)	$11,537.5	$10,838.0	$10,890.0	$52.0
Categorical Grant: Underground Storage Tanks	$12,073.1	$11,774.0	$37,566.7	$25,792.7
Categorical Grant: Wastewater Operator Training	$943.0	$1,182.0	$0.0	($1,182.0)
Categorical Grant: Water Quality Cooperative Agreements	$12,372.9	$0.0	$0.0	$0.0
Categorical Grant: Wetlands Program Development	$15,027.2	$15,765.0	$16,830.0	$1,065.0
Subtotal, Categorical Grants	**$1,190,122.6**	**$1,113,075.0**	**$1,089,183.6**	**($23,891.4)**
Rescission of Prior Year Expired Contracts, Grants, and Interagency Agreements	$0.0	($66,000.0)	$0.0	$66,000.0
Total, State and Tribal Assistance Grants	**$3,608,479.6**	**$3,147,709.0**	**$2,797,448.0**	**($350,261.0)**

Appendix

Acquisition Management **47, 53, 55**
Administrative Law **47**
Air Toxics **0, 1, 2, 38, 42, 50, 56**
Air Toxics and Quality **38, 42, 50, 56**
Alaska Native Villages **34, 36**
Alternative Dispute Resolution **47, 53**
Audits, Evaluations, and Investigations **50**
Beach / Fish Programs **49**
Beaches Protection **27**
Brownfields **17, 22, 18, 21, 27, 34, 35, 37, 42, 54, 56**
Brownfields Projects **54, 56**
Categorical Grant
Beaches Protection 57
Brownfields 57
Environmental Information 57
Hazardous Waste Financial Assistance 57
Homeland Security 57
Lead 57
Nonpoint Source (Sec. 319) 57
Pesticides Enforcement 57
Pesticides Program Implementation 57
Pollution Control (Sec. 106) 57, 58
Pollution Prevention 58
Public Water System Supervision (PWSS) 58
Radon 58
Sector Program 58
State and Local Air Quality Management 58
Targeted Watersheds 58
Toxics Substances Compliance 58
Tribal Air Quality Management 58
Tribal General Assistance Program 58
Underground Injection Control (UIC) 58
Underground Storage Tanks 58
Wastewater Operator Training 58
Water Quality Cooperative Agreements 58
Wetlands Program Development 58
Categorical Grants **57, 58**
Central Planning, Budgeting, and Finance **47, 53, 55**
Chesapeake Bay **24**
Children and Other Sensitive Populations Agency Coordination **46**
Civil Enforcement **26, 43, 51, 55**

Civil Rights / Title VI Compliance 47
Clean Air 2, 6, 28, 0, 1, 15, 18, 23, 24, 25, 31, 32, 34, 35, 38, 42
Clean Air Allowance Trading Programs 38, 42
Clean Diesel Initiative 42
Clean School Bus Initiative 34, 56
Clean Water 9, 23, 18, 31, 32, 34, 35, 36
Climate Protection Program 38, 42, 43
Commission for Environmental Cooperation 27, 46
Community Action for a Renewed Environment (CARE) 44
Compliance 26, 27, 15, 21, 22, 28, 30, 32, 43, 50, 51, 54, 55
Compliance Assistance and Centers 43, 50, 54, 55
Compliance Incentives 43, 51
Compliance Monitoring 43, 51
Congressional, Intergovernmental, External Relations 46, 52
Corrective Action 14, 15
Criminal Enforcement 26, 43, 51
Decontamination 39, 45, 51, 52
Diesel Emissions Reduction Grant Program 35, 56
Drinking Water 21, 26, 31, 32, 34, 35, 36, 41, 49
Drinking Water Programs 41, 49
Endocrine Disruptor 48
Endocrine Disruptors 48
Energy Policy Act Implementation 42, 43
Energy Star 42
Enforcement 26, 27, 3, 12, 21, 30, 32, 38, 43, 44, 51, 55
Enforcement Training 26, 44, 51
Environment and Trade 46
Environmental Education 29, 30, 46
Environmental Information 33, 5, 17, 31
Environmental Justice 44, 51
Environmental Protection / Congressional Priorities 44
Exchange Network 31, 46, 52
Facilities Infrastructure and Operations 40, 47, 50, 53, 55, 56
Federal Stationary Source Regulations 42
Federal Support for Air Quality Management 38, 42
Federal Support for Air Toxics Program 38, 42
Federal Vehicle and Fuels Standards and Certification 38
Financial Assistance Grants / IAG Management 47, 53
Forensics Support 38, 51
Geographic Program
Chesapeake Bay 44
Great Lakes 44
Gulf of Mexico 44
Lake Champlain 44

Long Island Sound 44
Other 44
Puget Sound 44
Geographic Programs 44
Great Lakes 8, 14, 23, 49
Great Lakes Legacy Act 49
Gulf of Mexico 11, 12, 24
Hazardous Waste Financial Assistance 27
Homeland Security 4, 16, 25, 31, 32, 33, 34, 7, 8, 26, 38, 39, 44, 45, 50, 51, 52
Communication and Information 44, 45, 51
Critical Infrastructure Protection 38, 39, 45, 51, 52
Preparedness, Response, and Recovery 39, 45, 52
Protection of EPA Personnel and Infrastructure 39, 45, 50, 52
Human Health Risk Assessment 41, 53
Human Resources Management 47, 53, 55
Indoor Air 4, 39, 45, 46
Radon Program 39, 45
Information Exchange / Outreach 46, 52
Information Security 4, 20, 46, 52
Infrastructure Assistance 56, 57
Alaska Native Villages 56
Clean Water SRF 56
Drinking Water SRF 56
Mexico Border 57
Puerto Rico 57
Inspector General Congressionally Mandated Projects 50
International Capacity Building 46
International Programs 46
IT / Data Management 40, 46, 47, 52, 53, 54, 55, 56
IT / Data Management / Security 40, 46, 47, 52, 53, 54, 55
Laboratory Preparedness and Response 45, 51, 52
Laboratory Security
Preparedness, Response, and Recovery 39
Lead 20, 14, 21, 29
Legal / Science / Regulatory / Economic Review 47, 53
Legal Advice
Environmental Program 47, 53
Support Program 47
LUST / UST 49, 55
LUST Cooperative Agreements 55
Marine Pollution 49
Methane to Markets 42
Mexico Border 20, 34, 37
NAAQS 20

National Estuary Program / Coastal Waterways **49**
NEPA Implementation **44**
Oil **16, 21, 55, 56**
Oil Spill
Prevention, Preparedness and Response 56
Operations and Administration **40, 47, 48, 50, 53, 55, 56**
Particulate Matter **6, 7**
Pesticides
Field Programs 48
Registration of New Pesticides 40, 48
Review / Reregistration of Existing Pesticides 40, 48
Pesticides Licensing **40, 48**
Pesticides Program Implementation **29**
Pollution Prevention **27, 20, 31, 32, 48**
Pollution Prevention Program **48**
POPs Implementation **46**
Public Water System Supervision (PWSS) **26**
Puerto Rico **34, 37**
Radiation
Protection 38, 42, 50
Response Preparedness 38, 42
Radon **25**
RCRA
Corrective Action 48
Waste Management 48
Waste Minimization & Recycling 48
Reduce Risks from Indoor Air **39, 45**
Regional Geographic Initiatives **44**
Regional Science and Technology **47**
Regulatory Innovation **47**
Regulatory/Economic-Management and Analysis **47**
Research
Air Toxics 40
Clean Air 40
Clean Water 40
Computational Toxicology 41
Drinking Water 40
Economics and Decision Science(EDS) 41
Endocrine Disruptor 41
Environmental Technology Verification (ETV) 41
Fellowships 41
Global Change 40
Human Health and Ecosystems 40, 41, 53
Land Protection 41, 53, 54, 55, 56

Land Protection and Restoration....41, 53, 55, 56
NAAQS....40
Pesticides and Toxics....41
SITE Program....53
Sustainability....41, 54
Sustainability....41
Sustainability....54
Water Quality....40
Research / Congressional Priorities....40
Resource Conservation and Recovery Act (RCRA)....14, 48
Safe Building....39
Science Advisory Board....31, 47
Science Policy and Biotechnology....48
Sector Program....32
Small Business Ombudsman....46
Small Minority Business Assistance....46
STAG Infrastructure Grants / Congressional Priorities....57
State and Local Air Quality Management....23, 24
State and Local Prevention and Preparedness....46
Stratospheric Ozone
Domestic Programs....42
Multilateral Fund....42
Superfund
Emergency Response and Removal....54
Enforcement....51
EPA Emergency Preparedness....54
Federal Facilities....54
Federal Facilities Enforcement....51
Remedial....54
Support to Other Federal Agencies....54
Superfund Cleanup....3, 54
Surface Water Protection....49
Toxic Research and Prevention....41
Toxic Substances
Chemical Risk Management....48
Chemical Risk Review and Reduction....48
Lead Risk Reduction Program....48
Toxics Risk Review and Prevention....48, 49
TRI / Right to Know....46
Tribal - Capacity Building....46
Tribal Air Quality Management....25
Tribal General Assistance Program....33
Underground Storage Tanks....13, 15, 28, 49, 54, 55
Underground Storage Tanks (LUST / UST)....49, 55

US Mexico Border **46**
Waste Management **12**
Water
Ecosystems 49
Human Health Protection 49
Water Quality **9, 12, 22, 49, 57**
Water Quality Monitoring **49, 57**
Water Quality Protection **49**
Water sentinel and related training **39**
Wetlands **23, 18, 20, 26, 49**
Wetlands Program Development **26**

VERIFICATION AND VALIDATION

GOAL 1 OBJECTIVE 1

FY 2007 Performance Measures:

- **Tons of SO_2 emissions from electric power generation sources (tons/yr from 1980 baseline) (PART measure)**
- **Percent change in average sulfur deposition and mean ambient sulfate concentrations reduced (% from baseline) (PART measure)**
- **Percent change in average nitrogen deposition and mean ambient nitrate concentrations reduced (% from baseline) (PART measure)**
- **Percent change in number of chronically acidic water bodies in acid-sensitive regions (PART measure)**

Performance Databases:

- Emissions Tracking System (ETS) - SO_2 and NO_x emissions
- Clean Air Status and Trends Network (CASTNET) - dry deposition
- National Atmospheric Deposition Program (NADP) - wet deposition
- Temporally Integrated Monitoring of Ecosystems program (TIME) - surface water chemistry
- Long-Term Monitoring Network program (LTM) – surface water chemistry

Data Sources: On a quarterly basis, ETS receives and processes hourly measurements of SO_2, NO_x, volumetric flow, CO_2, and other emission-related parameters from more than 3,400 fossil fuel-fired utility units affected under the Title IV Acid Rain Program. These measurements are collected by certified continuous emission monitoring systems (CEMS) or equivalent continuous monitoring methods.

CASTNET measures particle and gas acidic deposition chemistry. Specifically, CASTNET measures sulfate and nitrate dry deposition and meteorological information at approximately 88 monitoring sites, primarily in the East. Two additional sites are planned as part of a multi-year network refurbishment and modernization project . These sites are scheduled to be in operation by 2007 and will help fill the coverage gap in the middle of country. CASTNET is a long-term dry deposition network funded, operated and maintained by EPA's Office of Air and Radiation (OAR). The National Park Service operates approximately 30 of the monitoring stations in cooperation with EPA.

NADP is a national long-term wet deposition network that measures precipitation chemistry and provides long-term geographic and temporal trends in concentration and deposition of precipitation components. Specifically, NADP provides measurements of sulfate and nitrate wet deposition at approximately 255 monitoring sites. EPA, along with several other Federal agencies, states, and private organizations, provide funding and support for NADP. The Illinois State Water Survey/University of Illinois maintains the NADP database.

The deposition monitoring networks have been in operation for over 25 years. They provide invaluable measurements on long-term trends and episodes in acid deposition; such data are essential for assessing progress toward the program's intended environmental outcomes. These networks need to be modernized to ensure the continued availability of these direct environmental measures. Maintaining a robust long-term atmospheric deposition monitoring network is critical for the accountability of the Acid Rain and Clean Air Interstate Rule (CAIR) Programs (and/or Clear Skies if new legislation is enacted).

The TIME project measures surface water chemistry and is based on the concept of a probability sample, where each site is chosen to be statistically representative of a target population. In the Northeast (New England and the Adirondacks), this target population consists of lakes likely to be responsive to changes in rates of acidic deposition (i.e., those with Gran ANC < 100 μeq/L). In the Mid-Atlantic, the target population is upland streams with a high probability of responding to changes in acidic deposition (i.e., Northern Appalachian Plateau streams with Gran ANC < 100 μeq/L). Each lake or stream is sampled annually (in summer for lakes, in spring for streams), and results are extrapolated to the target population. The most recent (2003) TIME trends analysis reported data from 43 Adirondack lakes, 30 New England lakes, and 31Appalachian Plateau streams.

The TIME project goals are to determine not only how a representative sample of water bodies is changing through time, but also whether the proportion of the population that is acidic has changed. The project is operated cooperatively with numerous collaborators in state agencies, academic institutions and other federal agencies.

The LTM project complements TIME's statistical approach to sampling lakes and streams. LTM samples a subset of sensitive lakes and streams with long-term data, most dating back to the early 1980s. These sites are sampled 3 to 15 times per year. This information is used to characterize how the most sensitive aquatic systems in each region are responding to changing deposition, as well as providing information on seasonal chemistry and episodic acidification. In most regions, a small number of higher ANC (e.g., GranANC >100 μeq/L) sites are also sampled, and help separate temporal changes due to acidic deposition from those attributable to other disturbances such as changes in land use. The most recent (2003) LTM trends analysis reported data from 48 Adirondack lakes, 24 New England lakes, 9 Northern Appalachian Plateau streams, and 69 streams in the Blue Ridge region of Virginia and West Virginia. The project is operated cooperatively with numerous collaborators in state agencies, academic institutions and other federal agencies.

Methods, Assumption, and Suitability Promulgated methods are used to aggregate emissions data across all United States' utilities for each pollutant and related source operating parameters such as heat input.

QA/QC Procedures:
Promulgated QA/QC requirements dictate performing a series of quality assurance tests of CEMS performance. For these tests, emissions data are collected under highly structured, carefully designed testing conditions, which involve either high quality standard reference

materials or multiple instruments performing simultaneous emission measurements. The resulting data are screened and analyzed using a battery of statistical procedures, including one that tests for systematic bias. If a CEM fails the bias test, indicating a potential for systematic underestimation of emissions, the source of the error must be identified and corrected or the data are adjusted to minimize the bias. Each affected plant is required to maintain a written QA plan documenting performance of these procedures and tests. Further information is available at: http://www.epa.gov/airmarkets/reporting/index.html.

CASTNET established a Quality Assurance Project Plan (QAPP) in November 2001; The QAPP contains data quality objectives and quality control procedures for accuracy and precision. {U.S. EPA, Office of Air Quality Planning and Standards, *Clean Air Status and Trends Network (CASTNet) Quality Assurance Project Plan* (Research Triangle Park, NC: U.S. EPA, November 2001). In addition, the program publishes annual quality assurance reports. Both the CASTNET QAPP and 2003 Annual Quality Assurance Report may be found at http://www.epa.gov/castnet/library.html.

NADP has established data quality objectives and quality control procedures for accuracy, precision and representation, available on the Internet: http://nadp.sws.uiuc.edu/QA/. The intended use of these data is to establish spatial and temporal trends in wet deposition and precipitation chemistry.

For TIME and LTM, the field protocols, laboratory methods, and quality assurance procedures are specific to each research group. QA/QC information is contained in the cited publications of each research group and compiled in Newell et al. (1987). The EMAP and TIME protocols and quality assurance methods are generally consistent with those of the LTM cooperators, and are detailed in Peck (1992) and in Table 3 of Stoddard et al (2003).

Data Quality Review:
The ETS provides instant feedback to sources on data reporting problems, format errors, and inconsistencies. The electronic data file QA checks are described at http://www.epa.gov/airmarkets/reporting/index.html (see *Electronic Data Report Review Process, ETS Tolerance Tables*, *Active ETS Error Codes/Messages* and *Range Format Errors*). All quarterly reports are analyzed to detect deficiencies and to identify reports that must be resubmitted to correct problems. EPA also identifies reports that were not submitted by the appropriate reporting deadline. Revised quarterly reports, with corrected deficiencies found during the data review process, must be obtained from sources by a specified deadline. All data are reviewed, and preliminary and final emissions data reports are prepared for public release and compliance determination.

CASTNET underwent formal peer review in 1997 by a panel of scientists from EPA and the National Oceanographic Atmospheric Administration (NOAA). Findings are documented in *Examination of CASTNET: Data, Results, Costs, and Implications* (United States EPA, Office of Research and Development, National Exposure Research Laboratory, February 1997).

The NADP methods of determining wet deposition values have undergone extensive peer review; this process has been managed by NADP program office at the Illinois State Water

Survey/University of Illinois. Assessments of changes in NADP methods are developed primarily through the academic community and reviewed through the technical literature process.

The TIME and LTM data used in EPA trends analysis reports are screened for internal consistency among variables, including ion balance and conductance balance. Samples with unexplained variation in these variables are deleted. Sites with mean Gran ANC greater than 200 μeq/L also are deleted. EPA trends analyses exclude sites with chloride values that are outliers in their region, because high Cl- is typically associated with human development in the watershed. The Cl- and associated Na+ would alter normal soil ion exchange relationships, thus obscuring the response to acidic deposition.

Data Limitations: In order to improve the spatial resolution of CASTNET, additional monitoring sites are needed, particularly in the middle of the country.

Error Estimate: None

New/Improved Data or Systems: The program plans to modernize and enhance CASTNET to ensure network viability and enhance the monitoring capacity to support ongoing and future accountability needs, particularly relating to long range pollutant transport. The refurbishment of CASTNET will result in more comprehensive air quality data and information, made available faster by enabling real-time access to air quality information and promoting integration with other networks through regional/rural monitoring strategies. Refurbishment activities to be pursued in FY 2007 include: (1) completion of a pilot phase study to evaluate options for upgrading CASTNET with new advanced measurement instrumentation; (2) selection and procurement of advanced technology monitoring equipment for up to 10 sites; (3) establishment of 2 new sites in the middle of the country to improve geographic coverage and spatial resolution; and (4) implementation of new ecological indicators of air quality and atmospheric deposition to expand the suite of environmental metrics available for measuring the performance and efficiency of EPA's clean air programs.

References: For additional information about CASTNET, see http://www.epa.gov/castnet.html and for NADP, see http://nadp.sws.uiuc.edu/.

For a description of EPA's Acid Rain program, see
http://www.epa.gov/airmarkets/arp/index.html/ and in the electronic Code of Federal Regulations at http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-C.html (40 CFR parts 72-78.)

For TIME and LTM data quality and QA/QC procedures, see
Newell, A. D., C. F. Powers, and S. J. Christie. 1987. Analysis of Data from Long-term monitoring of Lakes. U.S. Environmental Protection Agency, Corvallis, OR.

Peck, D. V. 1992. Environmental Monitoring and Assessment Program: Integrated Quality Assurance Project Plan for the Surface Waters Resource Group. EPA/600/X-91/080, U.S. Environmental Protection Agency.

Stoddard, J. L., J. S. Kahl, F. A. Deviney, D. R. DeWalle, C. T. Driscoll, A. T. Herlihy, J. H. Kellogg, P. S. Murdoch, J. R. Webb, and K. E. Webster. 2003. Response of surface water chemistry to the Clean Air Act Amendments of 1990. EPA/620/R-03/001, U.S. Environmental Protection Agency, Corvallis, Oregon.

FY 2007 Performance Measures:

- **Reduction in population-weighted ambient concentration of fine particulate matter (PM 2.5) in all monitored counties (PART measure)**

- **Reduction in population-weighted ambient concentration of ozone in monitored counties (PART measure)**

Performance Databases:

AQS —The Air Quality Subsystem (AQS) stores ambient air quality data used to evaluate an area's air quality levels relative to the NAAQS.

FREDS—The Findings and Required Elements Data System is used to track progress of states and Regions in reviewing and approving the required data elements of the State Implementation Plans (SIP). SIPs are clean air plans and define what actions a state will take to improve the air quality in areas that do not meet national ambient air quality standards

Data Sources:
AQS: State & local agency data from State and Local Air Monitoring Stations (SLAMS).

Population: Data from Census-Bureau/Department of Commerce

FREDS: Data are provided by EPA's Regional offices.

Methods, Assumptions, and Suitability: Design values are calculated for every county with adequate monitoring data (for more information on and a definition for design values, see www.epa.gov/ttn/oarpg/t1/memoranda/cdv.pdf). Air quality levels are evaluated relative to the baseline level and the design value. The change in air quality concentrations is then multiplied by the number of people living in the county. This analysis assumes that the populations of the areas are held constant at 2000 Census levels. Data comparisons over several years allow assessment of the air program's success.

QA/QC Procedures: AQS: The QA/QC of the national air monitoring program has several major components: the Data Quality Objective (DQO) process, reference and equivalent methods program, EPA's National Performance Audit Program (NPAP), system audits, and network reviews (Available on the Internet: www.epa.gov/ttn/amtic/npaplist.html). To ensure quality data, the SLAMS are required to meet the following: 1) each site must meet network design and site criteria; 2) each site must provide adequate QA assessment, control, and corrective action functions according to minimum program requirements; 3) all sampling methods and equipment must meet EPA reference or equivalent requirements; 4) acceptable data validation and record keeping procedures must be followed; and 5) data from SLAMS must be summarized and

reported annually to EPA. Finally, there are system audits that regularly review the overall air quality data collection activity for any needed changes or corrections. Further information available on the Internet: http://www.epa.gov/cludygxb/programs/namslam.html and through United States EPA's Quality Assurance Handbook (EPA-454/R-98-004 Section 15)

Populations: No additional QA/QC beyond that done by the Census Bureau/Department of Commerce.

FREDS: No formal QA/QC procedures.

Data Quality Review:
AQS: No external audits have been done in the last 3 years. However, internal audits are regularly conducted.

Populations: No additional QA/QC beyond that done by the Census Bureau/Department of Commerce.

FREDS: None

Data Limitations:
AQS: None known

Populations: Not known

FREDS: None known

Error Estimate: At this time it is not possible to develop an error estimate. There is still too much uncertainty in the projections and near term variations in air quality (due to meteorological conditions for example) exist.

New/Improved Data or Systems:
AQS: In January 2002, EPA completed the reengineering of AQS to make it a more user friendly, Windows-based system. As a result, air quality data are more easily accessible via the Internet. AQS has also been enhanced to comply with the Agency's data standards (*e.g.*, latitude/longitude, chemical nomenclature). Beginning in July 2003, agencies submitted air quality data to AQS thru the Agency's Central Data Exchange (CDX). CDX is intended to be the portal through which all environmental data coming to or leaving the Agency will pass.

Population: None

FREDS: None

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: http://www.epa.gov/airtrends/.

FY 2007 Performance Measures:

- **Percent of significant Title V operating permit revisions issued within 18 months of receiving a complete permit application. (PART measure)**
- **Percent of new Title V operating permits issued within 18 months of receiving a complete permit application. (PART measure)**

Performance Databases: TOPS (Title V Operating Permit System).

Data Sources: Permitting Agencies (State and Local) via EPA Regional Offices

Methods, Assumptions, and Suitability: The performance measure is calculated by comparing the number of new permits or significant permit modifications issued during past 18 months to the total number of new permits or significant permit modifications received during the same period. Data are collected every 6 months. There are no underlying assumptions in the development of this measure.

QA/QC Procedures: Some data quality checks include: 1) making sure the number of permits issued in 18 months is equal to or less than the total number of permits received. 2) ensuring the percentages seem reasonable compared to previous reporting periods, and 3) making sure clock does not restart when additional information is submitted after the application is received.

Data Quality Review: Same as QA procedures

Data Limitations: None

Error Estimate: There is no estimate on the number of errors that could have been made during data entry.

New/Improved Data or Systems: TOPS has been revised and improved for 2006 to ensure better consistency between states and to specifically track PART measures.

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: http://www.epa.gov/airtrends/.

FY 2007 Performance Measures:

- **Percent of major NSR permits issued within one year of receiving a complete permit application. (PART measure)**

Performance Databases: RBLC (RACT (Reasonably Available Control Technology) BACT (Best Available Control Technology) LAER (Lowest Achievable Emissions Rate) Clearinghouse)

Data Sources: Permitting Agencies (State and Local)

Methods, Assumptions, and Suitability: The performance measure is calculated by determining the time period between the date of complete permit application and permit

issuance. The percentage represents the number of major NSR permits issued within one year of complete application to the total number of permits issued within that same period. There are no underlying assumptions in the development of this performance measure.

QA/QC Procedures: Some data quality checks include: 1) making sure the permit issuance dates are after the complete permit application dates and appear reasonable, 2) ~~t~~ ensuring the permit processing times are similar for comparable permits in previous reporting periods and 3) making sure the time period does not restart when additional information is submitted after the application is received.

Data Quality Review: Same as QA procedures

Data Limitations: None

Error Estimate: There is no estimate on the number of errors that could have been made during data entry.

New/Improved Data or Systems: N/A

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: http://www.epa.gov/airtrends/.

FY 2007 Performance Measure:

- **Cumulative percent reduction in the number of days with Air Quality Index (AQI) values over 100 since 2003, weighted by population and AQI value. (PART measure)**

Performance Databases:

AQS —The Air Quality Subsystem (AQS) stores ambient air quality data used to evaluate an area's air quality levels relative to the NAAQS.

AIRNow DMC –The AIRNow Data Management System (DMC) stores real-time ambient air quality data used for the sole purpose of reporting real-time AQI and air quality forecasting.

Data Sources:

AQS/DMC: State & local agency data from State and Local Air Monitoring Stations (SLAMS) and National Air Monitoring Stations (NAMS).

Methods, Assumptions, and Suitability:

Data are gathered from monitors using EPA-approved federal reference and/or equivalent methods, all of which are published via the Federal Register. EPA assumes the collecting agency has properly maintained each monitor and that the data sent to EPA have passed at least

an automated QA/QC check. The monitoring networks have been providing data for decades and the data are considered highly reliable. In addition these data form the basis of EPA's attainment decisions, trend analysis, and health impact assessments.

QA/QC Procedures:

AQS: The QA/QC of the national air monitoring program has several major components: the Data Quality Objective (DQO) process, reference and equivalent methods program, EPA's National Performance Audit Program (NPAP), system audits, and network reviews (Available on the Internet: www.epa.gov/ttn/amtic/npaplist.html). To ensure quality data, the SLAMS are required to meet the following: 1) each site must meet network design and site criteria; 2) each site must provide adequate QA assessment, control, and corrective action functions according to minimum program requirements; 3) all sampling methods and equipment must meet EPA reference or equivalent requirements; 4) acceptable data validation and record keeping procedures must be followed; and 5) data from SLAMS must be summarized and reported annually to EPA. Finally, there are system audits that regularly review the overall air quality data collection activity for any needed changes or corrections. Further information available on the Internet: http://www.epa.gov/cludygxb/programs/namslam.html and through United States EPA's Quality Assurance Handbook (EPA-454/R-98-004 Section 15)

DMC: The QA/QC procedures at each State, local, Tribal, or Federal agency are the same as documented above. Because the DMC handles real-time data, additional QA/QC data checks are built into the data flow process to further guard against erroneous values being passed through the system. Data in the DMC are not considered final and are not used for any regulatory purpose. Data in the AQS system are the official values used for regulatory analyses.

Data Quality Review:

AQS: No external audits have been done in the last 3 years. However, internal audits are regularly conducted.

DMC: No external audits have been done in the last 3 years. However, internal audits are regularly conducted and data are routinely processed by external users where applicable.

Data Limitations:

AQS: None known

DMC: None known

Error Estimate: At this time it is not possible to develop an error estimate. There is still too much uncertainty in the projections and near term variations in air quality (due to meteorological conditions for example) exist.

New/Improved Data or Systems:

AQS: In January 2002, EPA completed the reengineering of AQS to make it a more user friendly, Windows-based system. As a result, air quality data are more easily accessible via the Internet. AQS has also been enhanced to comply with the Agency's data standards (*e.g.*, latitude/longitude, chemical nomenclature). Beginning in July 2003, agencies submitted air quality data to AQS thru the Agency's Central Data Exchange (CDX). CDX is intended to be the portal through which all environmental data coming to or leaving the Agency will pass.

DMC: AIRNow Data Management Center was redesigned in 2004 to more efficiently handle additional pollutants and provide for easier access to real-time data. In addition, automated QA/QC procedures were updated and increased flexibility for state/local agencies to update information was included.

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: http://www.epa.gov/airtrends/. For more information on the monitoring network, as well as reference and equivalent methods, see the Ambient Monitoring Technology Information Center (AMTIC) at: http://www.epa.gov/ttn/amtic . For information on the AIRNow real-time program, see: http://www.airnow.gov/.

FY 2007 Performance Measures:

- **VOC reduced from mobile sources (PART measure)**
- **NOx reduced from mobile sources (PART measure)**
- **PM 10 reduced from mobile sources (PART measure)**
- **PM 2.5 reduced from mobile sources (PART measure)**
- **Limit the increase of CO Emissions (in tons) from mobile sources (PART measure)**

Performance Database: National Emissions Inventory Database. See: http://www.epa.gov/ttn/chief/trends/

Data Source: Mobile source emissions inventories and Regulatory Impact Analyses

Estimates for on-road, off-road mobile source emissions are built from inventories fed into the relevant models, which in turn provide input to the National Emissions Inventory Database.

The MOBILE vehicle emission factor model is a software tool for predicting gram per mile emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, carbon dioxide, particulate matter, and toxics from cars, trucks, and motorcycles under various conditions. Inputs to the model include fleet composition, activity, temporal information, and control program characteristics.

The NONROAD emission inventory model is a software tool for predicting emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, particulate matter, and sulfur dioxides from small and large off road vehicles, equipment, and engines. Inputs to the model include fleet composition, activity and temporal information.

Certain mobile source information is updated annually. Inputs are updated annually only if there is a rationale and readily available source of annual data. Generally, Vehicle Miles Traveled (VMT), the mix of VMT by type of vehicle (Federal Highway Administration (FHWA)-types), temperature, gasoline properties, and the designs of Inspection/Maintenance (I/M) programs are updated each year. Emission factors for all mobile sources and activity estimates for non-road sources are changed only when the Office of Transportation and Air Quality requests that this be done and is able to provide the new information in a timely manner. The most recent models for mobile sources are Mobile 6 and Nonroad 2002. (Available on the Internet at http://www.epa.gov/otaq/models.htm.)

EPA regulatory packages always include detailed Regulatory Impact Analysis which estimates the costs industry is projected to accrue in meeting EPA regulations. These cost estimates will form the basis of the numbers in the EPA performance measures. Also, costs for the EPA mobile source program (including personnel costs) will be included also. Estimates will be made for various years for tons/dollar for pollutants (the total of HC, CO, NOx, and PM) removed.

Methods, Assumptions, and Suitability: EPA issues emissions standards that set limits on how much pollution can be emitted from a given mobile source. Mobile sources include vehicles that operate on roads and highways ("on road" or "highway" vehicles), as well as nonroad vehicles, engines, and equipment. Examples of mobile sources are cars, trucks, buses, earthmoving equipment, lawn and garden power tools, ships, railroad locomotives, and airplanes. Vehicle and equipment manufacturers have responded to many mobile source emission standards by redesigning vehicles and engines to reduce pollution.

EPA uses models to estimate mobile source emissions, for both past and future years. The estimates are used in a variety of different settings. The estimates are used for rulemaking.

The most complete and systematic process for making and recording such mobile source emissions is the “Trends” inventory process executed each year by the Office of Air Quality Planning and Standards’ (OAQPS) Emissions, Monitoring, and Analysis Division (EMAD). The Assessment and Standards Division, within the Office of Transportation and Air Quality, provides EMAD information and methods for making the mobile source estimates. In addition, EMAD’s contractors obtain necessary information directly from other sources; for example, weather data and the Federal Highway Administration’s (FHWA) Vehicle Miles Traveled (VMT) estimates by state. EMAD creates and publishes the emission inventory estimate for the most recent historical year, detailed down to the county level and with over 30 line items representing mobile sources. At irregular intervals as required for regulatory analysis projects, EMAD creates estimates of emissions for future years. When the method for estimating emissions changes significantly, EMAD usually revises its older estimates of emissions in years prior to the most recent year, to avoid a sudden discontinuity in the apparent emissions trend. EMAD publishes the national emission estimates in hardcopy; county-level estimates are available electronically. Additional information about transportation and air quality related to estimating, testing for, and measuring emissions, as well as research being conducted on technologies for reducing emissions is available at http://www.epa.gov/otaq/research.htm

When major changes are made in the emission models or resulting inventories (and even the cost estimates), the performance measures will be reviewed to determine if they should be updated.

QA/QC Procedures: The emissions inventories are continuously improved.

Data Quality Review: The emissions inventories are reviewed by both internal and external parties, including the states, locals and industries.

Data Limitations: The limitations of the inventory estimates for mobile sources come from limitations in the modeled emission factors (based on emission factor testing and models predicting overall fleet emission factors in g/mile) and also in the estimated vehicle miles traveled for each vehicle class (derived from Department of Transportation data).http://www.epa.gov/otaq/m6.htm. For nonroad emissions, the estimates come from a model using equipment populations, emission factors per hour or unit of work, and an estimate of usage. This nonroad emissions model accounts for over 200 types of nonroad equipment. Any limitations in the input data will carry over into limitations in the emission inventory estimates.

Error Estimate: Additional information about data integrity is available on the Internet: http://www.epa.gov/otaq/m6.htm.

New/Improved Data or Systems: To keep pace with new analysis needs, new modeling approaches, and new data, EPA is currently working on a new modeling system termed the Multi-scale Motor Vehicles and Equipment Emission System (MOVES). This new system will estimate emissions for on road and off road sources, cover a broad range of pollutants, and allow multiple scale analysis, from fine scale analysis to national inventory estimation. When fully implemented, MOVES will serve as the replacement for MOBILE6 and NONROAD. The new system will not necessarily be a single piece of software, but instead will encompass the necessary tools, algorithms, underlying data and guidance necessary for use in all official analyses associated with regulatory development, compliance with statutory requirements, and national/regional inventory projections. Additional information is available on the Internet: http://www.epa.gov/otaq/ngm.htm

References: For additional information about mobile source programs see: http://www.epa.gov/otaq/.

FY 2007 Performance Measures:

- **Combined Stationary and Mobile Source Reductions in Air Toxics Emissions**
- **Mobile Source Air Toxics Emissions Reduced**
- **Stationary Source Air Toxics Emissions Reduced**
- **All Other Air Toxics Emissions Reduced**

Performance Database: National Emissions Inventory (NEI) for Hazardous Air Pollutants (HAPs)

Data Source: To calculate performance measures, the data source used is the NEI for HAPs which includes emissions from large and small industrial sources inventoried as point sources, smaller stationary area and other sources, such as fires inventoried as non-point sources, and mobile sources.

Prior to the 1999 NEI for HAPs, there was the National Toxics Inventory (NTI). The baseline NTI (for base years 1990 - 1993) includes emissions information for 188 hazardous air pollutants from more than 900 stationary sources and from mobile sources. It is based on data collected during the development of Maximum Achievable Control Technology (MACT) standards, state and local data, Toxics Release Inventory (TRI) data, and emissions estimates using accepted emission inventory methodologies. The baseline NTI contains county level emissions data , not facility-specific data.

The 1996 NTI and 1999 NEI for HAPs contain estimates of facility-specific HAP emissions and their source specific parameters such as location (latitude and longitude) and facility characteristics (stack height, exit velocity, temperature, etc.)

The primary source of data in the 1996 and 1999 NTI is state and local air pollution control agencies and Tribes. These data vary in completeness, format, and quality. EPA evaluates these data and supplements them with data gathered while developing MACT and residual risk standards, industry data, and TRI data. To produce a complete national inventory, EPA estimates emissions for approximately 30 non-point source categories such as wildfires and residential heating sources not included in the state, local and Tribal data. Mobile source data are developed using data provided by state and local agencies and Tribes and the most current onroad and nonroad models developed by EPA's Office of Transportation and Air Quality. The draft 1996 NTI and 1999 NEI for HAPS underwent extensive review by state and local agencies, Tribes, industry, EPA, and the public.

For more information and references on the development of the 1996 NTI, please go to the following web site: www.epa.gov/ttn/chief/nti/index.html#nti. For more information and references on the development of the 1999 NEI for HAPs, please go to the following web site: http://www.epa.gov/ttn/chief/net/index.html#1999.

Methods, Assumptions and Suitability: To produce a complete model-ready national inventory, EPA estimates emissions for approximately 30 non-point source categories such as wildfires and residential heating sources not included in the state, local and Tribal data. Mobile source data are developed using data provided by state and local agencies and Tribes and the most current onroad and nonroad models developed by EPA's Office of Transportation and Air Quality.

Upon development of the inventory, the EMS-HAP (Emissions Modeling System for Hazardous Air Pollutants) is used to estimate annual emissions of air toxics for the 1996 NTI and 1999 NEI for HAPS (and for all years in-between). The EMS-HAP can project future emissions, by adjusting stationary source emission data to account for growth and emission reductions resulting from emission reduction scenarios such as the implementation of the Maximum Achievable Control Technology (MACT) standards.

For more information and references on EMS-HAP, please go to the following web sites:
http://www.epa.gov/scram001/tt22.htm#aspen and
http://www.epa.gov/ttn/chief/emch/projection/emshap.html.
The growth and reduction information used for the projections are further described on the following website: http://www.epa.gov/ttn/chief/emch/projection/emshap.html

QA/QC Procedures: The NTI and the NEI for HAPs are databases designed to house information from other primary sources. The EPA performs extensive quality assurance/quality control (QA/QC) activities, including checking data provided by other organizations, to improve the quality of the emission inventory. Some of these activities include: (1) the use of an automated format QC tool to identify potential errors of data integrity, code values, and range checks; (2) use of geographical information system (GIS) tools to verify facility locations; and (3) automated content analysis by pollutant, source category and facility to identify potential problems with emission estimates such as outliers, duplicate sites, duplicate emissions, coverage of a source category, etc. The content analysis includes a variety of comparative and statistical analyses. The comparative analyses help reviewers prioritize which source categories and pollutants to review in more detail based on comparisons using current inventory data and prior inventories. The statistical analyses help reviewers identify potential outliers by providing the minimum, maximum, average, standard deviation, and selected percentile values based on current data. The EPA is currently developing an automated QC content tool for data providers to use prior to submitting their data to EPA. After investigating errors identified using the automated QC format and GIS tools, the EPA follows specific guidance on augmenting data for missing data fields. This guidance is available at the following web site:
http://www.epa.gov/ttn/chief/emch/invent/qaaugmementationmemo_99nei_60603.pdf

The NTI database contains data fields that indicate if a field has been augmented and identifies the augmentation method. After performing the content analysis, the EPA contacts data providers to reconcile potential errors. The draft NTI is posted for external review and includes a README file, with instructions on review of data and submission of revisions, state-by-state modeling files with all modeled data fields, and summary files to assist in the review of the data. One of the summary files includes a comparison of point source data submitted by different organizations. During the external review of the data, state and local agencies, Tribes, and industry provide external QA of the inventory. The EPA evaluates proposed revisions from external reviewers and prepares memos for individual reviewers documenting incorporation of revisions and explanations if revisions were not incorporated. All revisions are tracked in the database with the source of original data and sources of subsequent revision.

The external QA and the internal QC of the inventory have resulted in significant changes in the initial emission estimates, as seen by comparison of the initial draft NEI for HAPs and its final version. For more information on QA/QC of the NEI for HAPs, please refer to the following web site for a paper presented at the 2002 Emission Inventory Conference in Atlanta. "QA/QC - An Integral Step in the Development of the 1999 National Emission Inventory for HAPs," Anne Pope, et al. www.epa.gov/ttn/chief/conference/ei11/qa/pope.pdf

EPA's Office of Environmental Information (OEI) has created uniform data standards or elements, which provide "meta" information on the standard NEI Input Format (NIF) fields.

These standards were developed by teams representing states, Tribes, EPA and other Federal agencies. The use of common data standards among partners fosters consistently defined and formatted data elements and sets of data values, and provides public access to more meaningful data. The standards relevant to the NEI for HAPs are the: SIC/NAICS, Latitude/Longitude, Chemical Identification, Facility Identification, Date, Tribal and Contact Data Standards. The 1999 NEI for HAPs is compliant with all new data standards except the Facility Identification Standard because OEI has not completed its assignment of Facility IDs to the 1999 NEI for HAPs facilities.

For more information on compliance of the NEI for HAPs with new OMB Information Quality Guidelines and new EPA data standards, please refer to the following web site for a paper presented at the 2003 Emission Inventory Conference in San Diego: "The Challenge of Meeting New EPA Data Standards and Information Quality Guidelines in the Development of the 2002 NEI Point Source Data for HAPs," Anne Pope, et al.
www.epa.gov/ttn/chief/conference/ei12/dm/pope.pdf

The 2002 NEI for HAPs will undergo scientific peer review in early 2005.

Data Quality Review: EPA staff, state and local agencies, Tribes, industry and the public review the NTI and the NEI for HAPs. To assist in the review of the 1999 NEI for HAPs, the EPA provided a comparison of data from the three data sources (MACT/residual risk data, TRI, and state, local and Tribal inventories) for each facility. For the 1999 NEI for HAPs, two periods were available for external review - October 2001 - February 2002 and October 2002 - March 2003. . The final 1999 NEI was completed and posted on the Agency website in the fall of 2003. Beginning in 2005, the NTI will undergo an external scientific peer review.

In 2001, EPA's Science Advisory Board (SAB) reviewed the EMS-HAP model as part of the 1996 national-scale assessment. The review was generally supportive of the assessment purpose, methods, and presentation; the committee considers this an important step toward a better understanding of air toxics. Additional information is available on the Internet:
www.epa.gov/ttn/atw/nata/peer.html.

Data Limitations: While emissions estimating techniques have improved over the years, broad assumptions about the behavior of sources and serious data limitations still exist. The NTI and the NEI for HAPs contain data from other primary references. Because of the different data sources, not all information in the NTI and the NEI for HAPs has been developed using identical methods. Also, for the same reason, there are likely some geographic areas with more detail and accuracy than others. Because of the lesser level of detail in the baseline NTI, it is currently not suitable for input to dispersion models. For further discussion of the data limitations and the error estimates in the 1999 NEI for HAPs, please refer to the discussion of Information Quality Guidelines in the documentation at:
www.epa.gov/ttn/chief/net/index.html#haps99 .

In 2004, the Office of the Inspector General (OIG) released a final evaluation report on "EPA's Method for Calculating Air Toxics Emissions for Reporting Results Needs Improvement" (report can be found at www.epa.gov/oig/reports/2004/20040331-2004-p-00012.pdf) The report stated

that although the methods used have improved substantially, unvalidated assumptions and other limitations underlying the NTI continue to impact its use as a GPRA performance measure. As a result of this evaluation and the OIG recommendations for improvement, EPA prepared an action plan and is looking at way to improve the accuracy and reliability of the data. EPA will meet bi-annually with OIG to report on its progress in completing the activities as outlined in the action plan.

Error Estimate: Error estimate cannot be tabulated on account of data limitations as described above.

New/Improved Data or Systems: The 1996 NTI and 1999 NEI for HAPs are a significant improvement over the baseline 1993 NTI because of the added facility-level detail (e.g., stack heights, latitude/longitude locations), making it more useful for dispersion model input. Future inventories (2002 and later years) are expected to improve significantly because of increased interest in the NEI for HAPs by regulatory agencies, environmental interests, and industry, and the greater potential for modeling and trend analysis. During the development of the 1999 NEI for HAPs, all primary data submitters and reviewers were required to submit their data and revisions to EPA in a standardized format using the Agency's Central Data Exchange (CDX). For more information on CDX, please go the following web site: www.epa.gov/ttn/chief/nif/cdx.html

References: The NTI and NEI data and documentation are available at the following sites:

ftp site:	ftp://ftp.epa.gov/EmisInventory/
Available inventories:	1996 NTI, 1999 NEI for HAPs
Contents:	Modeling data files for each state
	Summary data files for nation
	Documentation
	README file
Audience:	individuals who want full access to NTI files
NEON:	http://ttnwww.rtpnc.epa.gov/Neon/
Available inventories:	1996 NTI and 1999 NEI for HAPs
Contents:	Summary data files
Audience:	EPA staff
CHIEF:	www.epa.gov/ttn/chief
	1999 NEI for HAPs data development materials
	1999 Data Incorporation Plan - describes how EPA compiled the 1999 NEI for HAPs
	QC tool for data submitters
	Data Augmentation Memo describes procedures EPA will use to augment data
	99 NTI Q's and A's provides answers to frequently asked questions
	NIF (Input Format) files and descriptions

CDX Data Submittal Procedures - instructions on how to submit data using CDX
Training materials on development of HAP emission inventories
Emission factor documents, databases, and models

Audience: State and local agencies, Tribes, industry, EPA, and the public

FY 2007 Performance Measures:

- **Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics (PART measure)**
- **Cumulative percentage reduction in tons of toxicity-weighted (for noncancer risk) emissions of air toxics (PART measure)**

Performance Databases:

- National Emissions Inventory (NEI) for Hazardous Air Pollutants (HAPs)
- EPA's Health Criteria Data for Risk Characterization

Data Source:

To better measure the percentage change in cancer and noncancer risk to the public, a toxicity-weighted emission inventory performance measure has been developed. This measure utilizes data from the NEI for air toxics along with data from EPA's Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html), which is a compendium of cancer and noncancer health risk criteria used to develop a risk metric. This compendium includes tabulated values for long-term (chronic) inhalation for many of the 188 hazardous air pollutants. These health risk data were obtained from various data sources including EPA, the U.S. Agency for Toxic Substances and Disease Registry, California Environmental Protection Agency, and the International Agency for Research on Cancer. The numbers from the health risk database are used for estimating the risk of contracting cancer and the level of hazard associated with adverse health effects other than cancer.

The NEI for HAPs includes emissions from large and small industrial sources inventoried as point sources, smaller stationary area and other sources, such as fires inventoried as non-point sources, and mobile sources. Prior to 1999 NEI for HAPs, there was the National Toxics Inventory (NTI). The baseline NTI (for base years 1990 - 1993) includes emissions information for 188 hazardous air pollutants from more than 900 stationary sources and from mobile sources. It is based on data collected during the development of Maximum Achievable Control Technology (MACT) standards, state and local data, Toxics Release Inventory (TRI) data, and emissions estimates using accepted emission inventory methodologies. The baseline NTI contains county level emissions data and cannot be used for modeling because it does not contain facility specific data.

The 1996 NTI and the 1999 NEI for HAPs contain stationary and mobile source estimates. These inventories also contain estimates of facility-specific HAP emissions and their source specific parameters such as location (latitude and longitude) and facility characteristics (stack height, exit velocity, temperature, etc.

The primary source of data in the 1996 and 1999 inventories are state and local air pollution control agencies and Tribes. These data vary in completeness, format, and quality. EPA evaluates these data and supplements them with data gathered while developing MACT and residual risk standards, industry data, and TRI data.

For more information and references on the development of the 1996 NTI, please go to the following web site: www.epa.gov/ttn/chief/nti/index.html#nti. For more information and references on the development of the 1999 NEI for HAPs, please go to the following web site: www.epa.gov/ttn/chief/net/index.html#1999.

Methods, Assumptions and Suitability: As the NEI is only developed every three years, EPA utilizes an emissions modeling system to project inventories for "off-years" and to project the inventory into the future. This model, the EMS-HAP (Emissions Modeling System for Hazardous Air Pollutants), can project future emissions, by adjusting stationary source emission data to account for growth and emission reductions resulting from emission reduction scenarios such as the implementation of the Maximum Achievable Control Technology (MACT) standards.

Once the EMS-HAP process has been performed, the EPA would tox-weight the inventory by "weighting" the emissions for each pollutant with the appropriate health risk criteria. This would be accomplished through a multi-step process. Initially, pollutant by pollutant values would be obtained from the NEI for the current year and the baseline year (1990/93). Conversion of actual tons for each pollutant for the current year and the baseline year to "toxicity-weighted" tons would be accomplished by multiplying the appropriate values from the health criteria database such as the unit risk estimate (URE) or lifetime cancer risk (defined at www.epa.gov/ttn/atw/nata/gloss.htm#rfc) to get the noncancer tons. These toxicity-weighted values act as a surrogate for risk and allow EPA to compare the toxicity-weighted values against a 1990/1993 baseline of toxicity-weighted values to determine the percentage reduction in risk on an annual basis

Complete documentation on development of the NEI for HAPs can be found at http://www.epa.gov/ttn/chief/net/index.html. For more information and references on EMS-HAP, go to the following web sites: http://www.epa.gov/scram001/tt22.htm#aspen and http://www.epa.gov/ttn/chief/emch/projection/emshap.html. The growth and reduction information used for the projections are further described at http://www.epa.gov/ttn/chief/emch/projection/emshap.html.

QA/QC Procedures: The NTI and the NEI for HAPs are databases designed to house information from other primary sources. The EPA performs extensive quality assurance/quality control (QA/QC) activities, including checking data provided by other organizations, to improve the quality of the emission inventory. Some of these activities include: (1) the use of an automated format QC tool to identify potential errors of data integrity, code values, and range checks; (2) use of geographical information system (GIS) tools to verify facility locations; and (3) automated content analysis by pollutant, source category and facility to identify potential problems with emission estimates such as outliers, duplicate sites, duplicate emissions, coverage of a source category, etc. The content analysis includes a variety of comparative and statistical

analyses. The comparative analyses help reviewers prioritize which source categories and pollutants to review in more detail based on comparisons using current inventory data and prior inventories. The statistical analyses help reviewers identify potential outliers by providing the minimum, maximum, average, standard deviation, and selected percentile values based on current data. The EPA has developed an automated QC content tool for data providers to use prior to submitting their data to EPA. After investigating errors identified using the automated QC format and GIS tools, the EPA follows specific guidance on augmenting data for missing data fields. This guidance is available at the following web site: http://www.epa.gov/ttn/chief/emch/invent/qaaugmementationmemo_99nei_60603.pdf

The NTI database contains data fields that indicate if a field has been augmented and identifies the augmentation method. After performing the content analysis, the EPA contacts data providers to reconcile potential errors. The draft NTI is posted for external review and includes a README file, with instructions on review of data and submission of revisions, state-by-state modeling files with all modeled data fields, and summary files to assist in the review of the data. One of the summary files includes a comparison of point source data submitted by different organizations. During the external review of the data, state and local agencies, Tribes, and industry provide external QA of the inventory. The EPA evaluates proposed revisions from external reviewers and prepares memos for individual reviewers documenting incorporation of revisions and explanations if revisions were not incorporated. All revisions are tracked in the database with the source of original data and sources of subsequent revision.

The external QA and the internal QC of the inventory have resulted in significant changes in the initial emission estimates, as seen by comparison of the initial draft NEI for HAPs and its final version. For more information on QA/QC of the NEI for HAPs, please refer to the following web site for a paper presented at the 2002 Emission Inventory Conference in Atlanta. "QA/QC - An Integral Step in the Development of the 1999 National Emission Inventory for HAPs", Anne Pope, et al. www.epa.gov/ttn/chief/conference/ei11/qa/pope.pdf

EPA's Office of Environmental Information (OEI) has created uniform data standards or elements, which provide "meta" information on the standard NEI Input Format (NIF) fields. These standards were developed by teams representing states, Tribes, EPA and other Federal agencies. The use of common data standards among partners fosters consistently defined and formatted data elements and sets of data values, and provides public access to more meaningful data. The standards relevant to the NEI for HAPs are the: SIC/NAICS, Latitude/Longitude, Chemical Identification, Facility Identification, Date, Tribal and Contact Data Standards. The 1999 NEI for HAPs is compliant with all new data standards except the Facility Identification Standard because OEI has not completed its assignment of Facility IDs to the 1999 NEI for HAPs facilities.

For more information on compliance of the NEI for HAPs with new OMB Information Quality Guidelines and new EPA data standards, please refer to the following web site for a paper presented at the 2003 Emission Inventory Conference in San Diego. "The Challenge of Meeting New EPA Data Standards and Information Quality Guidelines in the Development of the 2002 NEI Point Source Data for HAPs", Anne Pope, et al.

www.epa.gov/ttn/chief/conference/ei12/dm/pope.pdf The 2002 NEI for HAPs will undergo scientific peer review in early 2005.

The tables used in the EPA's Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html) are compiled assessments from various sources for many of the 188 substances listed as hazardous air pollutants under the Clean Air Act of 1990. Because different sources developed these assessments at different times for purposes that were similar but not identical, results are not totally consistent. To resolve these discrepancies and ensure the validity of the data, EPA applied a consistent priority scheme consistent with EPA risk assessment guidelines and various levels of scientific peer review. These risk assessment guidelines can be found at http://www.epa.gov/ncea/raf/car2sab/preamble.pdf .

Data Quality Review: EPA staff, state and local agencies, Tribes, industry and the public review the NTI and the NEI for HAPs. To assist in the review of the 1999 NEI for HAPs, the EPA provided a comparison of data from the three data sources (MACT/residual risk data, TRI, and state, local and Tribal inventories) for each facility. For the 1999 NEI for HAPs, two periods were available for external review - October 2001 - February 2002 and October 2002 - March 2003. The final 1999 NEI was completed and posted on the Agency website in the fall of 2003. Beginning in 2005, the NTI will undergo an external scientific peer review.

The EMS-HAP has been subjected to the scrutiny of leading scientists throughout the country in a process called "scientific peer review". This ensures that EPA uses the best available scientific methods and information. In 2001, EPA's Science Advisory Board (SAB) reviewed the EMS-HAP model as part of the 1996 national-scale assessment. The review was generally supportive of the assessment purpose, methods, and presentation; the committee considers this an important step toward a better understanding of air toxics. Additional information is available on the Internet: www.epa.gov/ttn/atw/nata/peer.html.

The data compiled in the Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html) are reviewed to make sure they support hazard identification and dose-response assessment for chronic exposures as defined in the National Academy of Sciences (NAS) risk assessment paradigm (www.epa.gov/ttn/atw/toxsource/paradigm.html). Because the health criteria data were obtained from various sources they are prioritized for use (in developing the performance measure, for example) according to 1) conceptual consistency with EPA risk assessment guidelines and 2) various levels of scientific peer review. The prioritization process is aimed at incorporating the best available scientific data.

Data Limitations and Error Estimates: While emissions estimating techniques have improved over the years, broad assumptions about the behavior of sources and serious data limitations still exist. The NTI and the NEI for HAPs contain data from other primary references. Because of the different data sources, not all information in the NTI and the NEI for HAPs has been developed using identical methods. Also, for the same reason, there are likely some geographic areas with more detail and accuracy than others. Because of the lesser level of detail in the baseline NTI, it is currently not suitable for input to dispersion models. For further discussion of

the data limitations and the error estimates in the 1999 NEI for HAPs, please refer to the discussion of Information Quality Guidelines in the documentation at: www.epa.gov/ttn/chief/net/index.html#haps99 .

In 2004, the Office of the Inspector General (OIG) released a final evaluation report on "EPA's Method for Calculating Air Toxics Emissions for Reporting Results Needs Improvement" (report can be found at www.epa.gov/oig/reports/2004/20040331-2004-p-00012.pdf). The report stated that although the methods used have improved substantially, unvalidated assumptions and other limitations underlying the NTI continue to impact its use as a GPRA performance measure. As a result of this evaluation and the OIG recommendations for improvement, EPA prepared an action plan and is looking at ways to improve the accuracy and reliability of the data. EPA will meet bi-annually with OIG to report on its progress in completing the activities as outlined in the action plan.

While the Agency has made every effort to utilize the best available science in selecting appropriate health criteria data for toxicity-weighting calculations there are inherent limitations and errors (uncertainties) associated with this type of data. While it is not practical to expose humans to chemicals at target doses and observe subsequent health implications over long periods of time, most of the agencies health criteria is derived from response models and laboratory experiments involving animals. The parameter used to convert from exposure to cancer risk (i.e. the Unit Risk Estimate or URE) is based on default science policy processes used routinely in EPA assessments. First, some air toxics are known to be carcinogens in animals but lack data in humans. These have been assumed to be human carcinogens. Second, all the air toxics in this assessment were assumed to have linear relationships between exposure and the probability of cancer (i.e. effects at low exposures were extrapolated from higher, measurable, exposures by a straight line). Third, the URE used for some air toxics compounds represents a maximum likelihood estimate, which might be taken to mean the best scientific estimate. For other air toxics compounds, however, the URE used was an "upper bound" estimate, meaning that it probably leads to an overestimation of risk if it is incorrect. For these upper bound estimates, it is assumed that the URE continues to apply even at low exposures. It is likely, therefore, that this linear model over-predicts the risk at exposures encountered in the environment. The cancer weighting-values for this approach should be considered "upper bound" in the science policy sense.

All of the noncancer risk estimates have a built-in margin of safety. All of the Reference Concentrations (RfCs) used in toxicity-weighting of noncancer are conservative, meaning that they represent exposures which probably do not result in any health effects, with a margin of safety built into the RfC to account for sources of uncertainty and variability. Like the URE used in cancer weighting the values are, therefore, considered "upper bound" in the science policy sense. Further details on limitations and uncertainties associated with the agencies health data can be found at: www.epa.gov/ttn/atw/nata/roy/page9.html#L10

New/Improved Data or Systems: The 1996 NTI and 1999 NEI for HAPs are a significant improvement over the baseline NTI because of the added facility-level detail (e.g., stack heights, latitude/longitude locations), making it more useful for dispersion model input. Future inventories (2002 and later years) are expected to improve significantly because of increased

interest in the NEI for HAPs by regulatory agencies, environmental interests, and industry, and the greater potential for modeling and trend analysis. During the development of the 1999 NEI for HAPs, all primary data submitters and reviewers were required to submit their data and revisions to EPA in a standardized format using the Agency's Central Data Exchange (CDX). For more information on CDX, please go the following web site: www.epa.gov/ttn/chief/nif/cdx.html

Beginning in 2006, the toxicity-weighted emission inventory data will also be used as a measurement to predict exposure and risk to the public. This measure will utilize ambient monitoring of air toxics as a surrogate for population exposure and compare these values with health benchmarks to predict risks.

References:

The NTI and NEI data and documentation are available at the following sites:

Emissions Inventory Data:	ftp://ftp.epa.gov/EmisInventory/
Available inventories:	1996 NTI, 1999 NEI for HAPs
Contents:	Modeling data files for each state
	Summary data files for nation
	Documentation
	README file
Audience:	individuals who want full access to NTI files
NEON:	http://ttnwww.rtpnc.epa.gov/Neon/
Available inventories:	1996 NTI and 1999 NEI for HAPs
Contents:	Summary data files
Audience:	EPA staff
CHIEF:	www.epa.gov/ttn/chief
	1999 NEI for HAPs data development materials
	1999 Data Incorporation Plan - describes how EPA compiled the 1999 NEI for HAPs
	QC tool for data submitters
	Data Augmentation Memo describes procedures EPA will use to augment data
	99 NTI Q's and A's provides answers to frequently asked questions
	NIF (Input Format) files and descriptions
	CDX Data Submittal Procedures - instructions on how to submit data using CDX
	Training materials on development of HAP emission inventories
	Emission factor documents, databases, and models
Audience:	State/local/Tribal agencies, industry, EPA, and the public

Information on the Emissions Modeling System for Hazardous Air Pollutants:

EMS-HAP:	http://epa.gov/scram001/tt22.htm#aspen http://www.epa.gov/ttn/chief/emch/projection/emshap.html
Contents:	1996 NTI and 1999 NEI for HAPs
Audience:	public

Information on EPA's Health Criteria Data for Risk Characterization:

Health Criteria Data:	http://www.epa.gov/ttn/atw/toxsource/summary.html
Contents:	Tabulated dose response values for long-term (chronic) inhalation and oral exposures; and values for short-term (acute) inhalation exposure
Audience:	public

GOAL 1 OBJECTIVE 2

FY 2007 *Overarching* Performance Measure:

- **People Living in Healthier Indoor Air**

FY 2007 Performance Measures:

- **People Living in Radon Resistant Homes**
- **Annual additional homes with radon reducing features (PART measure)**

Performance Database: Annual industry survey data of home builders provided by the National Association of Home Builders.

Data Source: The survey is an annual sample of home builders in the United States most of whom are members of the National Association of Home Builders (NAHB). NAHB members construct 80% of the homes built in the United States each year. Using a survey methodology reviewed by EPA, NAHB Research Center estimates the percentage of these homes that are built radon resistant. The percentage built radon resistant from the sample is then used to estimate what percent of all homes built nationwide are radon resistant. To calculate the number of people living in radon resistant homes, EPA assumes an average of 2.67 people per household. NAHB Research Center has been conducting this annual builder practices survey for over a decade, and has developed substantial expertise in the survey's design, implementation, and analysis. The statistical estimates are typically reported with a 95 percent confidence interval.

Methods, Assumptions, and Suitability: NAHB Research Center conducts an annual survey of home builders in the United States to assess a wide range of builder practices. NAHB Research Center voluntarily conducts this survey to maintain an awareness of industry trends in order to improve American housing and to be responsive to the needs of the home building industry. The annual survey gathers information such as types of houses built, lot sizes, foundation designs, types of lumber used, types of doors and windows used, etc. The NAHB Research Center Builder Survey also gathers information on the use of radon-resistant design features in new houses, and these questions comprise about two percent of the survey questionnaire.

In January of each year, the survey of building practices for the preceding calendar year is typically mailed out to home builders. For the most-recently completed survey, for building practices during calendar year 2003, NAHB Research Center reported mailing the survey to about 45,000 active United States home building companies, and received about 2,300 responses, which translates to a response rate of about 5 percent. The survey responses are analyzed, with respect to State market areas and Census Divisions in the United States, to assess the percentage and number of homes built each year that incorporate radon-reducing features. The data are also used to assess the percentage and number of homes built with radon-reducing features in high radon potential areas in the United States (high risk areas). Other analyses include radon-reducing features as a function of housing type, foundation type, and different techniques for radon-resistant new home construction. The data are suitable for year-to-year comparisons.

QA/QC Procedures: Because data are obtained from an external organization, QA/QC procedures are not entirely known. According to NAHB Research Center, QA/QC procedures have been established, which includes QA/QC by the vendor that is utilized for key entry of data.

Data Quality Review: Because data are obtained from an external organization, Data Quality Review procedures are not entirely known. NAHB Research Center indicates that each survey is manually reviewed, a process that requires several months to complete. The review includes data quality checks to ensure that the respondents understood the survey questions and answered the questions appropriately. NAHB Research Center also applies checks for open-ended questions to verify the appropriateness of the answers. In some cases, where open-ended questions request numerical information, the data are capped between the upper and lower three percent of the values provided in the survey responses. Also, a quality review of each year's draft report from NAHB Research Center is conducted by the EPA project officer.

Data Limitations: The majority of home builders surveyed are NAHB members. The NAHB Research Center survey also attempts to capture the activities of builders that are not members of NAHB. Home builders that are not members of NAHB are typically smaller, sporadic builders that in some cases build homes as a secondary profession. To augment the list of NAHB members in the survey sample, NAHB Research Center sends the survey to home builders identified from mailing lists of builder trade publications, such as Professional Builder magazine. There is some uncertainty as to whether the survey adequately characterizes the practices of builders who are not members of NAHB. The effects on the findings are not known.

Although an overall response rate of 5 percent could be considered low, it is the response rate for the entire survey, of which the radon-resistant new construction questions are only a very small portion. Builders responding to the survey would not be doing so principally due to their radon activities. Thus, a low response rate does not necessarily indicate a strong potential for a positive bias under the speculation that builders using radon-resistant construction would be more likely to respond to the survey. NAHB Research Center also makes efforts to reduce the potential for positive bias in the way the radon-related survey questions are presented.

Error Estimate: See Data Limitations

New/Improved Data or Systems: None

References: The results are published by the NAHB Research Center in annual reports of radon-resistant home building practices. See http://www.nahbrc.org/ last accessed 12/21/2005 for more information about NAHB. The most recent report, "Builder Practices Report: Radon Reducing Features in New Construction 2003,"Annual Builder and Consumer Practices Surveys by the NAHB Research Center, Inc., November, 2004. Similar report titles exist for prior years.

FY 2007 Performance Measure:

- **People Living in Radon Mitigated Homes**

Performance Database: External

Data Source: Radon fan manufacturers report fan sales to the Agency. EPA assumes one fan per radon mitigated home, assumes a fan life of 10 years, and then multiplies the assumed number of working fans by the assumed average of 2.67 people per household.

Methods, Assumptions and Suitability: N/A.

QA/QC Procedures: Because data are obtained from an external organization, EPA relies on the business practices for reporting data of the radon fan manufacturers.

Data Quality Review: Data are obtained from an external organization. EPA reviews the data to ascertain their reliability and discusses any irregularities with the relevant manufacturer.

Data Limitations: Reporting by radon fan manufacturers is voluntary and may underestimate the number of radon fans sold. Nevertheless, these are the best available data to determine the number of homes mitigated. There are other methods to mitigate radon including: passive mitigation techniques of sealing holes and cracks in floors and foundation walls, installing sealed covers over sump pits, installing one-way drain valves in untrapped drains, and installing static venting and ground covers in areas like crawl spaces. Because there are no data on the occurrence of these methods, there is again the possibility that the number of radon mitigated homes has been underestimated.

No radon vent fan manufacturer, vent fan motor maker or distributor is required to report to EPA; they provide data/information voluntarily to EPA. There are only four (4) radon vent fan manufacturers of any significance; one of these accounts for an estimated 70% of the market. Radon vent fans are unlikely to be used for non-radon applications. However, vent fans typically used for non-radon applications are perhaps being installed as substitutes for radon vent fans in some instances; estimated to be less than 1% of the total market. Ascertaining the actual number of radon vent fans used for other applications, and the number of non-radon fans being substituted in radon applications, would be difficult and expensive at this time relative to the benefit of having such data.

Error Estimate: N/A.

New/Improved Data or Systems: None

References: See http://www.epa.gov/iaq/radon/pubs/index.html last accessed 12/21/2005 for National performance/progress reporting (National Radon Results: 1985 to 2003*) on radon, measurement, mitigation and radon-resistant new construction. Data through 2004 are available from the Indoor Environments Division of the Office of Air and Radiation.

FY 2007 Performance Measures:

- **Number of people with asthma who have taken steps to reduce their exposure to indoor environmental asthma triggers (PART measure)**

Performance Database: The national telephone survey (*National Survey on Environmental Management of Asthma and Children's Exposure to ETS*) seeks information about the measures taken by people with asthma, and parents of children with asthma to minimize exposure to indoor environmental asthma triggers. Additional information about asthma morbidity and mortality in the US is obtained from the Centers for Disease Control and Prevention (CDC). Annual expenditures for health and lost productivity due to asthma are obtained from the National Heart Lung and Blood Institute (NHLBI) Chartbook www.nhlbi.nih.gov/resources/docs/02_chtbk.pdf last accessed 12/21/2005.

EPA also collects data on children exposed to environmental tobacco smoke in the home. This information is used in supporting the asthma goals of the program. EPA focuses its work on ETS on children in low income and minority populations, and on children with asthma. The *National Survey on Environmental Management of Asthma and Children's Exposure to ETS,* which includes a series of questions about whether respondents allow smoking in their home, whether young children are in the home, what resident family members smoke and how often, and how much visitors contribute to exposure, is used to track progress toward reducing childhood ETS exposure. Information about ETS is obtained periodically from the Centers for Disease Control and Prevention (CDC) including the National Health Interview, the National Health and Nutrition Examination Survey (for cotinine data), and the Behavioral Risk Factor Surveillance Survey (for state tobacco/ETS exposure data).

Data Source: The *National Survey on Environmental Management of Asthma and Children's Exposure to ETS* (OMB control number 2060-0490) source is EPA. Data on asthma morbidity and mortality is available from the National Center for Health Statistics at the CDC (www.cdc.gov/nchs last accessed 12/21/2005). Data on annual expenditures for health and lost productivity due to asthma are obtained from the NHLBI Chartbook.

Methods, Assumptions and Suitability: End-of–year performance for the asthma program is a best professional estimate using all data sources (including annual measures on partner performance and advertising awareness outlined below). The survey provides statistically sound results every three years for one period of time; Scheduled surveys will provide performance results for years 2006 and 2009. The estimate of the number of people with asthma who have taken steps to reduce their exposure to indoor environmental asthma triggers as of 2007 will be

based on a projection from previous surveys, and this estimate will be verified using the 2009 survey data. Data on annual measures is also used to support progress towards the long term performance measure.

National Survey on Environmental Management of Asthma and Children's Exposure to ETS (OMB control number 2060-0490): This survey is the most robust data set for this performance measure, but it is not administered annually. The first survey, administered in 2003, was designed in consultation with staff from EPA and the CDC National Center for Health Statistics (NCHS) to ensure that respondents will understand the questions asked and will provide the type of data necessary to measure the Agency's objectives. In addition, care has been taken to ensure that the survey questions target the population with asthma by using the same qualifier question that appears on other national surveys on asthma collected by the CDC.

From an initial sampling frame of 124,994 phone numbers, 14,685 households were contacted successfully and agreed to participate in the screening survey. Of the 14,685 individuals screened, approximately 18 percent, or 2,637 individuals, either have asthma or live with someone who does. Only those individuals who have asthma or live with someone who does were considered to be eligible respondents.

Respondents were asked to provide primarily yes/no responses. In some cases, respondents were given a range of responses in the form of multiple choice questions and were asked to indicate the one which best defined their response. The survey seeks information on those environmental management measures that the Agency considers important in reducing an individual's exposure to known indoor environmental asthma triggers. By using yes/no and multiple choice questions, the Agency has substantially reduced the amount of time necessary for the respondent to complete the survey and has ensured consistency in data response and interpretation.

The information collected has been used to establish a baseline to reflect the characteristics of our nation's asthma population and future iterations of this survey will measure additional progress toward achieving performance goals. The next survey will take place in 2006.

QA/QC Procedures: The National Survey is designed in accordance with approved Agency procedures. Additional information is available on the Internet: http://www.epa.gov/icr/players.html last accessed 12/21/2005. The computer assisted telephone interview methodology used for this survey helps to limit errors in data collection. In addition, the QA/QC procedures associated with conducting the survey include pilot testing of interview questions, interviewer training to ensure consistent gathering of information, and random data review to reduce the possibility of data entry error.

Data Quality Review: EPA reviews the data from all sources to ascertain reliability.

Data Limitations: Asthma: Random digit dialing methodology is used to ensure that a representative sample of households has been contacted; however, the survey is subject to inherent limitations of voluntary telephone surveys of representative samples. For example, 1) survey is limited to those households with current telephone service; 2) interviewers may follow survey directions inconsistently. An interviewer might ask the questions incorrectly or inadvertently lead the interviewee to a response; or 3) the interviewer may call at an

inconvenient time (i.e., the respondent might not want to be interrupted at the time of the call and may resent the intrusion of the phone call; the answers will reflect this attitude.).

ETS: Currently available cotinine (a chemical in environmental tobacco smoke) survey data do not address 50% of the age specific portion of EPA's target population. It does not include birth to three years old, the portion of children most susceptible to the effects of ETS.

Error Estimate: In its first data collection with this instrument, the Agency achieved results within the following percentage points of the true value at the 95 percent confidence level (survey instrument):

Adult Asthmatics	plus or minus	2.4%
Child Asthmatics	plus or minus	3.7%
Low Income Adult Asthmatics	plus or minus	6.1%

These precision rates are sufficient to characterize the extent to which the results measured by the survey accurately reflect the characteristics of our nation's asthmatic population.

New/Improved Data or Systems: Data from the *National Survey on Environmental Management of Asthma and Children's Exposure to ETS* (OMB control number 2060-0490) were collected from August 4-September 17, 2003 and represent the first data collection with this instrument.

References:

Asthma

National Center for Health Statistics, Centers for Disease Control and Prevention (www.cdc.gov/nchs/ last accessed 7/27/2005)

EPA Indoor Environments Division (www.epa.gov/iaq/ last accessed 12/21/2005)

ETS

National Health Interview Survey and National Health and Nutrition Examination Survey are part of the National Center for Health Statistics, Centers for Disease Control and Prevention (http://www.cdc.gov/nchs last accessed 12/21/2005)

Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Prevention (http://www.cdc.gov/brfss/index.htm last accessed 12/21/2005),

US Surgeon General's report on tobacco (http://www.cdc.gov/tobacco/sgr/index.htm/ last accessed 7/27/2005),
National Cancer Institute's (NCI) *Tobacco Monograph Series* (http://cancercontrol.cancer.gov/tcrb/monographs/ last accessed 12/21/2005),

NCI funded *Tobacco Use Supplement* portion of the US Census Bureau's *Current Population Survey* (http://riskfactor.cancer.gov/studies/tus-cps/ last accessed 12/21/2005),

Healthy People 2010 (http://www.healthypeople.gov/ last accessed 12/21/2005).

FY 2007 Performance Measures:

- **Additional health care professionals trained annually by EPA and its partners on the environmental management of asthma triggers (PART measure)**

Performance Database: The performance database consists of quarterly Partner status reports used to document the outcomes of individual projects.

Data Source: Partner status reports are generated by those organizations receiving funding from EPA and are maintained by individual EPA Project Officers.

Methods, Assumptions and Suitability: On an annual basis, EPA requires (programmatic terms and conditions of the award) all funded organizations to provide reports identifying how many health care professionals are educated about indoor asthma triggers.

QA/QC Procedures: It is assumed that organizations report data as accurately and completely as possible; site-visits are conducted by EPA project officers.

Data Quality Review: Project officers review data quality.

Data Limitations: N/A

New/Improved Data or Systems: EPA is exploring the development of a centralized data base.

References: N/A

FY 2007 Performance Measures:

- **Percent of public that is aware of the asthma program's media campaign (PART measure)**

Performance Database: A media tracking study used to assess behavior change within that sector of the public viewing the public service announcements.

Data Source: An independent initiative of the Advertising Council provides media tracking of outcomes of all their public service campaigns and this is publicly available information.

Methods, Assumptions and Suitability: Methods are those of the Advertising Council, and not controlled by EPA.

QA/QC Procedures: Methods are those of the Advertising Council, and not controlled by EPA.

Data Quality Review: Methods are those of the Advertising Council, and not controlled by EPA.

Data Limitations: Methods are those of the Advertising Council, and not controlled by EPA.

New/Improved Data or Systems: Methods are those of the Advertising Council, and not controlled by EPA.

References: Advertising Council Reporting. EPA Assistance Agreement number X-82820301. For additional information see the Ad Council web site http://www.adcouncil.org/ last accessed 12/21/05.

FY 2007 Performance Measures:

- **Students, faculty and staff experiencing improved indoor air quality in their schools**
- **Estimated annual number of schools establishing Indoor Air Quality programs based on EPA's Tools for Schools guidance (PART measure)**

Performance Database:

EPA collects national data by conducting a survey of indoor air quality management practices in schools approximately every three years. The first survey was administered in 2002. EPA is partnering with CDC to incorporate IAQ management practice indicators, consistent with the benchmark survey, into the School Health Policies and Programs Study (SHPPS) to be administered in 2006. EPA will implement this IAQ module as a smaller survey in 2009, as the SHPSS survey is only conducted at 6 year intervals.

To measure annual progress, EPA estimates the number of schools who establish IAQ Tools for Schools (TfS) programs each year from reports from partner organizations and regional recruiters, supplemented by tracking the volume of guidances distributed and number of people trained by EPA and its partners. EPA also collects information on program benefits such as reduced school nurse visits, improved workplace satisfaction among staff, reduced absenteeism, and cost savings experienced by schools.

Data Source: The sources of the data include cooperative partners, USEPA and the statistical sample of all the public and private schools in the nation during the 1999 – 2000 school year (118,000); data are from the United States Department of Education National Center for Education Statistics.

Methods, Assumptions and Suitability: Calculations for the number of people experiencing improved IAQ are based upon an average 525 students, staff and faculty per school (data are from the United States Department of Education National Center for Education Statistics). That number, along with the number of schools that are adopting/implementing TfS, are used to estimate the performance result.

End-of–year performance is a best professional estimate using all data sources. The survey provides more statistically sound results for one period of time; the next scheduled survey will provide performance results for year 2006. EPA's 2006 survey will be included as part of CDC's 2006 School Health Policies and Programs Study, which is conducted every six years.

QA/QC Procedures: It is assumed that partner organizations report data as accurately and completely as possible; site visits and regular communication with grantees are conducted by EPA projects officers.

Data Quality Review: EPA reviews the data from all sources in the performance database to ascertain reliability and to resolve any discrepancies.

Data Limitations: The primary limitation associated with Cooperative Agreement Partner status reporting is the error introduced as a result of self-reporting.

Error Estimate: Not relevant for this year.

New/Improved Data or Systems: Prior to the 2002 survey, EPA tracked the number of schools receiving the TfS guidance and estimated the population of the school to determine the number of students/staff experiencing improved indoor air quality. The survey was administered to establish a baseline for schools implementing IAQ management practices. EPA queried a statistically representative sample of schools to estimate the number of schools that have actually adopted and implemented good IAQ management practices consistent with the TfS guidance. EPA plans to re-administer the survey as a component of CDC's School Health Policies and Programs Study, which will show progress from the baseline.

References: See the United States Department of Education National Center for Education Statistics, http://nces.ed.gov/ last accessed 12/21/2005. See also Indoor Air Quality Tools for Schools Kit (402-K-95-001) at http://www.epa.gov/iaq/schools last accessed 12/21/2005 and see www.cdc.gov/nccdphp/dash/shpps/ *For additional information about the* School Health Policies and Programs Study (SHPPS), a national survey periodically conducted to assess school health policies and programs at the state, district, school, and classroom levels.

GOAL 1 OBJECTIVE 3

FY 2007 Performance Measures:

- **Remaining US consumption of HCFCs, measured in tons of ozone depleting potential (ODP) (PART measure)**
- **Restrict Domestic Exempted Production and Import of Newly Produced Class I CFCs and Halons**

Performance Database: The Allowance Tracking System (ATS) database is maintained by the Stratospheric Protection Division (SPD). ATS is used to compile and analyze quarterly

information on U.S. production, imports, exports, transformations, and allowance trades of ozone-depleting substances (ODS).

Data Source: Progress on restricting domestic exempted consumption of Class II HCFCs is tracked by monitoring industry reports of compliance with EPA's phase-out regulations. Data are provided by U.S. companies producing, importing, and exporting ODS. Corporate data are typically submitted as quarterly reports. Specific requirements as outlined in the Clean Air Act are available on the Internet at: http://www.epa.gov/oar/caa/caa603.txt. Monthly information on domestic production, imports, and exports from the International Trade Commission is maintained in the ATS.

Methods, Assumptions and Suitability: Data are aggregated across all U.S. companies for each individual ODS to analyze U.S. total consumption and production.

QA/QC Procedures: Reporting and record-keeping requirements are published in 40 CFR Part 82, Subpart A, Sections 82.9 through 82.13. These sections of the Stratospheric Ozone Protection Rule specify the required data and accompanying documentation that companies must submit or maintain on-site to demonstrate their compliance with the regulation.

The ATS data are subject to a Quality Assurance Plan (Quality Assurance Plan, USEPA Office of Atmospheric Programs, July 2002). In addition, the data are subject to an annual quality assurance review, coordinated by Office of Air and Radiation (OAR) staff separate from those on the team normally responsible for data collection and maintenance. The ATS is programmed to ensure consistency of the data elements reported by companies. The tracking system flags inconsistent data for review and resolution by the tracking system manager. This information is then cross-checked with compliance data submitted by reporting companies. SPD maintains a user's manual for the ATS that specifies the standard operating procedures for data entry and data analysis. Regional inspectors perform inspections and audits on-site at the producers', importers', and exporters' facilities. These audits verify the accuracy of compliance data submitted to EPA through examination of company records.

Data Quality Reviews: The Government Accounting Office (GAO) completed a review of U.S. participation in five international environmental agreements, and analyzed data submissions from the U.S. under the Montreal Protocol on Substances the Deplete the Ozone Layer. No deficiencies were identified in their January 2003 report.

Data Limitations: None, since companies are required by the Clean Air Act to report data. EPA's regulations specify a quarterly reporting system.

Error Estimate: None.

New/Improved Data or Systems: The Stratospheric Protection Division is developing a system to allow direct electronic reporting.

References: See http://www.epa.gov/ozone/desc.html for additional information on ODSs. See http://www.unep.ch/ozone/montreal.shtml for additional information about the Montreal

Protocol. See http://www.unmfs.org/ for more information about the Multilateral Fund. Quality Assurance Plan, USEPA Office of Atmospheric Programs, July 2002

FY 2007 Performance Measure:

- **Cumulative federal dollars spent per cumulative number of schools joining the SunWise program**

Performance Database: Not applicable

Data Source: Cumulative federal dollars spent is estimated from annual program budget tracking documents. The number of schools joining the SunWise program is measured by counting the number of schools that register to join the SunWise program in each year, which is collected at http://www.epa.gov/sunwise/becoming.html. Schools also have the option of sending in a paper registration, which EPA then enters at this website. EPA tracks the data at http://intranet.epa.gov/sunwise/track/trac_teacher.html.

Methods, Assumptions and Suitability: The cumulative number of schools joining the SunWise program is measured by counting the number of schools that register to join the SunWise program in each year, which is collected at http://www.epa.gov/sunwise/becoming.html., and adding the incremental number of schools joining the program to the prior year's cumulative total. The efficiency measure is calculated by dividing the cumulative number of dollars EPA has spent on the SunWise program by the cumulative number of schools that have joined the program.

QA/QC Procedures: All registrations by schools are reviewed by EPA staff for completeness and to assure there is no double counting of entries. EPA updates the registration information during the course of program implementation.

Data Quality Reviews: Each year researchers at an independent contractor contact a statistical sample of schools in the program database in order to evaluate the effectiveness of the program. EPA updates the website based on the contractor's findings as appropriate.

Data Limitations: The number of participating schools is probably underestimated since schools that fail to provide full registration information are not entered into the database, even if they participate in the program. Note that additional organizations besides schools may also register and provide the SunWise curriculum. These organizations include scout troupes, camps, and 4-H groups, for example. Therefore, counting only schools underestimates the program's reach and efficiency.

Error Estimate: None

New/Improved Data or Systems: N/A

References:
For more information about the SunWise School program, see:

http://www.epa.gov/sunwise/ and
http://www.epa.gov/sunwise/becoming.html Data collection regarding schools that participate in SunWise is authorized by OMB Control No. 2060-0439.

GOAL 1 OBJECTIVE 4

FY 2007 Performance Measure:

- **Purchase and Deploy State-of-Art Monitoring Units**

Performance Data: Data from the near real-time gamma component of the RadNet, formerly known as the Environmental Radiation Ambient Monitoring System (ERAMS), will be stored in an internal EPA database at the National Air and Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama. Data from filters are housed in the Laboratory Information Management System (LIMS) which are physically located in Montgomery, Alabama.

Data Source: RadNet

Methods, Assumptions and Suitability: Assuming that funding is continued in future years and the project receives all necessary approvals, the existing air sampling equipment will be supplemented with state-of-the art air monitors that include near real-time gamma radiation detection capability. Addition of detectors and communication systems will provide information about significant radioactive contamination events to decision- makers within hours

QA/QC Procedures: Quality Assurance and Quality Control Procedures will follow the Agency guidelines and be consistent with a specific initial operational Quality Assurance Plan that will be completed. All monitoring equipment will be periodically calibrated with reliable standards and routinely checked for accuracy with onsite testing devices. Laboratory analyses of air filters and other environmental media are closely controlled in compliance with the NAREL Quality Management Plan and applicable Standard Operating Procedures.

Data Quality Reviews: The database will screen all incoming data from the monitoring systems for abnormalities as an indicator of either a contamination event or an instrument malfunction. Data will be held in a secure portion of the database until verified by trained personnel. Copies of quality assurance and quality control testing will also be maintained to assure the quality of the data.

Data Limitations: Data are limited in near-real-time to gamma emitting radionuclide identification and quantification. Radiation levels from gamma-emitting nuclides that will be so low as to be "undetectable" will be significantly below health concerns that require immediate action. Lower levels of radioactive materials in the samples will be measured through laboratory-based analyses and data.

Error Estimate: The overall error in detection capability is estimated to be within 50% of the actual concentration based on previous experience with similar measurement systems. An error analysis will be performed on the prototype systems during the process of detector selection.

New/Improved Performance Data or Systems: New air samplers will maintain steady flow rates that are measured during operation and corrected for varying environmental conditions. Addition of gamma spectrometric detectors and computer-based multi-channel analyzers to the air samplers provide near real-time analyses of radioactive content in particles captured by the filter. In addition to data collection, the onboard computer systems can communicate results of analyses back to a central database and even identify abnormal conditions that might require action. These improvements not only include higher quality data, but also will provide information regarding contamination events to decision-makers within hours instead of days. The number and location of monitoring sites will be improved to provide greater coverage of more of the nation's population.

The plan for upgrading and expanding the RadNet air monitoring network was reviewed in FY05 by an EPA Technical Evaluation Panel (TEP) and will be reviewed in FY06 by the Radiation Advisory Committee (RAC) of EPA's Science Advisory Board (SAB) . The TEP review provided a number of comments that were incorporated in the RadNet plan, especially those addressing the refinement of the overall system objectives. The SAB review is expected to provide discussion and guidance from a team of national experts that will address key aspects of the science and technology of the new network, including fundamental concerns such as the appropriateness and potential effectiveness of the plan for siting near-real-time air monitors across the nation.

References: For additional information about the continuous monitoring system, ERAMS see: http://www.epa.gov/narel/radnet last accessed 7/27/2005.

NAREL Quality Management Plan, Revision 1, March 15, 2001.

FY 2007 Performance Measure:

- **Percentage of EPA RERT members that meet criteria**

Performance Data: To determine the effectiveness of RERT performance, an output measure has been developed that scores RERT members on a scale of one (1) to 100 against criteria developed based on the RERT's responsibilities under the National Response Plan's Nuclear/Radiological Incident Annex (formerly the Federal Radiological Emergency Response Plan) and the National Oil and Hazardous Substances Pollution Contingency Plan (the NCP). A baseline evaluation was performed in FY03, based on the effectiveness of the RERT in responses to actual incidents and a major national exercise (TOPOFF2). RERT members were evaluated in their ability to: (1) provide effective field response, (2) support coordination centers, and (3) provide analytical capabilities and to support a single small-to-medium scale incident, as needed. Overall RERT effectiveness in this baseline analysis was measured at approximately 13 percent. In FY 2004, RERT members were re-evaluated, through a major exercise, in the ability factors listed above. In FY 2005, the evaluation criteria have been reevaluated and revised in response to the results of the FY 2004 exercise as well as changes necessitated by the Homeland Security Act of 2002 and DHS' issuance of the National Incident Management System (NIMS) and the National Response Plan.

Data Source: Based on the requirements of EPA set forth in the NRP's Nuclear/Radiological Incident Annex and the NCP, EPA has developed criteria against which the capabilities of the RERT are judged. This evaluation has been performed by members of the Radiation Protection Division, including representatives both within and outside the RERT itself.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: The evaluation criteria were modified between FY2003 and FY2005 to reflect the changing requirements of the RERT, based on DHS' issuance of both NIMS and the NRP during this time period. While the broad outline of the RERT's role has remained the same, additional requirements have been imposed by the issuance of these documents, which are now reflected in the RERT evaluation criteria.

Error Estimate: N/A

New/Improved Data or Systems: None

References: The Homeland Security Act of 2002, the National Incident Management System, and the National Response Plan

FY 2007 Performance Measure:

- **Drums of Radioactive Waste Disposed of according to EPA Standards**

Performance Data: The Department of Energy (DOE) Waste Isolation Pilot Plant (WIPP) database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. The WIPP is a DOE facility located in southeastern New Mexico, 26 miles from Carlsbad, New Mexico. The WIPP Land Withdrawal Act was passed by Congress in October 1992 and amended in September 1996. The act transferred the land occupied by the WIPP to DOE and gave EPA, regulatory responsibility for determining whether the facility complies with radioactive waste disposal standards. Through July 2005, EPA has completed over 97 on–site inspections to evaluate waste prior to shipment to the WIPP facility.

Data Source: Department of Energy

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: The performance data used by EPA are collected and maintained by DOE. Under EPA's WIPP regulations (available on the Internet: http://www.epa.gov/radiation/wipp/background.htm (last accessed 7/18/200), all DOE WIPP-related data must be collected and maintained under a comprehensive quality assurance program

meeting consensus standards developed by the American Society of Mechanical Engineers (ASME) (available on the Internet: http://www.asme.org/codes (last accessed 7/18/2005)). EPA conducts regular inspections to ensure that these quality assurance systems are in place and functioning properly; no additional QA/QC of the DOE data is conducted by EPA.

Data Quality Reviews: N/A

Data Limitations: The DOE WIPP database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. Currently, there are five DOE waste generator facilities that are approved to generate and ship waste: Los Alamos National Laboratory, Rocky Flats Environmental Technology Site, Hanford Site, Idaho National Engineering and Environmental Laboratory, Savannah River Site.

Before DOE waste generator facilities can ship waste to the WIPP, EPA must approve the waste characterization controls and quality assurance procedures for waste identification at these sites. EPA conducts frequent independent inspections and audits at these sites to verify continued compliance with radioactive waste disposal standards and to determine if DOE is properly tracking the waste and adhering to specific waste component limits. Once EPA gives its approval, the number of drums shipped to the WIPP facility on an annual basis is dependent on DOE priorities and funding. EPA volume estimates are based on projecting the average shipment volumes over 40 years with an initial start up.

Error Estimate: N/A

New/Improved Data or Systems: None

References: The Department of Energy National TRU Waste Management Plan Quarterly Supplement http://www.wipp.ws/library/caolib.htm#Controlled_ (last accessed 7/18/2005) contains information on the monthly volumes of waste that are received at the DOE WIPP.

GOAL 1 OBJECTIVE 5

FY 2007 Performance Measures:

- **Annual Greenhouse Gas Emissions Reductions overall and by Sector**
- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the building sector (PART measure)**
- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the industry sector (PART measure)**
- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the transportation sector (PART measure)**

Performance Database: Climate Protection Partnerships Division Tracking System. The tracking system's primary purpose is to maintain a record of the annual greenhouse gas

emissions reduction goals and accomplishments for the voluntary climate program using information from partners and other sources. It also measures the electricity savings and contribution towards the President's greenhouse gas intensity goal.

Data Source: EPA develops carbon and non-CO_2 emissions baselines. A baseline is the "business-as-usual" case" without the impact of EPA's voluntary climate programs. Baseline data for carbon emissions related to energy use comes from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model (IPM) of the U.S. electric power sector. These data are used for both historical and projected greenhouse gas emissions and electricity generation, independent of partners' information to compute emissions reductions from the baseline and progress toward annual goals. The projections use a "Reference Case" for assumptions about growth, the economy, and regulatory conditions. Baseline data for non-carbon dioxide (CO_2) emissions, including nitrous oxide and other high global warming potential gases, are maintained by EPA. The non-CO2 data are compiled with input from industry and also independently from partners' information.

Data collected by EPA's voluntary programs include partner reports on facility- specific improvements (e.g. space upgraded, kilowatt-hours (kWh) reduced), national market data on shipments of efficient products, and engineering measurements of equipment power levels and usage patterns

Baseline information is discussed at length in the U.S. Climate Action Report 2002. The report includes a complete chapter dedicated to the U.S. greenhouse gas inventory (sources, industries, emissions, volumes, changes, trends, etc.). A second chapter addresses projected greenhouse gases in the future (model assumptions, growth, sources, gases, sectors, etc.)

U.S. Department of State. 2002. "U.S. Climate Action Report—2002. Third National Communication of the United States of America under the United Nations Framework Convention on Climate Change."

Partners do contribute *actual* emissions data biannually after their facility-specific improvements but these emissions data are not used in tracking the performance measure. EPA, however, validates the estimates of greenhouse gas reductions based on the actual emissions data received.

Methods, Assumptions, and Suitability: Most of the voluntary climate programs' focus is on energy efficiency. For these programs, EPA estimates the expected reduction in electricity consumption in kilowatt-hours (kWh). Emissions prevented are calculated as the product of the kWh of electricity saved and an annual emission factor (e.g., metric tons carbon equivalent (MMTCE) prevented per kWh). Other programs focus on directly lowering greenhouse gas emissions (e.g., Natural Gas STAR, Landfill Methane Outreach, and Coalbed Methane Outreach); for these, greenhouse gas emission reductions are estimated on a project-by-project basis. EPA maintains a Atracking system@ for emissions reductions.

The Integrated Planning Model, used to develop baseline data for carbon emissions, is an important analytical tool for evaluating emission scenarios affecting the U.S. power sector. The IPM has an approved quality assurance project plan that is available from EPA's program office.

QA/QC Procedures: EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from voluntary programs. Peer-reviewed carbon-conversion factors are used to ensure consistency with generally accepted measures of greenhouse gas (GHG) emissions, and peer-reviewed methodologies are used to calculate GHG reductions from these programs.

Partners do contribute *actual* emissions data biannually after their facility-specific improvements but these emissions data are not used in tracking the performance measure. EPA, however, validates the estimates of greenhouse gas reductions based on the actual emissions data received.

Data Quality Review: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The second such interagency evaluation, led by the White House Council on Environmental Quality, examined the status of U.S. climate change programs. The review included participants from EPA and the Departments of State, Energy, Commerce, Transportation, and Agriculture. The results were published in the *U.S. Climate Action Report-2002* as part of the United States' submission to the Framework Convention on Climate Change (FCCC). The previous evaluation was published in the *U.S. Climate Action Report-1997*. A 1997 audit by EPA's Office of the Inspector General concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment..."

Data Limitations: These are indirect measures of GHG emissions (carbon conversion factors and methods to convert material-specific reductions to GHG emissions reductions). Also, the voluntary nature of the programs may affect reporting. Further research will be necessary in order to fully understand the links between GHG concentrations and specific environmental impacts, such as impacts on health, ecosystems, crops, weather events, and so forth.

Error Estimate: These are indirect measures of GHG emissions. Although EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from its voluntary programs, errors in the performance data could be introduced through uncertainties in carbon conversion factors, engineering analyses, and econometric analyses. The only programs at this time aimed at avoiding GHG emissions are voluntary.

New/Improved Data or Systems: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. EPA continues to update inventories and methodologies as new information becomes available.

References: The U.S. Climate Action Report 2002 is available at: www.epa.gov/globalwarming/publications/car/index.html. The accomplishments of many of EPA's voluntary programs are documented in the Climate Protection Partnerships Division Annual Report. The most recent version is *Protecting the Environment Together: ENERGY STAR and other Voluntary Programs,* Climate Protection Partnerships Division 2003 Annual Report.

FY 2007 Performance Measure:

- **Annual Energy Savings**

Performance Database: Climate Protection Partnerships Division Tracking System

Data Source: Data collected by EPA's voluntary programs include partner reports on facility specific improvements (e.g. space upgraded, kilowatt-hours (kWh) reduced), national market data on shipments of efficient products, and engineering measurements of equipment power levels and usage patterns.

Methods, Assumptions, and Suitability: Most of the voluntary climate programs' focus is on energy efficiency. For these programs, EPA estimates the expected reduction in electricity consumption in kilowatt-hours (kWh). Emissions prevented are calculated as the product of the kWh of electricity saved and an annual emission factor (e.g., MMTCE prevented per kWh). Other programs focus on directly lowering greenhouse gas emissions (e.g., Natural Gas STAR, Landfill Methane Outreach, and Coalbed Methane Outreach); for these, greenhouse gas emission reductions are estimated on a project-by-project basis. EPA maintains a Atracking system@ for energy reductions.

Energy bill savings are calculated as the product of the kWh of energy saved and the cost of electricity for the affected market segment (residential, commercial, or industrial) taken from the Energy Information Administration's (EIA) *Annual Energy Outlook* and *Annual Energy Review* for each year in the analysis (1993-2013). Energy bill savings also include revenue from the sale of methane and/or the sale of electricity made from captured methane. The net present value (NPV) of these savings was calculated using a 4-percent discount rate and a 2001 perspective.

QA/QC Procedures: EPA devotes considerable effort to obtaining the best possible information on which to evaluate energy savings from its voluntary programs.

Data Quality Review: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The second such interagency evaluation, led by the White House Council on Environmental Quality, examined the status of U.S. climate change programs. The review included participants from EPA and the Departments of State, Energy, Commerce, Transportation, and Agriculture. The results were published in the *U.S. Climate Action Report-2002* as part of the United States' submission to the Framework Convention on Climate Change (FCCC). The previous evaluation was published in the *U.S. Climate Action Report-1997*. A 1997 audit by EPA's Office of the Inspector General concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment...@

Data Limitations: The voluntary nature of programs may affect reporting. In addition, errors in the performance data could be introduced through uncertainties in engineering analyses and econometric analyses.

Error Estimate: Although EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from voluntary programs, errors in the performance data could be introduced through uncertainties in engineering analyses and econometric analyses.

New/Improved Data or Systems: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. EPA continues to update inventories and methodologies as new information becomes available.

References: The U.S. Climate Action Report 2002 is available at: www.epa.gov/globalwarming/publications/car/index.html. The accomplishments of many of EPA=s voluntary programs are documented in the Climate Protection Partnerships Division Annual Report. The most recent version is *Protecting the Environment Together: Energy Star and Other Voluntary Programs,* Climate Protection Partnerships Division 2003 Annual Report.

GOAL 1 OBJECTIVE 6

FY 2007 Performance Measures:

- **Measure Fuel Economy of specific test vehicles with EPA-Developed Hybrid Technology Tested over EPA Driving Cycles**

- **Fuel Economy of EPA-developed hybrid package delivery vehicle over EPA city cycle**

Performance Database: Fuel economy test data for both urban and highway test cycles under the EPA Federal Test Procedure for passenger cars. The Clean Automotive Technology program commits EPA to develop technology by the end of the decade to satisfy stringent criteria emissions requirements and up to a doubling of fuel efficiency in personal vehicles such as SUVs, pickups, and urban delivery vehicles -- while simultaneously meeting the more demanding size, performance, durability, and power requirements of these vehicles.

Data Source: EPA fuel economy tests performed at the National Vehicle and Fuel Emissions Laboratory (NVFEL), Ann Arbor, Michigan

QA/QC Procedures: EPA fuel economy tests are performed in accordance with the EPA Federal Test Procedure and all applicable QA/QC procedures. Available on the Internet: http://www.epa.gov/otaq/sftp.htm.

Methods, Assumptions and Suitability: N/A

Data Quality Reviews: EPA's NVFEL laboratory is recognized as a national and international facility for fuel economy and emissions testing. NVFEL is also the reference point for private industry.

Data Limitations: Primarily due to EPA regulations, vehicle fuel economy testing is a well established and precise exercise with extremely low test to test variability (well less than 5%). Additional information is available on the Internet: http://www.epa.gov/otaq/testdata.html One challenge relates to fuel economy testing of hybrid vehicles (i.e., more than one source of onboard power), which is more complex than testing of conventional vehicles. EPA has not yet published formal regulations to cover hybrid vehicles. Relevant information is available on the Internet: http://www.ctts.nrel.gov/analysis/hev_test/procedures.shtml

Error Estimate: N/A

New/Improved Data or Systems: EPA is using solid engineering judgment and consultations with other expert organizations (including major auto companies) to develop internal procedures for testing hybrid vehicles.

References: See http://www.epa.gov/otaq/testproc.htm for additional information about testing and measuring emissions at the NVFEL.

FY 2007 Performance Measure:

- **Percentage of NAAQS research program publications rated as highly cited papers (PART Measure)**

Performance Database: No internal tracking system

Data Source: The source of data will be a contractor-produced bibliometric analysis of NAAQS program publications.

Methods, Assumptions and Suitability: The analysis will be completed using Thomson's Essential Science Indicators (ESI) and Journal Citation Reports (JCR) as benchmarks. ESI are a comprehensive compilation of essential science performance statistics and science trends data derived from Thomson's databases. The chief indicator of output, or productivity, is journal article publication counts. For influence and impact measures, ESI employs both total citation counts and cites per paper scores. The former reveals gross influence while the latter shows weighted influence, also called impact. JCR presents quantifiable statistical data, which provide a systematic, objective way to evaluate the world's leading journals and their impact and influence in the global research community.

QA/QC Procedures: Source data will be used in comparing program publications to field benchmarks, Essential Science Indicators (ESI) and Journal Citation Report (JCR).

Data Quality Reviews: Additional benchmarks will be used to determine the number of self-citations of articles by the same author in order to reduce the self-citation rate.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:

Essential Science Indicators®· Thomson Scientific. 2003.

Journal Citation Reports®. Thomson Scientific. 2003.

Citation Analysis. EPA's Endocrine Disruptors Chemicals (EDCs) Research Program, publication list. BOSC Program Review. December 2004.

FY 2007 Performance Measure:

- **Percent progress toward completion of a hierarchy of air pollutant sources based on the risk they pose to human health (PART Measure)**

- **Percent planned actions accomplished toward the long-term goal of reducing uncertainty in the science that supports the standard-setting and air quality management decisions (PART Measure)**

Performance Database: Program output; no internal tracking system.

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

GOAL 2 OBJECTIVE 1

FY 2007 Performance Measures:

- **The percentage of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection**
- **The percentage of population served by community water systems in Indian country that receive drinking water that meets all applicable health-based drinking water standards (PART measure)**
- **The percentage of community water systems in compliance with drinking water standards (PART measure)**
- **Dollars per community water system in compliance with health-based drinking water standards (PART measure)**

Performance Database: Safe Drinking Water Information System - Federal Version (SDWIS or SDWIS/FED). SDWIS contains basic water system information, population served, and detailed records of violations of the Safe Drinking Water Act and the statute's implementing regulations. The performance measure is based on the population served by community water systems that were active during any part of the performance year and did not have any violations designated as "health based." Exceedances of a maximum contaminant level (MCL) and violations of a treatment technique are health-based violations. SDWIS has provided annual results for ten years and reports on a fiscal year basis.

Data Source: Data are provided by agencies with primacy (primary enforcement authority) for the Public Water System Supervision (PWSS) program. These agencies are either: States, EPA for non-delegated states or territories, and the Navajo Nation Indian tribe, the only tribe with primacy. Primacy agencies collect the data from the regulated water systems, determine compliance, and report a subset of the data to EPA (primarily inventory and summary violations).

Methods, Assumptions and Suitability: Under the drinking water regulations, water systems must use approved analytical methods for testing for contaminants. State certified laboratories report contaminant occurrence to states that, in turn, determine exceedances of maximum contaminant levels or non-compliance with treatment techniques and report these violations to EPA. These results are subject to periodic performance audits and compared to results that states report to SDWIS. Primacy agencies' information systems and compliance determinations are audited on an average schedule of once every 3 years, according to a protocol. To measure program performance, EPA aggregates the SDWIS data into national statistics on overall compliance with health-based drinking water standards using the measures identified above.

QA/QC Procedures: EPA conducts a number of Quality Assurance/Quality Control steps to provide high quality data for program use, including:

(1) SDWIS/FED edit checks built into the software to reject erroneous data.
(2) Quality assurance manuals for states and Regions, which provide standard operating procedures for conducting routine assessments of the quality of the data, including timely corrective action(s).
(3) Training to states on reporting requirements, data entry, data retrieval, and error correction.
(4) User and system documentation produced with each software release and maintained on EPA's web site. System, user, and reporting requirements documents can be found on the

EPA web site, http://www.epa.gov/safewater/. System and user documents are accessed via the database link http://www.epa.gov/safewater/databases.html, and specific rule reporting requirements documents are accessed via the regulations, guidance, and policy documents link http://www.epa.gov/safewater/regs.html.

(5) Specific error correction and reconciliation support through a troubleshooter's guide, a system-generated summary with detailed reports documenting the results of each data submission, and an error code database for states to use when they have questions on how to enter or correct data.

(6) User support hotline available 5 days a week.

The SDWIS/FED equivalent of a quality assurance plan is the data reliability action plan[1] (DRAP). The DRAP contains the processes and procedures and major activities to be employed and undertaken for assuring the data in SDWIS meet required data quality standards. This plan has three major components: assurance, assessment, and control.

Data Quality Review: SDWIS data quality was identified as an Agency weakness in 1999 and has a corrective action completion target date that extends to 2007. SDWIS' weaknesses centered around five major issues: 1) completeness of the data (e.g., the inventory of public water systems, violations of maximum contaminant levels, enforcement actions) submitted by the states, 2) timeliness of the data sent by the states, i.e., if states do not report at specified times, then enforcement and oversight actions suffer, 3) difficulty receiving data from the states, 4) both cost and difficulty processing and storing data in SDWIS after it has been received, and 5) difficulty getting SDWIS data for reporting and analysis.

The first two issues are being addressed over a three-year period (2004-2007) through two (2000 and 2003) Data Reliability Action Plans. An information strategic plan[2] (ISP) was developed and implemented to address the last three issues, which deal primarily with technology (hardware and software) concerns. Implementation of the ISP, which ended in 2005, documents ways to improve tools and processes for creating and transferring data to EPA and incorporates newer technologies and adapts the Agency's Enterprise Architecture Plan to integrate data and allow the flow of data from reporting entities to EPA via the Agency's secure central data exchange (CDX) environment.

Routine data quality assurance and quality control (QA/QC) analyses of the Safe Drinking Water Information System (SDWIS) by the Office Water (OW) have revealed a degree of non-reporting of violations of health-based drinking water standards, and of violations of regulatory monitoring and reporting requirements (discussed further under Data Limitations). As a result of these data quality problems, the baseline statistic of national compliance with health-based drinking water standards likely is lower than previously reported. The Agency is engaged in discussions with states to more accurately quantify the impact of these data quality problems on

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[1] *Data Reliability Action Plan.* U.S. EPA, October 2002. Office of Ground Water and Drinking Water internal work plan document. *Drinking Water Data Reliability Analysis and Action Plan (2003) For State Reported Public Water System Data In the EPA Safe Drinking Water Information System/Federal Version (SDWIS/FED)*

[2] U.S. EPA, Office of Water, *Office of Ground Water and Drinking Water Information Strategy* (under revision). See *Options* for *OGWDW Information Strategy (Working Draft), EPA 816-P-01-001.* Washington, DC, February 2001. Available on the Internet at http://www.epa.gov/safewater/data/informationstrategy.html

the estimate of national compliance with health-based drinking water standards. Even as improvements are made, SDWIS serves as the best source of national information on compliance with Safe Drinking Water Act requirements for program management, the development of drinking water regulations, trends analyses, and public information.

Data Limitations: Recent state data verification and other quality assurance analyses indicate that the most significant data quality problem is under-reporting by the states of monitoring and health-based standards violations and inventory characteristics. The most significant under-reporting occurs in monitoring violations. Even though those are not covered in the health based violation category, which is covered by the performance measure, failures to monitor could mask treatment technique and MCL violations. Such under-reporting of violations limits EPA's ability to: 1) accurately portray the amount of people affected by health-based violations, 2) undertake geo-spatial analysis, 3) integrate and share data with other data systems, and 4) precisely quantify the population served by systems, which are meeting the health-based standards. Therefore, the estimates of population-served could be high or low. As described in the Data Quality Review section above, EPA is currently changing the protocol to enhance the results of data audits as the best near-term option to improve these estimates, while continuing to explore other approaches, including use of contaminant occurrence data.

Error Estimate: EPA will be analyzing data, derived from the improved data audit protocol, with a robust statistical basis from which to extrapolate national results, and better aligned with requirements of the Data Quality Act. The long-term value of the improved audit process is that each year's results will be statistically representative and provide information closer in time to the needed performance reporting; for example, 2006 results, the first year of the improved audit process will be reported in 2007.

New/Improved Data or Systems: Several approaches are underway.

First, EPA will continue to work with states to implement the DRAP and ISP, which have already improved the completeness, accuracy, timeliness, and consistency of the data in SDWIS/FED through: 1) training courses for specific compliance determination and reporting requirements, 2) state-specific technical assistance, 3) increased number of data audits conducted each year, and 4) assistance to regions and states in the identification and reconciliation of missing, incomplete, or conflicting data.

Second, more states (from 30 to 40 by year-end 2005) will use SDWIS/STATE,[3] a software information system jointly designed by states and EPA, to support states as they implement the drinking water program.

Third, EPA has modified SDWIS/FED to (1) simplify the database, (2) minimize data entry options resulting in complex software, (3) enforce Agency data standards, and (4) ease the flow of data to EPA through a secure data exchange environment incorporating modern technologies,

[3] SDWIS/STATE (Version 8.1) is an optional Oracle data base application available for use by states and EPA regions to support implementation of their drinking water programs.
U.S. EPA, Office of Ground Water and Drinking Water. Data and Databases. Drinking Water Data & Databases – SDWIS/STATE, July 2002. Information available on the Internet: http://www.epa.gov/safewater/sdwis_st/current.html

all of which will improve the accuracy of the data. In 2006, full use of SDWIS/FED for receiving state reports will be implemented. Data will be stored in a data warehouse system that is optimized for analysis, data retrieval, and data integration from other data sources. It will improve the program's ability to more efficiently use information to support decision-making and effectively manage the program.

Finally, EPA, in partnership with the states, is developing information modules on other drinking water programs: the Source Water Protection Program, the Underground Injection Control Program (UIC), and the Drinking Water State Revolving Fund. These modules will be integrated with SDWIS to provide a more comprehensive data set with which to assess the nation's drinking water supplies, a key component of the goal. In 2006, agreement is expected to be reached on the data elements for reporting source water and UIC data. Plans have now been developed for design of systems to address these data flows. Developing the systems to receive the data is scheduled for 2007.

References:

Plans*

- SDWIS/FED does not have a Quality Assurance Project Plan - it is a legacy system which has "evolved" since the early 80s prior to the requirement for a Plan. The SDWIS/FED equivalent is the Data Reliability Action Plan
- Information Strategy Plan – SDWIS/FED (see footnote 2)
- Office of Water Quality Management Plan, available at http://www.epa.gov/water/info.html
- Enterprise Architecture Plan

Reports*

- 1999 SDWIS/FED Data Reliability
- 2003 SDWIS/FED Data Reliability Report - contains the Data Reliability Action Plan and status report

Guidance Manuals, and Tools

- PWSS SDWIS/FED Quality Assurance Manual
- Various SDWIS/FED User and System Guidance Manuals (includes data entry instructions, data On-line Data Element Dictionary-a database application, Error Code Data Base (ECDB) - a database application, users guide, release notes, etc.) Available on the Internet at <http://www.epa.gov/safewater/sdwisfed/sdwis.htm>
- Regulation-Specific Reporting Requirements Guidance. Available on the Internet at <http://www.epa.gov/safewater/regs.html>

* These are internal documents maintained by EPA's Office of Ground Water and Drinking Water. Please call 202-564-3751 for further information.

Web site addresses

- OGWDW Internet Site <http://www.epa.gov/safewater/databases.html> and contains access to the information systems and various guidance, manuals, tools, and reports.
- Sites of particular interest are: <http://www.epa.gov/safewater/data/getdata.html> contains information for users to better analyze the data, and

<http://www.epa.gov/safewater/sdwisfed/sdwis.htm> contains reporting guidance, system and user documentation and reporting tools for the SDWIS/FED system.

FY 2007 Performance Measures:

- **Fund Utilization Rate for the DWSRF.**
- **Number of additional projects initiating operations**

Performance Database: Drinking Water State Revolving Fund National Information Management System (DWNIMS.)

Data Sources: Data are entered by state regulatory agency personnel and by EPA's Regional staff; they are collected and reported once yearly.

Methods, Assumptions and Suitability: Data entered into DWNIMS directly represent the units of performance for the performance measure. These data are suitable for year-to-year comparison and trend indication.

QA/QC Procedures: EPA's headquarters and Regional offices are responsible for compiling the data and querying states as needed to assure data validity and conformance with expected trends. States receive data entry guidance from EPA headquarters in the form of annual memoranda (e.g., "2005 DWNIMS Data Collection.")

Data Quality Reviews: EPA's headquarters and Regional offices annually review the data submitted by the states. State data are publicly available at http://www.epa.gov/safewater/dwsrf/dwnims.html in individual state reports. Headquarters addresses significant data variability issues directly with states or through the appropriate EPA Regional office. Additionally, EPA's contractor tests the data for logical consistency. An annual EPA headquarters' "DWNIMS Analysis" provides detailed data categorization and comparison. This analysis is used during:

1. Annual EPA Regional office and state reviews to identify potential problems with the program's pace which might affect the performance measure.
2. Reviews by EPA's headquarters of regional oversight of state revolving funds.
3. Annual reviews by EPA's Regional offices of their states' revolving funds operations.

State data quality is also evaluated during annual reviews performed by EPA Regions. Any inconsistencies that are found in need of correction are incorporated into future DWNIMS reports. These adjustments are historically rare and very minor.

Data Limitations: There are no known limitations in the performance data, which states submit voluntarily. Erroneous data can be introduced into the DWNIMS database by typographic or definitional error. Typographic errors are controlled and corrected through data testing performed by EPA's contractor. Definitional errors due to varying interpretations of information requested for specific data fields have been largely reduced. These definitions are publicly available at: http://www.epa.gov/safewater/dwsrf/nims/dwdatadefs.pdf . There is typically a lag of approximately two months from the date EPA asks states to enter their data into the DWNIMS database, and when the data are quality-checked and available for public use.

New/Improved Data or Systems: This system has been operative since DWSRF inception. It is updated annually, and data fields are changed or added as needed.

References:
State performance data as shown in NIMS are available by state at:
http://www.epa.gov/safewater/dwsrf/dwnims.html
Definitions of data requested for each data field in NIMS is available at:
http://www.epa.gov/safewater/dwsrf/nims/dwdatadefs.pdf
2005 DWNIMS Data Collection – memo from Jeff Bryan, 7/12/05
DWNIMS analysis

FY 2007 Performance Measure:

- **Percent of states conducting sanitary surveys at community water systems once every three years.**

Performance Database: Primary enforcement responsibility (e.g. primacy) for the Public Water System Supervision (PWSS) program is authorized under §1413 of the Safe Drinking Water Act (SDWA). States and Indian Tribes are given primacy for public water systems in their jurisdiction if they meet certain requirements. A critical component of primacy is the requirement that a state must have a program to conduct sanitary surveys of the systems in its jurisdiction. A sanitary survey is an on-site review of the water sources, facilities, equipment, operation, and maintenance of a public water system for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water. Inspectors conducting sanitary surveys must apply basic scientific information and have a working knowledge of the operation, maintenance, management, and technology of a water system to identify sanitary risks that may interrupt the multiple barriers of protection at a water system. There are eight essential elements of a sanitary survey as defined by the EPA/State Joint Guidance on Sanitary Surveys[4] and the interim enhanced surface water treatment rule: water source; treatment; distribution

[4] Guidance Manual for Conducting Sanitary Surveys of Public Water Systems; Surface Water and Ground Water Under the Direct Influence (GWUDI), (EPA 815-R-99-016, April 1999) http://www.epa.gov/safewater/mdbp/pdf/sansurv/sansurv.pdf

system; finished water storage; pumps, pump facilities and controls; monitoring, reporting and data verification; water system management and operations; and operator compliance with state requirements.

Performance data for this measure will be complied from information collected during file audits of randomly selected community water systems (data verification or DV). The purpose of a DV is two-fold: (1) to detect discrepancies between the PWS data in the state files or database and the data reported to SDWIS/FED and (2) to ensure that the State is determining compliance in accordance with EPA approved state regulations. After the conduct of each DV, a report is generated which includes the findings for compliance with sanitary survey requirements. DVs are conducted on a cycle in order to visit each state at a frequency of every three years. Final reports for each state serve as the official data source for this measure until a new DV is conducted. Information derived for the DV reports will be calculated annually for this measure.

Data Source: State specific Final Data Verification Reports provide information on compliance with sanitary survey requirements. Information from DV reports for states will be calculated to measure performance.

Methods, Assumptions and Suitability: To assure that data collected during a DV is consistently captured and analyzed, the DV team follows the "EPA Protocol for Participation in a PWSS Program Data Verification" which includes revisions through April 4, 2005. The protocol provides guidance on statistical methodology for defining variables, calculating the statistical proportion (P), determining the appropriate sample size and selecting the systems for file review. Before selecting a sample of systems, the DV team must decide whether it wishes to stratify (or sort) the sample by some characteristic. Stratifying the sample permits more precision, allowing the team to make observations about subsets of systems. A sample may be stratified by system type, size, source, or a combination of these factors. For DV purposes, the sample is always stratified by system type (i.e., CWSs, NTNCWSs, and TNCWSs) since different regulations apply to different types of systems. Once the DV team determines the subset of systems from which the sample will be drawn, along with the number of systems which must be reviewed from that subset of systems, the SDWIS/FED random number generator selects the systems for review. Statistical principles dictate that samples must be selected in a truly random fashion in order to obtain unbiased estimates and achieve the desired precision level. For states whose files are kept in one central office, sample selection is straightforward. The SDWIS/FED random number generator pulls a random sample of systems from the entire subset of systems within the state. Hence, all systems have an equal chance of being chosen.

QA/QC Procedures: To assure the data collected during a DV is complete and accurate, the DV team follows the "EPA Protocol for Participation in a PWSS Program Data Verification." This protocol is intended as a "handbook" for people performing a DV. The protocol contains detailed instructions for reviewing and analyzing data for sanitary surveys. Since neither time nor resources allow a complete review of all sanitary survey data, the DV team must use a random sample of systems that is drawn from the total number of systems in each state. This random sample is statistically representative of systems in the state. The team then uses the statistical sampling results to draw reasonably accurate assumptions about all of the systems in the state, based on just a few systems.

Data Quality Reviews: Information derived from DVs is captured in a draft report and submitted to EPA (HQ and Regions) as well as the state where the DV was conducted for review. States and EPA conduct data quality reviews and provide additional information or data as necessary to assure accuracy and completeness. EPA works with states to resolve data issues. Reports are finalized and thus used to measure performance.

Data Limitations: OGWDW has an existing database for PWSS program information, the Safe Drinking Water Information System (SDWIS). Violations of sanitary survey requirements are captured in SDWIS. However, the data field to record sanitary survey frequency is not a mandatory field. Due to resource limitations, sanitary survey data cannot be verified for every system in every state each year. OGWDW employs a methodology to analyze a representative sample of systems during an audit.

FY 2007 Performance Measure:

- **Percentage of source water areas (both surface and ground water) for community water systems will achieve minimized risk to public health**

Performance Database: The source water assessment and protection programs are authorized under Sections 1453, 1428, and relevant subsections of 1452 of the Safe Drinking Water Act (SDWA).[5] EPA issued guidance to implement these programs in 1997, *State Source Water Assessment and Protection Programs Guidance*.[6] In March 2005, EPA issued supplemental reporting guidance, "State and Federal Source Water Assessment and Protection Program *Measures: Final Reporting Guidance."* Starting in FY 2005, and updated annually thereafter, states report to EPA on the results of their source water assessment programs (SWAPs) and progress in implementing source water protection (SWP) strategies, and whether such strategy implementation is affecting public health protection. To assess *the results of the SWAPs*, state reporting includes three elements: (1) the delineated source water areas around each well and intake, (2) whether the assessments are complete, and (3) most prevalent and most threatening sources of contamination. To assess *progress in implementing the SWP strategies*, state reporting includes two elements: (1) whether a prevention strategy for Community Water System source water areas has been adopted, and is being implemented and (2) whether such strategy implementation has reached a substantial level. To assess *whether the program is affecting public health protection*, states report change in the number of Community Water System source water areas with substantially implemented source water protection strategies. The Agency will develop a national summary of data on the progress of states' source water protection programs using these data elements in early 2006.

In FY 2003, EPA maintained pilot state-level summary data for each of these elements in a spreadsheet format and this format will be used for reporting for FY 2005. Beginning in FY 2005, states may, at their option, make available to EPA public water system-level data for each

[5] *Safe Drinking Water Act Amendments of 1996.* P.L. 104-182. (Washington: 6 August 1996). Available on the Internet at <http://www.epa.gov/safewater/sdwa/sdwa.html>

[6] U.S. EPA, Office of Water. *State Source Water Assessment and Protection Programs Guidance.* EPA 816-R-97-009 (Washington: US EPA, August 1997). Available on the Internet at <http://www.epa.gov/safewater/swp/swappg.html>

of these elements to be maintained in a set of data tables in the drinking water warehouse (for tabular data) and in event tables in the Office of Water's Reach Address Database (RAD) [7] (GIS data). These data will be compatible with the inventory data States are currently reporting to the Safe Drinking Water Information System (SDWIS).[8] Three states piloted this approach in 2003.

[Not publicly available. Contact the Drinking Water Protection Division at 202-564-3797.]

Data Source: Up to the end of FY 2004, states reported to the EPA Regional Offices the percentage of community water systems implementing source water protection programs. As noted above, states can report to EPA's Regional Offices using a spreadsheet approach. EPA has also developed a new source water data module to collect, store, and use public water system-level data received from states, but it may be refined as more states voluntarily use it over the next three years of the Strategic Plan. - See section "New/Improved Data or Systems."

Methods, Assumptions and Suitability: For this measure, the states' reporting of progress in implementing their source water assessment and protection programs will be based on EPA's 2005 guidance, "State and Federal Source Water Assessment and Protection Program *Measures: Final Reporting Guidance."* States will only report state-level summary information directly related to specific community water systems in a state-level database. While state reporting will be based on definitions and procedures found in the *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance,"* and even with the state flexibilities built into the definitions for substantial implementation strategies, EPA believes that the data will be reliable for use in making management decisions.

QA/QC Procedures: QA/QC procedures are included in the 2005 "State and Federal Source Water Assessment and Protection Program *Measures: Final Reporting Guidance."* Additionally, a series of data checks are built into the spreadsheet data collection procedures given to each Region for their work with states. States will be required to identify whether their reported summary-level data are based on a system-level database. EPA Regional offices also will work with individual states to obtain a description of their methods of collecting and verifying information.

Data Quality Reviews: EPA Regions will conduct data quality reviews of state data using the QA/QC procedures included with the spreadsheet-based data system, and work with states to resolve data issues. As a result, EPA expects the quality of data on the results of the assessments and source water protection activities to improve over time.

Data Limitations: Because the initial reporting provides only state-level summary information, there is no standard protocol for EPA to verify and validate the data against system-level information contained in state databases. In addition, much of the data reported by states is voluntary and based on working agreements with EPA because SDWA only requires states to complete source water assessments. That is, the only source water information that states are

[7] Watershed Assessment, Tracking & Environmental Results (WATERS). Available only on the Internet at <http://www.epa.gov/waters/>

[8] Safe Drinking Water Information System (SDWIS). Information available on the Internet at http://www.epa.gov/safewater/databases.html

required to report to EPA under SDWA is whether the assessments are completed. Although EPA's 2005 *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance"* set standard data definitions and procedures, it also provides for considerable flexibility in states' definition for substantial implementation of strategies, data collection protocols and analytical methods to evaluate their data. For example, some states may require each public water system to report data, while others may institute a voluntary process. Because much of the data reporting is voluntary and the individual state protocols may vary, state data may be incomplete and inconsistent across states.

Error Estimate: There is no basis for making an error estimate for this performance measure given the data limitations of state-level summary reporting described above.

New/Improved Data or Systems: The source water reporting module has been developed as a joint initiative between EPA, the Association of State Drinking Water Administrators (ASDWA), and the Ground Water Protection Council (GWPC). It will give EPA the ability to access the data directly from states through a data exchange agreement using an electronic data transfer capability. A state may choose, at its option, to provide EPA more detailed data in lieu of state-level summary reporting. The new source water data module will be integrated into the drinking water data warehouse and be compatible with Safe Drinking Water Information System (SDWIS) data already reported by states. Geospatial data (i.e., the intake and well point locations and the source water area polygons) will be maintained in EPA's Office of Water's Reach Access Database (RAD). The source water assessment and protection indicator data and other attribute data will be maintained in data tables in the drinking water warehouse. The source water data module is operational for states to pilot from FY 2005 through FY 2008. Three states used the module in the first pilot year 2003. A number of other states may report using the data module for the 2005 reporting period based on EPA/ASDWA/GWPC pilot process.

References:

Guidance Manuals

- U.S. EPA, Office of Water. *State Source Water Assessment and Protection Programs Guidance*. EPA 816-R-97-009 (Washington: US EPA, August 1997). Available on the Internet at <http://www.epa.gov/safewater/swp/swappg.html>
- *Source Water Assessment and Protection Measures: Initial Guidance, August, 2003.*
- *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance,"* March 2005.

Web site addresses

- US EPA Office of Ground Water and Drinking Water. <http://www.epa.gov/safewater>
- For more detailed information on Source Water topics, US EPA Office of Ground Water and Drinking Water, Source Water site. <http://www.epa.gov/safewater/protect.html>
- US EPA Office of Water (OW) Reach Access Database (RAD). Watershed Assessment, Tracking & Environmental Results (WATERS). <http://www.epa.gov/waters/>

- Safe Drinking Water Information System (SDWIS). http://www.epa.gov/safewater/databases.html

FY 2007 Performance Measure:

- **Number of households on tribal lands lacking access to safe drinking water**

Performance Database: Sanitation Tracking and Reporting System (STARS), the Indian Health Service (IHS), Office of Environmental Health and Engineering (OEHE), Division of Sanitation Facilities Construction (DSFC).

Data Sources: The STARS includes data on sanitation deficiencies, Indian homes and construction projects. STARS is currently comprised of two sub data systems, the Sanitation Deficiency System (SDS) and the Project Data System (PDS).

The SDS is an inventory of sanitation deficiencies for existing Indian homes and communities. The IHS is required to prioritize SDS deficiencies and annually report to Congress. The identification of sanitation deficiencies can be made several ways, the most common of which follow:

- Consultation with Tribal members and other Agencies
- Field visits by engineers, sanitarians, Community Health Representatives (CHRs) nurses, or by other IHS or tribal heath staff
- Sanitary Surveys
- Community Environmental Health Profiles
- Bureau of Indian Affairs (BIA) Inventory
- Census Bureau Reports (for comparison purposes only)
- Tribal Master Plans for Development
- Telephone Surveys
- Feasibility Studies

The most reliable and preferred method is a field visit to each community to identify and obtain accurate numbers of homes with sanitation deficiencies. The number of Indian homes within the communities must be consistent among the various methods cited above. If a field visit cannot be made, it is highly recommended that more than one method be used to determine sanitation deficiencies to increase the accuracy and establish greater credibility for the data.

The PDS is a listing of funded construction projects and is used as a management and reporting tool.

QA/QC Procedures: Quality assurance for the Indian country water quality performance measure depends on the quality of the data in the STARS. The STARS data undergoes a series of quality control reviews at various levels within the IHS DSFC. The DSFC is required to annually report deficiencies in SDS to Congress in terms of total and feasible project costs for proposed sanitation projects and sanitation deficiency levels for existing homes.

Data Quality Reviews: The SDS data initially undergoes a series of highly organized reviews by experienced tribal, IHS field, IHS district and IHS area personnel. The data are then sent to the DSFC headquarters office for review before final results are reported. The DSFC headquarters reviews the SDS data for each of the 12 IHS area offices. The data quality review consists of performing a number of established data queries and reports which check for errors and/or inconsistencies. In addition, the top 25 SDS projects and corresponding community deficiency profiles for each area are reviewed and scrutinized thoroughly. Detailed cost estimates are highly encouraged and are usually available for review.

Data Limitations: The data are limited by the accuracy of reported data in STARS.

Error Estimate: The IHS DSFC requires that higher-level projects (those with the possibility of funding prior to the next update) must be developed to allow for program implementation in an organized, effective, efficient manner. Those SDS projects (top 20%) must have cost estimates within 10% of the actual costs.

New/Improved Data or Systems: The STARS is a web based application and therefore allows data to be continuously updated by personnel at various levels and modified as program requirements are identified.

References:

1. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Criteria for the Sanitation Facilities Construction Program, June 1999, Version 1.02, 3/13/2003. http://www.dsfc.ihs.gov/Documents/Criteria_March_2003.cfm

2. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Sanitation Deficiency System (SDS), Working Draft, "Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities", May 2003. http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf

FY 2007 Performance Measure:

- **Percentage of the water miles/acres identified by States or Tribes as having fish consumption advisories in 2002 where increased consumption of safe fish is allowed. (485, 205 river miles, 11,277,276 lake acres)**

- **Percentage of water miles/acres with fish consumption advisory removed. (PART Measure)**

Performance Database: National Listing of Fish Advisories.[1] The database includes fields identifying the waters for which fish consumption advisories have been issued. The fields also identify the date upon which the advisory was issued, thus allowing an assessment of trends. The National Hydrographic Data (NHD) are used to calculate the spatial extent of the fish advisory. This information is updated continually as states and tribes issue or revise advisories. The National Listing of Fish Advisories database includes records showing that 24% of river

miles and 35% of lake acres were identified by states or tribes in calendar year 2003 as having fish with chemical contamination levels resulting in an advisory of potential human health risk from consumption. States and tribes report data on a calendar year basis. The calendar year data are then used to support the fiscal year (FY) commitments (e.g., calendar year 2005 data support the FY 2007 commitments). Metadata are also available describing methodologies used by states and tribes for establishing advisories. Fish advisory data have been collected since 1993.

Data Source: State and Tribal Governments. These entities collect the information and enter it directly into the National Listing of Fish Advisories database. EPA reviews advisory entries, including the states' or tribes' responses to an on-line survey, which support the advisory decision.

Methods, Assumptions and Suitability: The performance measure is calculated as the aggregate surface area covered by one or more individual advisories divided by the total waters of each state or territory. If a waterbody is covered by more than one advisory it is only counted once, and until all advisories are removed the waterbody is counted as having an advisory. The states and tribes submit the area data to the National Listing of Fish Advisories database.

QA/QC Procedures: A standard survey, which has been approved by OMB, is available on the Internet for electronic submission. A password is issued to ensure the appropriate party is completing the survey. EPA has national guidance[2,3] for states and tribes on developing and implementing quality assurance practices for the collection of environmental information related to fish advisories. This guidance helps assure data quality of the information that states and tribes use to decide whether to issue an advisory. The Office of Water's "Quality Management Plan," approved in September 2001 and published in July 2002[4], is general guidance that applies to information collection.

Data Quality Reviews: EPA reviews advisory entries and responses to the survey to ensure the information is complete, then follows-up with the state or local government to obtain additional information where needed. However, the Agency cannot verify the accuracy of the voluntary information that state and local governments provide. There have been no external party reviews of this information.

Data Limitations: There are two primary data limitations. First, participation in this survey and collection of data is voluntary. While the voluntary response rate has been high, it does not capture the complete universe of advisories. Puerto Rico, the Virgin Islands, and Guam do not report in the survey. Second, states have not assessed all waters for the need for advisories, so the information reported reflects a subset of water bodies in the state.

Error Estimate: We are unable to provide an error estimate. Submitting data to the National Listing of Fish Advisories database is voluntary and the Agency cannot be certain that the database contains information on 100% of the assessed waters in the United States. Therefore, we may be understating the total amount of waters assessed, the magnitude of which is not known.

New/Improved Data or Systems: EPA will use small grants to encourage states to investigate additional water bodies to determine if there is a need for fish consumption advisories. This will lead to a more complete characterization of the nation's fish safety. EPA has also begun tracking recommended "meal frequencies" in the state and tribal advisories to account for the instances where advisories are modified to allow greater consumption.

References:

1. U.S. EPA. Office of Water. "2004 National Listing of Fish Advisories." Washington, DC: EPA-823-F-05-004. September 2005. Available at http://epa.gov/waterscience/fish/advisories/fs2004.pdf
2. U.S. EPA. Office of Water. "Fish Sampling and Analysis." Volume 1 of "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories." 3rd ed. EPA-823-B-00-007. Washington DC: EPA, 2000. Available at http://www.epa.gov/waterscience/fishadvice/volume1/.
3. U.S. EPA. Office of Water. "Risk Assessment and Fish Consumption Limits." Volume 2 of "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories." 3rd ed.@ EPA-823-B-00-008. Washington DC: EPA, 2000. http://www.epa.gov/waterscience/fishadvice/volume2/.
4. U.S. EPA. Office of Water. "Quality Management Plan." EPA 821-X-02-001. Washington, DC: EPA, July 2002. Available at http://www.epa.gov/water/programs/qmp_july2002.pdf

FY 2007 Performance Measure:

- **Percentage of the shellfish-growing acres monitored by states that are approved or conditionally approved for use**

Performance Database: There is no database currently available, although one is under development (see below). In the past, data to support this measure came from surveys of States that are members of the Interstate Shellfish Sanitation Conference (ISSC), conducted at 5-year intervals and periodic updates requested from the Interstate Shellfish Sanitation Conference (most recent, 2003 data released in 2004).

Data Source: The ISSC requests the data on approved acreages from shellfish producing states and prepares reports. Survey responses are voluntary.

Methods, Assumptions and Suitability: The methods used by the state programs to produce the data used by the ISSC are based on the National Shellfish Sanitation Plan and Model Ordinance; the operation of those state programs is overseen by the FDA.

QA/QC Procedures: States are responsible for the internal QA/QC of their data.

Data Quality Reviews: The ISSC reviews the state data during report preparation to ensure completeness and accuracy, and follows up with states where necessary.

Data Limitations: Based on NOAA's previous surveys and the voluntary nature of the information collected, potential data limitations may include incomplete coverage of shellfish growing areas.

Error Estimate: No estimates are available.

New/Improved Data or Systems: The ISSC initiated development of the Shellfish Information Management System (SIMS) in July 2002. The database is being developed and implemented by the National Oceanographic and Atmospheric Administration (NOAA) on behalf of the Interstate Shellfish Sanitation Conference (ISSC), a Cooperative Program chartered by the Food and Drug Administration (FDA). The database will include relevant information that is collected by State Shellfish Control Authorities. Historically, NOAA collected shellfish-growing area data in 5-year intervals, 1985, 1990, and 1995. These data were not stored in a database. Once operational, SIMS will be the first national shellfish growing area database and will include NOAA's 1995 and 2003 data. State summary information can then be used to track trends relevant to the performance measure, with the 1995 data as the baseline. The SIMS database is designed as a real time database. The ISSC plans to request data updates annually, but states may update their data any time. These data may be accessed at any time so timely status reports can be generated.

Currently, no long-term database management plan exists.

References: None at this time.

FY 2007 Performance Measure:

- **Percentage of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming**

Performance Database: The data are stored in PRAWN (Program tracking, beach Advisories, Water quality standards, and Nutrients), a database that includes fields identifying the beaches for which monitoring and notification information are available and the date the advisory or closure was issued, thus enabling trend assessments to be made. The database also identifies those states that have received a BEACH (Beaches Environmental Assessment and Coastal Health) Act [P.L. 106-284] grant. EPA reports the information annually, on a calendar year basis, each May. The calendar year data are then used to support fiscal year commitments (e.g., 2006 calendar year data are used to report against FY 2007 commitments). As of 2004, States and Territories monitor for pathogens at 3,574 coastal and Great Lakes beaches, up from 2,823 beaches in 2002[1].

Data Source: Since 1997 EPA has surveyed state and local governments for information on their monitoring programs and on their advisories or closures. The Agency created the PRAWN database to store this information. State and local governmental response to the survey was voluntary up through calendar year 2002. Starting in calendar year 2003, data for many beaches along the coast and Great Lakes had to be reported to EPA as a condition of grants awarded under the BEACH Act[2]. Since 2005, states have used an on-line process called eBeaches to

electronically transmit beach water quality and swimming advisory information to EPA instead of using the paper survey. The latest information reported by a state or local government is accessible to the public through the BEACON (Beach Advisory Closing On-line Notification) system.

Methods, Assumptions and Suitability: The data are an enumeration of the days of beach-specific advisories or closures issued by the reporting state or local governments during the year. Performance against the target is tracked using a simple count of the number of beaches responding to the survey and the days over which the advisory or closure actions were taken. This is compared to the total number of days that every beach could be open. Thus the data are suitable for the performance measure.

QA/QC Procedures: Since 1997, EPA has distributed a standard survey form, approved by OMB, to coastal and Great Lake state and county environmental and public health beach program officials in hard copy by mail. The form is also available on the Internet for web-entry electronic submission. When a state or local official enters data using the web-entry format, a password is issued to ensure the appropriate party is completing the survey. Currently the Agency has procedures for information collection (see Office of Water's "Quality Management Plan," approved September 2001 and published July 2002[3]). In addition, coastal and Great Lakes states receiving BEACH Act grants are subject to the Agency's grant regulations under 40 CFR 31.45. These regulations require states and tribes to develop and implement quality assurance practices for the collection of environmental information.

Data Quality Review: EPA reviews the survey responses to ensure the information is complete, following up with the state or local government to obtain additional information where needed. The Agency also reviews the QA/QC reports submitted by States and Territories as part of their grant reporting. There have been no external party reviews of this information.

Data Limitations: From calendar year 1997 to calendar year 2002, participation in the survey and submission of data has been voluntary. While the voluntary response rate has been high, it has not captured the complete universe of beaches. The voluntary response rate was 92% in calendar year 2002 (240 out of 261 contacted agencies responded). The number of beaches for which information was collected increased from 1,021 in calendar year 1997 to 2,823 in calendar year 2002. Participation in the survey is now a mandatory condition for implementation grants awarded under the BEACH Act program to coastal and Great Lakes states. Except for Alaska, all coastal and Great Lakes states and territories have annually applied for implementation grants since they have been available.

Error Estimate: As of 2004, States and Territories report that they monitor at 3,574 of the 6,099 coastal and Great Lakes beaches. This monitoring varies between States. For example, North Carolina monitors all its 228 beaches whereas South Carolina monitors 24 of 229 beaches. Where monitoring is done, there is some chance that the monitoring may miss some instances of high pathogen concentrations. EPA's 2002 National Health Protection Survey of Beaches found that 90% of the nation's beaches are monitored once a week or less[4]. Studies in southern California found that weekly sampling missed 75% of the pathogen exceedances[5], and that 70% of the exceedances lasted for only one day[6]. An EPA Office of Research and Development

(ORD) beach monitoring study found a positive correlation between pathogen indicator densities one day as compared to densities the next day, but that the correlation was negligible when compared to densities after four days[7]. These studies indicate that weekly sampling most likely misses many pathogen events that can affect public health. This information is not sufficient to calculate the potential error in the reporting, but it is sufficient to indicate that the reporting may understate the number of days that beaches should be closed or under advisory.

New/Improved Data or Systems: Participation in the survey is now a mandatory condition for grants awarded under the BEACH Act program. As the Agency awards these implementation grants, it will require standard program procedures, sampling and assessment methods, and data elements for reporting. To the extent that state governments apply for and receive these grants, the amount, quality, and consistency of available data will improve. In FY 2007, EPA expects the 35 coastal and Great Lakes states to apply for grants to implement monitoring and notification programs.

References

1. U.S. EPA. Office of Water. "EPA's Beach Program: 2004 Swimming Season Update." EPA-823-F-05-006. Washington, DC, July 2005. Available at http://www.epa.gov/waterscience/beaches2004fs.pdf
2. U.S. EPA. Office of Water. "National Beach Guidance and Required Performance Criteria for Grants." EPA-823-B-02-004. Washington DC: EPA, June 2002. Available at http://www.epa.gov/waterscience/beaches/guidance/all.pdf
3. U.S. EPA. Office of Water. "A Quality Management Plan." EPA 821-X-02-001. Washington, DC: EPA, July 2002. Available at http://www.epa.gov/water/programs/qmp_july2002.pdf
4. U.S. EPA. Office of Water. "EPA's BEACH Watch Program: 2002 Swimming Season." EPA-823-F-03-007. Washington, DC, May 2003. Available at http://www.epa.gov/waterscience/beaches/beachwatch2003-newformat.pdf
5. Leecaster. M.K. and S.B. Weisberg, Effect of Sampling Frequency on Shoreline Microbiology Assessments, *Marine Pollution Bulletin*, 42(11), 2001.
6. Boehm, A.B., et. al., Decadal and Shorter Period Variability of Surf Zone Water Quality at Huntington Beach, California, *Environmental Science and Technology*, 36(18), 2002.
7. U.S. EPA. Office of Research and Development. "The EMPACT Beaches Project, Results and Recommendations from a Study on Microbiological Monitoring In Recreational Waters." EPA 600/9-02/xxx. Washington, DC, Sept. 2002.(Draft Report).

GOAL 2 OBJECTIVE 2

FY 2007 Performance Measure:

- **Percentage of waters assessed: assess and identify trends for 100% of the Nation's waters by 2018 using statistically valid surveys to evaluate the extent that waters support fishable and swimmable goals of the Clean Water Act.**

Performance Database: Data generated from the national assessment will be housed in the EPA Office of Water's STORET (STOrage and RETrieval) data warehouse. Prior to entering the STORET warehouse, all datasets are housed in a temporary facility, such as ORD's SWIM database, where they are examined for QA purposes and undergo statistical analysis. Finalized datasets transferred to the STORET warehouse will include all water quality, physical and biological data and associated metadata for each survey. The STORET warehouse is available on the web at http://www.epa.gov/STORET/index.html.

Data Source:
Samples will be collected over one sampling season, during a specified index period for each resource. Sites are sampled one time, with additional repeat samples collected at 10 percent of the sites to determine precision of methods. Surveys collect a suite of indicators relating to the biological, physical habitat and water quality of the resource in order to assess both the resource condition and determine the percentage meeting the goals of the CWA. Surveys will collect information on biological and abiotic factors at 30-50 sites on an ecoregion level II scale for each resource. These data are collected through EPA-State collaboration. Prior to sampling, field crews will undergo intensive training by EPA personnel on field sampling and collection techniques. Laboratory analysis will be conducted at either a state lab or contract lab following specified protocols for the survey. Data collection follows a Quality Assurance Project Plan (QAPP), with subsequent testing and auditing to ensure its application.

Methods, Assumptions and Suitability: The surveys are conducted using a probabilistic survey design, which allows extrapolation of results to the target population (specified water resource, e.g., wadeable streams, lakes, rivers, etc.). The collection design maximizes the spatial spread between sites, located by specific latitude and longitude combinations. The survey utilizes an indexed sampling period to increase the probability of accurately assessing condition and identifying any problems in water quality, physical or biological indices if they exist. Based on the QAPP and field protocol documents, a site is located by the sampling crew via Global Positioning System (GPS). Data are collected for each parameter following the protocols outlined in the field operations manual. Indices for the probabilistic surveys relate to the condition of the resource and the extent that the waters are supporting the fishable and swimmable goals of the Clean Water Act. Samples taken from the field are stored in accordance with field manual instructions and shipped to the processing laboratory. Laboratories will follow quality assurance (QA) plans and complete analysis and provide electronic information to the state or EPA. EPA and the state exchange data to ensure that each has a complete set. EPA and states analyze the data to assess regional and national condition of the water resource surveyed. Results of the analyses on a national and regional basis will be published in a publicly accessible peer reviewed report released within two years of sample collection. The overall change in condition of the water body type will be assessed on a five year cycle.

> *Assumptions*: (1) The underlying target population (water resource sampled for the survey) has been correctly identified; (2) GPS is successful; (3) QAPP and field collection manuals are followed; (4) all samples are successfully collected; (5) all analyses are completed in accordance with the QAPP; and (6) a combination of data into indices is completed in a statistically rigorous manner.

Suitability: By design, all data are suitable to be aggregated up to the regional and national level to characterize the ecological condition of the waterbody resource and the associated stressors. Samples provide site specific point-in-time data and excellent representation of the entire resource (extrapolation to the entire resource supportable). Data will be used to characterize populations and subpopulations of waterbody resources through time and space. Data analysis and interpretation will be peer reviewed prior to completion of final report. The data are suitable for individual reports and to establish a baseline for subsequent surveys to evaluate trends.

QA/QC Procedures: Collection and processing of all samples are described in QAPP and Field Protocols documents associated with each survey. In addition, the QAPP will contain specific Data Quality Objectives (DQOs) and Measurement Quality Objectives (MQOs) associated with each survey. To ensure that the survey is obtaining the DQOs and MQOs, there are several QA steps built into each survey. Training for all crew members is required before sampling begins. Field evaluations are conducted for all crews to ensure methods are being followed. Each laboratory involved in the sample processing will adhere to the specified laboratory protocols and undergo a thorough and documented quality assurance/quality control (QA/QC) process. Submitted data will undergo a final QC check before analysis begins.

Data Quality Reviews: A concurrent peer review and public comment period will be held for each survey. During this time, the draft report will be posted on the web for interested parties to review and submit comments. An independent group of experts will be selected to serve on a peer review panel for the report. In house audits will also be conducted over the course of the survey.

Data Limitations: Because the data are collected in a manner to permit calculations of uncertainty and designed to meet specific Data Quality Objectives (DQOs), the results at the regional level are within about 2-4% of true values dependent upon the specific sample type. Detailed QA/QC checks throughout the survey reduce the data limitations and errors in sampling. The scale of the reporting units is limited by the number of samples taken in a specific region. To make a statistically valid statement about the condition of the resource, sample size should minimally include 30-50 sites per region. Since samples are collected one time at each site per survey, trends analysis will depend on future survey work. Lag time between sample collection and reporting will be between 1-2 years.

Error Estimate: The estimation of condition will vary for the national condition and the regional condition for each survey. The condition estimates are determined from the survey data using cumulative distribution functions and statistically-based uncertainty estimates.

New/Improved Data or Systems: Additional indicators, addressing regional specific needs can be added to the survey over time. QA requirements will be met by all laboratories participating in the surveys. Probabilistic surveys repeated on the same water body type utilizing a similar sample design will show condition trends for the resource on a broad geographic scale.

References:

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STORET database website. http://www.epa.gov/STORET/index.html.

U.S. Environmental Protection Agency. 2001. *National Coastal Condition Report*. EPA-620/R-01/005

U.S. Environmental Protection Agency. 2004. *National Coastal Condition Report II*. EPA-620/R-03/002

FY 2007 Performance Measures:

- **Annual percentage of water body segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained (PART measure)**
- **Restore water quality to allow swimming in stream miles and lake acres identified by states**
- **Cost per water segment restored (PART measure)**

Performance Database: The Watershed Assessment Tracking Environmental Results System (WATERS– found at http://www.epa.gov/waters/) is EPA's approach for viewing water quality information related to this measure. WATERS can be used to view "303(d) Information," compiled from, *States' Listings of Impaired Waters as Required by Clean Water Act Section 303(d)* (referred to here in brief as "303(d) lists"), which are recorded in the National Total Maximum Daily Load (TMDL) Tracking System. This information (found at http://www.epa.gov/owow/tmdl/status.html) is used to generate reports that identify waters that are not meeting water quality standards ("impaired waters"). This information, combined with information and comment from EPA Regions and states, yields the baseline data for this measure: the number of impaired waters in 1998/2000. As TMDL and other watershed-related activities are developed and implemented, water bodies which were once impaired will meet water quality standards, and thus will be removed from the year 1998/2000 impaired totals. Changes will be recorded in reports, scheduled every six years (e.g. reporting years 2006 and 2012), as percentage improvements to water body impairment.

Data Source: The underlying data source for this measure is State 303(d) lists of their impaired water bodies. These lists are submitted with each biennial (calendar year) reporting cycle. The baseline for this measure is the 1998 list (States were not required to submit lists in 2000; however, if states did submit a 2000 list, then that more recent list was used as the baseline). States prepare the lists using actual water quality monitoring data, probability-based monitoring information, and other existing and readily available information and knowledge the state has, in

order to make comprehensive determinations addressing the total extent of the state's water body impairments. Once EPA approves a state's 303(d) list, EPA enters the information into WATERS, as described above. Delays are often encountered in state submissions and in EPA's approval of these biennial submissions. Establishing more certain procedures to keep on schedule is being considered.

Methods, Assumptions, and Suitability: States employ various analytical methods of data collection, compilation, and reporting including: 1) Direct water samples of chemical, physical, and biological parameters; 2) Predictive models of water quality standards attainment; 3) Probabilistic models of pollutant sources; and 4) Compilation of data from volunteer groups, academic interests and others. EPA-supported models include BASINS, QUAL2E, AQUATOX, and CORMIX. Descriptions of these models and instructions for their use can be found at www.epa.gov/OST/wqm/. The standard operating procedures and deviations from standard methods for data sampling and prediction processes are stored by states in the STOrage and RETrieval (STORET) database. EPA aggregates state data to generate the national performance measure. State-provided data describe attainment of designated uses in accordance with state water quality standards and thus represent a direct measure of performance. Delays are often encountered in state 303d lists and 305b submissions, and in EPA's approval of the 303(d) portion of these biennial submissions. Establishing more certain procedures to prevent these delays is being considered.

QA/QC Procedures: QA/QC of data provided by states pursuant to individual state 303(d) lists (under CWA Section 303(d)) is dependent on individual state procedures. EPA regional staff interacts with the states during the process of approval of the lists and before the information is entered into the database to ensure the integrity of the data. The Office of Water Quality Management Plan (QMP), renewed every five years, was approved in July 2001[9]. EPA requires that each organization prepare a document called a quality management plan (QMP) that: documents the organization's quality policy; describes its quality system; and identifies the environmental programs to which the quality system applies (e.g., those programs involved in the collection or use of environmental data).

Data Quality Review: Recent independent reports have cited that weaknesses in monitoring and reporting of monitoring data undermine EPA's ability to depict the condition of the Nation's waters and to support scientifically sound water program decisions. The most recent reports include the 1998 *Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program*[10], the March 15, 2000 Government Accounting Office report *Water Quality: Key Decisions Limited by Inconsistent and Incomplete Data*[11], the 2001 National Academy of

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[9] National Research Council, Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction, Water Science and Technology Board, *Assessing the TMDL Approach to Water Quality Management* (Washington, DC: National Academy Press, 2001).

[10] USEPA, National Advisory Council for Environmental Policy and Technology, *Report of the Federal Advisory Committee on the Total Maximum Daily Load Program.* EPA 100-R-09-8006 (1998).

[11] GAO. *Water Quality: Key EPA and State Decisions Limited by Inconsistent and Incomplete Data* (Washington, DC: 2000), RCED-00-54 and *Water Quality: Inconsistent State Approaches Complicate Nation's Efforts to Identify Its Most Polluted Waters*, GAO-02-186 (Washington, DC: 2002)

Sciences Report *Assessing the TMDL Approach to Water Quality Management*[12] and *EPA's Draft Report on the Environment.*[13]

In response to these evaluations, EPA has been working with states and other stakeholders to improve: 1) data coverage, so that state reports reflect the condition of all waters of the state; 2) data consistency to facilitate comparison and aggregation of state data to the national level; and 3) documentation so that data limitations and discrepancies are fully understood by data users.

First, EPA enhanced two existing data management tools (STORET and the National Assessment Database) so that they include documentation of data quality information.

Second, EPA has developed a GIS tool called WATERS that integrates many databases including STORET, the National Assessment Database, and a new water quality standards database. These integrated databases facilitate comparison and understanding of differences among state standards, monitoring activities, and assessment results.

Third, EPA and states have developed guidance. The 2006 Integrate Report Guidance (released August 3, 2005 at http://www.epa.gov/owow/tmdl/2006IRG)[14] provides comprehensive direction to states on fulfilling reporting requirements of Clean Water Act sections 305 (b) and 303(d). Also, the *Consolidated Assessment and Listing Methodology – Toward a Compendium of Best Practices*[15] (released on the Web July 31, 2002 at www.epa.gov/owow/monitoring/calm.html) intended to facilitate increased consistency in monitoring program design and the data and decision criteria used to support water quality assessments.

Fourth, the Office of Water (OW) and EPA's Regional Offices have developed the *Elements of a State Water Monitoring and Assessment Program*, (August 2002).[16] This guidance describes ten elements that each state water quality monitoring program should contain and proposes time-frames for implementing all ten elements.

In addition, a recent evaluation by the EPA Office of the Inspector General[17] recommended that EPA focus on improving its watershed approach by:

- Facilitating stakeholder involvement in this approach
- Better integrating the watershed approach into EPA core programs,

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[12] Assessing the TMDL Approach to Water Quality Management. 2001. Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction, Water Science and Technology Board, National Research Council

[13] US EPA, *Draft Report on the Environment 2003.* EPA 260-R-02-006 (2003). Available at http://www.epa.gov/indicators/roe/index.htm (accessed 12 December 2005)

[14] USEPA, Office of Water, *2006 Guidance for Assessment, Listing, and Reporting Requirements Pursuant to Sections, 303(d), 305(b), and 314 of the Clean Water Act* (2005). Available at http://www.epa.gov/owow/tmdl/2006IRG (accessed 12 December 2005)

[15] U.S. EPA, Office of Water, *Consolidated Assessment and Listing Methodology- Toward a Compendium of Best Practices.* (Washington, DC: 2002) Available at www.epa.gov/owow/monitoring/calm.html (accessed 12 December 2005)

[16] USEPA, Office of Water, *Elements of a State Water Monitoring and Assessment Program*, EPA 841-B-03-003 (Washington, DC: 2003). Available at http://www.epa.gov/owow/monitoirng/repguide.html (accessed 12 December 2005)

[17] USEPA Office of the Inspector General, *Sustained Commitment Needed to Further Advance the Watershed Approach* (2005). Available at http://www.epa.gov/oig/reports/2005/20050921-2005-P-00025.pdf.

- Refining the Agency strategic plan to better evaluate key programs and activities, and
- Improving the measurement system by which watershed progress is assessed.

EPA is engaged in many activities to strengthen its footprint in above four foci. Specific examples, as noted in Assistant Administrator Grumbles' December 2005 reply to the Inspector General's evaluation, follow:

First, examples of how the EPA Office of Water is working to facilitate stakeholder involvement in this approach are monthly Webcasts (topics have included strategies, tools, and techniques for sustainable watersheds) and plans to release a Watershed Planning Handbook in 2006.

Second, EPA core program activities are focusing more heartily on watershed initiatives. EPA is preparing 2006 guidance on watershed TMDLs and guidance for using Clean Water State Revolving funds for state watershed activities.

Third, EPA is working to refine its strategic planning process with the April 2005 inception of the Watershed Managers Forum, a channel of communication between EPA Regional offices and Headquarters on issues, planning, and organizational steps to successfully implement watershed initiatives of EPA's *Strategic Plan*[18]. The Office of Water is also strengthening linkage of its information technology capabilities and monitoring efforts to meet goals of EPA's strategic planning.

Fourth, EPA is working to improve measurement of its progress by conducting detailed analysis of options for measuring performance. Areas of general interest in this effort include tracking improvements short of full restoration, and measures for the extensive work the Office of Water does to maintain water quality.

Data Limitations: Data may not precisely represent the extent of impaired waters because states do not employ a monitoring design that monitors all their waters. States, territories and tribes collect data and information on only a portion of their water bodies. States do not use a consistent suite of water quality indicators to assess attainment of water quality standards. For example, indicators of aquatic life use support range from biological community assessments to levels of dissolved oxygen to concentrations of toxic pollutants. These variations in state practices limit how the CWA Sections 305(b) reports and the 303(d) lists provided by states can be used to describe water quality at the national level. There are also differences among their programs, sampling techniques, and standards.

State assessments of water quality may include uncertainties associated with derived or modeled data. Differences in monitoring designs among and within states prevent the agency from aggregating water quality assessments at the national level with known statistical confidence. States, territories, and authorized tribes monitor to identify problems and typically lag times between data collection and reporting can vary by state.

Error Estimate: No error estimate is available for this data.

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[18] USEPA, Office of the Chief Financial Officer, *2003-2008 Strategic Plan: Direction for the Future*, (2003). Available at http://www.epa.gov/ocfo/plan/2003sp.pdf_(accessed 16 December 2005).

New/Improved Data Systems: The Office of Water has been working with states to improve the guidance under which 303(d) lists are prepared. EPA issued new listing guidance entitled *Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act* during summer 2005. The Guidance is a comprehensive compilation of relevant guidance EPA has issued to date regarding the Integrated Report. There are a few specific changes from the 2004 guidance. For example, the 2006 Integrated Report Guidance provides greater clarity on the content and format of those components of the Integrated Report that are recommended and required under Clean Water Act sections 303(d), 305(b), and 314. The guidance also gives additional clarity and flexibility on reporting alternatives to TMDLs for attaining water quality standards (e.g., utilization of reporting Category 4b).

References:

USEPA, Office of the Inspector General. 2005. *Sustained Commitment Needed to Further Advance the Watershed Approach*. Available at http://www.epa.gov/oig/reports/2005/20050921-2005-P-00025.pdf.

USEPA, Office of Water. 2005. *Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act.* Available at http://www.epa.gov/owow/tmdl/2006IRG.

USEPA, Office of the Chief Financial Officer. 2003. *2003-2008 Strategic Plan: Direction for the Future*. Available at http://www.epa.gov/ocfo/plan/2003sp.pdf.

USEPA. 2003. *Draft Report on the Environment 2003*. EPA 260-R-02-006. Available at http://www.epa.gov/indicators/roe/index.htm.

USEPA, Office of Water. 2003. *Elements of a State Water Monitoring and Assessment Program.* EPA 841-B-03-003. Washington, DC. Available at http://www.epa.gov/owow/monitoring/repguid.html.

USEPA, National Advisory Council for Environmental Policy and Technology. 1998. *Report of the Federal Advisory Committee on the Total Maximum Daily Load Program.* EPA 100-R9-8006.

USEPA. 2002. *Consolidated Assessment and Listing Methodology – Toward a Compendium of Best Practices.* Washington, DC. Available at http://www.epa.gov/owow/monitoring/calm.html.

Government Accountability Office. 2002. *Water Quality: Inconsistent State Approaches Complicate Nation's Efforts to Identify its Most Polluted W*aters. GAO-02-186. Washington, DC.

Government Accountability Office. 2000. *Water Quality: Key EPA and State Decisions Limited by Inconsistent and Incomplete Data*. GAO-RCED-00-54. Washington, DC.

National Research Council, Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction. 2001. *Assessing the TMDL Approach to Water Quality Management.* Washington, DC: National Academy Press.

FY 2007 Performance Measures:

- **Number of TMDLs that are established or approved by EPA on schedule consistent with national policy (cumulative) (PART measure)**
- **Number of TMDLs that are established by States and approved by EPA on a schedule consistent with national policy (cumulative) (PART measure)**

Performance Database: The National Total Maximum Daily Load (TMDL) Tracking System (NTTS) is a database which captures water quality information related to this measure. Watershed Assessment Tracking Environmental Results System (WATERS– found at http://www.epa.gov/waters/) is EPA's approach for viewing water quality information related to this measure. TMDL information (found at http://www.epa.gov/owow/tmdl/status.html) is used to generate reports that identify waters for which EPA has approved state-established TMDLs and for which EPA has established TMDLs. Annual TMDL totals, spanning 1996 to the present, are available from NTTS on a fiscal year basis. As TMDLs and other watershed-related activities are developed and implemented, water bodies which were once impaired will meet water quality standards. Thus these TMDL measures are closely tied to the PART measure, "Percentage of water body segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained;" restored water bodies will be removed from the list of impaired water segments.

Data Source: State-submitted and EPA-approved TMDLs and EPA-established TMDLs are the underlying data for this measure. Electronic and hard copies are made available by states and often linked to EPA Web sites. More specifically, WATERS allows search for TMDL documents at http://www.epa.gov/waters/tmdl/tmdl_document_search.html.

Methods, Assumptions, and Suitability: State and EPA TMDLs are thoroughly and publicly reviewed during their development. Upon approval by EPA, relevant information from each TMDL is entered into the NTTS by EPA Regional staff.

QA/QC Procedures: QA/QC of data is provided by EPA Regional staff and through cross-checks of WATERS information regarding impaired water listings. The Office of Water Quality Management Plan (QMP), renewed every five years, was approved in July 2001. EPA requires that organizations prepare a document called a QMP that: documents the organization's quality policy; describes its quality system; and identifies the environmental programs to which the quality system applies (e.g., those programs involved in the collection or use of environmental data).

Data Quality Review: Internal reviews of data quality have revealed some errors in data and issues associated with the definition of certain database fields. In 2005, EPA convened a meeting of NTTS users to discuss how to improve the database. As a result, data field definitions were clarified, the users' group was reinstituted, and several training sessions were scheduled.

In addition, the EPA Office of the Inspector General recently evaluated the Office of Water, particularly the TMDL Program. The evaluation report, *Sustained Commitment Needed to Further Advance the Watershed Approach,* recognized "EPA has integrated principles of the watershed approach into the Total Maximum Daily Load (TMDL) Program by encouraging States to develop TMDLs on a watershed basis rather than by individual water segments. Stakeholder involvement with TMDLs is critical for both the conventional and watershed approaches, but the broader watershed approach may expand the number of stakeholders. Expanding both the geographic scale and the number of stakeholders may result in additional time and resources required to develop these TMDLs." This demand for resources is challenging to overcome in the current budget environment. The EPA Office of Water has formed a Sustainable Finance Team to increase the capacity of local watershed groups and increase awareness of funding possibilities for watershed work, both from within EPA and outside of the Agency. Finally, the evaluation report states, "regardless of the approach taken for development of TMDLs, the regulatory requirements of the Clean Water Act must be met." Current realization of targets shows the TMDL Program continues to make sizable steps in meeting Clean Water Act goals despite the challenges to taking a watershed approach. EPA plans to evaluate the sufficiency of NTTS in handling watershed-based TMDLs given the increase in the use of this approach.

Data Limitations:
There are usually no gaps in the fields required to identify the TMDLs; however, a number of the fields in NTTS are optional, and population of these fields is erratic.

Error Estimate: No error estimate is currently available for this data.

New/Improved Data Systems: See above.

References:
USEPA, Office of the Inspector General. 2005. *Sustained Commitment Needed to Further Advance the Watershed Approach.* Available at http://www.epa.gov/oig/reports/2005/20050921-2005-P-00025.pdf.

National Research Council, Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction. 2001. *Assessing the TMDL Approach to Water Quality Management.* Washington, DC: National Academy Press.

FY 2007 Performance Measures:

- **Percentage of major NPDES permittees in Significant Noncompliance at any time during the fiscal year (PART measure)**
- **Percentage of all major POTWs that comply with their permitted wastewater discharge standards**

Performance Databases: The Permit Compliance System, (PCS) tracks permit compliance and enforcement data for sources permitted under the Clean Water Act National Pollutant Discharge Elimination System (NPDES). Data in PCS include major permittee self reported data contained in Discharge Monitoring Reports (DMR), data on permittee compliance status, data on state and EPA inspection and enforcement response.

Data Source: Permittee self reported DMR data are entered into PCS by either state or EPA Regional offices. PCS automatically compares the entered DMR data with the pollutant limit parameters specified in the facility NPDES permit. This automated process identifies those facilities which have emitted effluent in excess of permitted levels. Facilities are designated as being in Significant Noncompliance (SNC) when reported effluent exceedances are 20% or more above permitted levels for toxic pollutants and/or 40% or more above permitted levels of conventional pollutants. PCS contains additional data obtained through reports and on-site inspections, which are used to determine SNC, including: non-effluent limit violations such as unauthorized bypasses, unpermitted discharges, and pass through of pollutants which cause water quality or health problems; permit schedule violations; non-submission of DMRs; submission of DMRs 30 or more days late; and violation of state or federal enforcement orders.

Methods, Assumptions and Suitability: There are established computer algorithms to compare DMR effluent data against permitted effluent levels. The algorithms also calculate the degree of permitted effluent exceedance to determine whether toxic/conventional pollutant SNC thresholds have been reached.

QA/QC Procedures: Quality Assurance/Quality Control procedures [See references] are in place for PCS data entry. State and regional PCS data entry staff are required to take PCS training courses [See references]. Quality Management Plans (QMPs) are prepared for each Office within The Office of Enforcement and Compliance Assurance (OECA). The Office of Compliance (OC) has established extensive processes for ensuring timely input, review and certification of PCS information. OC=s QMP, effective for 5 years, was approved July 29, 2003 by the Office of Environmental Information (OEI) and is required to be re-approved in 2008.

Data Quality Review: Information contained in PCS is required by policy to be reviewed by regional and headquarters= staff for completeness and accuracy. SNC data in PCS are reviewed quarterly.

Data Limitations: Legal requirements for permittees to self report data on compliance with effluent parameters in permits generally results in consistent data quality and accuracy. EPA monitors and measures the timeliness of DMR submissions and data entry quality. National trends over the past several years show an average of 94% of DMRs are entered timely and complete. Where data entry problems are observed, OECA works directly with regions and states to improve performance, and in limited circumstances has dedicated supplemental grant

resources to help regions and states correct problems. As part of ICIS-NPDES implementation OECA is working to deploy an electronic DMR process to save resources on data entry workload and reduce data input errors.

Error Estimate: Not available

New & Improved Data or Systems: PCS was developed during the 1980's and has undergone periodic revision and upgrade since then. OECA is currently developing a modernized data system to replace PCS, utilizing modern data entry, storage, and analytical approaches. The first phase of the new system, ICIS-NPDES, is scheduled to be operational March 30, 2006. Until then, all SNC data will be obtained from PCS. During phased implementation of ICIS-NPDES across the states a combination of PCS and ICIS-NPDES will be used to generate SNC data. Once fully implemented, ICIS-NPDES will be the sole source of NPDES SNC data.

FY 2007 Performance Measures:

- **Percentage of (a) State and Territorial, and (b) Tribal water quality standards submissions (received in the 12 month period ending April 30th of the fiscal year) that are approved by EPA. Partial approvals receive fractional credit. (PART measure)**

- **Number of (a) States and Territories, and (b) authorized Tribes, that within the preceding three year period submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other sources not considered in the previous standards. (PART measure)**

Performance Database: The Water Quality Standards Action Tracking Application (WATA), an internal tracking application managed by the Office of Science and Technology described at http://intranet.epa.gov/ost/div/shpd/wata-manual.pdf, is the performance database for these measures. The information in this system yields the baseline and performance data for these measures.

Data Source: The underlying data sources for this measure are the submissions from states, territories, and authorized tribes of water quality standards to EPA pursuant to the Clean Water Act and EPA's water quality standards regulation at 40 CFR part 131. States, territories, and authorized tribes are required to review their water quality standards at least once every three years, and submit any new or revised water quality standards to EPA for review and approval. Each submission is accompanied by a letter from an appropriate official, and includes a certification by the state or territorial attorney general, or equivalent tribal official, that the standards were duly adopted pursuant to state, territorial, or tribal law.

EPA Regional Office staff members compile information from each submission and enter it into the WATA system. The information includes identifying data (name of jurisdiction, date of submission), data concerning components of the submission, and data concerning EPA's action on the submission. EPA has delegated approval and disapproval decisions to the Regional Administrator; the Regional Administrator may re-delegate the decisions to the appropriate

Division Director, but no further. Approval decisions are judicially reviewable, and are accompanied by an appropriate administrative record.

Methods, Assumptions, and Suitability:

The Office of Science and Technology has established computation metrics in the Water Quality Standards Action Tracking Application (WATA) system to produce the baselines and performance data for both measures. These metrics are as follows:

- Percentage of State, Territorial, and Tribal water quality standards submissions (received in the 12 month period ending April 30th of the fiscal year) that are approved by EPA. Partial approvals receive fractional credit.

This metric considers all new or revised submissions from May 1 of the previous year through April 30 of the current year. This reporting period provides regions 150 days to reach and document a valid approval decision. EPA management believes this is an adequate time for processing submissions. A "submission" is determined by the submitting jurisdiction, as described above. The metric then searches for whether the Regional Office has made any approval decision concerning the submission. If EPA approves the submission in full by the end of the reporting period, it will be counted with an approval value of 1. If EPA disapproves all provisions of the standards, it will be counted with an approval value of 0 (zero). In some cases the Regional decision official may decide to approve some portions of the standards provisions, disapprove some portions, or defer actions on some portions. To accommodate these possibilities, and to reflect the complex nature of some submissions, the WATA system allows Regional staff to track portions of a submission as separate parts. When different decisions are reached on different parts of a submission, the metric calculates a fractional approval value. The fractional approval value is a number between 0 and 1, equal to the number of submission parts approved, divided by the total number of parts in the original submission. For example, if a submission is divided up into 5 parts, and EPA approves 3 and disapproves 2, then the metric would count this as 0.6. The final performance metric is the sum of full or fractional approval values divided by the total number of submissions during the reporting period.

- Number of (a) States and Territories, and (b) authorized Tribes, that within the preceding three year period submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other sources not considered in the previous standards

This measure utilizes a Regional Office entry in the WATA system which indicates whether a submission or submission part includes one or more new water quality criteria or revised criteria that reflect new scientific information from EPA or other sources not considered in the previous criteria. Biological criteria that are reflected explicitly in designated uses would count under this entry. If a State, territory, or tribe has not adopted any such criteria, the jurisdiction can nevertheless be counted under this measure if (a) EPA has issued new or revised water quality criteria, including revisions to the published table of EPA recommended criteria at http://www.epa.gov/waterscience/criteria/wqcriteria.html, but the state has determined through a scientific assessment that such a change is not relevant for its waters, or (b) the jurisdiction could

certify to EPA that it has completed a defensible scientific review of the new scientific information EPA has issued and has determined that no changes are needed to their existing water quality criteria. The metric searches for one or more qualifying submissions or submission parts for each jurisdiction during the three-year period ending 150 days before the end of the reporting period, and that have been approved by EPA by the end of the reporting period. For example, for FY 2006 any qualifying submissions from May 1, 2003, through April 30, 2006, that were approved by September 30, 2006, would enable the jurisdiction to be counted. Note the overlap from one reporting year to the next: a state that made such a submittal, in, say, February 2005, would be counted in FY 2005, FY 2006, and FY 2007. Conversely, a state that last adopted such criteria in, say, November 2002, would be counted in FY 2005 but not in FY 2006.

QA/QC Procedures: States, territories, and tribes conduct QA/QC of water quality standards submissions pursuant to individual state procedures. Because such submissions are subject to judicial review, the attorney general's certification described above provides assurance of the content of each submission. EPA regional staffs provide support to and interact with the jurisdictions as they develop, review, and adopt water quality standards. Each Regional Office provides data quality review of its entries in the WATA system. For example, Regional Offices generally assure that each entry is reviewed by the water quality standards coordinator, usually a senior scientist or environmental protection specialist with extensive experience in water quality standards actions. Data validation algorithms built into each entry screen also help improve data quality. In addition, a sample of entries is spot-checked by Headquarters' Office of Science and Technology staff. The Regions and Headquarters have been able to conduct the data quality reviews fairly easily because the number of submissions has averaged about 50 submissions per year in recent years, well within their available resources to provide adequate review.

Data Quality Review: No external reviews of the data have been conducted.

Data Limitations: Submissions may vary considerably in size and complexity. For example, a submission may include statewide water quality standards revisions, use attainability analyses for specific water bodies, site-specific criteria applicable to specific types of waters, general statewide policies, antidegradation policies or procedures, and variances. Therefore, these measures – the number of submissions approved, and the number of jurisdictions with updated scientific information contained in adopted standards – do not provide an indicator of the scope, geographic coverage, policy importance, or other qualitative aspects of water quality standards. This information would need to be obtained in other ways, such as by reviewing the content of adopted and approved standards available at http://www.epa.gov/waterscience/standards/states/, or contacting the appropriate Regional Office or state/territorial/tribal personnel.

Error Estimate: No error estimate is available for this data.

New/Improved Data Systems: The Office of Science and Technology has no immediate plans for developing a new data system or enhancing the existing WATA system, other than refining metrics for assessing and interpreting performance results, or for assessing data quality.

References:

USEPA. September 8, 2005. *Water Quality Standards Acting Tracking Application: Users Manual.* Available at http://intranet.epa.gov/ost/div/shpd/wata-manual.pdf.

USEPA. 2000. *Water Quality Standards Regulation.* Code of Federal Regulations, 40 CFR part 131. Available at http://www.access.gpo.gov/nara/cfr/waisidx_05/40cfr131_05.html.

USEPA. August 1994. *Water Quality Standards Handbook,* 2nd edition. http://www.epa.gov/waterscience/standards/handbook/.

FY 2007 Performance Measure:

- **Estimated annual reduction of nitrogen (reported in pounds), phosphorous (pounds), and sediment (tons) from nonpoint sources to waterbodies (Section 319 funded projects only).**

Performance Database: The Section 319 Grant Reporting and Tracking System (GRTS) is used by grant recipients (State agencies) to supply information about State nonpoint source (NPS) Management and annual Section 319 funded work programs, which include watershed-based / BMP implementation projects. GRTS includes information on NPS load reductions to water bodies of nitrogen, phosphorus and sediments achieved as a result of implementation of Best Management Practices (BMPs) under 319-funded watershed projects.

State reporting via GRTS in part fulfills requirements of the Clean Water Act (CWA) Sections 319(h)(11) and 319(m)(1); however, GRTS also provides EPA and other stakeholders greater and more efficient access to data, information, and program accomplishments than traditional reporting (i.e., hardcopy Annual Reports), as well as provides detailed, geo-referencing (i.e., watershed address, and, now on a much smaller scale, water body segment/reach address) of 319-funded projects and their BMPs, and NPS pollutant load reductions.

GRTS is also becoming part of the "WATERS" framework which is used to summarize water quality information at the watershed (e.g., HUC8) level. The Watershed Assessment Tracking and Environmental Results System (WATERS) is a geographic information system that integrates many existing databases including the STOrage and RETrieval (STORET) database, the National Assessment Database (NAD), the TMDL Tracking System (NTTS), the Water Quality Standards Database (WQSDB), and GRTS.

Data Source: Load reduction data in GRTS are reported by the States and their partners as performance results of Nonpoint Source Management Programs, and Section 319(h) – funded work programs, including individual project work plans. Much of the implementation of §319 work plans (often known as "Project Implementation Plans") involves coordination, funding and installation of on-the-ground BMPs in priority watersheds to reduce pollutant loadings (often as required by established Total Maximum Daily Loads), and to restore the designated uses of impaired waters.

Various computer- and geographic-based models are used in the States to estimate the load reductions resulting from implementation of BMPs in "critical" or hydrologically sensitive areas

within watershed projects. Two models used by several states, and directly supported by EPA, are the Spreadsheet Tool for Estimating Pollutant Loads (STEPL) model, and the "Region 5" model. States, at their discretion, may use other models or methods (e.g., AGNPs, SWAT, GWLF, etc) or may use actual water monitoring data to generate estimates of pollutant load reduction resulting from BMP implementation. The load reduction data generated by modeling and/or monitoring efforts are entered by State GRTS coordinators directly into the appropriate GRTS data fields along with an explanation of the model / methods used to generate the data.

Methods, Assumptions and Suitability: States employ various methods to make pollutant load calculations, including: 1) Predictive models to estimate pollutant loads before and after watershed projects' BMPs are implemented; 2) Direct sampling over time of chemical, physical, and biological parameters using targeted site selection (usually, where impairments have been determined thru 303(d) listing methodology, and often where TMDLs are established); 3) Statistical methods and sampling, such as by paired watershed studies to determine whether or not implemented BMPs in watersheds are reducing NPS pollutant loads and resulting in improved water quality; and, 4) Compilation of data from outside sources such as volunteer monitors, academic institutions, and others that are cited by the States as indirect evidence of pollutant loads, reductions, and water quality.

EPA aggregates the load reduction data entered into GRTS to generate the national performance measure, and incremental (e.g., annual) reports on total load reductions of each parameter – nitrogen, phosphorus, and sediment. The purpose of the aggregation is to provide a very general estimate of load reductions on a nationwide scale. It must be emphasized that this national estimate is not a surrogate for direct measurements of specific waterbody restoration / protection projects in meeting their water quality goals. Such projects' successes can only be assessed through analysis of locally applied BMPs and locally derived monitoring data and locally applied modeling tools.

QA/QC Procedures: QA/QC, of load reduction estimates generated by states and their watershed project cooperators, is dependent on individual state procedures, such as state Quality Management Plans (QMPs) which are periodically reviewed and approved by EPA Regions.

EPA provides guidance and training to states in the use of the STEPL and "Region 5" models. In the provision of guidance and training, EPA emphasizes that Quality Assurance Project Plans (QAPPs) be developed (in accordance with EPA approved State QMPs) for local watershed projects that generate locational information, and data using water quality models and/or water monitoring. EPA also stresses that project- /site- specific parameters be used whenever possible for input to water quality models, as opposed to default input values provided by some modeling tools.

Numerous system level checks are built into the data sources in GRTS, based upon "mandated data" associated with the system. States have continual access and opportunity to review the information in GRTS to ensure it accurately reflects the data they entered (according to their QA procedures). EPA periodically reviews GRTS and reminds states of the critical importance of their completing mandated data elements in a timely, high-quality manner.

Data Quality Review: Data entered in GRTS are periodically reviewed by EPA Regions and Headquarters. Regional personnel also maintain hardcopies of the states work programs / watershed project implementation plans and Annual Progress Reports. Verification of data in GRTS can be cross-checked with these documents to ensure quality, consistency, and reliability in progress reporting on an incremental (such as, year-to-year) basis, or to note any problems in data quality in GRTS. EPA frequently reviews various aggregation(s) of all the data in GRTS by use of "ad-hoc" and standard reports available in the GRTS reporting system.

EPA is working to integrate GRTS into the WATERS framework (and to enable "Ask WATERS") as another means to check states' purported achievements in attaining loading reductions and attaining water quality standards using Section 319(h) funding.

In the past, Nonpoint Source Program reporting under Section 319 had been identified as an Agency-Level weakness under the Federal Managers Financial Integrity Act. The Agency's establishment and subsequent enhancements of GRTS has served to mitigate this problem by requiring states to rigorously identify the projects and activities funded with Section 319(h). In response to the FMFIA evaluation, EPA has been working with states and other stakeholders to improve data input and quality. EPA sponsors national GRTS users group meetings each year. These meetings serve not only to meet the training needs of the user community, but also provide a forum for discussing needed enhancements to GRTS. These enhancements range from better capturing environmental results to improving consistency of data entry to facilitate state-by-state comparisons, and aggregation of state data to the national level.

The CWA Sections 319(h)(11) and 319(m)(1) require States to report their Nonpoint Source Management Program (NPSMP) milestones, nonpoint source pollutant load reductions, and water quality improvements, and these provide the EPA Office of Water (OW) authority to require water quality monitoring, and/or modeling, and reporting by states to demonstrate their success in reducing NPS pollutant loads and improving water quality. OW has issued guidance documents designed to improve states' NPSMP, watershed-based projects and consistency in state progress reporting, including their use of GRTS. These guidance documents include Modifications to Nonpoint Source Reporting Requirements for Section 319 Grants issued in September 2001, which outlines the process for reporting in GRTS applicable Section 319(h) funded projects, load reductions for nutrients and sediment. These modifications remain in effect. Also, the current National Nonpoint Source Program and Grants Guidelines were issued in October, 2003, and this guidance includes sections on all NPS grant reporting requirements, including GRTS reporting. Subsequent to issuing these guidelines, EPA, in consultation with the States, established the specific nonpoint source program activity measures (PAMs), including nonpoint load reductions, which are now part of EPA's Strategic Plan, the OMB Program Assessment Rating Tool ("OMB PART"), and the National Water Program Guidance. EPA has also communicated (e.g., via email) to states further detailed explanations of the NPS program activity measures, expected reporting sources and dates, and results of the Agency's reviews of data input to GRTS by the states.

Data Limitations: State NPSMP work to model (and monitor) watersheds is often not coordinated with state water quality monitoring and assessment strategies, and therefore the integration of GRTS and other data systems' data may be rather limited Load reduction data are

typically generated from the use of water quality models, and there is a great deal of uncertainty in model inputs and outputs. States generally do not apply model results / load reductions to decision–making for implementing and/or revising their NPS Management Programs, nor do they apply it to other relevant decisions, such as 305(b) assessment and 303(d) listing. The results generated by computer models versus direct monitoring are generally not very comparable.

EPA is working with states to provide a data structure in GRTS as well as in the web-Reach Indexing Tool (web-RIT) that make it easier for project BMPs to be geographically located so that resulting load reductions and water quality changes can be more easily tracked over time. WATERS would provide an integrating framework for watershed / water quality information at the national level. However, there are challenges in how BMPs are (or can be) tracked in GRTS. For example, Section 319 funded projects result in the implementation of many thousands of BMPs as well as other 319 project activities; but it may not be feasible to track each of these activities in GRTS. Most of the load reductions in GRTS are linked to the 319 award fiscal year rather than an implementation data, which is not useful for reporting incremental load reductions. Furthermore, it is difficult to capture a given year of load reductions for multi-year projects funded under single (or multiple) grant fiscal year(s).

State assessments of load reductions and water quality typically include uncertainties associated with any measuring or modeling tools. Variability in the environment, as well as in state methods and application of tools limit the accuracy of data for describing load reductions and water quality at the project level. Aggregating the load reduction data up to the national measure compounds the level of uncertainty, thereby preventing the Agency from assigning a reasonable numerical confidence level to it.

Error Estimate: No error estimate is available for these data.

New/Improved Data or Systems: GRTS is currently undergoing a transition from a Lotus Notes-based system to an Oracle database. Oracle is the standard database used by Federal agencies. Conversion to Oracle will allow GRTS to seamlessly connect to other EPA OW data systems, e.g., web-RIT, STORET, NTTS, WQSDB – all systems under the WATERS framework, as well as potential linkages to a variety of other Federal and State databases, models, and watershed planning and accountability tools. In this framework, the Oracle-based GRTS will greatly improve reporting capabilities for all end users, and answer questions for stakeholders, such as, where are watershed projects being developed and implemented? Are projects coincident with impaired waters and established TMDLs? Do they pursue actions necessary to reduce pollutant loads and attain water quality standards? Oracle provides users the capability of customizing data entry screens to facilitate various reporting needs of the States and EPA. Customized screens can reflect the various programmatic needs of the Regional offices and States, such as to review/input only the mandated elements and program measures, a mix of mandated elements, and/or other Regionally required data fields.

References:

AGNP – Agricultural Nonpoint Source Pollution Model

SWAT – Soil Water Assessment Tool Model

GWLF – Generalized Watershed Loading Functions Model

STEPL – Spreadsheet Tool for Estimating Pollutant Load Model

Region 5 Model – A model which uses some long-used equations to help determine load reductions (such as the Revised Universal Soil Loss Equation, the Gully Erosion Equation, and the Channel Erosion Equation)

Modification to NPS Reporting Requirements for Section 319 Grants (September 2001)

National Nonpoint Source Program and Grants Guidelines (October 2003)

FY 2007Performance Measures:

- **Percentage of high priority EPA and State NPDES permits that are reissued as scheduled (PART Measure)**

- **Percentage of high priority state NPDES permits issued as scheduled (PART Measure)**

Performance Database:

- U.S. EPA. Permit Compliance System (PCS). [database]. Washington, DC [Office of Enforcement and Compliance Assurance]
- Permit Issuance Forecasting Tool (PIFT) [database]. Washington, DC [Office of Water]
- Priority Permits Data Base. [web-based database]. Washington, DC [Office of Water]

The Permit Compliance System (PCS) is used to determine which individual permits are current through date fields for permit issuance and expiration. EPA has carried out detailed permit renewal backlog tracking with PCS data since November 1998. To supplement the individual permit data from PCS, EPA uses the Permit Issuance Forecasting Tool (PIFT) to track the current or expired status of facilities covered under non-storm water general permits. The PIFT has been used to track non-storm water general permit facilities since January 2001.

EPA has undertaken a new "priority permits" issuance strategy that focuses permitting activities on significant expired permits. The Priority Permits Database is a web-based system that tracks the specific permits that each State and Region has identified as priority. States and Regions enter the permits, and EPA HQ uses PCS to track permit issuance status of these permits.

Data Source: EPA=s Regional offices and NPDES authorized states enter data into PCS. EPA=s Regional offices are responsible for entering data to the PIFT. EPA's Regional offices and States enter permit identification information into the Priority Permits database.

Methods, Assumptions and Suitability: For individual permits, monthly reports are generated from PCS that use permit issuance and expiration dates to aggregate, across each state, the number of major and minor permits which have not exceeded expiration dates by more than 180 days. Permits that have not reached their expiration date, or are less than 180 days past that date, are considered Acurrent.@ Permits that have not been renewed within 180 days of expiration are considered Aexpired@ or Abacklogged.@ Although PCS tracks some data for facilities covered by NPDES non-storm water general permits, States and Regions are not required to input these data; thus, the data are incomplete and unreliable. To fill this data gap, EPA developed the PIFT tracking system to gather basic counts of facilities covered by current and expired non-storm water general permits. Further, to complement tracking of all permits, the Priority Permits Database was developed to track the status of high priority permits. Together the PCS, PIFT and Priority Permits data are intended to measure NPDES program coverage. The data are suitable for year -to-year comparisons of officially tracked permit status.

QA/QC Procedures: The PCS database is managed by the Office of Enforcement and Compliance Assurance (OECA); PIFT and Priority Permits Database are managed by the Office of Water (OW). EPA Headquarters (HQ) staff in OECA review data submitted by states as part of the QA/QC process. In addition, OW continues to work with States and Regions to improve the quality and completeness of the data. EPA generates state-by-state reports that list PCS Akey data@ fields, including permit issuance and expiration dates, as well as compliance and enforcement data, and provides these lists to NPDES states and Regions for review and cleanup. EPA also created a spread sheet comparing latitude/longitude (lat/long) data for municipal treatment systems collected by the Clean Water Needs Survey to the lat/long data in PCS. This spread sheet is provided to States and Regions so that, where discrepancies exist between state and PCS data, EPA and States can make corrections in PCS. EPA will continue to focus on improving the lat/long data in PCS, especially at the pipe level.

Additionally, where States maintain Akey@ permit data in separate state-level systems, EPA is providing support to upload these data to PCS.

Regions enter data into the PIFT and Priority Permits database, both of which are web-based systems maintained by OW.

Data Quality Review: The Office of Inspector General (OIG) has issued several findings regarding poor PCS data quality, and PCS has been listed as an Agency-Level Weakness under the Federal Managers Financial Integrity Act since 1999. This weakness affects EPA=s ability to obtain a true picture of the status of the NPDES program. Fortunately, the permit issuance and expiration data needed for this performance measure are generally better populated than other Akey@ data elements. As noted previously, OW is offering support to States for data upload, data entry, and, if necessary, data compilation to improve data quality. The replacement of PCS with ICIS-NPDES, a modernized and user-friendly NPDES data system, is scheduled for the first wave release to EPA and some direct user states in March 2006; other states will be migrated to

the new system in additional waves (the third phase to complete all direct users is scheduled for August 2006; batch states will follow), and should greatly increase state participation and data quality.

Data Limitations: EPA is aware of data gaps in PCS, particularly for minor facilities, and is aware of discrepancies between state databases and PCS; however, EPA=s data clean-up over the past five years has significantly improved data quality. The PIFT has enabled EPA to report on non-storm water facilities covered by NPDES general permits, but the data are not as comprehensive as those tracked in PCS. In 2006, EPA is upgrading PIFT for EPA-issued permits to improve inventory tracking. There are no national-level data to track permit issuance and expiration status of facilities covered by storm water general permits; thus, they are not tracked under this performance measure. Priority Permits data are verified and reliable.

Error Estimate: We believe that the permit renewal backlog data for major facilities is accurate within 2 percent based on input from EPA=s Regional offices and states through a quarterly independent verification. For minor facilities, however, the confidence interval is less precise and probably overestimates the permit renewal backlog for minor facilities by 5 percent based on anecdotal information from EPA=s Regional offices and states.

New/Improved Data or Systems: EPA headquarters is providing contractor assistance to improve the data quality in PCS. The new modernized ICIS-NPDES will be rolled out starting in March 2006. ICIS –NPDES will be easier to use and will improve the quality of data needed to manage the NPDES program.

References:

PCS information is publicly available at:
http://www.epa.gov/compliance/planning/data/water/pcssys.htm

FY 2007 Performance Measures:

- **Loading (Pounds) of pollutants removed per program dollar expended (PART efficiency measure)**

Performance Database: This measure is calculated using a variety of methods. For point sources in industry sectors with effluent guidelines, a spread sheet is used. An average Aper facility@ pollutant reduction value is assigned to each permitted effluent discharger according to the effluent guideline developed in each industrial sector. Using both the average per facility value and the number of permits issued as reported under PCS, the spreadsheet then generates the values for the total pollutants reduced.

The above calculation is used in combination with another spread sheet[19] to summarize pollutant reductions achieved through controls at Combined Sewer Overflows (CSOs), Publicly Owned Treatment Works (POTWs), and controls for municipal storm water and construction storm

[19] SWP Efficiency: Millions of Pounds Removed [unpublished Excel Spread Sheet]. (April, 2005). Washington, D.C.: United States Environmental Protection Agency [Office of Water].

water. Industrial storm water is not included nor are reductions from water quality based effluent limits.

CSOs: CSO pollutant reductions are estimated in the 2001 and 2003 CSO Reports to Congress[20].

Comment [MSOffice1]: The CSO database does not include information on municipal or construction storm water.

POTWs: Estimated reductions from POTWs were calculated using data from a detailed trend analysis for Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) loadings in "Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment[21]." The report provides flow estimates, loading estimates and a distribution of treatment class for every 2 to 4 years from 1968 through 1996. In addition, the report uses data from the Clean Watershed Needs Survey (CWNS)[22] to provide projections for 2016. EPA has also prepared a 2004 update for Chapter Two[23] of the 2000 "Progress in Water Quality."

Municipal Storm Water: Estimates from municipal storm water were derived from EPA models of the volume of storm water discharged from municipal separate storm sewer systems (MS4s) developed as part of a 1997 EPA draft report. The methodology and results of the 1997 draft report are described in AEconomic Analysis of the Final Phase II Storm Water Rule@, EPA, October 1999.[24]

Construction Storm Water: EPA developed estimates of the sediment load present in construction storm water using a model developed by the US Army Corps of Engineers. The model uses the construction site version of the Revised Universal Soil Loss Equation (RUSLE). Uncontrolled (i.e. prior to implementation of Best Management Practices (BMPs)) and controlled (i.e. after the implementation of BMPs) sediment loadings were estimated for 15 climatic regions with three site sizes (one, three, and five acres), three soil erodibility levels (low, medium, and high), three slopes (3%, 7%, and 12%), and various BMP combinations. The methodology and results are described in "Economic Analysis of the Final Phase II Storm Water Rule."

The values derived from the above methods are summed to obtain the total pollutant load reductions achieved under the surface water program.

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[20] *2003 CSO Report to Congress*, August 2004, US EPA;
Available at: http://cfpub.epa.gov/npdes/cso/cpolicy_report2004.cfm

[21] *Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment* (EPA-832-R-00-008; June 2000). Available at: http://www.epa.gov/owm/wquality/benefits.htm.

[22] Clean Watershed Needs Survey 2000 [Electronic data base]. (2000). Washington, D.C. U.S. Environmental Protection Agency [Office of Wastewater Management].

[23] 2004 update of Chapter 2, "Nationwide Trends in BOD Loading Based on Population and POTW Treatment Design" of the report, *Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment.*

[24] Economic Analysis of the Final Phase II Storm Water Rule, Oct. 1, 1999, US EPA. Available at: http://www.epa.gov/npdes or http://cfpub.epa.gov/npdes/docs.cfm?program_id=6&view=allprog&sort=name

To calculate the PART efficiency measure, the total cumulative pollutant reductions were divided by the total number of dollars devoted to the EPA Surface Water Program (SWP), grants to States under Clean Water Act (CWA) section 106, plus State 'match' dollars, annually. SWP and CWA Section 106 budget is pulled from EPA's Integrated Financial Management System (IFMS). State 'match' dollars are reported to EPA by States.

Data Sources: For industrial sector permits, each EPA Regional office reports the actual number of permits issued in the past year, typically drawn from EPA=s Permit Compliance System. For direct dischargers subject to effluent guidelines, the average per facility value for pollutant reduction is derived from the Technical Development Documents (TDDs) produced at the time of the effluent guideline (ELG) rulemaking. TDDs are available for: Pulp & Paper, Pharmaceuticals, Landfills, Industrial Waste Combustors, Centralized Waste Treatment, Transportation Equipment Cleaning, Pesticide Manufacturing, Offshore Oil & Gas, Coastal Oil & Gas, Synthetic Based Drilling Fluid, Concentrated Animal Feeding Operations, Meat and Poultry, Metal Products and Machinery, Aquaculture. Regarding PCS, States and EPA=s Regional offices enter data into the system.

CSO loadings are estimated based on data obtained from the Clean Watershed Needs Survey and from the "Report to Congress on the Impacts and Control of Combined Sewer Overflows and Sanitary Sewer Overflows." States and EPA=s Regional offices provide data for the CSO Report to Congress and the Clean Watershed Needs Survey.

Methods, Assumptions and Suitability: EPA uses the spreadsheets described above to estimate loadings. The data are aggregated across different sources to determine loading reductions at the national level. Loadings appear to be the best surrogate for determining the environmental impacts of point sources. Pollutant load reductions, along with some of the water quality improvement measures, tell the story about environmental outcomes. Pollutant reductions per dollar spent provides a snapshot of the effectiveness and efficiency of the surface water program, and comparing this over time helps to delineate a trend.

QA/QC Procedures: The loadings spreadsheets are based on information from rulemakings and policies that have undergone extensive review. The effluent guidelines follow EPA quality assurance/quality control (QA/QC) procedures. The PCS database is managed by the Office of Enforcement and Compliance Assurance (OECA). EPA Headquarters (HQ) staff in OECA review data submitted by states as part of the QA/QC process. (See full description under "current permits" measure).

Data Quality Reviews: The Office of Inspector General (OIG) has issued several findings regarding poor PCS data quality, and PCS has been listed as an Agency-Level Weakness under the Federal Managers Financial Integrity Act since 1999. This weakness affects EPA=s ability to obtain a true picture of the status of the NPDES program. Fortunately, the permit issuance and expiration data needed for this performance measure are generally better populated than other Akey@ data elements. As noted previously, OW is offering support to States for data upload, data entry, and, if necessary, data compilation support to improve data quality. The replacement of PCS with ICIS-NPDES, a modernized and user-friendly NPDES data system, is scheduled for

the first wave release to EPA and some direct user states in March 2006; other states will be migrated to the new system in additional waves (the third phase to complete all direct users is scheduled for August 2006; batch states will follow), and should greatly increase state participation and data quality.

Recently, the EPA IG issued a report on effluent guidelines.[25] The IG recommendations pointed to an inability to confirm our estimates of reductions. As part of OW's response to the IG, we point to the annual performance measures as an effective way to describe the accomplishments of the effluent guidelines program.

Data Limitations: There is inconsistent and poor data quality in the PCS data base with respect to flow and discharge monitoring, including missing data for minor facilities which has not been required to be entered. Neither monitoring nor flow data are required for certain categories of general permits. The Agency, therefore, is not able to provide sufficient information to measure loadings reductions for all of the approximately 550,000 facilities that fall under the NPDES program. The effluent guidelines loadings are estimates based the number of permits issued across an industrial sector.

Error Estimate: At this time we are unable to estimate error due to the lack of actual national level data to compare to estimates based on models.

New/Improved Data or Systems: EPA headquarters is providing contractor assistance to improve the data quality of PCS. PCS is scheduled to be replaced by ICIS-NPDES which will be easier to use and will ensure that it includes needed data to manage the NPDES program. See full write-up under the "current permits" measures.

EPA continues to evaluate and explore methods for calculating loadings reductions nation-wide from all sources.

References:

Clean Watershed Needs Survey 2000 [Electronic data base]. (2000). Washington, D.C. U.S. Environmental Protection Agency [Office of Wastewater Management].

Effluent guidelines development documents are available at:
http://www.epa.gov/waterscience/guide.

Modeling databases and software being used by the Office of Water are available at:
http://www.epa.gov/water/soft.html

PCS information is publicly available at:
http://www.epa.gov/compliance/planning/data/water/pcssys.html

FY 2007 Performance Measure:

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[25] *Effectiveness of Effluent Guidelines Program for Reducing Pollutant Discharges Uncertain* Report No. 2004-P-00025, August 24, 2004. Available at: http://www.epa.gov/oig/reports/2004/20040824-2004-P-00025.pdf

- **Clean Water State Revolving Fund (CWSRF) Long-Term Revolving Level ($billions/yr)**
- **Fund utilization rate for the CWSRF.**

Performance Database: Clean Water State Revolving Fund National Information Management System (NIMS.)

Data Sources: Data are from reporting by municipal and other facility operators, state regulatory agency personnel and by EPA's regional staff. Data are collected and reported once yearly.

Methods, Assumptions and Suitability: Data entered into NIMS are the units of performance. These data are suitable for year-to-year comparison and trend indication.

QA/QC Procedures: EPA's headquarters and regional offices are responsible for compiling the data and querying states as needed to assure data validity and conformance with expected trends. States receive data entry guidance from EPA headquarters in the form of annual memoranda. A generic memorandum would be titled: "Request for Annual Update of Data for the Clean Water State Revolving Fund National Information Management System, July 1, 200X through June 30, 200X."

Data Quality Reviews: EPA's headquarters and regional offices annually review the data submitted by the states. These state data are publicly available at http://www.epa.gov/owm/cwfinance/cwsrf in individual state reports. EPA's headquarters addresses significant data variability issues directly with states or through the appropriate EPA regional office. An annual EPA headquarters' "N IMS Analysis" provides detailed data categorization and comparison. This analysis is used during annual EPA regional office and state reviews to identify potential problems which might affect the performance measure, biennial reviews by EPA's headquarters of regional oversight of state revolving funds and, annual reviews by EPA's regional offices of their states' revolving funds operations.

State data quality is also evaluated during annual audits performed by independent auditors or by the appropriate regional office of the EPA Inspector General. These audits are incorporated into EPA headquarters' financial management system.

Data Limitations: There are no known limitations in the performance data, which states submit voluntarily. Erroneous data can be introduced into the NIMS database by typographic or definitional error. Typographic errors are controlled and corrected through data testing performed by EPA's contractor. Definitional errors due to varying interpretations of information requested for specific data fields have been virtually eliminated in the past two years as a result of EPA headquarters' clarification of definitions. These definitions are publicly available at: http://www.epa.gov/owm/cwfinance/cwsrf. There is typically a lag of approximately two months from the date EPA asks states to enter their data into the NIMS database, and when the data are quality-checked and available for public use.

Error Estimate: Due to the rapid growth of this program, past estimates of annual performance (relative to a target), compared to actual performance data received two years later, have been accurate to an average of approximately plus or minus2 percentage points.

New/Improved Data or Systems: This system has been operative since 1996. It is updated annually, and data fields are changed or added as needed.

References:
State performance data as shown in NIMS are available by state at:
http://www.epa.gov/owm/cwfinance/cwsrf
Definitions of data requested for each data field in NIMS is available at:
http://www.epa.gov/owm/cwfinance/cwsrf
The Office of Water Quality Management Plan, July 2001 (approved September 28, 2001) addresses the quality of data in NIMS. Not publicly available.

FY 2007 Performance Measure:

- **Reduction in the number of homes on tribal lands lacking access to basic sanitation**

Performance Database: Sanitation Tracking and Reporting System (STARS), the Indian Health Service (IHS), Office of Environmental Health and Engineering (OEHE), Division of Sanitation Facilities Construction (DSFC).

Data Sources: The STARS includes data on sanitation deficiencies, Indian homes and construction projects. STARS is currently comprised of two sub data systems, the Sanitation Deficiency System (SDS) and the Project Data System (PDS).

The SDS is an inventory of sanitation deficiencies for existing Indian homes and communities. The IHS is required to prioritize SDS deficiencies and annually report to Congress. The identification of sanitation deficiencies can be made several ways, the most common of which follow:

- Consultation with Tribal members and other Agencies
- Field visits by engineers, sanitarians, Community Health Representatives (CHRs), nurses, or by other IHS or tribal heath staff
- Sanitary Surveys
- Community Environmental Health Profiles
- Bureau of Indian Affairs (BIA) Inventory
- Census Bureau Reports (for comparison purposes only)
- Tribal Master Plans for Development
- Telephone Surveys
- Feasibility Studies

The most reliable and preferred method is a field visit to each community to identify and obtain accurate numbers of homes with sanitation deficiencies. The number of Indian homes within the communities must be consistent among the various methods cited above. If a field visit cannot

be made, it is highly recommended that more than one method be used to determine sanitation deficiencies to increase the accuracy and establish greater credibility for the data.

The PDS is a listing of funded construction projects and is used as a management and reporting tool.

QA/QC Procedures: Quality assurance for the Indian country water quality performance measure depends on the quality of the data in the STARS. The STARS data undergoes a series of quality control reviews at various levels within the IHS DSFC. The DSFC is required to annually report deficiencies in SDS to Congress in terms of total and feasible project costs for proposed sanitation projects and sanitation deficiency levels for existing homes.

Data Quality Reviews: The SDS data initially undergoes a series of highly organized reviews by experienced tribal, IHS field, IHS district and IHS area personnel. The data are then sent to the DSFC headquarters office for review before final results are reported. The DSFC headquarters reviews the SDS data for each of the 12 IHS area offices. The data quality review consists of performing a number of established data queries and reports which check for errors and/or inconsistencies. In addition, the top 25 SDS projects and corresponding community deficiency profiles for each area are reviewed and scrutinized thoroughly. Detailed cost estimates are highly encouraged and are usually available for review.

Data Limitations: The data are limited by the accuracy of reported data in STARS.

Error Estimate: The IHS DSFC requires that higher-level projects (those with the possibility of funding prior to the next update) must be developed to allow for program implementation in an organized, effective, efficient manner. Those SDS projects (top 20%) must have cost estimates within 10% of the actual costs.

New/Improved Data or Systems: The STARS is a web based application and therefore allows data to be continuously updated by personnel at various levels and modified as program requirements are identified. PDS has been modified to meet 40CFR31.40 reporting requirements. In 2006 STARS is being modified to include rural communities that are not Alaska Native Villages but has a substantial Alaska Native population.

References:

1. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Criteria for the Sanitation Facilities Construction Program, June 1999, Version 1.02, 3/13/2003. http://www.dsfc.ihs.gov/Documents/Criteria_March_2003.cfm

2. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Sanitation Deficiency System (SDS), Working Draft, "Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities", May 2003. http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf

FY 2007 Performance Measures:

- **Prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters nationally, and in each coastal region, is improved on the "good/fair/poor" scale of the National Coastal Condition Report**

Performance Database: EMAP/NCA [Environmental Monitoring and Assessment Program/National Coastal Assessment] database (housed EPA/ORD/NHEERL/AED, Narragansett, RI)(Environmental Protection Agency/Office of Research and Development/National Health and Environmental Effects Research Laboratory/Gulf Ecology Division); pre-database information housed in ORD/NHEERL facility in Gulf Breeze, FL (Gulf Ecology Division) (pre-database refers to a temporary storage site for data where they are examined for QA purposes, have appropriate metadata attached and undergo initial statistical analyses); data upon QA acceptance and metadata completion are transferred to EMAP/NCA database and are web available at www.epa.gov/emap/nca.

Data Source: Probabilistic surveys of ecological condition completed throughout the Mid-Atlantic and Gulf of Mexico by EPA's Office of Research and Development (ORD) in 1991-1994, in southern Florida in 1995, in the Southeast in 1995-1997, in the Mid-Atlantic in 1997-1998, in each coastal state in 2000-2004 (except Alaska and Hawaii), in Alaska in 2002 and 2004, in Hawaii in 2002 and 2004, and in Puerto Rico in 2000 and 2004, and in other island territories (Guam, American Samoa and U.S. Virgin Islands) in 2004. Surveys collect condition information regarding water quality, sediment quality and biotic condition at 70-100 sites/region (e.g., mid-Atlantic) each year of collection prior to 1999 and at 35-150 sites in each state or territory/year (site number dependent upon state) after 1999. Additional sampling by the National Estuary Program (NEP) included all individual national estuaries; the total number of sites within NEP boundaries was 30 for the two-year period 2000-2003.

These data are collected through a joint EPA-State cooperative agreement and the States follow a rigid sampling and collection protocol following intensive training by EPA personnel. Laboratory processing is completed at either a state laboratory or through a national EPA contract. Data collection follows a Quality Assurance Project Plan (QAPP) (either the National Coastal QAPP or a variant of it) and QA testing and auditing by EPA.

Methods, Assumptions and Suitability: The surveys are conducted using a probabilistic survey design which allows extrapolation of results to the target population (in this case - all estuarine resources of the specific state.) The collection design maximizes the spatial spread between sites, located by specific latitude-longitude combinations. The survey utilizes an indexed sampling period (generally late summer) to increase the probability of encountering water quality, sediment quality and biotic condition problems, if they exist. Based on the QAPP and field collection manual, a site in a specific state is located by sampling vessel via Global Positioning System (GPS) and water quality is measured on board at multiple depths. Water samples are taken for chemistry; sediment samples are taken for chemistry, toxicity testing and benthic community assessment; and fish trawls are conducted to collect community fish data and provide selected fish (target species) for analysis of whole body and/or fillet contaminant concentrations. Samples are stored in accordance with field manual instructions and shipped to

the processing laboratory. Laboratories follow QA plans and complete analyses and provide electronic information to the state or EPA. EPA and the state exchange data to ensure that each has a complete set. EPA analyzes the data to assess regional conditions, whereas the states analyze the data to assess conditions of state-specific waters. Results of analyses on a national and regional basis are reported as chapters in the National Coastal Condition Report (NCCR) series. The overall regional condition index is the simple mean of the five indicators' scores used in the Coastal Condition Report (in the NCCR2 a recalculation method was provided for direct comparison of the successive reports). An improvement for one of the indicators by a full category unit over the eight year period will be necessary for the regional estimate to meet the performance measurement goal (+0.2 over an eight year period).

Assumptions: (1) The underlying target population (estuarine resources of the United States) has been correctly identified; (2) GPS is successful; (3) QAPP and field collection manuals are followed; (4) all samples are successfully collected; (5) all analyses are completed in accordance with the QAPP; and (6) all combinations of data into indices are completed in a statistically rigorous manner.

Suitability: By design all data are suitable to be aggregated to the state and regional level to characterize water quality, sediment quality, and biotic condition. Samples represent "reasonable", site-specific point-in-time data (not primary intention of data use) and an excellent representation of the entire resource (extrapolation to entire resource supportable). The intended use of the data is the characterization of populations and subpopulations of estuarine resources through time. The data meet this expectation and the sampling, response, analysis and reporting designs have been peer reviewed successfully multiple times. The data are suitable for individual calendar year characterization of condition, comparison of condition across years, and assessment of long-term trends once sufficient data are collected (7-10 years). Data are suitable for use in National Coastal Condition calculations for the United States and its regions to provide performance measurement information. The first long-term trends analysis will appear in the 2006 NCCR representing trends between 1990-2004.

QA/QC Procedures: The sampling collection and analysis of samples are controlled by a Quality Assurance Project Plan (QAPP) [EPA 2001] and the National Coastal Assessment Information Management Plan (IMP)[EPA 2001]. These plans are followed by all twenty-three coastal states and 5 island territories. Adherence to the plans are determined by field training (conducted by EPA ORD), field audits (conducted by EPA/ORD), round robin testing of chemistry laboratories (conducted by EPA/ORD), overall systems audits of state programs and national laboratory practices (conducted by EPA), sample splits (sent to reference laboratories), blind samples (using reference materials) and overall information systems audits (conducted by EPA/ORD). Batch sample processing for laboratory analyses requires the inclusion of QA samples in each batch. All states are subject to audits at least once every two years. All participants received training in year 2000 and retraining sessions are scheduled every two years.

Data Quality Reviews: Data quality reviews have been completed in-house by EPA ORD at the regional and national level in 2000-2003 (National Coastal Assessment 2000-2003) and by the Office of Environmental Information (OEI) in 2003 (assessment completed in June, 2003 and written report not yet available; oral debriefing revealed no deficiencies). No deficiencies were

found in the program. A national laboratory used in the program (University of Connecticut) for nutrient chemistry, sediment chemistry and fish tissue chemistry is being evaluated by the Inspector General's Office for potential falsification of laboratory results in connection with other programs not related to NCA. The NCA has conducted its own audit assessment and only one incorrect use of a chemical digestion method for inorganic chemistry samples (metals) was found. This error was corrected and all samples "digested" incorrectly were reanalyzed at no cost.

Data Limitations: Data limitations are few. Because the data are collected in a manner to permit calculation of uncertainty and designed to meet a specific Data Quality Objective (DQO) (<10% error in spatial calculation for each annual state estimate), the results at the regional level (appropriate for this performance measure) are within about 2- 4% of true values dependent upon the specific sample type. Other limitations as follows: (a) Even though methodology errors are minimized by audits, in the first year of the NCA program (2000) some errors occurred resulting in loss of some data. These problems were corrected in 2001 and no problems have been observed since. (b) In some instances, (<5%) of sample results, QA investigation found irregularities regarding the precision of measurement (e.g., mortality toxicity testing of controls exceeded detection limit, etc.). In these cases, the data were "flagged" so that users are aware of the potential limitations. (c) Because of the sampling/ analysis design, the loss of data at a small scale (~ 10%) does not result in a significant increase in uncertainty in the estimate of condition. Wholesale data losses of multiple indicators throughout the U.S. coastal states and territories would be necessary to invalidate the performance measure. (d) The only major source of external variability is year-to-year climatic variation (drought vs. wet, major climatic event, etc.) and the only source of internal variation is modification of reporting indicators (e.g., new indices, not a change in data collected and analyzed). This internal reporting modification requires a re-analysis of earlier information to permit direct comparison. (e) There is generally a 2-3 year lag from the time of collection until reporting. Sample analysis generally takes one year and data analysis another. Add another year for report production and peer review. (f) Data collections are completed annually; The EPA/ORD data collection collaboration will continue through 2004. After 2004, ORD will assist OW, as requested, with expert advice, but will no longer support the program financially.

Error Estimate: The estimate of condition (upon which the performance measure is determined) has an annual uncertainty rate of about 2-3% for national condition, about 5-7% for individual regional indicators (composite of all five states data into a regional estimate), and about 9-10% for individual state indicators. These condition estimates are determined from the survey data using cumulative distribution functions and the uncertainty estimates are calculated using the Horvitz-Thompson estimator.

New/Improved Data or Systems:

(1) Changes have occurred in the data underlying the performance measure based on scientific review and development. A change in some reporting indicators has occurred in order to more accurately represent the intended ecological process or function. For example, a new eutrophication index was determined for the 2000 data. In order to compare this new index to the 1991-1994 data, the earlier data results must be

recomputed using the new technique. This recalculation is possible because the underlying data collection procedures have not changed.

(2) New national contract laboratories have been added every year based on competition. QA requirements are met by the new facilities and rigorous testing at these facilities is completed before sample analysis is initiated. QA adherence and cross-laboratory sample analysis has minimized data variability resulting from new laboratories entering the program.

(3) The only reason for the discontinuation of the National performance goal would be the elimination of the surveys after 2004 or any other year thereafter.

In order to continue to utilize the 2001 National Coastal Condition report as the baseline for this performance measure, the original scores reported in 2001 have been re-calculated in the 2004 report using the index modifications described above (#1). These "new" results for the baseline (re-calculated scores) are reported in Appendix C of the 2005 report.

References:

1. Environmental Monitoring and Assessment Database (1990-1998) and National Coastal Assessment Database (2000- 2004) websites: www.epa.gov/emap and www.epa.gov/emap/nca (NCA data for 2000 is only data available at present)
2. National Coastal Assessment. 2000-2003. Various internal memoranda regarding results of QA audits. (Available through John Macauley, National QA Coordinator NCA, USEPA, ORD/NHEERL/GED, 1 Sabine Island, Gulf Breeze, FL 32561)
3. National Coastal Assessment. 2001. Quality Assurance Project Plan. EPA/620/R-01/002.(Available through John Macauley above)
4. National Coastal Assessment. 2001. Information Management Plan. EPA/620/R-01/003 (Available through Stephen Hale, NCA IM Coordinator, ORD/NHEERL/AED, 27 Tarzwell Drive, Narragansett, RI)
5. U.S. Environmental Protection Agency. 2001. National Coastal Condition Report. EPA-620/R- 01/005.
6. U.S. Environmental Protection Agency. 2004. National Coastal Condition Report II. In review Assigned Report Number EPA-620/R-03/002.

GOAL 2 OBJECTIVE 3

FY 2007 Performance Measure:

- **Report on the conditions and seasonal trends of water quality in the Gulf of Mexico hypoxic zone**

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

FY 2007 Performance Measure:

- **Percentage of planned outputs delivered in support of Six Year Review decisions (PART Measure)**

- **Percentage of planned outputs delivered in support of Contaminated Candidate List decisions (PART Measure)**

Performance Database: EPA will track these program outputs annually using an internal data base.

Data Source: The source of data will be a contractor-produced client document analysis, detailing client use of the Drinking Water Research Program's products by the EPA's Office of Water.

Methods, Assumptions and Suitability: The primary indicator of output, or productivity, is calculation of the percentage of ORD-developed products by research theme appearing in client produced (or secondary client-produced) documents, website content, formal communications, regulations, rules, decisions, recommendations, and other tangible evidence over a five year period, as identified through content analysis.

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:

Bibliography of EPA's Drinking Water Research Program, product publication list. Calendar years 2000-2004.

GOAL 3 OBJECTIVE 1

FY 2007 Performance Measures:

- **Daily per capita generation**
- **Millions of tons municipal solid waste diverted**

Performance Database: Data are provided by the Department of Commerce. EPA does not maintain a database for this information.

Data Source: The baseline numbers for municipal solid waste (MSW) source reduction and recycling are developed using a materials flow methodology employing data largely from the Department of Commerce and described in the EPA report titled "Characterization of Municipal Solid Waste in the United States." The Department of Commerce collects materials production and consumption data from various industries.

Methods, Assumptions and Suitability: Data on domestic production of materials and products are compiled using published data series. U.S. Department of Commerce sources are used, where available; but in several instances more detailed information on production of goods by end-use is available from trade associations. The goal is to obtain a consistent historical data series for each product and/or material. Data on average product lifetimes are used to adjust the data series. These estimates and calculations result in material-by-material and product-by-product estimates of MSW generation, recovery, and discards. To strategically support attainment of the 35% recycling goal, EPA has identified specific components of the MSW stream on which to focus: paper and paperboard, organics (yard and food waste), and packaging and containers. For these targeted efforts EPA will examine data on these waste components.

There are various assumptions factored into the analysis to develop estimates of MSW generation, recovery and discards. Example assumptions (from pages 141-142 of year 2000 "Characterization Report") include: Textiles used as rags are assumed to enter the waste stream the same year the textiles are discarded. Some products (e.g., newspapers and packaging) normally have short lifetimes and products are assumed to be discarded in the year they are produced.

QA/QC Procedures: Quality assurance and quality control are provided by the Department of Commerce's internal procedures and systems. The report prepared by the Agency, "Characterization of Municipal Solid Waste in the United States," is reviewed by a number of experts for accuracy and soundness.

Data Quality Review: The report, including the baseline numbers and annual rates of recycling and per capita municipal solid waste generation, is widely accepted among experts.

Data Limitations: Data limitations stem from the fact that the baseline statistics and annual rates of recycling and per capita municipal solid waste generation are based on a series of models, assumptions, and extrapolations and, as such, are not an empirical accounting of municipal solid waste generated or recycled.

Error Estimate: N/A. Currently, the Office of Solid Waste (OSW) does not collect data on estimated error rates.

New/Improved Data or Systems: Because the statistics on MSW generation and recycling are widely reported and accepted by experts, no new efforts to improve the data or the methodology have been identified or are necessary.

References: U.S. EPA, Office of Solid Waste and Emergency Response, "*Municipal Solid Waste in the United States: 2003 Facts and Figures*" Washington, DC: EPA, Accessed January 10, 2006. Available only on the internet at: <http://www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm>

FY 2007 Performance Measure:

- **Annual increase in the percentage of facilities with permits or other approved controls**
- **Update controls for preventing releases at facilities that are due for permit renewals**
- **Percentage of MSW produced that is recycled**

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program.

Data Source: Data are entered by the states. Supporting documentation and reference materials are maintained in Regional and state files. EPA's Regional offices and authorized states enter data on a rolling basis.

Methods, Assumptions and Suitability: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. RCRAInfo has several different modules, including status of RCRA facilities in the RCRA permitting universe.

QA/QC Procedures: States and EPA's Regional offices generate the data and manage data quality related to timeliness and accuracy. Within RCRAInfo, the application software contains structural controls that promote the correct entry of the high-priority national components (but does not prevent all user errors). RCRAInfo documentation, which is available to all users on-line at http://www.epa.gov/rcrainfo/, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided at national meetings, usually annually, depending on the nature of system changes and user needs. Even with the increasing

emphasis on data quality, with roughly 10,000 units in the baseline (e.g., a facility can have more than one unit), we hear of data problems with some facilities every year, particularly with the older inactive facilities. When we hear of these issues, we work with the EPA Regional offices to see that they get resolved. It may be necessary to make a few adjustments to the permitting baseline as data issues are identified. Determination of whether or not the GPRA annual goal #1 (listed above) is met is based on the legal and operating status codes for each unit. Each year since 1999, in discussions with Regional offices and states, EPA has highlighted the need to keep the data that support the GPRA permitting goal current. RCRAInfo is the sole repository for this information and is a focal point for planning from the local to national level. Accomplishments for goal # 2 (listed above) is based on the permit expiration date code. This is a new code for the new goal and we have made changes to the database to make this code a high priority code. We have discussed the need for correct entry with the Regions. Since tracking this information is new, we anticipate that we will have to work out some reporting bugs, review the accuracy of tracking when it begins in October 1, 2005, and make adjustments if necessary.

Note: Access to RCRAInfo is open only to EPA Headquarters, Regional, and authorized state personnel. It is not available to the general public because the system contains enforcement sensitive data. The general public is referred to EPA's Envirofacts Data Warehouse to obtain filtered information on RCRA-regulated hazardous waste sites.

Data Quality Review: The 1995 GAO report *Hazardous Waste: Benefits of EPA's Information System Are Limited* (AIMD-95-167, August 22, 1995, http://www.gao.gov/archive/1995/ai95167.pdf) on EPA's Hazardous Waste Information System reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs. Recommendations coincide with ongoing internal efforts to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states. RCRAInfo, the current national database has evolved in part as a response to this report.

Data Limitations: The authorized states have ownership of their data and EPA has to rely on them to make changes. The data that determine if a facility has met its permit requirements are prioritized in update efforts. Basic site identification data may become out-of-date because RCRA does not mandate annual or other periodic notification by the regulated entity when site name, ownership and contact information changes. Nevertheless, EPA tracks the facilities by their IDs and those should not change even during ownership changes. The baselines are composed of facilities that can have multiple units. These units may consolidate, split or undergo other activities that cause the number of units to change. We aim to have static baselines, but there may be occasions where we would need to make minor baseline modifications. The baseline of facilities that are currently tracked for goal #2 are "due for permit renewals," but we anticipate that there will be some facilities that cease to be "due for permit renewals" due to a change in facility status.

Error Estimate: N/A. Currently OSW does not collect data on estimated error rates.

New/Improved Data or Systems: EPA has successfully implemented new tools in RCRAInfo for managing environmental information to support Federal and state programs, particularly for

permit renewals. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste by large quantity generators and on waste management practices from treatment, storage, and disposal facilities. RCRAInfo is web accessible, providing a convenient user interface for Federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

References: RCRAInfo documentation and data (http://www.epa.gov/rcrainfo/). U.S. GAO, "Hazardous Waste: Benefits of EPA's Information System Are Limited" (AIMD-95-167), Washington, DC: GAO, August 22, 1995. Accessed January 18, 2006. Available on the Internet at <http://www.gao.gov/archive/1995/ai95167.pdf

FY 2007 Performance Measure:

- **Number of confirmed releases at UST facilities nationally**
- **Percent increase of UST facilities that are in significant operational compliance with both release detection and release prevention (Spill, overfill, and corrosion protection requirements)**

Performance Database: The Office of Underground Storage Tanks (OUST) does not maintain a national database. States individually maintain records for reporting state program accomplishments.

Data Source: Designated State agencies submit semi-annual progress reports to the EPA regional offices.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: EPA's regional offices verify and then forward the data in a word processing table to OUST. OUST staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in a word processing table on a region-by-region basis, which is a way regional staff can check their data.

Data Quality Review: None.

Data Limitations: Percentages reported are sometimes based on estimates and extrapolations from sample data. Data quality depends on the accuracy and completeness of state records.

Error Estimate: N/A

New/Improved Data or Systems: None.

References: U.S. EPA Memorandum, *FY 2005 End-of-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division

Directors, Regions 1-10, dated December 15, 2005. Accessed January 18, 2006. <http://www.epa.gov/swerust1/cat/ca_05_34.pdf>

GOAL 3 OBJECTIVE 2

FY 2007 Performance Measures:

- **Number of inspections and exercises conducted at oil storage facilities required to have Facility Response Plans**
- **Oil spills responded to or monitored by EPA**
- **Gallons of oil spilled to navigable waters by facilities subject to the Facility Response Plan (FRP) regulations.**
- **Compliance rate of all facilities subject to Facility Response Plan (FRP) regulations.**
- **Compliance rate of inspected facilities subject to Facility Response Plan (FRP) regulations.**
- **Compliance rate of inspected facilities subject to SPCC regulations.**
- **Gallons of oil spilled to navigable waters per million program dollars spent annually on prevention and preparedness at Facility Response Plan (FRP) facilities.**

Performance Database: The Office of Emergency Management has recently gone through a reorganization bringing together the chemical and oil emergency prevention, preparedness, and response programs of the Agency. Additionally, the Oil Program has just undergone a PART review. Therefore, a new reporting system is under development to take into account the recent reorganization as well as the resulting annual and long-term measures developed through the PART review. This system will store oil spill prevention, emergency preparedness and response information (e.g., compliance and oil spill information).

Data Source: a new system pending. This new system will have several components. "Gallons of oil spilled" will be determined from the National Response Center database complemented by other sources of data on oil spills. OEM is completing a national database of FRP facilities that will serve as the basis for reporting on measures related to the FRP regulation. In addition, each Region will gather and submit data through a common reporting mechanism available to HQ and all Regions.

Methods, Assumptions and Suitability: Pending new database.

QA/QC Procedures: Pending new database.

Data Quality Reviews: Pending new database.

Data Limitations: Pending new database.

Error Estimate: Pending new database.

New/Improved Data or Systems: N/A

References: For additional information on the Oil program, see www.epa.gov/oilspill

FY 2007 Performance Measures:

- **Percentage of emergency response readiness improvement**

Performance Database: No specific database has been developed. Data from evaluations from each of the 10 Regions are tabulated and stored using standard software (WordPerfect, spreadsheets, etc.).

Data Source: Data are collected through detailed surveys of all Regional programs, and interviews with personnel and managers in each program office. The score represents a composite based upon data from each unique Regional and headquarters organization. Annual increments represent annual improvements. The survey instrument was developed based upon Core Emergency Response (ER) elements, and has been approved by EPA Headquarters and Regional managers. Core ER elements cover all aspects of the Core ER program, including Regional Response Centers, transportation, coordination with backup Regions, health and safety, delegation and warrant authorities, response readiness, response equipment, identification clothing, training and exercises, and outreach.

While EPA is currently prepared to respond to chemical, biological, and radiological incidents, improvement in the emergency response and homeland security readiness measure will demonstrate an increased ability to respond quickly and effectively to national-scale events. The FY 2007 Core ER target is to improve emergency response and homeland security readiness by 10% from the FY 2006 baseline performance.

Methods, Assumptions and Suitability: The Core ER elements were developed over the last several years by the EPA Removal Program to identify and clarify what is needed to ensure an excellent emergency response program. The elements, definitions, and rationales were developed by staff and managers and have been presented to the Administrator and other high level Agency managers. Based on the Core ER standards, evaluation forms and criteria were established for EPA's Regional programs, the Environmental Response Team (ERT), and Headquarters. These evaluation criteria identify what data need to be collected, and how that data translate into an appropriate score for each Core ER element. The elements and evaluation criteria will be reviewed each year for relevance to ensure that the programs have the highest standards of excellence and that the measurement clearly reflects the level of readiness. The data are collected from each Regional office, ERT, and Headquarters using a systematic, objective process. Each evaluation team consists of managers and staff, from Headquarters and from another EPA Regional office, with some portion of the team involved in all reviews for consistency and some portion varying to ensure independence and objectivity. For instance, a team evaluating Region A might include some or all of the following: a staff person from Headquarters who is participating in all reviews, a staff person from Headquarters who is very familiar with Region A activities, a manager from Headquarters, and a staff person and/or manager from Region B. One staff or group will be responsible for gathering and analyzing all

the data to determine the overall score for each Regional office, ERT, and Headquarters, and for determining an overall National score.

QA/QC Procedures: See "Methods, Assumptions and Suitability"

Data Quality Review: The evaluation team will review the data (see Methods, Assumptions and Suitability) during the data collection and analysis process. Additional data review will be conducted after the data has been analyzed to ensure that the scores are consistent with the data and program information. There currently is no specific database that has been developed to collect, store, and manage the data.

Data Limitations: One key limitation of the data is the lack of a dedicated database system to collect and manage the data. Standard software packages (word processing, spreadsheets) are used to develop the evaluation criteria, collect the data, and develop the accompanying readiness scores. There is also the possibility of subjective interpretation of data.

Error Estimate: It is likely that the error estimate for this measure will be small for the following reasons: the standards and evaluation criteria have been developed and reviewed extensively by Headquarters and EPA's Regional managers and staff; the data will be collected by a combination of managers and staff to provide consistency across all reviews plus an important element of objectivity in each review; the scores will be developed by a team looking across all ten Regions, ERT, and Headquarters; and only twelve sets of data will be collected, allowing for easier cross-checking and ensuring better consistency of data analysis and identification of data quality gaps.

New/Improved Data or Systems: There are no current plans to develop a dedicated system to manage the data.

References: FY 2004/2005 Superfund Program Implementation Manual (SPIM), http://www.epa.gov/superfund/action/process/pdfs/appdxb3p1.pdf.

FY 2007 Performance Measures:

- **Number of Superfund hazardous waste sites with human exposures controlled**
- **Number of Superfund hazardous waste sites with groundwater migration controlled**
- **Federal Facility Superfund sites with human exposures controlled (PART measure)**
- **Federal Facility Superfund sites with contaminated groundwater controlled (PART measure)**
- **Number of final remedies (cleanup targets) selected at Superfund sites (PART measure)**
- **Number of Superfund final assessment decisions (PART measure)**
- **Number of Superfund construction completions (PART measure)**
- **Number of Federal Facility Superfund sites where all remedies have completed construction (PART measure)**
- **Number of Federal Facility Superfund sites where the final remedial decision for contaminants at the site has been determined (PART measure)**

- **Voluntary removal actions overseen by EPA and completed annually (PART measure)**
- **Superfund-lead removal actions completed annually (PART measure)**

Performance Database: The Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS) is the database used by the Agency to track, store, and report Superfund site information.

Data Source: CERCLIS is an automated EPA system; headquarters and EPA's Regional offices enter data into CERCLIS on a rolling basis.

Methods, Assumptions and Suitability: Each performance measure is a specific variable within CERCLIS.

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as Regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) Regional CERCLIS Data Entry Internal Control Plan, which includes: (a) regional policies and procedures for entering data into CERCLIS; (b) a review process to ensure that all Superfund accomplishments are supported by source documentation; (c) delegation of authorities for approval of data input into CERCLIS; and (d) procedures to ensure that reported accomplishments meet accomplishment definitions; and (6) a historical lockout feature has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report. Specific direction for these controls are contained in the Superfund Program Implementation Manual (SPIM) Fiscal Year 2006/2007 (SPIM. U.S. EPA, Superfund. "Superfund Program Implementation Manual (SPIM Fiscal Year 2006/2007." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/superfund/action/process/spim06.htm>)

CERCLIS operation and further development is taking place under the following administrative control quality assurance procedures: 1) Office of Environmental Information Interim Agency Life Cycle Management Policy Agency Directive 2100.4. U.S. EPA, Office of Technology Operations and Planning. "OEI Information Management and Information Technology Policies." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://cfint.rtpnc.epa.gov/otop/policies/infoman.cfm>; U.S. EPA, Office of Technology Operations and Planning. "OEI Information Management and Information Technology Policies, Interim Agency Systems Life Cycle Management Policy, Agency Directive 2100.4." Washington, DC: EPA. Accessed January 10, 2006. Available on the Intranet at: <http://intranet.epa.gov/repolicy/ads/orders/2100_4.pdf>; 2) the Office of Solid Waste and Emergency Response (OSWER) Quality Management Plan. U.S. EPA, Office of Solid Waste and Emergency Response. "OSWER Quality Management Plan." Washington, DC: EPA. August 2003. Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf>; 3) Agency platform, software and hardware

standards. U.S. EPA, Office of Technology Operations and Planning. "Information Technology Roadmap." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://basin.rtpnc.epa.gov/ntsd/itroadmap.nsf>; 4) Quality Assurance Requirements in all contract vehicles under which CERCLIS is being developed and maintained. U.S. EPA, Environmental Protection Agency. "EPA's Information Quality Guidelines (IQG)." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/quality/informationguidelines>; and 5) Agency security procedures. U.S. EPA, Office of Technology Operations and Planning. "IT Security IT Roadmap." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://basin.rtpnc.epa.gov/ntsd/ITRoadMap.nsf/Security?OpenView> In addition, specific controls are in place for system design, data conversion and data capture, and CERCLIS outputs.

Data Quality Reviews: Two audits, one by the Office Inspector General (OIG) and the other by Government Accountability Office (GAO), were conducted to assess the validity of the data in CERCLIS. The OIG audit report, *Superfund Construction Completion Reporting* (No. E1SGF7_05_0102_ 8100030), dated December 30, 1997, was prepared to verify the accuracy of the information that the Agency was providing to Congress and the public. The OIG report concluded that the Agency "has good management controls to ensure accuracy of the information that is reported," and "Congress and the public can rely upon the information EPA provides regarding construction completions." The GAO's report, *Superfund: Information on the Status of Sites* (GAO/RCED-98-241), dated August 28, 1998, was prepared to verify the accuracy of the information in CERCLIS on sites' cleanup progress. The report estimates that the cleanup status of National Priority List (NPL) sites reported by CERCLIS as of September 30, 1997, is accurate for 95 percent of the sites. U.S. General Accounting Office. "Superfund Information on the Status of Sites." Washington, DC: GAO. August 1998. Accessed January 10, 2006. Available on the Internet at: <http://www.gao.gov/archive/1998/rc98241.pdf>. Another OIG audit, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002, evaluated the accuracy, completeness, timeliness, and consistency of the data entered into CERCLIS. The report provided 11 recommendations to improve controls for CERCLIS data quality. EPA concurs with the recommendations contained in the audit, and many of the identified problems have been corrected or long-term actions that would address these recommendations continue to be underway. U.S. Office of Inspector General. "Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality." Washington, DC: OIG. September 2002. Accessed January 10, 2006. Available on the Internet at: . <http://www.epa.gov/oig/reports/2002/cerlcis.pdf>

The IG reviews annually the end-of-year Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) data, in an informal process, to verify the data supporting the performance measures. Typically, there are no published results.

The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (OSWER) was signed in August 2003. U.S. EPA, Office of Solid Waste and Emergency Response. "OSWER Quality Management Plan." Washington, DC: EPA. August 2003.

Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf>

Data Limitations: Weaknesses were identified in the OIG audit, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002. The Agency disagrees with the study design and report conclusions; however, the report provided 11 recommendations with which EPA concurs. Many of the identified problems have been corrected or long-term actions that would address these recommendations continue to be underway, e.g., 1) FY 02/03 SPIM Chapter 2 update was made to better define the Headquarters' and Regional roles and responsibilities for maintaining planning and accomplishment data in CERCLIS; 2) FY 04/05 SPIM Appendix A, Section A.A.5 'Site Status Indicators' added language to clarify the use of the non-NPL status code of "SX"; 3) FY 04/05 SPIM Appendix A, Section A.A.6 'Data Quality' added a section on data quality which includes a list of relevant reports; 4) FY 04/05 SPIM Appendix E, Section E.A.5 "Data Owners/Sponsorship' was revised to reflect what data quality checks (focus data studies) will be done by designated Regional and headquarters staff; 5) A data quality objectives supplement for GPRA measures was added in Change 6 to this SPIM. For changes regarding this OIG audit, see the Change Log for this SPIM. U.S. EPA. Superfund. "Change Log 7." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/superfund/action/process/pdfs/changelog7.pdf>; 6) Draft guidance from OCA (Other Cleanup Activity) subgroup, which outlines the conditions under which sites are taken back from states when states have the lead but are not performing; and 7) Pre-CERCLIS Screening: A Data Entry Guide, which provides guidance to the regions for preventing entry of duplicate sites in CERCLIS. The development and implementation of a quality assurance process for CERCLIS data has begun. This process includes delineating quality assurance responsibilities in the program office and periodically selecting random samples of CERCLIS data points to check against source documents in site files.

Error Estimate: The GAO's report, *Superfund: Information on the Status of Sites* (GAO/RECD-98-241), dated August 28, 1998, estimates that the cleanup status of National Priority List sites reported by CERCLIS is accurate for 95 percent of the sites. The OIG report, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002, states that over 40 percent of CERCLIS data on site actions reviewed was inaccurate or not adequately supported. Although the 11 recommendations were helpful and will improve controls over CERCLIS data, the Agency disagrees and strongly objects to the study design and report conclusions, stating they do not focus on the program's data quality hierarchy and the importance it places on NPL sites.

New/Improved Data or Systems: A CERCLIS modernization effort, initiated in 2002, has been completed. As a result of the modernization effort, CERCLIS now has standards for data quality. Each EPA Region's CERCLIS Data Entry Control Plan, which identifies policies and procedures for data entry, is reviewed annually. Data quality audit fields have been added to CERCLIS. EPA Headquarters has begun to create and share with the Regions data quality audit reports. These reports document data quality for timeliness, completeness, and accuracy as

determined by the Superfund data sponsors to encourage and ensure high data quality. The modernization effort has increased the availability of CERCLIS data via Superfund eFacts, a Superfund data mart which serves program managers in Headquarters and the Regions. In FY 2007, the program will continue its effort to improve its management of the program through the increased availability of timely and accurate technical information to Superfund's managers. In 2007, the Agency will work to increase utilization of CERCLIS data by incorporating additional remedy selection, risk, removal response, and community involvement data into CERCLIS.

The Business Process Reevaluation task in the modernization project has provided CERCLIS managers with a first step in an implementation evaluation. The document, which resulted from the evaluation, is being used as a valuable resource for scoping the future redesign of CERCLIS as well as the realignment of the database that will remove unnecessary data and add the new data fields that are necessary to manage the Superfund program today. The redesign is mandated to bring CERCLIS into the Agency's Enterprise Architecture. As part of OSRTI's effort to bring CERCLIS into the Agency's Enterprise Architecture all Regional databases have been moved to the National Computing Center in RTP. This is the first step in folding the Headquarters and Regional databases into one database. This move of the databases to RTP is being done without changing the application, by using a commercial off the shelf (COTS) software program to enable the Regional data entry staff to input data over the Agency's Wide Area Network. The initial step of moving the databases to RTP and moving all users to the COTS software has been completed. The move to a single database will be completed during FY 2006 and implemented in FY 2007. The Superfund Document Management System (SDMS) will be linked to CERCLIS. This linkage will enable users to easily transition between the programmatic accomplishments reporting to the actual document that defines and describes the accomplishment reported in CERCLIS. The effort to link SDMS and CERCLIS and to consolidate the systems will lead to common reporting (same events and data) in CERCLIS and SDMS. This will be done by electronically extracting data from the documents in SDMS to fill the data fields in CERCLIS - eliminating the manual data entry/human error impacts.

References: OIG audit *Superfund Construction Completion Reporting*, (No. E1SGF7_05_0102_8100030) and *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality*, (No. 2002-P-00016). U.S. Office of Inspector General. "Information Technology: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality." Washington, DC: OIG. September 2002. Accessed January 10, 2006. Available on the Internet at: http://www.epa.gov/oig/reports/2002/cerlcis.pdf); and the GAO report, *Superfund Information on the Status of Sites* (GAO/RCED-98-241). U.S. General Accounting Office. "Superfund Information on the Status of Sites." Washington, DC: GAO. August 1998. Accessed January 10, 2006. Available on the Internet at: http://www.gao.gov/archive/1998/rc98241.pdf). The Superfund Program Implementation Manuals for the fiscal years 1987 to the current manual. U.S. EPA, Superfund. "Policies and Guidances." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: http://www.epa.gov/superfund/action/guidance/index.htm. The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (August 2003). U.S. EPA, Office of Solid Waste and Emergency Response. "OSWER Quality Management Plan." Washington, DC: EPA. August 2003. Accessed January 10, 2006. Available on the Internet at:

http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf). Office of Environmental Information Interim Agency Life Cycle Management Policy Agency Directive 2100.4. U.S. EPA, Office of Technology Operations and Planning. "OEI Information Management and Information Technology Policies." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: http://cfint.rtpnc.epa.gov/otop/policies/infoman.cfm and U.S. EPA, Office of Technology Operations and Planning. "OEI Information Management and Information Technology Policies, Interim Agency Systems Life Cycle Management Policy, Agency Directive 2100.4." Washington, DC: EPA. Accessed January 10, 2006. Available on the Intranet at: http://intranet.epa.gov/repolicy/ads/orders/2100_4.pdf. EPA platform, software and hardware standards. U.S. EPA, Office of Technology Operations and Planning. "Information Technology Roadmap." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: http://basin.rtpnc.epa.gov/ntsd/itroadmap.nsf. Quality Assurance Requirements in all contract vehicles under which CERCLIS are being developed and maintained (http://www.epa.gov/quality/informationguidelines). EPA security procedures. U.S. EPA, Office of Technology Operations and Planning. "IT Security IT Roadmap." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: http://basin.rtpnc.epa.gov/ntsd/ITRoadMap.nsf/Security?OpenView

FY 2007 Performance Measure:

- **Percentage of Superfund spending that is obligated to individual sites each year (PART measure)**

- **Annual Program dollars obligated per operable unit completing cleanup activities (PART measure)**

- **Superfund-lead removal actions completed annually per million dollars (PART measure)**

Performance Database: Integrated Financial Management System (IFMS) is EPA's financial management system and the official system of record for budget and financial data.

Data Source: IFMS contains records of all financial transactions (e.g., personnel, contracts, grants, other) of Superfund appropriation resources, as distinguished by U.S. Treasury schedule codes. Procurement data are entered manually into IFMS by Funds Control Officers throughout the Agency. Site-specific obligations are distinguished through the Site/Project field of the IFMS account number that is assigned to every financial transaction.

Methods, Assumptions and Suitability: Total annual obligations include current and prior year appropriated resources, excluding Office of Inspector General (OIG) and Science and Technology transfers. Obligation data are generated using the OCFO Reporting and Business Intelligence Tool (ORBIT), the Agency's system for evaluating IFMS data. Site-specific obligation data are derived using query logic that evaluates the Site/Project field of the IFMS account number. For a given fiscal year, the percentage of appropriated resources that is obligated site-specifically is the result of dividing site-specific annual obligations by total annual obligations.

QA/QC Procedures: The data are compliant with the Federal Managers Financial Integrity Act (FMFIA) of 1982 and received FY 2005 FMFIA certification

Data Quality Reviews: EPA received an unqualified audit opinion by the OIG for the annual financial statements, and the auditor recommended several corrective actions. All recommendations have been implemented by Office of the Chief Financial Officer in IFMS.

Data Limitations: Accuracy of EPA personnel in recording their time.

Error Estimate: None.

New/Improved Data or Systems: EPA plans to replace IFMS with a new system in FY 2008.

References:

FY 2005 FMFIA Certification
2004 Audited Financial Statements, see http://www.epa.gov/oig/reports/financial.htm
OIG Audit "EPA Needs to Improve Change Controls for Integrated Financial Management System" dated August 24, 2004 (2004-P-00026)

FY 2007 Performance Measures:

- **Current human exposures under control (RCRA high priority facilities) (PART measure)**
- **Migration of contaminated groundwater under control (RCRA high priority facilities) (PART measure)**

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database that supports EPA's RCRA program.

Data Source: The states and Regions enter data. A "High", "Medium", or "Low" entry is made in the database with respect to final-assessment decision. A "yes" or "no" or "insufficient information" entry is made in the database with respect to meeting the human exposures to toxins controlled and releases to groundwater controlled indicators. An entry will be made in the database to indicate the date when a remedy is selected and the complete construction of a remedy is made. Supporting documentation and reference materials are maintained in the Regional and/or state files. EPA's Regional offices and authorized states enter data on a continual basis.

Methods, Assumptions and Suitability: RCRAInfo has several different modules, including a Corrective Action Module that tracks the status of facilities that require, or may require, corrective actions. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste (HW) generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. All five measures are used to summarize and report on the facility-wide environmental conditions at the RCRA Corrective Action Program's highest priority facilities. The environmental indicators are used to

track the RCRA program's progress in getting highest priority contaminated facilities under control. Known and suspected facility-wide conditions are evaluated using a series of simple questions and flow-chart logic to arrive at a reasonable, defensible determination. These questions were issued as a memorandum titled: *Interim Final Guidance for RCRA Corrective Action Environmental Indicators, Office of Solid Waste, February 5, 1999).* Lead regulators for the facility (authorized state or EPA) make the environmental indicator determination; however, facilities or their consultants may assist EPA in the evaluation by providing information on the current environmental conditions. Remedies selected and complete constructions of remedies are used to track the RCRA program's progress in getting highest priority contaminated facilities moving towards final cleanup. The lead regulators for the facility make the remedies selection and construction completion of remedies determinations.

QA/QC Procedures: States and Regions generate the data and manage data quality related to timeliness and accuracy (i.e., the environmental conditions and determinations are correctly reflected by the data). Within RCRAInfo, the application software enforces structural controls that ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of systems changes and user needs.

Note: Access to RCRAInfo is open only to EPA Headquarters, Regional, and authorized state personnel. It is not available to the general public because the system contains enforcement sensitive data**.** The general public is referred to EPA's Envirofacts Data Warehouse to obtain filtered information on RCRA-regulated hazardous waste facilities.

Data Quality Review: GAO's 1995 Report on EPAs Hazardous Waste Information System (http://www.access.gpo.gov/su_docs/fdlp/pubs/study/studyhtm.html) reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states. EPA's Quality Staff of Office of Environmental Information conducted a quality systems audit in December 2003. The audit found the corrective action program satisfactory.

Data Limitations: No data limitations have been identified. As discussed above, the performance measure determinations are made by the authorized states and EPA Regions based on a series of standard questions and entered directly into RCRAInfo. EPA has provided guidance and training to states and Regions to help ensure consistency in those determinations. High priority facilities are monitored on a facility-by-facility basis and the QA/QC procedures identified above are in place to help ensure data validity.

Error Estimate: N/A. Currently, the Office of Solid Waste does not collect data on estimated error rates.

New/Improved Data or Systems: EPA has successfully implemented new tools for managing environmental information to support federal and state programs, replacing the old data systems

(the Resource Conservation and Recovery Information System and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste from large quantity generators and on waste management practices by treatment, storage, and disposal facilities. RCRAInfo is web-accessible, providing a convenient user interface for federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

References: U.S. GAO, "Hazardous Waste: Benefits of EPA's Information System Are Limited" (AIMD-95-167), Washington, DC: GAO, August 22, 1995. Accessed January 18, 2006. Available on the Internet at <http://www.gao.gov/archive/1995/ai95167.pdf>

FY 2007 Performance Measures:

- **Number of cleanups that meet state risk-based standards for human exposure and groundwater contamination (LUST)**

- **Number of cleanups that meet state risk-based standards for human exposure and groundwater contamination on Indian country (LUST)**

Performance Database: The Office of Underground Storage Tanks (OUST) does not maintain a national database. States individually maintain records for reporting state program accomplishments.

Data Source: Designated State agencies submit semi-annual progress reports to the EPA regional offices. The data for the comparison of leaking underground storage tank cleanups will be developed in FY 2005 for a planned reporting date of FY 2006.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: EPA's regional offices verify and then forward the data in a word processing table to OUST. OUST staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in a word processing table on a region-by-region basis, which is a way regional staff can check their data.

Data Quality Review: None.

Data Limitations: Percentages reported are sometimes based on estimates and extrapolations from sample data. Data quality depends on the accuracy and completeness of state records.

Error Estimate: N/A

New/Improved Data or Systems: None.

References: U.S. EPA Memorandum, *FY 2005 End-of-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division Directors, Regions 1-10, dated December 15, 2005. Accessed January 18, 2006. <http://www.epa.gov/swerust1/cat/ca_05_34.pdf>

GOAL 3 OBJECTIVE 3

FY 2007 Performance Measure:

- **Refer to DOJ, settle, or writeoff 100% of Statute of Limitations (SOLs) cases for Superfund sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered**

- **Reach a settlement or take an enforcement action before the start of a remedial action at 90 percent of Superfund sites having viable, liable responsible parties other than the Federal government**

Performance Database: The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database contains information on hazardous waste sites, potentially hazardous waste sites and remedial activities across the nation. The database includes sites that are on the National Priorities List (NPL) or being considered for the NPL.

Data Source: Automated EPA system; Headquarters and EPA's Regional Offices enter data into CERCLIS

Methods, Assumptions and Suitability: There are no analytical or statistical methods used to collect the information. The performance data collected on a fiscal year basis only. Enforcement reports are run at the end of the fiscal year, and the data that support this measure are extracted from the report.

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as Regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) Regional CERCLIS Data Entry Internal Control Plan, which includes: (a) regional policies and procedures for entering data into CERCLIS; (b) a review process to ensure that all Superfund accomplishments are supported by source documentation; (c) delegation of authorities for approval of data input into CERCLIS; and (d) procedures to ensure that reported accomplishments meet accomplishment definitions; and (6) a historical lockout feature has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report. Specific direction for these controls are contained in the Superfund Program Implementation Manual (SPIM) Fiscal Year 2004/2005

(http://www.epa.gov/superfund/action/process/spim04.htm) and the Fiscal Year 2006/2007 SPIM (http://www.epa.gov/superfund/action/process/spim06.htm).

Data Quality Review: The IG annually reviews the end-of-year CERCLIS data, in an informal process, to verify the data supporting the performance measure. Typically, there are no published results.

Data Limitations: None

Error Estimate: NA

New/Improved Data or Systems: None

References: Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001

FY 2007 Performance Measure:

- **By FY 2007, complete evaluation of monitored natural attenuation at a site with inorganic ground water contamination using the first version of the evaluation framework developed in FY 2005**

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

GOAL 4 OBJECTIVE 1

FY 2007 Performance Measures:

•Detailed Review Papers Completed (PART measure)
•Prevalidation Studies Completed (PART measure)
•Validation by Multiple Labs Completed (PART measure)

•Peer Reviews (PART measure)
•Assays Ready for Use (PART measure)

Performance Database: Performance is measured by the cumulative number of actions (usually studies) to be undertaken by the projected completion date of FY 2009. The measures appear as fractions where the numerator represents the total number of cumulative actions for the current year and the denominator represents the actions projected to be completed by the end of FY 2009.

Data Source: Data are generated to support all stages of validation of endocrine test methods through contracts, grants and interagency agreements, and the cooperative support of the Organization of Economic Cooperation and Development (OECD), and EPA's Office of Research and Development (ORD). The scope of the effort includes the conduct of laboratory studies and associated analyses to validate the assays proposed for the Endocrine Disruptor Screening Program (EDSP).

Methods, Assumptions, and Suitability: The measures are program outputs that represent the program's progress toward completing the validation of endocrine test methods. The measures track progress through each stage of the process rather than reporting only the end product. These measures are being adopted because they best show the complexity of the validation process. For example, EPA may plan on four studies to address prevalidation issues for a given assay, and at the completion of the four studies, the annual performance measure (APM) would be 4/4. Upon review of the last study, EPA may conclude that an ambiguity exists, or another question has arisen that requires an additional study. The APM would then be revised to 4/5, showing that four studies were completed, but another study must now be completed to address all issues that allow EPA to move to the next phase of validation. The denominator also could move downward if, for instance, EPA concludes that a planned study is not needed or if an assay performs so poorly during prevalidation that it is dropped from the Endocrine Disruptor Screening Program.

Although 21 assays are being developed and validated (denoted by the denominator for the measure "Assays Ready for Use"), the denominators for the other measures differ from this number for several reasons: more than one assay may be covered in a Detailed Review Paper, more than one prevalidation study is required to optimize an assay and address prevalidation questions, etc.

How various studies are counted also requires some explanation as there are several options. EPA has taken the view that a study is laboratory work performed to address a specific question whether performed in one laboratory or many labs. Thus, a single chemical study will be counted as one study, a multichemical study involving 10 chemicals in one laboratory will be counted as one study, and a study of interlaboratory variability will be counted as one study for each lab in which testing is conducted. From these examples, it is apparent that laboratory studies differ considerably in scope and complexity.

QA/QC Procedures: Required by the EPA's Good Laboratory Practices (GLPs) (40 CFR Part 792 and 40 CFR 160 Part 1), EDSP's contractor operates an independent quality assurance unit

(QAU) to ensure that all studies are conducted under an appropriate QA/QC program. For this procurement, two levels of QA/QC are employed. All prevalidation and interlaboratory studies are conducted under a project specific Quality Assurance Program (QAP) developed by the contractor and approved by EPA. All validation studies are conducted according to GLPs. In addition, EPA or its agent conducts an independent lab/QA audit of facilities participating in the validation program.

Data Quality Review: All of the documentation and data generated by the contractor, OECD and ORD, as it pertains to the EDSP, are reviewed for quality and scientific applicability. The contractor maintains a Data Coordination Center which manages information/data generated under EDSP. The contractor also conducts statistical analyses relating to lab studies, chemical repository, and quality control studies.

Data Limitations: There is a data lag of approximately 9-24 months due to the variation in length and complexity of the lab studies, and for time required for review, analysis and reporting of data.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: EPA Website; EPA Annual Report; Endocrine Disruptor Screening Program Proposed Statement of Policy, Dec. 28, 1998; Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC) Final Report (EPA/743/R-98/003); EPA Contract # 68-W-01-023.

FY 2007 Performance Measures:

- **Number of registrations of reduced risk pesticides registered (Register safer chemicals and biopesticides) (cumulative)**
- **Number of new (active ingredients) conventional pesticides registered (New Chemicals)(Cumulative)**
- **Number of conventional new uses registered (New Uses)(Cumulative)**
- **Maintain timeliness of Section 18 Emergency Exemption Decisions**
- **Reduce registration decision times for new conventional chemicals (PART measure)**
- **Reduce registration decision times for reduced risk chemicals**

Performance Database: The OPPIN (Office of Pesticide Programs Information Network) consolidates various pesticides program databases. It is maintained by the EPA and tracks regulatory data submissions and studies, organized by scientific discipline, which are submitted by the registrant in support of a pesticide's registration. In addition to tracking decisions in OPPIN, manual counts are also maintained by the office on the registrations of reduced risk pesticides. Results for reduced risk pesticides, new active conventional ingredients, and new uses have been reported since 1996. The results are calculated on a fiscal year (FY) basis. For antimicrobial new uses, results have been reported since FY 2004 on a FY basis. Both S18

timeliness and reduced risk decision times are being reported on a FY basis for the first time in FY 2005.

Data Source: Pesticide program reviewers update the status of the submissions and studies as they are received and as work is completed by the reviewers. The status indicates whether the application is ready for review, the application is in the process of review, or the review has been completed.

Methods, Assumptions and Suitability: The measures are program outputs which when finalized, represent the program's statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment, and when used in accordance with the packaging label present a reasonable certainty of no harm. While program outputs are not the best measures of risk reduction, registration outputs do provide a means for reducing risk by ensuring that pesticides entering the marketplace meet the latest health standards, thus when used according to the label are safe.

QA/QC Procedures: A reduced risk pesticide must meet the criteria set forth in Pesticide Registration Notice 97-3, September 4, 1997. Reduced risk pesticides include those which reduce the risks to human health; reduce the risks to non-target organisms; reduce the potential for contamination of groundwater, surface water or other valued environmental resources; and/or broaden the adoption of integrated pest management strategies, or make such strategies more available or more effective. In addition, biopesticides are generally considered safer (and thus reduced risk). All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. The office adheres to its Quality Management Plan (May 2000) in ensuring data quality and that procedures are properly applied.

Data Quality Review: These are program outputs. EPA staff and management review the program outputs in accordance with established policy for the registration of reduced-risk pesticides as set forth in Pesticide Regulation Notice 97-3, September 4, 1997.

Data Limitations: None. All required data must be submitted for the risk assessments before the pesticide is registered. If data are not submitted, the pesticide is not registered. As stated above, a reduced risk pesticide must meet the criteria set forth in PRN 97-3 and all registrations must meet FQPA safety requirements. If a pesticide does not meet these criteria, it is not registered. If an application for a reduced risk pesticide does not meet the reduced risk criteria, it is reviewed as a conventional active ingredient.

Error Estimate: N/A

New/Improved Data or Systems: The OPPIN (Office of Pesticide Programs Information Network), which consolidates various pesticides program databases, will reduce the processing time for registration actions.

References: FIFRA Sec 3(c)(5); FFDCA Sec 408(a)(2); EPA Pesticide Registration Notice 97-3, September 4, 1997; Food Quality Protection Act (FQPA) 1996; OPP Quality Management Plan, May 2000); Endangered Species Act.

FY 2007 Performance Measures:

- **Number of Tolerance Reassessments issued (PART measure)**
- **Number of Reregistration Eligibility Decisions (REDs) issued (PART measure)**
- **Number of Product Reregistration decisions issued**
- **Tolerance Reassessments for top 20 foods eaten by children (PART measure)**
- **Number of inert ingredients tolerance/tolerance exemptions reassessed**
- **Reduce decision times for REDs (PART measure)**

Performance Database: The OPPIN (Office of Pesticide Programs Information Network) consolidates various EPA program databases. It is maintained by the EPA and tracks regulatory data submissions and studies, organized by scientific discipline, which are submitted by the registrant in support of a pesticide's reregistration. In addition to tracking decisions in OPPIN, manual counts are also maintained by the office on the reregistrations decisions. Decisions are logged in as the action is completed, both for final decisions and interim decisions. REDs and product reregistration decisions have been reported on a FY basis since FY 1996. Reduction in decision times for REDs will be reported on an FY basis in FY 2005.

Data Source: EPA's Pesticides Program staff and managers.

Methods, Assumptions and Suitability: The measures are program outputs which represent the program's statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment and when used in accordance with the packaging label present a reasonable certainty of no harm. While program outputs are not the best measures of risk reduction, they do provide a means for reducing risk in that the program's safety review prevents dangerous pesticides from entering the marketplace.

QA/QC Procedures: All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. The office adheres to the procedures for quality management of data as outlined in its QMP approved May 2000.

Data Quality Review: Management reviews the program counts and signs off on the decision document.

Data Limitations: None known.

Error Estimate: N/A. There are no errors associated with count data.

New/Improved Data or Systems: The OPPIN, which consolidates various pesticides program databases, will contribute to reducing the processing time for reregistration actions.

References: EPA Website http://www.epa.gov/pesticides EPA Annual Report 2002 EPA Number 735-R-03-001; 2003 Annual Performance Plan OPP Quality Management Plan, May 2000; Endangered Species Act.

FY 2007 Performance Measure:

- **Percentage of Acre Treatments with Reduced Risk Pesticides (PART measure)**

Performance Database: EPA uses an external database, Doane Marketing Research data, for this measure. The data have been reported for trend data since FY 2001 on an FY basis.

Data Source: Primary source is Doane Marketing Research, Inc. (a private sector research database). The database contains pesticide usage information by pesticide, year, crop use, acreage and sector.

Methods, Assumptions and Suitability: A reduced-risk pesticide must meet the criteria set forth in Pesticide Registration Notice 97-3, September 4, 1997. Reduced-risk pesticides include those which reduce the risks to human health; reduce the risks to non-target organisms; reduce the potential for contamination of groundwater, surface water, or other valued environmental resources; and/or broaden the adoption of integrated pest management strategies or make such strategies more available or more effective. In addition, biopesticides are generally considered safer (and thus reduced-risk). EPA's statistical and economics staff review data from Doane. Information is also compared to prior years for variations and trends as well as to determine the reasons for the variability.

Doane sampling plans and QA/QC procedures are available to the public at their website. More specific information about the data is proprietary and a subscription fee is required. Data are weighted and a multiple regression procedure is used to adjust for known disproportionalities (known disproportionality refers to a non proportional sample, which means individual respondents have different weights) and ensure consistency with USDA and state acreage estimates.

QA/QC Procedures: All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. Doane data are subject to extensive QA/QC procedures, documented at their websites. In ensuring the quality of the data, EPA's pesticide program adheres to its Quality Management Plan (QMP), approved May 2000.

The main customers for Doan pesticide usage data are the pesticide registrants. Since those registrants know about sales of their own products, they have an easy way to judge the quality of Doane provided data. If they considered the quality of the data to be poor, they would not continue to purchase the data.

Data Quality Review: Doane data are subject to extensive internal quality review, documented at the website. EPA's statistical and economics staff review data from Doane. Information is also

compared to prior years for variations and trends as well as to determine the reasons for the variability. For some crops and states, comparisons are also made with a more limited pesticide usage database from the National Agricultural Statistics of USDA.

Data Limitations: Doane data are proprietary; thus in order to release any detailed information, the Agency must obtain approval. There is a data lag of approximately 12-18 months, due to the collection of data on a calendar year (CY) basis, time required for Doane to process data, lead time for EPA to purchase and obtain data, plus the time it takes to review and analyze the data within the office's workload.

Error Estimate: Error estimates differ according to the data/database and year of sampling. This measure is compiled by aggregating information for many crops and pesticides. While considerable uncertainty may exist for a single pesticide on a single crop, pesticide use data at such a highly aggregated level are considered quite accurate. Doane sampling plans and QA/QC procedures are available to the public at their website. More specific information about the data is proprietary and a subscription fee is required. Data are weighted and multiple regression procedure is used to adjust for known disproportionalities and ensure consistency with USDA and state acreage estimates

New/Improved Data or Systems: These are not EPA databases; thus improvements are not known in any detail at this time.

References: EPA Website; EPA Annual Report; Annual Performance Plan and Annual Performance Report, http://www.ams.usda.gov/science/pdp/download.htm; Doane Marketing Research, Inc.: http://www.doanemr.com; http://www.usda.gov/nass/pubs and http://www.usda.nass/nass/nassinfo; FFDCA Sec 408(a)(2); EPA Pesticide Registration Notice 97-3, September 4, 1997; Endangered Species Act.

FY 2007 Performance Measure:

- **Number of incidents and mortalities to terrestrial and aquatic wildlife caused by currently registered pesticides (PART measure)**

Performance Database: The Ecological Incident Information System (EIIS) is a national database of information on poisoning incidents of non-target plants and animals caused by pesticide use. The fields used include the number of incidents reported for each non-target plant or animal. The data used to report is the average for 3 years. Data are gathered on a calendar year basis and reported on a FY basis beginning in FY 2004. There is approximately 2 year data lag. The Environmental Fate and Effects staff for Pesticide Programs maintain this database.

Data Source: Data are extracted from written reports of fish and wildlife incidents submitted to the Agency by pesticide registrants under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), Section 6(a)(2), as well as incident reports voluntarily submitted by state and Federal agencies involved in investigating such incidents.

Methods, Assumptions and Suitability: This measure helps to provide information on the effect of EPA's regulatory actions on the protection of fish and wildlife from acute toxic effects of pesticides. Incidents of fish and wildlife mortality caused by pesticides are summed annually and sums are reported as three-year moving averages. Incidents related to known misuse of pesticides and to pesticides not currently registered in the United States are excluded, as are incidents for which the cause is highly uncertain. This indicator assumes that changes in the total number of incidents reported to the Agency reflect changes in the total number of incidents that are occurring. Inherent in this is the assumption that a consistent effort is made to investigate and report incidents year after year. This indicator is suitable only if fish and wildlife mortality incidents are investigated and reported widely enough to provide adequate monitoring of incidents throughout the country, and if the level of effort in investigating and reporting incidents are reasonably consistent over time.

QA/QC Procedures: EPA adheres to its approved Quality Management Plan in ensuring the quality of the data. Before entering incident data in the database, a database program is used to screen for records already in the database with similar locations and dates. Similar records are then individually reviewed to prevent duplicate reporting. After each record is entered into the EIIS database, an incident report is printed that contains all the data entered into the database. A staff member, other than the one who entered the data, then reviews the information in the report and compares it to the original source report to verify data quality. Scientists using the incident database are also encouraged to report any inaccuracies they find in the database for correction.

Data Quality Review: Internally and externally data quality reviews related to data entry have been conducted. EPA follows a quality assurance plan for accurately extracting data from reports and entering it into the EIIS database. This quality assurance plan is described in Appendix D of the Quality Management Plan for pesticides programs. The American Bird Conservancy has reviewed data in the EIIS database for records related to bird kill incidents.

Data Limitations: This measure is designed to monitor trends in the numbers of acute poisoning events reported to the Agency. The reporting of incidents to the Agency is currently very limited. Very few fish and wildlife reports are being reported by pesticide registrants under the FIFRA 6(a)(2) requirement. This is because most fish and wildlife incidents are classified as "minor" under the current rule, and the registrants are required to report only aggregate data for these minor incidents. The aggregate data are inadequate for entering the incidents into EIIS and including them in this index because no details are reported on individual incidents, even if they are fish kills or bird kills. In 2004, only three fish kills and one wildlife kill were reported as "major" incidents with adequate data to include in this index. Incident reports voluntarily submitted from sources other than pesticide registrants also have been very scarce in recent years. Since 2003, only two state and regional government agencies have reported fish kill incidents to the Agency (the California Department of Fish and Game and the US Geological Survey) and only three have reported wildlife kills (the New York State Department of Environmental Conservation, the California Department of Fish and Game, and the Southeast Cooperative Wildlife Disease Study). Many states governments have informed the Agency that budget cuts have led to inadequate funding to investigate and report on fish and wildlife kills occurring in their states, making them unable to report these incidents to the EPA. Other states

may not be reporting because they are not aware that the EPA is collecting this information. In summary, the data are currently inadequate for monitoring national trends in incidents.

Error Estimate: Moving average counts of number of incidents per year may be interpreted as a relative index of the frequency of acute toxicity effects that pesticides are causing to fish and wildlife. The indicator numbers are subject reporting rates. If there is a change in incidents since the baseline year, it may be due to change in tracking/reporting of kills rather than change related to the use of a pesticides. Also, despite efforts to avoid duplicate counting of incidents, a few incidents likely have duplicate records in the EIIS database. A quality assurance review of bird kill incidents completed by the American Bird Conservancy in 2005 found five incidents with duplicate records, which will be corrected

New/Improved Data or Systems: The EPA is currently conducting a project with the American Bird Conservancy to improve the quality and quantity of data on bird kill caused by pesticides. This project should eventually result in additional reports of bird kill incidents being submitted to the Agency, but to date no additional incident reports have been obtained. The Environmental Fate and Effects Division of the Office of Pesticide Programs has begun a process to obtain an Information Collection Request (ICR) permit, which would allow soliciting state agencies for voluntary submittal of any incident reports that they produce.

References: The Ecological Incident Information System (EIIS) is an internal EPA database. Federal Insecticide Fungicide and Rodenticide Act (FIFRA), Section 6(a)(2).
QMP: Quality Management Plan for the Office of Pesticides Program, May 20, 2000; Endangered Species Act.

FY 2007 Performance Measure:

- **Percentage of high-priority chemicals for which EPA has developed short-term exposure limits (Acute Exposure Guideline Levels [AEGL]). (PART measure)**

Performance Database: There is no database. Performance is measured by the cumulative number of chemicals with "Proposed", "Interim", and/or "Final" AEGL values as published by the National Academy of Sciences (NAS). The results are calculated on a fiscal year basis.

Data Source: EPA manages a Federal Advisory Committee Act (FACA) committee that reviews short term exposure values for extremely hazardous chemicals. The supporting data, from both published and unpublished sources and from which the AEGL values are derived, are collected, evaluated, and summarized by FACA Chemical Managers and Oak Ridge National Laboratory's scientists. Proposed AEGL values are published for public comment in the Federal Register. After reviewing public comment, interim values are presented to the AEGL Subcommittee of the National Academy of Sciences (NAS) for review and comment. After review and comment resolution, the National Research Council under the auspices of the National Academy of Sciences (NAS) publishes the values as final.

Methods, Assumptions, and Suitability: The work of the National Advisory Committee's Acute Exposure Guideline Levels (NAC/AEGL, formally chartered under the Federal Advisory Committee Act) adheres to the 1993 U.S. National Research Council/National Academies of

Sciences (NRC/NAS) publication *Guidelines for Developing Community Emergency Exposure Levels for Hazardous Substances*. NAC/AEGL, in cooperation with the National Academy of Sciences' Subcommittee on AEGLs, have developed standard operating procedures (SOPs), which are followed by the program. These have been published by the National Academy Press and are referenced below. The cumulative number of AEGL values approved as "proposed" and "interim" by the NAC/AEGL FACA Committee and "final" by the National Academy of Sciences represents the measure of performance. The work is assumed to be completed at the time of final approval of the AEGL values by the NAS.

QA/QC Procedures: QA/QC procedures include public comment via the Federal Register process; review and approval by the FACA committee; and review and approval by the NAS/AEGL committee and their external reviewers.

Data Quality Review: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: This is the first time acute exposure values for extremely hazardous chemicals have been established according to a standardized process and put through such a rigorous review.

References: Standing Operating Procedures for Developing Acute Exposure Guideline Levels for Hazardous Chemicals, National Academy Press, Washington, DC 2001 (http://www.nap.edu/books/030907553X/html/). NRC (National Research Council). 1993. Guidelines for Developing Community Emergency Exposure Levels for Hazardous Substances. Washington, DC: National Academy Press.

FY 2007 Performance Measure

- **Total EPA Cost per Chemical for which a Proposed AEGL data set is developed (PART measure)**

Performance Database: Complete budgetary information at the program and project level is maintained in EPA's Finance Central database. This database and other financial records are consulted each time the program reports performance results. In addition to Finance Central, OPPT maintains records on AEGL program income, expenditures and carry over from one year to the next; and on the number of FTE's allocated to the program. Information from these records is aggregated to determine total EPA cost per chemical for which a proposed AEGL data set is developed. The denominator of this ratio – number of proposed AEGL data sets – is tracked in separate records maintained by the program. Specifically, there is an Access database containing the approval dates for proposed AEGL values and a Wordperfect file, organized by fiscal year, that is used to record events in the AEGL process as they occur.

Data Source: EPA manages a Federal Advisory Committee Act (FACA) committee that reviews short term exposure values for extremely hazardous chemicals. The supporting data, from both published and unpublished sources and from which the AEGL values are derived, are collected, evaluated, and summarized by FACA Chemical Managers and Oak Ridge National Laboratory's scientists. Proposed AEGL values are published for public comment in the Federal Register and then referred to the National Academies of Science (NAS) for further review and action. Although proposed AEGLs are not considered final until so designated by the NAS, the proposed values are suitable for many purposes. This performance measure is tied to proposed values rather than to final ones because actions through the proposal stage of the AEGL process are largely under EPA's control whereas subsequent action to finalize the AEGL values is largely a matter within NAS jurisdiction.

Methods, Assumptions, and Suitability: The methods involved in developing and reporting on this performance measure largely consist of simple computational steps performed on data relating to AEGL cost and accomplishment. For example, it is necessary to track the number of FTE's assigned to the AEGL program and then find the associated labor cost by multiplying by standard cost-of-living factors. Likewise, the extramural cost associated with managing the program is determined by pulling cost and budgetary data from the relevant databases as described above, multiplying by 70% as an estimate of the proportion of staff and contractor resources devoted to proposed AEGL development, summing as needed, and adjusting for inflation. One assumption underlying these computations is that 70% is a reasonable estimate of the proposal stage's share of total cost devoted to AEGLs. The methods, simple as they are, seem highly suitable for the kinds of measurement to be performed.

QA/QC Procedures: QA/QC procedures for AEGL development include public comment via the Federal Register process; review and approval by the FACA committee; and review and approval by the NAS/AEGL committee and their external reviewers. AEGL documents are formally reviewed for QC purposes by designated contractors and EPA staff at critical junctures utilizing detailed checklists. Cost information from available records is also subjected to appropriate QA/QC controls.

Data Quality Review: This is a new performance measure and, therefore, there is no developed track record of review and correction. However, appropriate oversight of the measurement process will be provided. Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes and to provide quality oversight.

Data Limitations: No specific data limitations have been identified with respect to the information relied upon in developing or reporting this measure.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error.

New/Improved Data or Systems: Access databases, spreadsheets and other files are maintained and improved on an ongoing basis. A new database is being developed to document rationales

used to develop AEGL values. This new database should enhance the efficiency of AEGL development.

References: Please see www.epa.gov/oppt/aegl.

FY 2007 Performance Measures:

- **Annual reduction in the number of children aged 1-5 years with elevated blood lead levels (> or = 10 ug/dL).** ***This performance measure is a direct measure of Healthy People 2010 goal 8-11.*** **(PART measure)**

- **Percentage difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old. (PART measure)**

Performance Database: Data from the Centers for Disease Control and Prevention's (CDC) National Health and Nutrition Examination Survey (NHANES) is recognized as the primary database in the United States for national blood lead statistics. NHANES is a probability sample of the non-institutionalized population of the United States. Data are collected on a calendar year basis, and is currently released to the public in two year sets. The most current release is the data set for 2001-2002, released in early 2005. Blood lead levels are measured for participants who are at least one year old. The survey collects information on the age of the participant at the time of the survey.

Data Source: The National Health and Nutrition Examination Survey is a survey designed to assess the health and nutritional status of adults and children in the U.S. The survey program began in the early 1960s as a periodic study, and continues as an annual survey. The survey examines a nationally representative sample of approximately 5,000 men, women, and children each year located across the U.S. CDC's National Center for Health Statistics (NCHS) is responsible for the conduct of the survey and the release of the data to the public. NCHS and other CDC centers publish results from the survey, generally in CDC's Morbidity and Mortality Weekly Report (MMWR), but also in scientific journals. In recent years, CDC has published a National Exposure report based on the data from the NHANES. The most current National Exposure report was released on July 21, 2005, and is available at the web site http://www.cdc.gov/exposurereport/

Methods, Assumptions, and Suitability: Detailed interview questions cover areas related to demographic, socio-economic, dietary, and health-related questions. The survey also includes an extensive medical and dental examination of participants, physiological measurements, and laboratory tests. Specific laboratory measurements of environmental interest include: metals (e.g. lead, cadmium, and mercury), VOCs, phthalates, organophosphates (OPs), pesticides and their metabolites, dioxins/furans, and polyaromatic hydrocarbons (PAHs). NHANES is unique in that it links laboratory-derived biological markers (e.g. blood, urine etc.) to questionnaire responses and results of physical exams. For this performance measure, NHANES has been recognized as the definitive source. Estimates of the number of children 1-5 years with an elevated blood lead level based on NHANES have been published by CDC, most recently in May, 2005. (See

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm). Analytical guidelines issued by NCHS provide guidance on how many years of data should be combined for an analysis.

QA/QC Procedures: Background documentation is available at the NHANES web site at http://www.cdc.gov/nchs/nhanes.htm. The analytical guidelines are available at the web site http://www.cdc.gov/nchs/data/nhanes/nhanes_general_guidelines_june_04.pdf).

Data Quality Reviews: CDC follows standardized survey instrument procedures to collect data to promote data quality, and data are subjected to rigorous QA/QC review. Additional information on the interview and examination process can be found at the NHANES web site at http://www.cdc.gov/nchs/hnanes.htm

Data Limitations: NHANES is a voluntary survey and selected persons may refuse to participate. In addition, the NHANES survey uses two steps, a questionnaire and a physical exam. There are sometimes different numbers of subjects in the interview and examinations because some participants only complete one step of the survey. Participants may answer the questionnaire but not provide the more invasive blood sample. Special weighting techniques are used to adjust for non-response. Seasonal changes in blood lead levels cannot be assessed under the current NHANES design. Because NHANES is a sample survey, there may be no children with elevated blood lead levels in the sample, but still some children with elevated blood lead levels in the population.

Error Estimate: Because NHANES is based on a complex multi-stage sample design, appropriate sampling weights should be used in analyses to produce estimates and associated measures of variation. Recommended methodologies and appropriate weights are provided at the NHANES web site http://www.cdc.gov/nchs/nhanes.htm. Measurement error for the blood lead levels is anticipated.

New/Improved Data or Systems: NHANES has moved to a continuous sampling schedule, scheduled release of data, and scheduled release of National Exposure reports by CDC.

References: 1) the NHANES web site, http://www.cdc.gov/nchs/nhanes.htm; 2) the National Exposure report web site, http://www.cdc.gov/exposurereport/; 3) MMWR article with the most recent estimate of the number of children with elevated blood lead levels, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm; 4) summary information on children's blood lead levels from past NHANES, http://www.cdc.gov/nceh/lead/research/kidsBLL.htm#National%20surveys

FY 2007 Performance Measure:

- **Annual percentage of lead-based paint certification applications in Federally-managed states that require more than the 40 days of EPA effort to process (PART measure)**

Performance Database: The National Program Chemicals Division (NPCD) in the Office of Pollution Prevention and Toxics (OPPT) maintains the Federal Lead-Based Paint Program (FLPP) database, an electronic database of applications for certification by individuals and firms and applications for accreditation by training providers in states and tribal lands administered by a Federal lead program. The database provides a record of all applications for certification or accreditation for Federally-managed lead programs and the actions on those applications. The database is augmented by hard copy records of the original applications.

Data Source: The FLPP database is available internally to EPA Headquarters and Regional lead program staff who process the applications or oversee the processing. The database is maintained on an EPA Research Triangle Park (RTP), North Carolina server. Access to the database is granted by the Lead, Heavy Metals, and Inorganics Branch (LHMIB) in NPCD. Overall maintenance of the database and periodic improvements are handled by a contractor, currently ICF Consulting, located in Fairfax, Virginia. Data entry of application data is conducted by a second contractor, currently Optimus Corporation, located in Silver Spring, Maryland. Optimus Corporation maintains the file of the original applications. Each EPA Regional office maintains a file of copies of the original applications for that region.

Methods, Assumptions and Suitability: The number of applications for certification in Federally-managed states and tribal lands is approximately 3000 per year. Each of these applications is processed. Certification is issued if all criteria are met. Some applications may be returned to the applicant or withdrawn by the applicant. For the applications that are fully processed, the length of time for EPA processing can be determined from date fields in the FLPP database. Accordingly, a census of all the fully processed applications for certification can be conducted, and the percentage of applications that took more than the prescribed number of days (e.g., 40) of EPA effort to process can be computed based on this census. The census is conducted every six months, and the annual percentage calculated appropriately from the six month percentages.

QA/QC Procedures: NPCD has an approved Quality Management Plan in place, dated January 2005. Applications and instructions for applying for certification and accreditation are documented and available at the web site http://www.epa.gov/lead/traincert.htm. Documentation for the FLPP database is maintained internally at EPA and is available upon request.

Data Quality Reviews: The FLPP database is an internal EPA database, maintained for the purpose of processing and tracking applications. The database is interactive, and operational usage in processing applications by Headquarters and the Regional offices provides ongoing quality reviews.

Data Limitations: Applications that were returned to the applicant or withdrawn by the applicant are out of scope for this performance measure.

Error Estimate: There is no sampling error in this performance measure, because it is based on a census of all applicable records.

New/Improved Data or Systems: The FLPP database is scheduled to undergo improvements in the next few years. The performance measurement system will help determine if there is a change in timeliness after the improvements are implemented.

References: 1) Quality Management Plan for National Program Chemicals Division, January 2005; 2) FLPP database documentation; 3) URL for Applications and Instructions, http://www.epa.gov/lead/traincert.htm.

FY 2007 Performance Measure:

- **Reduce the potential for risks from leaks and spills by ensuring the safe disposal of large capacitors and transformers containing polychlorinated biphenyls (PCBs)**

Performance Database: PCB Annual Report Database. The results are calculated on a calendar year (CY) basis. Two-year data lag and results for CY 06 will not be available until 2008.

Data Source: Annual Reports from commercial storers and disposers of PCB Waste.

Methods, Assumptions, and Suitability: Data provide a baseline for the amount of safe disposal of PCB waste annually. By ensuring safe disposal of PCBs in equipment such as transformers and capacitors coming out of service, and contaminated media such as soil, and structures from remediation activities, the Agency is reducing the exposure risk of PCBs that are either already in the environment or may be released to the environment through spills or leaks.

QA/QC Procedures: The Agency reviews, transcribes, and assembles data into the Annual Report Database.

Data Quality Reviews: The Agency contacts data reporters, when needed, for clarification of data submitted.

Data Limitations: Data limitations include missing submissions from commercial storers and disposers, and inaccurate submissions. PCB-Contaminated Transformers, of PCB concentrations 50 to 499 parts per million (ppm), and those that are 500 ppm PCBs or greater are not distinguished in the data. Similarly, large and small capacitors of PCB waste may not be differentiated. Data are collected for the previous calendar year on July 1 of the next year creating a lag of approximately one year. Despite these limitations, the data do provide the only estimate of the amount of PCB waste disposed annually.

Error Estimate: Not available.

New/Improved Data or Systems: None

References: U.S EPA, Office of Pollution Prevention and Toxics, National Program Chemicals Program, PCB Annual Report for Storage and Disposal of PCB Waste.

FY 2007 Performance Measure:

- **Annual Percent reduction in relative risk index for chronic human health associated with environmental releases of industrial chemicals in commerce as measured by Risk Screening Environmental Indicators (RSEI) Model (PART measure)**

Performance Database: The RSEI Model uses annual reporting from individual industrial facilities along with a variety of other information to evaluate chemical emissions and other waste management activities. RSEI incorporates detailed data from EPA's Toxics Release Inventory (TRI) and Integrated Risk Information System, the U.S. Census, and many other sources. Due to a two year TRI data lag, performance data will be unavailable for the FY 2006 Annual Performance Report. The data are based on calendar year.

Data Source: The RSEI model incorporates data on chemical emissions and transfers and facility locations from EPA's Toxics Release Inventory; chemical toxicity data from EPA's Integrated Risk Information System; stack data from EPA's AIRS Facility Subsystem and National Emissions Trends Database and the Electric Power Research Institute; meteorological data from the National Climatic Data Center; stream reach data from EPA's Reach File 1 Database; data on drinking water systems from EPA's Safe Drinking Water Information System; fishing activity data from U.S. Fish and Wildlife; exposure factors from EPA's Exposure Factor Handbook; and population data from the U.S. Census Bureau.

Methods, Assumptions and Suitability: The RSEI Model generates unique numerical values known as "Indicator Elements" using the factors pertaining to surrogate dose, toxicity and exposed population. Indicator Elements are unitless (like an index number, they can be compared to one-another but do not reflect *actual* risk), but proportional to the modeled relative risk of each release (incrementally higher numbers reflect greater estimated risk). Indicator Elements are risk-related measures generated for every possible combination of reporting facility, chemical, release medium, and exposure pathway (inhalation or ingestion). Each Indicator Element represents a unique release-exposure event and together these form the building blocks to describe exposure scenarios of interest. These Indicator Elements are summed in various ways to represent the risk-related results for releases users are interested in assessing. RSEI results are for comparative purposes and only meaningful when compared to other scores produced by RSEI. The measure is appropriate for year-to-year comparisons of performance. Depending on how the user wishes to aggregate, RSEI can address trends nationally, regionally, by state or smaller geographic areas.

QA/QC Procedures: TRI facilities self-report release data and occasionally make errors. TRI has QC functions and an error-correction mechanism for reporting such mistakes. EPA updates off-site facility locations on an annual basis using geocoding techniques.

Data Quality Reviews: RSEI depends upon a broad array of data resources, each of which has gone through a quality review process tailored to the specific data and managed by the providers of the data sources. RSEI includes data from the Toxics Release Inventory (TRI), Integrated Risk Information System (IRIS), U.S. Census, etc. All were collected for regulatory or programmatic purposes and are of sufficient quality to be used by EPA, other Federal agencies, and state

regulatory agencies. Over the course of its development, RSEI has been the subject of three reviews by EPA's Science Advisory Board (U.S. EPA Office of Pollution Prevention and Toxics, Risk Screening Environmental Indicators Model, Peer Reviews. Described at http://www.epa.gov/opptintr/rsei/faqs.html). The RSEI model has undergone continuous upgrading since the 1997 SAB Review. Toxicity weighting methodology was completely revised and subject to a second positive review by SAB (in collaboration with EPA's Civil Rights program); air methodology was revised and groundtruthed using New York data to demonstrate high confidence; water methodology has been revised in collaboration with EPA's Water program. When the land methodology has been
reviewed and revised, EPA will have completed its formal, written response to the 1997 SAB Review.

Data Limitations: RSEI relies on data from a variety of EPA and other sources. TRI data may have errors that are not corrected in the standard TRI QC process. In the past, RSEI has identified some of these errors and corrections have been made by reporting companies. Drinking water intake locations are not available for all intakes nationwide.
In coastal areas, Publicly Owned Treatment Works (POTW) water releases may go directly to the ocean, rather than nearby streams. EPA is in the process of systematically correcting potential errors regarding POTW water releases. These examples are illustrative of the data quality checks and methodological improvements that are part of the RSEI development effort. RSEI values are recalculated on an annual basis, and, resources permitting, all data sources are updated annually.

Error Estimate: In developing the RSEI methodology, both sensitivity analyses and
groundtruthing studies have been used to address model accuracy (documentation is provided on the RSEI Home Page - www.epa.gov/opptintr/rsei/). For example, groundtruthing of the air modeling performed by RSEI compared to site-specific regulatory modeling done by the state of New York showed virtually identical results in both rank order and magnitude. However, the complexity of modeling performed in RSEI, coupled with un-quantified data limitations, limits a precise estimation of errors that may either over- or under-estimate risk-related results.

New/Improved Data or Systems: The program regularly tracks improvements in other Agency databases (e.g., SDWIS and Reach File databases) and incorporates newer data into the RSEI databases. Such improvements can also lead to methodological modifications in the model. Corrections in TRI reporting data for all previous years are captured by the annual updates of the RSEI model.

References: The methodologies used in RSEI were first documented for the 1997 review by the EPA Science Advisory Board. The Agency has provided this and other updated technical documentation on the RSEI Home Page. (RSEI Home Page - http://www.epa.gov/opptintr/rsei/)
U.S. EPA Office of Pollution Prevention and Toxics, Risk Screening Environmental Indicators Model, Peer Reviews. Described at http://www.epa.gov/opptintr/rsei/faqs.html
RSEI Methodology Document (describes data and methods used in RSEI Modeling)
http://www.epa.gov/opptintr/rsei/docs/method2004.pdf RSEI User's Manual (PDF, 1.5 MB) explains all of the functions of the model, the data used, and contains tutorials to walk the new user through common RSEI tasks (http://www.epa.gov/opptintr/rsei/docs/users_manual.pdf).

A more general overview of the model can be found in the RSEI Fact Sheet (PDF, 23 KB) (http://www.epa.gov/opptintr/rsei/docs/factsheet_v2-1.pdf).
There are also seven Technical Appendices that accompany these two documents and provide additional information on the data used in the model. The Appendices are as follows: Technical Appendix A (PDF, 121 KB) - Listing of All Toxicity Weights for TRI Chemicals and Chemical Categories Technical Appendix B (PDF, 290 KB) - Physicochemical Properties for TRI Chemicals and Chemical Categories
Technical Appendix C (PDF, 40 KB) - Derivation of Model Exposure Parameters
Technical Appendix D (PDF, 71 KB) - Locational Data for TRI Reporting Facilities and Off-site Facilities Technical Appendix E (PDF, 44 KB) - Derivation of Stack Parameter Data Technical Appendix F (PDF, 84KB) - Summary of Differences Between RSEI Data and TRI Public Data Release

FY 2007 Performance Measure:

- **Number of new chemicals or microorganisms introduced into commerce that pose an unreasonable risk to workers, consumers or the environment (PART measure)**

Performance Database: Implementation of this measure will require the use of several EPA databases: Confidential Business Information Tracking System (CBITS), pre-manufacture notice (PMN) CBI Local Area Network (LAN), 8(e) database (ISIS), and the Focus database. The following information from these databases will be used collectively in applying this measure:
• CBITS: Tracking information on Pre-Manufacture Notices (PMNs) received;
• PMN CBI LAN: Records documenting PMN review and decision, assessment reports on chemicals submitted for review. In addition, the information developed for each PMN is kept in hard copy in the Confidential Business Information Center (CBIC);
• ISIS: Data submitted by industry under the Toxic Substances Control Act (TSCA) Section 8(e). TSCA 8(e) requires that chemical manufacturers, processors, and distributors notify EPA immediately of new (e.g. not already reported), unpublished chemical information that reasonably supports a conclusion of substantial risk. TSCA 8(e) substantial risk information notices most often contain toxicity data but may also contain information on exposure, environmental persistence, or actions being taken to reduce human health and environmental risks. It is an important information-gathering tool that serves as an early warning mechanism;
• Focus: Rationale for decisions emerging from Focus meeting, including decisions on whether or not to drop chemicals from further review.

Measurement results are calculated on a fiscal-year basis and draw on relevant information received over the 12-month fiscal year.

Data Source: The Office of Pollution Prevention and Toxics (OPPT), the office responsible for the implementation of the TSCA, will compare data submitted under TSCA Section 8(e) with previously-submitted new chemical review data (submitted under TSCA Section 5 and contained in the PMN) to determine the number of instances in which EPA failed to prevent the introduction of new chemicals or microorganisms into commerce which pose an unreasonable risk to workers, consumers or the environment. Inconsistencies between the 8(e) and previously-

submitted new chemical review data will be evaluated by applying the methods and steps outlined below to determine whether the inconsistencies signify an "unreasonable risk."

Methods, Assumptions, and Suitability: EPA's methods for implementing this measure involve determining whether EPA failed to prevent the introduction of chemicals or microorganisms into commerce that pose an unreasonable risk to workers, consumers or the environment, based on comparisons of 8(e) and previously-submitted new chemical review data. The "unreasonable risk" determination is based on consideration of (1) the magnitude of risks identified by EPA, (2) limitations on risk that result from specific safeguards applied, and (3) the benefits to industry and the public expected to be provided by the new chemical substance. In considering risk, EPA looks at anticipated environmental effects, distribution and fate of the chemical substance in the environment, patterns of use, expected degree of exposure, the use of protective equipment and engineering controls, and other factors that affect or mitigate risk. These are the steps OPPT will follow in comparing the 8(e) data with the previously-submitted new chemical review data.

1. Match all 8(e) submissions in the 8(e) database with associated TSCA Section 5 notices. TSCA Section 5 requires manufacturers to give EPA a 90-day advance notice (via a pre-manufacture notice or PMN) of their intent to manufacture and/or import a new chemical. The PMN includes information such as specific chemistry identity, use, anticipated production volume, exposure and release information, and existing available test data. The information is reviewed through the New Chemicals Program to determine whether action is needed to prohibit or limit manufacturing, processing, or use of a chemical.
2. Characterize the resulting 8(e) submissions by the PMN review phase. For example, the 8(e) submissions were received: a) before the PMN notice was received by EPA, b) during the PMN review process, or c) after the PMN review was completed.
3. Review of 8(e) data will focus on 8(e)s received after the PMN review period was completed.
4. Comparison of hazard evaluation developed during PMN review with associated 8(e) submission.
5. Report on the accuracy of the initial hazard determination
6. Revised risk assessment developed to determine if there was an unreasonable risk based on established risk assessment and risk management guidelines.

The databases used and the information retrieved are directly applicable to this measurement and therefore suitable for measurement purposes.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan ("Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances;" June 2003) and will ensure that those standards and procedures are applied to this effort.

Data Quality Reviews: This is a new performance measure and, therefore, there is no developed track record of review and correction. However, appropriate oversight of the measurement process will be provided. Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes and to provide quality oversight. In addition, the National Pollution Prevention and Toxics Advisory Council (NPPTAC), which consists of external experts providing independent review and direction to OPPT, has provided comment on this measure.

Data Limitations: There are some limitations of EPA's review which result from differences in the quality and completeness of 8(e) data provided by industry; for example, OPPT cannot evaluate submissions that do not contain adequate information on chemical identity. The review is also affected in some cases by a lack of available electronic information. In particular the pre-1996 PMN cases are only retrievable in hard copy and may have to be requested from the Federal Document Storage Center. This may introduce some delays to the review process.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error. OPPT will review all 8(e) submissions received in the year with corresponding previously-submitted new chemical review data, and not a sample of such submissions.

New/Improved Data or Systems: OPPT is currently developing an integrated, electronic system that will provide real time access to prospective PMN review.

References: OPPT New Chemicals Program
http://www.epa.gov/opptintr/newchems/, TSCA Section 8(e) – Substantial Risk
http://www.epa.gov/opptintr/chemtest/sect8e.htm,
http://www.epa.gov/opptintr/tsca8e/index/htm
"Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances;" June 2003.

FY 2007 Performance Measure:

- **Percent change relative to base year in cost savings from new chemical prescreening. (PART measure)**

Performance Database: Implementation of this measure will require the use of several EPA databases, all of which play a role in tracking premanufacture notices (PMNs) and the action EPA decides to take on such notices. The principal databases involved in PMN tracking, with separate identification of prescreened chemicals, are:

  - Chemical Control Division tracking database: Records basic identifying and status information on each PMN submitted to EPA, including name of submitter, identity of technical contact at company, actions taken by EPA. Enables chemicals to be tracked quickly and easily through the PMN review process.

  - Management Information Tracking System (MITS): Contains non-CBI data on all PMNs, including chemical identification and actions taken by EPA.

  - New Chemicals Focus meeting database: Contains information on the decisions reached at Focus meetings, including whether to drop chemical from further review, to pursue regulation under the Toxic Substances Control Act (TSCA) Section 5(e) to prohibit or limit activities associated with the new chemical or to pursue regulation under a non-5(e) Significant New Use Rule (SNUR) to require

manufacturers, importers and processors to notify EPA at least 90 days before beginning any activity that EPA has designated as a "significant new use," or, alternatively, to refer the chemical for full-scale standard review. It is critical to know the number and percentage of PMNs going to these outcomes in order to perform base year cost savings calculations in support of the cost savings measure.

- Sustainable Futures prescreening tracking databases: Contain information on PMNs which display evidence of chemical prescreening using OPPT screening methods, including data on the types of assessments and model evaluations performed by the submitter, and contact information on Sustainable Futures participants including date(s) attended EPA training.

- Measurement results are calculated on a fiscal year basis and draw upon relevant information collected over the 12-month fiscal year.

Data Source: The major data sources involved in this measurement are fully described under "Performance Database," above. No external data sources play a significant role in the calculation of measurement results.

Methods, Assumptions and Suitability: EPA measures percent change in cost savings as a result of chemical prescreening relative to a base year by: 1) determining the base year pre-screening rate and base year cost savings; 2) calculating the current year prescreening rate (prescreened PMNs as a percentage of total PMNs) and; 3) determining the actual percent change in cost savings due to prescreening by multiplying the base year cost savings by the ratio of the current year prescreening rate to the base year prescreening rate. Finally, the actual percent change in cost savings relative to the base year can be compared to the target percent change of 6.67%. This procedure assumes, quite reasonably, that cost savings from prescreening will generally change in rough proportion to the change in the prescreening rate.

The methods used in calculating base year information are as follows:

- Determine base year prescreening rate by checking the data systems described above to obtain the number of new prescreened chemicals going through the PMN review process and the total number of chemicals undergoing such review. The prescreening rate is simply the ratio of prescreened chemicals to total chemicals undergoing PMN review.

Determine base year cost savings by :

- Checking the relevant databases to determine the number and percentage of base year PMNs that are (a) prescreened PMNs and (b) non-prescreened PMNs

- Estimating the number of prescreened PMNs that would have gone to regulation or standard review if there were no prescreening program (this is done by multiplying the number of prescreened PMNs by the percentage of non-

prescreened PMNs that go to one of the "post-Focus meeting outcomes" of standard review, regulation under TSCA Section 5(e), or issuance of a non-5(e) SNUR)

- Subtracting the number of actual prescreened PMNs going to one of the post-Focus meeting outcomes from the projected number derived in the previous step, is the estimated number of PMNs avoiding a post-Focus meeting outcome. The rationale is that some some pre-screened PMNs still end up requiring post-Focus action, but at a lower rate than for PMNs which are not pre-screened. The hypothetical number estimated in this step, the difference between the projected and actual numbers of pre-screened PMNs requiring a post-Focus meeting outcome, represents the number of cases to have avoided post-Focus action as a result of pres-screening.

- Multiplying the number of cases estimated to have avoided post-Focus action as a result of pre-screening by unit cost factors to obtain estimates of the cost savings realized by avoidance of post-Focus meeting outcomes due to prescreening. (unit cost factors are generated separately from information/estimates maintained by EPA on the labor hours (Agency and contractor) associated with each post-Focus meeting outcome and the EPA cost per labor hour)

- Summing the cost savings realized by avoidance of specified post-Focus meeting outcomes to arrive at total cost savings for the base year.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan ("Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances," June 2003) and will ensure that those standards and procedures are applied to this effort.

Data Quality Reviews: This is a new performance measure and, therefore, there is no developed record of review and correction. However, appropriate oversight of the measurement process will be provided. Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes and to provide quality oversight.

Data Limitations: No specific data limitations have been identified with respect to the measure presented here, except to the extent that the measure requires certain assumptions, discussed above, in addition to inputs of hard data.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error.

New/Improved Data or Systems: OPPT is currently developing an integrated electronic system that will provide real time access to prospective PMN review.

References: Additional information on EPA's New Chemicals program for TSCA Section 5 can be found at http://www.epa.gov/oppt/newchems/index.htm.

FY 2007 Performance Measure:

- **Percentage of High Production Volume (HPV) chemicals identified as priority concerns through assessment of Screening Information Data Set (SIDS) and other information with risks eliminated or effectively managed**

Performance Database: EPA will track the number of agency actions (e.g., regulatory, voluntary), targeting risk elimination or management of high production volume chemicals, using internal program databases or the Agency's Regulation and Policy Information Data System (RAPIDS). Many types of Agency actions qualify as risk management or elimination actions. Issuance of a Significant New Use Rule (SNUR) under TSCA is an example of regulatory action that can be tracked by the RAPIDS Promulgation Data field. An example of a non-regulatory risk management/elimination action is a written communication from EPA to chemical manufacturers/users indicating the Agency's concerns and suggesting but not requiring actions to address chemical risks (chemical substitution, handling protections, etc.). These actions would be tracked by monitoring internal communications files. The results are calculated on a calendar-year basis.

Data Source: RAPIDS stores official Agency data on progress of rule-making and other policy program development efforts. Data are supplied by EPA programs managing these efforts. For voluntary actions not tracked in RAPIDS, performance data are tracked internally by program managers.

Methods, Assumptions and Suitability: As EPA identifies HPV chemicals that are priorities for risk management action, following protocols currently under development, the Agency will commence regulatory or non-regulatory actions to address identified risks. All such actions will be recorded for the HPV chemical(s) subject to those actions, enabling EPA to report on progress in responding to the risks on a chemical- or chemical-category-specific basis. This annual performance measures (APM) commits the Agency to eliminate or effectively manage all such risks. Using data contained in RAPIDS, in the case of regulatory risk management action, EPA's progress towards meeting this APM will be documented by the sequence of formal regulatory development steps documented in that system. Where risk management action takes nonregulatory form, such as issuance of advisory communications to chemical manufacturers or users, progress toward meeting this APM will be tracked by internal files documenting such actions. The definition of risk is being addressed in the development of the protocols used in the HPV screening/prioritization process.

QA/QC Procedures: RAPIDS entries are quality assured by senior Agency managers.

Data Quality Reviews: RAPIDS entries are reviewed by EPA's Regulatory Management Staff.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Performance Data or Systems: N/A

References: None

FY 2007 Performance Measure:

- **The cumulative number of chemicals for which VCCEP data needs documents are issued by EPA in response to industry-sponsored Tier I risk assessments.**

Performance Database: Internal VCCEP program activity tracking database. Data needs documents are issued by EPA to conclude work on all Tier I submissions. Documents may indicate data are sufficient to reasonably demonstrate that children are not subject to significant risks. Documents also may indicate that additional assessment and associated data development are required, commencing Tier 2 work. The results are calculated on a calendar-year basis.

Data Source: Formal EPA files of VCCEP Tier I data needs communications. Data needs are also subject to peer review, results of which are posted and made public on the Toxicology Excellence for Risk Assessment website found at http://www.tera.org/peer/MeetingReports.html

Methods, Assumptions and Suitability: Information is tracked directly through internal record-keeping systems. No models or assumptions or statistical methods are employed.

QA/QC Procedures: The VCCEP program operates under Information Quality Guidelines as found at http://www.epa.gov/quality/informationguidelines/

Data Quality Reviews: The VCCEP program operates under Information Quality Guidelines as found at http://www.epa.gov/quality/informationguidelines/

Data Limitations: None known

Error Estimate: N/A

New/Improved Performance Data or Systems: None

References: http://www.epa.gov/chemrtk/vccep/index.htm

FY 2007 Performance Measure:

- **Number of risk management plan audits completed**

Performance Database: There is no database for this measure.

Data Source: EPA's Regional offices and the states provide the data to EPA headquarters.

Methods, Assumptions and Suitability: Data are collected and analyzed by surveying EPA's Regional offices to determine how many audits of facilities' risk management plans (RMPs) have been completed.

QA/QC Procedures: Data are collected from states by EPA's Regional offices, with review at the Regional and Headquarters' levels.

Data Quality Review: Data quality is evaluated by both Regional and Headquarters' personnel.

Data Limitations: Data quality is dependent on completeness and accuracy of the data provided by state programs.

Error Estimate: Not calculated.

New/Improved Data or Systems: N/A

Reference: N/A

GOAL 4 OBJECTIVE 2

FY 2007 Performance Measures:

- **Brownfields properties assessed**
- **Number of properties cleaned up using Brownfields funding**
- **Acres of Brownfields property available for reuse**
- **Number of jobs leveraged from Brownfields activities**
- **Percentage of Brownfields job training trainees placed**
- **Billions of dollars of cleanup and redevelopment funds leveraged at Brownfields sites**
- **Acres of Brownfields made ready for reuse per million dollars.**

Performance Database: The Assessment, Cleanup and Redevelopment Exchange System (ACRES) contains the performance information identified in the above measures.
Key fields related to performance measures include:
Properties with Assessment Completed with Pilot/Grant Funding
Properties assessed with Targeted Brownfields Assessment Funding
Properties with Cleanup Complete
Acres Made Ready for Reuse
Cleanup/Redevelopment Jobs Leveraged
Assessment/Cleanup/Redevelopment Dollars Leveraged
Number of Participants Completing Training
Number of Participants Obtaining Employment

Data Source: Data are extracted from quarterly reports and property profile forms prepared by assessment, cleanup, revolving loan fund (RLF), job training, and State and Tribal 128 Voluntary Response Program cooperative agreement award recipients. Information on Targeted Brownfields Assessments is collected from EPA Regions.

Methods, Assumptions and Sustainability: Cooperative agreement award recipients submit reports quarterly (except for 128(a)) and property profile forms to EPA. Performance measure data are extracted from these documents by an EPA contractor. Data are then forwarded to Regional Pilot managers for review and finalization. Given the reporting cycle and the data entry/QA period, there is typically a six month data lag for BMS data.

Note that accomplishments reported by Brownfields Assessment Grantees, Brownfields Cleanup Grantees, Brownfields Revolving Loan Fund Grantees, Brownfields Job Training Grantees, Regional Targeted Brownfields Assessments, and State and Tribal 128 Voluntary Response Program Grantees all contribute towards these performance measures. "Number of Brownfields properties assessed" is an aggregate of assessments completed with Assessment Grant funding, Regional Targeted Brownfields Assessment funding, and State and Tribal 128 Voluntary Response Program funding. Number of Brownfields properties cleaned up is an aggregate of properties cleaned up by RLF Grantees, Cleanup Grantees, and State and Tribal 128 Voluntary Response Program Grantees. "Number of Acres Made Ready for Reuse" is an aggregate of acreage assessed that does not require cleanup and acreage cleaned up as reported by Assessment Grantees, Regional Targeted Brownfields Assessments, Cleanup Grantees, RLF Grantees, and State and Tribal 128 Voluntary Response Program Grantees. “Number of cleanup and redevelopment jobs leveraged” is the aggregate of jobs leveraged by Assessment, Cleanup and RLF Grantees. “Amount of cleanup and redevelopment funds leveraged at Brownfields properties” is the aggregate of funds leveraged by Assessment, Cleanup and RLF Grantees. “Percentage of Brownfields job training trainees placed” is based on the “Number of Participants Completing Training” and the “Number of Participants Obtaining Employment” reported by Job Training Grantees.

QA/QC Procedures: Data reported by cooperative award agreement recipients are reviewed by EPA Regional project officers or project managers for accuracy. Reports are produced monthly with detailed data trends analysis.

Data Quality Reviews: No external reviews.

Data Limitations: All data provided voluntarily by grantees.

Error Estimate: NA

New/Improved Data or Systems: The Brownfields Program has developed the Assessment Cleanup and Redevelopment Exchange System (ACRES database) to improve data collection and management. The Brownfields Program will implement online QA for Regional project officers using the ACRES database in FY 2006. The Program is also in the process of amending the OMB ICR to gather information from State and Tribal 128 Voluntary Response Program grantees.

References: none.

GOAL 4 OBJECTIVE 3

FY 2007 Performance Measure:

- **Acres of habitat protected or restored in National Estuary Program (NEP) study areas [Ocean and Coastal PART measure]**
- **Program dollars per acre of habitat protected or restored [Ocean and Coastal PART efficiency measure]**

Performance Database: The Office of Wetlands Oceans and Watersheds has developed a standardized format for data reporting and compilation, defining habitat protection and restoration activities and specifying habitat categories. The key field used to calculate annual performance is habitat acreage. Annual results have been reported since 2001 for the NEP (results are calculated on a fiscal year basis).

Information regarding habitat protection is accessible on a web page that highlights habitat loss/alteration, as well as the number of acres protected and restored by habitat type http://www.epa.gov/owow/estuaries/pivot/overview/intro.htm. This allows EPA to provide a visual means of communicating NEP performance and habitat protection and restoration progress to a wide range of stakeholders and decision-makers.

Data Source: NEP documents such as annual work plans (which contain achievements made in the previous year), annual progress reports and other implementation tracking materials, are used to document the number of acres of habitat restored and protected. EPA aggregates the data provided by each NEP to arrive at a national total for the entire Program. EPA is confident that the data presented are as accurate as possible Each NEP reviews the information prior to reporting to EPA. In addition, EPA conducts regular reviews of NEP implementation to help ensure that information provided in these documents is accurate, and progress reported is in fact being achieved.

Methods, Assumptions and Suitability: Measuring the number of acres of habitat restored and protected may not directly correlate to improvements in the health of the habitat reported,-or of the estuary overall, but it is a suitable measure of on-the-ground progress. Habitat acreage does not necessarily correspond one-to-one with habitat quality, nor does habitat (quantity or quality) represent the only indicator of ecosystem health. Nevertheless, habitat acreage serves as an important surrogate and a measure of on-the-ground progress made toward EPA=s annual performance goal of habitat protection and restoration in the NEP. EPA has defined and provided examples of Aprotection@ and Arestoration@ activities for purposes of measure tracking and reporting (see citation for the PIVOT website in references below.) "Restored and protected" is a general term used to describe a range of activities. The term is interpreted broadly to include created areas, protected areas resulting from acquisition, conservation easement or deed restriction, submerged aquatic vegetation coverage increases, permanent shellfish bed openings, and anadromous fish habitat increases.

The NEP "Habitat Acres Protected or Restored" efficiency measure will be calculated by dividing the total ocean and coastal protection program dollars by the total NEP acres protected or restored. The measure is based on the habitat data collected by the NEPs, as described above and reported in the annual habitat measure), and the total program dollars, which is the sum of the NEP/Coastal budget (including the additional funds for Long Island Sound), the Marine Pollution budget, and the program match as reported by the NEPs.

QA/QC Procedures: Primary data are prepared by the staff of the NEP based on their own reports and from data supplied by other partnering agencies/organizations (that are responsible for implementing the action resulting in habitat protection and restoration). The NEP staff are requested to follow EPA guidance to prepare their reports, and to verify the numbers. EPA then confirms that the national total accurately reflects the information submitted by each program. The Office of Water Quality Management Plan (QMP), renewed every five years, was approved in July 2001. EPA requires that each organization prepare a document called a Quality Management Plan (QMP) that documents the organization's data quality policy, which addresses the quality, generation and use of the organization's data and identifies the environmental programs to which the quality system applies (e.g., programs that rely on the collection or use of environmental data.)

Data Quality Review: No audits or quality reviews conducted yet.

Data Limitations: It is still early to determine the full extent of data limitations. Current data limitations include: information that may be reported inconsistently (based on different interpretations of the protection and restoration definitions), acreage that may be miscalculated or misreported, and acreage that may be double counted (same parcel may also be counted by partnering/implementing agency or need to be replanted multiple years). In addition, measuring the number of acres of habitat restored and protected may not directly correlate to improvements in the health of the habitat reported (particularly in the year of reporting), but is rather a measure of on-the-ground progress made by the NEPs.

Error Estimate: No error estimate is available for this data.

New/Improved Data or Systems: In 2004, NEP provided latitude and longitude data (where possible) for each project. These data are then mapped to highlight where these projects are located in each NEP study area. Not only does this assist both the individual NEP and EPA in obtaining a sense of geographic project coverage, but it provides a basis from which to begin exploring cases where acreage may be double-counted by different agencies. An on-line reporting system is also being developed for the NEPs= use that will assist in tracking habitat projects, and will help reduce EPA=s QA/QC time. Currently, this system is scheduled to be in place by September 2005.

References: Aggregate national and regional data for this measurement, as well as data submitted by the individual National Estuary Programs, is displayed numerically, graphically, and by habitat type in the Performance Indicators Visualization and Outreach Tool (PIVOT). PIVOT data are publicly available at http://www.epa.gov/owow/estuaries/pivot/overview/

intro.htm. The Office of Water Quality Management Plan (July 2001) is available on the Intranet at http://intranet.epa.gov/ow/infopolicy.html.

FY 2007 Performance Measure:

- **By 2008, working with partners, achieve a net increase of 400,000 acres of wetlands**

Performance Database: The National Wetlands Inventory (NWI) of the U.S. Fish and Wildlife Service produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This information is used by Federal, State, and local agencies, academic institutions, U.S. Congress, and the private sector. The Emergency Wetland Resources Act of 1986 directs the Service to map the wetlands of the United States. The NWI has mapped 89 percent of the lower 48 states, and 31 percent of Alaska. The Act also requires the Service to produce a digital wetlands database for the United States. About 42 percent of the lower 48 states and 11 percent of Alaska are digitized. Congressional mandates require the U.S. Fish and Wildlife Service to produce a status and trends reports to Congress at ten-year intervals.

The status and trends report is designed to provide recent and comprehensive estimates of the abundance of wetlands in the 48 conterminous States. This status and trends report indicates whether there is an actual increase in wetland acreage or if wetlands are continuing to decrease. Up-to-date status and trends information is needed to periodically evaluate the efficacy of existing Federal programs and policies, identify national or regional wetland issues, and increase public awareness of and appreciation for wetlands.

The last status and trends report[26] provided the most recent and comprehensive estimates of the current gains and losses for different types of wetlands in the United States on public and private lands from calendar year 1986 to 1997. In calendar year 1997, there were an estimated 105.5 million acres of wetlands in the conterminous United States. Of this total, 100.5 million acres (95 percent) are freshwater wetlands and 5 million acres (5 percent) are saltwater wetlands.

The President directed in his Earth Day 2004 announcement that the next National Wetlands Inventory update, status and trends report, should be completed by the end of 2005, five years ahead of the current schedule, and asked that the updates be done more frequently thereafter. The next Status and Trends Report is expected to be released by the Fish and Wildlife Service in January 2006, and every five years thereafter. This new information will show whether, nationally, we are making progress against the net gain measure and should inform Federal, State, Tribal, local government programs' policies and decision making.

Data Source: The National Status and Trends Report is developed and published by the U.S. Fish and Wildlife Service. This is the only Federal study that provides statistically valid estimates with a published standard error for all wetlands in the conterminous United States. Aerial imagery is the primary data source, and it is used with reliable collateral data such as topographic maps, coastal navigation charts, published soil surveys, published wetland maps,

[26] Dahl, T.E. 2000. Status and trends of wetlands in the conterminous United States 1986 to 1997. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 82pp.

and State, local or regional studies. A random number of sites are also field verified. All photography is cataloged, numbered, tagged, and traced in a database management system.

For each plot, aerial imagery is interpreted and annotated in accordance with procedures published by the Fish and Wildlife Service. The results are compared with previous era imagery, and any changes recorded. The differences between the data sets are analyzed and a statistical estimate of the change is produced.

The five major kinds of wetlands are: 1) freshwater (or palustrine), 2) saltwater (or estuarine), 3) riverine, 4) lacustrine (or lakes and other deepwater habitats), and 5) marine wetlands. For analysis and reporting purposes, these types of wetlands were further divided into subcategories such as freshwater forested wetland, freshwater emergent wetland, estuarine and marine intertidal wetlands.

Methods, Assumptions and Suitability: An interagency group of statisticians developed the design for the national status and trends study published in 2000. The study was based on a scientific probability sample of the surface area of the 48 coterminous States. The area sampled was about 1.93 billion acres and the sampling did not discriminate based on land ownership. The study used a stratified, simple random sampling design. About 754,000 possible sample plots comprised the total population. Geographic information system software was used to organize the information of about 4,375 random sample plots. The plots were examined with the use of remote sensed data in combination with field work. Estimates of change in wetlands were made over a specific time period. A similar study design was used for the Status and Trends report due out in January 2006.

QA/QC Procedures: The Service has developed and implemented quality assurance measures that provide appropriate methods to take field measurements, ensure sample integrity and provide oversight of analyses, which includes reporting of procedural and statistical confidence levels. The objective was to produce comprehensive, statistically valid acreage estimate of the Nation's wetlands. Because of the sample-based approach, various quality control and quality assurance measures were built into the data collection, review, analysis, and reporting stages. This includes field verification of the plots. Six Federal agencies assist with field verification work.

Data Quality Reviews: Not Applicable

Data Limitations: Certain habitats were excluded because of the limitations of aerial imagery as the primary data source to detect wetlands. This was consistent with previous wetland status and trends studies conducted by FWS.

Error Estimate: Estimated procedural error ranged from 4 to 6 percent of the true values when all quality assurance measures have been completed. Procedural error was related to the ability to accurately recognize and classify wetlands both from multiple sources of imagery and on the ground evaluations. Types of procedural errors were missed wetlands, inclusion of upland as wetland, misclassification of wetlands, or misinterpretation of data collection protocols. The

amount of procedural error is usually a function of the quality of the data collection conventions; the number, variability, training and experience of data collection personnel; and the rigor of any quality control or quality assurance measures.

New/Improved Data or Systems: Advances in computerized cartography were used to improve data quality and geospatial integrity. Newer technology allowed the generation of existing digital plot files at any scale to overlay directly over an image base.

References:
http://wetlands.fws.gov/index.html
http://wetlands.fws.gov/bha/SandT/SandTReport.html
http://wetlands.fws.gov/Pubs_Reports/publi.htm

FY 2007 Performance Measure:

- **Annually, beginning in FY04 and in partnership with the Corps of Engineers and states, achieve no net loss of wetlands in the Clean Water Act Section 404 regulatory program**

Performance Database: Since 1989, the goal of the Clean Water Act Section 404 program has been no net loss of wetlands.

Historically, the Corps has collected limited data on wetlands losses and gains in its Regulatory Analysis and Management System (RAMS) permit tracking database. The Corps has compiled national Section 404 wetland permitting data for the last 10 years reflecting acres of wetland impacts avoided (through the permit process), acres permitted for impacts, and acres mitigated. However, limitations in methods used for data collection, reporting and analysis resulted in difficulties in drawing reliable conclusions regarding the effects of the Section 404 program.

Data Source: Data included in RAMS is generally collected by private consultants hired by permit applicants or Corps Regulatory Staff. Data input is generally done by Corps staff.

Methods, Assumptions and Suitability: RAMS was designed to be an administrative aid in tracking permits, thus it lacks many of the fields necessary to adequately track important information regarding wetland losses and gains. Also, the database was modified differently for each of the 38 Corps Districts making national summaries difficult. Furthermore, the database is also proprietary making it difficult to retrofit without utilizing its original developers.

QA/QC Procedures: Historically, there has not been a high level of QA/QC with regard to data input into RAMS. Its antiquated format and numerous administrative fields discourage use. Lack of standard terms and classification also make all aspects of data entry problematic.

Data Quality Reviews: Independent evaluations published in 2001 by the National Academy of Sciences (NAS) and the General Accounting Office (GAO) provided a critical evaluation of the effectiveness of wetlands compensatory mitigation (the restoration, creation, or enhancement of wetlands to compensate for permitted wetland losses) for authorized losses of wetlands and other

waters under Section 404 of the Clean Water Act. The NAS determined that available data was insufficient to determine whether or not the Section 404 program was meeting its goal of no net loss of either wetland area or function. The NAS added that available data suggested that the program was not meeting its no net loss goal. Among its suite of recommendations, the NAS noted that wetland area and function lost and regained over time should be tracked in a national database and that the Corps should expand and improve quality assurance measures for data entry.

In response to the NAS, GAO, and other recent critiques of the effectiveness of wetlands compensatory mitigation, EPA and the Corps in conjunction with the Departments of Agriculture, Commerce, Interior, and Transportation released the National Wetlands Mitigation Action Plan (MAP) on December 26, 2002. The Plan includes 17 tasks that the agencies will complete in FY 07 to improve the ecological performance and results of compensatory mitigation. (Note: some Mitigation Action Plan items may be subsumed by the Corps' mitigation rulemaking expected to be finalized in calendar year 2006.)

Data Limitations: As previously noted, RAMS currently provides the only national data on wetlands losses and gains in the Section 404 Program. Also, as previously noted, there are a number of concerns regarding the conclusions that can be drawn from these numbers. Data quality issues include:

1. Inability to separate restoration, creation, enhancement and preservation acreage from the aggregate "mitigation" acreage reported;
2. Lack of data regarding how much designated mitigation acreage was actually undertaken, and how much of that total was successful;
3. Lack of data regarding how much of the permitted impacts actually occurred; and
4. Limitations on identifying acres "avoided," because the figure is only based on the difference between original proposed impacts and impacts authorized. Often, permit applicants who are aware of the 404 program's requirements to avoid and minimize impacts to wetlands, make initial site selection and site design decisions that minimize wetland impacts prior to submitting a permit application. Such avoidance decisions benefit applicants, as their applications are more likely to be accepted and processed with minor changes. This behavioral influence that the program engenders is difficult to capture and quantify, but contributes considerable undocumented "avoided" impacts.

Error Estimate: Not applicable

New/Improved Data or Systems: The EPA and the Corps have acknowledged the need for improved 404 tracking. The Corps is currently piloting a new national permit tracking database called ORM (Operation and maintenance business information link, Regulatory Module) to replace its existing database (RAMS). As part of the MAP, the Corps is working with EPA and the other Federal agencies and states to ensure that the version of ORM that is ultimately deployed will adequately track wetlands gains and losses. The Corps expects to deploy ORM in all 38 of its districts at the start of 2007, enabling national reporting in early 2008. The Corps, in coordination with EPA and other federal agencies has invested in the development of a GIS-enabled version of the ORM data management system, known as G-ORM and plans to beta test

it in three Corps Districts by Fall 2006. The G-ORM enhancement will improve the environmental results of the CWA Section 404 Program and reporting of aggregate wetland data under it, by spatially-enabling wetland permit decision-making, improving tracking of permitted losses and required compensation, and ensuring public and interagency access to wetland permitting information via a system of web-services and web-mapping tools.

ORM is being designed to provide improved tracking regarding:

- Type of impacts
- Type and quantity of habitat impacted (Using Hydrogeomorphic and Cowardin classification systems)
- Type and quantity of habitat mitigated (Using Hydrogeomorphic and Cowardin classification systems)
- Type and quantity of mitigation (restoration, creation, enhancement, or preservation)
- Differentiating stream mitigation (in linear feet) from wetlands mitigation (in acres)
- Spacial tracking via G-ORM GIS enhancements for both impact and mitigation sites *(planned)*
- Functional losses (debits) at the impact site and functional gains at the mitigation site (credits) if assessment tool is available and applied

References:
http://www.mitigationactionplan.gov/

FY 2007 Performance Measure:

- **Prevent water pollution and protect aquatic ecosystems so that overall ecosystem health of the Great Lakes is improved**

Performance Database: USEPA's Great Lakes National Program Office (GLNPO) will collect and track the eight (8) components of the index and publish the performance results as part of annual reporting under the Government Performance and Results Act (GPRA) and as online reporting of GLNPO's monitoring program, <http://epa.gov/glnpo/glindicators/index.html> . Extensive databases for the indicator components are maintained by GLNPO (phosphorus concentrations, contaminated sediments, benthic health, fish tissue contamination), by binational agreement with Environment Canada (air toxics deposition), and by local authorities who provide data to the USEPA (drinking water quality, beach closures). A binational team of scientists and natural resource managers is working to establish a long term monitoring program to determine extent and quality of coastal wetlands.

Data Source: Data for the index components are tracked internally and reported through the State of the Lakes Ecosystem Conference (SOLEC) process. The document, "State of the Great Lakes 2005 -A Technical Report," presents detailed indicator reports prepared by primary authors, including listings of data sources. Depending on the indicators, data sources may include U.S. and Canadian federal agencies, state and provincial agencies, municipalities, research reports and published scientific literature. Information from the following indicators is used to evaluate the Index components:

Coastal Wetlands group of indicators:
- *Coastal Wetland Invertebrate Community Health*
- *Coastal Wetland Fish Community Health*
- *Coastal Wetland Amphibian Diversity and Abundance*
- *Coastal Wetland Area by Type*
- *Coastal Wetland Plant Community Health*
- *Effects of Water Levels Fluctuations*

Phosphorus Concentrations and Loadings
Concentrations of Contaminants in Sediment Cores
Benthic Health group of indicators:
- *Hexagenia*
- *Abundances of the Benthic Amphipod Diporeia spp.*

Contaminants in Sport Fish
Beach Advisories, Postings and Closures
Drinking Water Quality
Atmospheric Deposition of Toxic Chemicals

Methods, Assumptions, and Suitability: The Index is based on a 40 point scale where the rating uses select Great Lakes State of the Lakes Ecosystem indicators (i.e., coastal wetlands, phosphorus concentrations, Area of Concern (AOC) sediment contamination, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition). Each component of the Index is based on a 1 to 5 rating system, where 1 is poor and 5 is good. Authors of SOLEC indicator reports use best professional judgment to assess the overall status of the ecosystem component in relation to established endpoints or ecosystem objectives, when available. Each indicator is evaluated for Status (good, fair, poor, mixed) and Trend (improving, unchanging, deteriorating, undetermined). To calculate the Index, the data for each indicator are compared to the evaluation criteria for the numeric, 1 to 5, rating system. Each of the index components is included in the broader suite of Great Lakes indicators, which was developed through an extensive multi-agency process to satisfy the overall criteria of necessary, sufficient and feasible. Information on the selection process is in the document, "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4."

QA/QC Procedures: GLNPO has an approved Quality Management System in place[1](see reference #1 below) that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management.

The SOLEC process relies on secondary use of data, i.e., data for many of the indicators are collected, maintained and analyzed by agencies and organizations other than USEPA. Participating agencies and organizations follow their own QA/QC procedures to assure high quality data. A Quality Assurance Project Plan (QAPP) was developed to document procedures for data assessment and review for the indicators reports prepared for the State of the Great Lakes 2005 report. See "State of the Lakes Ecosystem Conference 2004 QAPP."

Data Quality Review: GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews[2] (see reference #2 below). GLNPO has

implemented all recommendations from these external audits and complies with Agency Quality standards.

An external Peer Review of SOLEC processes and products was conducted in 2003 by an international panel of experts familiar with large-scale regional or national indicator and reporting systems. Panel findings were generally positive and several recommendations were made to consider for future SOLEC events and reports. Many of the recommendations have been implemented, and others are being considered for feasibility. The final report by the review panel is available online at http://epa.gov/glnpo/solec/index.html. See "State of the Lakes Ecosystem Conference Peer Review Report" in the SOLEC 2004 section.

A second review of the suite of Great Lakes indicators was conducted by Great Lakes stakeholders in 2004. As a direct result of the findings and recommendations from the participants, several indicators were revised, combined or dropped, and a few others were added. The indicators were also regrouped to allow the user to more easily identify the indicators relevant to particular ecosystem components or environmental issues. The final report from the review is available online at http://epa.gov/glnpo/solec/index.html. See "State of the Lakes Ecosystem Conference Peer Review Report, Part 2: Stakeholder Review of the Great Lakes Indicators" in the SOLEC 2004 section.

Data Limitations: Data limitations vary among the indicator components of the Index. The data are especially good for phosphorus concentrations, fish tissue contamination, benthic health, and air toxics deposition. The data associated with other components of the index (coastal wetlands, AOC sediment contamination, beach closures, and drinking water quality) are more qualitative. Some data are distributed among several sources, and without an extensive trend line. Limitations for each of the index components are included in the formal indicator descriptions in the document, "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4."

Error Estimate: Error statistics for the Great Lakes Index have not been quantified. Each unit of the 40 point scale represents 2.5% of the total, so any unit change in the assessment of one of the component indicators would result in a change of the index of that magnitude. The degree of environmental change required to affect an indicator assessment, however, may be significantly large.

New/Improved Data or Systems: The data system specifically for this index is being developed. Data continue to be collected through the SOLEC process by various agencies, including GLNPO. Efforts are currently in progress to integrate various Great Lakes monitoring programs to better meet SOLEC objectives and to increase efficiencies in data collection and reporting.

References:

1. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.

2. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.

3. "State of the Lakes Ecosystem Conference 2004 QAPP." Unpublished. Prepared as part of Cooperative Agreement between USEPA and Environment Canada.

4. Canada and the United States. "State of the Great Lakes 2003." ISBN 0-662-34798-6, Environment Canada, Burlington, Ontario, Cat. No. En40-11/35-2003E, and U.S.

5. Environmental Protection Agency, Chicago, EPA 905-R-03-004. 2003. Available on CD and online at <www.binational.net>.

6. Canada and the United States. "Implementing Indicators 2003 - A Technical Report." ISBN 0-662-34797-8 (CD-Rom), Environment Canada, Burlington, Ontario, Cat. No. En164-1/2003E-MRC (CD-Rom), and U.S. Environmental Protection Agency, Chicago, EPA 905-R-03-003. 2003. Available on CD from U.S. EPA/Great Lakes National Program Office, Chicago. Available online at http://epa.gov/glnpo/solec/index.html

7. Canada and the United States. "State of the Great Lakes 2005 - Draft." Environment Canada, Burlington, Ontario, and U.S. Environmental Protection Agency, Chicago, 2004. Available online at <http://epa.gov/glnpo/solec/index.html>

8. Bertram, Paul and Nancy Stadler-Salt. "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4." Environment Canada, Burlington, Ontario, and U.S. EPA, Chicago. 2000. Available online at <www.binational.net>.

All SOLEC documents, background reports, indicator reports, indicator development processes, conference agenda, proceedings and presentations are available online at http://epa.gov/glnpo/solec/index.html The documents are sorted by SOLEC year and include the State of the Great Lakes reports which are released the following calendar year.

FY 2007 Performance Measure:

- **The average concentrations of PCBs in whole lake trout and walleye**

Performance Database: Great Lakes National Program Office (GLNPO) Great Lakes Fish Monitoring Program (GLFMP) [1](see reference #1 below). This program is broken into two separate elements, Element 1 – Open Water Trend Monitoring and Element 2 – Game Fish Fillet Monitoring. Each program collects and monitors contaminants in Great Lakes fish at alternating locations throughout the Great Lakes Basin; fish are collected at one set of sites during even years and at another set in odd years. Element 1 began with the collection of data in Lake Michigan in 1972 and the additional lakes were added in 1976. Element 2 began with the collection of data in all five of the Great Lakes in the early 1980's. In FY07, the database will contain QA/QC data from fish collected in 2005. Data are reported on a calendar year basis and

are specific to the even or odd year sampling schedule (even year sites are only compared to other even year sites etc.)

Data Source: GLNPO is the principal source of data for the Great Lakes Fish monitoring program. The Great Lakes States and Tribes assist with fish collection. Previous cooperating organizations include the U.S. Geological Survey (USGS), the U.S. Fish and Wildlife Service (USFWS), and the Food and Drug Administration (FDA).

Methods, Assumptions, and Suitability: This indicator provides concentrations of selected organic contaminants in Great Lakes open water fish. The Great Lakes Fish Monitoring Program is broken into two separate elements that monitor potential exposure to contaminant concentrations for wildlife (Element 1) and humans through consumption (Element 2). Only Element 1 is included in this indicator.

The first element, Open Lakes Trend Monitoring Program, was created to: (1) determine time trends in contaminant concentrations, (2) assess impacts of contaminants on the fishery using fish as biomonitors, and (3) assess potential risk to the wildlife that consume contaminated fish. The first element includes data from ten 600-700 mm lake trout (*Salvelinus namaycush*) whole fish composites (5 fish in each composite) from each of the lakes. Since sufficient lake trout are not found in Lake Erie, data for 450 – 550 mm walleye (*Stizostedion vitreum vitreum*) are used for that Lake.

All GLFMP data are quality-controlled and then loaded into the Great Lakes Environmental Database (GLENDA). Included in GLENDA are flags for each data point that can be used to evaluate the usability of the data. Each Great Lake is a unique environment with a distinct growth rate, food web, and chemical integrity. For this reason, a direct comparison of annual concentrations between basins is not appropriate. However, an average annual basin-wide percent decrease can be determined using an exponential decrease function, and the 1990 data as the baseline. The percent decrease of Element 1 can be calculated and compared to the 5% reduction target to determine if the target has been met. All years of data from all lakes are plotted on the same graph, with each year containing 5 data points. An exponential decrease is then found for the entire data set and the percent decrease is calculated from the best fit line. The Lake Michigan data set represents the worst case scenario in the Great Lakes Basin for the Open Lakes Trend Monitoring Program.

QA/QC Procedures: GLNPO has an approved Quality Management System in place[2] (see reference #2 below) that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management. The Quality Assurance (QA) plan that supports the analytical portion of the fish contaminant program is approved and available online[3] (see reference #3 below). The draft field sampling Quality Assurance Project Plan (QAPP) is being revised and will be submitted to the GLNPO QA Officer for review upon the completion of the Quality Management Plan.

Data Quality Review: GLNPO's Quality Management System has been evaluated as "outstanding" in previous peer and management reviews[4] (see reference #4 below). GLNPO has

implemented all recommendations from these external audits and complies with Agency Quality standards.

Data Limitations: Great Lakes Fish Monitoring Program data are not well-suited to portray localized changes. Nevertheless, data collected at a certain site (odd year or even year sites) can be compared to data collected from the same site. In addition, only very general comparisons can be made of contaminant concentrations between lakes. A recent review of the odd year Open Lake Trend Monitoring in Lake Erie data indicate an increased variability in the data between the years of 1999 and 2003 because during those years several individual samples (fish) fell outside of the desired size range leading to a higher or lower than average mean sample size for the composite.

Error Estimate: The data quality objective of the fish contaminant program was to detect a 20% change in each measured contaminant concentration between two consecutively sampled periods at each site. Based on changing environmental conditions, the data quality objective has been revised to detect trends in concentration of 0.1 mg/kg/year based on three consecutive sampling periods (6 years, as sites are sampled every other year) for a specific site, with a power of 80% or greater. The program was designed to reach that goal with 95% confidence.

New/Improved Data or Systems: The GLENDA database is a significant new system with enhanced capabilities. Existing and future fish data will be added to GLENDA.

References:

1. "*The Great Lakes Fish Monitoring Program - A technical and Scientific Model For Interstate Environmental Monitoring.*" September, 1990. EPA503/4-90-004.

2. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003. http://www.epa.gov/glnpo/qmp/

3. *"Great Lakes Fish Monitoring Program – Quality Assurance Project Plan for Sample Collection Activities"*, Great Lakes National Program Office. http://www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP_QAPP_082504.pdf

4. "*GLNPO Management Systems Review of 1999."* Unpublished - in USEPA Great Lakes National Program Office files.

5. "*Trends in Great Lakes Fish Contaminants", Dr. Deborah Swackhammer, University of Minnesota Environmental Occupational Health, School of Public Health, EPA Grant #GL97524201-2, 7/1/02.*De Vault, D. S. 1984. Contaminant analysis of fish from Great Lakes harbors and tributary mouths. U.S. Environmental Protection Agency, Great Lakes National Program Office. USEPA 905/3-84-003, http://www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP%20QAPP%20v7.pdf

6. De Vault, D. S., R. Hesselberg, P. W. Rodgers and T. J. Feist. 1996. Contaminant trends in lake trout and walleye from the Laurentian Great Lakes. Journal of Great Lakes Research 22: 884-895.

7. De Vault, D. S., W. A. Willford, R. Hesselberg, E. Nortrupt and E. Rundberg. 1985. Contaminant trends in lake trout (Salvelinus namaycush) from the upper Great Lakes. Archives of Environmental Contamination and Toxicology 15: 349-356.

8. De Vault, D. S., W. A. Willford, R. J. Hesselberg and D. A. Nortrupt. 1986. Contaminant trends in lake trout (Salvelinus namaycush) from the upper Great Lakes. Archives of Environmental Contamination and Toxicology 15: 349-356.

9. GLNPO. 1981. A Strategy for Fish Contaminant Monitoring in the Great Lakes. USEPA Great Lakes National Program Office. .

10. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.

11. Swackhammer, D. L. 2001. "*Trends in Great Lakes Fish Contaminants.*" Unpublished - in USEPA Great Lakes National Program Office files.

12. Swackhammer, D.L. February 2002. "*Trends in Great Lakes Fish Contaminants.*" Unpublished - in USEPA Great Lakes National Program Office files.

13. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.

FY 2007 Performance Measure:

- **Concentration trends of toxic chemicals in the air in the Great Lakes basin will decline**

Performance Database: Great Lakes National Program Office (GLNPO) integrated atmospheric deposition network [1] (see reference #1 below) (IADN) operated jointly with Environment Canada. Reporting starts with 1992 data and includes concentrations of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and organochlorine pesticides in air and precipitation; however, this Performance Measure addresses only PCBs. Monitoring results from 2005 will be reported in 2007. Data are reported on a calendar year basis.

Data Source: GLNPO and Environment Canada are the principal sources of the data. Data also come through in-kind support and information sharing with other Federal agencies and Canada.

Methods, Assumptions, and Suitability: There are five master IADN stations, one for each lake, which are supplemented by satellite stations in other locations. The master stations are

located in remote areas and are meant to represent regional background levels. Concentrations from the master stations are used for the performance measure. Concentrations from the satellite stations in Chicago and Cleveland are also sometimes used to demonstrate the importance of urban areas to atmospheric deposition to the Lakes.

Air samples are collected for 24 hours using high-volume samplers containing an adsorbent. Precipitation samples are collected as 28-day composites. Laboratory analysis protocols generally call for solvent extraction of the organic sampling media with addition of surrogate recovery standards. Extracts are then concentrated followed by column chromatographic cleanup, fractionation, nitrogen blow-down to small volume (about 1 mL) and injection (typically 1 uL) into gas chromatography instruments.

All IADN data are loaded and quality controlled using the Research Database Management System (RDMQ), a Statistical Analysis System (SAS) program. RDMQ provides a unified set of quality assured data, including flags for each data point that can be used to evaluate the usability of the data. Statistical summaries of annual concentrations are generated by the program and used as input into an atmospheric loading calculation. The loadings calculation is described in detail in the Technical Summary referenced below. However, calculating loadings requires additional data and constants that introduce further error. Therefore, the averaged annual concentrations rather than the loadings are used in the performance measure. Concentrations can vary from year to year due to differences in weather (temperature, wind patterns, etc.), so comparing concentrations from one year to the next is not always appropriate. This performance measure examines the average percent decline for the **long-term trend** determined using an exponential decrease function. Each year the average percent decline is calculated after adding new data. A baseline percent decrease was determined using data through 2000, and the aim is that this rate of decrease will continue.

QA/QC Procedures: GLNPO has a Quality Management System in place, which conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management[2] (see reference #2 below). Quality Assurance Project Plans are in place for the laboratory grantee, as well as for the network as a whole. A jointly-funded QA contractor conducts laboratory and field audits, tracks QA statistics, and carries out special QA studies. Data from all contributing agencies are quality-controlled using the SAS-based system.

Data Quality Review: GLNPO's Quality Management System has been evaluated as "outstanding" in previous peer and management reviews[3] (see reference #3 below). GLNPO has implemented all recommendations from these external audits and complies with Agency Quality Standards[4] (see reference #4 below). The IADN program has a joint Canadian-US quality system and binational Steering Committee that meets periodically in person or via conference calls to make decisions on network operation and data management and quality.

A regular set of laboratory and field blanks is taken and recorded for comparison to the IADN field samples. In addition, a suite of chemical surrogates and internal standards is used extensively in the analyses. A jointly-funded QA contractor conducts laboratory and field audits, tracks QA statistics, and carries out special QA studies. As previously mentioned, data from all contributing agencies are quality-controlled using a SAS-based system.

Data Limitations: The sampling design is dominated by rural sites that under-emphasize urban contributions to deposition; thus, although the data are very useful for trends information, there is less assurance of the representativeness of deposition to the whole lake. U.S. and Canadian laboratories use somewhat different sampling and analytical methods; QA studies have found that differences in resulting data are attributable mostly to the sampling differences. There are gaps in open lake water column organics data, thus limiting our ability to calculate atmospheric loadings. This gap is being addressed through the recent implementation by GLNPO of the Great Lakes Aquatic Contaminant Surveillance (GLACS) program, which will collect water contaminant data in the Lakes.

In the past, there has been a lag in the data from the Canadian sites (Burnt Island on Lake Huron and Point Petre on Lake Ontario). U.S. data is usually reported two years after it is collected (i.e., 2002 data was reported in 2004); the Canadian data may not be available on this schedule.

Error estimate: The performance measure examines the long-term trend in concentrations. Concentrations have an error of +/- 40%, usually less. Differences between laboratories have been found to be 40% or less. This is outstanding given the very low levels of these pollutants in the air and the difficulty in analysis. Improvements in quality assurance (use of a clean lab for Canadian precipitation analysis, making calibration standards consistent among agencies, etc.) are helping to further close this gap.

New/Improved Data or Systems: GLNPO expects to post joint data that has passed quality review to < http://binational.net/ >, a joint international Web Site, and to the IADN Web Site at < www.msc.ec.gc.ca/iadn/ >. Copies of IADN data are now held in U.S. and Canadian databases. Efforts are being made to be able to streamline data requests through the National Atmospheric Chemistry Database (NAtChem), which includes atmospheric data from many North American networks. Environment Canada management is working to reduce the data lag from the Canadian IADN stations.

References:

1. *"Great Lakes National Program Office Indicators. Air Indicators."* http://www.epa.gov/glnpo/glindicators/air.html

Details of these analyses can be found in the Laboratory Protocol Manuals or the agency project plans, which can be found on the IADN resource page at http://www.epa.gov/glnpo/monitoring/air/iadn/iadn.html

Overall results of the project can be found in "*Technical Summary of Progress under the Integrated Atmospheric Deposition Program 1990-1996"* and the *"Technical Summary of Progress under the Integrated Atmospheric Deposition Network 1997-2002"*. Both (as well as the Atmospheric Loadings reports) can be found on the IADN resource page.

2. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.

3. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.

4. *"Integrated Atmospheric Deposition Network Quality Assurance Program Plan - Revision 1.1.* Environment Canada and USEPA. June 29, 2001. Unpublished - in USEPA Great Lakes National Program Office files.

FY 2007 Performance Measure:

- **Cumulative total of Areas of Concern within the Great Lakes Basin that have been restored and delisted**

Performance Database: USEPA's Great Lakes National Program Office will track the cumulative total Areas of Concern (AOC) and post that information http://www.epa.gov/glnpo/aoc/index.html> Forty-three AOCs have been identified: 26 located entirely within the United States; 12 located wholly within Canada; and five that are shared by both countries. Since 1987, GLNPO has tracked the 31 that are within the US or shared; however, none of these are currently restored and delisted. Information is reported on a calendar year basis, however the system is being designed for semi-annual or more frequent updates.

Data Source: Internal tracking and communications with Great Lakes States, the US Department of State and the International Joint Commission (IJC).

Methods, Assumptions, and Suitability: USEPA's Great Lakes National Program Office is in regular communication with the Great Lakes States, the US Department of State and the IJC, and is responsible for coordinating and overseeing the de-listing of AOCs. Generally speaking, under the Great Lakes Water Quality Agreement, an AOC is an area in the Great Lakes determined to have significant beneficial use impairments, such as restrictions on fish and wildlife consumption, fish tumors, eutrophication, beach closings, added costs to agriculture or industry. In 1989, the IJC established a review process and developed AOC listing/delisting criteria (http://www.ijc.org/rel/boards/annex2/buis.htm#table1) for existing and future AOCs. In 2001, the U.S. Policy Committee, led by GLNPO and including State, Tribal, and Federal agencies responsible for Great Lakes environmental issues, developed delisting guidelines for domestic AOCs (http://www.epa.gov/glnpo/aoc/delist.html) and for the binational AOCs shared by Michigan and Ontario http://www.epa.gov/glnpo/aoc/delist.html - appendix 5).

QA/QC Procedures: GLNPO has an approved Quality Management System in place[1] (see reference #1 below) that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management.

Data Quality Review: GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews[2] (see reference #2) below. GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

Data Limitations: None known.

Error Estimate: None.

New/Improved Data or Systems: NA

References:
GLNPO will develop and maintain the appropriate tracking system once there are any de-listed U.S. or binational Areas of Concern. Information regarding Areas of Concern is currently available online at: http://www.epa.gov/glnpo/aoc/index.html

1. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.

2. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.

FY 2007 Performance Measure:

- **Cubic yards of contaminated sediment in the Great Lakes remediated (cumulative from 1997)**

Performance Database: Data tracking sediment remediation are compiled in two different formats. The first is a matrix that shows the annual and cumulative totals of contaminated sediment that was remediated in the Great Lakes basin in the reporting year and from 1997 for each Area of Concern or other non-Areas of Concern with sediment remediation. The second format depicts the yearly totals on a calendar year basis graphically. These databases are reported approximately one year after the completion of work.

Data Source: GLNPO collects sediment remediation data from various State and Federal project managers across the Great Lakes region that conduct and coordinate contaminated sediments work. These data are obtained directly from the project manager via an information fact sheet the project manager completes for any site in the Great Lakes basin that has performed any remedial work on contaminated sediment. The project manager also indicates whether an approved Quality Assurance Project Plan (QAPP) was used in the collection of data at the site. GLNPO does not accept unsolicited data without adequate assurance that a QAPP was in place and the reporters of the data are not likely to be biased.

Methods, Assumptions, and Suitability: The data collected to track sediment remediation in the Great Lakes show the amount of sediment remediated (dredged, capped, other) for that year, the amount of sediment remediated in prior years, and the amount of sediment remaining to be addressed for a particular site. This format is suitable for year-to-year comparisons for individual sites.

QA/QC Procedures: GLNPO relies on the individual government/agency project managers to provide information on whether an approved QAPP was in place during remediation of contaminated sediment. This information is used to decide if the data provided by the project manager are reliable for GLNPO reporting purposes. If an approved QAPP was not used, sediment data would not likely be reported by GLNPO, unless GLNPO finds that alternative information is available that provides sufficient quality documentation for the project and associated data. This approach allows GLNPO to use best professional judgment and flexibility in reporting data from any cases where there was not a QAPP, but (a) the remedial action is noteworthy and (b) the project was conducted by recognized entities using widely accepted best practices and operating procedures.

The tracking database houses information on the calculated amount of sediment remediated at individual sites as provided by the project managers. The individual site project managers are responsible for completing the data request forms, reviewing draft figures to verify that the GLNPO project manager transferred the data correctly, and providing any updated or improved estimates. It is GLNPO's responsibility to determine if the data are usable based upon the information sheet provided by the project managers. GLNPO does not attempt to verify mass and volume estimates due to the variability in how to calculate them. GLNPO ensures that the estimates provided make sense for the site, and that all estimates are reported in the same units. GLNPO management and Sediment Team members review the data, in the graphic and matrix formats, prior to reporting. GLNPO's Sediment Team works closely with partners and has confidence in those who provide data for the summary statistics. This familiarity with partners and general knowledge of ongoing projects allows GLNPO management to detect mistakes or questionable data.

Data Quality Review: The data, in both the graphic and matrix formats, are reviewed by individual project managers, GLNPO's Sediment Team, and management prior to being released. Data quality review procedures are outlined in the QAPP referenced below. GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews. GLNPO has implemented all recommendations from these external audits and complies with Agency Quality Standards.

Data Limitations: The data provided in the sediment tracking database should be used as a tool to track sediment remediation progress at sites across the Great Lakes. Many of the totals for sediment remediation are estimates provided by project managers. For specific data uses, individual project managers should be contacted to provide additional information.

Error Estimate: The amount of sediment remediated or yet to be addressed should be viewed as estimated data. A specific error estimate is not available.

New/Improved Data or Systems: Existing tracking systems are anticipated to remain in place.

References:

1. Giancarlo Ross, M.B. Quality Assurance Project Plan for " Great Lakes Sediment Remediation Project Summary Support." Unpublished – in USEPA Great Lakes National

Program Office files.

2. Giancarlo Ross, M.B. "*Sediment Remediation Matrix*". Unpublished - in USEPA Great Lakes National Program Office files.

3. Giancarlo Ross, M.B. "*Sediment Remediation Pie Charts*". Unpublished - in USEPA Great Lakes National Program Office files.

4. Giancarlo Ross, M.B. "Compilation of Project Managers Informational Sheets". Unpublished - in USEPA Great Lakes National Program Office files.

FY 2007 Performance Measure:

- **Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay**

Performance Database: SAV acres in Chesapeake Bay. Total acres surveyed and estimated additional acres from 1978 through 2004, excluding the years 1979-1983 and 1988 when no surveys were conducted. The FY 2007 Annual Performance Report for this measure will be based on the results of the survey conducted the previous calendar year (2006). We expect to receive the preliminary survey results for calendar year 2006 in March 2007.

Data Source: Virginia Institute of Marine Sciences provides the data (via an EPA Chesapeake Bay Program (CBP) grant to Virginia Institute of Marine Sciences). EPA has confidence in the third party data and believes the data are accurate and reliable based on QA/QC procedures described below.

Methods, Assumptions and Suitability: The SAV survey is a general monitoring program, conducted to optimize precision and accuracy in characterizing annually the status and trends of SAV in tidal portions of the Chesapeake Bay. The general plan is to follow fixed flight routes over shallow water areas of the Bay, to comprehensively survey all tidal shallow water areas of the Bay and its tidal tributaries. Non-tidal areas are omitted from the survey. SAV beds less than 1 square meter are not included due to the limits of the photography and interpretation. Annual monitoring began in 1978 and is ongoing. Methods are described in the Quality Assurance Project Plan (QAPP) on file for the EPA grant and at the VIMS web site (http://www.vims.edu/bio/sav/).

QA/QC Procedures: Quality assurance project plan for the EPA grant to the Virginia Institute of Marine Sciences describes data collection, analysis, and management methods. This is on file at the EPA Chesapeake Bay Program Office. The VIMS web site at http://www.vims.edu/bio/sav/ provides this information as well. Metadata are included with the data set posted at the VIMS web site (http://www.vims.edu/bio/sav/metadata/recent.html).

Data Quality Reviews: This indicator has undergone extensive technical and peer review by state, Federal and non-government organization partner members of the SAV workgroup and the Living Resources subcommittee. Data collection, data analysis and QA/QC are conducted by the principal investigators/scientists. The data are peer reviewed by scientists on the workgroup.

Data selection and interpretation, the presentation of the indicator, along with all supporting information and conclusions, are arrived at via consensus by the scientists and resource manager members of the workgroup. The workgroup presents the indicator to the subcommittee where extensive peer review by Bay Program managers occurs.

There have been no data deficiencies identified in external reviews

Data Limitations: Due to funding constraints, there were no surveys in the years 1979-1983 and 1988. Spatial gaps in 1999 occurred due to hurricane disturbance and subsequent inability to reliably photograph SAV. Spatial gaps in 2001 occurred due to post-nine-eleven flight restrictions near Washington D.C. Spatial gaps in 2003 occurred due to adverse weather in the spring and summer and Hurricane Isabel in the fall.

Error Estimate: No error estimate is available for this data.

New/Improved Data or Systems: Some technical improvements (e.g., photointerpretation tools) were made over the 22 years of the annual SAV survey in Chesapeake Bay.

References:
See Chesapeake Bay SAV special reports at http://www.vims.edu/bio/sav/savreports.html and bibliography at http://www.vims.edu/bio/sav/savchespub.html. The SAV distribution data files are located at http://www.vims.edu/bio/sav/savdata.html and also at http://www.chesapeakebay.net/pubs/statustrends/88-data-2002.xls. The SAV indicator is published at http://www.chesapeakebay.net/status.cfm?sid=88.

FY 2007 Performance Measures:

- **Reduce nitrogen loads entering Chesapeake Bay, from 1985 levels (2002 Baseline: 51 million pounds/year reduced)**
- **Reduce phosphorus loads entering Chesapeake Bay, from 1985 levels (2002 Baseline: 8 million pounds/year reduced)**
- **Reduce sediment loads entering Chesapeake Bay, from 1985 levels (2002 Baseline: 0.8 million tons/year reduced)**

Performance Database: Nutrient and Sediment Loads Delivered to the Chesapeake Bay. The Bay data files used in the indicator are located at http://www.chesapeakebay.net/pubs/statustrends/186-data-2003.xls. Data have been collected in 1985, 2000, 2001, 2002, 2003 and are expected on an annual basis after 2003. There is a two year data lag. Load data are from Chesapeake Bay watershed portions of NY, MD, PA, VA, WV, DE, and DC.

The FY 2007 Annual Performance Report for these measures will be based on the results of the 2005 data collection. We expect to receive the preliminary results for 2005 in January 2007.

Data Source: State/district data are provided to the Chesapeake Bay Program Office for input into the Chesapeake Bay Program Watershed Model.

Methods, Assumptions and Suitability: The data are of high quality. Data are consolidated by watershed boundaries at the state level and provided to the Chesapeake Bay Program Office for input into the watershed model.

What is the Watershed Model?

A lumped parameter Fortran based model (HSPF) that mimics the effects of hydrology, nutrient inputs, and air deposition on land and outputs runoff, groundwater, nutrients and sediment to receiving waters. Ten years of simulation are used and averaged to develop the reduction effects of a given set of Best Management Practices (BMPs). Using a ten-year average of actual weather (hydrologic, temperature, wind, etc.) ensures wet, dry and average conditions for each season are included. The effectiveness of the model is dependent upon the quality of the assumptions, BMPs and landuse descriptions used. The model is calibrated extensively to real-time monitoring, outside peer review and continual updates as better information, data collection and computer processing power become available.

What are the input data?

The model takes meteorological inputs such as precipitation, temperature, evapotranspiration, wind speed, solar radiation, dewpoint, and cloud cover to drive the hydrologic simulation. The changes in nutrient outputs are primarily determined by such factors as land use acreage, BMPs, fertilizer, manure, atmospheric deposition, point sources, and septic loads.

BMPs: Watershed Model BMPs include all nutrient reduction activities tracked by the jurisdictions for which a source has been identified, cataloged and assigned an efficiency. Efficiencies are based on literature review, recommendations of the appropriate source workgroup and approved by the Nutrient Subcommittee. It is the responsibility of the jurisdictions to track and report all nutrient reduction activities within their borders and maintain documentation to support submissions.

Land use acreage is determined by combining analyses of satellite imagery and county-based databases for agricultural activities and human population. Fertilizer is determined by estimated application rates by crops and modified by the application of nutrient management BMPs. Manure applications are determined by an analysis of animal data from the census of agriculture.

Atmospheric deposition is determined by an analysis of National Atmospheric Deposition Program (NADP) deposition data and modified by scenarios of the Regional Acid Deposition Model. Point Source loads are determined from Discharge Monitoring Reports. Septic loads are estimated in a study commissioned by the CBP.

http://www.chesapeakebay.net/pubs/1127.pdf
http://www.chesapeakebay.net/pubs/114.pdf
http://www.chesapeakebay.net/pubs/112.pdf
http://www.chesapeakebay.net/pubs/777.pdf

What are the model outputs?

The watershed model puts out daily flows and nitrogen, phosphorus, and sediment loads for input to the water quality model of the Chesapeake Bay. The daily loads are averaged over a 10-year hydrologic period (1985-1994) to report an average annual load to the Bay. The effect of flow is removed from the load calculations.

What are the model assumptions?

BMPs: Model assumptions are based on three conditions: knowledge, data availability and computing power. The ability to alter what is used in the watershed model is a function of the impact the change would have on calibration. In many cases there is new information, data or methodologies that would improve the model, but changes are not possible because of the impact on the current calibration.

Changes in manure handling, feed additives, new BMPs and some assumptions could be incorporated into the model without impacting the calibration. In these cases, the changes were made.

Other input assumptions, such as multiple manure application levels, increasing the number and redefining some land uses, defining new nutrient or sediment sources, adjusting for varying levels of management (range of implementation levels) are items scheduled for incorporation in the new model update (2005).

Input assumptions are documented in the above publications. Assumptions of the actual model code are in the HSPF documentation:
ftp://water.usgs.gov/pub/software/surface_water/hspf/doc/hspfhelp.zip

Data are collected from states and local governments programs. Methods are described at http://www.chesapeakebay.net/data/index.htm, (refer to CBP Watershed Model Scenario Output Database, Phase 4.3). For more information contact Kate Hopkins at hopkins.kate@epa.gov or Jeff Sweeney jsweeney@chesapeakebay.net

QA/QC Procedures: State offices have documentation of the design, construction and maintenance of the databases used for the performance measures, showing they conform to existing U.S. Department of Agriculture Natural Resources Conservation Service (USDA/NRCS) technical standards and specifications for nonpoint source data and EPA's Permit Compliance System (PCS) standards for point source data. State offices also have documentation of implemented Best Management Practices (BMPs) based on USDA NRCS standards and specification and the Chesapeake Bay Program's protocols and guidance. BMPs are traditionally used to reduce pollutant loads coming from nonpoint sources such as urban/suburban runoff, agriculture, and forestry activities.

References include: the USDA NRCS Technical Guide and Appendix H from the Chesapeake Bay Program (contact Russ Mader at mader.russ@epa.gov or Kate Hopkins at hopkins.kate@epa.gov). Quality assurance program plans are available in each state office.

Data Quality Reviews: All data are reviewed and approved by the individual jurisdictions before input to the watershed model. QA/QC is also performed on the input data to ensure basic criteria, such as not applying a BMP at a higher level than allowed. A specific level of input should yield output within a specified range of values. Output is reviewed by both the CBPO staff and the Tributary Strategy Workgroup as an additional level of QA/QC. Any values out of the expected range is analyzed and understood before approval and public release. The model itself is given a quarterly peer review by an outside independent group of experts. There have been no data deficiencies identified in external reviews.

Data Limitations: Data collected from voluntary collection programs are not included in the database, even though they may be valid and reliable. The only data submitted by state and local governments to the Chesapeake Bay Program Office are data that are required for reporting under the cost share and regulatory programs. State and local governments are aware that additional data collection efforts are being conducted by non-governmental organizations, however, they are done independently of the cost share programs and are not reported.

Error Estimate: There may be errors of omission, misclassification, incorrect georeferencing, misdocumentation or mistakes in the processing of data.

New/Improved Data or Systems: The next version of the watershed model is currently under development and will be completed in 2006. The new version (phase 5) will have increased spatial resolution and ability to model the effects of management practices. The phase 5 watershed model is a joint project with cooperating state and Federal agencies. Contact Gary Shenk gshenk@chesapeakebay.net or see the web site at http://www.chesapeakebay.net/phase5.htm

References:

See http://www.chesapeakebay.net/data/index.htm, refer to CBP Watershed Model Scenario Output Database, Phase 4.3. Contact Kate Hopkins at hopkins.kate@epa.gov or Jeff Sweeney jsweeney@chesapeakebay.net
The nutrient and sediment loads delivered to the Bay indicator are published at http://www.chesapeakebay.net/status.cfm?sid=186. The nutrient and sediment loads delivered to the Bay data files used in the indicator are located at http://www.chesapeakebay.net/pubs/statustrends/186-data-2003.xls. See "Chesapeake Bay Watershed Model Application and Calculation of Nutrient and Sediment Loadings, Appendix H: Tracking Best Management Practice Nutrient Reductions in the Chesapeake Bay Program, A Report of the Chesapeake Bay Program Modeling Subcommittee", USEPA Chesapeake Bay Program Office, Annapolis, MD, August 1998, available at http://www.chesapeakebay.net/pubs/777.pdf
See USDA NRCS Field Office Technical Guide available at http://www.nrcs.usda.gov/technical/efotg/

FY 2007 Performance Measures:

- **Prevent water pollution and protect aquatic ecosystems so that overall aquatic system health of coastal waters of the Gulf of Mexico is improved on the "good/fair/poor" scale of the National Coastal Condition Report**

- **Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico**

Performance Database: (1) Louisiana Coastal Hypoxia Shelfwide Survey metadata (data housed at National Oceanic and Atmospheric Administration/National Ocean Data Center, Silver Spring, Maryland). Funds for this research are provided by the National Oceanic and Atmospheric Administration, Coastal Ocean Program (NOAA/COP)

(2) Southeast Area Monitoring and Assessment Program (**SEAMAP) -** Gulf surveys.

The data used in assessing performance under this measure have been collected annually on a calendar year basis since 1982.

Data Source: (1) Hydrographic data are collected during annual surveys of the Louisiana continental shelf. Nutrient, pigment and station information data are also acquired. The physical, biological and chemical data collected are part of a long-term coastal Louisiana dataset. The goal is to understand physical and biological processes that contribute to the causes of hypoxia and use the data to support environmental models for use by resource managers.

(2) The Southeast Area Monitoring and Assessment Program (SEAMAP) is a state/Federal/university program for collection, management and dissemination of fishery-independent data and information in the southeastern United States.

Methods, Assumptions and Suitability: The distribution of hypoxia on the Louisiana shelf has been mapped annually in mid-summer (usually late July to early August) over a standard 60- to 80- station grid since 1985. During the shelfwide cruise, data are collected along transects from the mouth of the Mississippi River to the Texas border. Information is collected on a wide range of parameters, including conductivity/temperature/depth (CTD), light penetration, dissolved oxygen, suspended solids, nutrients, phytoplankton, and chlorophyll. Hydrographic, chemical, and biological data also are collected from two transects of Terrebonne Bay on a monthly basis, and bimonthly, off Atchafalaya Bay. There is a single moored instrument array in 20-m water depth in the core of the hypoxic zone that collects vertical conductivity/temperature data, as well as near-surface, mid, and near-bottom oxygen data; an upward directed Acoustic Doppler Current Profiler (ADCP) on the seabed measures direction and speed of currents from the seabed to the surface. There is also an assortment of nutrient and light meters.

Station depths on the cruises range from 3.25 to 52.4 meters. Northern end stations of transects are chosen based on the survey vessel's minimum depth limits for each longitude.

Standard data collections include hydrographic profiles for temperature, salinity, dissolved oxygen, and optical properties. Water samples for chlorophyll *a* and phaeopigments, nutrients,

salinity, suspended sediment, and phytoplankton community composition are collected from the surface, near-bottom, and variable middle depths.
The objective is to delimit and describe the area of midsummer bottom dissolved oxygen less than 2 (mg. L).

Details of data collection and methodology are provided in referenced reports.

QA/QC Procedures: NOAA does not require written QA/QC procedures or a Quality Management Plan; however, the procedures related to data collection are covered in metadata files.

The SEAMAP Data Management System (DMS) conforms to the SEAMAP Gulf and South Atlantic DMS Requirements Document developed through a cooperative effort between National Marine Fisheries Service (NMFS) and other SEAMAP participants.

Data Quality Reviews: (1) Essential components of the environmental monitoring program in the Gulf of Mexico include efforts to document the temporal and spatial extent of shelf hypoxia, and to collect basic hydrographic, chemical and biological data related to the development of hypoxia over seasonal cycles. All data collection protocols and data are presented to and reviewed by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (the Task Force) in support of the adaptive management approach as outlined in the Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico (the Action Plan).

(2) Biological and environmental data from all SEAMAP-Gulf surveys are included in the SEAMAP Information System, managed in conjunction with National Marine Fisheries Service – Southeast Fisheries Science Center (NMFS-SEFSC). Raw data are edited by the collecting agency and verified by the SEAMAP Data Manager prior to entry into the system. Data from all SEAMAP-Gulf surveys during 1982-2003 have been entered into the system, and data from 2004 surveys are in the process of being verified, edited, and entered for storage and retrieval.

Data Limitations: Monitoring for shelf-wide conditions are currently performed each year primarily, but not exclusively, in July. The spatial boundaries of some monitoring efforts are limited by resource availability. Experience with the datasets has shown that when data are plotted or used in further analysis, outlying values may occasionally be discovered.

Error Estimate: (1) The manufacturers state +/- 0.2mg/L as the error allowance for both SeaBird and Hydrolab oxygen sensors.

References:
Mississippi River/Gulf of Mexico Watershed Nutrient Task force.2001. Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico. Washington, DC.

Rabalais N.N., R.E. Turner, Dubravko Justic, Quay Dortch, and W.J. Wiseman. 1999. Characterization of Hypoxia. Topic 1 Report for the Integrated assessment on Hypoxia in the

Gulf of Mexico. NOAA Coastal Ocean Program Decision Analysis Series No. 15. Silver Spring Maryland: National Oceanic and Atmospheric Administration.

Hendee, J.C. 1994. Data management for the nutrient enhanced coastal ocean productivity program. *Estuaries* 17:900-3

Rabalais, Nancy N., W.J. Wiseman Jr., R.E. Turner ; Comparison of continuous records of near-bottom dissolved oxygen from the hypoxia zone of Louisiana. *Estuaries* 19:386-407

SEAMAP Information System http://www.gsmfc.org/sis.html

GOAL 4 OBJECTIVE 5

FY 2007 Performance Measures:

- **Identification and evaluation of in silico, biochemical and molecular indicators that can be used to validate the predictiveness of high through put tools for categorizing potential for toxicity for a subset of well studied chemicals such as food use pesticides**
- **Improved risk assessment tools and characterization of ecological risks of genetically modified crops**
- **Conduct numerical air quality simulations using as input regional climate modeling, emissions modeling, and driver scenarios**
- **Final Air Quality Criteria Document (AQCD) for Lead which serves as the basis for the EPA/OAQPS staff paper for the National Ambient Air Quality Standard (NAAQS)**
- **Complete 16 human health assessments of high priority chemicals for interagency review or external peer review, including acrylonitrile, methanol, methylene chloride, trichloroethylene, and dioxin for interagency review**
- **Improved protocols for screening and testing (PART Measure)**
- **Effects and exposure milestones met (PART Measure)**
- **Assessment milestones met (PART Measure)**
- **Risk management milestones met (PART Measure)**
- **Provide guidance documents, journal articles or models to support efficient and effective outdoor clean-ups and safe disposal of decontamination wastes after chemical, biological, or radiological terrorist attacks. These materials can be used by emergency and remedial response personnel, and building and facility managers**

- **Generate emergency/laboratory capacity documents, guidance or other tools to improve the standardization of methods and/or safety of personnel involved with the collection or analysis of environmental samples generated during a nationally significant**

- **Test and evaluate homeland security-related technologies and produce a technology evaluation report for each. The reports will contain detailed performance information that can be used by emergency and remedial response personnel, water utility operators, and building and facility managers for selecting technologies for purchase and for deployment in protecting against or recovering from a chemical, biological, or radiological terrorist**

- **Provide products, such as monitoring systems, journal articles, analytical methods, and detectors, to enhance the security of water systems (through early detection of a contamination attack of a water system) and prepare for a terrorist attack on water system (through improved analytical techniques and response techniques for treatment of the water and decontamination of the infrastructure). Intended for use by water utilities, first responders and Local, State and Federal Government**

- **Evaluate relevant health and risk-related information and data and summarize into usable tools, such as applied risk assessment methodologies, guidance, and journal articles, to support risk assessors and other decision-makers in the rapid assessment of risk and the determination of cleanup goals and procedures following the contamination of buildings/facilities, water distribution systems or outdoor areas with chemical, biological or radiological agents as a result of a terrorist**

Performance Database: Program outputs.

Data Source: Internal tracking system, the Integrated Management Resources System (IMRS).

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

FY 2007 Performance Measure:

- **Number of states using a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of national programs and policies (PART measure)**

Performance Database: Internal Regional EPA tracking system; Environmental Monitoring and Assessment Program (EMAP) database for public access. The internal tracking database is for partners in twenty-three states. These data have not undergone QA and are works-in-progress. The public database, on the other hand, contains all information that has completed QA and has been made public in the National Coastal Condition Report.

Data Source: Survey responses from coastal states that have adopted a standard protocol for monitoring the ecological condition of estuaries; including, probabilistic sampling designs, response designs for indicators, laboratory analyses, statistical analyses and reporting formats.

Methods, Assumptions and Suitability: EPA has a cooperative agreement with twenty-three states to conduct the National Coastal Assessment Monitoring survey. As part of the National Coastal Assessment (NCA) Quality Assurance Program, participating states are trained on the application of the probability-based sampling design and standardized methods required for sample collection.

QA/QC Procedures: Each State or Cooperative Agreement recipient participates in an extensive, three-level QA review process outlined in the Quality Assurance Project Plan coordinated by EPA's National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division (AED).

Data Quality Reviews: The NCA Program monitors and assesses the quality of the data collected. To ensure a high quality data set, states collect a suite of field data for laboratory analysis. The states may elect to forward the samples to a national contract laboratory or conduct the analytical analyses themselves. The results of the field and laboratory analyses are sent to AED for incorporation into an internal EPA regional database.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: EPA anticipates by 2007, all states will have adopted and implemented the National Coastal Assessment Monitoring survey. Improvements in the management of contracts, coordination of the shipment of samples, and distribution of resulting data are now performed by EPA to give states without capability opportunity to partner with the agency.

References:

US EPA. 2000. Coastal 2000 Northeast Component Information Management Plan. Office of Research and Development, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, Narragansett, RI.

US EPA. 2001. Environmental Monitoring and Assessment Program (EMAP): National Coastal Assessment Quality Assurance Project Plan, 2001-2004. EPA/620/R-01/002. Office of Research and Development, National Health and Environmental Effects Research Laboratory, Gulf Ecology Division, Gulf Breeze, FL.

US EPA. 2001 National Coastal Condition Report. EPA-620/R-01/005. Office of Research and Development & Office of Water, Washington, DC.

US EPA. 2005. National Coastal Condition Report II. EPA-620/R-03/002. Office of Research and Development & Office of Water, Washington, DC.

US EPA. 2005. National Coastal Condition Report II. Appendix A - Quality Assurance. pp. 259-264. EPA-620/R-03/002. Office of Research and Development & Office of Water, Washington, DC.

US EPA. 2005. National Coastal Condition Report II. Appendix B - Three-Level QA Review of Coastal 2000 Northeast Database. pp. 265-266. EPA-620/R-03/002. Office of Research and Development & Office of Water, Washington, DC.

FY 2007 Performance Measure:

- **Percentage of planned outputs delivered in support of public health outcomes long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support of mechanistic data long-term goal (PART Measure)**
- **Percentage of planned outcputs delivered in support of the aggregate and cumulative risk long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support of the susceptible subpopulations long-term goal (PART Measure)**
- **Average time (in days) to process research grant proposals from RFA closure to submittal to EPA's Grants Administration Division, while maintaining a credible and efficient competitive merit review system (as evaluated by external expert review) (PART Measure)**

Performance Database: No internal tracking systems.

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

GOAL 5 OBJECTIVE 1

VERIFICATION AND VALIDATION OF PERFORMANCE MEASURES

FY 2007 Performance Measures:

- **Percentage of concluded enforcement cases (including SEPs) requiring that pollution be reduced, treated, or eliminated**
- **Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions**
- **Percentage of concluded enforcement cases (including SEPs) requiring implementation of improved environmental management practices**
- **Dollars invested in improved environmental performance or improved environmental management practices as a result of concluded enforcement actions (i.e., injunctive relief and SEPs)**
- **Pounds of pollutants reduced, treated, or eliminated as a result of audit agreements**

Performance Databases: The Integrated Compliance Information System, (ICIS), which tracks EPA civil enforcement (e.g., judicial and administrative) actions. The Criminal Case Reporting System (CCRS), the new enhanced database for tracking criminal enforcement actions, will track the criminal enforcement components of the pollution reduction and improved environmental management measures and, conjunction with ICIS, will track the criminal enforcement recidivism measure.

Data Source: Most of the essential data on environmental results in ICIS are collected through data developed originally through the use of the Case Conclusion Data Sheet (CCDS), which

Agency staff begin preparing after the conclusion of each civil (judicial and administrative) enforcement action. EPA implemented the CCDS in 1996 to capture relevant information on the results and environmental benefits of concluded enforcement cases. The information generated through the CCDS is used to track progress for several of the performance measures. The CCDS form consists of 27 specific questions which, when completed, describe specifics of the case; the facility involved; information on how the case was concluded; the compliance actions required to be taken by the defendant(s); the costs involved; information on any Supplemental Environmental Project to be undertaken as part of the settlement; the amounts and types of any penalties assessed; and any costs recovered through the action, if applicable. The CCDS documents whether the facility/defendant, through injunctive relief, must: (1) reduce pollutants; and (2) improve management practices to curtail, eliminate or better monitor and handle pollutants in the future. The Criminal Enforcement Program also maintains a separate case conclusion data form and system for compiling and quantifying the results of criminal enforcement prosecution, including pollution reduction and the percentage of concluded criminal enforcement cases requiring improved environmental management practices. The revised criminal enforcement case conclusion form will be used in FY06.

Methods, Assumptions and Suitability: For enforcement actions which result in pollution reductions, the staff estimate the amounts of pollution reduced for an immediately implemented improvement, or an average year once a long-term solution is in place. There are established procedures for the staff to calculate, by statute, (e.g., Clean Water Act), the pollutant reductions or eliminations. The procedure first entails the determination of the difference between the current Aout of compliance@ quantity of pollutants released and the post enforcement action Ain compliance@ quantity of pollutants released. This difference is then converted into standard units of measure.

QA/QC Procedures: Quality Assurance/Quality Control procedures [See references] are in place for both the CCDS and ICIS entry. There are a Case Conclusion Data Sheet Training Booklet [See references] and a Case Conclusion Data Sheet Quick Guide [See references], both of which have been distributed throughout Regional and Headquarters= (HQ) offices. The criminal enforcement program has prepared a companion guide for use by its field agents. Separate CCDS Calculation and Completion Checklists [See references] are required to be filled out at the time the CCDS is completed. Criminal enforcement measures are quality assured by the program at the end of the fiscal year.

Quality Management Plans (QMPs) are prepared for each Office within The Office of Enforcement and Compliance Assurance (OECA). OC=s QMP, effective for 5 years, was approved July 29, 2003 by the Office of Environmental Information (OEI) and is required to be re-approved in 2008. OECA instituted a requirement for semiannual executive certification of the overall accuracy of ICIS information to satisfy the Government Performance and Results Act (GPRA), the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. In addition, in FY 2003, the Office of Compliance (OC) established extensive processes for ensuring timely input, review and certification of ICIS information. OC implements this process on a quarterly basis to assure a high level of quality of the data in the ICIS data system.

Data Quality Review: Information contained in the CCDS and ICIS are required by policy to be reviewed by regional and headquarters= staff for completeness and accuracy. ICIS data is reviewed quarterly and reviewed and certified at mid-year and end-of-year.

Data Limitations: The pollutant reductions or eliminations reported on the CCDS are estimates of what will be achieved if the defendant carries out the requirements of the settlement. Information on expected outcomes of state enforcement is not available. The estimates are based on information available at the time a case is settled or an order is issued. In some instances, this information will be developed and entered after the settlement, during continued discussions over specific plans for compliance. Because of the time it takes to agree on the compliance actions, there may be a delay in completing the CCDS. Additionally, because of unknowns at the time of settlement, different levels of technical proficiency, or the nature of a case, OECA=s expectation is that based on information on the CCDS, the overall amounts of pollutant reductions/eliminations will be prudently underestimated.

Error Estimate: Not available

New & Improved Data or Systems: In November 2000, EPA completed a comprehensive guidance package on the preparation of the Case Conclusion Data Sheet. This guidance, issued to headquarters= and regional managers and staff, was made available in print and CD-ROM, and was supplemented in FY 2002 [See references]. The guidance contains work examples to ensure better calculation of the amounts of pollutants reduced or eliminated through concluded enforcement actions. EPA trained each of its ten regional offices during FY 2002. OC=s Quality Management Plan was approved by OEI July 29, 2003, and is effective for five years. [See references]. A new criminal enforcement case management, tracking and reporting system (Criminal Case Reporting System) will come on line during FY 2006 that will replace the existing criminal docket (CRIMDOC). This new system allows for a more user friendly database and greater tracking, management, and reporting capabilities.

In FY 2006, a new version of the ICIS data system, ICIS 2.0, will become operational. The new data system will have all of the functionality of old ICIS (ICIS 1.0) but will also: a) add some functionality for tracking EPA enforcement and compliance activities and b) become the database of record for the Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) program, including all federal and state enforcement, compliance and permitting data. (States will be migrated in waves over to ICIS 2.0 from the predecessor data system, the Permit Compliance System (PCS), over a period of about two years.)

References: Quality Assurance and Quality Control procedures: Data Quality: Life Cycle Management Guidance, (IRM Policy Manual 2100, dated September 28, 1994, reference Chapter 17 for Life Cycle Management). Case Conclusion Data Sheets: Case Conclusion Data Sheet, Training Booklet, issued November 2000 available: http://www.epa.gov/compliance/resources/publications/planning/caseconc.pdf; Quick Guide for Case Conclusion Data Sheet, issued November 2000. Information Quality Strategy and OC=s Quality Management Plans: Final Enforcement and Compliance Data Quality Strategy, and Description of FY 2002 Data Quality Strategy Implementation Plan Projects, signed March 25, 2002. ICIS: U.S. EPA, Office of Enforcement and Compliance Assurance, ICIS Phase I,

implemented June 2002. Internal EPA database; non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA). Criminal Enforcement Division Case Conclusion

FY 2007 Performance Measure:

- **Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations**

Performance Databases: ICIS and manual reporting by regions

Data Sources: EPA regional offices and Office of Civil Enforcement (specifically, the Clean Air Act (CAA)- Mobile Source program) and Office of Compliance – Agriculture Division.

Methods, Assumptions and Suitability: A new measurement tool, the Inspection Conclusion Data Sheet, (ICDS) will be used to analyze results from inspections/evaluations conducted under some of EPA=s major statutes. EPA will analyze data on the three pieces of information from the ICDS: on-site actions taken by facilities, deficiencies observed, and compliance assistance provided. The inspectors complete the Inspection Conclusion Data Sheet (ICDS) for each inspection or evaluation subject to ICDS reporting and the information is either entered into ICIS or reported manually by the Regions and HQ programs.

QA/QC Procedures: ICIS has been developed per Office of Information Management Lifecycle Management Guidance, which includes data validation processes, internal screen audit checks and verification, system and user documents, data quality audit reports, third party testing reports, and detailed report specifications for showing how data are calculated.

Data Quality Review: Regional manual reports are reviewed and checked against the inspection or evaluation data entered into other Agency databases (Air Facilities Subsystem (AFS), Permit Compliance System (PCS), Online Tracking Information System (OTIS), Integrated Data for Enforcement Analysis (IDEA)). Manual reports are also checked against ICIS if the Region entered the manual reported inspections/evaluations into that system. Information contained in the CCDS, ICDS and ICIS are required by policy to be reviewed by regional and headquarters= staff for completeness and accuracy. In FY2003, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. ICIS data are reviewed quarterly and certified at mid-year and end of year.

Data Limitations: Through FY 2005, ICIS is the database of record for only CAA 112(r) inspections and audits. Beginning in FY 2006, ICIS becomes the databases of record for all inspections that are not reported into one of the other legacy data bases (with the exception of the reporting by a couple of Regions' Underground Injection Control (UIC) inspections). The legacy databases into which certain program's inspections will continue to be reported are AFS, PCS, RCRAInfo, and NCDB/FTTS. Regions are encouraged to use ICIS specifically for ICDS

reporting, for all inspection programs. This may result in redundant, incomplete, or contradictory data.

New & Improved Data or Systems: In FY 2006, a new version of the ICIS data system, ICIS 2.0, will become operational. The new data system will have all of the functionality of old ICIS (ICIS 1.0) but will also: a) add some functionality for tracking EPA enforcement and compliance activities and b) become the database of record for the Clean Water Act (CWA) national Pollutant Discharge Elimination system (NPDES) program, including all federal and state enforcement, compliance and permitting data. (States will be migrating in waves over to ICIS 2.0 from the predecessor data system, the Permit Compliance System (PCS), over a period of about two years.)

References: ICIS: U.S. EPA, Office of Enforcement and Compliance Assurance, ICIS Phase I, implemented June 2002. Internal EPA database; non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA).

FY 2007 Performance Measures:

- **Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved environmental management practices as a result of EPA assistance**

- **Percentage of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or eliminated pollution, as a result of EPA assistance**

Performance Database: EPA Headquarters and Regions will manage data on regulated entities receiving direct compliance assistance from EPA through ICIS.

Data source: Headquarters and EPA=s Regional offices will enter information in ICIS upon completion and delivery of media and sector-specific compliance assistance including workshops, training, on-site visits and distribution of compliance assistance tools. ICIS is designed to capture outcome measurement information such as increased awareness/understanding of environmental laws, changes in behavior and environmental improvements as a result of the compliance assistance provided.

Methods, Assumptions and Suitability: N/A

QA/QC: Automated data checks and data entry guidelines are in place for ICIS.

Data Quality Review: Information contained in the ICIS is reviewed by Regional and Headquarters staff for completeness and accuracy. In FY2003, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. ICIS data are reviewed quarterly and certified at mid-year and end of year.

Data Limitations: None

Error Estimate: None

New & Improved Data or Systems: EPA plans to improve and/or modify elements of the compliance assistance module in ICIS based on use of the system.

References: US EPA, Integrated Compliance Information System Compliance Assistance Module, February 2004; US EPA, Compliance Assistance in the Integrated Compliance Information System Guidance, February 20, 2004. US EPA, 2005 Guidance Addendum for Reporting Compliance Assistance in the Integrated Compliance Information system, March 2005.

GOAL 5 OBJECTIVE 2

FY 2007 Performance Measure:

- **Number of pounds reduced (in millions) in generation of priority list chemicals from 2001 baseline of 84 million pounds**

Performance Database: Toxics Release Inventory (TRI) provides facility/chemical-specific data quantifying the amount of TRI-listed chemicals entering wastes associated with production processes in each year. The total amount of each chemical in production-related wastes can be broken out by the methods employed in managing such wastes, including recycling, energy recovery, treatment, and disposal/release. Amounts of these wastes that are not recycled are tracked for this performance measure. The performance measure uses the Chemical Abstract System (CAS) numbers for the 23 chemicals identified by EPA as priority chemicals (http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm).

Data Source: Regulated facilities report facility-specific, chemical-specific release, waste and recycling data to EPA. For example, in calendar year 2003, 23,811 facilities filed 91,648 TRI reports.

Methods, Assumptions, and Suitability: TRI data are collected as required by Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and expanded by the Pollution Prevention Act of 1990. (40 CFR Part 13101; www.epa.gov/tri/). Only certain facilities in specific Standard Industrial Classification (SIC) codes are required to report annually the quantities of over 650 listed toxic chemicals and chemical categories released to each environmental medium and otherwise managed as waste (40 CFR Part 13101; www.epa.gov/tri/). Regulation requires covered facilities to use monitoring, mass balance, emission factors and/or engineering approaches to estimate releases and recycling volumes. For purposes of the performance measure, data controls are employed to facilitate cross-year comparisons: a subset of chemicals and sectors are assessed that are consistently reported in all years.

QA/QC Procedures: Most facilities use EPA-certified automated Toxics Release Inventory (TRI) Form R reporting tools, which contain automated error checking mechanisms. Upon receipt of the facilities' reports, EPA conducts automated edits, error checks, data scrubs, corrections and normalization during data entry and subsequent processing. The Agency does not control the quality of the data submitted by the regulated community. EPA does, however, work with the regulated community to improve the quality of their estimates.

Data Quality Review: The quality of the data contained in the TRI chemical reports is dependent upon the quality of the data that the reporting facility uses to estimate its releases and other waste management quantities. Use of TRI Form R by submitters and EPA's data reviews help assure data quality. The GAO Report Environmental Protection: EPA Should Strengthen Its Efforts to Measure and Encourage Pollution Prevention (GAO - 01 – 283, http://www.gao.gov/new.items/d01283.pdf), recommends that EPA strengthen the rule on reporting of source reduction activities. Although EPA agrees that source reduction data are valuable, the Agency has not finalized regulations to improve reporting of source reduction activities by TRI-regulated facilities.

Data Limitations: Use of the data should be based on the user's understanding that the Agency does not have direct assurance of the accuracy of the facilities' measurement and reporting processes. TRI release data are reported by facilities on a good faith, best-estimate basis. EPA does not have the resources to conduct on-site validation of each facility's reporting data, though on-site investigations do occur each year at a subset of reporting facilities.

Error Estimate: From the various data quality efforts, EPA has learned of several reporting issues such as incorrect assignment of threshold activities and incorrect assignment of release and other waste management quantities (EPA-745-F-93-001; EPA-745-R-98-012; www.epa.gov/tri/tridata/data_quality_reports/index.htm; www.epa.gov/tri/report/index.htm.)

For example, certain facilities incorrectly assigned a 'processing' (25,000 lb) threshold instead of an 'otherwise use' (10,000 lb) threshold for certain non-persistent, bioaccumulative and toxic (PBT) chemicals, so they did not have to report if their releases were below 25,000 lbs. Also, for example, some facilities incorrectly reported fugitive releases instead of stack releases of certain toxic chemicals.

New/Improved Data or Systems: EPA plans to develop regulations for improving reporting of source reduction activities by TRI reporting facilities.

References: <www.epa.gov/tri/> and <www.epa.gov/tri/report/index.htm≥Bureau of Economic Analysis (BEA) indices are available at http://www.bea.gov/bea/regional/gsp/

FY 2007 Performance Measures:

- **Reduction in overall pounds of pollution**
- **Billions of BTUs of energy conserved**
- **Billions of gallons of water saved**
- **Millions of dollars saved through reductions in pollution**

- **Cumulative reduction of hazardous chemical releases to the environment and hazardous chemicals in industrial waste, in millions of pounds. (PART measure)**

The Agency's Pollution Prevention programs include Green Chemistry, Design for the Environment, Green Engineering, and other Pollution Prevention (P2) Programs. Each of these programs operates under the principles of the Pollution Prevention Act and works with others to reduce waste at the source, before it is generated. These programs are designed to facilitate the incorporation of pollution prevention concepts and principles into the daily operations of government agencies, businesses, manufacturers, nonprofit organizations, and individuals.

Performance Database: *Green Chemistry (GC):* EPA is developing an electronic database ("metrics" database) which will allow organized storage and retrieval of green chemistry data submitted to EPA on alternative feedstocks, processes, and safer chemicals. The database is being designed to store and retrieve, in a systematic fashion, information on the environmental benefits and, where available, economic benefits that these alternative green chemistry technologies offer. The database is also being designed to track the quantity of hazardous chemicals and solvents eliminated through implementation of these alternative technologies. Green Chemistry technology nominations are received up to December 31 of the year preceding the reporting year, and it normally takes 6-12 months to enter new technologies into the database. By the end of FY 2005, EPA expects to achieve its target of having a single instance of each unique nominated technology for 1996-2003 in the database.

Design for the Environment (DfE): DfE does not have a performance database. Instead, DfE is populating an evaluation spreadsheet for its programs (i.e., Alternatives to Lead Solder in Electronics, Furniture Flame Retardants Alternatives, the Formulator Program, and a collaboration with the Air Office on DfE approaches as implementation mechanisms for regulating Local Area Sources, such as Auto Refinishing). Spreadsheet content will vary by approach, and generally will include measures comparing baseline technologies or products to "cleaner" ones, as well as information on partner adoption and/or market share of cleaner alternatives; for example, the DfE formulator approach tracks chemical improvements (such as pounds of chemicals of concern no longer used by partners, and conversely pounds of safer ingredients) and resource savings. This information will allow benefit calculations. Information is collected on an ongoing basis.

Green Engineering (GE): Similar to the Green Chemistry Program, EPA will be developing an electronic database to keep track of environmental benefits of GE projects including, gallons of water, British Thermal Units (BTUs) and dollars saved and pounds of carbon dioxide (CO_2) emissions eliminated

Pollution Prevention (P2) Programs: EPA has worked closely with state and local P2 programs to develop a national system that will provide data on environmental outcomes (the core P2 metrics included in the above performance measures). Many EPA Regional offices, state and local P2 programs are currently collecting data on P2 program activities, outputs, and outcomes. EPA has worked successfully with these programs to reach consensus on standardized metrics, including definitions, and to reach consensus on an ongoing system to gather data on these metrics. The core measures in the National Pollution Prevention Results System were adopted in

April 2005. Over 25 state and state-level P2 organizations have signed Memoranda of Agreements to provide data using the metrics. The system will also benefit from new reporting requirements in EPA P2 grants. The new system has the cooperation of key stakeholder groups, such as the National Pollution Prevention Roundtable, which is currently updating a January 2003 report providing baseline data for the period 1990-2000 to add data from 2001-2003. The new system also has the cooperation of the regional Pollution Prevention Resource Exchange (P2RX) centers. As the system is implemented, data collected from the program will be placed in a new national database, facilitating convenient data storage and retrieval.

Data Source: *Green Chemistry (GC):* Industry and academia submit nominations annually to the Office of Pollution Prevention and Toxics (OPPT) in response to the Presidential Green Chemistry Challenge Awards. Environmental and economic benefit information is included in the nomination packages. The metrics database pulls this benefit information from the nominations.

Design for the Environment (DfE): The source of DfE's evaluation information varies by the approach and the partner industry. For example, in DfE's formulation improvement partnerships, partners provide proprietary information on both their original formulation and their environmentally improved one. Partners sign a memorandum of understanding with EPA/DfE which includes information on how the company uses cleaner chemistry to formulate a product, the environmental and health benefits of the product, and customer and sales information. For other partnerships, data sources typically include technical studies (e.g., cleaner technology substitutes assessments, life-cycle assessments) and market/sales/adoption information from associations.

Green Engineering (GE): Data will come from profiles of recognized projects by technical journals or organizations, such as the American Institute of Chemical Engineers, or directly reported by project leaders on industry projects or joint academia-industry projects.

Pollution Prevention (P2) Programs: State and local P2 programs will submit data as described above.

Methods, Assumptions, and Suitability: *Green Chemistry (GC):* The information will be tracked directly through internal record-keeping systems. No models or assumptions or statistical methods are employed.

Design for the Environment (DfE): Methods and assumptions vary by approach and partner industry. Each DfE partnership identifies and focuses on a unique set of chemicals and industrial processes. For most DfE approaches, the general method is to 1) develop a model for a "typical" or "average" facility, 2) assess the differences between traditional and alternative technologies on metrics such as toxics use, resource consumption, cost, and performance, 3) track market share of alternative technologies over time, and 4) multiply the increase in use of alternative, cleaner technologies by the environmental, cost, and performance differences identified in Step 2. Through this quantitative process, the Agency is able to calculate the benefits generated by the cleaner technology: e.g. how much toxics use reduction is occurring, how much less resources are consumed. Similarly, for DfE's formulation improvement approach, the method is to

analyze environmental (e.g., toxics use, resource consumption) and cost differences between the old and improved formulations. Proprietary information, including sales data, are provided by our partners. For each approach, we will develop a spreadsheet that includes the methods and assumptions.

Green Engineering (GE): The information will be tracked directly through EPA record keeping systems. No models or statistical extrapolations are expected to be used.

Pollution Prevention (P2) Programs: The data will come from state and local P2 programs as described above. No models or assumptions or statistical methods are employed.

QA/QC Procedures: All Pollution Prevention and Toxics programs operate under the Information Quality Guidelines as found at http://www.epa.gov/oei/qualityguidelines/index.html and under the Pollution Prevention and Toxics Quality Management Plan (QMP). The Quality Management Plan is for internal use only.

Green Chemistry: Data undergo a technical screening review by the Agency before being uploaded to the database to determine if they adequately support the environmental benefits described in the application. Subsequent to Agency screening, data are reviewed by an external independent panel of technical experts from academia, industry, government, and nongovernmental organizations (NGOs). Their comments on potential benefits are incorporated into the database. The panel is convened by the Green Chemistry Institute of the American Chemical Society, primarily for judging nominations submitted to the Presidential Green Chemistry Challenge Awards Program and selecting winning technologies.

Design for the Environment (DfE): Data undergo a technical screening review by DfE before being uploaded to the spreadsheet. DfE determines whether data submitted adequately support the environmental benefits described.

Green Engineering (GE): Data collected will be reviewed to ensure it meets EPA's Quality Guidelines in terms of transparency, reasonableness and accuracy.

Pollution Prevention (P2) Programs: Data will undergo technical screening review by EPA and other program participants (e.g., National Pollution Prevention Roundtable) before being placed in the database. Additional QA/QC steps to be developed, as appropriate.

Data Quality Review: All Office of Pollution Prevention and Toxics (OPPT) programs operate under EPA's Information Quality Guidelines as found at http://www.epa.gov/oei/qualityguidelines/index.html and under the OPPT Quality Management Plan (QMP).
Green Chemistry (GC): Review of industry and academic data as documented in U.S. EPA, Office of Pollution Prevention and Toxics, Green Chemistry Program Files available at http://www.epa.gov/opptintr/greenchemistry/

Design for the Environment (DfE): Not applicable.

Green Engineering (GE): Data collected will be reviewed to meet data quality requirements.

Pollution Prevention (P2) Programs: The new metrics and data system were based, in part, on recommendations in the February 2001 GAO report, "EPA Should Strengthen Its Efforts to Measure and Encourage Pollution Prevention" (GAO-01-283). They also incorporate work by such organizations as the Northeast Waste Management Officials Association, Pacific Northwest Pollution Prevention Resource Center, and National Pollution Prevention Roundtable

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Data Limitations: *Green Chemistry (GC):* Occasionally data are not available for a given technology due to confidential business information (the Presidential Green Chemistry Challenge Awards Program does not process CBI). Because the Presidential Green Chemistry Challenge is a voluntary public program, it cannot routinely accept or process CBI. If the program stakeholders cannot verify a technology because of proprietary information, especially during the final judging stage of the awards program, they can and do ask EPA to conduct the verification internally. EPA will then ask the company to share confidential information with CBI-cleared OPPT staff in order for EPA to conduct the verification. It also is occasionally unclear as to what is the percentage market penetration of implemented alternative green chemistry technology (potential benefits vs. realized benefits). In these cases, the database is so noted.

Design for the Environment (DfE): Occasionally, data on innovative chemistries or technologies are claimed CBI by the developing company, thus limiting the implementation of beneficial pollution prevention practices on a wider scale.

Green Engineering (GE): There may be instances in which environment benefits are not clearly quantified. In those instances, the data will be excluded.

Pollution Prevention (P2) Programs: Limitations arise from the reliance on individual state and local P2 programs to gather data. These programs vary in attention to data collection from sources within their jurisdictions, data verification and other QA/QC procedures. Also, despite plans described above to move toward consistent metrics and definitions, some differences exist. EPA is attempting to address these concerns by strengthening reporting requirements in its P2 grants (which fund much of the state and local P2 work) and focusing those requirements on outcomes, adding comprehensive new grant reporting forms and databases which are parallel with the National P2 Results System, and adding a P2 component to EPA Information Exchange Network (which provides financial support and a comprehensive data system to link state data with EPA).

Error Estimate: *Green Engineering (GE):* There may be instances in which environmental benefits are not clearly quantified. In those instances, the data will be excluded. Not applicable for other programs contributing data to this measure.

New/Improved Data or Systems: *Green Chemistry (GC), Design for the Environment (DfE), Green Engineering (GE):* The American Chemistry Council (ACC) has initiated an industry self-monitoring program called Responsible Care. Beginning in 2003, member companies will collect and report on a variety of information. Measures tentatively include Toxics Release Inventory (TRI) releases; tons of CO_2 equivalent per pound of production; total BTUs consumed per pound

of production; systems for assessing or, reassessing potential environmental, health, and safety risks; percentage of products re-evaluated; percentage of commitments for chemical evaluation programs; documentation of process for characterizing and managing product risks; and documentation of communication of risk characterization results. Many of these measures are similar to the EPA program targets identified under Goal 5, Objective 2. These reports may be an invaluable source of industry baseline information. It is important that the EPA programs identified under Goal 5 evaluate the utility of the reports generated under the ACC's Responsible Care Program in support of the EPA's programs as well as the goals of Responsible Care. (CAPRM II, *Chemical and Pesticide Results Measures*, March 2003 pp. 313). The Pollution Prevention (P2) program's data collection system is currently under development through a partnership with the National Pollution Prevention Roundtable and EPA.

References:

Chemical and Pesticide Results Measures II: http://www.pepps.fsu.edu./CAPRM/index.html
Green Chemistry (GC): http://www.epa.gov/opptintr/greenchemistry/
Design for the Environment (DfE): http://www.epa.gov/opptintr/dfe/
Green Engineering (GE): http://www.epa.gov/opptintr/greenengineering/
Pollution Prevention (P2) Programs: http://www.epa.gov/oppt/p2home/index.htm
http://www.p2.org/workgroup/Background.cfm
http://www.epa.gov/Networkg/

FY 2007 Performance Measures:

- **Percent reduction in Toxics Release Inventory (TRI) chemical releases to the environment from the business sector per unit of production ("Clean Index")**

- **Percent reduction in TRI chemicals in production-related wastes generated by the business sector per unit of production ("Green Index")**

- **Percent reduction in Toxics Release Inventory (TRI) reported toxic chemical releases at Federal Facilities.**

Performance Database: TRIM: Toxics Release Inventory Modernization, formerly TRIS (Toxics Release Inventory System) provides facility/chemical-specific data quantifying the amount of TRI-listed chemicals entering wastes associated with production process in each year. The total amount of each chemical in production-related wastes can be broken out by the methods employed in managing such wastes, including recycling, energy recovery, treatment, and disposal/release. Amounts of these wastes that are not recycled are tracked for these performance measures. The fourth performance measure uses the Chemical Abstract System (CAS) numbers for the 23 chemicals identified by EPA as priority chemicals (http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm).

Data Source: Regulated facilities report facility-specific, chemical-specific release, waste and recycling data to EPA on a calendar year basis. For example, in calendar year 2003, 23,957

facilities filed 97,251 TRI reports. FY 2007 results will not be available until FY 2009 due to a two year data lag.

Methods, Assumptions, and Suitability: TRI data are collected as required by sections 313 of EPCRA and 6607 of Pollution Prevention Act (PPA) (40 CFR ' 372; www.epa.gov/tri/). Only certain facilities in specific Standard Industrial Classification (SIC) codes are required to report annually the quantities of over 650 listed toxic chemicals and chemical categories released to each environmental medium and otherwise managed as waste (40 CFR ' 372; www.epa.gov/tri/). Regulation requires covered facilities to use monitoring, mass balance, emission factors and/or engineering calculations approaches to estimate releases and recycling volumes. For the Clean and Green Index measures and priority list chemicals measure, data controls are employed to facilitate cross-year comparisons: a subset of chemicals and sectors are assessed that are consistently reported in all years; data are normalized to control for changes in production using published U.S. Bureau of Economic Analysis (BEA) gross product indices (chain-type quantity index for the manufacturing sector). [Please note the federal facility measure data are not normalized to control for changes in production.]

QA/QC Procedures: Most facilities use EPA-certified automated Toxics Release Inventory (TRI) FORM R reporting tools, which contain automated error checking mechanisms. Upon receipt of the facilities' reports, EPA conducts automated edits, error checks, data scrubs, corrections and normalization during data entry and subsequent processing to verify that the information provided by the facilities is correctly entered in TRIM. The Agency does not control the quality of the data submitted by the regulated community. EPA does, however, work with the regulated community to improve the quality of their estimates.

Data Quality Review: The quality of the data contained in the TRI chemical reports is dependent upon the quality of the data that the reporting facility uses to estimate its releases and other waste management quantities. Use of TRI Form R by submitters and EPA's performance data reviews combine to help assure data quality.

Data Limitations: Use of the data should be based on the user's understanding that the Agency does not have direct assurance of the accuracy of the facilities' measurement and reporting processes. TRI release data are reported by facilities on a good faith, best-estimate basis. EPA does not have the resources to conduct on-site validation of each facility's reporting data, though on-site investigations do occur each year at a subset of reporting facilities.

Error Estimate: From the various data quality efforts, EPA has learned of several reporting issues such as incorrect assignment of threshold activities and incorrect assignment of release and other waste management quantities (EPA-745-F-93-001; EPA-745-R-98-012; www.epa.gov/tri/tridata/data_quality_reports/index.htm; www.epa.gov/tri/report/index.htm.) For example, certain facilities incorrectly assigned a 'processing' (25,000 lb) threshold instead of an 'otherwise use' (10,000 lb) threshold for certain persistent, bioaccumulative and toxic (PBT) chemicals, so they did not have to report if their releases were below 25,000 lbs. Also, for example, some facilities incorrectly reported fugitive releases instead of stack releases of certain toxic chemicals.

New/Improved Data or Systems: To improve reporting efficiency and effectiveness, reduce burden, and promote data reliability and consistency across Agency programs, EPA simplified the Toxics Release Inventory (TRI) reporting requirements. The TRI Form Modification Rule effective September of 2005, will simplify data elements, reduced the number of reporting codes, and make two technical corrections to the regulations by correcting contact information and removing an outdated description of a pollution prevention data element. The revised TRI form, will allow the EPA to better target pollution prevention efforts, improve public access to information about source reduction and pollution control activities undertaken by some facilities, and encourage manufacturers to comply by making it easier to use. Please see the following for additional information on this rule: http://www.epa.gov/tri/tridata/modrule/index.htm

References: www.epa.gov/tri/ and additional citations provided above: EPA-745-F-93-001;EPA-745-R-98-012; http://www.epa.gov/tri/report/index.htm; www.epa.gov/tri/tridata/data_quality_reports/index.htm; OSWER priority chemicals and fact sheets http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm; www.epa.gov/tri/report/index.htm; Bureau of Economic Analysis (BEA) indices are available at http://www.bea.gov/bea/regional/gsp/.

FY 2007 Performance Measures:

- **Specific annual reductions in six media/resource areas: water use, energy use, materials use, solid waste generated, air releases, and water discharges**

- **Reduce 3.5 billion gallons of water use; 15.5 million MMBTUs of energy use; 1,000 tons of materials use; 440,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges**

- **Reduce 3.7 billion gallons of water use; 16.3 million MMBTUs of energy use; 1,050 tons of materials use; 460,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges**

Performance Databases: Both the Performance Track On-Line (a Domino database) and the Performance Track Members Database (a Microsoft Access database) store information that facilities have provided to EPA in applications and annual performance reports. Performance Track members select a set of environmental indicators on which to report performance over a three-year period of participation. The externally reported indicators (listed above) may or may not be included in any particular facility's set of indicators. Performance Track aggregates and reports only that information that a facility voluntarily reports to the Agency. A facility may make progress towards one of the above indicators, but if it is not among its set of "commitments", then Performance Track's data will not reflect the changes occurring at the facility. Similarly, if a facility's performance declines in any of the above areas and the indicator is not included among its set of commitments, that decline will not be reflected in the above results.

Members report on results in a calendar year. Fiscal year 2007 corresponds most closely with members' calendar year 2006. That data will be reported to the Performance Track program by

April 1, 2007. The data will then be reviewed, aggregated, and available for external reporting in September 2007. (Calendar year 2005 data will become available in September 2006.)

Data Source: All data are self-reported and self-certified by member facilities. As described below, Performance Track engages in quality control to the extent possible, but it does not conduct formal auditing. However, a criterion of Performance Track membership is the existence of an environmental management system (EMS) at the facility, a key element of which is a system of measurement and monitoring. Most Performance Track facilities have had independent third-party audits of their EMSs, which create a basis for confidence in the facilities' data. It is clear from submitted reports that some facilities have a tendency to estimate or round data. Errors are also made in converting units and in calculations. In general, however, EPA is confident that the externally reported results are a fair representation of members' performance.

Methods, Assumptions, and Suitability: Data collected from members' applications and annual performance reports are compiled and aggregated across those members that choose to report on the given indicator. The data reflect the performance results at the facility; any improvements or declines in performance are due to activities and conditions at the specific facility as a whole. However, in some cases, facilities report results for specific sections of a facility and this may not be clear in the reports submitted to the program. For example, Member A commits to reducing its VOCs from 1000 tons to 500 tons over a 3-year period. In Year 1, it reports a reduction of VOCs from 1000 tons to 800 tons. Performance Track aggregates this reduction of 200 tons with results from other facilities. But unbeknownst to Performance Track, the facility made a commitment to reduce its VOCs from Production Line A and is only reporting on its results from that production line. The facility is not intentionally hiding information from EPA, but mistakenly thought that its commitment could focus on environmental management activities at Production Line A rather than across the entire facility. Unfortunately, due to increased production and a couple of mishaps by a sloppy technician, VOC emissions at Production Line B increased by 500 tons in Year 1. Thus, the facility's VOC emissions actually increased by 300 tons in Year 1. Performance Track's statement to the public that the facility reduced its emissions by 200 tons is therefore misleading.

The data can be used to make year-to-year comparisons, but reviewers and analysts should bear in mind that Performance Track membership is constantly in flux. Although members should retain the same set of indicators for their three-year participation period, as new members join the program and others leave, the baseline constantly changes.

Due to unavoidable issues regarding the timing of the application period, a small subset of reported data will represent two years of performance at certain facilities, i.e., the baseline will be two years prior rather than one year.

QA/QC Procedures: Data submitted with applications and annual performance reports to the program are reviewed for completeness and adherence to program formatting requirements. In cases where it appears possible that data is miscalculated or misreported, EPA or contractor staff follows up with the facility. If the accuracy of data remains under question or if a facility has

provided incomplete or non-standard data, the database is coded to ensure that the data is excluded from aggregated and externally reported results.

Additionally, Performance Track staff visit up to 20% of Performance Track member facilities each year. During those visits, facilities are asked about their data collection systems and about the sources of the data reported to the program.

Performance Track contractors conduct a quality review of data entered manually into the database. Performance Track staff conduct periodic checks of the entered data.

As described, Performance Track is quality controlled to the extent possible, but is not audited in a formal way. However, a prerequisite of Performance Track membership is an environmental management system (EMS) at the facility, a key element of which is a system of measurement and monitoring. Most Performance Track facilities have had independent third-party audits of their EMSs, which create a basis for confidence in the facilities' data.

A Quality Management Plan is under development.

Data Quality Reviews: N/A.

Data Limitations: Potential sources of error include miscalculations, faulty data collection, misreporting, inconsistent reporting, and nonstandard reporting on the part of the facility. Where facilities submit data outside of the Performance Track On-Line system, Performance Track staff or contractors must enter data manually into the database. Manually entered data is sometimes typed incorrectly.

It is clear from submitted reports that some facilities have a tendency to estimate or round data. Errors are also made in converting units and in calculations. In general, however, EPA is confident that the externally reported results are a fair representation of members' performance.

Error Estimate: Not calculated.

New/Improved Performance Data or Systems: Since spring 2004, all Performance Track applications and annual performance reports have been submitted electronically (i.e., through the Performance Track On-Line system), thus avoiding the need for manual data entry. Additionally, the program is implementing a new requirement that all members gain third-party assessments of their EMSs. Also, the program has reduced the chances that data may reflect process-specific (rather than facility-wide) data by paying additional attention to the issue in the review process and by instituting "facility-wide data" requirements for all indicators.

References: Members' applications and annual performance reports can be found on the Performance Track website at https://yosemite.epa.gov/opei/ptrack.nsf/faMembers?readform. *Performance Track On-Line* and the *Performance Track Members Database* are not generally accessible. Performance Track staff can grant access to and review of the databases by request.

GOAL 5 OBJECTIVE 3

FY 2007 Performance Measures:

- **Percent of tribes with delegated and non-delegated programs (PART measure)**
- **Percent of tribes with EPA-reviewed monitoring and assessment occurring (PART measure)**
- **Percent of tribes with EPA-approved multimedia work plans (PART measure)**
- **Number of environmental programs implemented in Indian country per million dollars (PART efficiency measure)**

Performance Database:

EPA's American Indian Environmental Office (AIEO) developed an information technology infrastructure, named the Tribal Program Enterprise Architecture (TPEA). The TPEA is a suite of ten secure Internet-based applications that track environmental conditions and program implementation in Indian country as well as other AIEO business functions. One TPEA application, the Objective 5.3 Reporting System, tracks progress in achieving the performance targets under Goal 5 Objective 3 of EPA's National Strategic Plan – "Build Tribal Capacity." EPA staff use the Objective 5.3 Reporting System to establish program performance commitments for future fiscal years, to record actual program performance for overall national program management. Therefore, the Objective 5.3 Reporting System serves as the performance database for all of the annual performance measures.

Data Source:

The performance measure, "Percent of tribes with delegated and non-delegated programs," tracks the number of: Treatment in a manner similar to a State (TAS) approvals or primacies; implementations of a tribal program; executions of Direct Implementation Tribal Cooperative Agreements (DITCA); and GAP (General Assistance Programs) grants that have provisions for the implementation of solid waste or hazardous waste programs.

EPA Regional project officers managing Tribes with delegated and non-delegated environmental programs input data, classified by tribe, into the Objective 5.3 Reporting System to derive a national cumulative total.

The performance measure, "Percent of Tribes with EPA approved multi-media workplans," tracks the number of: Performance Partnership Grants (PPGs); Tribal Environmental Agreements (TEAs), Tier I, Tier II, and Tier III; Memoranda of Agreement (MOAs); and Memoranda of Understanding (MOUs).

EPA Regional tribal program liaisons input data, which are summed annually. It is possible a tribe will contribute to the measure in more than one way.

The performance measure, "Percent of tribes with EPA-reviewed monitoring and assessment occurring (cumulative)," reports the number of active Quality Assurance Project Plans (QAPPs). All ongoing environmental monitoring programs are required to have active QAPPs. Regional tribal program liaisons obtain the information from Regional Quality Assurance Officers and input it into the Objective 5.3 Reporting System. The data are updated continuously and summed at the end of the fiscal year.

The performance measure, "Number of environmental programs implemented in Indian Country per million dollars," is calculated annually by summing the number of tribes receiving GAP grants, the number of TAS approvals or primacies, the number of DITCAs, and the number of GAP grants that have provisions for the implementation of solid or hazardous waste programs and dividing that sum by the annual GAP appropriation (less rescissions and annual set-asides.)

Methods, Assumptions and Suitability: The Objective 5.3 Reporting System contains all the information for reporting on performance. The measure that tracks delegated and non-delegated programs can be cross-referenced and verified with records from the Integrated Grants Management System. The measure that tracks monitoring and assessment programs can be verified from databases maintained by the Regional Quality Assurance Officers. The measure that tracks multimedia work plans can be verified from official correspondence files between EPA Regions and Tribes, or from project officer case files.

QA/QC Procedures: Data used in the Tribal Program Enterprise Architecture contains quality assurance and metadata documentation prepared by the originating agency or program. Because the information in the Tribal Program Enterprise Architecture is used for budget and strategic planning purposes, AIEO requires adherence to the Agency's Information Quality Guidelines. <http://www.epa.gov/quality/informationguidelines/>

Data Quality Reviews: Data correction and improvement is an ongoing component of the Tribal Program Enterprise Architecture. The Objective 5.3 Reporting System relies on multiple staff-level reviews. In addition, a special application, the Tribal Information Management System (TIMS) Data Center was developed to support the submission of corrections to boundary information, narrative tribal profiles, and factual database information – particularly latitude and longitude coordinates for facilities. The AIEO collects and passes along recommendations regarding the correction or modification of databases whenever errors are detected or suggestions for database improvement are received. Each database manager retains the responsibility of addressing the recommended change according to quality assurance protocols. Because the data submittals are used for budget or strategic planning purposes, AIEO requires that all submittals comply with the Agency's Information Quality Guidelines. <http://www.epa.gov/quality/informationguidelines/>

Data Limitations: A large part of the data used by the Tribal Program Enterprise Architecture has not been coded to particular Tribes by the recording agency. AIEO uses new geographic data mining technologies to extract records based on the geographical coordinates of the data points. For example, if a regulated facility has latitude and longitude coordinates that place it in the boundaries of the Wind River Reservation, then it is assigned to the Arapaho and Shoshone Tribes of the Wind River Reservation. This technique is extremely powerful because it Atribally

enables@ large numbers of information systems which were previously incapable of identifying Tribes. This approach will be applied to all EPA databases. There are limitations, however. When database records are not geographically identified with latitude and longitude, the technique does not work and the record is lost to the system. For EPA regulated facilities in the Facility Registry System, AIEO estimates that 64% have latitude and longitude recorded. Therefore, the accuracy of EPA's data concerning environmental conditions in Indian country will depend on additional improvements to Agency data systems.

Error Estimate: Analysis of variation of reservation boundary coverages available to EPA indicates deviations of up to 5%. Another source of error is that some records are not sufficiently described geographically to be assigned to specific Tribes. It is estimated that 36% of the regulated facilities in EPA's regulatory databases are not geographically described. The TPEA identifies the non-geographically indexed facilities by postal zip code for zip codes that overlap tribal boundaries.

New/Improved Data or Systems: The technologies used by the Tribal Program Enterprise Architecture are new, secure and state–of-the-art. The geographic interface is a product called ARC/IMS, which is a web-based application, with a fully functional scalable Geographic Information System (GIS). The Tribal Program Enterprise Architecture uses XML protocols to attach to and display information seamlessly and in real-time from cooperating agency data systems without having to download the data to an intermediate server. In addition, the TPEA project has developed web-based, secure data input systems that allow Regional project officers and tribal program liaisons to input programmatic data directly into performance reporting systems, TIMS and other customizable reports.

References:

Objective 5.3 Reporting System: https://oasint.rtpnc.epa.gov/TATS/tats_prv/entry_page
EPA's Information Quality Guidelines: http://www.epa.gov/quality/informationguidelines

GOAL 5 OBJECTIVE 4

FY 2007 Performance Measure:

- **Percent increase in Pollution Prevention/Sustainability program publications rated as highly cited papers**

Performance Database: No internal tracking system

Data Source: The source of data will be a contractor-produced bibliometric analysis of Pollution Prevention/Sustainability program publications.

Methods, Assumptions and Suitability: The analysis will be completed using Thomson's Essential Science Indicators (ESI) and Journal Citation Reports (JCR) as benchmarks. ESI are a comprehensive compilation of essential science performance statistics and science trends data derived from Thomson's databases. The chief indicator of output, or productivity, is journal

article publication counts. For influence and impact measures, ESI employs both total citation counts and cites per paper scores. The former reveals gross influence while the latter shows weighted influence, also called impact. JCR presents quantifiable statistical data, which provide a systematic, objective way to evaluate the world's leading journals and their impact and influence in the global research community.

QA/QC Procedures: Source data will be used in comparing program publications to field benchmarks, Essential Science Indicators (ESI) and Journal Citation Report (JCR).

Data Quality Reviews: Additional benchmarks will be used to determine the number of self-citations of articles by the same author in order to reduce the self-citation rate.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:

Essential Science Indicators®· Thomson Scientific. 2003.

Journal Citation Reports®. Thomson Scientific. 2003.

US EPA. December 2004. BOSC Program Review. Citation Analysis of ORD's Endocrine Disruptors (EDCs) Research Program, publication list.

ENABLING SUPPORT PROGRAMS

FY 2007 Performance Measures:

- **Percent to which competency/skill gaps are reduced (beginner to intermediate) in mission-critical occupations (MCO)**

- **Percent to which competency/skill gaps are reduced (intermediate to expert) in MCOs**

Database: Database populated with competency/skills of employees obtained from a self-assessment survey, and competency/skills deemed necessary within each occupation.

Methods, Assumptions and Suitability: Survey data will be used to provide current competency/skills of the present MCO employees. These data will be compared to what competency/skills EPA feels is necessary for mission accomplishment within each MCO to arrive at a baseline assessment.

Yearly surveys of the MCO employee base will be completed and compared to the baseline.

QA/QC Procedures: The Office of Human Resources will be conducting a survey of EPA's MCO workforce to reflect competency/skills possessed within each MCO grouping.

Data Quality Reviews: N/A

Data Limitations: Employees will self-assess their competency/skills. If they over-inflate or under-inflate this assessment, analysis of the information may not correctly identify gaps.

Error Estimate: N/A

New/Improved Data or Systems: This is a new competency/skills database.

References: This is a new competency/skills database.

FY 2007 Performance Measures:

- **Number of new hires recruited through EPA's Environmental Intern Program (EIP) in Mission Critical Occupations (MCO)**

Data Source: The Office of Human Resources (OHR) PeoplePlus system.

Methods, Assumptions and Suitability: Data on new hires through the EIP is collected by OHR and maintained by the National EIP Manager. Using the information from the PeoplePlus New Hire Report and consulting with the headquarters National EIP Manager, a determination can be made if the new hire in an MCO was recruited through the EIP.

QA/QC Procedures: PeoplePlus contains nature of action codes (NOAC) designating the type of personnel action taken and the appointing authority. Efforts are underway to establish an EIP designation code. The NOAC and an EIP identifier will more readily identify new hires in MCOs recruited through the EIP.

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A.

New/Improved Data or Systems: The establishment of an EIP designation code in PeoplePlus will provide an integrated approach to identifying new hires through the EIP.

References: PeoplePlus.

FY 2007 Performance Measures:

- **Average time to hire non-SES positions from date vacancy closes to date offer is extended, expressed in working days**

Data Source: The Office of Human Resources (OHR) Ez-Hire System.

Methods, Assumptions and Suitability: Data on new hires is collected by OHR using the Ez-Hire system. A data file is obtained from the Ez-hire contractor and downloaded into Excel spreadsheets, which are formatted into the various components of the Office of Personnel Management's 45-day Hiring Model. OHR staff review the results and further investigate any data anomalies prior to finalizing the report and sending it to the servicing Human Resources Officer (HRO) who views and validates the data.

QA/QC Procedures: Ez-Hire contains new hire data from the time the vacancy is announced until the selection is made by the Selecting Official from the Referral Certification.

Data Quality Reviews: OHR staff review and analyze the results of the report, investigate any data anomalies, finalize the report, and send to the HRO. The servicing HRO further reviews and validates the data. Any discrepancies are reported to OHR's staff for review and remedy. The results of the OHR staff review is shared with the HRO.

Data Limitations: N/A

Error Estimate: N/A.

New/Improved Data or Systems: The Ez-Hire system provides adequate data for analysis of the average time to hire for non-Senior Executive Service (SES) applicants.

References: Ez-Hire

FY 2007 Performance Measures:

- **For SES positions, the average time from the date vacancy closes to date offer is extended, expressed in working days.**

Data Source: The Executive Resources Staff (ERS) weekly activity report. This is a text report that tracks SES personal actions through the various stages of the hiring process.

Methods, Assumptions and Suitability: Data from the weekly report is tracked and reported quarterly. ERS staff review the results and further investigate any data anomalies prior to finalizing the quarterly report.

QA/QC Procedures: Data are added as vacancy status changes

Data Quality Reviews: The ERS Operations Team Leader reviews data weekly, analyzes the results and notes instances where goals may not be met. The Team Leader meets with specialists to investigate any data anomalies in attempt to meet standards.

Data Limitations: N/A

Error Estimate: N/A.

New/Improved Data or Systems: N/A

References: Ez-Hire

FY 2007 Performance Measure:

- **Cumulative percentage reduction in energy consumption in EPA's 21 laboratories from the 2003 base**

Performance Database: The Agency's contractor provides energy consumption information quarterly and annually. The Agency keeps the energy consumption data in the "Energy Reporting System." The contractor is responsible for validating the data.

Data Source: The Agency's contractor collects quarterly energy data from each of EPA's laboratories. The data are based on metered readings from the laboratory's utility bills for certain utilities (natural gas, electricity, purchased steam, chilled water, high temperature hot water, and potable water) and from on-site consumption logs for other utilities (propane and fuel oil). The data from the on-site consumption logs are compared to invoices to verify that reported consumption and cost data are correct.

Methods, Assumptions, and Suitability: N/A

QA/QC Procedures: EPA's Sustainable Facilities Practices Branch compares reported energy use at each facility against previous years' data to see if there are any significant and unexplainable increases or decreases in energy quantities and costs.

Data Quality Reviews: N/A

Data Limitations: EPA does not have a formal meter verification program to ensure that an on-site utility meter reading corresponds to the charges included in the utility bill.

New/Improved Data or Systems: N/A

References: N/A

FY 2007 Performance Measures:

- **The Central Data Exchange (CDX) will fully support electronic data exchange requirements for major EPA environmental systems, enabling faster receipt, processing, and quality checking of data**
- **States will be able to exchange data with CDX through state nodes in real time, using new web-based data standards that allow for automated data-quality checking**
- **States, tribes, laboratories, and others will choose to use CDX to report environmental data electronically to EPA, taking advantage of automated data quality checks and on-line customer support.**
- **Customer-help desk calls resolved in a timely fashion.**

Performance Database: CDX Customer Registration Subsystem.

Data Source: Data are provided by state, private sector, local, and tribal government CDX users.

Methods, Assumptions, and Suitability: All CDX users must register before they can begin reporting to the system. The records of registration provide an up-to-date, accurate count of users. Users identify themselves with several descriptors.

QA/QC Procedures: QA/QC have been performed in accordance with a CDX Quality Assurance Plan [*Quality Assurance Project Plan for the Interim Central Data Exchange System*. Document number: EP005T7. Sept. 17, 2001] and the CDX Design Document v.3, Appendix K registration procedures [*Central Data Exchange Electronic Reporting Prototype System Requirements*: Version 3; Document number: EP005S3. December 2000]. Specifically, data are reviewed for authenticity and integrity. The CDX Quality Assurance Plan was updated in FY 2004 [Quality Assurance Project Plan for the Central Data Exchange," 10/8/2004; contact: Wendy Timm, 202 566 0725] to incorporate new technology and policy requirements. Work is underway to complete the revision of the Design Document. Automated edit checking routines are performed in accordance with program specifications and CDX quality assurance guidance [*Quality Assurance Project Plan for the Interim Central Data Exchange System*. Document number: EP005T7. Sept. 17, 2001].

Data Quality Reviews: CDX successfully completed independent security risk assessment in the summer 2001. In addition, routine audits of CDX data collection procedures and customer service operations are provided weekly to CDX management and staff for review. Included in these reports are performance measures such as the number of CDX new users, number of submissions to CDX, number of help desk calls, number of calls resolved, ranking of errors/problems, and actions taken. These reports are reviewed and actions discussed at weekly project meetings.

Data Limitations: The CDX system collects, reports, and tracks performance measures on data quality and customer service. While its automated routines are sufficient to screen systemic problems/issues, a more detailed assessment of data errors/problems generally requires a secondary level of analysis that takes time and human resources.

Error Estimate: CDX incorporates a number of features to reduce errors, such as pre-populating data whenever possible, edit checks, etc. The possibility of an error in the number of

states registered for CDX, e.g., double-counting of some sort, is extremely remote (far less than 1 %).

New/Improved Performance Data or Systems: CDX coalesces the registration/submission requirements of many different state-to-EPA, private sector-to-EPA, and local and tribal governments-to-EPA data exchanges into a single web-based system. The system allows for a more consistent and comprehensive management and performance tracking of many different external customers. The creation of a centralized registration system, coupled with the use of web forms and web-based approaches to submitting the data, invite opportunities to introduce automated quality assurance procedures for the system and reduce human error.

References: CDX website (www.epa.gov/cdx).

FY 2007 Performance Measure:

- **Establish an improved suite of environmental indicators for use by EPA's programs and partners in the Agency's strategic planning and performance measurement process**

Performance Database: Initial collection of indicators compiled during the drafting of EPA's "Report on the Environment," supplemented by indicators currently used in the Agency's strategic planning and performance measurement process (e.g., EPA's Strategic Plan, Annual Performance Plan, Annual Performance Report, Annual Operating Plan, and National Environmental Performance Partnership Agreements), will comprise an Agency baseline of indicators (http://www.epa.gov/indicators/roe/index.htm).

Methods, Assumptions and Suitability: The Office of Environmental Information (OEI), the Office of Research and Development (ORD), and the Office of the Chief Financial Officer (OCFO) will review the planning documents and establish a baseline of indicators in consultation with key Agency steering committees.

QA/QC Procedures: As the baseline is established, protocols also will be developed to ensure that the data supporting the indicators are accurate and complete.

Data Quality Reviews: To be determined and conducted once a baseline has been established.

Data Limitations: The challenge is to develop suitable indicators with sufficient data of known quality.

Error Estimate: To be determined.

New/Improved Performance Data or Systems: The baseline indicators and supporting data are in development.

References: EPA's "Draft Report on the Environment" and "Technical Support Document" (EPA pub. no. 260-R-02-006). Draft Report on the Environment Technical Document (Publication # EPA 600-R-03-050). Both Dated June 2003

Web site: http://www.epa.gov/indicators/roe/html/roePDF.htm

FY 2007 Performance Measure:

- **Percent compliance with criteria used by OMB to assess Agency security programs reported annually to OMB under the Federal Information Security Management Act (FISMA)**

Performance Database: Automated Security Self-Evaluation and Remediation Tracking (ASSERT) database.

Data Source: Information technology (IT) system owners in Agency Program and Regional offices.

Methods, Assumptions, and Suitability: Annual IT security assessments are conducted using the methodology mandated by the Office of Management and Budget (OMB), the National Institute of Standards, and Technology (NIST) Security Self-Assessment Guide for Information Technology Systems. ASSERT has automated and web-enabled this methodology.

QA/QC Procedures: Automated edit checking routines are performed in accordance with ASSERT design specifications to ensure answers to questions in ASSERT are consistent. The Office of Inspector General consistent with §3545 FISMA, and the Chief Information Officer's information security staff conduct independent evaluations of the assessments. The Agency certifies results to OMB in the annual FISMA report.

Data Quality Reviews: Program offices are required to develop security action plans composed of tasks and milestones to address security weaknesses. Program offices self-report progress toward these milestones. EPA's information security staff review these self-reported data, conduct independent validation of a sample, and discuss anomalies with the submitting office.

Data Limitations: Resources constrain the security staff's ability to validate all of the self-reported compliance data submitted by program systems' managers.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:
Annual Information Security Reports to OMB: http://intranet.epa.gov/itsecurity/progreviews/; OMB guidance memorandum: http://www.whitehouse.gov/omb/memoranda/2003.html; ASSERT web site: https://cfint.rtpnc.epa.gov/assert/; NIST Special Publication 800-26, *Security Self_Assessment Guide for Information Technology Systems*, November 2001: http://csrc.nist.gov/publications/nistpubs/index.html; and, Federal Information Security Management Act, PL107-347: http://csrc.nist.gov/policies/FISMA_final.pdf

FY 2007 Performance Measures:

- **Number of environmental risks reduced, environmental actions taken, and environmental recommendations/risks/best practices identified.**

- **Number of actions taken for improved business practices and systems, criminal/civil/administrative actions, business recommendations/risks/best practices, and potential dollar return identified.**

Performance Database: The OIG Performance Measurement and Results System captures and aggregates information on an array of measures in a logic model format, linking immediate outputs with long-term intermediate outcomes and results. Because intermediate and long-term results may not be realized for several years, only verifiable results are reported in the year completed, while others remain prospective until completed and verified. Database measures include numbers of: 1) recommendations for environmental and management improvement, including management of assistance agreements; 2) legislative, regulatory policy, directive, or process changes; 3) environmental, program, and security and resource integrity risks identified, reduced, or eliminated; 4) best practices identified and implemented; 5) examples of environmental and management improvements; 6) monetary value of funds questioned, saved, fined, or recovered; and 7) public or congressional inquiries resolved.

Data Source: Designated OIG staff enter data into the system. Data are from OIG performance evaluations, audits, research, court records, EPA documents, data systems, and reports that track environmental and management actions or improvements made and risks reduced or avoided. OIG also collects independent data from EPA's partners and stakeholders.

Methods, Assumptions, and Suitability: OIG performance results are a chain of linked events, starting with OIG outputs (e.g., recommendations, reports of best practices, and identification of risks). The subsequent actions taken by EPA or its stakeholders/partners, as a result of OIG's outputs, to improve operational efficiency and environmental program delivery are reported as intermediate outcomes. The resulting improvements in operational efficiency, risks reduced/eliminated, and conditions of environmental and human health are reported as outcomes. By using common categories of performance measures, quantitative results can be summed and reported. Each outcome is also qualitatively described, supported, and linked to an OIG product or output. The OIG can only control its outputs, and has no authority, beyond its influence, to implement its recommendations that lead to environmental and management outcomes.

QA/QC Procedures: All performance data submitted to the database require at least one verifiable source assuring data accuracy and reliability. Data quality assurance and control are performed as an extension of OIG products and services, subject to rigorous compliance with the Government Auditing Standards of the Comptroller General[27], and regularly reviewed by OIG management, an independent OIG Management Assessment Review Team, and external

[27] Government Auditing Standards (2003 Revision), General Accounting Office, GAO-03-673G, June 2003

independent peer reviews. Each Assistant Inspector General certifies the completeness and accuracy of performance data.

Data Quality Reviews: There have not been any previous audit findings or reports by external groups on data or database weaknesses in the OIG Performance Measurement and Results System. All data reported are audited internally for accuracy and consistency.

Data Limitations: All OIG staff are responsible for data accuracy in their products and services. However, there is a possibility of incomplete, miscoded, or missing data in the system due to human error or time lags. Data supporting achievement of results are often from indirect or external sources, with their own methods or standards for data verification/validation.

Error Estimate: The error rate for outputs is estimated at +/-2%, while the error rate for reported long-term outcomes is presumably greater because of the longer period needed for tracking results. Errors tend to be those of omission.

New/Improved Data or Systems: The OIG developed the Performance Measurement and Results System as a prototype in FY 2001 and anticipates replacing it in FY 2006 with a more sophisticated system designed to integrate data collection and analysis. We also expect the quality of the data to improve as staff gain greater familiarity with the system and measures. This system is a best practice in government for linking an array of measures from outputs to eventual results and impacts. With enhanced linkages to customer satisfaction results and resource investments, it will provide a full-balanced scorecard with return on investment information for accountability and decision making.

References: All OIG non-restricted performance results are referenced in the OIG Performance Measurement and Results System with supporting documentation available either through the OIG Web Site or other Agency databases. The OIG Web Site is www.epa.gov/oig.[28]

[28] U.S. EPA, Office of Inspector General, Audits, Evaluations, and Other Publications, Available on the Internet at www.epa.gov/oig, last updated November 30, 2005

VERIFICATION AND VALIDATION

GOAL 1 OBJECTIVE 1

FY 2007 Performance Measures:

- **Tons of SO_2 emissions from electric power generation sources (tons/yr from 1980 baseline) (PART measure)**
- **Percent change in average sulfur deposition and mean ambient sulfate concentrations reduced (% from baseline) (PART measure)**
- **Percent change in average nitrogen deposition and mean ambient nitrate concentrations reduced (% from baseline) (PART measure)**
- **Percent change in number of chronically acidic water bodies in acid-sensitive regions (PART measure)**

Performance Databases:

- Emissions Tracking System (ETS) - SO_2 and NO_x emissions
- Clean Air Status and Trends Network (CASTNET) - dry deposition
- National Atmospheric Deposition Program (NADP) - wet deposition
- Temporally Integrated Monitoring of Ecosystems program (TIME) - surface water chemistry
- Long-Term Monitoring Network program (LTM) – surface water chemistry

Data Sources: On a quarterly basis, ETS receives and processes hourly measurements of SO_2, NO_x, volumetric flow, CO_2, and other emission-related parameters from more than 3,400 fossil fuel-fired utility units affected under the Title IV Acid Rain Program. These measurements are collected by certified continuous emission monitoring systems (CEMS) or equivalent continuous monitoring methods.

CASTNET measures particle and gas acidic deposition chemistry. Specifically, CASTNET measures sulfate and nitrate dry deposition and meteorological information at approximately 88 monitoring sites, primarily in the East. Two additional sites are planned as part of a multi-year network refurbishment and modernization project . These sites are scheduled to be in operation by 2007 and will help fill the coverage gap in the middle of country. CASTNET is a long-term dry deposition network funded, operated and maintained by EPA's Office of Air and Radiation (OAR). The National Park Service operates approximately 30 of the monitoring stations in cooperation with EPA.

NADP is a national long-term wet deposition network that measures precipitation chemistry and provides long-term geographic and temporal trends in concentration and deposition of precipitation components. Specifically, NADP provides measurements of sulfate and nitrate wet deposition at approximately 255 monitoring sites. EPA, along with several other Federal agencies, states, and private organizations, provide funding and support for NADP. The Illinois State Water Survey/University of Illinois maintains the NADP database.

The deposition monitoring networks have been in operation for over 25 years. They provide invaluable measurements on long-term trends and episodes in acid deposition; such data are essential for assessing progress toward the program's intended environmental outcomes. These networks need to be modernized to ensure the continued availability of these direct environmental measures. Maintaining a robust long-term atmospheric deposition monitoring network is critical for the accountability of the Acid Rain and Clean Air Interstate Rule (CAIR) Programs (and/or Clear Skies if new legislation is enacted).

The TIME project measures surface water chemistry and is based on the concept of a probability sample, where each site is chosen to be statistically representative of a target population. In the Northeast (New England and the Adirondacks), this target population consists of lakes likely to be responsive to changes in rates of acidic deposition (i.e., those with Gran ANC < 100 μeq/L). In the Mid-Atlantic, the target population is upland streams with a high probability of responding to changes in acidic deposition (i.e., Northern Appalachian Plateau streams with Gran ANC < 100 μeq/L). Each lake or stream is sampled annually (in summer for lakes, in spring for streams), and results are extrapolated to the target population. The most recent (2003) TIME trends analysis reported data from 43 Adirondack lakes, 30 New England lakes, and 31Appalachian Plateau streams.

The TIME project goals are to determine not only how a representative sample of water bodies is changing through time, but also whether the proportion of the population that is acidic has changed. The project is operated cooperatively with numerous collaborators in state agencies, academic institutions and other federal agencies.

The LTM project complements TIME's statistical approach to sampling lakes and streams. LTM samples a subset of sensitive lakes and streams with long-term data, most dating back to the early 1980s. These sites are sampled 3 to 15 times per year. This information is used to characterize how the most sensitive aquatic systems in each region are responding to changing deposition, as well as providing information on seasonal chemistry and episodic acidification. In most regions, a small number of higher ANC (e.g., GranANC >100 μeq/L) sites are also sampled, and help separate temporal changes due to acidic deposition from those attributable to other disturbances such as changes in land use. The most recent (2003) LTM trends analysis reported data from 48 Adirondack lakes, 24 New England lakes, 9 Northern Appalachian Plateau streams, and 69 streams in the Blue Ridge region of Virginia and West Virginia. The project is operated cooperatively with numerous collaborators in state agencies, academic institutions and other federal agencies.

Methods, Assumption, and Suitability Promulgated methods are used to aggregate emissions data across all United States' utilities for each pollutant and related source operating parameters such as heat input.

QA/QC Procedures:
Promulgated QA/QC requirements dictate performing a series of quality assurance tests of CEMS performance. For these tests, emissions data are collected under highly structured, carefully designed testing conditions, which involve either high quality standard reference

materials or multiple instruments performing simultaneous emission measurements. The resulting data are screened and analyzed using a battery of statistical procedures, including one that tests for systematic bias. If a CEM fails the bias test, indicating a potential for systematic underestimation of emissions, the source of the error must be identified and corrected or the data are adjusted to minimize the bias. Each affected plant is required to maintain a written QA plan documenting performance of these procedures and tests. Further information is available at: http://www.epa.gov/airmarkets/reporting/index.html.

CASTNET established a Quality Assurance Project Plan (QAPP) in November 2001; The QAPP contains data quality objectives and quality control procedures for accuracy and precision. {U.S. EPA, Office of Air Quality Planning and Standards, *Clean Air Status and Trends Network (CASTNet) Quality Assurance Project Plan* (Research Triangle Park, NC: U.S. EPA, November 2001). In addition, the program publishes annual quality assurance reports. Both the CASTNET QAPP and 2003 Annual Quality Assurance Report may be found at http://www.epa.gov/castnet/library.html.

NADP has established data quality objectives and quality control procedures for accuracy, precision and representation, available on the Internet: http://nadp.sws.uiuc.edu/QA/. The intended use of these data is to establish spatial and temporal trends in wet deposition and precipitation chemistry.

For TIME and LTM, the field protocols, laboratory methods, and quality assurance procedures are specific to each research group. QA/QC information is contained in the cited publications of each research group and compiled in Newell et al. (1987). The EMAP and TIME protocols and quality assurance methods are generally consistent with those of the LTM cooperators, and are detailed in Peck (1992) and in Table 3 of Stoddard et al (2003).

Data Quality Review:
The ETS provides instant feedback to sources on data reporting problems, format errors, and inconsistencies. The electronic data file QA checks are described at http://www.epa.gov/airmarkets/reporting/index.html (see *Electronic Data Report Review Process, ETS Tolerance Tables*, *Active ETS Error Codes/Messages* and *Range Format Errors*). All quarterly reports are analyzed to detect deficiencies and to identify reports that must be resubmitted to correct problems. EPA also identifies reports that were not submitted by the appropriate reporting deadline. Revised quarterly reports, with corrected deficiencies found during the data review process, must be obtained from sources by a specified deadline. All data are reviewed, and preliminary and final emissions data reports are prepared for public release and compliance determination.

CASTNET underwent formal peer review in 1997 by a panel of scientists from EPA and the National Oceanic Atmospheric Administration (NOAA). Findings are documented in *Examination of CASTNET: Data, Results, Costs, and Implications* (United States EPA, Office of Research and Development, National Exposure Research Laboratory, February 1997).

The NADP methods of determining wet deposition values have undergone extensive peer review; this process has been managed by NADP program office at the Illinois State Water

Survey/University of Illinois. Assessments of changes in NADP methods are developed primarily through the academic community and reviewed through the technical literature process.

The TIME and LTM data used in EPA trends analysis reports are screened for internal consistency among variables, including ion balance and conductance balance. Samples with unexplained variation in these variables are deleted. Sites with mean Gran ANC greater than 200 μeq/L also are deleted. EPA trends analyses exclude sites with chloride values that are outliers in their region, because high Cl- is typically associated with human development in the watershed. The Cl- and associated Na+ would alter normal soil ion exchange relationships, thus obscuring the response to acidic deposition.

Data Limitations: In order to improve the spatial resolution of CASTNET, additional monitoring sites are needed, particularly in the middle of the country.

Error Estimate: None

New/Improved Data or Systems: The program plans to modernize and enhance CASTNET to ensure network viability and enhance the monitoring capacity to support ongoing and future accountability needs, particularly relating to long range pollutant transport. The refurbishment of CASTNET will result in more comprehensive air quality data and information, made available faster by enabling real-time access to air quality information and promoting integration with other networks through regional/rural monitoring strategies. Refurbishment activities to be pursued in FY 2007 include: (1) completion of a pilot phase study to evaluate options for upgrading CASTNET with new advanced measurement instrumentation; (2) selection and procurement of advanced technology monitoring equipment for up to 10 sites; (3) establishment of 2 new sites in the middle of the country to improve geographic coverage and spatial resolution; and (4) implementation of new ecological indicators of air quality and atmospheric deposition to expand the suite of environmental metrics available for measuring the performance and efficiency of EPA's clean air programs.

References: For additional information about CASTNET, see http://www.epa.gov/castnet.html and for NADP, see http://nadp.sws.uiuc.edu/.

For a description of EPA's Acid Rain program, see http://www.epa.gov/airmarkets/arp/index.html/ and in the electronic Code of Federal Regulations at http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-C.html (40 CFR parts 72-78.)

For TIME and LTM data quality and QA/QC procedures, see

Newell, A. D., C. F. Powers, and S. J. Christie. 1987. Analysis of Data from Long-term monitoring of Lakes. U.S. Environmental Protection Agency, Corvallis, OR.

Peck, D. V. 1992. Environmental Monitoring and Assessment Program: Integrated Quality Assurance Project Plan for the Surface Waters Resource Group. EPA/600/X-91/080, U.S. Environmental Protection Agency.

Stoddard, J. L., J. S. Kahl, F. A. Deviney, D. R. DeWalle, C. T. Driscoll, A. T. Herlihy, J. H. Kellogg, P. S. Murdoch, J. R. Webb, and K. E. Webster. 2003. Response of surface water chemistry to the Clean Air Act Amendments of 1990. EPA/620/R-03/001, U.S. Environmental Protection Agency, Corvallis, Oregon.

FY 2007 Performance Measures:

- **Reduction in population-weighted ambient concentration of fine particulate matter (PM 2.5) in all monitored counties (PART measure)**

- **Reduction in population-weighted ambient concentration of ozone in monitored counties (PART measure)**

Performance Databases:

AQS —The Air Quality Subsystem (AQS) stores ambient air quality data used to evaluate an area's air quality levels relative to the NAAQS.

FREDS—The Findings and Required Elements Data System is used to track progress of states and Regions in reviewing and approving the required data elements of the State Implementation Plans (SIP). SIPs are clean air plans and define what actions a state will take to improve the air quality in areas that do not meet national ambient air quality standards

Data Sources:
AQS: State & local agency data from State and Local Air Monitoring Stations (SLAMS).

Population: Data from Census-Bureau/Department of Commerce

FREDS: Data are provided by EPA's Regional offices.

Methods, Assumptions, and Suitability: Design values are calculated for every county with adequate monitoring data (for more information on and a definition for design values, see www.epa.gov/ttn/oarpg/t1/memoranda/cdv.pdf). Air quality levels are evaluated relative to the baseline level and the design value. The change in air quality concentrations is then multiplied by the number of people living in the county. This analysis assumes that the populations of the areas are held constant at 2000 Census levels. Data comparisons over several years allow assessment of the air program's success.

QA/QC Procedures: AQS: The QA/QC of the national air monitoring program has several major components: the Data Quality Objective (DQO) process, reference and equivalent methods program, EPA's National Performance Audit Program (NPAP), system audits, and network reviews (Available on the Internet: www.epa.gov/ttn/amtic/npaplist.html). To ensure quality data, the SLAMS are required to meet the following: 1) each site must meet network design and site criteria; 2) each site must provide adequate QA assessment, control, and corrective action functions according to minimum program requirements; 3) all sampling methods and equipment must meet EPA reference or equivalent requirements; 4) acceptable data validation and record keeping procedures must be followed; and 5) data from SLAMS must be summarized and

reported annually to EPA. Finally, there are system audits that regularly review the overall air quality data collection activity for any needed changes or corrections. Further information available on the Internet: http://www.epa.gov/cludygxb/programs/namslam.html and through United States EPA's Quality Assurance Handbook (EPA-454/R-98-004 Section 15)

Populations: No additional QA/QC beyond that done by the Census Bureau/Department of Commerce.

FREDS: No formal QA/QC procedures.

Data Quality Review:

AQS: No external audits have been done in the last 3 years. However, internal audits are regularly conducted.

Populations: No additional QA/QC beyond that done by the Census Bureau/Department of Commerce.

FREDS: None

Data Limitations:

AQS: None known

Populations: Not known

FREDS: None known

Error Estimate: At this time it is not possible to develop an error estimate. There is still too much uncertainty in the projections and near term variations in air quality (due to meteorological conditions for example) exist.

New/Improved Data or Systems:

AQS: In January 2002, EPA completed the reengineering of AQS to make it a more user friendly, Windows-based system. As a result, air quality data are more easily accessible via the Internet. AQS has also been enhanced to comply with the Agency's data standards (*e.g.*, latitude/longitude, chemical nomenclature). Beginning in July 2003, agencies submitted air quality data to AQS thru the Agency's Central Data Exchange (CDX). CDX is intended to be the portal through which all environmental data coming to or leaving the Agency will pass.

Population: None

FREDS: None

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: http://www.epa.gov/airtrends/.

FY 2007 Performance Measures:

- **Percent of significant Title V operating permit revisions issued within 18 months of receiving a complete permit application. (PART measure)**
- **Percent of new Title V operating permits issued within 18 months of receiving a complete permit application. (PART measure)**

Performance Databases: TOPS (Title V Operating Permit System).

Data Sources: Permitting Agencies (State and Local) via EPA Regional Offices

Methods, Assumptions, and Suitability: The performance measure is calculated by comparing the number of new permits or significant permit modifications issued during past 18 months to the total number of new permits or significant permit modifications received during the same period. Data are collected every 6 months. There are no underlying assumptions in the development of this measure.

QA/QC Procedures: Some data quality checks include: 1) making sure the number of permits issued in 18 months is equal to or less than the total number of permits received. 2) ensuring the percentages seem reasonable compared to previous reporting periods, and 3) making sure clock does not restart when additional information is submitted after the application is received.

Data Quality Review: Same as QA procedures

Data Limitations: None

Error Estimate: There is no estimate on the number of errors that could have been made during data entry.

New/Improved Data or Systems: TOPS has been revised and improved for 2006 to ensure better consistency between states and to specifically track PART measures.

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: http://www.epa.gov/airtrends/.

FY 2007 Performance Measures:

- **Percent of major NSR permits issued within one year of receiving a complete permit application. (PART measure)**

Performance Databases: RBLC (RACT (Reasonably Available Control Technology) BACT (Best Available Control Technology) LAER (Lowest Achievable Emissions Rate) Clearinghouse)

Data Sources: Permitting Agencies (State and Local)

Methods, Assumptions, and Suitability: The performance measure is calculated by determining the time period between the date of complete permit application and permit

issuance. The percentage represents the number of major NSR permits issued within one year of complete application to the total number of permits issued within that same period. There are no underlying assumptions in the development of this performance measure.

QA/QC Procedures: Some data quality checks include: 1) making sure the permit issuance dates are after the complete permit application dates and appear reasonable, 2) ensuring the permit processing times are similar for comparable permits in previous reporting periods and 3) making sure the time period does not restart when additional information is submitted after the application is received.

Data Quality Review: Same as QA procedures

Data Limitations: None

Error Estimate: There is no estimate on the number of errors that could have been made during data entry.

New/Improved Data or Systems: N/A

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: http://www.epa.gov/airtrends/.

FY 2007 Performance Measure:

- **Cumulative percent reduction in the number of days with Air Quality Index (AQI) values over 100 since 2003, weighted by population and AQI value. (PART measure)**

Performance Databases:

AQS —The Air Quality Subsystem (AQS) stores ambient air quality data used to evaluate an area's air quality levels relative to the NAAQS.

AIRNow DMC –The AIRNow Data Management System (DMC) stores real-time ambient air quality data used for the sole purpose of reporting real-time AQI and air quality forecasting.

Data Sources:

AQS/DMC: State & local agency data from State and Local Air Monitoring Stations (SLAMS) and National Air Monitoring Stations (NAMS).

Methods, Assumptions, and Suitability:

Data are gathered from monitors using EPA-approved federal reference and/or equivalent methods, all of which are published via the Federal Register. EPA assumes the collecting agency has properly maintained each monitor and that the data sent to EPA have passed at least

an automated QA/QC check. The monitoring networks have been providing data for decades and the data are considered highly reliable. In addition these data form the basis of EPA's attainment decisions, trend analysis, and health impact assessments.

QA/QC Procedures:

AQS: The QA/QC of the national air monitoring program has several major components: the Data Quality Objective (DQO) process, reference and equivalent methods program, EPA's National Performance Audit Program (NPAP), system audits, and network reviews (Available on the Internet: www.epa.gov/ttn/amtic/npaplist.html). To ensure quality data, the SLAMS are required to meet the following: 1) each site must meet network design and site criteria; 2) each site must provide adequate QA assessment, control, and corrective action functions according to minimum program requirements; 3) all sampling methods and equipment must meet EPA reference or equivalent requirements; 4) acceptable data validation and record keeping procedures must be followed; and 5) data from SLAMS must be summarized and reported annually to EPA. Finally, there are system audits that regularly review the overall air quality data collection activity for any needed changes or corrections. Further information available on the Internet: http://www.epa.gov/cludygxb/programs/namslam.html and through United States EPA's Quality Assurance Handbook (EPA-454/R-98-004 Section 15)

DMC: The QA/QC procedures at each State, local, Tribal, or Federal agency are the same as documented above. Because the DMC handles real-time data, additional QA/QC data checks are built into the data flow process to further guard against erroneous values being passed through the system. Data in the DMC are not considered final and are not used for any regulatory purpose. Data in the AQS system are the official values used for regulatory analyses.

Data Quality Review:

AQS: No external audits have been done in the last 3 years. However, internal audits are regularly conducted.

DMC: No external audits have been done in the last 3 years. However, internal audits are regularly conducted and data are routinely processed by external users where applicable.

Data Limitations:

AQS: None known

DMC: None known

Error Estimate: At this time it is not possible to develop an error estimate. There is still too much uncertainty in the projections and near term variations in air quality (due to meteorological conditions for example) exist.

New/Improved Data or Systems:

AQS: In January 2002, EPA completed the reengineering of AQS to make it a more user friendly, Windows-based system. As a result, air quality data are more easily accessible via the Internet. AQS has also been enhanced to comply with the Agency's data standards (*e.g.*, latitude/longitude, chemical nomenclature). Beginning in July 2003, agencies submitted air quality data to AQS thru the Agency's Central Data Exchange (CDX). CDX is intended to be the portal through which all environmental data coming to or leaving the Agency will pass.

DMC: AIRNow Data Management Center was redesigned in 2004 to more efficiently handle additional pollutants and provide for easier access to real-time data. In addition, automated QA/QC procedures were updated and increased flexibility for state/local agencies to update information was included.

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: http://www.epa.gov/airtrends/. For more information on the monitoring network, as well as reference and equivalent methods, see the Ambient Monitoring Technology Information Center (AMTIC) at: http://www.epa.gov/ttn/amtic . For information on the AIRNow real-time program, see: http://www.airnow.gov/.

FY 2007 Performance Measures:

- **VOC reduced from mobile sources (PART measure)**
- **NOx reduced from mobile sources (PART measure)**
- **PM 10 reduced from mobile sources (PART measure)**
- **PM 2.5 reduced from mobile sources (PART measure)**
- **Limit the increase of CO Emissions (in tons) from mobile sources (PART measure)**

Performance Database: National Emissions Inventory Database. See: http://www.epa.gov/ttn/chief/trends/

Data Source: Mobile source emissions inventories and Regulatory Impact Analyses

Estimates for on-road, off-road mobile source emissions are built from inventories fed into the relevant models, which in turn provide input to the National Emissions Inventory Database.

The MOBILE vehicle emission factor model is a software tool for predicting gram per mile emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, carbon dioxide, particulate matter, and toxics from cars, trucks, and motorcycles under various conditions. Inputs to the model include fleet composition, activity, temporal information, and control program characteristics.

The NONROAD emission inventory model is a software tool for predicting emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, particulate matter, and sulfur dioxides from small and large off road vehicles, equipment, and engines. Inputs to the model include fleet composition, activity and temporal information.

Certain mobile source information is updated annually. Inputs are updated annually only if there is a rationale and readily available source of annual data. Generally, Vehicle Miles Traveled (VMT), the mix of VMT by type of vehicle (Federal Highway Administration (FHWA)-types), temperature, gasoline properties, and the designs of Inspection/Maintenance (I/M) programs are updated each year. Emission factors for all mobile sources and activity estimates for non-road sources are changed only when the Office of Transportation and Air Quality requests that this be done and is able to provide the new information in a timely manner. The most recent models for mobile sources are Mobile 6 and Nonroad 2002. (Available on the Internet at http://www.epa.gov/otaq/models.htm.)

EPA regulatory packages always include detailed Regulatory Impact Analysis which estimates the costs industry is projected to accrue in meeting EPA regulations. These cost estimates will form the basis of the numbers in the EPA performance measures. Also, costs for the EPA mobile source program (including personnel costs) will be included also. Estimates will be made for various years for tons/dollar for pollutants (the total of HC, CO, NOx, and PM) removed.

Methods, Assumptions, and Suitability: EPA issues emissions standards that set limits on how much pollution can be emitted from a given mobile source. Mobile sources include vehicles that operate on roads and highways ("on road" or "highway" vehicles), as well as nonroad vehicles, engines, and equipment. Examples of mobile sources are cars, trucks, buses, earthmoving equipment, lawn and garden power tools, ships, railroad locomotives, and airplanes. Vehicle and equipment manufacturers have responded to many mobile source emission standards by redesigning vehicles and engines to reduce pollution.

EPA uses models to estimate mobile source emissions, for both past and future years. The estimates are used in a variety of different settings. The estimates are used for rulemaking.

The most complete and systematic process for making and recording such mobile source emissions is the "Trends" inventory process executed each year by the Office of Air Quality Planning and Standards' (OAQPS) Emissions, Monitoring, and Analysis Division (EMAD). The Assessment and Standards Division, within the Office of Transportation and Air Quality, provides EMAD information and methods for making the mobile source estimates. In addition, EMAD's contractors obtain necessary information directly from other sources; for example, weather data and the Federal Highway Administration's (FHWA) Vehicle Miles Traveled (VMT) estimates by state. EMAD creates and publishes the emission inventory estimate for the most recent historical year, detailed down to the county level and with over 30 line items representing mobile sources. At irregular intervals as required for regulatory analysis projects, EMAD creates estimates of emissions for future years. When the method for estimating emissions changes significantly, EMAD usually revises its older estimates of emissions in years prior to the most recent year, to avoid a sudden discontinuity in the apparent emissions trend. EMAD publishes the national emission estimates in hardcopy; county-level estimates are available electronically. Additional information about transportation and air quality related to estimating, testing for, and measuring emissions, as well as research being conducted on technologies for reducing emissions is available at http://www.epa.gov/otaq/research.htm

When major changes are made in the emission models or resulting inventories (and even the cost estimates), the performance measures will be reviewed to determine if they should be updated.

QA/QC Procedures: The emissions inventories are continuously improved.

Data Quality Review: The emissions inventories are reviewed by both internal and external parties, including the states, locals and industries.

Data Limitations: The limitations of the inventory estimates for mobile sources come from limitations in the modeled emission factors (based on emission factor testing and models predicting overall fleet emission factors in g/mile) and also in the estimated vehicle miles traveled for each vehicle class (derived from Department of Transportation data).http://www.epa.gov/otaq/m6.htm. For nonroad emissions, the estimates come from a model using equipment populations, emission factors per hour or unit of work, and an estimate of usage. This nonroad emissions model accounts for over 200 types of nonroad equipment. Any limitations in the input data will carry over into limitations in the emission inventory estimates.

Error Estimate: Additional information about data integrity is available on the Internet: http://www.epa.gov/otaq/m6.htm.

New/Improved Data or Systems: To keep pace with new analysis needs, new modeling approaches, and new data, EPA is currently working on a new modeling system termed the Multi-scale Motor Vehicles and Equipment Emission System (MOVES). This new system will estimate emissions for on road and off road sources, cover a broad range of pollutants, and allow multiple scale analysis, from fine scale analysis to national inventory estimation. When fully implemented, MOVES will serve as the replacement for MOBILE6 and NONROAD. The new system will not necessarily be a single piece of software, but instead will encompass the necessary tools, algorithms, underlying data and guidance necessary for use in all official analyses associated with regulatory development, compliance with statutory requirements, and national/regional inventory projections. Additional information is available on the Internet: http://www.epa.gov/otaq/ngm.htm

References: For additional information about mobile source programs see: http://www.epa.gov/otaq/.

FY 2007 Performance Measures:

- **Combined Stationary and Mobile Source Reductions in Air Toxics Emissions**
- **Mobile Source Air Toxics Emissions Reduced**
- **Stationary Source Air Toxics Emissions Reduced**
- **All Other Air Toxics Emissions Reduced**

Performance Database: National Emissions Inventory (NEI) for Hazardous Air Pollutants (HAPs)

Data Source: To calculate performance measures, the data source used is the NEI for HAPs which includes emissions from large and small industrial sources inventoried as point sources, smaller stationary area and other sources, such as fires inventoried as non-point sources, and mobile sources.

Prior to the 1999 NEI for HAPs, there was the National Toxics Inventory (NTI). The baseline NTI (for base years 1990 - 1993) includes emissions information for 188 hazardous air pollutants from more than 900 stationary sources and from mobile sources. It is based on data collected during the development of Maximum Achievable Control Technology (MACT) standards, state and local data, Toxics Release Inventory (TRI) data, and emissions estimates using accepted emission inventory methodologies. The baseline NTI contains county level emissions data , not facility-specific data.

The 1996 NTI and 1999 NEI for HAPs contain estimates of facility-specific HAP emissions and their source specific parameters such as location (latitude and longitude) and facility characteristics (stack height, exit velocity, temperature, etc.)

The primary source of data in the 1996 and 1999 NTI is state and local air pollution control agencies and Tribes. These data vary in completeness, format, and quality. EPA evaluates these data and supplements them with data gathered while developing MACT and residual risk standards, industry data, and TRI data. To produce a complete national inventory, EPA estimates emissions for approximately 30 non-point source categories such as wildfires and residential heating sources not included in the state, local and Tribal data. Mobile source data are developed using data provided by state and local agencies and Tribes and the most current onroad and nonroad models developed by EPA's Office of Transportation and Air Quality. The draft 1996 NTI and 1999 NEI for HAPS underwent extensive review by state and local agencies, Tribes, industry, EPA, and the public.

For more information and references on the development of the 1996 NTI, please go to the following web site: www.epa.gov/ttn/chief/nti/index.html#nti. For more information and references on the development of the 1999 NEI for HAPs, please go to the following web site: http://www.epa.gov/ttn/chief/net/index.html#1999.

Methods, Assumptions and Suitability: To produce a complete model-ready national inventory, EPA estimates emissions for approximately 30 non-point source categories such as wildfires and residential heating sources not included in the state, local and Tribal data. Mobile source data are developed using data provided by state and local agencies and Tribes and the most current onroad and nonroad models developed by EPA's Office of Transportation and Air Quality.

Upon development of the inventory, the EMS-HAP (Emissions Modeling System for Hazardous Air Pollutants) is used to estimate annual emissions of air toxics for the 1996 NTI and 1999 NEI for HAPS (and for all years in-between). The EMS-HAP can project future emissions, by adjusting stationary source emission data to account for growth and emission reductions resulting from emission reduction scenarios such as the implementation of the Maximum Achievable Control Technology (MACT) standards.

For more information and references on EMS-HAP, please go to the following web sites: http://www.epa.gov/scram001/tt22.htm#aspen and http://www.epa.gov/ttn/chief/emch/projection/emshap.html.
The growth and reduction information used for the projections are further described on the following website: http://www.epa.gov/ttn/chief/emch/projection/emshap.html

QA/QC Procedures: The NTI and the NEI for HAPs are databases designed to house information from other primary sources. The EPA performs extensive quality assurance/quality control (QA/QC) activities, including checking data provided by other organizations, to improve the quality of the emission inventory. Some of these activities include: (1) the use of an automated format QC tool to identify potential errors of data integrity, code values, and range checks; (2) use of geographical information system (GIS) tools to verify facility locations; and (3) automated content analysis by pollutant, source category and facility to identify potential problems with emission estimates such as outliers, duplicate sites, duplicate emissions, coverage of a source category, etc. The content analysis includes a variety of comparative and statistical analyses. The comparative analyses help reviewers prioritize which source categories and pollutants to review in more detail based on comparisons using current inventory data and prior inventories. The statistical analyses help reviewers identify potential outliers by providing the minimum, maximum, average, standard deviation, and selected percentile values based on current data. The EPA is currently developing an automated QC content tool for data providers to use prior to submitting their data to EPA. After investigating errors identified using the automated QC format and GIS tools, the EPA follows specific guidance on augmenting data for missing data fields. This guidance is available at the following web site: http://www.epa.gov/ttn/chief/emch/invent/qaaugmementationmemo_99nei_60603.pdf

The NTI database contains data fields that indicate if a field has been augmented and identifies the augmentation method. After performing the content analysis, the EPA contacts data providers to reconcile potential errors. The draft NTI is posted for external review and includes a README file, with instructions on review of data and submission of revisions, state-by-state modeling files with all modeled data fields, and summary files to assist in the review of the data. One of the summary files includes a comparison of point source data submitted by different organizations. During the external review of the data, state and local agencies, Tribes, and industry provide external QA of the inventory. The EPA evaluates proposed revisions from external reviewers and prepares memos for individual reviewers documenting incorporation of revisions and explanations if revisions were not incorporated. All revisions are tracked in the database with the source of original data and sources of subsequent revision.

The external QA and the internal QC of the inventory have resulted in significant changes in the initial emission estimates, as seen by comparison of the initial draft NEI for HAPs and its final version. For more information on QA/QC of the NEI for HAPs, please refer to the following web site for a paper presented at the 2002 Emission Inventory Conference in Atlanta. "QA/QC - An Integral Step in the Development of the 1999 National Emission Inventory for HAPs," Anne Pope, et al. www.epa.gov/ttn/chief/conference/ei11/qa/pope.pdf

EPA's Office of Environmental Information (OEI) has created uniform data standards or elements, which provide "meta" information on the standard NEI Input Format (NIF) fields. These standards were developed by teams representing states, Tribes, EPA and other Federal agencies. The use of common data standards among partners fosters consistently defined and formatted data elements and sets of data values, and provides public access to more meaningful data. The standards relevant to the NEI for HAPs are the: SIC/NAICS, Latitude/Longitude, Chemical Identification, Facility Identification, Date, Tribal and Contact Data Standards. The 1999 NEI for HAPs is compliant with all new data standards except the Facility Identification Standard because OEI has not completed its assignment of Facility IDs to the 1999 NEI for HAPs facilities.

For more information on compliance of the NEI for HAPs with new OMB Information Quality Guidelines and new EPA data standards, please refer to the following web site for a paper presented at the 2003 Emission Inventory Conference in San Diego: "The Challenge of Meeting New EPA Data Standards and Information Quality Guidelines in the Development of the 2002 NEI Point Source Data for HAPs," Anne Pope, et al.
www.epa.gov/ttn/chief/conference/ei12/dm/pope.pdf

The 2002 NEI for HAPs will undergo scientific peer review in early 2005.

Data Quality Review: EPA staff, state and local agencies, Tribes, industry and the public review the NTI and the NEI for HAPs. To assist in the review of the 1999 NEI for HAPs, the EPA provided a comparison of data from the three data sources (MACT/residual risk data, TRI, and state, local and Tribal inventories) for each facility. For the 1999 NEI for HAPs, two periods were available for external review - October 2001 - February 2002 and October 2002 - March 2003. . The final 1999 NEI was completed and posted on the Agency website in the fall of 2003. Beginning in 2005, the NTI will undergo an external scientific peer review.

In 2001, EPA's Science Advisory Board (SAB) reviewed the EMS-HAP model as part of the 1996 national-scale assessment. The review was generally supportive of the assessment purpose, methods, and presentation; the committee considers this an important step toward a better understanding of air toxics. Additional information is available on the Internet:
www.epa.gov/ttn/atw/nata/peer.html.

Data Limitations: While emissions estimating techniques have improved over the years, broad assumptions about the behavior of sources and serious data limitations still exist. The NTI and the NEI for HAPs contain data from other primary references. Because of the different data sources, not all information in the NTI and the NEI for HAPs has been developed using identical methods. Also, for the same reason, there are likely some geographic areas with more detail and accuracy than others. Because of the lesser level of detail in the baseline NTI, it is currently not suitable for input to dispersion models. For further discussion of the data limitations and the error estimates in the 1999 NEI for HAPs, please refer to the discussion of Information Quality Guidelines in the documentation at:
www.epa.gov/ttn/chief/net/index.html#haps99 .

In 2004, the Office of the Inspector General (OIG) released a final evaluation report on "EPA's Method for Calculating Air Toxics Emissions for Reporting Results Needs Improvement" (report can be found at www.epa.gov/oig/reports/2004/20040331-2004-p-00012.pdf) The report stated that although the methods used have improved substantially, unvalidated assumptions and other limitations underlying the NTI continue to impact its use as a GPRA performance measure. As a result of this evaluation and the OIG recommendations for improvement, EPA prepared an action plan and is looking at way to improve the accuracy and reliability of the data. EPA will meet bi-annually with OIG to report on its progress in completing the activities as outlined in the action plan.

Error Estimate: Error estimate cannot be tabulated on account of data limitations as described above.

New/Improved Data or Systems: The 1996 NTI and 1999 NEI for HAPs are a significant improvement over the baseline 1993 NTI because of the added facility-level detail (e.g., stack heights, latitude/longitude locations), making it more useful for dispersion model input. Future inventories (2002 and later years) are expected to improve significantly because of increased interest in the NEI for HAPs by regulatory agencies, environmental interests, and industry, and the greater potential for modeling and trend analysis. During the development of the 1999 NEI for HAPs, all primary data submitters and reviewers were required to submit their data and revisions to EPA in a standardized format using the Agency's Central Data Exchange (CDX). For more information on CDX, please go the following web site: www.epa.gov/ttn/chief/nif/cdx.html

References: The NTI and NEI data and documentation are available at the following sites:

ftp site:	ftp://ftp.epa.gov/EmisInventory/
Available inventories:	1996 NTI, 1999 NEI for HAPs
Contents:	Modeling data files for each state
	Summary data files for nation
	Documentation
	README file
Audience:	individuals who want full access to NTI files
NEON:	http://ttnwww.rtpnc.epa.gov/Neon/
Available inventories:	1996 NTI and 1999 NEI for HAPs
Contents:	Summary data files
Audience:	EPA staff
CHIEF:	www.epa.gov/ttn/chief
	1999 NEI for HAPs data development materials
	1999 Data Incorporation Plan - describes how EPA compiled the 1999 NEI for HAPs
	QC tool for data submitters
	Data Augmentation Memo describes procedures EPA will use to augment data

	99 NTI Q's and A's provides answers to frequently asked questions
	NIF (Input Format) files and descriptions
	CDX Data Submittal Procedures - instructions on how to submit data using CDX
	Training materials on development of HAP emission inventories
	Emission factor documents, databases, and models
Audience:	State and local agencies, Tribes, industry, EPA, and the public

FY 2007 Performance Measures:

- **Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics (PART measure)**
- **Cumulative percentage reduction in tons of toxicity-weighted (for noncancer risk) emissions of air toxics (PART measure)**

Performance Databases:

- National Emissions Inventory (NEI) for Hazardous Air Pollutants (HAPs)
- EPA's Health Criteria Data for Risk Characterization

Data Source:

To better measure the percentage change in cancer and noncancer risk to the public, a toxicity-weighted emission inventory performance measure has been developed. This measure utilizes data from the NEI for air toxics along with data from EPA's Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html), which is a compendium of cancer and noncancer health risk criteria used to develop a risk metric. This compendium includes tabulated values for long-term (chronic) inhalation for many of the 188 hazardous air pollutants. These health risk data were obtained from various data sources including EPA, the U.S. Agency for Toxic Substances and Disease Registry, California Environmental Protection Agency, and the International Agency for Research on Cancer. The numbers from the health risk database are used for estimating the risk of contracting cancer and the level of hazard associated with adverse health effects other than cancer.

The NEI for HAPs includes emissions from large and small industrial sources inventoried as point sources, smaller stationary area and other sources, such as fires inventoried as non-point sources, and mobile sources. Prior to 1999 NEI for HAPs, there was the National Toxics Inventory (NTI). The baseline NTI (for base years 1990 - 1993) includes emissions information for 188 hazardous air pollutants from more than 900 stationary sources and from mobile sources. It is based on data collected during the development of Maximum Achievable Control Technology (MACT) standards, state and local data, Toxics Release Inventory (TRI) data, and emissions estimates using accepted emission inventory methodologies. The baseline NTI contains county level emissions data and cannot be used for modeling because it does not contain facility specific data.

The 1996 NTI and the 1999 NEI for HAPs contain stationary and mobile source estimates. These inventories also contain estimates of facility-specific HAP emissions and their source

specific parameters such as location (latitude and longitude) and facility characteristics (stack height, exit velocity, temperature, etc.

The primary source of data in the 1996 and 1999 inventories are state and local air pollution control agencies and Tribes. These data vary in completeness, format, and quality. EPA evaluates these data and supplements them with data gathered while developing MACT and residual risk standards, industry data, and TRI data.

For more information and references on the development of the 1996 NTI, please go to the following web site: www.epa.gov/ttn/chief/nti/index.html#nti. For more information and references on the development of the 1999 NEI for HAPs, please go to the following web site: www.epa.gov/ttn/chief/net/index.html#1999.

Methods, Assumptions and Suitability: As the NEI is only developed every three years, EPA utilizes an emissions modeling system to project inventories for "off-years" and to project the inventory into the future. This model, the EMS-HAP (Emissions Modeling System for Hazardous Air Pollutants), can project future emissions, by adjusting stationary source emission data to account for growth and emission reductions resulting from emission reduction scenarios such as the implementation of the Maximum Achievable Control Technology (MACT) standards.

Once the EMS-HAP process has been performed, the EPA would tox-weight the inventory by "weighting" the emissions for each pollutant with the appropriate health risk criteria. This would be accomplished through a multi-step process. Initially, pollutant by pollutant values would be obtained from the NEI for the current year and the baseline year (1990/93). Conversion of actual tons for each pollutant for the current year and the baseline year to "toxicity-weighted" tons would be accomplished by multiplying the appropriate values from the health criteria database such as the unit risk estimate (URE) or lifetime cancer risk (defined at www.epa.gov/ttn/atw/nata/gloss.htm#rfc) to get the noncancer tons. These toxicity-weighted values act as a surrogate for risk and allow EPA to compare the toxicity-weighted values against a 1990/1993 baseline of toxicity-weighted values to determine the percentage reduction in risk on an annual basis

Complete documentation on development of the NEI for HAPs can be found at http://www.epa.gov/ttn/chief/net/index.html. For more information and references on EMS-HAP, go to the following web sites: http://www.epa.gov/scram001/tt22.htm#aspen and http://www.epa.gov/ttn/chief/emch/projection/emshap.html. The growth and reduction information used for the projections are further described at http://www.epa.gov/ttn/chief/emch/projection/emshap.html.

QA/QC Procedures: The NTI and the NEI for HAPs are databases designed to house information from other primary sources. The EPA performs extensive quality assurance/quality control (QA/QC) activities, including checking data provided by other organizations, to improve the quality of the emission inventory. Some of these activities include: (1) the use of an automated format QC tool to identify potential errors of data integrity, code values, and range checks; (2) use of geographical information system (GIS) tools to verify facility locations; and

(3) automated content analysis by pollutant, source category and facility to identify potential problems with emission estimates such as outliers, duplicate sites, duplicate emissions, coverage of a source category, etc. The content analysis includes a variety of comparative and statistical analyses. The comparative analyses help reviewers prioritize which source categories and pollutants to review in more detail based on comparisons using current inventory data and prior inventories. The statistical analyses help reviewers identify potential outliers by providing the minimum, maximum, average, standard deviation, and selected percentile values based on current data. The EPA has developed an automated QC content tool for data providers to use prior to submitting their data to EPA. After investigating errors identified using the automated QC format and GIS tools, the EPA follows specific guidance on augmenting data for missing data fields. This guidance is available at the following web site: http://www.epa.gov/ttn/chief/emch/invent/qaaugmementationmemo_99nei_60603.pdf

The NTI database contains data fields that indicate if a field has been augmented and identifies the augmentation method. After performing the content analysis, the EPA contacts data providers to reconcile potential errors. The draft NTI is posted for external review and includes a README file, with instructions on review of data and submission of revisions, state-by-state modeling files with all modeled data fields, and summary files to assist in the review of the data. One of the summary files includes a comparison of point source data submitted by different organizations. During the external review of the data, state and local agencies, Tribes, and industry provide external QA of the inventory. The EPA evaluates proposed revisions from external reviewers and prepares memos for individual reviewers documenting incorporation of revisions and explanations if revisions were not incorporated. All revisions are tracked in the database with the source of original data and sources of subsequent revision.

The external QA and the internal QC of the inventory have resulted in significant changes in the initial emission estimates, as seen by comparison of the initial draft NEI for HAPs and its final version. For more information on QA/QC of the NEI for HAPs, please refer to the following web site for a paper presented at the 2002 Emission Inventory Conference in Atlanta. "QA/QC - An Integral Step in the Development of the 1999 National Emission Inventory for HAPs", Anne Pope, et al. www.epa.gov/ttn/chief/conference/ei11/qa/pope.pdf

EPA's Office of Environmental Information (OEI) has created uniform data standards or elements, which provide "meta" information on the standard NEI Input Format (NIF) fields. These standards were developed by teams representing states, Tribes, EPA and other Federal agencies. The use of common data standards among partners fosters consistently defined and formatted data elements and sets of data values, and provides public access to more meaningful data. The standards relevant to the NEI for HAPs are the: SIC/NAICS, Latitude/Longitude, Chemical Identification, Facility Identification, Date, Tribal and Contact Data Standards. The 1999 NEI for HAPs is compliant with all new data standards except the Facility Identification Standard because OEI has not completed its assignment of Facility IDs to the 1999 NEI for HAPs facilities.

For more information on compliance of the NEI for HAPs with new OMB Information Quality Guidelines and new EPA data standards, please refer to the following web site for a paper presented at the 2003 Emission Inventory Conference in San Diego. "The Challenge of Meeting

New EPA Data Standards and Information Quality Guidelines in the Development of the 2002 NEI Point Source Data for HAPs", Anne Pope, et al. www.epa.gov/ttn/chief/conference/ei12/dm/pope.pdf The 2002 NEI for HAPs will undergo scientific peer review in early 2005.

The tables used in the EPA's Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html) are compiled assessments from various sources for many of the 188 substances listed as hazardous air pollutants under the Clean Air Act of 1990. Because different sources developed these assessments at different times for purposes that were similar but not identical, results are not totally consistent. To resolve these discrepancies and ensure the validity of the data, EPA applied a consistent priority scheme consistent with EPA risk assessment guidelines and various levels of scientific peer review. These risk assessment guidelines can be found at http://www.epa.gov/ncea/raf/car2sab/preamble.pdf .

Data Quality Review: EPA staff, state and local agencies, Tribes, industry and the public review the NTI and the NEI for HAPs. To assist in the review of the 1999 NEI for HAPs, the EPA provided a comparison of data from the three data sources (MACT/residual risk data, TRI, and state, local and Tribal inventories) for each facility. For the 1999 NEI for HAPs, two periods were available for external review - October 2001 - February 2002 and October 2002 - March 2003. The final 1999 NEI was completed and posted on the Agency website in the fall of 2003. Beginning in 2005, the NTI will undergo an external scientific peer review.

The EMS-HAP has been subjected to the scrutiny of leading scientists throughout the country in a process called "scientific peer review". This ensures that EPA uses the best available scientific methods and information. In 2001, EPA's Science Advisory Board (SAB) reviewed the EMS-HAP model as part of the 1996 national-scale assessment. The review was generally supportive of the assessment purpose, methods, and presentation; the committee considers this an important step toward a better understanding of air toxics. Additional information is available on the Internet: www.epa.gov/ttn/atw/nata/peer.html.

The data compiled in the Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html) are reviewed to make sure they support hazard identification and dose-response assessment for chronic exposures as defined in the National Academy of Sciences (NAS) risk assessment paradigm (www.epa.gov/ttn/atw/toxsource/paradigm.html). Because the health criteria data were obtained from various sources they are prioritized for use (in developing the performance measure, for example) according to 1) conceptual consistency with EPA risk assessment guidelines and 2) various levels of scientific peer review. The prioritization process is aimed at incorporating the best available scientific data.

Data Limitations and Error Estimates: While emissions estimating techniques have improved over the years, broad assumptions about the behavior of sources and serious data limitations still exist. The NTI and the NEI for HAPs contain data from other primary references. Because of the different data sources, not all information in the NTI and the NEI for HAPs has been developed using identical methods. Also, for the same reason, there are likely some geographic areas with more detail and accuracy than others. Because of the lesser level of detail in the

baseline NTI, it is currently not suitable for input to dispersion models. For further discussion of the data limitations and the error estimates in the 1999 NEI for HAPs, please refer to the discussion of Information Quality Guidelines in the documentation at: www.epa.gov/ttn/chief/net/index.html#haps99 .

In 2004, the Office of the Inspector General (OIG) released a final evaluation report on "EPA's Method for Calculating Air Toxics Emissions for Reporting Results Needs Improvement" (report can be found at www.epa.gov/oig/reports/2004/20040331-2004-p-00012.pdf). The report stated that although the methods used have improved substantially, unvalidated assumptions and other limitations underlying the NTI continue to impact its use as a GPRA performance measure. As a result of this evaluation and the OIG recommendations for improvement, EPA prepared an action plan and is looking at ways to improve the accuracy and reliability of the data. EPA will meet bi-annually with OIG to report on its progress in completing the activities as outlined in the action plan.

While the Agency has made every effort to utilize the best available science in selecting appropriate health criteria data for toxicity-weighting calculations there are inherent limitations and errors (uncertainties) associated with this type of data. While it is not practical to expose humans to chemicals at target doses and observe subsequent health implications over long periods of time, most of the agencies health criteria is derived from response models and laboratory experiments involving animals. The parameter used to convert from exposure to cancer risk (i.e. the Unit Risk Estimate or URE) is based on default science policy processes used routinely in EPA assessments. First, some air toxics are known to be carcinogens in animals but lack data in humans. These have been assumed to be human carcinogens. Second, all the air toxics in this assessment were assumed to have linear relationships between exposure and the probability of cancer (i.e. effects at low exposures were extrapolated from higher, measurable, exposures by a straight line). Third, the URE used for some air toxics compounds represents a maximum likelihood estimate, which might be taken to mean the best scientific estimate. For other air toxics compounds, however, the URE used was an "upper bound" estimate, meaning that it probably leads to an overestimation of risk if it is incorrect. For these upper bound estimates, it is assumed that the URE continues to apply even at low exposures. It is likely, therefore, that this linear model over-predicts the risk at exposures encountered in the environment. The cancer weighting-values for this approach should be considered "upper bound" in the science policy sense.

All of the noncancer risk estimates have a built-in margin of safety. All of the Reference Concentrations (RfCs) used in toxicity-weighting of noncancer are conservative, meaning that they represent exposures which probably do not result in any health effects, with a margin of safety built into the RfC to account for sources of uncertainty and variability. Like the URE used in cancer weighting the values are, therefore, considered "upper bound" in the science policy sense. Further details on limitations and uncertainties associated with the agencies health data can be found at: www.epa.gov/ttn/atw/nata/roy/page9.html#L10

New/Improved Data or Systems: The 1996 NTI and 1999 NEI for HAPs are a significant improvement over the baseline NTI because of the added facility-level detail (e.g., stack heights, latitude/longitude locations), making it more useful for dispersion model input. Future

inventories (2002 and later years) are expected to improve significantly because of increased interest in the NEI for HAPs by regulatory agencies, environmental interests, and industry, and the greater potential for modeling and trend analysis. During the development of the 1999 NEI for HAPs, all primary data submitters and reviewers were required to submit their data and revisions to EPA in a standardized format using the Agency's Central Data Exchange (CDX). For more information on CDX, please go the following web site: www.epa.gov/ttn/chief/nif/cdx.html

Beginning in 2006, the toxicity-weighted emission inventory data will also be used as a measurement to predict exposure and risk to the public. This measure will utilize ambient monitoring of air toxics as a surrogate for population exposure and compare these values with health benchmarks to predict risks.

References:

The NTI and NEI data and documentation are available at the following sites:

Emissions Inventory Data:	ftp://ftp.epa.gov/EmisInventory/
Available inventories:	1996 NTI, 1999 NEI for HAPs
Contents:	Modeling data files for each state
	Summary data files for nation
	Documentation
	README file
Audience:	individuals who want full access to NTI files
NEON:	http://ttnwww.rtpnc.epa.gov/Neon/
Available inventories:	1996 NTI and 1999 NEI for HAPs
Contents:	Summary data files
Audience:	EPA staff
CHIEF:	www.epa.gov/ttn/chief
	1999 NEI for HAPs data development materials
	1999 Data Incorporation Plan - describes how EPA compiled the 1999 NEI for HAPs
	QC tool for data submitters
	Data Augmentation Memo describes procedures EPA will use to augment data
	99 NTI Q's and A's provides answers to frequently asked questions
	NIF (Input Format) files and descriptions
	CDX Data Submittal Procedures - instructions on how to submit data using CDX
	Training materials on development of HAP emission inventories
	Emission factor documents, databases, and models
Audience:	State/local/Tribal agencies, industry, EPA, and the public

Information on the Emissions Modeling System for Hazardous Air Pollutants:

EMS-HAP:	http://epa.gov/scram001/tt22.htm#aspen http://www.epa.gov/ttn/chief/emch/projection/emshap.html
Contents:	1996 NTI and 1999 NEI for HAPs
Audience:	public

Information on EPA's Health Criteria Data for Risk Characterization:

Health Criteria Data:	http://www.epa.gov/ttn/atw/toxsource/summary.html
Contents:	Tabulated dose response values for long-term (chronic) inhalation and oral exposures; and values for short-term (acute) inhalation exposure
Audience:	public

GOAL 1 OBJECTIVE 2

FY 2007 *Overarching* Performance Measure:

- **People Living in Healthier Indoor Air**

FY 2007 Performance Measures:

- **People Living in Radon Resistant Homes**
- **Annual additional homes with radon reducing features (PART measure)**

Performance Database: Annual industry survey data of home builders provided by the National Association of Home Builders.

Data Source: The survey is an annual sample of home builders in the United States most of whom are members of the National Association of Home Builders (NAHB). NAHB members construct 80% of the homes built in the United States each year. Using a survey methodology reviewed by EPA, NAHB Research Center estimates the percentage of these homes that are built radon resistant. The percentage built radon resistant from the sample is then used to estimate what percent of all homes built nationwide are radon resistant. To calculate the number of people living in radon resistant homes, EPA assumes an average of 2.67 people per household. NAHB Research Center has been conducting this annual builder practices survey for over a decade, and has developed substantial expertise in the survey's design, implementation, and analysis. The statistical estimates are typically reported with a 95 percent confidence interval.

Methods, Assumptions, and Suitability: NAHB Research Center conducts an annual survey of home builders in the United States to assess a wide range of builder practices. NAHB Research Center voluntarily conducts this survey to maintain an awareness of industry trends in order to improve American housing and to be responsive to the needs of the home building industry. The annual survey gathers information such as types of houses built, lot sizes, foundation designs, types of lumber used, types of doors and windows used, etc. The NAHB Research Center

Builder Survey also gathers information on the use of radon-resistant design features in new houses, and these questions comprise about two percent of the survey questionnaire.

In January of each year, the survey of building practices for the preceding calendar year is typically mailed out to home builders. For the most-recently completed survey, for building practices during calendar year 2003, NAHB Research Center reported mailing the survey to about 45,000 active United States home building companies, and received about 2,300 responses, which translates to a response rate of about 5 percent. The survey responses are analyzed, with respect to State market areas and Census Divisions in the United States, to assess the percentage and number of homes built each year that incorporate radon-reducing features. The data are also used to assess the percentage and number of homes built with radon-reducing features in high radon potential areas in the United States (high risk areas). Other analyses include radon-reducing features as a function of housing type, foundation type, and different techniques for radon-resistant new home construction. The data are suitable for year-to-year comparisons.

QA/QC Procedures: Because data are obtained from an external organization, QA/QC procedures are not entirely known. According to NAHB Research Center, QA/QC procedures have been established, which includes QA/QC by the vendor that is utilized for key entry of data.

Data Quality Review: Because data are obtained from an external organization, Data Quality Review procedures are not entirely known. NAHB Research Center indicates that each survey is manually reviewed, a process that requires several months to complete. The review includes data quality checks to ensure that the respondents understood the survey questions and answered the questions appropriately. NAHB Research Center also applies checks for open-ended questions to verify the appropriateness of the answers. In some cases, where open-ended questions request numerical information, the data are capped between the upper and lower three percent of the values provided in the survey responses. Also, a quality review of each year's draft report from NAHB Research Center is conducted by the EPA project officer.

Data Limitations: The majority of home builders surveyed are NAHB members. The NAHB Research Center survey also attempts to capture the activities of builders that are not members of NAHB. Home builders that are not members of NAHB are typically smaller, sporadic builders that in some cases build homes as a secondary profession. To augment the list of NAHB members in the survey sample, NAHB Research Center sends the survey to home builders identified from mailing lists of builder trade publications, such as Professional Builder magazine. There is some uncertainty as to whether the survey adequately characterizes the practices of builders who are not members of NAHB. The effects on the findings are not known.

Although an overall response rate of 5 percent could be considered low, it is the response rate for the entire survey, of which the radon-resistant new construction questions are only a very small portion. Builders responding to the survey would not be doing so principally due to their radon activities. Thus, a low response rate does not necessarily indicate a strong potential for a positive bias under the speculation that builders using radon-resistant construction would be more likely to respond to the survey. NAHB Research Center also makes efforts to reduce the potential for positive bias in the way the radon-related survey questions are presented.

Error Estimate: See Data Limitations

New/Improved Data or Systems: None

References: The results are published by the NAHB Research Center in annual reports of radon-resistant home building practices. See http://www.nahbrc.org/ last accessed 12/21/2005 for more information about NAHB. The most recent report, "Builder Practices Report: Radon Reducing Features in New Construction 2003,"Annual Builder and Consumer Practices Surveys by the NAHB Research Center, Inc., November, 2004. Similar report titles exist for prior years.

FY 2007 Performance Measure:

- **People Living in Radon Mitigated Homes**

Performance Database: External

Data Source: Radon fan manufacturers report fan sales to the Agency. EPA assumes one fan per radon mitigated home, assumes a fan life of 10 years, and then multiplies the assumed number of working fans by the assumed average of 2.67 people per household.

Methods, Assumptions and Suitability: N/A.

QA/QC Procedures: Because data are obtained from an external organization, EPA relies on the business practices for reporting data of the radon fan manufacturers.

Data Quality Review: Data are obtained from an external organization. EPA reviews the data to ascertain their reliability and discusses any irregularities with the relevant manufacturer.

Data Limitations: Reporting by radon fan manufacturers is voluntary and may underestimate the number of radon fans sold. Nevertheless, these are the best available data to determine the number of homes mitigated. There are other methods to mitigate radon including: passive mitigation techniques of sealing holes and cracks in floors and foundation walls, installing sealed covers over sump pits, installing one-way drain valves in untrapped drains, and installing static venting and ground covers in areas like crawl spaces. Because there are no data on the occurrence of these methods, there is again the possibility that the number of radon mitigated homes has been underestimated.

No radon vent fan manufacturer, vent fan motor maker or distributor is required to report to EPA; they provide data/information voluntarily to EPA. There are only four (4) radon vent fan manufacturers of any significance; one of these accounts for an estimated 70% of the market. Radon vent fans are unlikely to be used for non-radon applications. However, vent fans typically used for non-radon applications are perhaps being installed as substitutes for radon vent fans in some instances; estimated to be less than 1% of the total market. Ascertaining the actual number of radon vent fans used for other applications, and the number of non-radon fans being substituted in radon applications, would be difficult and expensive at this time relative to the benefit of having such data.

Error Estimate: N/A.

New/Improved Data or Systems: None

References: See http://www.epa.gov/iaq/radon/pubs/index.html last accessed 12/21/2005 for National performance/progress reporting (National Radon Results: 1985 to 2003*) on radon, measurement, mitigation and radon-resistant new construction. Data through 2004 are available from the Indoor Environments Division of the Office of Air and Radiation.

FY 2007 Performance Measures:

- **Number of people with asthma who have taken steps to reduce their exposure to indoor environmental asthma triggers (PART measure)**

Performance Database: The national telephone survey (*National Survey on Environmental Management of Asthma and Children's Exposure to ETS*) seeks information about the measures taken by people with asthma, and parents of children with asthma to minimize exposure to indoor environmental asthma triggers. Additional information about asthma morbidity and mortality in the US is obtained from the Centers for Disease Control and Prevention (CDC). Annual expenditures for health and lost productivity due to asthma are obtained from the National Heart Lung and Blood Institute (NHLBI) Chartbook www.nhlbi.nih.gov/resources/docs/02_chtbk.pdf last accessed 12/21/2005.

EPA also collects data on children exposed to environmental tobacco smoke in the home. This information is used in supporting the asthma goals of the program. EPA focuses its work on ETS on children in low income and minority populations, and on children with asthma. The *National Survey on Environmental Management of Asthma and Children's Exposure to ETS,* which includes a series of questions about whether respondents allow smoking in their home, whether young children are in the home, what resident family members smoke and how often, and how much visitors contribute to exposure, is used to track progress toward reducing childhood ETS exposure. Information about ETS is obtained periodically from the Centers for Disease Control and Prevention (CDC) including the National Health Interview, the National Health and Nutrition Examination Survey (for cotinine data), and the Behavioral Risk Factor Surveillance Survey (for state tobacco/ETS exposure data).

Data Source: The *National Survey on Environmental Management of Asthma and Children's Exposure to ETS* (OMB control number 2060-0490) source is EPA. Data on asthma morbidity and mortality is available from the National Center for Health Statistics at the CDC (www.cdc.gov/nchs last accessed 12/21/2005). Data on annual expenditures for health and lost productivity due to asthma are obtained from the NHLBI Chartbook.

Methods, Assumptions and Suitability: End-of–year performance for the asthma program is a best professional estimate using all data sources (including annual measures on partner performance and advertising awareness outlined below). The survey provides statistically sound results every three years for one period of time; Scheduled surveys will provide performance results for years 2006 and 2009. The estimate of the number of people with asthma who have

taken steps to reduce their exposure to indoor environmental asthma triggers as of 2007 will be based on a projection from previous surveys, and this estimate will be verified using the 2009 survey data. Data on annual measures is also used to support progress towards the long term performance measure.

National Survey on Environmental Management of Asthma and Children's Exposure to ETS (OMB control number 2060-0490): This survey is the most robust data set for this performance measure, but it is not administered annually. The first survey, administered in 2003, was designed in consultation with staff from EPA and the CDC National Center for Health Statistics (NCHS) to ensure that respondents will understand the questions asked and will provide the type of data necessary to measure the Agency's objectives. In addition, care has been taken to ensure that the survey questions target the population with asthma by using the same qualifier question that appears on other national surveys on asthma collected by the CDC.

From an initial sampling frame of 124,994 phone numbers, 14,685 households were contacted successfully and agreed to participate in the screening survey. Of the 14,685 individuals screened, approximately 18 percent, or 2,637 individuals, either have asthma or live with someone who does. Only those individuals who have asthma or live with someone who does were considered to be eligible respondents.

Respondents were asked to provide primarily yes/no responses. In some cases, respondents were given a range of responses in the form of multiple choice questions and were asked to indicate the one which best defined their response. The survey seeks information on those environmental management measures that the Agency considers important in reducing an individual's exposure to known indoor environmental asthma triggers. By using yes/no and multiple choice questions, the Agency has substantially reduced the amount of time necessary for the respondent to complete the survey and has ensured consistency in data response and interpretation.

The information collected has been used to establish a baseline to reflect the characteristics of our nation's asthma population and future iterations of this survey will measure additional progress toward achieving performance goals. The next survey will take place in 2006.

QA/QC Procedures: The National Survey is designed in accordance with approved Agency procedures. Additional information is available on the Internet: http://www.epa.gov/icr/players.html last accessed 12/21/2005. The computer assisted telephone interview methodology used for this survey helps to limit errors in data collection. In addition, the QA/QC procedures associated with conducting the survey include pilot testing of interview questions, interviewer training to ensure consistent gathering of information, and random data review to reduce the possibility of data entry error.

Data Quality Review: EPA reviews the data from all sources to ascertain reliability.

Data Limitations: Asthma: Random digit dialing methodology is used to ensure that a representative sample of households has been contacted; however, the survey is subject to inherent limitations of voluntary telephone surveys of representative samples. For example, 1) survey is limited to those households with current telephone service; 2) interviewers may follow survey directions inconsistently. An interviewer might ask the questions incorrectly or

inadvertently lead the interviewee to a response; or 3) the interviewer may call at an inconvenient time (i.e., the respondent might not want to be interrupted at the time of the call and may resent the intrusion of the phone call; the answers will reflect this attitude.).

ETS: Currently available cotinine (a chemical in environmental tobacco smoke) survey data do not address 50% of the age specific portion of EPA's target population. It does not include birth to three years old, the portion of children most susceptible to the effects of ETS.

Error Estimate: In its first data collection with this instrument, the Agency achieved results within the following percentage points of the true value at the 95 percent confidence level (survey instrument):

Adult Asthmatics	plus or minus	2.4%
Child Asthmatics	plus or minus	3.7%
Low Income Adult Asthmatics	plus or minus	6.1%

These precision rates are sufficient to characterize the extent to which the results measured by the survey accurately reflect the characteristics of our nation's asthmatic population.

New/Improved Data or Systems: Data from the *National Survey on Environmental Management of Asthma and Children's Exposure to ETS* (OMB control number 2060-0490) were collected from August 4-September 17, 2003 and represent the first data collection with this instrument.

References:

Asthma

National Center for Health Statistics, Centers for Disease Control and Prevention (www.cdc.gov/nchs/ last accessed 7/27/2005)

EPA Indoor Environments Division (www.epa.gov/iaq/ last accessed 12/21/2005)

ETS

National Health Interview Survey and National Health and Nutrition Examination Survey are part of the National Center for Health Statistics, Centers for Disease Control and Prevention (http://www.cdc.gov/nchs last accessed 12/21/2005)

Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Prevention (http://www.cdc.gov/brfss/index.htm last accessed 12/21/2005),

US Surgeon General's report on tobacco (http://www.cdc.gov/tobacco/sgr/index.htm/ last accessed 7/27/2005),
National Cancer Institute's (NCI) *Tobacco Monograph Series* (http://cancercontrol.cancer.gov/tcrb/monographs/ last accessed 12/21/2005),

NCI funded *Tobacco Use Supplement* portion of the US Census Bureau's *Current Population Survey* (http://riskfactor.cancer.gov/studies/tus-cps/ last accessed 12/21/2005),

Healthy People 2010 (http://www.healthypeople.gov/ last accessed 12/21/2005).

FY 2007 Performance Measures:

- **Additional health care professionals trained annually by EPA and its partners on the environmental management of asthma triggers (PART measure)**

Performance Database: The performance database consists of quarterly Partner status reports used to document the outcomes of individual projects.

Data Source: Partner status reports are generated by those organizations receiving funding from EPA and are maintained by individual EPA Project Officers.

Methods, Assumptions and Suitability: On an annual basis, EPA requires (programmatic terms and conditions of the award) all funded organizations to provide reports identifying how many health care professionals are educated about indoor asthma triggers.

QA/QC Procedures: It is assumed that organizations report data as accurately and completely as possible; site-visits are conducted by EPA project officers.

Data Quality Review: Project officers review data quality.

Data Limitations: N/A

New/Improved Data or Systems: EPA is exploring the development of a centralized data base.

References: N/A

FY 2007 Performance Measures:

- **Percent of public that is aware of the asthma program's media campaign (PART measure)**

Performance Database: A media tracking study used to assess behavior change within that sector of the public viewing the public service announcements.

Data Source: An independent initiative of the Advertising Council provides media tracking of outcomes of all their public service campaigns and this is publicly available information.

Methods, Assumptions and Suitability: Methods are those of the Advertising Council, and not controlled by EPA.

QA/QC Procedures: Methods are those of the Advertising Council, and not controlled by EPA.

Data Quality Review: Methods are those of the Advertising Council, and not controlled by EPA.

Data Limitations: Methods are those of the Advertising Council, and not controlled by EPA.

New/Improved Data or Systems: Methods are those of the Advertising Council, and not controlled by EPA.

References: Advertising Council Reporting. EPA Assistance Agreement number X-82820301. For additional information see the Ad Council web site http://www.adcouncil.org/ last accessed 12/21/05.

FY 2007 Performance Measures:

- **Students, faculty and staff experiencing improved indoor air quality in their schools**
- **Estimated annual number of schools establishing Indoor Air Quality programs based on EPA's Tools for Schools guidance (PART measure)**

Performance Database:

EPA collects national data by conducting a survey of indoor air quality management practices in schools approximately every three years. The first survey was administered in 2002. EPA is partnering with CDC to incorporate IAQ management practice indicators, consistent with the benchmark survey, into the School Health Policies and Programs Study (SHPPS) to be administered in 2006. EPA will implement this IAQ module as a smaller survey in 2009, as the SHPSS survey is only conducted at 6 year intervals.

To measure annual progress, EPA estimates the number of schools who establish IAQ Tools for Schools (TfS) programs each year from reports from partner organizations and regional recruiters, supplemented by tracking the volume of guidances distributed and number of people trained by EPA and its partners. EPA also collects information on program benefits such as reduced school nurse visits, improved workplace satisfaction among staff, reduced absenteeism, and cost savings experienced by schools.

Data Source: The sources of the data include cooperative partners, USEPA and the statistical sample of all the public and private schools in the nation during the 1999 – 2000 school year (118,000); data are from the United States Department of Education National Center for Education Statistics.

Methods, Assumptions and Suitability: Calculations for the number of people experiencing improved IAQ are based upon an average 525 students, staff and faculty per school (data are from the United States Department of Education National Center for Education Statistics). That

number, along with the number of schools that are adopting/implementing TfS, are used to estimate the performance result.

End-of–year performance is a best professional estimate using all data sources. The survey provides more statistically sound results for one period of time; the next scheduled survey will provide performance results for year 2006. EPA's 2006 survey will be included as part of CDC's 2006 School Health Policies and Programs Study, which is conducted every six years.

QA/QC Procedures: It is assumed that partner organizations report data as accurately and completely as possible; site visits and regular communication with grantees are conducted by EPA projects officers.

Data Quality Review: EPA reviews the data from all sources in the performance database to ascertain reliability and to resolve any discrepancies.

Data Limitations: The primary limitation associated with Cooperative Agreement Partner status reporting is the error introduced as a result of self-reporting.

Error Estimate: Not relevant for this year.

New/Improved Data or Systems: Prior to the 2002 survey, EPA tracked the number of schools receiving the TfS guidance and estimated the population of the school to determine the number of students/staff experiencing improved indoor air quality. The survey was administered to establish a baseline for schools implementing IAQ management practices. EPA queried a statistically representative sample of schools to estimate the number of schools that have actually adopted and implemented good IAQ management practices consistent with the TfS guidance. EPA plans to re-administer the survey as a component of CDC's School Health Policies and Programs Study, which will show progress from the baseline.

References: See the United States Department of Education National Center for Education Statistics, http://nces.ed.gov/ last accessed 12/21/2005. See also Indoor Air Quality Tools for Schools Kit (402-K-95-001) at http://www.epa.gov/iaq/schools last accessed 12/21/2005 and see www.cdc.gov/nccdphp/dash/shpps/ *For additional information about the* School Health Policies and Programs Study (SHPPS), a national survey periodically conducted to assess school health policies and programs at the state, district, school, and classroom levels.

GOAL 1 OBJECTIVE 3

FY 2007 Performance Measures:

- **Remaining US consumption of HCFCs, measured in tons of ozone depleting potential (ODP) (PART measure)**
- **Restrict Domestic Exempted Production and Import of Newly Produced Class I CFCs and Halons**

Performance Database: The Allowance Tracking System (ATS) database is maintained by the Stratospheric Protection Division (SPD). ATS is used to compile and analyze quarterly information on U.S. production, imports, exports, transformations, and allowance trades of ozone-depleting substances (ODS).

Data Source: Progress on restricting domestic exempted consumption of Class II HCFCs is tracked by monitoring industry reports of compliance with EPA's phase-out regulations. Data are provided by U.S. companies producing, importing, and exporting ODS. Corporate data are typically submitted as quarterly reports. Specific requirements as outlined in the Clean Air Act are available on the Internet at: http://www.epa.gov/oar/caa/caa603.txt. Monthly information on domestic production, imports, and exports from the International Trade Commission is maintained in the ATS.

Methods, Assumptions and Suitability: Data are aggregated across all U.S. companies for each individual ODS to analyze U.S. total consumption and production.

QA/QC Procedures: Reporting and record-keeping requirements are published in 40 CFR Part 82, Subpart A, Sections 82.9 through 82.13. These sections of the Stratospheric Ozone Protection Rule specify the required data and accompanying documentation that companies must submit or maintain on-site to demonstrate their compliance with the regulation.

The ATS data are subject to a Quality Assurance Plan (Quality Assurance Plan, USEPA Office of Atmospheric Programs, July 2002). In addition, the data are subject to an annual quality assurance review, coordinated by Office of Air and Radiation (OAR) staff separate from those on the team normally responsible for data collection and maintenance. The ATS is programmed to ensure consistency of the data elements reported by companies. The tracking system flags inconsistent data for review and resolution by the tracking system manager. This information is then cross-checked with compliance data submitted by reporting companies. SPD maintains a user's manual for the ATS that specifies the standard operating procedures for data entry and data analysis. Regional inspectors perform inspections and audits on-site at the producers', importers', and exporters' facilities. These audits verify the accuracy of compliance data submitted to EPA through examination of company records.

Data Quality Reviews: The Government Accounting Office (GAO) completed a review of U.S. participation in five international environmental agreements, and analyzed data submissions from the U.S. under the Montreal Protocol on Substances the Deplete the Ozone Layer. No deficiencies were identified in their January 2003 report.

Data Limitations: None, since companies are required by the Clean Air Act to report data. EPA's regulations specify a quarterly reporting system.

Error Estimate: None.

New/Improved Data or Systems: The Stratospheric Protection Division is developing a system to allow direct electronic reporting.

References: See http://www.epa.gov/ozone/desc.html for additional information on ODSs. See http://www.unep.ch/ozone/montreal.shtml for additional information about the Montreal Protocol. See http://www.unmfs.org/ for more information about the Multilateral Fund. Quality Assurance Plan, USEPA Office of Atmospheric Programs, July 2002

FY 2007 Performance Measure:

- **Cumulative federal dollars spent per cumulative number of schools joining the SunWise program**

Performance Database: Not applicable

Data Source: Cumulative federal dollars spent is estimated from annual program budget tracking documents. The number of schools joining the SunWise program is measured by counting the number of schools that register to join the SunWise program in each year, which is collected at http://www.epa.gov/sunwise/becoming.html. Schools also have the option of sending in a paper registration, which EPA then enters at this website. EPA tracks the data at http://intranet.epa.gov/sunwise/track/trac_teacher.html.

Methods, Assumptions and Suitability: The cumulative number of schools joining the SunWise program is measured by counting the number of schools that register to join the SunWise program in each year, which is collected at http://www.epa.gov/sunwise/becoming.html., and adding the incremental number of schools joining the program to the prior year's cumulative total. The efficiency measure is calculated by dividing the cumulative number of dollars EPA has spent on the SunWise program by the cumulative number of schools that have joined the program.

QA/QC Procedures: All registrations by schools are reviewed by EPA staff for completeness and to assure there is no double counting of entries. EPA updates the registration information during the course of program implementation.

Data Quality Reviews: Each year researchers at an independent contractor contact a statistical sample of schools in the program database in order to evaluate the effectiveness of the program. EPA updates the website based on the contractor's findings as appropriate.

Data Limitations: The number of participating schools is probably underestimated since schools that fail to provide full registration information are not entered into the database, even if they participate in the program. Note that additional organizations besides schools may also register and provide the SunWise curriculum. These organizations include scout troupes, camps, and 4-H groups, for example. Therefore, counting only schools underestimates the program's reach and efficiency.

Error Estimate: None

New/Improved Data or Systems: N/A

References:
For more information about the SunWise School program, see:
http://www.epa.gov/sunwise/ and
http://www.epa.gov/sunwise/becoming.html Data collection regarding schools that participate in SunWise is authorized by OMB Control No. 2060-0439.

GOAL 1 OBJECTIVE 4

FY 2007 Performance Measure:

- **Purchase and Deploy State-of-Art Monitoring Units**

Performance Data: Data from the near real-time gamma component of the RadNet, formerly known as the Environmental Radiation Ambient Monitoring System (ERAMS), will be stored in an internal EPA database at the National Air and Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama. Data from filters are housed in the Laboratory Information Management System (LIMS) which are physically located in Montgomery, Alabama.

Data Source: RadNet

Methods, Assumptions and Suitability: Assuming that funding is continued in future years and the project receives all necessary approvals, the existing air sampling equipment will be supplemented with state-of-the art air monitors that include near real-time gamma radiation detection capability. Addition of detectors and communication systems will provide information about significant radioactive contamination events to decision- makers within hours

QA/QC Procedures: Quality Assurance and Quality Control Procedures will follow the Agency guidelines and be consistent with a specific initial operational Quality Assurance Plan that will be completed. All monitoring equipment will be periodically calibrated with reliable standards and routinely checked for accuracy with onsite testing devices. Laboratory analyses of air filters and other environmental media are closely controlled in compliance with the NAREL Quality Management Plan and applicable Standard Operating Procedures.

Data Quality Reviews: The database will screen all incoming data from the monitoring systems for abnormalities as an indicator of either a contamination event or an instrument malfunction. Data will be held in a secure portion of the database until verified by trained personnel. Copies of quality assurance and quality control testing will also be maintained to assure the quality of the data.

Data Limitations: Data are limited in near-real-time to gamma emitting radionuclide identification and quantification. Radiation levels from gamma-emitting nuclides that will be so low as to be "undetectable" will be significantly below health concerns that require immediate action. Lower levels of radioactive materials in the samples will be measured through laboratory-based analyses and data.

Error Estimate: The overall error in detection capability is estimated to be within 50% of the actual concentration based on previous experience with similar measurement systems. An error analysis will be performed on the prototype systems during the process of detector selection.

New/Improved Performance Data or Systems: New air samplers will maintain steady flow rates that are measured during operation and corrected for varying environmental conditions. Addition of gamma spectrometric detectors and computer-based multi-channel analyzers to the air samplers provide near real-time analyses of radioactive content in particles captured by the filter. In addition to data collection, the onboard computer systems can communicate results of analyses back to a central database and even identify abnormal conditions that might require action. These improvements not only include higher quality data, but also will provide information regarding contamination events to decision-makers within hours instead of days. The number and location of monitoring sites will be improved to provide greater coverage of more of the nation's population.

The plan for upgrading and expanding the RadNet air monitoring network was reviewed in FY05 by an EPA Technical Evaluation Panel (TEP) and will be reviewed in FY06 by the Radiation Advisory Committee (RAC) of EPA's Science Advisory Board (SAB) . The TEP review provided a number of comments that were incorporated in the RadNet plan, especially those addressing the refinement of the overall system objectives. The SAB review is expected to provide discussion and guidance from a team of national experts that will address key aspects of the science and technology of the new network, including fundamental concerns such as the appropriateness and potential effectiveness of the plan for siting near-real-time air monitors across the nation.

References: For additional information about the continuous monitoring system, ERAMS see: http://www.epa.gov/narel/radnet last accessed 7/27/2005.

NAREL Quality Management Plan, Revision 1, March 15, 2001.

FY 2007 Performance Measure:

- **Percentage of EPA RERT members that meet criteria**

Performance Data: To determine the effectiveness of RERT performance, an output measure has been developed that scores RERT members on a scale of one (1) to 100 against criteria developed based on the RERT's responsibilities under the National Response Plan's Nuclear/Radiological Incident Annex (formerly the Federal Radiological Emergency Response Plan) and the National Oil and Hazardous Substances Pollution Contingency Plan (the NCP). A baseline evaluation was performed in FY03, based on the effectiveness of the RERT in responses to actual incidents and a major national exercise (TOPOFF2). RERT members were evaluated in their ability to: (1) provide effective field response, (2) support coordination centers, and (3) provide analytical capabilities and to support a single small-to-medium scale incident, as needed. Overall RERT effectiveness in this baseline analysis was measured at approximately 13 percent. In FY 2004, RERT members were re-evaluated, through a major exercise, in the ability factors listed above. In FY 2005, the evaluation criteria have been reevaluated and revised in response

to the results of the FY 2004 exercise as well as changes necessitated by the Homeland Security Act of 2002 and DHS' issuance of the National Incident Management System (NIMS) and the National Response Plan.

Data Source: Based on the requirements of EPA set forth in the NRP's Nuclear/Radiological Incident Annex and the NCP, EPA has developed criteria against which the capabilities of the RERT are judged. This evaluation has been performed by members of the Radiation Protection Division, including representatives both within and outside the RERT itself.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: The evaluation criteria were modified between FY2003 and FY2005 to reflect the changing requirements of the RERT, based on DHS' issuance of both NIMS and the NRP during this time period. While the broad outline of the RERT's role has remained the same, additional requirements have been imposed by the issuance of these documents, which are now reflected in the RERT evaluation criteria.

Error Estimate: N/A

New/Improved Data or Systems: None

References: The Homeland Security Act of 2002, the National Incident Management System, and the National Response Plan

FY 2007 Performance Measure:

- **Drums of Radioactive Waste Disposed of according to EPA Standards**

Performance Data: The Department of Energy (DOE) Waste Isolation Pilot Plant (WIPP) database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. The WIPP is a DOE facility located in southeastern New Mexico, 26 miles from Carlsbad, New Mexico. The WIPP Land Withdrawal Act was passed by Congress in October 1992 and amended in September 1996. The act transferred the land occupied by the WIPP to DOE and gave EPA, regulatory responsibility for determining whether the facility complies with radioactive waste disposal standards. Through July 2005, EPA has completed over 97 on–site inspections to evaluate waste prior to shipment to the WIPP facility.

Data Source: Department of Energy

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: The performance data used by EPA are collected and maintained by DOE. Under EPA's WIPP regulations (available on the Internet: http://www.epa.gov/radiation/wipp/background.htm (last accessed 7/18/200), all DOE WIPP-related data must be collected and maintained under a comprehensive quality assurance program meeting consensus standards developed by the American Society of Mechanical Engineers (ASME) (available on the Internet: http://www.asme.org/codes (last accessed 7/18/2005)). EPA conducts regular inspections to ensure that these quality assurance systems are in place and functioning properly; no additional QA/QC of the DOE data is conducted by EPA.

Data Quality Reviews: N/A

Data Limitations: The DOE WIPP database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. Currently, there are five DOE waste generator facilities that are approved to generate and ship waste: Los Alamos National Laboratory, Rocky Flats Environmental Technology Site, Hanford Site, Idaho National Engineering and Environmental Laboratory, Savannah River Site.

Before DOE waste generator facilities can ship waste to the WIPP, EPA must approve the waste characterization controls and quality assurance procedures for waste identification at these sites. EPA conducts frequent independent inspections and audits at these sites to verify continued compliance with radioactive waste disposal standards and to determine if DOE is properly tracking the waste and adhering to specific waste component limits. Once EPA gives its approval, the number of drums shipped to the WIPP facility on an annual basis is dependent on DOE priorities and funding. EPA volume estimates are based on projecting the average shipment volumes over 40 years with an initial start up.

Error Estimate: N/A

New/Improved Data or Systems: None

References: The Department of Energy National TRU Waste Management Plan Quarterly Supplement http://www.wipp.ws/library/caolib.htm#Controlled_ (last accessed 7/18/2005) contains information on the monthly volumes of waste that are received at the DOE WIPP.

GOAL 1 OBJECTIVE 5

FY 2007 Performance Measures:

- **Annual Greenhouse Gas Emissions Reductions overall and by Sector**
- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the building sector (PART measure)**
- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the industry sector (PART measure)**
- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the transportation sector (PART measure)**

Performance Database: Climate Protection Partnerships Division Tracking System. The tracking system's primary purpose is to maintain a record of the annual greenhouse gas emissions reduction goals and accomplishments for the voluntary climate program using information from partners and other sources. It also measures the electricity savings and contribution towards the President's greenhouse gas intensity goal.

Data Source: EPA develops carbon and non-CO_2 emissions baselines. A baseline is the "business-as-usual" case" without the impact of EPA's voluntary climate programs. Baseline data for carbon emissions related to energy use comes from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model (IPM) of the U.S. electric power sector. These data are used for both historical and projected greenhouse gas emissions and electricity generation, independent of partners' information to compute emissions reductions from the baseline and progress toward annual goals. The projections use a "Reference Case" for assumptions about growth, the economy, and regulatory conditions. Baseline data for non-carbon dioxide (CO_2) emissions, including nitrous oxide and other high global warming potential gases, are maintained by EPA. The non-CO2 data are compiled with input from industry and also independently from partners' information.

Data collected by EPA's voluntary programs include partner reports on facility- specific improvements (e.g. space upgraded, kilowatt-hours (kWh) reduced), national market data on shipments of efficient products, and engineering measurements of equipment power levels and usage patterns

Baseline information is discussed at length in the U.S. Climate Action Report 2002. The report includes a complete chapter dedicated to the U.S. greenhouse gas inventory (sources, industries, emissions, volumes, changes, trends, etc.). A second chapter addresses projected greenhouse gases in the future (model assumptions, growth, sources, gases, sectors, etc.)

U.S. Department of State. 2002. "U.S. Climate Action Report—2002. Third National Communication of the United States of America under the United Nations Framework Convention on Climate Change."

Partners do contribute *actual* emissions data biannually after their facility-specific improvements but these emissions data are not used in tracking the performance measure. EPA, however, validates the estimates of greenhouse gas reductions based on the actual emissions data received.

Methods, Assumptions, and Suitability: Most of the voluntary climate programs' focus is on energy efficiency. For these programs, EPA estimates the expected reduction in electricity consumption in kilowatt-hours (kWh). Emissions prevented are calculated as the product of the kWh of electricity saved and an annual emission factor (e.g., metric tons carbon equivalent (MMTCE) prevented per kWh). Other programs focus on directly lowering greenhouse gas emissions (e.g., Natural Gas STAR, Landfill Methane Outreach, and Coalbed Methane Outreach); for these, greenhouse gas emission reductions are estimated on a project-by-project basis. EPA maintains a Atracking system@ for emissions reductions.

The Integrated Planning Model, used to develop baseline data for carbon emissions, is an important analytical tool for evaluating emission scenarios affecting the U.S. power sector. The IPM has an approved quality assurance project plan that is available from EPA's program office.

QA/QC Procedures: EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from voluntary programs. Peer-reviewed carbon-conversion factors are used to ensure consistency with generally accepted measures of greenhouse gas (GHG) emissions, and peer-reviewed methodologies are used to calculate GHG reductions from these programs.

Partners do contribute *actual* emissions data biannually after their facility-specific improvements but these emissions data are not used in tracking the performance measure. EPA, however, validates the estimates of greenhouse gas reductions based on the actual emissions data received.

Data Quality Review: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The second such interagency evaluation, led by the White House Council on Environmental Quality, examined the status of U.S. climate change programs. The review included participants from EPA and the Departments of State, Energy, Commerce, Transportation, and Agriculture. The results were published in the *U.S. Climate Action Report-2002* as part of the United States' submission to the Framework Convention on Climate Change (FCCC). The previous evaluation was published in the *U.S. Climate Action Report-1997*. A 1997 audit by EPA's Office of the Inspector General concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment..."

Data Limitations: These are indirect measures of GHG emissions (carbon conversion factors and methods to convert material-specific reductions to GHG emissions reductions). Also, the voluntary nature of the programs may affect reporting. Further research will be necessary in order to fully understand the links between GHG concentrations and specific environmental impacts, such as impacts on health, ecosystems, crops, weather events, and so forth.

Error Estimate: These are indirect measures of GHG emissions. Although EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from its voluntary programs, errors in the performance data could be introduced through uncertainties in carbon conversion factors, engineering analyses, and econometric analyses. The only programs at this time aimed at avoiding GHG emissions are voluntary.

New/Improved Data or Systems: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. EPA continues to update inventories and methodologies as new information becomes available.

References: The U.S. Climate Action Report 2002 is available at: www.epa.gov/globalwarming/publications/car/index.html. The accomplishments of many of EPA's voluntary programs are documented in the Climate Protection Partnerships Division Annual Report. The most recent version is *Protecting the Environment Together: ENERGY*

STAR and other Voluntary Programs, Climate Protection Partnerships Division 2003 Annual Report.

FY 2007 Performance Measure:

- **Annual Energy Savings**

Performance Database: Climate Protection Partnerships Division Tracking System

Data Source: Data collected by EPA's voluntary programs include partner reports on facility specific improvements (e.g. space upgraded, kilowatt-hours (kWh) reduced), national market data on shipments of efficient products, and engineering measurements of equipment power levels and usage patterns.

Methods, Assumptions, and Suitability: Most of the voluntary climate programs' focus is on energy efficiency. For these programs, EPA estimates the expected reduction in electricity consumption in kilowatt-hours (kWh). Emissions prevented are calculated as the product of the kWh of electricity saved and an annual emission factor (e.g., MMTCE prevented per kWh). Other programs focus on directly lowering greenhouse gas emissions (e.g., Natural Gas STAR, Landfill Methane Outreach, and Coalbed Methane Outreach); for these, greenhouse gas emission reductions are estimated on a project-by-project basis. EPA maintains a Atracking system@ for energy reductions.

Energy bill savings are calculated as the product of the kWh of energy saved and the cost of electricity for the affected market segment (residential, commercial, or industrial) taken from the Energy Information Administration's (EIA) *Annual Energy Outlook* and *Annual Energy Review* for each year in the analysis (1993-2013). Energy bill savings also include revenue from the sale of methane and/or the sale of electricity made from captured methane. The net present value (NPV) of these savings was calculated using a 4-percent discount rate and a 2001 perspective.

QA/QC Procedures: EPA devotes considerable effort to obtaining the best possible information on which to evaluate energy savings from its voluntary programs.

Data Quality Review: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The second such interagency evaluation, led by the White House Council on Environmental Quality, examined the status of U.S. climate change programs. The review included participants from EPA and the Departments of State, Energy, Commerce, Transportation, and Agriculture. The results were published in the *U.S. Climate Action Report-2002* as part of the United States' submission to the Framework Convention on Climate Change (FCCC). The previous evaluation was published in the *U.S. Climate Action Report-1997*. A 1997 audit by EPA's Office of the Inspector General concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment...@

Data Limitations: The voluntary nature of programs may affect reporting. In addition, errors in the performance data could be introduced through uncertainties in engineering analyses and econometric analyses.

Error Estimate: Although EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from voluntary programs, errors in the performance data could be introduced through uncertainties in engineering analyses and econometric analyses.

New/Improved Data or Systems: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. EPA continues to update inventories and methodologies as new information becomes available.

References: The U.S. Climate Action Report 2002 is available at: www.epa.gov/globalwarming/publications/car/index.html. The accomplishments of many of EPA=s voluntary programs are documented in the Climate Protection Partnerships Division Annual Report. The most recent version is *Protecting the Environment Together: Energy Star and Other Voluntary Programs,* Climate Protection Partnerships Division 2003 Annual Report.

GOAL 1 OBJECTIVE 6

FY 2007 Performance Measures:

- **Measure Fuel Economy of specific test vehicles with EPA-Developed Hybrid Technology Tested over EPA Driving Cycles**

- **Fuel Economy of EPA-developed hybrid package delivery vehicle over EPA city cycle**

Performance Database: Fuel economy test data for both urban and highway test cycles under the EPA Federal Test Procedure for passenger cars. The Clean Automotive Technology program commits EPA to develop technology by the end of the decade to satisfy stringent criteria emissions requirements and up to a doubling of fuel efficiency in personal vehicles such as SUVs, pickups, and urban delivery vehicles -- while simultaneously meeting the more demanding size, performance, durability, and power requirements of these vehicles.

Data Source: EPA fuel economy tests performed at the National Vehicle and Fuel Emissions Laboratory (NVFEL), Ann Arbor, Michigan

QA/QC Procedures: EPA fuel economy tests are performed in accordance with the EPA Federal Test Procedure and all applicable QA/QC procedures. Available on the Internet: http://www.epa.gov/otaq/sftp.htm.

Methods, Assumptions and Suitability: N/A

Data Quality Reviews: EPA's NVFEL laboratory is recognized as a national and international facility for fuel economy and emissions testing. NVFEL is also the reference point for private industry.

Data Limitations: Primarily due to EPA regulations, vehicle fuel economy testing is a well established and precise exercise with extremely low test to test variability (well less than 5%). Additional information is available on the Internet: http://www.epa.gov/otaq/testdata.html One challenge relates to fuel economy testing of hybrid vehicles (i.e., more than one source of onboard power), which is more complex than testing of conventional vehicles. EPA has not yet published formal regulations to cover hybrid vehicles. Relevant information is available on the Internet: http://www.ctts.nrel.gov/analysis/hev_test/procedures.shtml

Error Estimate: N/A

New/Improved Data or Systems: EPA is using solid engineering judgment and consultations with other expert organizations (including major auto companies) to develop internal procedures for testing hybrid vehicles.

References: See http://www.epa.gov/otaq/testproc.htm for additional information about testing and measuring emissions at the NVFEL.

FY 2007 Performance Measure:

- **Percentage of NAAQS research program publications rated as highly cited papers (PART Measure)**

Performance Database: No internal tracking system

Data Source: The source of data will be a contractor-produced bibliometric analysis of NAAQS program publications.

Methods, Assumptions and Suitability: The analysis will be completed using Thomson's Essential Science Indicators (ESI) and Journal Citation Reports (JCR) as benchmarks. ESI are a comprehensive compilation of essential science performance statistics and science trends data derived from Thomson's databases. The chief indicator of output, or productivity, is journal article publication counts. For influence and impact measures, ESI employs both total citation counts and cites per paper scores. The former reveals gross influence while the latter shows weighted influence, also called impact. JCR presents quantifiable statistical data, which provide a systematic, objective way to evaluate the world's leading journals and their impact and influence in the global research community.

QA/QC Procedures: Source data will be used in comparing program publications to field benchmarks, Essential Science Indicators (ESI) and Journal Citation Report (JCR).

Data Quality Reviews: Additional benchmarks will be used to determine the number of self-citations of articles by the same author in order to reduce the self-citation rate.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:

Essential Science Indicators®· Thomson Scientific. 2003.

Journal Citation Reports®. Thomson Scientific. 2003.

Citation Analysis. EPA's Endocrine Disruptors Chemicals (EDCs) Research Program, publication list. BOSC Program Review. December 2004.

FY 2007 Performance Measure:

- **Percent progress toward completion of a hierarchy of air pollutant sources based on the risk they pose to human health (PART Measure)**

- **Percent planned actions accomplished toward the long-term goal of reducing uncertainty in the science that supports the standard-setting and air quality management decisions (PART Measure)**

Performance Database: Program output; no internal tracking system.

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

GOAL 2 OBJECTIVE 1

FY 2007 Performance Measures:

- **The percentage of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection**
- **The percentage of population served by community water systems in Indian country that receive drinking water that meets all applicable health-based drinking water standards (PART measure)**
- **The percentage of community water systems in compliance with drinking water standards (PART measure)**
- **Dollars per community water system in compliance with health-based drinking water standards (PART measure)**

Performance Database: Safe Drinking Water Information System - Federal Version (SDWIS or SDWIS/FED). SDWIS contains basic water system information, population served, and detailed records of violations of the Safe Drinking Water Act and the statute's implementing regulations. The performance measure is based on the population served by community water systems that were active during any part of the performance year and did not have any violations designated as "health based." Exceedances of a maximum contaminant level (MCL) and violations of a treatment technique are health-based violations. SDWIS has provided annual results for ten years and reports on a fiscal year basis.

Data Source: Data are provided by agencies with primacy (primary enforcement authority) for the Public Water System Supervision (PWSS) program. These agencies are either: States, EPA for non-delegated states or territories, and the Navajo Nation Indian tribe, the only tribe with primacy. Primacy agencies collect the data from the regulated water systems, determine compliance, and report a subset of the data to EPA (primarily inventory and summary violations).

Methods, Assumptions and Suitability: Under the drinking water regulations, water systems must use approved analytical methods for testing for contaminants. State certified laboratories report contaminant occurrence to states that, in turn, determine exceedances of maximum contaminant levels or non-compliance with treatment techniques and report these violations to EPA. These results are subject to periodic performance audits and compared to results that states report to SDWIS. Primacy agencies' information systems and compliance determinations are audited on an average schedule of once every 3 years, according to a protocol. To measure program performance, EPA aggregates the SDWIS data into national statistics on overall compliance with health-based drinking water standards using the measures identified above.

QA/QC Procedures: EPA conducts a number of Quality Assurance/Quality Control steps to provide high quality data for program use, including:

(1) SDWIS/FED edit checks built into the software to reject erroneous data.
(2) Quality assurance manuals for states and Regions, which provide standard operating procedures for conducting routine assessments of the quality of the data, including timely corrective action(s).
(3) Training to states on reporting requirements, data entry, data retrieval, and error correction.

(4) User and system documentation produced with each software release and maintained on EPA's web site. System, user, and reporting requirements documents can be found on the EPA web site, http://www.epa.gov/safewater/. System and user documents are accessed via the database link http://www.epa.gov/safewater/databases.html, and specific rule reporting requirements documents are accessed via the regulations, guidance, and policy documents link http://www.epa.gov/safewater/regs.html.
(5) Specific error correction and reconciliation support through a troubleshooter's guide, a system-generated summary with detailed reports documenting the results of each data submission, and an error code database for states to use when they have questions on how to enter or correct data.
(6) User support hotline available 5 days a week.

The SDWIS/FED equivalent of a quality assurance plan is the data reliability action plan[1] (DRAP). The DRAP contains the processes and procedures and major activities to be employed and undertaken for assuring the data in SDWIS meet required data quality standards. This plan has three major components: assurance, assessment, and control.

Data Quality Review: SDWIS data quality was identified as an Agency weakness in 1999 and has a corrective action completion target date that extends to 2007. SDWIS' weaknesses centered around five major issues: 1) completeness of the data (e.g., the inventory of public water systems, violations of maximum contaminant levels, enforcement actions) submitted by the states, 2) timeliness of the data sent by the states, i.e., if states do not report at specified times, then enforcement and oversight actions suffer, 3) difficulty receiving data from the states, 4) both cost and difficulty processing and storing data in SDWIS after it has been received, and 5) difficulty getting SDWIS data for reporting and analysis.

The first two issues are being addressed over a three-year period (2004-2007) through two (2000 and 2003) Data Reliability Action Plans. An information strategic plan[2] (ISP) was developed and implemented to address the last three issues, which deal primarily with technology (hardware and software) concerns. Implementation of the ISP, which ended in 2005, documents ways to improve tools and processes for creating and transferring data to EPA and incorporates newer technologies and adapts the Agency's Enterprise Architecture Plan to integrate data and allow the flow of data from reporting entities to EPA via the Agency's secure central data exchange (CDX) environment.

Routine data quality assurance and quality control (QA/QC) analyses of the Safe Drinking Water Information System (SDWIS) by the Office Water (OW) have revealed a degree of non-reporting of violations of health-based drinking water standards, and of violations of regulatory monitoring and reporting requirements (discussed further under Data Limitations). As a result of these data quality problems, the baseline statistic of national compliance with health-based

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[1] *Data Reliability Action Plan*. U.S. EPA, October 2002. Office of Ground Water and Drinking Water internal work plan document. *Drinking Water Data Reliability Analysis and Action Plan (2003) For State Reported Public Water System Data In the EPA Safe Drinking Water Information System/Federal Version (SDWIS/FED)*

[2] U.S. EPA, Office of Water, *Office of Ground Water and Drinking Water Information Strategy* (under revision). See *Options* for *OGWDW Information Strategy (Working Draft), EPA 816-P-01-001*. Washington, DC, February 2001. Available on the Internet at http://www.epa.gov/safewater/data/informationstrategy.html

drinking water standards likely is lower than previously reported. The Agency is engaged in discussions with states to more accurately quantify the impact of these data quality problems on the estimate of national compliance with health-based drinking water standards. Even as improvements are made, SDWIS serves as the best source of national information on compliance with Safe Drinking Water Act requirements for program management, the development of drinking water regulations, trends analyses, and public information.

Data Limitations: Recent state data verification and other quality assurance analyses indicate that the most significant data quality problem is under-reporting by the states of monitoring and health-based standards violations and inventory characteristics. The most significant under-reporting occurs in monitoring violations. Even though those are not covered in the health based violation category, which is covered by the performance measure, failures to monitor could mask treatment technique and MCL violations. Such under-reporting of violations limits EPA's ability to: 1) accurately portray the amount of people affected by health-based violations, 2) undertake geo-spatial analysis, 3) integrate and share data with other data systems, and 4) precisely quantify the population served by systems, which are meeting the health-based standards. Therefore, the estimates of population-served could be high or low. As described in the Data Quality Review section above, EPA is currently changing the protocol to enhance the results of data audits as the best near-term option to improve these estimates, while continuing to explore other approaches, including use of contaminant occurrence data.

Error Estimate: EPA will be analyzing data, derived from the improved data audit protocol, with a robust statistical basis from which to extrapolate national results, and better aligned with requirements of the Data Quality Act. The long-term value of the improved audit process is that each year's results will be statistically representative and provide information closer in time to the needed performance reporting; for example, 2006 results, the first year of the improved audit process will be reported in 2007.

New/Improved Data or Systems: Several approaches are underway.

First, EPA will continue to work with states to implement the DRAP and ISP, which have already improved the completeness, accuracy, timeliness, and consistency of the data in SDWIS/FED through: 1) training courses for specific compliance determination and reporting requirements, 2) state-specific technical assistance, 3) increased number of data audits conducted each year, and 4) assistance to regions and states in the identification and reconciliation of missing, incomplete, or conflicting data.

Second, more states (from 30 to 40 by year-end 2005) will use SDWIS/STATE,[3] a software information system jointly designed by states and EPA, to support states as they implement the drinking water program.

[3] SDWIS/STATE (Version 8.1) is an optional Oracle data base application available for use by states and EPA regions to support implementation of their drinking water programs.
U.S. EPA, Office of Ground Water and Drinking Water. Data and Databases. Drinking Water Data & Databases – SDWIS/STATE, July 2002. Information available on the Internet: http://www.epa.gov/safewater/sdwis_st/current.html

Third, EPA has modified SDWIS/FED to (1) simplify the database, (2) minimize data entry options resulting in complex software, (3) enforce Agency data standards, and (4) ease the flow of data to EPA through a secure data exchange environment incorporating modern technologies, all of which will improve the accuracy of the data. In 2006, full use of SDWIS/FED for receiving state reports will be implemented. Data will be stored in a data warehouse system that is optimized for analysis, data retrieval, and data integration from other data sources. It will improve the program's ability to more efficiently use information to support decision-making and effectively manage the program.

Finally, EPA, in partnership with the states, is developing information modules on other drinking water programs: the Source Water Protection Program, the Underground Injection Control Program (UIC), and the Drinking Water State Revolving Fund. These modules will be integrated with SDWIS to provide a more comprehensive data set with which to assess the nation's drinking water supplies, a key component of the goal. In 2006, agreement is expected to be reached on the data elements for reporting source water and UIC data. Plans have now been developed for design of systems to address these data flows. Developing the systems to receive the data is scheduled for 2007.

References:

Plans*

- SDWIS/FED does not have a Quality Assurance Project Plan - it is a legacy system which has "evolved" since the early 80s prior to the requirement for a Plan. The SDWIS/FED equivalent is the Data Reliability Action Plan
- Information Strategy Plan – SDWIS/FED (see footnote 2)
- Office of Water Quality Management Plan, available at http://www.epa.gov/water/info.html
- Enterprise Architecture Plan

Reports*

- 1999 SDWIS/FED Data Reliability
- 2003 SDWIS/FED Data Reliability Report - contains the Data Reliability Action Plan and status report

Guidance Manuals, and Tools

- PWSS SDWIS/FED Quality Assurance Manual
- Various SDWIS/FED User and System Guidance Manuals (includes data entry instructions, data On-line Data Element Dictionary-a database application, Error Code Data Base (ECDB) - a database application, users guide, release notes, etc.) Available on the Internet at <http://www.epa.gov/safewater/sdwisfed/sdwis.htm>

* These are internal documents maintained by EPA's Office of Ground Water and Drinking Water. Please call 202-564-3751 for further information.

- Regulation-Specific Reporting Requirements Guidance. Available on the Internet at <http://www.epa.gov/safewater/regs.html>

Web site addresses

- OGWDW Internet Site <http://www.epa.gov/safewater/databases.html> and contains access to the information systems and various guidance, manuals, tools, and reports.
- Sites of particular interest are: <http://www.epa.gov/safewater/data/getdata.html> contains information for users to better analyze the data, and

<http://www.epa.gov/safewater/sdwisfed/sdwis.htm> contains reporting guidance, system and user documentation and reporting tools for the SDWIS/FED system.

FY 2007 Performance Measures:

- **Fund Utilization Rate for the DWSRF.**
- **Number of additional projects initiating operations**

Performance Database: Drinking Water State Revolving Fund National Information Management System (DWNIMS.)

Data Sources: Data are entered by state regulatory agency personnel and by EPA's Regional staff; they are collected and reported once yearly.

Methods, Assumptions and Suitability: Data entered into DWNIMS directly represent the units of performance for the performance measure. These data are suitable for year-to-year comparison and trend indication.

QA/QC Procedures: EPA's headquarters and Regional offices are responsible for compiling the data and querying states as needed to assure data validity and conformance with expected trends. States receive data entry guidance from EPA headquarters in the form of annual memoranda (e.g., "2005 DWNIMS Data Collection.")

Data Quality Reviews: EPA's headquarters and Regional offices annually review the data submitted by the states. State data are publicly available at http://www.epa.gov/safewater/dwsrf/dwnims.html in individual state reports. Headquarters addresses significant data variability issues directly with states or through the appropriate EPA Regional office. Additionally, EPA's contractor tests the data for logical consistency. An annual EPA headquarters' "DWNIMS Analysis" provides detailed data categorization and comparison. This analysis is used during:

1. Annual EPA Regional office and state reviews to identify potential problems with the program's pace which might affect the performance measure.
2. Reviews by EPA's headquarters of regional oversight of state revolving funds.
3. Annual reviews by EPA's Regional offices of their states' revolving funds operations.

State data quality is also evaluated during annual reviews performed by EPA Regions. Any inconsistencies that are found in need of correction are incorporated into future DWNIMS reports. These adjustments are historically rare and very minor.

Data Limitations: There are no known limitations in the performance data, which states submit voluntarily. Erroneous data can be introduced into the DWNIMS database by typographic or definitional error. Typographic errors are controlled and corrected through data testing performed by EPA's contractor. Definitional errors due to varying interpretations of information requested for specific data fields have been largely reduced. These definitions are publicly available at: http://www.epa.gov/safewater/dwsrf/nims/dwdatadefs.pdf . There is typically a lag of approximately two months from the date EPA asks states to enter their data into the DWNIMS database, and when the data are quality-checked and available for public use.

New/Improved Data or Systems: This system has been operative since DWSRF inception. It is updated annually, and data fields are changed or added as needed.

References:
State performance data as shown in NIMS are available by state at:
http://www.epa.gov/safewater/dwsrf/dwnims.html
Definitions of data requested for each data field in NIMS is available at:
http://www.epa.gov/safewater/dwsrf/nims/dwdatadefs.pdf
2005 DWNIMS Data Collection – memo from Jeff Bryan, 7/12/05
DWNIMS analysis

FY 2007 Performance Measure:

- **Percent of states conducting sanitary surveys at community water systems once every three years.**

Performance Database: Primary enforcement responsibility (e.g. primacy) for the Public Water System Supervision (PWSS) program is authorized under §1413 of the Safe Drinking Water Act (SDWA). States and Indian Tribes are given primacy for public water systems in their jurisdiction if they meet certain requirements. A critical component of primacy is the requirement that a state must have a program to conduct sanitary surveys of the systems in its jurisdiction. A sanitary survey is an on-site review of the water sources, facilities, equipment, operation, and maintenance of a public water system for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water. Inspectors conducting sanitary surveys must apply basic scientific information and have a working knowledge of the operation, maintenance, management, and technology of a water system to identify sanitary risks that may interrupt the multiple barriers of protection at a water system. There are eight essential elements of a sanitary survey as defined by the EPA/State Joint Guidance on Sanitary Surveys[4] and the interim enhanced surface water treatment rule: water source; treatment; distribution

[4] Guidance Manual for Conducting Sanitary Surveys of Public Water Systems; Surface Water and Ground Water Under the Direct Influence (GWUDI), (EPA 815-R-99-016, April 1999) http://www.epa.gov/safewater/mdbp/pdf/sansurv/sansurv.pdf

system; finished water storage; pumps, pump facilities and controls; monitoring, reporting and data verification; water system management and operations; and operator compliance with state requirements.

Performance data for this measure will be complied from information collected during file audits of randomly selected community water systems (data verification or DV). The purpose of a DV is two-fold: (1) to detect discrepancies between the PWS data in the state files or database and the data reported to SDWIS/FED and (2) to ensure that the State is determining compliance in accordance with EPA approved state regulations. After the conduct of each DV, a report is generated which includes the findings for compliance with sanitary survey requirements. DVs are conducted on a cycle in order to visit each state at a frequency of every three years. Final reports for each state serve as the official data source for this measure until a new DV is conducted. Information derived for the DV reports will be calculated annually for this measure.

Data Source: State specific Final Data Verification Reports provide information on compliance with sanitary survey requirements. Information from DV reports for states will be calculated to measure performance.

Methods, Assumptions and Suitability: To assure that data collected during a DV is consistently captured and analyzed, the DV team follows the "EPA Protocol for Participation in a PWSS Program Data Verification" which includes revisions through April 4, 2005. The protocol provides guidance on statistical methodology for defining variables, calculating the statistical proportion (P), determining the appropriate sample size and selecting the systems for file review. Before selecting a sample of systems, the DV team must decide whether it wishes to stratify (or sort) the sample by some characteristic. Stratifying the sample permits more precision, allowing the team to make observations about subsets of systems. A sample may be stratified by system type, size, source, or a combination of these factors. For DV purposes, the sample is always stratified by system type (i.e., CWSs, NTNCWSs, and TNCWSs) since different regulations apply to different types of systems. Once the DV team determines the subset of systems from which the sample will be drawn, along with the number of systems which must be reviewed from that subset of systems, the SDWIS/FED random number generator selects the systems for review. Statistical principles dictate that samples must be selected in a truly random fashion in order to obtain unbiased estimates and achieve the desired precision level. For states whose files are kept in one central office, sample selection is straightforward. The SDWIS/FED random number generator pulls a random sample of systems from the entire subset of systems within the state. Hence, all systems have an equal chance of being chosen.

QA/QC Procedures: To assure the data collected during a DV is complete and accurate, the DV team follows the "EPA Protocol for Participation in a PWSS Program Data Verification." This protocol is intended as a "handbook" for people performing a DV. The protocol contains detailed instructions for reviewing and analyzing data for sanitary surveys. Since neither time nor resources allow a complete review of all sanitary survey data, the DV team must use a random sample of systems that is drawn from the total number of systems in each state. This random sample is statistically representative of systems in the state. The team then uses the statistical sampling results to draw reasonably accurate assumptions about all of the systems in the state, based on just a few systems.

Data Quality Reviews: Information derived from DVs is captured in a draft report and submitted to EPA (HQ and Regions) as well as the state where the DV was conducted for review. States and EPA conduct data quality reviews and provide additional information or data as necessary to assure accuracy and completeness. EPA works with states to resolve data issues. Reports are finalized and thus used to measure performance.

Data Limitations: OGWDW has an existing database for PWSS program information, the Safe Drinking Water Information System (SDWIS). Violations of sanitary survey requirements are captured in SDWIS. However, the data field to record sanitary survey frequency is not a mandatory field. Due to resource limitations, sanitary survey data cannot be verified for every system in every state each year. OGWDW employs a methodology to analyze a representative sample of systems during an audit.

FY 2007 Performance Measure:

- **Percentage of source water areas (both surface and ground water) for community water systems will achieve minimized risk to public health**

Performance Database: The source water assessment and protection programs are authorized under Sections 1453, 1428, and relevant subsections of 1452 of the Safe Drinking Water Act (SDWA).[5] EPA issued guidance to implement these programs in 1997, *State Source Water Assessment and Protection Programs Guidance*.[6] In March 2005, EPA issued supplemental reporting guidance, "State and Federal Source Water Assessment and Protection Program *Measures: Final Reporting Guidance."* Starting in FY 2005, and updated annually thereafter, states report to EPA on the results of their source water assessment programs (SWAPs) and progress in implementing source water protection (SWP) strategies, and whether such strategy implementation is affecting public health protection. To assess *the results of the SWAPs*, state reporting includes three elements: (1) the delineated source water areas around each well and intake, (2) whether the assessments are complete, and (3) most prevalent and most threatening sources of contamination. To assess *progress in implementing the SWP strategies*, state reporting includes two elements: (1) whether a prevention strategy for Community Water System source water areas has been adopted, and is being implemented and (2) whether such strategy implementation has reached a substantial level. To assess *whether the program is affecting public health protection*, states report change in the number of Community Water System source water areas with substantially implemented source water protection strategies. The Agency will develop a national summary of data on the progress of states' source water protection programs using these data elements in early 2006.

In FY 2003, EPA maintained pilot state-level summary data for each of these elements in a spreadsheet format and this format will be used for reporting for FY 2005. Beginning in FY 2005, states may, at their option, make available to EPA public water system-level data for each

[5] *Safe Drinking Water Act Amendments of 1996*. P.L. 104-182. (Washington: 6 August 1996). Available on the Internet at <http://www.epa.gov/safewater/sdwa/sdwa.html>

[6] U.S. EPA, Office of Water. *State Source Water Assessment and Protection Programs Guidance*. EPA 816-R-97-009 (Washington: US EPA, August 1997). Available on the Internet at <http://www.epa.gov/safewater/swp/swappg.html>

of these elements to be maintained in a set of data tables in the drinking water warehouse (for tabular data) and in event tables in the Office of Water's Reach Address Database (RAD) [7] (GIS data). These data will be compatible with the inventory data States are currently reporting to the Safe Drinking Water Information System (SDWIS).[8] Three states piloted this approach in 2003.

[Not publicly available. Contact the Drinking Water Protection Division at 202-564-3797.]

Data Source: Up to the end of FY 2004, states reported to the EPA Regional Offices the percentage of community water systems implementing source water protection programs. As noted above, states can report to EPA's Regional Offices using a spreadsheet approach. EPA has also developed a new source water data module to collect, store, and use public water system-level data received from states, but it may be refined as more states voluntarily use it over the next three years of the Strategic Plan. - See section "New/Improved Data or Systems."

Methods, Assumptions and Suitability: For this measure, the states' reporting of progress in implementing their source water assessment and protection programs will be based on EPA's 2005 guidance, "State and Federal Source Water Assessment and Protection Program *Measures: Final Reporting Guidance."* States will only report state-level summary information directly related to specific community water systems in a state-level database. While state reporting will be based on definitions and procedures found in the *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance,"* and even with the state flexibilities built into the definitions for substantial implementation strategies, EPA believes that the data will be reliable for use in making management decisions.

QA/QC Procedures: QA/QC procedures are included in the 2005 "State and Federal Source Water Assessment and Protection Program *Measures: Final Reporting Guidance."* Additionally, a series of data checks are built into the spreadsheet data collection procedures given to each Region for their work with states. States will be required to identify whether their reported summary-level data are based on a system-level database. EPA Regional offices also will work with individual states to obtain a description of their methods of collecting and verifying information.

Data Quality Reviews: EPA Regions will conduct data quality reviews of state data using the QA/QC procedures included with the spreadsheet-based data system, and work with states to resolve data issues. As a result, EPA expects the quality of data on the results of the assessments and source water protection activities to improve over time.

Data Limitations: Because the initial reporting provides only state-level summary information, there is no standard protocol for EPA to verify and validate the data against system-level information contained in state databases. In addition, much of the data reported by states is voluntary and based on working agreements with EPA because SDWA only requires states to complete source water assessments. That is, the only source water information that states are

[7] Watershed Assessment, Tracking & Environmental Results (WATERS). Available only on the Internet at <http://www.epa.gov/waters/>

[8] Safe Drinking Water Information System (SDWIS). Information available on the Internet at http://www.epa.gov/safewater/databases.html

required to report to EPA under SDWA is whether the assessments are completed. Although EPA's 2005 *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance"* set standard data definitions and procedures, it also provides for considerable flexibility in states' definition for substantial implementation of strategies, data collection protocols and analytical methods to evaluate their data. For example, some states may require each public water system to report data, while others may institute a voluntary process. Because much of the data reporting is voluntary and the individual state protocols may vary, state data may be incomplete and inconsistent across states.

Error Estimate: There is no basis for making an error estimate for this performance measure given the data limitations of state-level summary reporting described above.

New/Improved Data or Systems: The source water reporting module has been developed as a joint initiative between EPA, the Association of State Drinking Water Administrators (ASDWA), and the Ground Water Protection Council (GWPC). It will give EPA the ability to access the data directly from states through a data exchange agreement using an electronic data transfer capability. A state may choose, at its option, to provide EPA more detailed data in lieu of state-level summary reporting. The new source water data module will be integrated into the drinking water data warehouse and be compatible with Safe Drinking Water Information System (SDWIS) data already reported by states. Geospatial data (i.e., the intake and well point locations and the source water area polygons) will be maintained in EPA's Office of Water's Reach Access Database (RAD). The source water assessment and protection indicator data and other attribute data will be maintained in data tables in the drinking water warehouse. The source water data module is operational for states to pilot from FY 2005 through FY 2008. Three states used the module in the first pilot year 2003. A number of other states may report using the data module for the 2005 reporting period based on EPA/ASDWA/GWPC pilot process.

References:

Guidance Manuals

- U.S. EPA, Office of Water. *State Source Water Assessment and Protection Programs Guidance*. EPA 816-R-97-009 (Washington: US EPA, August 1997). Available on the Internet at <http://www.epa.gov/safewater/swp/swappg.html>
- *Source Water Assessment and Protection Measures: Initial Guidance, August, 2003.*
- *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance,"* March 2005.

Web site addresses

- US EPA Office of Ground Water and Drinking Water. <http://www.epa.gov/safewater>
- For more detailed information on Source Water topics, US EPA Office of Ground Water and Drinking Water, Source Water site. <http://www.epa.gov/safewater/protect.html>
- US EPA Office of Water (OW) Reach Access Database (RAD). Watershed Assessment, Tracking & Environmental Results (WATERS). <http://www.epa.gov/waters/>

- Safe Drinking Water Information System (SDWIS). http://www.epa.gov/safewater/databases.html

FY 2007 Performance Measure:

- **Number of households on tribal lands lacking access to safe drinking water**

Performance Database: Sanitation Tracking and Reporting System (STARS), the Indian Health Service (IHS), Office of Environmental Health and Engineering (OEHE), Division of Sanitation Facilities Construction (DSFC).

Data Sources: The STARS includes data on sanitation deficiencies, Indian homes and construction projects. STARS is currently comprised of two sub data systems, the Sanitation Deficiency System (SDS) and the Project Data System (PDS).

The SDS is an inventory of sanitation deficiencies for existing Indian homes and communities. The IHS is required to prioritize SDS deficiencies and annually report to Congress. The identification of sanitation deficiencies can be made several ways, the most common of which follow:

- Consultation with Tribal members and other Agencies
- Field visits by engineers, sanitarians, Community Health Representatives (CHRs) nurses, or by other IHS or tribal heath staff
- Sanitary Surveys
- Community Environmental Health Profiles
- Bureau of Indian Affairs (BIA) Inventory
- Census Bureau Reports (for comparison purposes only)
- Tribal Master Plans for Development
- Telephone Surveys
- Feasibility Studies

The most reliable and preferred method is a field visit to each community to identify and obtain accurate numbers of homes with sanitation deficiencies. The number of Indian homes within the communities must be consistent among the various methods cited above. If a field visit cannot be made, it is highly recommended that more than one method be used to determine sanitation deficiencies to increase the accuracy and establish greater credibility for the data.

The PDS is a listing of funded construction projects and is used as a management and reporting tool.

QA/QC Procedures: Quality assurance for the Indian country water quality performance measure depends on the quality of the data in the STARS. The STARS data undergoes a series of quality control reviews at various levels within the IHS DSFC. The DSFC is required to annually report deficiencies in SDS to Congress in terms of total and feasible project costs for proposed sanitation projects and sanitation deficiency levels for existing homes.

Data Quality Reviews: The SDS data initially undergoes a series of highly organized reviews by experienced tribal, IHS field, IHS district and IHS area personnel. The data are then sent to the DSFC headquarters office for review before final results are reported. The DSFC headquarters reviews the SDS data for each of the 12 IHS area offices. The data quality review consists of performing a number of established data queries and reports which check for errors and/or inconsistencies. In addition, the top 25 SDS projects and corresponding community deficiency profiles for each area are reviewed and scrutinized thoroughly. Detailed cost estimates are highly encouraged and are usually available for review.

Data Limitations: The data are limited by the accuracy of reported data in STARS.

Error Estimate: The IHS DSFC requires that higher-level projects (those with the possibility of funding prior to the next update) must be developed to allow for program implementation in an organized, effective, efficient manner. Those SDS projects (top 20%) must have cost estimates within 10% of the actual costs.

New/Improved Data or Systems: The STARS is a web based application and therefore allows data to be continuously updated by personnel at various levels and modified as program requirements are identified.

References:

1. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Criteria for the Sanitation Facilities Construction Program, June 1999, Version 1.02, 3/13/2003. http://www.dsfc.ihs.gov/Documents/Criteria_March_2003.cfm

2. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Sanitation Deficiency System (SDS), Working Draft, "Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities", May 2003. http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf

FY 2007 Performance Measure:

- **Percentage of the water miles/acres identified by States or Tribes as having fish consumption advisories in 2002 where increased consumption of safe fish is allowed. (485, 205 river miles, 11,277,276 lake acres)**

- **Percentage of water miles/acres with fish consumption advisory removed. (PART Measure)**

Performance Database: National Listing of Fish Advisories.[1] The database includes fields identifying the waters for which fish consumption advisories have been issued. The fields also identify the date upon which the advisory was issued, thus allowing an assessment of trends. The National Hydrographic Data (NHD) are used to calculate the spatial extent of the fish advisory. This information is updated continually as states and tribes issue or revise advisories. The National Listing of Fish Advisories database includes records showing that 24% of river

miles and 35% of lake acres were identified by states or tribes in calendar year 2003 as having fish with chemical contamination levels resulting in an advisory of potential human health risk from consumption. States and tribes report data on a calendar year basis. The calendar year data are then used to support the fiscal year (FY) commitments (e.g., calendar year 2005 data support the FY 2007 commitments). Metadata are also available describing methodologies used by states and tribes for establishing advisories. Fish advisory data have been collected since 1993.

Data Source: State and Tribal Governments. These entities collect the information and enter it directly into the National Listing of Fish Advisories database. EPA reviews advisory entries, including the states' or tribes' responses to an on-line survey, which support the advisory decision.

Methods, Assumptions and Suitability: The performance measure is calculated as the aggregate surface area covered by one or more individual advisories divided by the total waters of each state or territory. If a waterbody is covered by more than one advisory it is only counted once, and until all advisories are removed the waterbody is counted as having an advisory. The states and tribes submit the area data to the National Listing of Fish Advisories database.

QA/QC Procedures: A standard survey, which has been approved by OMB, is available on the Internet for electronic submission. A password is issued to ensure the appropriate party is completing the survey. EPA has national guidance[2,3] for states and tribes on developing and implementing quality assurance practices for the collection of environmental information related to fish advisories. This guidance helps assure data quality of the information that states and tribes use to decide whether to issue an advisory. The Office of Water's "Quality Management Plan," approved in September 2001 and published in July 2002[4], is general guidance that applies to information collection.

Data Quality Reviews: EPA reviews advisory entries and responses to the survey to ensure the information is complete, then follows-up with the state or local government to obtain additional information where needed. However, the Agency cannot verify the accuracy of the voluntary information that state and local governments provide. There have been no external party reviews of this information.

Data Limitations: There are two primary data limitations. First, participation in this survey and collection of data is voluntary. While the voluntary response rate has been high, it does not capture the complete universe of advisories. Puerto Rico, the Virgin Islands, and Guam do not report in the survey. Second, states have not assessed all waters for the need for advisories, so the information reported reflects a subset of water bodies in the state.

Error Estimate: We are unable to provide an error estimate. Submitting data to the National Listing of Fish Advisories database is voluntary and the Agency cannot be certain that the database contains information on 100% of the assessed waters in the United States. Therefore, we may be understating the total amount of waters assessed, the magnitude of which is not known.

New/Improved Data or Systems: EPA will use small grants to encourage states to investigate additional water bodies to determine if there is a need for fish consumption advisories. This will lead to a more complete characterization of the nation's fish safety. EPA has also begun tracking recommended "meal frequencies" in the state and tribal advisories to account for the instances where advisories are modified to allow greater consumption.

References:

1. U.S. EPA. Office of Water. "2004 National Listing of Fish Advisories." Washington, DC: EPA-823-F-05-004. September 2005. Available at http://epa.gov/waterscience/fish/advisories/fs2004.pdf
2. U.S. EPA. Office of Water. "Fish Sampling and Analysis." Volume 1 of "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories." 3rd ed. EPA-823-B-00-007. Washington DC: EPA, 2000. Available at http://www.epa.gov/waterscience/fishadvice/volume1/.
3. U.S. EPA. Office of Water. "Risk Assessment and Fish Consumption Limits." Volume 2 of "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories." 3rd ed.@ EPA-823-B-00-008. Washington DC: EPA, 2000. http://www.epa.gov/waterscience/fishadvice/volume2/.
4. U.S. EPA. Office of Water. "Quality Management Plan." EPA 821-X-02-001. Washington, DC: EPA, July 2002. Available at http://www.epa.gov/water/programs/qmp_july2002.pdf

FY 2007 Performance Measure:

- **Percentage of the shellfish-growing acres monitored by states that are approved or conditionally approved for use**

Performance Database: There is no database currently available, although one is under development (see below). In the past, data to support this measure came from surveys of States that are members of the Interstate Shellfish Sanitation Conference (ISSC), conducted at 5-year intervals and periodic updates requested from the Interstate Shellfish Sanitation Conference (most recent, 2003 data released in 2004).

Data Source: The ISSC requests the data on approved acreages from shellfish producing states and prepares reports. Survey responses are voluntary.

Methods, Assumptions and Suitability: The methods used by the state programs to produce the data used by the ISSC are based on the National Shellfish Sanitation Plan and Model Ordinance; the operation of those state programs is overseen by the FDA.

QA/QC Procedures: States are responsible for the internal QA/QC of their data.

Data Quality Reviews: The ISSC reviews the state data during report preparation to ensure completeness and accuracy, and follows up with states where necessary.

Data Limitations: Based on NOAA's previous surveys and the voluntary nature of the information collected, potential data limitations may include incomplete coverage of shellfish growing areas.

Error Estimate: No estimates are available.

New/Improved Data or Systems: The ISSC initiated development of the Shellfish Information Management System (SIMS) in July 2002. The database is being developed and implemented by the National Oceanic and Atmospheric Administration (NOAA) on behalf of the Interstate Shellfish Sanitation Conference (ISSC), a Cooperative Program chartered by the Food and Drug Administration (FDA). The database will include relevant information that is collected by State Shellfish Control Authorities. Historically, NOAA collected shellfish-growing area data in 5-year intervals, 1985, 1990, and 1995. These data were not stored in a database. Once operational, SIMS will be the first national shellfish growing area database and will include NOAA's 1995 and 2003 data. State summary information can then be used to track trends relevant to the performance measure, with the 1995 data as the baseline. The SIMS database is designed as a real time database. The ISSC plans to request data updates annually, but states may update their data any time. These data may be accessed at any time so timely status reports can be generated.

Currently, no long-term database management plan exists.

References: None at this time.

FY 2007 Performance Measure:

- **Percentage of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming**

Performance Database: The data are stored in PRAWN (Program tracking, beach Advisories, Water quality standards, and Nutrients), a database that includes fields identifying the beaches for which monitoring and notification information are available and the date the advisory or closure was issued, thus enabling trend assessments to be made. The database also identifies those states that have received a BEACH (Beaches Environmental Assessment and Coastal Health) Act [P.L. 106-284] grant. EPA reports the information annually, on a calendar year basis, each May. The calendar year data are then used to support fiscal year commitments (e.g., 2006 calendar year data are used to report against FY 2007 commitments). As of 2004, States and Territories monitor for pathogens at 3,574 coastal and Great Lakes beaches, up from 2,823 beaches in 2002[1].

Data Source: Since 1997 EPA has surveyed state and local governments for information on their monitoring programs and on their advisories or closures. The Agency created the PRAWN database to store this information. State and local governmental response to the survey was voluntary up through calendar year 2002. Starting in calendar year 2003, data for many beaches along the coast and Great Lakes had to be reported to EPA as a condition of grants awarded under the BEACH Act[2]. Since 2005, states have used an on-line process called eBeaches to

electronically transmit beach water quality and swimming advisory information to EPA instead of using the paper survey. The latest information reported by a state or local government is accessible to the public through the BEACON (Beach Advisory Closing On-line Notification) system.

Methods, Assumptions and Suitability: The data are an enumeration of the days of beach-specific advisories or closures issued by the reporting state or local governments during the year. Performance against the target is tracked using a simple count of the number of beaches responding to the survey and the days over which the advisory or closure actions were taken. This is compared to the total number of days that every beach could be open. Thus the data are suitable for the performance measure.

QA/QC Procedures: Since 1997, EPA has distributed a standard survey form, approved by OMB, to coastal and Great Lake state and county environmental and public health beach program officials in hard copy by mail. The form is also available on the Internet for web-entry electronic submission. When a state or local official enters data using the web-entry format, a password is issued to ensure the appropriate party is completing the survey. Currently the Agency has procedures for information collection (see Office of Water's "Quality Management Plan," approved September 2001 and published July 2002[3]). In addition, coastal and Great Lakes states receiving BEACH Act grants are subject to the Agency's grant regulations under 40 CFR 31.45. These regulations require states and tribes to develop and implement quality assurance practices for the collection of environmental information.

Data Quality Review: EPA reviews the survey responses to ensure the information is complete, following up with the state or local government to obtain additional information where needed. The Agency also reviews the QA/QC reports submitted by States and Territories as part of their grant reporting. There have been no external party reviews of this information.

Data Limitations: From calendar year 1997 to calendar year 2002, participation in the survey and submission of data has been voluntary. While the voluntary response rate has been high, it has not captured the complete universe of beaches. The voluntary response rate was 92% in calendar year 2002 (240 out of 261 contacted agencies responded). The number of beaches for which information was collected increased from 1,021 in calendar year 1997 to 2,823 in calendar year 2002. Participation in the survey is now a mandatory condition for implementation grants awarded under the BEACH Act program to coastal and Great Lakes states. Except for Alaska, all coastal and Great Lakes states and territories have annually applied for implementation grants since they have been available.

Error Estimate: As of 2004, States and Territories report that they monitor at 3,574 of the 6,099 coastal and Great Lakes beaches. This monitoring varies between States. For example, North Carolina monitors all its 228 beaches whereas South Carolina monitors 24 of 229 beaches. Where monitoring is done, there is some chance that the monitoring may miss some instances of high pathogen concentrations. EPA's 2002 National Health Protection Survey of Beaches found that 90% of the nation's beaches are monitored once a week or less[4]. Studies in southern California found that weekly sampling missed 75% of the pathogen exceedances[5], and that 70% of the exceedances lasted for only one day[6]. An EPA Office of Research and Development

(ORD) beach monitoring study found a positive correlation between pathogen indicator densities one day as compared to densities the next day, but that the correlation was negligible when compared to densities after four days[7]. These studies indicate that weekly sampling most likely misses many pathogen events that can affect public health. This information is not sufficient to calculate the potential error in the reporting, but it is sufficient to indicate that the reporting may understate the number of days that beaches should be closed or under advisory.

New/Improved Data or Systems: Participation in the survey is now a mandatory condition for grants awarded under the BEACH Act program. As the Agency awards these implementation grants, it will require standard program procedures, sampling and assessment methods, and data elements for reporting. To the extent that state governments apply for and receive these grants, the amount, quality, and consistency of available data will improve. In FY 2007, EPA expects the 35 coastal and Great Lakes states to apply for grants to implement monitoring and notification programs.

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7. U.S. EPA. Office of Research and Development. "The EMPACT Beaches Project, Results and Recommendations from a Study on Microbiological Monitoring In Recreational Waters." EPA 600/9-02/xxx. Washington, DC, Sept. 2002.(Draft Report).

GOAL 2 OBJECTIVE 2

FY 2007 Performance Measure:

- **Percentage of waters assessed: assess and identify trends for 100% of the Nation's waters by 2018 using statistically valid surveys to evaluate the extent that waters support fishable and swimmable goals of the Clean Water Act.**

Performance Database: Data generated from the national assessment will be housed in the EPA Office of Water's STORET (STOrage and RETrieval) data warehouse. Prior to entering the STORET warehouse, all datasets are housed in a temporary facility, such as ORD's SWIM database, where they are examined for QA purposes and undergo statistical analysis. Finalized datasets transferred to the STORET warehouse will include all water quality, physical and biological data and associated metadata for each survey. The STORET warehouse is available on the web at http://www.epa.gov/STORET/index.html.

Data Source:
Samples will be collected over one sampling season, during a specified index period for each resource. Sites are sampled one time, with additional repeat samples collected at 10 percent of the sites to determine precision of methods. Surveys collect a suite of indicators relating to the biological, physical habitat and water quality of the resource in order to assess both the resource condition and determine the percentage meeting the goals of the CWA. Surveys will collect information on biological and abiotic factors at 30-50 sites on an ecoregion level II scale for each resource. These data are collected through EPA-State collaboration. Prior to sampling, field crews will undergo intensive training by EPA personnel on field sampling and collection techniques. Laboratory analysis will be conducted at either a state lab or contract lab following specified protocols for the survey. Data collection follows a Quality Assurance Project Plan (QAPP), with subsequent testing and auditing to ensure its application.

Methods, Assumptions and Suitability: The surveys are conducted using a probabilistic survey design, which allows extrapolation of results to the target population (specified water resource, e.g., wadeable streams, lakes, rivers, etc.). The collection design maximizes the spatial spread between sites, located by specific latitude and longitude combinations. The survey utilizes an indexed sampling period to increase the probability of accurately assessing condition and identifying any problems in water quality, physical or biological indices if they exist. Based on the QAPP and field protocol documents, a site is located by the sampling crew via Global Positioning System (GPS). Data are collected for each parameter following the protocols outlined in the field operations manual. Indices for the probabilistic surveys relate to the condition of the resource and the extent that the waters are supporting the fishable and swimmable goals of the Clean Water Act. Samples taken from the field are stored in accordance with field manual instructions and shipped to the processing laboratory. Laboratories will follow quality assurance (QA) plans and complete analysis and provide electronic information to the state or EPA. EPA and the state exchange data to ensure that each has a complete set. EPA and states analyze the data to assess regional and national condition of the water resource surveyed. Results of the analyses on a national and regional basis will be published in a publicly accessible peer reviewed report released within two years of sample collection. The overall change in condition of the water body type will be assessed on a five year cycle.

> *Assumptions*: (1) The underlying target population (water resource sampled for the survey) has been correctly identified; (2) GPS is successful; (3) QAPP and field collection manuals are followed; (4) all samples are successfully collected; (5) all analyses are completed in accordance with the QAPP; and (6) a combination of data into indices is completed in a statistically rigorous manner.

Suitability: By design, all data are suitable to be aggregated up to the regional and national level to characterize the ecological condition of the waterbody resource and the associated stressors. Samples provide site specific point-in-time data and excellent representation of the entire resource (extrapolation to the entire resource supportable). Data will be used to characterize populations and subpopulations of waterbody resources through time and space. Data analysis and interpretation will be peer reviewed prior to completion of final report. The data are suitable for individual reports and to establish a baseline for subsequent surveys to evaluate trends.

QA/QC Procedures: Collection and processing of all samples are described in QAPP and Field Protocols documents associated with each survey. In addition, the QAPP will contain specific Data Quality Objectives (DQOs) and Measurement Quality Objectives (MQOs) associated with each survey. To ensure that the survey is obtaining the DQOs and MQOs, there are several QA steps built into each survey. Training for all crew members is required before sampling begins. Field evaluations are conducted for all crews to ensure methods are being followed. Each laboratory involved in the sample processing will adhere to the specified laboratory protocols and undergo a thorough and documented quality assurance/quality control (QA/QC) process. Submitted data will undergo a final QC check before analysis begins.

Data Quality Reviews: A concurrent peer review and public comment period will be held for each survey. During this time, the draft report will be posted on the web for interested parties to review and submit comments. An independent group of experts will be selected to serve on a peer review panel for the report. In house audits will also be conducted over the course of the survey.

Data Limitations: Because the data are collected in a manner to permit calculations of uncertainty and designed to meet specific Data Quality Objectives (DQOs), the results at the regional level are within about 2-4% of true values dependent upon the specific sample type. Detailed QA/QC checks throughout the survey reduce the data limitations and errors in sampling. The scale of the reporting units is limited by the number of samples taken in a specific region. To make a statistically valid statement about the condition of the resource, sample size should minimally include 30-50 sites per region. Since samples are collected one time at each site per survey, trends analysis will depend on future survey work. Lag time between sample collection and reporting will be between 1-2 years.

Error Estimate: The estimation of condition will vary for the national condition and the regional condition for each survey. The condition estimates are determined from the survey data using cumulative distribution functions and statistically-based uncertainty estimates.

New/Improved Data or Systems: Additional indicators, addressing regional specific needs can be added to the survey over time. QA requirements will be met by all laboratories participating in the surveys. Probabilistic surveys repeated on the same water body type utilizing a similar sample design will show condition trends for the resource on a broad geographic scale.

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FY 2007 Performance Measures:

- **Annual percentage of water body segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained (PART measure)**
- **Restore water quality to allow swimming in stream miles and lake acres identified by states**
- **Cost per water segment restored (PART measure)**

Performance Database: The Watershed Assessment Tracking Environmental Results System (WATERS– found at http://www.epa.gov/waters/) is EPA's approach for viewing water quality information related to this measure. WATERS can be used to view "303(d) Information," compiled from, *States' Listings of Impaired Waters as Required by Clean Water Act Section 303(d)* (referred to here in brief as "303(d) lists"), which are recorded in the National Total Maximum Daily Load (TMDL) Tracking System. This information (found at http://www.epa.gov/owow/tmdl/status.html) is used to generate reports that identify waters that are not meeting water quality standards ("impaired waters"). This information, combined with information and comment from EPA Regions and states, yields the baseline data for this measure: the number of impaired waters in 1998/2000. As TMDL and other watershed-related activities are developed and implemented, water bodies which were once impaired will meet water quality standards, and thus will be removed from the year 1998/2000 impaired totals. Changes will be recorded in reports, scheduled every six years (e.g. reporting years 2006 and 2012), as percentage improvements to water body impairment.

Data Source: The underlying data source for this measure is State 303(d) lists of their impaired water bodies. These lists are submitted with each biennial (calendar year) reporting cycle. The baseline for this measure is the 1998 list (States were not required to submit lists in 2000; however, if states did submit a 2000 list, then that more recent list was used as the baseline). States prepare the lists using actual water quality monitoring data, probability-based monitoring information, and other existing and readily available information and knowledge the state has, in

order to make comprehensive determinations addressing the total extent of the state's water body impairments. Once EPA approves a state's 303(d) list, EPA enters the information into WATERS, as described above. Delays are often encountered in state submissions and in EPA's approval of these biennial submissions. Establishing more certain procedures to keep on schedule is being considered.

Methods, Assumptions, and Suitability: States employ various analytical methods of data collection, compilation, and reporting including: 1) Direct water samples of chemical, physical, and biological parameters; 2) Predictive models of water quality standards attainment; 3) Probabilistic models of pollutant sources; and 4) Compilation of data from volunteer groups, academic interests and others. EPA-supported models include BASINS, QUAL2E, AQUATOX, and CORMIX. Descriptions of these models and instructions for their use can be found at www.epa.gov/OST/wqm/. The standard operating procedures and deviations from standard methods for data sampling and prediction processes are stored by states in the STOrage and RETrieval (STORET) database. EPA aggregates state data to generate the national performance measure. State-provided data describe attainment of designated uses in accordance with state water quality standards and thus represent a direct measure of performance. Delays are often encountered in state 303d lists and 305b submissions, and in EPA's approval of the 303(d) portion of these biennial submissions. Establishing more certain procedures to prevent these delays is being considered.

QA/QC Procedures: QA/QC of data provided by states pursuant to individual state 303(d) lists (under CWA Section 303(d)) is dependent on individual state procedures. EPA regional staff interacts with the states during the process of approval of the lists and before the information is entered into the database to ensure the integrity of the data. The Office of Water Quality Management Plan (QMP), renewed every five years, was approved in July 2001[9]. EPA requires that each organization prepare a document called a quality management plan (QMP) that: documents the organization's quality policy; describes its quality system; and identifies the environmental programs to which the quality system applies (e.g., those programs involved in the collection or use of environmental data).

Data Quality Review: Recent independent reports have cited that weaknesses in monitoring and reporting of monitoring data undermine EPA's ability to depict the condition of the Nation's waters and to support scientifically sound water program decisions. The most recent reports include the 1998 *Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program*[10], the March 15, 2000 Government Accounting Office report *Water Quality: Key Decisions Limited by Inconsistent and Incomplete Data*[11], the 2001 National Academy of

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[9] National Research Council, Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction, Water Science and Technology Board, *Assessing the TMDL Approach to Water Quality Management* (Washington, DC: National Academy Press, 2001).

[10] USEPA, National Advisory Council for Environmental Policy and Technology, *Report of the Federal Advisory Committee on the Total Maximum Daily Load Program*. EPA 100-R-09-8006 (1998).

[11] GAO. *Water Quality: Key EPA and State Decisions Limited by Inconsistent and Incomplete Data* (Washington, DC: 2000), RCED-00-54 and *Water Quality: Inconsistent State Approaches Complicate Nation's Efforts to Identify Its Most Polluted Waters*, GAO-02-186 (Washington, DC: 2002)

Sciences Report *Assessing the TMDL Approach to Water Quality Management*[12] and *EPA's Draft Report on the Environment.*[13]

In response to these evaluations, EPA has been working with states and other stakeholders to improve: 1) data coverage, so that state reports reflect the condition of all waters of the state; 2) data consistency to facilitate comparison and aggregation of state data to the national level; and 3) documentation so that data limitations and discrepancies are fully understood by data users.

First, EPA enhanced two existing data management tools (STORET and the National Assessment Database) so that they include documentation of data quality information.

Second, EPA has developed a GIS tool called WATERS that integrates many databases including STORET, the National Assessment Database, and a new water quality standards database. These integrated databases facilitate comparison and understanding of differences among state standards, monitoring activities, and assessment results.

Third, EPA and states have developed guidance. The 2006 Integrate Report Guidance (released August 3, 2005 at http://www.epa.gov/owow/tmdl/2006IRG)[14] provides comprehensive direction to states on fulfilling reporting requirements of Clean Water Act sections 305 (b) and 303(d). Also, the *Consolidated Assessment and Listing Methodology – Toward a Compendium of Best Practices*[15] (released on the Web July 31, 2002 at www.epa.gov/owow/monitoring/calm.html) intended to facilitate increased consistency in monitoring program design and the data and decision criteria used to support water quality assessments.

Fourth, the Office of Water (OW) and EPA's Regional Offices have developed the *Elements of a State Water Monitoring and Assessment Program*, (August 2002).[16] This guidance describes ten elements that each state water quality monitoring program should contain and proposes time-frames for implementing all ten elements.

In addition, a recent evaluation by the EPA Office of the Inspector General[17] recommended that EPA focus on improving its watershed approach by:

- Facilitating stakeholder involvement in this approach
- Better integrating the watershed approach into EPA core programs,

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[12] Assessing the TMDL Approach to Water Quality Management. 2001. Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction, Water Science and Technology Board, National Research Council

[13] US EPA, *Draft Report on the Environment 2003*. EPA 260-R-02-006 (2003). Available at http://www.epa.gov/indicators/roe/index.htm (accessed 12 December 2005)

[14] USEPA, Office of Water, *2006 Guidance for Assessment, Listing, and Reporting Requirements Pursuant to Sections, 303(d), 305(b), and 314 of the Clean Water Act* (2005). Available at http://www.epa.gov/owow/tmdl/2006IRG (accessed 12 December 2005)

[15] U.S. EPA, Office of Water, *Consolidated Assessment and Listing Methodology- Toward a Compendium of Best Practices.* (Washington, DC: 2002) Available at www.epa.gov/owow/monitoring/calm.html (accessed 12 December 2005)

[16] USEPA, Office of Water, *Elements of a State Water Monitoring and Assessment Program*, EPA 841-B-03-003 (Washington, DC: 2003). Available at http://www.epa.gov/owow/monitoirng/repguide.html (accessed 12 December 2005)

[17] USEPA Office of the Inspector General, *Sustained Commitment Needed to Further Advance the Watershed Approach* (2005). Available at http://www.epa.gov/oig/reports/2005/20050921-2005-P-00025.pdf.

- Refining the Agency strategic plan to better evaluate key programs and activities, and
- Improving the measurement system by which watershed progress is assessed.

EPA is engaged in many activities to strengthen its footprint in above four foci. Specific examples, as noted in Assistant Administrator Grumbles' December 2005 reply to the Inspector General's evaluation, follow:

First, examples of how the EPA Office of Water is working to facilitate stakeholder involvement in this approach are monthly Webcasts (topics have included strategies, tools, and techniques for sustainable watersheds) and plans to release a Watershed Planning Handbook in 2006.

Second, EPA core program activities are focusing more heartily on watershed initiatives. EPA is preparing 2006 guidance on watershed TMDLs and guidance for using Clean Water State Revolving funds for state watershed activities.

Third, EPA is working to refine its strategic planning process with the April 2005 inception of the Watershed Managers Forum, a channel of communication between EPA Regional offices and Headquarters on issues, planning, and organizational steps to successfully implement watershed initiatives of EPA's *Strategic Plan*[18]. The Office of Water is also strengthening linkage of its information technology capabilities and monitoring efforts to meet goals of EPA's strategic planning.

Fourth, EPA is working to improve measurement of its progress by conducting detailed analysis of options for measuring performance. Areas of general interest in this effort include tracking improvements short of full restoration, and measures for the extensive work the Office of Water does to maintain water quality.

Data Limitations: Data may not precisely represent the extent of impaired waters because states do not employ a monitoring design that monitors all their waters. States, territories and tribes collect data and information on only a portion of their water bodies. States do not use a consistent suite of water quality indicators to assess attainment of water quality standards. For example, indicators of aquatic life use support range from biological community assessments to levels of dissolved oxygen to concentrations of toxic pollutants. These variations in state practices limit how the CWA Sections 305(b) reports and the 303(d) lists provided by states can be used to describe water quality at the national level. There are also differences among their programs, sampling techniques, and standards.

State assessments of water quality may include uncertainties associated with derived or modeled data. Differences in monitoring designs among and within states prevent the agency from aggregating water quality assessments at the national level with known statistical confidence. States, territories, and authorized tribes monitor to identify problems and typically lag times between data collection and reporting can vary by state.

Error Estimate: No error estimate is available for this data.

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[18] USEPA, Office of the Chief Financial Officer, *2003-2008 Strategic Plan: Direction for the Future*, (2003). Available at http://www.epa.gov/ocfo/plan/2003sp.pdf_(accessed 16 December 2005).

New/Improved Data Systems: The Office of Water has been working with states to improve the guidance under which 303(d) lists are prepared. EPA issued new listing guidance entitled *Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act* during summer 2005. The Guidance is a comprehensive compilation of relevant guidance EPA has issued to date regarding the Integrated Report. There are a few specific changes from the 2004 guidance. For example, the 2006 Integrated Report Guidance provides greater clarity on the content and format of those components of the Integrated Report that are recommended and required under Clean Water Act sections 303(d), 305(b), and 314. The guidance also gives additional clarity and flexibility on reporting alternatives to TMDLs for attaining water quality standards (e.g., utilization of reporting Category 4b).

References:

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FY 2007 Performance Measures:

- **Number of TMDLs that are established or approved by EPA on schedule consistent with national policy (cumulative) (PART measure)**
- **Number of TMDLs that are established by States and approved by EPA on a schedule consistent with national policy (cumulative) (PART measure)**

Performance Database: The National Total Maximum Daily Load (TMDL) Tracking System (NTTS) is a database which captures water quality information related to this measure. Watershed Assessment Tracking Environmental Results System (WATERS– found at http://www.epa.gov/waters/) is EPA's approach for viewing water quality information related to this measure. TMDL information (found at http://www.epa.gov/owow/tmdl/status.html) is used to generate reports that identify waters for which EPA has approved state-established TMDLs and for which EPA has established TMDLs. Annual TMDL totals, spanning 1996 to the present, are available from NTTS on a fiscal year basis. As TMDLs and other watershed-related activities are developed and implemented, water bodies which were once impaired will meet water quality standards. Thus these TMDL measures are closely tied to the PART measure, "Percentage of water body segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained;" restored water bodies will be removed from the list of impaired water segments.

Data Source: State-submitted and EPA-approved TMDLs and EPA-established TMDLs are the underlying data for this measure. Electronic and hard copies are made available by states and often linked to EPA Web sites. More specifically, WATERS allows search for TMDL documents at http://www.epa.gov/waters/tmdl/tmdl_document_search.html.

Methods, Assumptions, and Suitability: State and EPA TMDLs are thoroughly and publicly reviewed during their development. Upon approval by EPA, relevant information from each TMDL is entered into the NTTS by EPA Regional staff.

QA/QC Procedures: QA/QC of data is provided by EPA Regional staff and through cross-checks of WATERS information regarding impaired water listings. The Office of Water Quality Management Plan (QMP), renewed every five years, was approved in July 2001. EPA requires that organizations prepare a document called a QMP that: documents the organization's quality policy; describes its quality system; and identifies the environmental programs to which the quality system applies (e.g., those programs involved in the collection or use of environmental data).

Data Quality Review: Internal reviews of data quality have revealed some errors in data and issues associated with the definition of certain database fields. In 2005, EPA convened a meeting of NTTS users to discuss how to improve the database. As a result, data field definitions were clarified, the users' group was reinstituted, and several training sessions were scheduled.

In addition, the EPA Office of the Inspector General recently evaluated the Office of Water, particularly the TMDL Program. The evaluation report, *Sustained Commitment Needed to Further Advance the Watershed Approach,* recognized "EPA has integrated principles of the watershed approach into the Total Maximum Daily Load (TMDL) Program by encouraging States to develop TMDLs on a watershed basis rather than by individual water segments. Stakeholder involvement with TMDLs is critical for both the conventional and watershed approaches, but the broader watershed approach may expand the number of stakeholders. Expanding both the geographic scale and the number of stakeholders may result in additional time and resources required to develop these TMDLs." This demand for resources is challenging to overcome in the current budget environment. The EPA Office of Water has formed a Sustainable Finance Team to increase the capacity of local watershed groups and increase awareness of funding possibilities for watershed work, both from within EPA and outside of the Agency. Finally, the evaluation report states, "regardless of the approach taken for development of TMDLs, the regulatory requirements of the Clean Water Act must be met." Current realization of targets shows the TMDL Program continues to make sizable steps in meeting Clean Water Act goals despite the challenges to taking a watershed approach. EPA plans to evaluate the sufficiency of NTTS in handling watershed-based TMDLs given the increase in the use of this approach.

Data Limitations:
There are usually no gaps in the fields required to identify the TMDLs; however, a number of the fields in NTTS are optional, and population of these fields is erratic.

Error Estimate: No error estimate is currently available for this data.

New/Improved Data Systems: See above.

References:
USEPA, Office of the Inspector General. 2005. *Sustained Commitment Needed to Further Advance the Watershed Approach.* Available at http://www.epa.gov/oig/reports/2005/20050921-2005-P-00025.pdf.

National Research Council, Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction. 2001. *Assessing the TMDL Approach to Water Quality Management.* Washington, DC: National Academy Press.

FY 2007 Performance Measures:

- **Percentage of major NPDES permittees in Significant Noncompliance at any time during the fiscal year (PART measure)**
- **Percentage of all major POTWs that comply with their permitted wastewater discharge standards**

Performance Databases: The Permit Compliance System, (PCS) tracks permit compliance and enforcement data for sources permitted under the Clean Water Act National Pollutant Discharge Elimination System (NPDES). Data in PCS include major permittee self reported data contained in Discharge Monitoring Reports (DMR), data on permittee compliance status, data on state and EPA inspection and enforcement response.

Data Source: Permittee self reported DMR data are entered into PCS by either state or EPA Regional offices. PCS automatically compares the entered DMR data with the pollutant limit parameters specified in the facility NPDES permit. This automated process identifies those facilities which have emitted effluent in excess of permitted levels. Facilities are designated as being in Significant Noncompliance (SNC) when reported effluent exceedances are 20% or more above permitted levels for toxic pollutants and/or 40% or more above permitted levels of conventional pollutants. PCS contains additional data obtained through reports and on-site inspections, which are used to determine SNC, including: non-effluent limit violations such as unauthorized bypasses, unpermitted discharges, and pass through of pollutants which cause water quality or health problems; permit schedule violations; non-submission of DMRs; submission of DMRs 30 or more days late; and violation of state or federal enforcement orders.

Methods, Assumptions and Suitability: There are established computer algorithms to compare DMR effluent data against permitted effluent levels. The algorithms also calculate the degree of permitted effluent exceedance to determine whether toxic/conventional pollutant SNC thresholds have been reached.

QA/QC Procedures: Quality Assurance/Quality Control procedures [See references] are in place for PCS data entry. State and regional PCS data entry staff are required to take PCS training courses [See references]. Quality Management Plans (QMPs) are prepared for each Office within The Office of Enforcement and Compliance Assurance (OECA). The Office of Compliance (OC) has established extensive processes for ensuring timely input, review and certification of PCS information. OC=s QMP, effective for 5 years, was approved July 29, 2003 by the Office of Environmental Information (OEI) and is required to be re-approved in 2008.

Data Quality Review: Information contained in PCS is required by policy to be reviewed by regional and headquarters= staff for completeness and accuracy. SNC data in PCS are reviewed quarterly.

Data Limitations: Legal requirements for permittees to self report data on compliance with effluent parameters in permits generally results in consistent data quality and accuracy. EPA monitors and measures the timeliness of DMR submissions and data entry quality. National trends over the past several years show an average of 94% of DMRs are entered timely and complete. Where data entry problems are observed, OECA works directly with regions and states to improve performance, and in limited circumstances has dedicated supplemental grant

resources to help regions and states correct problems. As part of ICIS-NPDES implementation OECA is working to deploy an electronic DMR process to save resources on data entry workload and reduce data input errors.

Error Estimate: Not available

New & Improved Data or Systems: PCS was developed during the 1980's and has undergone periodic revision and upgrade since then. OECA is currently developing a modernized data system to replace PCS, utilizing modern data entry, storage, and analytical approaches. The first phase of the new system, ICIS-NPDES, is scheduled to be operational March 30, 2006. Until then, all SNC data will be obtained from PCS. During phased implementation of ICIS-NPDES across the states a combination of PCS and ICIS-NPDES will be used to generate SNC data. Once fully implemented, ICIS-NPDES will be the sole source of NPDES SNC data.

FY 2007 Performance Measures:

- **Percentage of (a) State and Territorial, and (b) Tribal water quality standards submissions (received in the 12 month period ending April 30th of the fiscal year) that are approved by EPA. Partial approvals receive fractional credit. (PART measure)**

- **Number of (a) States and Territories, and (b) authorized Tribes, that within the preceding three year period submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other sources not considered in the previous standards. (PART measure)**

Performance Database: The Water Quality Standards Action Tracking Application (WATA), an internal tracking application managed by the Office of Science and Technology described at http://intranet.epa.gov/ost/div/shpd/wata-manual.pdf, is the performance database for these measures. The information in this system yields the baseline and performance data for these measures.

Data Source: The underlying data sources for this measure are the submissions from states, territories, and authorized tribes of water quality standards to EPA pursuant to the Clean Water Act and EPA's water quality standards regulation at 40 CFR part 131. States, territories, and authorized tribes are required to review their water quality standards at least once every three years, and submit any new or revised water quality standards to EPA for review and approval. Each submission is accompanied by a letter from an appropriate official, and includes a certification by the state or territorial attorney general, or equivalent tribal official, that the standards were duly adopted pursuant to state, territorial, or tribal law.

EPA Regional Office staff members compile information from each submission and enter it into the WATA system. The information includes identifying data (name of jurisdiction, date of submission), data concerning components of the submission, and data concerning EPA's action on the submission. EPA has delegated approval and disapproval decisions to the Regional Administrator; the Regional Administrator may re-delegate the decisions to the appropriate

Division Director, but no further. Approval decisions are judicially reviewable, and are accompanied by an appropriate administrative record.

Methods, Assumptions, and Suitability:

The Office of Science and Technology has established computation metrics in the Water Quality Standards Action Tracking Application (WATA) system to produce the baselines and performance data for both measures. These metrics are as follows:

- Percentage of State, Territorial, and Tribal water quality standards submissions (received in the 12 month period ending April 30th of the fiscal year) that are approved by EPA. Partial approvals receive fractional credit.

This metric considers all new or revised submissions from May 1 of the previous year through April 30 of the current year. This reporting period provides regions 150 days to reach and document a valid approval decision. EPA management believes this is an adequate time for processing submissions. A "submission" is determined by the submitting jurisdiction, as described above. The metric then searches for whether the Regional Office has made any approval decision concerning the submission. If EPA approves the submission in full by the end of the reporting period, it will be counted with an approval value of 1. If EPA disapproves all provisions of the standards, it will be counted with an approval value of 0 (zero). In some cases the Regional decision official may decide to approve some portions of the standards provisions, disapprove some portions, or defer actions on some portions. To accommodate these possibilities, and to reflect the complex nature of some submissions, the WATA system allows Regional staff to track portions of a submission as separate parts. When different decisions are reached on different parts of a submission, the metric calculates a fractional approval value. The fractional approval value is a number between 0 and 1, equal to the number of submission parts approved, divided by the total number of parts in the original submission. For example, if a submission is divided up into 5 parts, and EPA approves 3 and disapproves 2, then the metric would count this as 0.6. The final performance metric is the sum of full or fractional approval values divided by the total number of submissions during the reporting period.

- Number of (a) States and Territories, and (b) authorized Tribes, that within the preceding three year period submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other sources not considered in the previous standards

This measure utilizes a Regional Office entry in the WATA system which indicates whether a submission or submission part includes one or more new water quality criteria or revised criteria that reflect new scientific information from EPA or other sources not considered in the previous criteria. Biological criteria that are reflected explicitly in designated uses would count under this entry. If a State, territory, or tribe has not adopted any such criteria, the jurisdiction can nevertheless be counted under this measure if (a) EPA has issued new or revised water quality criteria, including revisions to the published table of EPA recommended criteria at http://www.epa.gov/waterscience/criteria/wqcriteria.html, but the state has determined through a scientific assessment that such a change is not relevant for its waters, or (b) the jurisdiction could

certify to EPA that it has completed a defensible scientific review of the new scientific information EPA has issued and has determined that no changes are needed to their existing water quality criteria. The metric searches for one or more qualifying submissions or submission parts for each jurisdiction during the three-year period ending 150 days before the end of the reporting period, and that have been approved by EPA by the end of the reporting period. For example, for FY 2006 any qualifying submissions from May 1, 2003, through April 30, 2006, that were approved by September 30, 2006, would enable the jurisdiction to be counted. Note the overlap from one reporting year to the next: a state that made such a submittal, in, say, February 2005, would be counted in FY 2005, FY 2006, and FY 2007. Conversely, a state that last adopted such criteria in, say, November 2002, would be counted in FY 2005 but not in FY 2006.

QA/QC Procedures: States, territories, and tribes conduct QA/QC of water quality standards submissions pursuant to individual state procedures. Because such submissions are subject to judicial review, the attorney general's certification described above provides assurance of the content of each submission. EPA regional staffs provide support to and interact with the jurisdictions as they develop, review, and adopt water quality standards. Each Regional Office provides data quality review of its entries in the WATA system. For example, Regional Offices generally assure that each entry is reviewed by the water quality standards coordinator, usually a senior scientist or environmental protection specialist with extensive experience in water quality standards actions. Data validation algorithms built into each entry screen also help improve data quality. In addition, a sample of entries is spot-checked by Headquarters' Office of Science and Technology staff. The Regions and Headquarters have been able to conduct the data quality reviews fairly easily because the number of submissions has averaged about 50 submissions per year in recent years, well within their available resources to provide adequate review.

Data Quality Review: No external reviews of the data have been conducted.

Data Limitations: Submissions may vary considerably in size and complexity. For example, a submission may include statewide water quality standards revisions, use attainability analyses for specific water bodies, site-specific criteria applicable to specific types of waters, general statewide policies, antidegradation policies or procedures, and variances. Therefore, these measures – the number of submissions approved, and the number of jurisdictions with updated scientific information contained in adopted standards – do not provide an indicator of the scope, geographic coverage, policy importance, or other qualitative aspects of water quality standards. This information would need to be obtained in other ways, such as by reviewing the content of adopted and approved standards available at http://www.epa.gov/waterscience/standards/states/, or contacting the appropriate Regional Office or state/territorial/tribal personnel.

Error Estimate: No error estimate is available for this data.

New/Improved Data Systems: The Office of Science and Technology has no immediate plans for developing a new data system or enhancing the existing WATA system, other than refining metrics for assessing and interpreting performance results, or for assessing data quality.

References:

USEPA. September 8, 2005. *Water Quality Standards Acting Tracking Application: Users Manual.* Available at http://intranet.epa.gov/ost/div/shpd/wata-manual.pdf.

USEPA. 2000. *Water Quality Standards Regulation.* Code of Federal Regulations, 40 CFR part 131. Available at http://www.access.gpo.gov/nara/cfr/waisidx_05/40cfr131_05.html.

USEPA. August 1994. *Water Quality Standards Handbook,* 2nd edition. http://www.epa.gov/waterscience/standards/handbook/.

FY 2007 Performance Measure:

- **Estimated annual reduction of nitrogen (reported in pounds), phosphorous (pounds), and sediment (tons) from nonpoint sources to waterbodies (Section 319 funded projects only).**

Performance Database: The Section 319 Grant Reporting and Tracking System (GRTS) is used by grant recipients (State agencies) to supply information about State nonpoint source (NPS) Management and annual Section 319 funded work programs, which include watershed-based / BMP implementation projects. GRTS includes information on NPS load reductions to water bodies of nitrogen, phosphorus and sediments achieved as a result of implementation of Best Management Practices (BMPs) under 319-funded watershed projects.

State reporting via GRTS in part fulfills requirements of the Clean Water Act (CWA) Sections 319(h)(11) and 319(m)(1); however, GRTS also provides EPA and other stakeholders greater and more efficient access to data, information, and program accomplishments than traditional reporting (i.e., hardcopy Annual Reports), as well as provides detailed, geo-referencing (i.e., watershed address, and, now on a much smaller scale, water body segment/reach address) of 319-funded projects and their BMPs, and NPS pollutant load reductions.

GRTS is also becoming part of the "WATERS" framework which is used to summarize water quality information at the watershed (e.g., HUC8) level. The Watershed Assessment Tracking and Environmental Results System (WATERS) is a geographic information system that integrates many existing databases including the STOrage and RETrieval (STORET) database, the National Assessment Database (NAD), the TMDL Tracking System (NTTS), the Water Quality Standards Database (WQSDB), and GRTS.

Data Source: Load reduction data in GRTS are reported by the States and their partners as performance results of Nonpoint Source Management Programs, and Section 319(h) – funded work programs, including individual project work plans. Much of the implementation of §319 work plans (often known as "Project Implementation Plans") involves coordination, funding and installation of on-the-ground BMPs in priority watersheds to reduce pollutant loadings (often as required by established Total Maximum Daily Loads), and to restore the designated uses of impaired waters.

Various computer- and geographic-based models are used in the States to estimate the load reductions resulting from implementation of BMPs in "critical" or hydrologically sensitive areas

within watershed projects. Two models used by several states, and directly supported by EPA, are the Spreadsheet Tool for Estimating Pollutant Loads (STEPL) model, and the "Region 5" model. States, at their discretion, may use other models or methods (e.g., AGNPs, SWAT, GWLF, etc) or may use actual water monitoring data to generate estimates of pollutant load reduction resulting from BMP implementation. The load reduction data generated by modeling and/or monitoring efforts are entered by State GRTS coordinators directly into the appropriate GRTS data fields along with an explanation of the model / methods used to generate the data.

Methods, Assumptions and Suitability: States employ various methods to make pollutant load calculations, including: 1) Predictive models to estimate pollutant loads before and after watershed projects' BMPs are implemented; 2) Direct sampling over time of chemical, physical, and biological parameters using targeted site selection (usually, where impairments have been determined thru 303(d) listing methodology, and often where TMDLs are established); 3) Statistical methods and sampling, such as by paired watershed studies to determine whether or not implemented BMPs in watersheds are reducing NPS pollutant loads and resulting in improved water quality; and, 4) Compilation of data from outside sources such as volunteer monitors, academic institutions, and others that are cited by the States as indirect evidence of pollutant loads, reductions, and water quality.

EPA aggregates the load reduction data entered into GRTS to generate the national performance measure, and incremental (e.g., annual) reports on total load reductions of each parameter – nitrogen, phosphorus, and sediment. The purpose of the aggregation is to provide a very general estimate of load reductions on a nationwide scale. It must be emphasized that this national estimate is not a surrogate for direct measurements of specific waterbody restoration / protection projects in meeting their water quality goals. Such projects' successes can only be assessed through analysis of locally applied BMPs and locally derived monitoring data and locally applied modeling tools.

QA/QC Procedures: QA/QC, of load reduction estimates generated by states and their watershed project cooperators, is dependent on individual state procedures, such as state Quality Management Plans (QMPs) which are periodically reviewed and approved by EPA Regions.

EPA provides guidance and training to states in the use of the STEPL and "Region 5" models. In the provision of guidance and training, EPA emphasizes that Quality Assurance Project Plans (QAPPs) be developed (in accordance with EPA approved State QMPs) for local watershed projects that generate locational information, and data using water quality models and/or water monitoring. EPA also stresses that project- /site- specific parameters be used whenever possible for input to water quality models, as opposed to default input values provided by some modeling tools.

Numerous system level checks are built into the data sources in GRTS, based upon "mandated data" associated with the system. States have continual access and opportunity to review the information in GRTS to ensure it accurately reflects the data they entered (according to their QA procedures). EPA periodically reviews GRTS and reminds states of the critical importance of their completing mandated data elements in a timely, high-quality manner.

Data Quality Review: Data entered in GRTS are periodically reviewed by EPA Regions and Headquarters. Regional personnel also maintain hardcopies of the states work programs / watershed project implementation plans and Annual Progress Reports. Verification of data in GRTS can be cross-checked with these documents to ensure quality, consistency, and reliability in progress reporting on an incremental (such as, year-to-year) basis, or to note any problems in data quality in GRTS. EPA frequently reviews various aggregation(s) of all the data in GRTS by use of "ad-hoc" and standard reports available in the GRTS reporting system.

EPA is working to integrate GRTS into the WATERS framework (and to enable "Ask WATERS") as another means to check states' purported achievements in attaining loading reductions and attaining water quality standards using Section 319(h) funding.

In the past, Nonpoint Source Program reporting under Section 319 had been identified as an Agency-Level weakness under the Federal Managers Financial Integrity Act. The Agency's establishment and subsequent enhancements of GRTS has served to mitigate this problem by requiring states to rigorously identify the projects and activities funded with Section 319(h). In response to the FMFIA evaluation, EPA has been working with states and other stakeholders to improve data input and quality. EPA sponsors national GRTS users group meetings each year. These meetings serve not only to meet the training needs of the user community, but also provide a forum for discussing needed enhancements to GRTS. These enhancements range from better capturing environmental results to improving consistency of data entry to facilitate state-by-state comparisons, and aggregation of state data to the national level.

The CWA Sections 319(h)(11) and 319(m)(1) require States to report their Nonpoint Source Management Program (NPSMP) milestones, nonpoint source pollutant load reductions, and water quality improvements, and these provide the EPA Office of Water (OW) authority to require water quality monitoring, and/or modeling, and reporting by states to demonstrate their success in reducing NPS pollutant loads and improving water quality. OW has issued guidance documents designed to improve states' NPSMP, watershed-based projects and consistency in state progress reporting, including their use of GRTS. These guidance documents include Modifications to Nonpoint Source Reporting Requirements for Section 319 Grants issued in September 2001, which outlines the process for reporting in GRTS applicable Section 319(h) funded projects, load reductions for nutrients and sediment. These modifications remain in effect. Also, the current National Nonpoint Source Program and Grants Guidelines were issued in October, 2003, and this guidance includes sections on all NPS grant reporting requirements, including GRTS reporting. Subsequent to issuing these guidelines, EPA, in consultation with the States, established the specific nonpoint source program activity measures (PAMs), including nonpoint load reductions, which are now part of EPA's Strategic Plan, the OMB Program Assessment Rating Tool ("OMB PART"), and the National Water Program Guidance. EPA has also communicated (e.g., via email) to states further detailed explanations of the NPS program activity measures, expected reporting sources and dates, and results of the Agency's reviews of data input to GRTS by the states.

Data Limitations: State NPSMP work to model (and monitor) watersheds is often not coordinated with state water quality monitoring and assessment strategies, and therefore the integration of GRTS and other data systems' data may be rather limited Load reduction data are

typically generated from the use of water quality models, and there is a great deal of uncertainty in model inputs and outputs. States generally do not apply model results / load reductions to decision–making for implementing and/or revising their NPS Management Programs, nor do they apply it to other relevant decisions, such as 305(b) assessment and 303(d) listing. The results generated by computer models versus direct monitoring are generally not very comparable.

EPA is working with states to provide a data structure in GRTS as well as in the web-Reach Indexing Tool (web-RIT) that make it easier for project BMPs to be geographically located so that resulting load reductions and water quality changes can be more easily tracked over time. WATERS would provide an integrating framework for watershed / water quality information at the national level. However, there are challenges in how BMPs are (or can be) tracked in GRTS. For example, Section 319 funded projects result in the implementation of many thousands of BMPs as well as other 319 project activities; but it may not be feasible to track each of these activities in GRTS. Most of the load reductions in GRTS are linked to the 319 award fiscal year rather than an implementation data, which is not useful for reporting incremental load reductions. Furthermore, it is difficult to capture a given year of load reductions for multi-year projects funded under single (or multiple) grant fiscal year(s).

State assessments of load reductions and water quality typically include uncertainties associated with any measuring or modeling tools. Variability in the environment, as well as in state methods and application of tools limit the accuracy of data for describing load reductions and water quality at the project level. Aggregating the load reduction data up to the national measure compounds the level of uncertainty, thereby preventing the Agency from assigning a reasonable numerical confidence level to it.

Error Estimate: No error estimate is available for these data.

New/Improved Data or Systems: GRTS is currently undergoing a transition from a Lotus Notes-based system to an Oracle database. Oracle is the standard database used by Federal agencies. Conversion to Oracle will allow GRTS to seamlessly connect to other EPA OW data systems, e.g., web-RIT, STORET, NTTS, WQSDB – all systems under the WATERS framework, as well as potential linkages to a variety of other Federal and State databases, models, and watershed planning and accountability tools. In this framework, the Oracle-based GRTS will greatly improve reporting capabilities for all end users, and answer questions for stakeholders, such as, where are watershed projects being developed and implemented? Are projects coincident with impaired waters and established TMDLs? Do they pursue actions necessary to reduce pollutant loads and attain water quality standards? Oracle provides users the capability of customizing data entry screens to facilitate various reporting needs of the States and EPA. Customized screens can reflect the various programmatic needs of the Regional offices and States, such as to review/input only the mandated elements and program measures, a mix of mandated elements, and/or other Regionally required data fields.

References:

AGNP – Agricultural Nonpoint Source Pollution Model

SWAT – Soil Water Assessment Tool Model

GWLF – Generalized Watershed Loading Functions Model

STEPL – Spreadsheet Tool for Estimating Pollutant Load Model

Region 5 Model – A model which uses some long-used equations to help determine load reductions (such as the Revised Universal Soil Loss Equation, the Gully Erosion Equation, and the Channel Erosion Equation)

Modification to NPS Reporting Requirements for Section 319 Grants (September 2001)

National Nonpoint Source Program and Grants Guidelines (October 2003)

FY 2007Performance Measures:

- **Percentage of high priority EPA and State NPDES permits that are reissued as scheduled (PART Measure)**

- **Percentage of high priority state NPDES permits issued as scheduled (PART Measure)**

Performance Database:

- U.S. EPA. Permit Compliance System (PCS). [database]. Washington, DC [Office of Enforcement and Compliance Assurance]
- Permit Issuance Forecasting Tool (PIFT) [database]. Washington, DC [Office of Water]
- Priority Permits Data Base. [web-based database]. Washington, DC [Office of Water]

The Permit Compliance System (PCS) is used to determine which individual permits are current through date fields for permit issuance and expiration. EPA has carried out detailed permit renewal backlog tracking with PCS data since November 1998. To supplement the individual permit data from PCS, EPA uses the Permit Issuance Forecasting Tool (PIFT) to track the current or expired status of facilities covered under non-storm water general permits. The PIFT has been used to track non-storm water general permit facilities since January 2001.

EPA has undertaken a new "priority permits" issuance strategy that focuses permitting activities on significant expired permits. The Priority Permits Database is a web-based system that tracks the specific permits that each State and Region has identified as priority. States and Regions enter the permits, and EPA HQ uses PCS to track permit issuance status of these permits.

Data Source: EPA=s Regional offices and NPDES authorized states enter data into PCS. EPA=s Regional offices are responsible for entering data to the PIFT. EPA's Regional offices and States enter permit identification information into the Priority Permits database.

Methods, Assumptions and Suitability: For individual permits, monthly reports are generated from PCS that use permit issuance and expiration dates to aggregate, across each state, the number of major and minor permits which have not exceeded expiration dates by more than 180 days. Permits that have not reached their expiration date, or are less than 180 days past that date, are considered Acurrent.@ Permits that have not been renewed within 180 days of expiration are considered Aexpired@ or Abacklogged.@ Although PCS tracks some data for facilities covered by NPDES non-storm water general permits, States and Regions are not required to input these data; thus, the data are incomplete and unreliable. To fill this data gap, EPA developed the PIFT tracking system to gather basic counts of facilities covered by current and expired non-storm water general permits. Further, to complement tracking of all permits, the Priority Permits Database was developed to track the status of high priority permits. Together the PCS, PIFT and Priority Permits data are intended to measure NPDES program coverage. The data are suitable for year -to-year comparisons of officially tracked permit status.

QA/QC Procedures: The PCS database is managed by the Office of Enforcement and Compliance Assurance (OECA); PIFT and Priority Permits Database are managed by the Office of Water (OW). EPA Headquarters (HQ) staff in OECA review data submitted by states as part of the QA/QC process. In addition, OW continues to work with States and Regions to improve the quality and completeness of the data. EPA generates state-by-state reports that list PCS Akey data@ fields, including permit issuance and expiration dates, as well as compliance and enforcement data, and provides these lists to NPDES states and Regions for review and cleanup. EPA also created a spread sheet comparing latitude/longitude (lat/long) data for municipal treatment systems collected by the Clean Water Needs Survey to the lat/long data in PCS. This spread sheet is provided to States and Regions so that, where discrepancies exist between state and PCS data, EPA and States can make corrections in PCS. EPA will continue to focus on improving the lat/long data in PCS, especially at the pipe level.

Additionally, where States maintain Akey@ permit data in separate state-level systems, EPA is providing support to upload these data to PCS.

Regions enter data into the PIFT and Priority Permits database, both of which are web-based systems maintained by OW.

Data Quality Review: The Office of Inspector General (OIG) has issued several findings regarding poor PCS data quality, and PCS has been listed as an Agency-Level Weakness under the Federal Managers Financial Integrity Act since 1999. This weakness affects EPA=s ability to obtain a true picture of the status of the NPDES program. Fortunately, the permit issuance and expiration data needed for this performance measure are generally better populated than other Akey@ data elements. As noted previously, OW is offering support to States for data upload, data entry, and, if necessary, data compilation to improve data quality. The replacement of PCS with ICIS-NPDES, a modernized and user-friendly NPDES data system, is scheduled for the first wave release to EPA and some direct user states in March 2006; other states will be migrated to

the new system in additional waves (the third phase to complete all direct users is scheduled for August 2006; batch states will follow), and should greatly increase state participation and data quality.

Data Limitations: EPA is aware of data gaps in PCS, particularly for minor facilities, and is aware of discrepancies between state databases and PCS; however, EPA=s data clean-up over the past five years has significantly improved data quality. The PIFT has enabled EPA to report on non-storm water facilities covered by NPDES general permits, but the data are not as comprehensive as those tracked in PCS. In 2006, EPA is upgrading PIFT for EPA-issued permits to improve inventory tracking. There are no national-level data to track permit issuance and expiration status of facilities covered by storm water general permits; thus, they are not tracked under this performance measure. Priority Permits data are verified and reliable.

Error Estimate: We believe that the permit renewal backlog data for major facilities is accurate within 2 percent based on input from EPA=s Regional offices and states through a quarterly independent verification. For minor facilities, however, the confidence interval is less precise and probably overestimates the permit renewal backlog for minor facilities by 5 percent based on anecdotal information from EPA=s Regional offices and states.

New/Improved Data or Systems: EPA headquarters is providing contractor assistance to improve the data quality in PCS. The new modernized ICIS-NPDES will be rolled out starting in March 2006. ICIS –NPDES will be easier to use and will improve the quality of data needed to manage the NPDES program.

References:

PCS information is publicly available at:
http://www.epa.gov/compliance/planning/data/water/pcssys.htm

FY 2007 Performance Measures:

- **Loading (Pounds) of pollutants removed per program dollar expended (PART efficiency measure)**

Performance Database: This measure is calculated using a variety of methods. For point sources in industry sectors with effluent guidelines, a spread sheet is used. An average Aper facility@ pollutant reduction value is assigned to each permitted effluent discharger according to the effluent guideline developed in each industrial sector. Using both the average per facility value and the number of permits issued as reported under PCS, the spreadsheet then generates the values for the total pollutants reduced.

The above calculation is used in combination with another spread sheet[19] to summarize pollutant reductions achieved through controls at Combined Sewer Overflows (CSOs), Publicly Owned

[19] SWP Efficiency: Millions of Pounds Removed [unpublished Excel Spread Sheet]. (April, 2005). Washington, D.C.: United States Environmental Protection Agency [Office of Water].

Treatment Works (POTWs), and controls for municipal storm water and construction storm water. Industrial storm water is not included nor are reductions from water quality based effluent limits.

CSOs: CSO pollutant reductions are estimated in the 2001 and 2003 CSO Reports to Congress[20].

POTWs: Estimated reductions from POTWs were calculated using data from a detailed trend analysis for Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) loadings in "Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment[21]." The report provides flow estimates, loading estimates and a distribution of treatment class for every 2 to 4 years from 1968 through 1996. In addition, the report uses data from the Clean Watershed Needs Survey (CWNS)[22] to provide projections for 2016. EPA has also prepared a 2004 update for Chapter Two[23] of the 2000 "Progress in Water Quality."

Municipal Storm Water: Estimates from municipal storm water were derived from EPA models of the volume of storm water discharged from municipal separate storm sewer systems (MS4s) developed as part of a 1997 EPA draft report. The methodology and results of the 1997 draft report are described in AEconomic Analysis of the Final Phase II Storm Water Rule@, EPA, October 1999.[24]

Construction Storm Water: EPA developed estimates of the sediment load present in construction storm water using a model developed by the US Army Corps of Engineers. The model uses the construction site version of the Revised Universal Soil Loss Equation (RUSLE). Uncontrolled (i.e. prior to implementation of Best Management Practices (BMPs)) and controlled (i.e. after the implementation of BMPs) sediment loadings were estimated for 15 climatic regions with three site sizes (one, three, and five acres), three soil erodibility levels (low, medium, and high), three slopes (3%, 7%, and 12%), and various BMP combinations. The methodology and results are described in "Economic Analysis of the Final Phase II Storm Water Rule."

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[20] *2003 CSO Report to Congress*, August 2004, US EPA;
Available at: http://cfpub.epa.gov/npdes/cso/cpolicy_report2004.cfm

[21] *Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment* (EPA-832-R-00-008; June 2000). Available at: http://www.epa.gov/owm/wquality/benefits.htm.

[22] Clean Watershed Needs Survey 2000 [Electronic data base]. (2000). Washington, D.C. U.S. Environmental Protection Agency [Office of Wastewater Management].

[23] 2004 update of Chapter 2, "Nationwide Trends in BOD Loading Based on Population and POTW Treatment Design" of the report, *Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment.*

[24] Economic Analysis of the Final Phase II Storm Water Rule, Oct. 1, 1999, US EPA. Available at: http://www.epa.gov/npdes or http://cfpub.epa.gov/npdes/docs.cfm?program_id=6&view=allprog&sort=name

The values derived from the above methods are summed to obtain the total pollutant load reductions achieved under the surface water program.

To calculate the PART efficiency measure, the total cumulative pollutant reductions were divided by the total number of dollars devoted to the EPA Surface Water Program (SWP), grants to States under Clean Water Act (CWA) section 106, plus State 'match' dollars, annually. SWP and CWA Section 106 budget is pulled from EPA's Integrated Financial Management System (IFMS). State 'match' dollars are reported to EPA by States.

Data Sources: For industrial sector permits, each EPA Regional office reports the actual number of permits issued in the past year, typically drawn from EPA=s Permit Compliance System. For direct dischargers subject to effluent guidelines, the average per facility value for pollutant reduction is derived from the Technical Development Documents (TDDs) produced at the time of the effluent guideline (ELG) rulemaking. TDDs are available for: Pulp & Paper, Pharmaceuticals, Landfills, Industrial Waste Combustors, Centralized Waste Treatment, Transportation Equipment Cleaning, Pesticide Manufacturing, Offshore Oil & Gas, Coastal Oil & Gas, Synthetic Based Drilling Fluid, Concentrated Animal Feeding Operations, Meat and Poultry, Metal Products and Machinery, Aquaculture. Regarding PCS, States and EPA=s Regional offices enter data into the system.

CSO loadings are estimated based on data obtained from the Clean Watershed Needs Survey and from the "Report to Congress on the Impacts and Control of Combined Sewer Overflows and Sanitary Sewer Overflows." States and EPA=s Regional offices provide data for the CSO Report to Congress and the Clean Watershed Needs Survey.

Methods, Assumptions and Suitability: EPA uses the spreadsheets described above to estimate loadings. The data are aggregated across different sources to determine loading reductions at the national level. Loadings appear to be the best surrogate for determining the environmental impacts of point sources. Pollutant load reductions, along with some of the water quality improvement measures, tell the story about environmental outcomes. Pollutant reductions per dollar spent provides a snapshot of the effectiveness and efficiency of the surface water program, and comparing this over time helps to delineate a trend.

QA/QC Procedures: The loadings spreadsheets are based on information from rulemakings and policies that have undergone extensive review. The effluent guidelines follow EPA quality assurance/quality control (QA/QC) procedures. The PCS database is managed by the Office of Enforcement and Compliance Assurance (OECA). EPA Headquarters (HQ) staff in OECA review data submitted by states as part of the QA/QC process. (See full description under "current permits" measure).

Data Quality Reviews: The Office of Inspector General (OIG) has issued several findings regarding poor PCS data quality, and PCS has been listed as an Agency-Level Weakness under the Federal Managers Financial Integrity Act since 1999. This weakness affects EPA=s ability to obtain a true picture of the status of the NPDES program. Fortunately, the permit issuance and expiration data needed for this performance measure are generally better populated than other Akey@ data elements. As noted previously, OW is offering support to States for data upload,

data entry, and, if necessary, data compilation support to improve data quality. The replacement of PCS with ICIS-NPDES, a modernized and user-friendly NPDES data system, is scheduled for the first wave release to EPA and some direct user states in March 2006; other states will be migrated to the new system in additional waves (the third phase to complete all direct users is scheduled for August 2006; batch states will follow), and should greatly increase state participation and data quality.

Recently, the EPA IG issued a report on effluent guidelines.[25] The IG recommendations pointed to an inability to confirm our estimates of reductions. As part of OW's response to the IG, we point to the annual performance measures as an effective way to describe the accomplishments of the effluent guidelines program.

Data Limitations: There is inconsistent and poor data quality in the PCS data base with respect to flow and discharge monitoring, including missing data for minor facilities which has not been required to be entered. Neither monitoring nor flow data are required for certain categories of general permits. The Agency, therefore, is not able to provide sufficient information to measure loadings reductions for all of the approximately 550,000 facilities that fall under the NPDES program. The effluent guidelines loadings are estimates based the number of permits issued across an industrial sector.

Error Estimate: At this time we are unable to estimate error due to the lack of actual national level data to compare to estimates based on models.

New/Improved Data or Systems: EPA headquarters is providing contractor assistance to improve the data quality of PCS. PCS is scheduled to be replaced by ICIS-NPDES which will be easier to use and will ensure that it includes needed data to manage the NPDES program. See full write-up under the "current permits" measures.

EPA continues to evaluate and explore methods for calculating loadings reductions nation-wide from all sources.

References:

Clean Watershed Needs Survey 2000 [Electronic data base]. (2000). Washington, D.C. U.S. Environmental Protection Agency [Office of Wastewater Management].

Effluent guidelines development documents are available at:
http://www.epa.gov/waterscience/guide.

Modeling databases and software being used by the Office of Water are available at:
http://www.epa.gov/water/soft.html

PCS information is publicly available at:
http://www.epa.gov/compliance/planning/data/water/pcssys.html

[25] *Effectiveness of Effluent Guidelines Program for Reducing Pollutant Discharges Uncertain* Report No. 2004-P-00025, August 24, 2004. Available at: http://www.epa.gov/oig/reports/2004/20040824-2004-P-00025.pdf

FY 2007 Performance Measure:

- **Clean Water State Revolving Fund (CWSRF) Long-Term Revolving Level ($billions/yr)**
- **Fund utilization rate for the CWSRF.**

Performance Database: Clean Water State Revolving Fund National Information Management System (NIMS.)

Data Sources: Data are from reporting by municipal and other facility operators, state regulatory agency personnel and by EPA's regional staff. Data are collected and reported once yearly.

Methods, Assumptions and Suitability: Data entered into NIMS are the units of performance. These data are suitable for year-to-year comparison and trend indication.

QA/QC Procedures: EPA's headquarters and regional offices are responsible for compiling the data and querying states as needed to assure data validity and conformance with expected trends. States receive data entry guidance from EPA headquarters in the form of annual memoranda. A generic memorandum would be titled: "Request for Annual Update of Data for the Clean Water State Revolving Fund National Information Management System, July 1, 200X through June 30, 200X."

Data Quality Reviews: EPA's headquarters and regional offices annually review the data submitted by the states. These state data are publicly available at http://www.epa.gov/owm/cwfinance/cwsrf in individual state reports. EPA's headquarters addresses significant data variability issues directly with states or through the appropriate EPA regional office. An annual EPA headquarters' "N IMS Analysis" provides detailed data categorization and comparison. This analysis is used during annual EPA regional office and state reviews to identify potential problems which might affect the performance measure, biennial reviews by EPA's headquarters of regional oversight of state revolving funds and, annual reviews by EPA's regional offices of their states' revolving funds operations.

State data quality is also evaluated during annual audits performed by independent auditors or by the appropriate regional office of the EPA Inspector General. These audits are incorporated into EPA headquarters' financial management system.

Data Limitations: There are no known limitations in the performance data, which states submit voluntarily. Erroneous data can be introduced into the NIMS database by typographic or definitional error. Typographic errors are controlled and corrected through data testing performed by EPA's contractor. Definitional errors due to varying interpretations of information requested for specific data fields have been virtually eliminated in the past two years as a result of EPA headquarters' clarification of definitions. These definitions are publicly available at: http://www.epa.gov/owm/cwfinance/cwsrf. There is typically a lag of approximately two months from the date EPA asks states to enter their data into the NIMS database, and when the data are quality-checked and available for public use.

Error Estimate: Due to the rapid growth of this program, past estimates of annual performance (relative to a target), compared to actual performance data received two years later, have been accurate to an average of approximately plus or minus2 percentage points.

New/Improved Data or Systems: This system has been operative since 1996. It is updated annually, and data fields are changed or added as needed.

References:
State performance data as shown in NIMS are available by state at:
http://www.epa.gov/owm/cwfinance/cwsrf
Definitions of data requested for each data field in NIMS is available at:
http://www.epa.gov/owm/cwfinance/cwsrf
The Office of Water Quality Management Plan, July 2001 (approved September 28, 2001) addresses the quality of data in NIMS. Not publicly available.

FY 2007 Performance Measure:

- **Reduction in the number of homes on tribal lands lacking access to basic sanitation**

Performance Database: Sanitation Tracking and Reporting System (STARS), the Indian Health Service (IHS), Office of Environmental Health and Engineering (OEHE), Division of Sanitation Facilities Construction (DSFC).

Data Sources: The STARS includes data on sanitation deficiencies, Indian homes and construction projects. STARS is currently comprised of two sub data systems, the Sanitation Deficiency System (SDS) and the Project Data System (PDS).

The SDS is an inventory of sanitation deficiencies for existing Indian homes and communities. The IHS is required to prioritize SDS deficiencies and annually report to Congress. The identification of sanitation deficiencies can be made several ways, the most common of which follow:

- Consultation with Tribal members and other Agencies
- Field visits by engineers, sanitarians, Community Health Representatives (CHRs), nurses, or by other IHS or tribal heath staff
- Sanitary Surveys
- Community Environmental Health Profiles
- Bureau of Indian Affairs (BIA) Inventory
- Census Bureau Reports (for comparison purposes only)
- Tribal Master Plans for Development
- Telephone Surveys
- Feasibility Studies

The most reliable and preferred method is a field visit to each community to identify and obtain accurate numbers of homes with sanitation deficiencies. The number of Indian homes within the communities must be consistent among the various methods cited above. If a field visit cannot

be made, it is highly recommended that more than one method be used to determine sanitation deficiencies to increase the accuracy and establish greater credibility for the data.

The PDS is a listing of funded construction projects and is used as a management and reporting tool.

QA/QC Procedures: Quality assurance for the Indian country water quality performance measure depends on the quality of the data in the STARS. The STARS data undergoes a series of quality control reviews at various levels within the IHS DSFC. The DSFC is required to annually report deficiencies in SDS to Congress in terms of total and feasible project costs for proposed sanitation projects and sanitation deficiency levels for existing homes.

Data Quality Reviews: The SDS data initially undergoes a series of highly organized reviews by experienced tribal, IHS field, IHS district and IHS area personnel. The data are then sent to the DSFC headquarters office for review before final results are reported. The DSFC headquarters reviews the SDS data for each of the 12 IHS area offices. The data quality review consists of performing a number of established data queries and reports which check for errors and/or inconsistencies. In addition, the top 25 SDS projects and corresponding community deficiency profiles for each area are reviewed and scrutinized thoroughly. Detailed cost estimates are highly encouraged and are usually available for review.

Data Limitations: The data are limited by the accuracy of reported data in STARS.

Error Estimate: The IHS DSFC requires that higher-level projects (those with the possibility of funding prior to the next update) must be developed to allow for program implementation in an organized, effective, efficient manner. Those SDS projects (top 20%) must have cost estimates within 10% of the actual costs.

New/Improved Data or Systems: The STARS is a web based application and therefore allows data to be continuously updated by personnel at various levels and modified as program requirements are identified. PDS has been modified to meet 40CFR31.40 reporting requirements. In 2006 STARS is being modified to include rural communities that are not Alaska Native Villages but has a substantial Alaska Native population.

References:

1. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Criteria for the Sanitation Facilities Construction Program, June 1999, Version 1.02, 3/13/2003. http://www.dsfc.ihs.gov/Documents/Criteria_March_2003.cfm

2. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Sanitation Deficiency System (SDS), Working Draft, "Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities", May 2003. http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf

FY 2007 Performance Measures:

- **Prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters nationally, and in each coastal region, is improved on the "good/fair/poor" scale of the National Coastal Condition Report**

Performance Database: EMAP/NCA [Environmental Monitoring and Assessment Program/National Coastal Assessment] database (housed EPA/ORD/NHEERL/AED, Narragansett, RI)(Environmental Protection Agency/Office of Research and Development/National Health and Environmental Effects Research Laboratory/Gulf Ecology Division); pre-database information housed in ORD/NHEERL facility in Gulf Breeze, FL (Gulf Ecology Division) (pre-database refers to a temporary storage site for data where they are examined for QA purposes, have appropriate metadata attached and undergo initial statistical analyses); data upon QA acceptance and metadata completion are transferred to EMAP/NCA database and are web available at www.epa.gov/emap/nca.

Data Source: Probabilistic surveys of ecological condition completed throughout the Mid-Atlantic and Gulf of Mexico by EPA's Office of Research and Development (ORD) in 1991-1994, in southern Florida in 1995, in the Southeast in 1995-1997, in the Mid-Atlantic in 1997-1998, in each coastal state in 2000-2004 (except Alaska and Hawaii), in Alaska in 2002 and 2004, in Hawaii in 2002 and 2004, and in Puerto Rico in 2000 and 2004, and in other island territories (Guam, American Samoa and U.S. Virgin Islands) in 2004. Surveys collect condition information regarding water quality, sediment quality and biotic condition at 70-100 sites/region (e.g., mid-Atlantic) each year of collection prior to 1999 and at 35-150 sites in each state or territory/year (site number dependent upon state) after 1999. Additional sampling by the National Estuary Program (NEP) included all individual national estuaries; the total number of sites within NEP boundaries was 30 for the two-year period 2000-2003.

These data are collected through a joint EPA-State cooperative agreement and the States follow a rigid sampling and collection protocol following intensive training by EPA personnel. Laboratory processing is completed at either a state laboratory or through a national EPA contract. Data collection follows a Quality Assurance Project Plan (QAPP) (either the National Coastal QAPP or a variant of it) and QA testing and auditing by EPA.

Methods, Assumptions and Suitability: The surveys are conducted using a probabilistic survey design which allows extrapolation of results to the target population (in this case - all estuarine resources of the specific state.) The collection design maximizes the spatial spread between sites, located by specific latitude-longitude combinations. The survey utilizes an indexed sampling period (generally late summer) to increase the probability of encountering water quality, sediment quality and biotic condition problems, if they exist. Based on the QAPP and field collection manual, a site in a specific state is located by sampling vessel via Global Positioning System (GPS) and water quality is measured on board at multiple depths. Water samples are taken for chemistry; sediment samples are taken for chemistry, toxicity testing and benthic community assessment; and fish trawls are conducted to collect community fish data and provide selected fish (target species) for analysis of whole body and/or fillet contaminant concentrations. Samples are stored in accordance with field manual instructions and shipped to

the processing laboratory. Laboratories follow QA plans and complete analyses and provide electronic information to the state or EPA. EPA and the state exchange data to ensure that each has a complete set. EPA analyzes the data to assess regional conditions, whereas the states analyze the data to assess conditions of state-specific waters. Results of analyses on a national and regional basis are reported as chapters in the National Coastal Condition Report (NCCR) series. The overall regional condition index is the simple mean of the five indicators' scores used in the Coastal Condition Report (in the NCCR2 a recalculation method was provided for direct comparison of the successive reports). An improvement for one of the indicators by a full category unit over the eight year period will be necessary for the regional estimate to meet the performance measurement goal (+0.2 over an eight year period).

Assumptions: (1) The underlying target population (estuarine resources of the United States) has been correctly identified; (2) GPS is successful; (3) QAPP and field collection manuals are followed; (4) all samples are successfully collected; (5) all analyses are completed in accordance with the QAPP; and (6) all combinations of data into indices are completed in a statistically rigorous manner.

Suitability: By design all data are suitable to be aggregated to the state and regional level to characterize water quality, sediment quality, and biotic condition. Samples represent "reasonable", site-specific point-in-time data (not primary intention of data use) and an excellent representation of the entire resource (extrapolation to entire resource supportable). The intended use of the data is the characterization of populations and subpopulations of estuarine resources through time. The data meet this expectation and the sampling, response, analysis and reporting designs have been peer reviewed successfully multiple times. The data are suitable for individual calendar year characterization of condition, comparison of condition across years, and assessment of long-term trends once sufficient data are collected (7-10 years). Data are suitable for use in National Coastal Condition calculations for the United States and its regions to provide performance measurement information. The first long-term trends analysis will appear in the 2006 NCCR representing trends between 1990-2004.

QA/QC Procedures: The sampling collection and analysis of samples are controlled by a Quality Assurance Project Plan (QAPP) [EPA 2001] and the National Coastal Assessment Information Management Plan (IMP)[EPA 2001]. These plans are followed by all twenty-three coastal states and 5 island territories. Adherence to the plans are determined by field training (conducted by EPA ORD), field audits (conducted by EPA/ORD), round robin testing of chemistry laboratories (conducted by EPA/ORD), overall systems audits of state programs and national laboratory practices (conducted by EPA), sample splits (sent to reference laboratories), blind samples (using reference materials) and overall information systems audits (conducted by EPA/ORD). Batch sample processing for laboratory analyses requires the inclusion of QA samples in each batch. All states are subject to audits at least once every two years. All participants received training in year 2000 and retraining sessions are scheduled every two years.

Data Quality Reviews: Data quality reviews have been completed in-house by EPA ORD at the regional and national level in 2000-2003 (National Coastal Assessment 2000-2003) and by the Office of Environmental Information (OEI) in 2003 (assessment completed in June, 2003 and written report not yet available; oral debriefing revealed no deficiencies). No deficiencies were

found in the program. A national laboratory used in the program (University of Connecticut) for nutrient chemistry, sediment chemistry and fish tissue chemistry is being evaluated by the Inspector General's Office for potential falsification of laboratory results in connection with other programs not related to NCA. The NCA has conducted its own audit assessment and only one incorrect use of a chemical digestion method for inorganic chemistry samples (metals) was found. This error was corrected and all samples "digested" incorrectly were reanalyzed at no cost.

Data Limitations: Data limitations are few. Because the data are collected in a manner to permit calculation of uncertainty and designed to meet a specific Data Quality Objective (DQO) (<10% error in spatial calculation for each annual state estimate), the results at the regional level (appropriate for this performance measure) are within about 2- 4% of true values dependent upon the specific sample type. Other limitations as follows: (a) Even though methodology errors are minimized by audits, in the first year of the NCA program (2000) some errors occurred resulting in loss of some data. These problems were corrected in 2001 and no problems have been observed since. (b) In some instances, (<5%) of sample results, QA investigation found irregularities regarding the precision of measurement (e.g., mortality toxicity testing of controls exceeded detection limit, etc.). In these cases, the data were "flagged" so that users are aware of the potential limitations. (c) Because of the sampling/ analysis design, the loss of data at a small scale (~ 10%) does not result in a significant increase in uncertainty in the estimate of condition. Wholesale data losses of multiple indicators throughout the U.S. coastal states and territories would be necessary to invalidate the performance measure. (d) The only major source of external variability is year-to-year climatic variation (drought vs. wet, major climatic event, etc.) and the only source of internal variation is modification of reporting indicators (e.g., new indices, not a change in data collected and analyzed). This internal reporting modification requires a re-analysis of earlier information to permit direct comparison. (e) There is generally a 2-3 year lag from the time of collection until reporting. Sample analysis generally takes one year and data analysis another. Add another year for report production and peer review. (f) Data collections are completed annually; The EPA/ORD data collection collaboration will continue through 2004. After 2004, ORD will assist OW, as requested, with expert advice, but will no longer support the program financially.

Error Estimate: The estimate of condition (upon which the performance measure is determined) has an annual uncertainty rate of about 2-3% for national condition, about 5-7% for individual regional indicators (composite of all five states data into a regional estimate), and about 9-10% for individual state indicators. These condition estimates are determined from the survey data using cumulative distribution functions and the uncertainty estimates are calculated using the Horvitz-Thompson estimator.

New/Improved Data or Systems:

(1) Changes have occurred in the data underlying the performance measure based on scientific review and development. A change in some reporting indicators has occurred in order to more accurately represent the intended ecological process or function. For example, a new eutrophication index was determined for the 2000 data. In order to compare this new index to the 1991-1994 data, the earlier data results must be

recomputed using the new technique. This recalculation is possible because the underlying data collection procedures have not changed.

(2) New national contract laboratories have been added every year based on competition. QA requirements are met by the new facilities and rigorous testing at these facilities is completed before sample analysis is initiated. QA adherence and cross-laboratory sample analysis has minimized data variability resulting from new laboratories entering the program.

(3) The only reason for the discontinuation of the National performance goal would be the elimination of the surveys after 2004 or any other year thereafter.

In order to continue to utilize the 2001 National Coastal Condition report as the baseline for this performance measure, the original scores reported in 2001 have been re-calculated in the 2004 report using the index modifications described above (#1). These "new" results for the baseline (re-calculated scores) are reported in Appendix C of the 2005 report.

References:

1. Environmental Monitoring and Assessment Database (1990-1998) and National Coastal Assessment Database (2000- 2004) websites: www.epa.gov/emap and www.epa.gov/emap/nca (NCA data for 2000 is only data available at present)
2. National Coastal Assessment. 2000-2003. Various internal memoranda regarding results of QA audits. (Available through John Macauley, National QA Coordinator NCA, USEPA, ORD/NHEERL/GED, 1 Sabine Island, Gulf Breeze, FL 32561)
3. National Coastal Assessment. 2001. Quality Assurance Project Plan. EPA/620/R-01/002.(Available through John Macauley above)
4. National Coastal Assessment. 2001. Information Management Plan. EPA/620/R-01/003 (Available through Stephen Hale, NCA IM Coordinator, ORD/NHEERL/AED, 27 Tarzwell Drive, Narragansett, RI)
5. U.S. Environmental Protection Agency. 2001. National Coastal Condition Report. EPA-620/R- 01/005.
6. U.S. Environmental Protection Agency. 2004. National Coastal Condition Report II. In review Assigned Report Number EPA-620/R-03/002.

GOAL 2 OBJECTIVE 3

FY 2007 Performance Measure:

- **Report on the conditions and seasonal trends of water quality in the Gulf of Mexico hypoxic zone**

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

FY 2007 Performance Measure:

- **Percentage of planned outputs delivered in support of Six Year Review decisions (PART Measure)**

- **Percentage of planned outputs delivered in support of Contaminated Candidate List decisions (PART Measure)**

Performance Database: EPA will track these program outputs annually using an internal data base.

Data Source: The source of data will be a contractor-produced client document analysis, detailing client use of the Drinking Water Research Program's products by the EPA's Office of Water.

Methods, Assumptions and Suitability: The primary indicator of output, or productivity, is calculation of the percentage of ORD-developed products by research theme appearing in client produced (or secondary client-produced) documents, website content, formal communications, regulations, rules, decisions, recommendations, and other tangible evidence over a five year period, as identified through content analysis.

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:

Bibliography of EPA's Drinking Water Research Program, product publication list. Calendar years 2000-2004.

GOAL 3 OBJECTIVE 1

FY 2007 Performance Measures:

- **Daily per capita generation**
- **Millions of tons municipal solid waste diverted**

Performance Database: Data are provided by the Department of Commerce. EPA does not maintain a database for this information.

Data Source: The baseline numbers for municipal solid waste (MSW) source reduction and recycling are developed using a materials flow methodology employing data largely from the Department of Commerce and described in the EPA report titled "Characterization of Municipal Solid Waste in the United States." The Department of Commerce collects materials production and consumption data from various industries.

Methods, Assumptions and Suitability: Data on domestic production of materials and products are compiled using published data series. U.S. Department of Commerce sources are used, where available; but in several instances more detailed information on production of goods by end-use is available from trade associations. The goal is to obtain a consistent historical data series for each product and/or material. Data on average product lifetimes are used to adjust the data series. These estimates and calculations result in material-by-material and product-by-product estimates of MSW generation, recovery, and discards. To strategically support attainment of the 35% recycling goal, EPA has identified specific components of the MSW stream on which to focus: paper and paperboard, organics (yard and food waste), and packaging and containers. For these targeted efforts EPA will examine data on these waste components.

There are various assumptions factored into the analysis to develop estimates of MSW generation, recovery and discards. Example assumptions (from pages 141-142 of year 2000 "Characterization Report") include: Textiles used as rags are assumed to enter the waste stream the same year the textiles are discarded. Some products (e.g., newspapers and packaging) normally have short lifetimes and products are assumed to be discarded in the year they are produced.

QA/QC Procedures: Quality assurance and quality control are provided by the Department of Commerce's internal procedures and systems. The report prepared by the Agency, "Characterization of Municipal Solid Waste in the United States," is reviewed by a number of experts for accuracy and soundness.

Data Quality Review: The report, including the baseline numbers and annual rates of recycling and per capita municipal solid waste generation, is widely accepted among experts.

Data Limitations: Data limitations stem from the fact that the baseline statistics and annual rates of recycling and per capita municipal solid waste generation are based on a series of models, assumptions, and extrapolations and, as such, are not an empirical accounting of municipal solid waste generated or recycled.

Error Estimate: N/A. Currently, the Office of Solid Waste (OSW) does not collect data on estimated error rates.

New/Improved Data or Systems: Because the statistics on MSW generation and recycling are widely reported and accepted by experts, no new efforts to improve the data or the methodology have been identified or are necessary.

References: U.S. EPA, Office of Solid Waste and Emergency Response, "*Municipal Solid Waste in the United States: 2003 Facts and Figures*" Washington, DC: EPA, Accessed January 10, 2006. Available only on the internet at: <http://www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm>

FY 2007 Performance Measure:

- **Annual increase in the percentage of facilities with permits or other approved controls**
- **Update controls for preventing releases at facilities that are due for permit renewals**
- **Percentage of MSW produced that is recycled**

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program.

Data Source: Data are entered by the states. Supporting documentation and reference materials are maintained in Regional and state files. EPA's Regional offices and authorized states enter data on a rolling basis.

Methods, Assumptions and Suitability: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. RCRAInfo has several different modules, including status of RCRA facilities in the RCRA permitting universe.

QA/QC Procedures: States and EPA's Regional offices generate the data and manage data quality related to timeliness and accuracy. Within RCRAInfo, the application software contains structural controls that promote the correct entry of the high-priority national components (but does not prevent all user errors). RCRAInfo documentation, which is available to all users on-line at http://www.epa.gov/rcrainfo/, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided at national meetings, usually annually, depending on the nature of system changes and user needs. Even with the increasing

emphasis on data quality, with roughly 10,000 units in the baseline (e.g., a facility can have more than one unit), we hear of data problems with some facilities every year, particularly with the older inactive facilities. When we hear of these issues, we work with the EPA Regional offices to see that they get resolved. It may be necessary to make a few adjustments to the permitting baseline as data issues are identified. Determination of whether or not the GPRA annual goal #1 (listed above) is met is based on the legal and operating status codes for each unit. Each year since 1999, in discussions with Regional offices and states, EPA has highlighted the need to keep the data that support the GPRA permitting goal current. RCRAInfo is the sole repository for this information and is a focal point for planning from the local to national level. Accomplishments for goal # 2 (listed above) is based on the permit expiration date code. This is a new code for the new goal and we have made changes to the database to make this code a high priority code. We have discussed the need for correct entry with the Regions. Since tracking this information is new, we anticipate that we will have to work out some reporting bugs, review the accuracy of tracking when it begins in October 1, 2005, and make adjustments if necessary.

Note: Access to RCRAInfo is open only to EPA Headquarters, Regional, and authorized state personnel. It is not available to the general public because the system contains enforcement sensitive data. The general public is referred to EPA's Envirofacts Data Warehouse to obtain filtered information on RCRA-regulated hazardous waste sites.

Data Quality Review: The 1995 GAO report *Hazardous Waste: Benefits of EPA's Information System Are Limited* (AIMD-95-167, August 22, 1995, http://www.gao.gov/archive/1995/ai95167.pdf) on EPA's Hazardous Waste Information System reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs. Recommendations coincide with ongoing internal efforts to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states. RCRAInfo, the current national database has evolved in part as a response to this report.

Data Limitations: The authorized states have ownership of their data and EPA has to rely on them to make changes. The data that determine if a facility has met its permit requirements are prioritized in update efforts. Basic site identification data may become out-of-date because RCRA does not mandate annual or other periodic notification by the regulated entity when site name, ownership and contact information changes. Nevertheless, EPA tracks the facilities by their IDs and those should not change even during ownership changes. The baselines are composed of facilities that can have multiple units. These units may consolidate, split or undergo other activities that cause the number of units to change. We aim to have static baselines, but there may be occasions where we would need to make minor baseline modifications. The baseline of facilities that are currently tracked for goal #2 are "due for permit renewals," but we anticipate that there will be some facilities that cease to be "due for permit renewals" due to a change in facility status.

Error Estimate: N/A. Currently OSW does not collect data on estimated error rates.

New/Improved Data or Systems: EPA has successfully implemented new tools in RCRAInfo for managing environmental information to support Federal and state programs, particularly for

permit renewals. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste by large quantity generators and on waste management practices from treatment, storage, and disposal facilities. RCRAInfo is web accessible, providing a convenient user interface for Federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

References: RCRAInfo documentation and data (http://www.epa.gov/rcrainfo/). U.S. GAO, "Hazardous Waste: Benefits of EPA's Information System Are Limited" (AIMD-95-167), Washington, DC: GAO, August 22, 1995. Accessed January 18, 2006. Available on the Internet at <http://www.gao.gov/archive/1995/ai95167.pdf

FY 2007 Performance Measure:

- **Number of confirmed releases at UST facilities nationally**
- **Percent increase of UST facilities that are in significant operational compliance with both release detection and release prevention (Spill, overfill, and corrosion protection requirements)**

Performance Database: The Office of Underground Storage Tanks (OUST) does not maintain a national database. States individually maintain records for reporting state program accomplishments.

Data Source: Designated State agencies submit semi-annual progress reports to the EPA regional offices.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: EPA's regional offices verify and then forward the data in a word processing table to OUST. OUST staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in a word processing table on a region-by-region basis, which is a way regional staff can check their data.

Data Quality Review: None.

Data Limitations: Percentages reported are sometimes based on estimates and extrapolations from sample data. Data quality depends on the accuracy and completeness of state records.

Error Estimate: N/A

New/Improved Data or Systems: None.

References: U.S. EPA Memorandum, *FY 2005 End-of-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division

Directors, Regions 1-10, dated December 15, 2005. Accessed January 18, 2006. <http://www.epa.gov/swerust1/cat/ca_05_34.pdf>

GOAL 3 OBJECTIVE 2

FY 2007 Performance Measures:

- **Number of inspections and exercises conducted at oil storage facilities required to have Facility Response Plans**
- **Oil spills responded to or monitored by EPA**
- **Gallons of oil spilled to navigable waters by facilities subject to the Facility Response Plan (FRP) regulations.**
- **Compliance rate of all facilities subject to Facility Response Plan (FRP) regulations.**
- **Compliance rate of inspected facilities subject to Facility Response Plan (FRP) regulations.**
- **Compliance rate of inspected facilities subject to SPCC regulations.**
- **Gallons of oil spilled to navigable waters per million program dollars spent annually on prevention and preparedness at Facility Response Plan (FRP) facilities.**

Performance Database: The Office of Emergency Management has recently gone through a reorganization bringing together the chemical and oil emergency prevention, preparedness, and response programs of the Agency. Additionally, the Oil Program has just undergone a PART review. Therefore, a new reporting system is under development to take into account the recent reorganization as well as the resulting annual and long-term measures developed through the PART review. This system will store oil spill prevention, emergency preparedness and response information (e.g., compliance and oil spill information).

Data Source: a new system pending. This new system will have several components. "Gallons of oil spilled" will be determined from the National Response Center database complemented by other sources of data on oil spills. OEM is completing a national database of FRP facilities that will serve as the basis for reporting on measures related to the FRP regulation. In addition, each Region will gather and submit data through a common reporting mechanism available to HQ and all Regions.

Methods, Assumptions and Suitability: Pending new database.

QA/QC Procedures: Pending new database.

Data Quality Reviews: Pending new database.

Data Limitations: Pending new database.

Error Estimate: Pending new database.

New/Improved Data or Systems: N/A

References: For additional information on the Oil program, see www.epa.gov/oilspill

FY 2007 Performance Measures:

- **Percentage of emergency response readiness improvement**

Performance Database: No specific database has been developed. Data from evaluations from each of the 10 Regions are tabulated and stored using standard software (WordPerfect, spreadsheets, etc.).

Data Source: Data are collected through detailed surveys of all Regional programs, and interviews with personnel and managers in each program office. The score represents a composite based upon data from each unique Regional and headquarters organization. Annual increments represent annual improvements. The survey instrument was developed based upon Core Emergency Response (ER) elements, and has been approved by EPA Headquarters and Regional managers. Core ER elements cover all aspects of the Core ER program, including Regional Response Centers, transportation, coordination with backup Regions, health and safety, delegation and warrant authorities, response readiness, response equipment, identification clothing, training and exercises, and outreach.

While EPA is currently prepared to respond to chemical, biological, and radiological incidents, improvement in the emergency response and homeland security readiness measure will demonstrate an increased ability to respond quickly and effectively to national-scale events. The FY 2007 Core ER target is to improve emergency response and homeland security readiness by 10% from the FY 2006 baseline performance.

Methods, Assumptions and Suitability: The Core ER elements were developed over the last several years by the EPA Removal Program to identify and clarify what is needed to ensure an excellent emergency response program. The elements, definitions, and rationales were developed by staff and managers and have been presented to the Administrator and other high level Agency managers. Based on the Core ER standards, evaluation forms and criteria were established for EPA's Regional programs, the Environmental Response Team (ERT), and Headquarters. These evaluation criteria identify what data need to be collected, and how that data translate into an appropriate score for each Core ER element. The elements and evaluation criteria will be reviewed each year for relevance to ensure that the programs have the highest standards of excellence and that the measurement clearly reflects the level of readiness. The data are collected from each Regional office, ERT, and Headquarters using a systematic, objective process. Each evaluation team consists of managers and staff, from Headquarters and from another EPA Regional office, with some portion of the team involved in all reviews for consistency and some portion varying to ensure independence and objectivity. For instance, a team evaluating Region A might include some or all of the following: a staff person from Headquarters who is participating in all reviews, a staff person from Headquarters who is very familiar with Region A activities, a manager from Headquarters, and a staff person and/or manager from Region B. One staff or group will be responsible for gathering and analyzing all

the data to determine the overall score for each Regional office, ERT, and Headquarters, and for determining an overall National score.

QA/QC Procedures: See "Methods, Assumptions and Suitability"

Data Quality Review: The evaluation team will review the data (see Methods, Assumptions and Suitability) during the data collection and analysis process. Additional data review will be conducted after the data has been analyzed to ensure that the scores are consistent with the data and program information. There currently is no specific database that has been developed to collect, store, and manage the data.

Data Limitations: One key limitation of the data is the lack of a dedicated database system to collect and manage the data. Standard software packages (word processing, spreadsheets) are used to develop the evaluation criteria, collect the data, and develop the accompanying readiness scores. There is also the possibility of subjective interpretation of data.

Error Estimate: It is likely that the error estimate for this measure will be small for the following reasons: the standards and evaluation criteria have been developed and reviewed extensively by Headquarters and EPA's Regional managers and staff; the data will be collected by a combination of managers and staff to provide consistency across all reviews plus an important element of objectivity in each review; the scores will be developed by a team looking across all ten Regions, ERT, and Headquarters; and only twelve sets of data will be collected, allowing for easier cross-checking and ensuring better consistency of data analysis and identification of data quality gaps.

New/Improved Data or Systems: There are no current plans to develop a dedicated system to manage the data.

References: FY 2004/2005 Superfund Program Implementation Manual (SPIM), http://www.epa.gov/superfund/action/process/pdfs/appdxb3p1.pdf.

FY 2007 Performance Measures:

- **Number of Superfund hazardous waste sites with human exposures controlled**
- **Number of Superfund hazardous waste sites with groundwater migration controlled**
- **Federal Facility Superfund sites with human exposures controlled (PART measure)**
- **Federal Facility Superfund sites with contaminated groundwater controlled (PART measure)**
- **Number of final remedies (cleanup targets) selected at Superfund sites (PART measure)**
- **Number of Superfund final assessment decisions (PART measure)**
- **Number of Superfund construction completions (PART measure)**
- **Number of Federal Facility Superfund sites where all remedies have completed construction (PART measure)**
- **Number of Federal Facility Superfund sites where the final remedial decision for contaminants at the site has been determined (PART measure)**

- **Voluntary removal actions overseen by EPA and completed annually (PART measure)**
- **Superfund-lead removal actions completed annually (PART measure)**

Performance Database: The Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS) is the database used by the Agency to track, store, and report Superfund site information.

Data Source: CERCLIS is an automated EPA system; headquarters and EPA's Regional offices enter data into CERCLIS on a rolling basis.

Methods, Assumptions and Suitability: Each performance measure is a specific variable within CERCLIS.

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as Regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) Regional CERCLIS Data Entry Internal Control Plan, which includes: (a) regional policies and procedures for entering data into CERCLIS; (b) a review process to ensure that all Superfund accomplishments are supported by source documentation; (c) delegation of authorities for approval of data input into CERCLIS; and (d) procedures to ensure that reported accomplishments meet accomplishment definitions; and (6) a historical lockout feature has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report. Specific direction for these controls are contained in the Superfund Program Implementation Manual (SPIM) Fiscal Year 2006/2007 (SPIM. U.S. EPA, Superfund. "Superfund Program Implementation Manual (SPIM Fiscal Year 2006/2007." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/superfund/action/process/spim06.htm>)

CERCLIS operation and further development is taking place under the following administrative control quality assurance procedures: 1) Office of Environmental Information Interim Agency Life Cycle Management Policy Agency Directive 2100.4. U.S. EPA, Office of Technology Operations and Planning. "OEI Information Management and Information Technology Policies." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://cfint.rtpnc.epa.gov/otop/policies/infoman.cfm>; U.S. EPA, Office of Technology Operations and Planning. "OEI Information Management and Information Technology Policies, Interim Agency Systems Life Cycle Management Policy, Agency Directive 2100.4." Washington, DC: EPA. Accessed January 10, 2006. Available on the Intranet at: <http://intranet.epa.gov/repolicy/ads/orders/2100_4.pdf>; 2) the Office of Solid Waste and Emergency Response (OSWER) Quality Management Plan. U.S. EPA, Office of Solid Waste and Emergency Response. "OSWER Quality Management Plan." Washington, DC: EPA. August 2003. Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf>; 3) Agency platform, software and hardware

standards. U.S. EPA, Office of Technology Operations and Planning. "Information Technology Roadmap." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://basin.rtpnc.epa.gov/ntsd/itroadmap.nsf>; 4) Quality Assurance Requirements in all contract vehicles under which CERCLIS is being developed and maintained. U.S. EPA, Environmental Protection Agency. "EPA's Information Quality Guidelines (IQG)." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/quality/informationguidelines>; and 5) Agency security procedures. U.S. EPA, Office of Technology Operations and Planning. "IT Security IT Roadmap." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://basin.rtpnc.epa.gov/ntsd/ITRoadMap.nsf/Security?OpenView> In addition, specific controls are in place for system design, data conversion and data capture, and CERCLIS outputs.

Data Quality Reviews: Two audits, one by the Office Inspector General (OIG) and the other by Government Accountability Office (GAO), were conducted to assess the validity of the data in CERCLIS. The OIG audit report, *Superfund Construction Completion Reporting* (No. E1SGF7_05_0102_ 8100030), dated December 30, 1997, was prepared to verify the accuracy of the information that the Agency was providing to Congress and the public. The OIG report concluded that the Agency "has good management controls to ensure accuracy of the information that is reported," and "Congress and the public can rely upon the information EPA provides regarding construction completions." The GAO's report, *Superfund: Information on the Status of Sites* (GAO/RCED-98-241), dated August 28, 1998, was prepared to verify the accuracy of the information in CERCLIS on sites' cleanup progress. The report estimates that the cleanup status of National Priority List (NPL) sites reported by CERCLIS as of September 30, 1997, is accurate for 95 percent of the sites. U.S. General Accounting Office. "Superfund Information on the Status of Sites." Washington, DC: GAO. August 1998. Accessed January 10, 2006. Available on the Internet at: <http://www.gao.gov/archive/1998/rc98241.pdf>. Another OIG audit, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002, evaluated the accuracy, completeness, timeliness, and consistency of the data entered into CERCLIS. The report provided 11 recommendations to improve controls for CERCLIS data quality. EPA concurs with the recommendations contained in the audit, and many of the identified problems have been corrected or long-term actions that would address these recommendations continue to be underway. U.S. Office of Inspector General. "Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality." Washington, DC: OIG. September 2002. Accessed January 10, 2006. Available on the Internet at: . <http://www.epa.gov/oig/reports/2002/cerlcis.pdf>

The IG reviews annually the end-of-year Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) data, in an informal process, to verify the data supporting the performance measures. Typically, there are no published results.

The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (OSWER) was signed in August 2003. U.S. EPA, Office of Solid Waste and Emergency Response. "OSWER Quality Management Plan." Washington, DC: EPA. August 2003.

Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf>

Data Limitations: Weaknesses were identified in the OIG audit, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002. The Agency disagrees with the study design and report conclusions; however, the report provided 11 recommendations with which EPA concurs. Many of the identified problems have been corrected or long-term actions that would address these recommendations continue to be underway, e.g., 1) FY 02/03 SPIM Chapter 2 update was made to better define the Headquarters' and Regional roles and responsibilities for maintaining planning and accomplishment data in CERCLIS; 2) FY 04/05 SPIM Appendix A, Section A.A.5 'Site Status Indicators' added language to clarify the use of the non-NPL status code of "SX"; 3) FY 04/05 SPIM Appendix A, Section A.A.6 'Data Quality' added a section on data quality which includes a list of relevant reports; 4) FY 04/05 SPIM Appendix E, Section E.A.5 "Data Owners/Sponsorship' was revised to reflect what data quality checks (focus data studies) will be done by designated Regional and headquarters staff; 5) A data quality objectives supplement for GPRA measures was added in Change 6 to this SPIM. For changes regarding this OIG audit, see the Change Log for this SPIM. U.S. EPA. Superfund. "Change Log 7." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: <http://www.epa.gov/superfund/action/process/pdfs/changelog7.pdf>; 6) Draft guidance from OCA (Other Cleanup Activity) subgroup, which outlines the conditions under which sites are taken back from states when states have the lead but are not performing; and 7) Pre-CERCLIS Screening: A Data Entry Guide, which provides guidance to the regions for preventing entry of duplicate sites in CERCLIS. The development and implementation of a quality assurance process for CERCLIS data has begun. This process includes delineating quality assurance responsibilities in the program office and periodically selecting random samples of CERCLIS data points to check against source documents in site files.

Error Estimate: The GAO's report, *Superfund: Information on the Status of Sites* (GAO/RECD-98-241), dated August 28, 1998, estimates that the cleanup status of National Priority List sites reported by CERCLIS is accurate for 95 percent of the sites. The OIG report, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002, states that over 40 percent of CERCLIS data on site actions reviewed was inaccurate or not adequately supported. Although the 11 recommendations were helpful and will improve controls over CERCLIS data, the Agency disagrees and strongly objects to the study design and report conclusions, stating they do not focus on the program's data quality hierarchy and the importance it places on NPL sites.

New/Improved Data or Systems: A CERCLIS modernization effort, initiated in 2002, has been completed. As a result of the modernization effort, CERCLIS now has standards for data quality. Each EPA Region's CERCLIS Data Entry Control Plan, which identifies policies and procedures for data entry, is reviewed annually. Data quality audit fields have been added to CERCLIS. EPA Headquarters has begun to create and share with the Regions data quality audit reports. These reports document data quality for timeliness, completeness, and accuracy as

determined by the Superfund data sponsors to encourage and ensure high data quality. The modernization effort has increased the availability of CERCLIS data via Superfund eFacts, a Superfund data mart which serves program managers in Headquarters and the Regions. In FY 2007, the program will continue its effort to improve its management of the program through the increased availability of timely and accurate technical information to Superfund's managers. In 2007, the Agency will work to increase utilization of CERCLIS data by incorporating additional remedy selection, risk, removal response, and community involvement data into CERCLIS.

The Business Process Reevaluation task in the modernization project has provided CERCLIS managers with a first step in an implementation evaluation. The document, which resulted from the evaluation, is being used as a valuable resource for scoping the future redesign of CERCLIS as well as the realignment of the database that will remove unnecessary data and add the new data fields that are necessary to manage the Superfund program today. The redesign is mandated to bring CERCLIS into the Agency's Enterprise Architecture. As part of OSRTI's effort to bring CERCLIS into the Agency's Enterprise Architecture all Regional databases have been moved to the National Computing Center in RTP. This is the first step in folding the Headquarters and Regional databases into one database. This move of the databases to RTP is being done without changing the application, by using a commercial off the shelf (COTS) software program to enable the Regional data entry staff to input data over the Agency's Wide Area Network. The initial step of moving the databases to RTP and moving all users to the COTS software has been completed. The move to a single database will be completed during FY 2006 and implemented in FY 2007. The Superfund Document Management System (SDMS) will be linked to CERCLIS. This linkage will enable users to easily transition between the programmatic accomplishments reporting to the actual document that defines and describes the accomplishment reported in CERCLIS. The effort to link SDMS and CERCLIS and to consolidate the systems will lead to common reporting (same events and data) in CERCLIS and SDMS. This will be done by electronically extracting data from the documents in SDMS to fill the data fields in CERCLIS - eliminating the manual data entry/human error impacts.

References: OIG audit *Superfund Construction Completion Reporting*, (No. E1SGF7_05_0102_8100030) and *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality*, (No. 2002-P-00016). U.S. Office of Inspector General. "Information Technology: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality." Washington, DC: OIG. September 2002. Accessed January 10, 2006. Available on the Internet at: http://www.epa.gov/oig/reports/2002/cerlcis.pdf); and the GAO report, *Superfund Information on the Status of Sites* (GAO/RCED-98-241). U.S. General Accounting Office. "Superfund Information on the Status of Sites." Washington, DC: GAO. August 1998. Accessed January 10, 2006. Available on the Internet at: http://www.gao.gov/archive/1998/rc98241.pdf). The Superfund Program Implementation Manuals for the fiscal years 1987 to the current manual. U.S. EPA, Superfund. "Policies and Guidances." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: http://www.epa.gov/superfund/action/guidance/index.htm. The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (August 2003). U.S. EPA, Office of Solid Waste and Emergency Response. "OSWER Quality Management Plan." Washington, DC: EPA. August 2003. Accessed January 10, 2006. Available on the Internet at:

http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf). Office of Environmental Information Interim Agency Life Cycle Management Policy Agency Directive 2100.4. U.S. EPA, Office of Technology Operations and Planning. "OEI Information Management and Information Technology Policies." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: http://cfint.rtpnc.epa.gov/otop/policies/infoman.cfm and U.S. EPA, Office of Technology Operations and Planning. "OEI Information Management and Information Technology Policies, Interim Agency Systems Life Cycle Management Policy, Agency Directive 2100.4." Washington, DC: EPA. Accessed January 10, 2006. Available on the Intranet at: http://intranet.epa.gov/repolicy/ads/orders/2100_4.pdf. EPA platform, software and hardware standards. U.S. EPA, Office of Technology Operations and Planning. "Information Technology Roadmap." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: http://basin.rtpnc.epa.gov/ntsd/itroadmap.nsf. Quality Assurance Requirements in all contract vehicles under which CERCLIS are being developed and maintained (http://www.epa.gov/quality/informationguidelines). EPA security procedures. U.S. EPA, Office of Technology Operations and Planning. "IT Security IT Roadmap." Washington, DC: EPA. Accessed January 10, 2006. Available on the Internet at: http://basin.rtpnc.epa.gov/ntsd/ITRoadMap.nsf/Security?OpenView

FY 2007 Performance Measure:

- **Percentage of Superfund spending that is obligated to individual sites each year (PART measure)**

- **Annual Program dollars obligated per operable unit completing cleanup activities (PART measure)**

- **Superfund-lead removal actions completed annually per million dollars (PART measure)**

Performance Database: Integrated Financial Management System (IFMS) is EPA's financial management system and the official system of record for budget and financial data.

Data Source: IFMS contains records of all financial transactions (e.g., personnel, contracts, grants, other) of Superfund appropriation resources, as distinguished by U.S. Treasury schedule codes. Procurement data are entered manually into IFMS by Funds Control Officers throughout the Agency. Site-specific obligations are distinguished through the Site/Project field of the IFMS account number that is assigned to every financial transaction.

Methods, Assumptions and Suitability: Total annual obligations include current and prior year appropriated resources, excluding Office of Inspector General (OIG) and Science and Technology transfers. Obligation data are generated using the OCFO Reporting and Business Intelligence Tool (ORBIT), the Agency's system for evaluating IFMS data. Site-specific obligation data are derived using query logic that evaluates the Site/Project field of the IFMS account number. For a given fiscal year, the percentage of appropriated resources that is obligated site-specifically is the result of dividing site-specific annual obligations by total annual obligations.

QA/QC Procedures: The data are compliant with the Federal Managers Financial Integrity Act (FMFIA) of 1982 and received FY 2005 FMFIA certification

Data Quality Reviews: EPA received an unqualified audit opinion by the OIG for the annual financial statements, and the auditor recommended several corrective actions. All recommendations have been implemented by Office of the Chief Financial Officer in IFMS.

Data Limitations: Accuracy of EPA personnel in recording their time.

Error Estimate: None.

New/Improved Data or Systems: EPA plans to replace IFMS with a new system in FY 2008.

References:

FY 2005 FMFIA Certification
2004 Audited Financial Statements, see http://www.epa.gov/oig/reports/financial.htm
OIG Audit "EPA Needs to Improve Change Controls for Integrated Financial Management System" dated August 24, 2004 (2004-P-00026)

FY 2007 Performance Measures:

- **Current human exposures under control (RCRA high priority facilities) (PART measure)**
- **Migration of contaminated groundwater under control (RCRA high priority facilities) (PART measure)**

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database that supports EPA's RCRA program.

Data Source: The states and Regions enter data. A "High", "Medium", or "Low" entry is made in the database with respect to final-assessment decision. A "yes" or "no" or "insufficient information" entry is made in the database with respect to meeting the human exposures to toxins controlled and releases to groundwater controlled indicators. An entry will be made in the database to indicate the date when a remedy is selected and the complete construction of a remedy is made. Supporting documentation and reference materials are maintained in the Regional and/or state files. EPA's Regional offices and authorized states enter data on a continual basis.

Methods, Assumptions and Suitability: RCRAInfo has several different modules, including a Corrective Action Module that tracks the status of facilities that require, or may require, corrective actions. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste (HW) generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. All five measures are used to summarize and report on the facility-wide environmental conditions at the RCRA Corrective Action Program's highest priority facilities. The environmental indicators are used to

track the RCRA program's progress in getting highest priority contaminated facilities under control. Known and suspected facility-wide conditions are evaluated using a series of simple questions and flow-chart logic to arrive at a reasonable, defensible determination. These questions were issued as a memorandum titled: *Interim Final Guidance for RCRA Corrective Action Environmental Indicators, Office of Solid Waste, February 5, 1999).* Lead regulators for the facility (authorized state or EPA) make the environmental indicator determination; however, facilities or their consultants may assist EPA in the evaluation by providing information on the current environmental conditions. Remedies selected and complete constructions of remedies are used to track the RCRA program's progress in getting highest priority contaminated facilities moving towards final cleanup. The lead regulators for the facility make the remedies selection and construction completion of remedies determinations.

QA/QC Procedures: States and Regions generate the data and manage data quality related to timeliness and accuracy (i.e., the environmental conditions and determinations are correctly reflected by the data). Within RCRAInfo, the application software enforces structural controls that ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of systems changes and user needs.

Note: Access to RCRAInfo is open only to EPA Headquarters, Regional, and authorized state personnel. It is not available to the general public because the system contains enforcement sensitive data**.** The general public is referred to EPA's Envirofacts Data Warehouse to obtain filtered information on RCRA-regulated hazardous waste facilities.

Data Quality Review: GAO's 1995 Report on EPAs Hazardous Waste Information System (http://www.access.gpo.gov/su_docs/fdlp/pubs/study/studyhtm.html) reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states. EPA's Quality Staff of Office of Environmental Information conducted a quality systems audit in December 2003. The audit found the corrective action program satisfactory.

Data Limitations: No data limitations have been identified. As discussed above, the performance measure determinations are made by the authorized states and EPA Regions based on a series of standard questions and entered directly into RCRAInfo. EPA has provided guidance and training to states and Regions to help ensure consistency in those determinations. High priority facilities are monitored on a facility-by-facility basis and the QA/QC procedures identified above are in place to help ensure data validity.

Error Estimate: N/A. Currently, the Office of Solid Waste does not collect data on estimated error rates.

New/Improved Data or Systems: EPA has successfully implemented new tools for managing environmental information to support federal and state programs, replacing the old data systems

(the Resource Conservation and Recovery Information System and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste from large quantity generators and on waste management practices by treatment, storage, and disposal facilities. RCRAInfo is web-accessible, providing a convenient user interface for federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

References: U.S. GAO, "Hazardous Waste: Benefits of EPA's Information System Are Limited" (AIMD-95-167), Washington, DC: GAO, August 22, 1995. Accessed January 18, 2006. Available on the Internet at <http://www.gao.gov/archive/1995/ai95167.pdf>

FY 2007 Performance Measures:

- **Number of cleanups that meet state risk-based standards for human exposure and groundwater contamination (LUST)**

- **Number of cleanups that meet state risk-based standards for human exposure and groundwater contamination on Indian country (LUST)**

Performance Database: The Office of Underground Storage Tanks (OUST) does not maintain a national database. States individually maintain records for reporting state program accomplishments.

Data Source: Designated State agencies submit semi-annual progress reports to the EPA regional offices. The data for the comparison of leaking underground storage tank cleanups will be developed in FY 2005 for a planned reporting date of FY 2006.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: EPA's regional offices verify and then forward the data in a word processing table to OUST. OUST staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in a word processing table on a region-by-region basis, which is a way regional staff can check their data.

Data Quality Review: None.

Data Limitations: Percentages reported are sometimes based on estimates and extrapolations from sample data. Data quality depends on the accuracy and completeness of state records.

Error Estimate: N/A

New/Improved Data or Systems: None.

References: U.S. EPA Memorandum, *FY 2005 End-of-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division Directors, Regions 1-10, dated December 15, 2005. Accessed January 18, 2006. <http://www.epa.gov/swerust1/cat/ca_05_34.pdf>

GOAL 3 OBJECTIVE 3

FY 2007 Performance Measure:

- **Refer to DOJ, settle, or writeoff 100% of Statute of Limitations (SOLs) cases for Superfund sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered**

- **Reach a settlement or take an enforcement action before the start of a remedial action at 90 percent of Superfund sites having viable, liable responsible parties other than the Federal government**

Performance Database: The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database contains information on hazardous waste sites, potentially hazardous waste sites and remedial activities across the nation. The database includes sites that are on the National Priorities List (NPL) or being considered for the NPL.

Data Source: Automated EPA system; Headquarters and EPA's Regional Offices enter data into CERCLIS

Methods, Assumptions and Suitability: There are no analytical or statistical methods used to collect the information. The performance data collected on a fiscal year basis only. Enforcement reports are run at the end of the fiscal year, and the data that support this measure are extracted from the report.

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as Regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) Regional CERCLIS Data Entry Internal Control Plan, which includes: (a) regional policies and procedures for entering data into CERCLIS; (b) a review process to ensure that all Superfund accomplishments are supported by source documentation; (c) delegation of authorities for approval of data input into CERCLIS; and (d) procedures to ensure that reported accomplishments meet accomplishment definitions; and (6) a historical lockout feature has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report. Specific direction for these controls are contained in the Superfund Program Implementation Manual (SPIM) Fiscal Year 2004/2005

(http://www.epa.gov/superfund/action/process/spim04.htm) and the Fiscal Year 2006/2007 SPIM (http://www.epa.gov/superfund/action/process/spim06.htm).

Data Quality Review: The IG annually reviews the end-of-year CERCLIS data, in an informal process, to verify the data supporting the performance measure. Typically, there are no published results.

Data Limitations: None

Error Estimate: NA

New/Improved Data or Systems: None

References: Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001

FY 2007 Performance Measure:

- **By FY 2007, complete evaluation of monitored natural attenuation at a site with inorganic ground water contamination using the first version of the evaluation framework developed in FY 2005**

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

GOAL 4 OBJECTIVE 1

FY 2007 Performance Measures:

- **Cumulative number of Detailed Review Papers completed (PART measure)**
- **Cumulative number of Prevalidation Studies completed (PART measure)**
- **Cumulative number of Validation by Multiple Labs completed (PART measure)**

- **Cumulative number of Peer Reviews (PART measure)**

Performance Database: Performance is measured by the cumulative number of actions (usually studies) to be undertaken by the projected completion date of FY 2009. The measures appear as fractions where the numerator represents the total number of cumulative actions for the current year and the denominator represents the actions projected to be completed by the end of FY 2009.

Data Source: Data are generated to support all stages of validation of endocrine test methods through contracts, grants and interagency agreements, and the cooperative support of the Organization of Economic Cooperation and Development (OECD), and EPA's Office of Research and Development (ORD). The scope of the effort includes the conduct of laboratory studies and associated analyses to validate the assays proposed for the Endocrine Disruptor Screening Program (EDSP).

Methods, Assumptions, and Suitability: The measures are program outputs that represent the program's progress toward completing the validation of endocrine test methods. The measures track progress through each stage of the process rather than reporting only the end product. These measures are being adopted because they best show the complexity of the validation process. For example, EPA may plan on four studies to address prevalidation issues for a given assay, and at the completion of the four studies, the annual performance measure (APM) would be 4/4. Upon review of the last study, EPA may conclude that an ambiguity exists, or another question has arisen that requires an additional study. The APM would then be revised to 4/5, showing that four studies were completed, but another study must now be completed to address all issues that allow EPA to move to the next phase of validation. The denominator also could move downward if, for instance, EPA concludes that a planned study is not needed or if an assay performs so poorly during prevalidation that it is dropped from the Endocrine Disruptor Screening Program.

Although 21 assays are being developed and validated, the denominators for the measures differ from this number for several reasons: more than one assay may be covered in a Detailed Review Paper, more than one prevalidation study is required to optimize an assay and address prevalidation questions, etc.

How various studies are counted also requires some explanation as there are several options. EPA has taken the view that a study is laboratory work performed to address a specific question whether performed in one laboratory or many labs. Thus, a single chemical study will be counted as one study, a multichemical study involving 10 chemicals in one laboratory will be counted as one study, and a study of interlaboratory variability will be counted as one study for each lab in which testing is conducted. From these examples, it is apparent that laboratory studies differ considerably in scope and complexity.

QA/QC Procedures: EDSP's contractors operate independent quality assurance units (QAUs) to ensure that all studies are conducted under appropriate QA/QC programs. Two levels of QA/QC are employed. First, the contractors operate under a Quality Management Plan designed to ensure overall quality of performance under the contracts. Second, prevalidation and

validation studies are conducted under a project-specific Quality Assurance Project Plans (QAPPs) developed by the contractor and approved by EPA. These QAPPs are specific to the study being conducted. Most validation studies are conducted according to Good Laboratory Practices (GLPs). In addition, EPA or its agent conducts an independent lab/QA audit of facilities participating in the validation program.

Data Quality Review: All of the documentation and data generated by the contractor, OECD and ORD, as it pertains to the EDSP, are reviewed for quality and scientific applicability. The contractor maintains a Data Coordination Center which manages information/data generated under EDSP. The contractor also conducts statistical analyses related to lab studies, chemical repository, and quality control studies.

Data Limitations: There is a data lag of approximately 9-24 months due to the variation in length and complexity of the lab studies, and for time required for review, analysis and reporting of data.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: EPA Website; EPA Annual Report; Endocrine Disruptor Screening Program Proposed Statement of Policy, Dec. 28, 1998; Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC) Final Report (EPA/743/R-98/003); EPA Contract # 68-W-01-023.

FY 2007 Performance Measure:

- **Cumulative number of assays that have been validated. (PART Measure)**

Performance Database: Performance is measured by the cumulative number of assays validated. The completion of the validation process for an assay can take several years. Excel spreadsheets are used to capture and track various steps within the validation process in order to better show progress. As a result, in the FY 2006 PART review of EPA's Endocrine Disruptor Program, these steps within the validation process became individual PART measures: Detailed Review Papers Completed, Prevalidation Studies Completed, Validation by Multiple Labs Completed, Peer Reviews, Assays Ready for Use.

Data Source: Data are generated to support all stages of validation of endocrine test methods through contracts, grants and interagency agreements, and the cooperative support of the Organization of Economic Cooperation and Development (OECD), and EPA's Office of Research and Development (ORD). The scope of the effort includes the conduct of laboratory studies and associated analyses to validate the assays proposed for the Endocrine Disruptor Screening Program (EDSP).

Methods, Assumptions and Suitability: The measures are program outputs which when finalized, help to ensure that EPA meets The Food Quality Protection Act of 1996 (FQPA) requirement that EPA validate assays to screen chemicals for their potential to affect the endocrine system.

QA/QC Procedures: EDSP's contractors operate independent quality assurance units (QAUs) to ensure that all studies are conducted under appropriate QA/QC programs. Two levels of QA/QC are employed. First, the contractors operate under a Quality Management Plan designed to ensure overall quality of performance under the contracts. Second, prevalidation and validation studies are conducted under a project-specific Quality Assurance Project Plans (QAPPs) developed by the contractor and approved by EPA. These QAPPs are specific to the study being conducted. Most validation studies are conducted according to Good Laboratory Practices (GLPs). In addition, EPA or its agent conducts an independent lab/QA audit of facilities participating in the validation program.

Data Quality Review: All of the documentation and data generated by the contractor, OECD and ORD, as it pertains to the EDSP, are reviewed for quality and scientific applicability. The contractor maintains a Data Coordination Center which manages information/data generated under EDSP. The contractor also conducts statistical analyses related to lab studies, chemical repository, and quality control studies.

Data Limitations: There is a data lag of approximately 9-24 months due to the variation in length and complexity of the lab studies, and for time required for review, analysis and reporting of data.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: EPA Website; EPA Annual Report; Endocrine Disruptor Screening Program Proposed Statement of Policy, Dec. 28, 1998; Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC) Final Report (EPA/743/R-98/003); EPA Contract # 68-W-01-023.

FY 2007 Performance Measures:

- **Number of registrations of reduced risk pesticides registered (Register safer chemicals and biopesticides) (cumulative)**
- **Number of new (active ingredients) conventional pesticides registered (New Chemicals)(Cumulative)**
- **Number of conventional new uses registered (New Uses)(Cumulative)**
- **Maintain timeliness of Section 18 Emergency Exemption Decisions**
- **Reduce registration decision times for new conventional chemicals (PART measure)**
- **Reduce registration decision times for reduced risk chemicals**

Performance Database: The OPPIN (Office of Pesticide Programs Information Network) consolidates various pesticides program databases. It is maintained by the EPA and tracks regulatory data submissions and studies, organized by scientific discipline, which are submitted by the registrant in support of a pesticide's registration. In addition to tracking decisions in OPPIN, manual counts are also maintained by the office on the registrations of reduced risk pesticides. Results for reduced risk pesticides, new active conventional ingredients, and new uses have been reported since 1996. The results are calculated on a fiscal year (FY) basis. For antimicrobial new uses, results have been reported since FY 2004 on a FY basis. Both S18 timeliness and reduced risk decision times are being reported on a FY basis for the first time in FY 2005.

Data Source: Pesticide program reviewers update the status of the submissions and studies as they are received and as work is completed by the reviewers. The status indicates whether the application is ready for review, the application is in the process of review, or the review has been completed.

Methods, Assumptions and Suitability: The measures are program outputs which when finalized, represent the program's statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment, and when used in accordance with the packaging label present a reasonable certainty of no harm. While program outputs are not the best measures of risk reduction, registration outputs do provide a means for reducing risk by ensuring that pesticides entering the marketplace meet the latest health standards, thus when used according to the label are safe.

QA/QC Procedures: A reduced risk pesticide must meet the criteria set forth in Pesticide Registration Notice 97-3, September 4, 1997. Reduced risk pesticides include those which reduce the risks to human health; reduce the risks to non-target organisms; reduce the potential for contamination of groundwater, surface water or other valued environmental resources; and/or broaden the adoption of integrated pest management strategies, or make such strategies more available or more effective. In addition, biopesticides are generally considered safer (and thus reduced risk). All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. The office adheres to its Quality Management Plan (May 2000) in ensuring data quality and that procedures are properly applied.

Data Quality Review: These are program outputs. EPA staff and management review the program outputs in accordance with established policy for the registration of reduced-risk pesticides as set forth in Pesticide Regulation Notice 97-3, September 4, 1997.

Data Limitations: None. All required data must be submitted for the risk assessments before the pesticide is registered. If data are not submitted, the pesticide is not registered. As stated above, a reduced risk pesticide must meet the criteria set forth in PRN 97-3 and all registrations must meet FQPA safety requirements. If a pesticide does not meet these criteria, it is not registered. If an application for a reduced risk pesticide does not meet the reduced risk criteria, it is reviewed as a conventional active ingredient.

Error Estimate: N/A

New/Improved Data or Systems: The OPPIN (Office of Pesticide Programs Information Network), which consolidates various pesticides program databases, will reduce the processing time for registration actions.

References: FIFRA Sec 3(c)(5); FFDCA Sec 408(a)(2); EPA Pesticide Registration Notice 97-3, September 4, 1997; Food Quality Protection Act (FQPA) 1996; OPP Quality Management Plan, May 2000); Endangered Species Act.

FY 2007 Performance Measures:

- **Number of Tolerance Reassessments issued (PART measure)**
- **Number of Reregistration Eligibility Decisions (REDs) issued (PART measure)**
- **Number of Product Reregistration decisions issued**
- **Tolerance Reassessments for top 20 foods eaten by children (PART measure)**
- **Number of inert ingredients tolerance/tolerance exemptions reassessed**
- **Reduce decision times for REDs (PART measure)**

Performance Database: The OPPIN (Office of Pesticide Programs Information Network) consolidates various EPA program databases. It is maintained by the EPA and tracks regulatory data submissions and studies, organized by scientific discipline, which are submitted by the registrant in support of a pesticide's reregistration. In addition to tracking decisions in OPPIN, manual counts are also maintained by the office on the reregistrations decisions. Decisions are logged in as the action is completed, both for final decisions and interim decisions. REDs and product reregistration decisions have been reported on a FY basis since FY 1996. Reduction in decision times for REDs will be reported on an FY basis in FY 2005.

Data Source: EPA's Pesticides Program staff and managers.

Methods, Assumptions and Suitability: The measures are program outputs which represent the program's statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment and when used in accordance with the packaging label present a reasonable certainty of no harm. While program outputs are not the best measures of risk reduction, they do provide a means for reducing risk in that the program's safety review prevents dangerous pesticides from entering the marketplace.

QA/QC Procedures: All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. The office adheres to the procedures for quality management of data as outlined in its QMP approved May 2000.

Data Quality Review: Management reviews the program counts and signs off on the decision document.

Data Limitations: None known.

Error Estimate: N/A. There are no errors associated with count data.

New/Improved Data or Systems: The OPPIN, which consolidates various pesticides program databases, will contribute to reducing the processing time for reregistration actions.

References: EPA Website http://www.epa.gov/pesticides EPA Annual Report 2002 EPA Number 735-R-03-001; 2003 Annual Performance Plan OPP Quality Management Plan, May 2000; Endangered Species Act.

FY 2007 Performance Measure:

- **Percentage of Acre Treatments with Reduced Risk Pesticides (PART measure)**

Performance Database: EPA uses an external database, Doane Marketing Research data, for this measure. The data have been reported for trend data since FY 2001 on an FY basis.

Data Source: Primary source is Doane Marketing Research, Inc. (a private sector research database). The database contains pesticide usage information by pesticide, year, crop use, acreage and sector.

Methods, Assumptions and Suitability: A reduced-risk pesticide must meet the criteria set forth in Pesticide Registration Notice 97-3, September 4, 1997. Reduced-risk pesticides include those which reduce the risks to human health; reduce the risks to non-target organisms; reduce the potential for contamination of groundwater, surface water, or other valued environmental resources; and/or broaden the adoption of integrated pest management strategies or make such strategies more available or more effective. In addition, biopesticides are generally considered safer (and thus reduced-risk). EPA's statistical and economics staff review data from Doane. Information is also compared to prior years for variations and trends as well as to determine the reasons for the variability.

Doane sampling plans and QA/QC procedures are available to the public at their website. More specific information about the data is proprietary and a subscription fee is required. Data are weighted and a multiple regression procedure is used to adjust for known disproportionalities (known disproportionality refers to a non proportional sample, which means individual respondents have different weights) and ensure consistency with USDA and state acreage estimates.

QA/QC Procedures: All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. Doane data are subject to extensive QA/QC procedures, documented at their websites. In ensuring the quality of the data, EPA's pesticide program adheres to its Quality Management Plan (QMP), approved May 2000.

The main customers for Doan pesticide usage data are the pesticide registrants. Since those registrants know about sales of their own products, they have an easy way to judge the quality of Doane provided data. If they considered the quality of the data to be poor, they would not continue to purchase the data.

Data Quality Review: Doane data are subject to extensive internal quality review, documented at the website. EPA's statistical and economics staff review data from Doane. Information is also compared to prior years for variations and trends as well as to determine the reasons for the variability. For some crops and states, comparisons are also made with a more limited pesticide usage database from the National Agricultural Statistics of USDA.

Data Limitations: Doane data are proprietary; thus in order to release any detailed information, the Agency must obtain approval. There is a data lag of approximately 12-18 months, due to the collection of data on a calendar year (CY) basis, time required for Doane to process data, lead time for EPA to purchase and obtain data, plus the time it takes to review and analyze the data within the office's workload.

Error Estimate: Error estimates differ according to the data/database and year of sampling. This measure is compiled by aggregating information for many crops and pesticides. While considerable uncertainty may exist for a single pesticide on a single crop, pesticide use data at such a highly aggregated level are considered quite accurate. Doane sampling plans and QA/QC procedures are available to the public at their website. More specific information about the data is proprietary and a subscription fee is required. Data are weighted and multiple regression procedure is used to adjust for known disproportionalities and ensure consistency with USDA and state acreage estimates

New/Improved Data or Systems: These are not EPA databases; thus improvements are not known in any detail at this time.

References: EPA Website; EPA Annual Report; Annual Performance Plan and Annual Performance Report, http://www.ams.usda.gov/science/pdp/download.htm; Doane Marketing Research, Inc.: http://www.doanemr.com; http://www.usda.gov/nass/pubs and http://www.usda.nass/nass/nassinfo; FFDCA Sec 408(a)(2); EPA Pesticide Registration Notice 97-3, September 4, 1997; Endangered Species Act.

FY 2007 Performance Measure:

- **Number of incidents and mortalities to terrestrial and aquatic wildlife caused by currently registered pesticides (PART measure)**

Performance Database: The Ecological Incident Information System (EIIS) is a national database of information on poisoning incidents of non-target plants and animals caused by pesticide use. The fields used include the number of incidents reported for each non-target plant or animal. The data used to report is the average for 3 years. Data are gathered on a calendar year basis and reported on a FY basis beginning in FY 2004. There is approximately 2 year data lag. The Environmental Fate and Effects staff for Pesticide Programs maintain this database.

Data Source: Data are extracted from written reports of fish and wildlife incidents submitted to the Agency by pesticide registrants under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), Section 6(a)(2), as well as incident reports voluntarily submitted by state and Federal agencies involved in investigating such incidents.

Methods, Assumptions and Suitability: This measure helps to provide information on the effect of EPA's regulatory actions on the protection of fish and wildlife from acute toxic effects of pesticides. Incidents of fish and wildlife mortality caused by pesticides are summed annually and sums are reported as three-year moving averages. Incidents related to known misuse of pesticides and to pesticides not currently registered in the United States are excluded, as are incidents for which the cause is highly uncertain. This indicator assumes that changes in the total number of incidents reported to the Agency reflect changes in the total number of incidents that are occurring. Inherent in this is the assumption that a consistent effort is made to investigate and report incidents year after year. This indicator is suitable only if fish and wildlife mortality incidents are investigated and reported widely enough to provide adequate monitoring of incidents throughout the country, and if the level of effort in investigating and reporting incidents are reasonably consistent over time.

QA/QC Procedures: EPA adheres to its approved Quality Management Plan in ensuring the quality of the data. Before entering incident data in the database, a database program is used to screen for records already in the database with similar locations and dates. Similar records are then individually reviewed to prevent duplicate reporting. After each record is entered into the EIIS database, an incident report is printed that contains all the data entered into the database. A staff member, other than the one who entered the data, then reviews the information in the report and compares it to the original source report to verify data quality. Scientists using the incident database are also encouraged to report any inaccuracies they find in the database for correction.

Data Quality Review: Internally and externally data quality reviews related to data entry have been conducted. EPA follows a quality assurance plan for accurately extracting data from reports and entering it into the EIIS database. This quality assurance plan is described in Appendix D of the Quality Management Plan for pesticides programs. The American Bird Conservancy has reviewed data in the EIIS database for records related to bird kill incidents.

Data Limitations: This measure is designed to monitor trends in the numbers of acute poisoning events reported to the Agency. The reporting of incidents to the Agency is currently very limited. Very few fish and wildlife reports are being reported by pesticide registrants under the FIFRA 6(a)(2) requirement. This is because most fish and wildlife incidents are classified as "minor" under the current rule, and the registrants are required to report only aggregate data for these minor incidents. The aggregate data are inadequate for entering the incidents into EIIS and including them in this index because no details are reported on individual incidents, even if they are fish kills or bird kills. In 2004, only three fish kills and one wildlife kill were reported as "major" incidents with adequate data to include in this index. Incident reports voluntarily submitted from sources other than pesticide registrants also have been very scarce in recent years. Since 2003, only two state and regional government agencies have reported fish kill

incidents to the Agency (the California Department of Fish and Game and the US Geological Survey) and only three have reported wildlife kills (the New York State Department of Environmental Conservation, the California Department of Fish and Game, and the Southeast Cooperative Wildlife Disease Study). Many states governments have informed the Agency that budget cuts have led to inadequate funding to investigate and report on fish and wildlife kills occurring in their states, making them unable to report these incidents to the EPA. Other states may not be reporting because they are not aware that the EPA is collecting this information. In summary, the data are currently inadequate for monitoring national trends in incidents.

Error Estimate: Moving average counts of number of incidents per year may be interpreted as a relative index of the frequency of acute toxicity effects that pesticides are causing to fish and wildlife. The indicator numbers are subject reporting rates. If there is a change in incidents since the baseline year, it may be due to change in tracking/reporting of kills rather than change related to the use of a pesticides. Also, despite efforts to avoid duplicate counting of incidents, a few incidents likely have duplicate records in the EIIS database. A quality assurance review of bird kill incidents completed by the American Bird Conservancy in 2005 found five incidents with duplicate records, which will be corrected

New/Improved Data or Systems: The EPA is currently conducting a project with the American Bird Conservancy to improve the quality and quantity of data on bird kill caused by pesticides. This project should eventually result in additional reports of bird kill incidents being submitted to the Agency, but to date no additional incident reports have been obtained. The Environmental Fate and Effects Division of the Office of Pesticide Programs has begun a process to obtain an Information Collection Request (ICR) permit, which would allow soliciting state agencies for voluntary submittal of any incident reports that they produce.

References: The Ecological Incident Information System (EIIS) is an internal EPA database. Federal Insecticide Fungicide and Rodenticide Act (FIFRA), Section 6(a)(2).
QMP: Quality Management Plan for the Office of Pesticides Program, May 20, 2000; Endangered Species Act.

FY 2007 Performance Measure:

- **Percentage of high-priority chemicals for which EPA has developed short-term exposure limits (Acute Exposure Guideline Levels [AEGL]). (PART measure)**

Performance Database: There is no database. Performance is measured by the cumulative number of chemicals with "Proposed", "Interim", and/or "Final" AEGL values as published by the National Academy of Sciences (NAS). The results are calculated on a fiscal year basis.

Data Source: EPA manages a Federal Advisory Committee Act (FACA) committee that reviews short term exposure values for extremely hazardous chemicals. The supporting data, from both published and unpublished sources and from which the AEGL values are derived, are collected, evaluated, and summarized by FACA Chemical Managers and Oak Ridge National Laboratory's scientists. Proposed AEGL values are published for public comment in the Federal Register. After reviewing public comment, interim values are presented to the AEGL Subcommittee of the National Academy of Sciences (NAS) for review and comment. After

review and comment resolution, the National Research Council under the auspices of the National Academy of Sciences (NAS) publishes the values as final.

Methods, Assumptions, and Suitability: The work of the National Advisory Committee's Acute Exposure Guideline Levels (NAC/AEGL, formally chartered under the Federal Advisory Committee Act) adheres to the 1993 U.S. National Research Council/National Academies of Sciences (NRC/NAS) publication *Guidelines for Developing Community Emergency Exposure Levels for Hazardous Substances*. NAC/AEGL, in cooperation with the National Academy of Sciences' Subcommittee on AEGLs, have developed standard operating procedures (SOPs), which are followed by the program. These have been published by the National Academy Press and are referenced below. The cumulative number of AEGL values approved as "proposed" and "interim" by the NAC/AEGL FACA Committee and "final" by the National Academy of Sciences represents the measure of performance. The work is assumed to be completed at the time of final approval of the AEGL values by the NAS.

QA/QC Procedures: QA/QC procedures include public comment via the Federal Register process; review and approval by the FACA committee; and review and approval by the NAS/AEGL committee and their external reviewers.

Data Quality Review: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: This is the first time acute exposure values for extremely hazardous chemicals have been established according to a standardized process and put through such a rigorous review.

References: Standing Operating Procedures for Developing Acute Exposure Guideline Levels for Hazardous Chemicals, National Academy Press, Washington, DC 2001 (http://www.nap.edu/books/030907553X/html/). NRC (National Research Council). 1993. Guidelines for Developing Community Emergency Exposure Levels for Hazardous Substances. Washington, DC: National Academy Press.

FY 2007 Performance Measure

- **Total EPA Cost per Chemical for which a Proposed AEGL data set is developed (PART measure)**

Performance Database: Complete budgetary information at the program and project level is maintained in EPA's Finance Central database. This database and other financial records are consulted each time the program reports performance results. In addition to Finance Central, OPPT maintains records on AEGL program income, expenditures and carry over from one year to the next; and on the number of FTE's allocated to the program. Information from these records is aggregated to determine total EPA cost per chemical for which a proposed AEGL data

set is developed. The denominator of this ratio – number of proposed AEGL data sets – is tracked in separate records maintained by the program. Specifically, there is an Access database containing the approval dates for proposed AEGL values and a Wordperfect file, organized by fiscal year, that is used to record events in the AEGL process as they occur.

Data Source: EPA manages a Federal Advisory Committee Act (FACA) committee that reviews short term exposure values for extremely hazardous chemicals. The supporting data, from both published and unpublished sources and from which the AEGL values are derived, are collected, evaluated, and summarized by FACA Chemical Managers and Oak Ridge National Laboratory's scientists. Proposed AEGL values are published for public comment in the Federal Register and then referred to the National Academies of Science (NAS) for further review and action. Although proposed AEGLs are not considered final until so designated by the NAS, the proposed values are suitable for many purposes. This performance measure is tied to proposed values rather than to final ones because actions through the proposal stage of the AEGL process are largely under EPA's control whereas subsequent action to finalize the AEGL values is largely a matter within NAS jurisdiction.

Methods, Assumptions, and Suitability: The methods involved in developing and reporting on this performance measure largely consist of simple computational steps performed on data relating to AEGL cost and accomplishment. For example, it is necessary to track the number of FTE's assigned to the AEGL program and then find the associated labor cost by multiplying by standard cost-of-living factors. Likewise, the extramural cost associated with managing the program is determined by pulling cost and budgetary data from the relevant databases as described above, multiplying by 70% as an estimate of the proportion of staff and contractor resources devoted to proposed AEGL development, summing as needed, and adjusting for inflation. One assumption underlying these computations is that 70% is a reasonable estimate of the proposal stage's share of total cost devoted to AEGLs. The methods, simple as they are, seem highly suitable for the kinds of measurement to be performed.

QA/QC Procedures: QA/QC procedures for AEGL development include public comment via the Federal Register process; review and approval by the FACA committee; and review and approval by the NAS/AEGL committee and their external reviewers. AEGL documents are formally reviewed for QC purposes by designated contractors and EPA staff at critical junctures utilizing detailed checklists. Cost information from available records is also subjected to appropriate QA/QC controls.

Data Quality Review: This is a new performance measure and, therefore, there is no developed track record of review and correction. However, appropriate oversight of the measurement process will be provided. Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes and to provide quality oversight.

Data Limitations: No specific data limitations have been identified with respect to the information relied upon in developing or reporting this measure.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error.

New/Improved Data or Systems: Access databases, spreadsheets and other files are maintained and improved on an ongoing basis. A new database is being developed to document rationales used to develop AEGL values. This new database should enhance the efficiency of AEGL development.

References: Please see www.epa.gov/oppt/aegl.

FY 2007 Performance Measures:

- **Annual reduction in the number of children aged 1-5 years with elevated blood lead levels (> or = 10 ug/dL).** ***This performance measure is a direct measure of Healthy People 2010 goal 8-11.*** **(PART measure)**

- **Percentage difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old. (PART measure)**

Performance Database: Data from the Centers for Disease Control and Prevention's (CDC) National Health and Nutrition Examination Survey (NHANES) is recognized as the primary database in the United States for national blood lead statistics. NHANES is a probability sample of the non-institutionalized population of the United States. Data are collected on a calendar year basis, and is currently released to the public in two year sets. The most current release is the data set for 2001-2002, released in early 2005. Blood lead levels are measured for participants who are at least one year old. The survey collects information on the age of the participant at the time of the survey.

Data Source: The National Health and Nutrition Examination Survey is a survey designed to assess the health and nutritional status of adults and children in the U.S. The survey program began in the early 1960s as a periodic study, and continues as an annual survey. The survey examines a nationally representative sample of approximately 5,000 men, women, and children each year located across the U.S. CDC's National Center for Health Statistics (NCHS) is responsible for the conduct of the survey and the release of the data to the public. NCHS and other CDC centers publish results from the survey, generally in CDC's Morbidity and Mortality Weekly Report (MMWR), but also in scientific journals. In recent years, CDC has published a National Exposure report based on the data from the NHANES. The most current National Exposure report was released on July 21, 2005, and is available at the web site http://www.cdc.gov/exposurereport/

Methods, Assumptions, and Suitability: Detailed interview questions cover areas related to demographic, socio-economic, dietary, and health-related questions. The survey also includes an extensive medical and dental examination of participants, physiological measurements, and laboratory tests. Specific laboratory measurements of environmental interest include: metals (e.g. lead, cadmium, and mercury), VOCs, phthalates, organophosphates (OPs), pesticides and their

metabolites, dioxins/furans, and polyaromatic hydrocarbons (PAHs). NHANES is unique in that it links laboratory-derived biological markers (e.g. blood, urine etc.) to questionnaire responses and results of physical exams. For this performance measure, NHANES has been recognized as the definitive source. Estimates of the number of children 1-5 years with an elevated blood lead level based on NHANES have been published by CDC, most recently in May, 2005. (See http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm). Analytical guidelines issued by NCHS provide guidance on how many years of data should be combined for an analysis.

QA/QC Procedures: Background documentation is available at the NHANES web site at http://www.cdc.gov/nchs/nhanes.htm. The analytical guidelines are available at the web site http://www.cdc.gov/nchs/data/nhanes/nhanes_general_guidelines_june_04.pdf).

Data Quality Reviews: CDC follows standardized survey instrument procedures to collect data to promote data quality, and data are subjected to rigorous QA/QC review. Additional information on the interview and examination process can be found at the NHANES web site at http://www.cdc.gov/nchs/hnanes.htm

Data Limitations: NHANES is a voluntary survey and selected persons may refuse to participate. In addition, the NHANES survey uses two steps, a questionnaire and a physical exam. There are sometimes different numbers of subjects in the interview and examinations because some participants only complete one step of the survey. Participants may answer the questionnaire but not provide the more invasive blood sample. Special weighting techniques are used to adjust for non-response. Seasonal changes in blood lead levels cannot be assessed under the current NHANES design. Because NHANES is a sample survey, there may be no children with elevated blood lead levels in the sample, but still some children with elevated blood lead levels in the population.

Error Estimate: Because NHANES is based on a complex multi-stage sample design, appropriate sampling weights should be used in analyses to produce estimates and associated measures of variation. Recommended methodologies and appropriate weights are provided at the NHANES web site http://www.cdc.gov/nchs/nhanes.htm. Measurement error for the blood lead levels is anticipated.

New/Improved Data or Systems: NHANES has moved to a continuous sampling schedule, scheduled release of data, and scheduled release of National Exposure reports by CDC.

References: 1) the NHANES web site, http://www.cdc.gov/nchs/nhanes.htm; 2) the National Exposure report web site, http://www.cdc.gov/exposurereport/; 3) MMWR article with the most recent estimate of the number of children with elevated blood lead levels, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm; 4) summary information on children's blood lead levels from past NHANES, http://www.cdc.gov/nceh/lead/research/kidsBLL.htm#National%20surveys

FY 2007 Performance Measure:

- **Annual percentage of lead-based paint certification applications in Federally-managed states that require more than the 40 days of EPA effort to process (PART measure)**

Performance Database: The National Program Chemicals Division (NPCD) in the Office of Pollution Prevention and Toxics (OPPT) maintains the Federal Lead-Based Paint Program (FLPP) database, an electronic database of applications for certification by individuals and firms and applications for accreditation by training providers in states and tribal lands administered by a Federal lead program. The database provides a record of all applications for certification or accreditation for Federally-managed lead programs and the actions on those applications. The database is augmented by hard copy records of the original applications.

Data Source: The FLPP database is available internally to EPA Headquarters and Regional lead program staff who process the applications or oversee the processing. The database is maintained on an EPA Research Triangle Park (RTP), North Carolina server. Access to the database is granted by the Lead, Heavy Metals, and Inorganics Branch (LHMIB) in NPCD. Overall maintenance of the database and periodic improvements are handled by a contractor, currently ICF Consulting, located in Fairfax, Virginia. Data entry of application data is conducted by a second contractor, currently Optimus Corporation, located in Silver Spring, Maryland. Optimus Corporation maintains the file of the original applications. Each EPA Regional office maintains a file of copies of the original applications for that region.

Methods, Assumptions and Suitability: The number of applications for certification in Federally-managed states and tribal lands is approximately 3000 per year. Each of these applications is processed. Certification is issued if all criteria are met. Some applications may be returned to the applicant or withdrawn by the applicant. For the applications that are fully processed, the length of time for EPA processing can be determined from date fields in the FLPP database. Accordingly, a census of all the fully processed applications for certification can be conducted, and the percentage of applications that took more than the prescribed number of days (e.g., 40) of EPA effort to process can be computed based on this census. The census is conducted every six months, and the annual percentage calculated appropriately from the six month percentages.

QA/QC Procedures: NPCD has an approved Quality Management Plan in place, dated January 2005. Applications and instructions for applying for certification and accreditation are documented and available at the web site http://www.epa.gov/lead/traincert.htm. Documentation for the FLPP database is maintained internally at EPA and is available upon request.

Data Quality Reviews: The FLPP database is an internal EPA database, maintained for the purpose of processing and tracking applications. The database is interactive, and operational usage in processing applications by Headquarters and the Regional offices provides ongoing quality reviews.

Data Limitations: Applications that were returned to the applicant or withdrawn by the applicant are out of scope for this performance measure.

Error Estimate: There is no sampling error in this performance measure, because it is based on a census of all applicable records.

New/Improved Data or Systems: The FLPP database is scheduled to undergo improvements in the next few years. The performance measurement system will help determine if there is a change in timeliness after the improvements are implemented.

References: 1) Quality Management Plan for National Program Chemicals Division, January 2005; 2) FLPP database documentation; 3) URL for Applications and Instructions, http://www.epa.gov/lead/traincert.htm.

FY 2007 Performance Measure:

- **Reduce the potential for risks from leaks and spills by ensuring the safe disposal of large capacitors and transformers containing polychlorinated biphenyls (PCBs)**

Performance Database: PCB Annual Report Database. The results are calculated on a calendar year (CY) basis. Two-year data lag and results for CY 06 will not be available until 2008.

Data Source: Annual Reports from commercial storers and disposers of PCB Waste.

Methods, Assumptions, and Suitability: Data provide a baseline for the amount of safe disposal of PCB waste annually. By ensuring safe disposal of PCBs in equipment such as transformers and capacitors coming out of service, and contaminated media such as soil, and structures from remediation activities, the Agency is reducing the exposure risk of PCBs that are either already in the environment or may be released to the environment through spills or leaks.

QA/QC Procedures: The Agency reviews, transcribes, and assembles data into the Annual Report Database.

Data Quality Reviews: The Agency contacts data reporters, when needed, for clarification of data submitted.

Data Limitations: Data limitations include missing submissions from commercial storers and disposers, and inaccurate submissions. PCB-Contaminated Transformers, of PCB concentrations 50 to 499 parts per million (ppm), and those that are 500 ppm PCBs or greater are not distinguished in the data. Similarly, large and small capacitors of PCB waste may not be differentiated. Data are collected for the previous calendar year on July 1 of the next year creating a lag of approximately one year. Despite these limitations, the data do provide the only estimate of the amount of PCB waste disposed annually.

Error Estimate: Not available.

New/Improved Data or Systems: None

References: U.S EPA, Office of Pollution Prevention and Toxics, National Program Chemicals Program, PCB Annual Report for Storage and Disposal of PCB Waste.

FY 2007 Performance Measure:

- **Annual Percent reduction in relative risk index for chronic human health associated with environmental releases of industrial chemicals in commerce as measured by Risk Screening Environmental Indicators (RSEI) Model (PART measure)**

Performance Database: The RSEI Model uses annual reporting from individual industrial facilities along with a variety of other information to evaluate chemical emissions and other waste management activities. RSEI incorporates detailed data from EPA's Toxics Release Inventory (TRI) and Integrated Risk Information System, the U.S. Census, and many other sources. Due to a two year TRI data lag, performance data will be unavailable for the FY 2006 Annual Performance Report. The data are based on calendar year.

Data Source: The RSEI model incorporates data on chemical emissions and transfers and facility locations from EPA's Toxics Release Inventory; chemical toxicity data from EPA's Integrated Risk Information System; stack data from EPA's AIRS Facility Subsystem and National Emissions Trends Database and the Electric Power Research Institute; meteorological data from the National Climatic Data Center; stream reach data from EPA's Reach File 1 Database; data on drinking water systems from EPA's Safe Drinking Water Information System; fishing activity data from U.S. Fish and Wildlife; exposure factors from EPA's Exposure Factor Handbook; and population data from the U.S. Census Bureau.

Methods, Assumptions and Suitability: The RSEI Model generates unique numerical values known as "Indicator Elements" using the factors pertaining to surrogate dose, toxicity and exposed population. Indicator Elements are unitless (like an index number, they can be compared to one-another but do not reflect *actual* risk), but proportional to the modeled relative risk of each release (incrementally higher numbers reflect greater estimated risk). Indicator Elements are risk-related measures generated for every possible combination of reporting facility, chemical, release medium, and exposure pathway (inhalation or ingestion). Each Indicator Element represents a unique release-exposure event and together these form the building blocks to describe exposure scenarios of interest. These Indicator Elements are summed in various ways to represent the risk-related results for releases users are interested in assessing. RSEI results are for comparative purposes and only meaningful when compared to other scores produced by RSEI. The measure is appropriate for year-to-year comparisons of performance. Depending on how the user wishes to aggregate, RSEI can address trends nationally, regionally, by state or smaller geographic areas.

QA/QC Procedures: TRI facilities self-report release data and occasionally make errors. TRI has QC functions and an error-correction mechanism for reporting such mistakes. EPA updates off-site facility locations on an annual basis using geocoding techniques.

Data Quality Reviews: RSEI depends upon a broad array of data resources, each of which has gone through a quality review process tailored to the specific data and managed by the providers

of the data sources. RSEI includes data from the Toxics Release Inventory (TRI), Integrated Risk Information System (IRIS), U.S. Census, etc. All were collected for regulatory or programmatic purposes and are of sufficient quality to be used by EPA, other Federal agencies, and state regulatory agencies. Over the course of its development, RSEI has been the subject of three reviews by EPA's Science Advisory Board (U.S. EPA Office of Pollution Prevention and Toxics, Risk Screening Environmental Indicators Model, Peer Reviews. Described at http://www.epa.gov/opptintr/rsei/faqs.html). The RSEI model has undergone continuous upgrading since the 1997 SAB Review. Toxicity weighting methodology was completely revised and subject to a second positive review by SAB (in collaboration with EPA's Civil Rights program); air methodology was revised and groundtruthed using New York data to demonstrate high confidence; water methodology has been revised in collaboration with EPA's Water program. When the land methodology has been
reviewed and revised, EPA will have completed its formal, written response to the 1997 SAB Review.

Data Limitations: RSEI relies on data from a variety of EPA and other sources. TRI data may have errors that are not corrected in the standard TRI QC process. In the past, RSEI has identified some of these errors and corrections have been made by reporting companies. Drinking water intake locations are not available for all intakes nationwide.
In coastal areas, Publicly Owned Treatment Works (POTW) water releases may go directly to the ocean, rather than nearby streams. EPA is in the process of systematically correcting potential errors regarding POTW water releases. These examples are illustrative of the data quality checks and methodological improvements that are part of the RSEI development effort. RSEI values are recalculated on an annual basis, and, resources permitting, all data sources are updated annually.

Error Estimate: In developing the RSEI methodology, both sensitivity analyses and groundtruthing studies have been used to address model accuracy (documentation is provided on the RSEI Home Page - www.epa.gov/opptintr/rsei/). For example, groundtruthing of the air modeling performed by RSEI compared to site-specific regulatory modeling done by the state of New York showed virtually identical results in both rank order and magnitude. However, the complexity of modeling performed in RSEI, coupled with un-quantified data limitations, limits a precise estimation of errors that may either over- or under-estimate risk-related results.

New/Improved Data or Systems: The program regularly tracks improvements in other Agency databases (e.g., SDWIS and Reach File databases) and incorporates newer data into the RSEI databases. Such improvements can also lead to methodological modifications in the model. Corrections in TRI reporting data for all previous years are captured by the annual updates of the RSEI model.

References: The methodologies used in RSEI were first documented for the 1997 review by the EPA Science Advisory Board. The Agency has provided this and other updated technical documentation on the RSEI Home Page. (RSEI Home Page - http://www.epa.gov/opptintr/rsei/)
U.S. EPA Office of Pollution Prevention and Toxics, Risk Screening Environmental Indicators Model, Peer Reviews. Described at http://www.epa.gov/opptintr/rsei/faqs.html
RSEI Methodology Document (describes data and methods used in RSEI Modeling)

http://www.epa.gov/opptintr/rsei/docs/method2004.pdf RSEI User's Manual (PDF, 1.5 MB) explains all of the functions of the model, the data used, and contains tutorials to walk the new user through common RSEI tasks (http://www.epa.gov/opptintr/rsei/docs/users_manual.pdf).
A more general overview of the model can be found in the RSEI Fact Sheet (PDF, 23 KB) (http://www.epa.gov/opptintr/rsei/docs/factsheet_v2-1.pdf).
There are also seven Technical Appendices that accompany these two documents and provide additional information on the data used in the model. The Appendices are as follows: Technical Appendix A (PDF, 121 KB) - Listing of All Toxicity Weights for TRI Chemicals and Chemical Categories Technical Appendix B (PDF, 290 KB) - Physicochemical Properties for TRI Chemicals and Chemical Categories
Technical Appendix C (PDF, 40 KB) - Derivation of Model Exposure Parameters
Technical Appendix D (PDF, 71 KB) - Locational Data for TRI Reporting Facilities and Off-site Facilities Technical Appendix E (PDF, 44 KB) - Derivation of Stack Parameter Data Technical Appendix F (PDF, 84KB) - Summary of Differences Between RSEI Data and TRI Public Data Release

FY 2007 Performance Measure:

- **Number of new chemicals or microorganisms introduced into commerce that pose an unreasonable risk to workers, consumers or the environment (PART measure)**

Performance Database: Implementation of this measure will require the use of several EPA databases: Confidential Business Information Tracking System (CBITS), pre-manufacture notice (PMN) CBI Local Area Network (LAN), 8(e) database (ISIS), and the Focus database. The following information from these databases will be used collectively in applying this measure:
• CBITS: Tracking information on Pre-Manufacture Notices (PMNs) received;
• PMN CBI LAN: Records documenting PMN review and decision, assessment reports on chemicals submitted for review. In addition, the information developed for each PMN is kept in hard copy in the Confidential Business Information Center (CBIC);
• ISIS: Data submitted by industry under the Toxic Substances Control Act (TSCA) Section 8(e). TSCA 8(e) requires that chemical manufacturers, processors, and distributors notify EPA immediately of new (e.g. not already reported), unpublished chemical information that reasonably supports a conclusion of substantial risk. TSCA 8(e) substantial risk information notices most often contain toxicity data but may also contain information on exposure, environmental persistence, or actions being taken to reduce human health and environmental risks. It is an important information-gathering tool that serves as an early warning mechanism;
• Focus: Rationale for decisions emerging from Focus meeting, including decisions on whether or not to drop chemicals from further review.

Measurement results are calculated on a fiscal-year basis and draw on relevant information received over the 12-month fiscal year.

Data Source: The Office of Pollution Prevention and Toxics (OPPT), the office responsible for the implementation of the TSCA, will compare data submitted under TSCA Section 8(e) with previously-submitted new chemical review data (submitted under TSCA Section 5 and contained

in the PMN) to determine the number of instances in which EPA failed to prevent the introduction of new chemicals or microorganisms into commerce which pose an unreasonable risk to workers, consumers or the environment. Inconsistencies between the 8(e) and previously-submitted new chemical review data will be evaluated by applying the methods and steps outlined below to determine whether the inconsistencies signify an "unreasonable risk."

Methods, Assumptions, and Suitability: EPA's methods for implementing this measure involve determining whether EPA failed to prevent the introduction of chemicals or microorganisms into commerce that pose an unreasonable risk to workers, consumers or the environment, based on comparisons of 8(e) and previously-submitted new chemical review data. The "unreasonable risk" determination is based on consideration of (1) the magnitude of risks identified by EPA, (2) limitations on risk that result from specific safeguards applied, and (3) the benefits to industry and the public expected to be provided by the new chemical substance. In considering risk, EPA looks at anticipated environmental effects, distribution and fate of the chemical substance in the environment, patterns of use, expected degree of exposure, the use of protective equipment and engineering controls, and other factors that affect or mitigate risk. These are the steps OPPT will follow in comparing the 8(e) data with the previously-submitted new chemical review data.

1. Match all 8(e) submissions in the 8(e) database with associated TSCA Section 5 notices. TSCA Section 5 requires manufacturers to give EPA a 90-day advance notice (via a pre-manufacture notice or PMN) of their intent to manufacture and/or import a new chemical. The PMN includes information such as specific chemistry identity, use, anticipated production volume, exposure and release information, and existing available test data. The information is reviewed through the New Chemicals Program to determine whether action is needed to prohibit or limit manufacturing, processing, or use of a chemical.
2. Characterize the resulting 8(e) submissions by the PMN review phase. For example, the 8(e) submissions were received: a) before the PMN notice was received by EPA, b) during the PMN review process, or c) after the PMN review was completed.
3. Review of 8(e) data will focus on 8(e)s received after the PMN review period was completed.
4. Comparison of hazard evaluation developed during PMN review with associated 8(e) submission.
5. Report on the accuracy of the initial hazard determination
6. Revised risk assessment developed to determine if there was an unreasonable risk based on established risk assessment and risk management guidelines.

The databases used and the information retrieved are directly applicable to this measurement and therefore suitable for measurement purposes.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan ("Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances;" June 2003) and will ensure that those standards and procedures are applied to this effort.

Data Quality Reviews: This is a new performance measure and, therefore, there is no developed track record of review and correction. However, appropriate oversight of the measurement process will be provided. Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes

and to provide quality oversight. In addition, the National Pollution Prevention and Toxics Advisory Council (NPPTAC), which consists of external experts providing independent review and direction to OPPT, has provided comment on this measure.

Data Limitations: There are some limitations of EPA's review which result from differences in the quality and completeness of 8(e) data provided by industry; for example, OPPT cannot evaluate submissions that do not contain adequate information on chemical identity. The review is also affected in some cases by a lack of available electronic information. In particular the pre-1996 PMN cases are only retrievable in hard copy and may have to be requested from the Federal Document Storage Center. This may introduce some delays to the review process.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error. OPPT will review all 8(e) submissions received in the year with corresponding previously-submitted new chemical review data, and not a sample of such submissions.

New/Improved Data or Systems: OPPT is currently developing an integrated, electronic system that will provide real time access to prospective PMN review.

References: OPPT New Chemicals Program
http://www.epa.gov/opptintr/newchems/, TSCA Section 8(e) – Substantial Risk
http://www.epa.gov/opptintr/chemtest/sect8e.htm,
http://www.epa.gov/opptintr/tsca8e/index/htm
"Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances;" June 2003.

FY 2007 Performance Measure:

- **Percent change relative to base year in cost savings from new chemical prescreening. (PART measure)**

Performance Database: Implementation of this measure will require the use of several EPA databases, all of which play a role in tracking premanufacture notices (PMNs) and the action EPA decides to take on such notices. The principal databases involved in PMN tracking, with separate identification of prescreened chemicals, are:

  - Chemical Control Division tracking database: Records basic identifying and status information on each PMN submitted to EPA, including name of submitter, identity of technical contact at company, actions taken by EPA. Enables chemicals to be tracked quickly and easily through the PMN review process.

  - Management Information Tracking System (MITS): Contains non-CBI data on all PMNs, including chemical identification and actions taken by EPA.

  - New Chemicals Focus meeting database: Contains information on the decisions reached at Focus meetings, including whether to drop chemical from further

review, to pursue regulation under the Toxic Substances Control Act (TSCA) Section 5(e) to prohibit or limit activities associated with the new chemical or to pursue regulation under a non-5(e) Significant New Use Rule (SNUR) to require manufacturers, importers and processors to notify EPA at least 90 days before beginning any activity that EPA has designated as a "significant new use," or, alternatively, to refer the chemical for full-scale standard review. It is critical to know the number and percentage of PMNs going to these outcomes in order to perform base year cost savings calculations in support of the cost savings measure.

- Sustainable Futures prescreening tracking databases: Contain information on PMNs which display evidence of chemical prescreening using OPPT screening methods, including data on the types of assessments and model evaluations performed by the submitter, and contact information on Sustainable Futures participants including date(s) attended EPA training.

- Measurement results are calculated on a fiscal year basis and draw upon relevant information collected over the 12-month fiscal year.

Data Source: The major data sources involved in this measurement are fully described under "Performance Database," above. No external data sources play a significant role in the calculation of measurement results.

Methods, Assumptions and Suitability: EPA measures percent change in cost savings as a result of chemical prescreening relative to a base year by: 1) determining the base year pre-screening rate and base year cost savings; 2) calculating the current year prescreening rate (prescreened PMNs as a percentage of total PMNs) and; 3) determining the actual percent change in cost savings due to prescreening by multiplying the base year cost savings by the ratio of the current year prescreening rate to the base year prescreening rate. Finally, the actual percent change in cost savings relative to the base year can be compared to the target percent change of 6.67%. This procedure assumes, quite reasonably, that cost savings from prescreening will generally change in rough proportion to the change in the prescreening rate.

The methods used in calculating base year information are as follows:

- Determine base year prescreening rate by checking the data systems described above to obtain the number of new prescreened chemicals going through the PMN review process and the total number of chemicals undergoing such review. The prescreening rate is simply the ratio of prescreened chemicals to total chemicals undergoing PMN review.

Determine base year cost savings by :

- Checking the relevant databases to determine the number and percentage of base year PMNs that are (a) prescreened PMNs and (b) non-prescreened PMNs

- Estimating the number of prescreened PMNs that would have gone to regulation or standard review if there were no prescreening program (this is done by multiplying the number of prescreened PMNs by the percentage of non-prescreened PMNs that go to one of the "post-Focus meeting outcomes" of standard review, regulation under TSCA Section 5(e), or issuance of a non-5(e) SNUR)

- Subtracting the number of actual prescreened PMNs going to one of the post-Focus meeting outcomes from the projected number derived in the previous step, is the estimated number of PMNs avoiding a post-Focus meeting outcome. The rationale is that some some pre-screened PMNs still end up requiring post-Focus action, but at a lower rate than for PMNs which are not pre-screened. The hypothetical number estimated in this step, the difference between the projected and actual numbers of pre-screened PMNs requiring a post-Focus meeting outcome, represents the number of cases to have avoided post-Focus action as a result of pres-screening.

- Multiplying the number of cases estimated to have avoided post-Focus action as a result of pre-screening by unit cost factors to obtain estimates of the cost savings realized by avoidance of post-Focus meeting outcomes due to prescreening. (unit cost factors are generated separately from information/estimates maintained by EPA on the labor hours (Agency and contractor) associated with each post-Focus meeting outcome and the EPA cost per labor hour)

- Summing the cost savings realized by avoidance of specified post-Focus meeting outcomes to arrive at total cost savings for the base year.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan ("Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances," June 2003) and will ensure that those standards and procedures are applied to this effort.

Data Quality Reviews: This is a new performance measure and, therefore, there is no developed record of review and correction. However, appropriate oversight of the measurement process will be provided. Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes and to provide quality oversight.

Data Limitations: No specific data limitations have been identified with respect to the measure presented here, except to the extent that the measure requires certain assumptions, discussed above, in addition to inputs of hard data.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error.

New/Improved Data or Systems: OPPT is currently developing an integrated electronic system that will provide real time access to prospective PMN review.

References: Additional information on EPA's New Chemicals program for TSCA Section 5 can be found at http://www.epa.gov/oppt/newchems/index.htm.

FY 2007 Performance Measure:

- **Percentage of High Production Volume (HPV) chemicals identified as priority concerns through assessment of Screening Information Data Set (SIDS) and other information with risks eliminated or effectively managed**

Performance Database: EPA will track the number of agency actions (e.g., regulatory, voluntary), targeting risk elimination or management of high production volume chemicals, using internal program databases or the Agency's Regulation and Policy Information Data System (RAPIDS). Many types of Agency actions qualify as risk management or elimination actions. Issuance of a Significant New Use Rule (SNUR) under TSCA is an example of regulatory action that can be tracked by the RAPIDS Promulgation Data field. An example of a non-regulatory risk management/elimination action is a written communication from EPA to chemical manufacturers/users indicating the Agency's concerns and suggesting but not requiring actions to address chemical risks (chemical substitution, handling protections, etc.). These actions would be tracked by monitoring internal communications files. The results are calculated on a calendar-year basis.

Data Source: RAPIDS stores official Agency data on progress of rule-making and other policy program development efforts. Data are supplied by EPA programs managing these efforts. For voluntary actions not tracked in RAPIDS, performance data are tracked internally by program managers.

Methods, Assumptions and Suitability: As EPA identifies HPV chemicals that are priorities for risk management action, following protocols currently under development, the Agency will commence regulatory or non-regulatory actions to address identified risks. All such actions will be recorded for the HPV chemical(s) subject to those actions, enabling EPA to report on progress in responding to the risks on a chemical- or chemical-category-specific basis. This annual performance measures (APM) commits the Agency to eliminate or effectively manage all such risks. Using data contained in RAPIDS, in the case of regulatory risk management action, EPA's progress towards meeting this APM will be documented by the sequence of formal regulatory development steps documented in that system. Where risk management action takes nonregulatory form, such as issuance of advisory communications to chemical manufacturers or users, progress toward meeting this APM will be tracked by internal files documenting such actions. The definition of risk is being addressed in the development of the protocols used in the HPV screening/prioritization process.

QA/QC Procedures: RAPIDS entries are quality assured by senior Agency managers.

Data Quality Reviews: RAPIDS entries are reviewed by EPA's Regulatory Management Staff.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Performance Data or Systems: N/A

References: None

FY 2007 Performance Measure:

- **The cumulative number of chemicals for which VCCEP data needs documents are issued by EPA in response to industry-sponsored Tier I risk assessments.**

Performance Database: Internal VCCEP program activity tracking database. Data needs documents are issued by EPA to conclude work on all Tier I submissions. Documents may indicate data are sufficient to reasonably demonstrate that children are not subject to significant risks. Documents also may indicate that additional assessment and associated data development are required, commencing Tier 2 work. The results are calculated on a calendar-year basis.

Data Source: Formal EPA files of VCCEP Tier I data needs communications. Data needs are also subject to peer review, results of which are posted and made public on the Toxicology Excellence for Risk Assessment website found at http://www.tera.org/peer/MeetingReports.html

Methods, Assumptions and Suitability: Information is tracked directly through internal record-keeping systems. No models or assumptions or statistical methods are employed.

QA/QC Procedures: The VCCEP program operates under Information Quality Guidelines as found at http://www.epa.gov/quality/informationguidelines/

Data Quality Reviews: The VCCEP program operates under Information Quality Guidelines as found at http://www.epa.gov/quality/informationguidelines/

Data Limitations: None known

Error Estimate: N/A

New/Improved Performance Data or Systems: None

References: http://www.epa.gov/chemrtk/vccep/index.htm

FY 2007 Performance Measure:

- **Number of risk management plan audits completed**

Performance Database: There is no database for this measure.

Data Source: EPA's Regional offices and the states provide the data to EPA headquarters.

Methods, Assumptions and Suitability: Data are collected and analyzed by surveying EPA's Regional offices to determine how many audits of facilities' risk management plans (RMPs) have been completed.

QA/QC Procedures: Data are collected from states by EPA's Regional offices, with review at the Regional and Headquarters' levels.

Data Quality Review: Data quality is evaluated by both Regional and Headquarters' personnel.

Data Limitations: Data quality is dependent on completeness and accuracy of the data provided by state programs.

Error Estimate: Not calculated.

New/Improved Data or Systems: N/A

Reference: N/A

FY 2006 Performance Measure:

- **Percentage of TRI chemical forms submitted over the Internet using the Toxic Release Inventory Made Easy (TRI-ME) and the Central Data Exchange (CDX)**

Performance Database: TRI System (TRIS).

Data Source: Facility submissions of TRI data to EPA.

Methods, Assumptions, and Suitability: As part of the regular process of opening the mail at the TRI Reporting Center, submissions are immediately classified as paper or floppy disk. This information is then entered into TRIS. The identification of an electronic submission via CDX is done automatically by the software.

QA/QC Procedures: Currently, the mail room determines whether a submission is on paper or a floppy disk during the normal process of entering and tracking submissions. Electronic submissions via CDX are automatically tracked by the software. With an increase in electronic reporting via CDX, the manual mail room processing will be significantly reduced. Information received via hard copy are double-key entered. During the facility reconciliation process, the data entered are checked to ensure "submission-type" identification is accomplished at no less than 99 % accuracy. Accuracy is defined as accurate identification of document type.

Data Quality Reviews: Each month the Data Processing Center conducts data quality checks to ensure 99 % accuracy of submission information captured in TRIS.

Data Limitations: Occasionally, some facilities send in their forms in duplicative formats (e.g., paper, floppy, and/or through CDX). All submissions are entered into TRIS. The Data Processing Center follows the procedures outlined in the document "*Dupe Check Procedures*" to identify potential duplicate submissions. Submissions through CDX override duplicate submissions by disk and/or hard copy. Floppy disk submissions override duplicate paper copy submissions.

Error Estimate: The error rate for "submission-type" data capture has been assessed to be less than 1%. The quality of the data is high.

New/Improved Performance Data or Systems: EPA continues to identify enhancements in E-reporting capabilities via CDX.

References: www.epa.gov/TRI

GOAL 4 OBJECTIVE 2

FY 2007 Performance Measures:

- **Brownfields properties assessed**
- **Number of properties cleaned up using Brownfields funding**
- **Acres of Brownfields property available for reuse**
- **Number of jobs leveraged from Brownfields activities**
- **Percentage of Brownfields job training trainees placed**
- **Billions of dollars of cleanup and redevelopment funds leveraged at Brownfields sites**
- **Acres of Brownfields made ready for reuse per million dollars.**

Performance Database: The Assessment, Cleanup and Redevelopment Exchange System (ACRES) contains the performance information identified in the above measures.
Key fields related to performance measures include:
Properties with Assessment Completed with Pilot/Grant Funding
Properties assessed with Targeted Brownfields Assessment Funding
Properties with Cleanup Complete
Acres Made Ready for Reuse
Cleanup/Redevelopment Jobs Leveraged
Assessment/Cleanup/Redevelopment Dollars Leveraged
Number of Participants Completing Training
Number of Participants Obtaining Employment

Data Source: Data are extracted from quarterly reports and property profile forms prepared by assessment, cleanup, revolving loan fund (RLF), job training, and State and Tribal 128 Voluntary

Response Program cooperative agreement award recipients. Information on Targeted Brownfields Assessments is collected from EPA Regions.

Methods, Assumptions and Sustainability: Cooperative agreement award recipients submit reports quarterly (except for 128(a)) and property profile forms to EPA. Performance measure data are extracted from these documents by an EPA contractor. Data are then forwarded to Regional Pilot managers for review and finalization. Given the reporting cycle and the data entry/QA period, there is typically a six month data lag for BMS data.

Note that accomplishments reported by Brownfields Assessment Grantees, Brownfields Cleanup Grantees, Brownfields Revolving Loan Fund Grantees, Brownfields Job Training Grantees, Regional Targeted Brownfields Assessments, and State and Tribal 128 Voluntary Response Program Grantees all contribute towards these performance measures. "Number of Brownfields properties assessed" is an aggregate of assessments completed with Assessment Grant funding, Regional Targeted Brownfields Assessment funding, and State and Tribal 128 Voluntary Response Program funding. Number of Brownfields properties cleaned up is an aggregate of properties cleaned up by RLF Grantees, Cleanup Grantees, and State and Tribal 128 Voluntary Response Program Grantees. "Number of Acres Made Ready for Reuse" is an aggregate of acreage assessed that does not require cleanup and acreage cleaned up as reported by Assessment Grantees, Regional Targeted Brownfields Assessments, Cleanup Grantees, RLF Grantees, and State and Tribal 128 Voluntary Response Program Grantees. "Number of cleanup and redevelopment jobs leveraged" is the aggregate of jobs leveraged by Assessment, Cleanup and RLF Grantees. "Amount of cleanup and redevelopment funds leveraged at Brownfields properties" is the aggregate of funds leveraged by Assessment, Cleanup and RLF Grantees. "Percentage of Brownfields job training trainees placed" is based on the "Number of Participants Completing Training" and the "Number of Participants Obtaining Employment" reported by Job Training Grantees.

QA/QC Procedures: Data reported by cooperative award agreement recipients are reviewed by EPA Regional project officers or project managers for accuracy. Reports are produced monthly with detailed data trends analysis.

Data Quality Reviews: No external reviews.

Data Limitations: All data provided voluntarily by grantees.

Error Estimate: NA

New/Improved Data or Systems: The Brownfields Program has developed the Assessment Cleanup and Redevelopment Exchange System (ACRES database) to improve data collection and management. The Brownfields Program will implement online QA for Regional project officers using the ACRES database in FY 2006. The Program is also in the process of amending the OMB ICR to gather information from State and Tribal 128 Voluntary Response Program grantees.

References: none.

GOAL 4 OBJECTIVE 3

FY 2007 Performance Measure:

- **Acres of habitat protected or restored in National Estuary Program (NEP) study areas [Ocean and Coastal PART measure]**
- **Program dollars per acre of habitat protected or restored [Ocean and Coastal PART efficiency measure]**

Performance Database: The Office of Wetlands Oceans and Watersheds has developed a standardized format for data reporting and compilation, defining habitat protection and restoration activities and specifying habitat categories. The key field used to calculate annual performance is habitat acreage. Annual results have been reported since 2001 for the NEP (results are calculated on a fiscal year basis).

Information regarding habitat protection is accessible on a web page that highlights habitat loss/alteration, as well as the number of acres protected and restored by habitat type http://www.epa.gov/owow/estuaries/pivot/overview/intro.htm. This allows EPA to provide a visual means of communicating NEP performance and habitat protection and restoration progress to a wide range of stakeholders and decision-makers.

Data Source: NEP documents such as annual work plans (which contain achievements made in the previous year), annual progress reports and other implementation tracking materials, are used to document the number of acres of habitat restored and protected. EPA aggregates the data provided by each NEP to arrive at a national total for the entire Program. EPA is confident that the data presented are as accurate as possible Each NEP reviews the information prior to reporting to EPA. In addition, EPA conducts regular reviews of NEP implementation to help ensure that information provided in these documents is accurate, and progress reported is in fact being achieved.

Methods, Assumptions and Suitability: Measuring the number of acres of habitat restored and protected may not directly correlate to improvements in the health of the habitat reported,-or of the estuary overall, but it is a suitable measure of on-the-ground progress. Habitat acreage does not necessarily correspond one-to-one with habitat quality, nor does habitat (quantity or quality) represent the only indicator of ecosystem health. Nevertheless, habitat acreage serves as an important surrogate and a measure of on-the-ground progress made toward EPA=s annual performance goal of habitat protection and restoration in the NEP. EPA has defined and provided examples of Aprotection@ and Arestoration@ activities for purposes of measure tracking and reporting (see citation for the PIVOT website in references below.) "Restored and protected" is a general term used to describe a range of activities. The term is interpreted broadly to include created areas, protected areas resulting from acquisition, conservation easement or deed restriction, submerged aquatic vegetation coverage increases, permanent shellfish bed openings, and anadromous fish habitat increases.

The NEP "Habitat Acres Protected or Restored" efficiency measure will be calculated by dividing the total ocean and coastal protection program dollars by the total NEP acres protected

or restored. The measure is based on the habitat data collected by the NEPs, as described above and reported in the annual habitat measure), and the total program dollars, which is the sum of the NEP/Coastal budget (including the additional funds for Long Island Sound), the Marine Pollution budget, and the program match as reported by the NEPs.

QA/QC Procedures: Primary data are prepared by the staff of the NEP based on their own reports and from data supplied by other partnering agencies/organizations (that are responsible for implementing the action resulting in habitat protection and restoration). The NEP staff are requested to follow EPA guidance to prepare their reports, and to verify the numbers. EPA then confirms that the national total accurately reflects the information submitted by each program. The Office of Water Quality Management Plan (QMP), renewed every five years, was approved in July 2001. EPA requires that each organization prepare a document called a Quality Management Plan (QMP) that documents the organization's data quality policy, which addresses the quality, generation and use of the organization's data and identifies the environmental programs to which the quality system applies (e.g., programs that rely on the collection or use of environmental data.)

Data Quality Review: No audits or quality reviews conducted yet.

Data Limitations: It is still early to determine the full extent of data limitations. Current data limitations include: information that may be reported inconsistently (based on different interpretations of the protection and restoration definitions), acreage that may be miscalculated or misreported, and acreage that may be double counted (same parcel may also be counted by partnering/implementing agency or need to be replanted multiple years). In addition, measuring the number of acres of habitat restored and protected may not directly correlate to improvements in the health of the habitat reported (particularly in the year of reporting), but is rather a measure of on-the-ground progress made by the NEPs.

Error Estimate: No error estimate is available for this data.

New/Improved Data or Systems: In 2004, NEP provided latitude and longitude data (where possible) for each project. These data are then mapped to highlight where these projects are located in each NEP study area. Not only does this assist both the individual NEP and EPA in obtaining a sense of geographic project coverage, but it provides a basis from which to begin exploring cases where acreage may be double-counted by different agencies. An on-line reporting system is also being developed for the NEPs= use that will assist in tracking habitat projects, and will help reduce EPA=s QA/QC time. Currently, this system is scheduled to be in place by September 2005.

References: Aggregate national and regional data for this measurement, as well as data submitted by the individual National Estuary Programs, is displayed numerically, graphically, and by habitat type in the Performance Indicators Visualization and Outreach Tool (PIVOT). PIVOT data are publicly available at http://www.epa.gov/owow/estuaries/pivot/overview/intro.htm. The Office of Water Quality Management Plan (July 2001) is available on the Intranet at http://intranet.epa.gov/ow/infopolicy.html.

FY 2007 Performance Measure:

- **By 2008, working with partners, achieve a net increase of 400,000 acres of wetlands**

Performance Database: The National Wetlands Inventory (NWI) of the U.S. Fish and Wildlife Service produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This information is used by Federal, State, and local agencies, academic institutions, U.S. Congress, and the private sector. The Emergency Wetland Resources Act of 1986 directs the Service to map the wetlands of the United States. The NWI has mapped 89 percent of the lower 48 states, and 31 percent of Alaska. The Act also requires the Service to produce a digital wetlands database for the United States. About 42 percent of the lower 48 states and 11 percent of Alaska are digitized. Congressional mandates require the U.S. Fish and Wildlife Service to produce a status and trends reports to Congress at ten-year intervals.

The status and trends report is designed to provide recent and comprehensive estimates of the abundance of wetlands in the 48 conterminous States. This status and trends report indicates whether there is an actual increase in wetland acreage or if wetlands are continuing to decrease. Up-to-date status and trends information is needed to periodically evaluate the efficacy of existing Federal programs and policies, identify national or regional wetland issues, and increase public awareness of and appreciation for wetlands.

The last status and trends report[26] provided the most recent and comprehensive estimates of the current gains and losses for different types of wetlands in the United States on public and private lands from calendar year 1986 to 1997. In calendar year 1997, there were an estimated 105.5 million acres of wetlands in the conterminous United States. Of this total, 100.5 million acres (95 percent) are freshwater wetlands and 5 million acres (5 percent) are saltwater wetlands.

The President directed in his Earth Day 2004 announcement that the next National Wetlands Inventory update, status and trends report, should be completed by the end of 2005, five years ahead of the current schedule, and asked that the updates be done more frequently thereafter. The next Status and Trends Report is expected to be released by the Fish and Wildlife Service in January 2006, and every five years thereafter. This new information will show whether, nationally, we are making progress against the net gain measure and should inform Federal, State, Tribal, local government programs' policies and decision making.

Data Source: The National Status and Trends Report is developed and published by the U.S. Fish and Wildlife Service. This is the only Federal study that provides statistically valid estimates with a published standard error for all wetlands in the conterminous United States. Aerial imagery is the primary data source, and it is used with reliable collateral data such as topographic maps, coastal navigation charts, published soil surveys, published wetland maps, and State, local or regional studies. A random number of sites are also field verified. All photography is cataloged, numbered, tagged, and traced in a database management system.

[26] Dahl, T.E. 2000. Status and trends of wetlands in the conterminous United States 1986 to 1997. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 82pp.

For each plot, aerial imagery is interpreted and annotated in accordance with procedures published by the Fish and Wildlife Service. The results are compared with previous era imagery, and any changes recorded. The differences between the data sets are analyzed and a statistical estimate of the change is produced.

The five major kinds of wetlands are: 1) freshwater (or palustrine), 2) saltwater (or estuarine), 3) riverine, 4) lacustrine (or lakes and other deepwater habitats), and 5) marine wetlands. For analysis and reporting purposes, these types of wetlands were further divided into subcategories such as freshwater forested wetland, freshwater emergent wetland, estuarine and marine intertidal wetlands.

Methods, Assumptions and Suitability: An interagency group of statisticians developed the design for the national status and trends study published in 2000. The study was based on a scientific probability sample of the surface area of the 48 coterminous States. The area sampled was about 1.93 billion acres and the sampling did not discriminate based on land ownership. The study used a stratified, simple random sampling design. About 754,000 possible sample plots comprised the total population. Geographic information system software was used to organize the information of about 4,375 random sample plots. The plots were examined with the use of remote sensed data in combination with field work. Estimates of change in wetlands were made over a specific time period. A similar study design was used for the Status and Trends report due out in January 2006.

QA/QC Procedures: The Service has developed and implemented quality assurance measures that provide appropriate methods to take field measurements, ensure sample integrity and provide oversight of analyses, which includes reporting of procedural and statistical confidence levels. The objective was to produce comprehensive, statistically valid acreage estimate of the Nation's wetlands. Because of the sample-based approach, various quality control and quality assurance measures were built into the data collection, review, analysis, and reporting stages. This includes field verification of the plots. Six Federal agencies assist with field verification work.

Data Quality Reviews: Not Applicable

Data Limitations: Certain habitats were excluded because of the limitations of aerial imagery as the primary data source to detect wetlands. This was consistent with previous wetland status and trends studies conducted by FWS.

Error Estimate: Estimated procedural error ranged from 4 to 6 percent of the true values when all quality assurance measures have been completed. Procedural error was related to the ability to accurately recognize and classify wetlands both from multiple sources of imagery and on the ground evaluations. Types of procedural errors were missed wetlands, inclusion of upland as wetland, misclassification of wetlands, or misinterpretation of data collection protocols. The amount of procedural error is usually a function of the quality of the data collection conventions; the number, variability, training and experience of data collection personnel; and the rigor of any quality control or quality assurance measures.

New/Improved Data or Systems: Advances in computerized cartography were used to improve data quality and geospatial integrity. Newer technology allowed the generation of existing digital plot files at any scale to overlay directly over an image base.

References:
http://wetlands.fws.gov/index.html
http://wetlands.fws.gov/bha/SandT/SandTReport.html
http://wetlands.fws.gov/Pubs_Reports/publi.htm

FY 2007 Performance Measure:

- **Annually, beginning in FY04 and in partnership with the Corps of Engineers and states, achieve no net loss of wetlands in the Clean Water Act Section 404 regulatory program**

Performance Database: Since 1989, the goal of the Clean Water Act Section 404 program has been no net loss of wetlands.

Historically, the Corps has collected limited data on wetlands losses and gains in its Regulatory Analysis and Management System (RAMS) permit tracking database. The Corps has compiled national Section 404 wetland permitting data for the last 10 years reflecting acres of wetland impacts avoided (through the permit process), acres permitted for impacts, and acres mitigated. However, limitations in methods used for data collection, reporting and analysis resulted in difficulties in drawing reliable conclusions regarding the effects of the Section 404 program.

Data Source: Data included in RAMS is generally collected by private consultants hired by permit applicants or Corps Regulatory Staff. Data input is generally done by Corps staff.

Methods, Assumptions and Suitability: RAMS was designed to be an administrative aid in tracking permits, thus it lacks many of the fields necessary to adequately track important information regarding wetland losses and gains. Also, the database was modified differently for each of the 38 Corps Districts making national summaries difficult. Furthermore, the database is also proprietary making it difficult to retrofit without utilizing its original developers.

QA/QC Procedures: Historically, there has not been a high level of QA/QC with regard to data input into RAMS. Its antiquated format and numerous administrative fields discourage use. Lack of standard terms and classification also make all aspects of data entry problematic.

Data Quality Reviews: Independent evaluations published in 2001 by the National Academy of Sciences (NAS) and the General Accounting Office (GAO) provided a critical evaluation of the effectiveness of wetlands compensatory mitigation (the restoration, creation, or enhancement of wetlands to compensate for permitted wetland losses) for authorized losses of wetlands and other waters under Section 404 of the Clean Water Act. The NAS determined that available data was insufficient to determine whether or not the Section 404 program was meeting its goal of no net loss of either wetland area or function. The NAS added that available data suggested that the

program was not meeting its no net loss goal. Among its suite of recommendations, the NAS noted that wetland area and function lost and regained over time should be tracked in a national database and that the Corps should expand and improve quality assurance measures for data entry.

In response to the NAS, GAO, and other recent critiques of the effectiveness of wetlands compensatory mitigation, EPA and the Corps in conjunction with the Departments of Agriculture, Commerce, Interior, and Transportation released the National Wetlands Mitigation Action Plan (MAP) on December 26, 2002. The Plan includes 17 tasks that the agencies will complete in FY 07 to improve the ecological performance and results of compensatory mitigation. (Note: some Mitigation Action Plan items may be subsumed by the Corps' mitigation rulemaking expected to be finalized in calendar year 2006.)

Data Limitations: As previously noted, RAMS currently provides the only national data on wetlands losses and gains in the Section 404 Program. Also, as previously noted, there are a number of concerns regarding the conclusions that can be drawn from these numbers. Data quality issues include:

1. Inability to separate restoration, creation, enhancement and preservation acreage from the aggregate "mitigation" acreage reported;
2. Lack of data regarding how much designated mitigation acreage was actually undertaken, and how much of that total was successful;
3. Lack of data regarding how much of the permitted impacts actually occurred; and
4. Limitations on identifying acres "avoided," because the figure is only based on the difference between original proposed impacts and impacts authorized. Often, permit applicants who are aware of the 404 program's requirements to avoid and minimize impacts to wetlands, make initial site selection and site design decisions that minimize wetland impacts prior to submitting a permit application. Such avoidance decisions benefit applicants, as their applications are more likely to be accepted and processed with minor changes. This behavioral influence that the program engenders is difficult to capture and quantify, but contributes considerable undocumented "avoided" impacts.

Error Estimate: Not applicable

New/Improved Data or Systems: The EPA and the Corps have acknowledged the need for improved 404 tracking. The Corps is currently piloting a new national permit tracking database called ORM (Operation and maintenance business information link, Regulatory Module) to replace its existing database (RAMS). As part of the MAP, the Corps is working with EPA and the other Federal agencies and states to ensure that the version of ORM that is ultimately deployed will adequately track wetlands gains and losses. The Corps expects to deploy ORM in all 38 of its districts at the start of 2007, enabling national reporting in early 2008. The Corps, in coordination with EPA and other federal agencies has invested in the development of a GIS-enabled version of the ORM data management system, known as G-ORM and plans to beta test it in three Corps Districts by Fall 2006. The G-ORM enhancement will improve the environmental results of the CWA Section 404 Program and reporting of aggregate wetland data under it, by spatially-enabling wetland permit decision-making, improving tracking of permitted

losses and required compensation, and ensuring public and interagency access to wetland permitting information via a system of web-services and web-mapping tools.

ORM is being designed to provide improved tracking regarding:

- Type of impacts
- Type and quantity of habitat impacted (Using Hydrogeomorphic and Cowardin classification systems)
- Type and quantity of habitat mitigated (Using Hydrogeomorphic and Cowardin classification systems)
- Type and quantity of mitigation (restoration, creation, enhancement, or preservation)
- Differentiating stream mitigation (in linear feet) from wetlands mitigation (in acres)
- Spacial tracking via G-ORM GIS enhancements for both impact and mitigation sites *(planned)*
- Functional losses (debits) at the impact site and functional gains at the mitigation site (credits) if assessment tool is available and applied

References:
http://www.mitigationactionplan.gov/

FY 2007 Performance Measure:

- **Prevent water pollution and protect aquatic ecosystems so that overall ecosystem health of the Great Lakes is improved**

Performance Database: USEPA's Great Lakes National Program Office (GLNPO) will collect and track the eight (8) components of the index and publish the performance results as part of annual reporting under the Government Performance and Results Act (GPRA) and as online reporting of GLNPO's monitoring program, <http://epa.gov/glnpo/glindicators/index.html> . Extensive databases for the indicator components are maintained by GLNPO (phosphorus concentrations, contaminated sediments, benthic health, fish tissue contamination), by binational agreement with Environment Canada (air toxics deposition), and by local authorities who provide data to the USEPA (drinking water quality, beach closures). A binational team of scientists and natural resource managers is working to establish a long term monitoring program to determine extent and quality of coastal wetlands.

Data Source: Data for the index components are tracked internally and reported through the State of the Lakes Ecosystem Conference (SOLEC) process. The document, "State of the Great Lakes 2005 -A Technical Report," presents detailed indicator reports prepared by primary authors, including listings of data sources. Depending on the indicators, data sources may include U.S. and Canadian federal agencies, state and provincial agencies, municipalities, research reports and published scientific literature. Information from the following indicators is used to evaluate the Index components:

Coastal Wetlands group of indicators:

Coastal Wetland Invertebrate Community Health
Coastal Wetland Fish Community Health

Coastal Wetland Amphibian Diversity and Abundance
Coastal Wetland Area by Type
Coastal Wetland Plant Community Health
Effects of Water Levels Fluctuations
Phosphorus Concentrations and Loadings
Concentrations of Contaminants in Sediment Cores
Benthic Health group of indicators:
Hexagenia
Abundances of the Benthic Amphipod Diporeia spp.
Contaminants in Sport Fish
Beach Advisories, Postings and Closures
Drinking Water Quality
Atmospheric Deposition of Toxic Chemicals

Methods, Assumptions, and Suitability: The Index is based on a 40 point scale where the rating uses select Great Lakes State of the Lakes Ecosystem indicators (i.e., coastal wetlands, phosphorus concentrations, Area of Concern (AOC) sediment contamination, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition). Each component of the Index is based on a 1 to 5 rating system, where 1 is poor and 5 is good. Authors of SOLEC indicator reports use best professional judgment to assess the overall status of the ecosystem component in relation to established endpoints or ecosystem objectives, when available. Each indicator is evaluated for Status (good, fair, poor, mixed) and Trend (improving, unchanging, deteriorating, undetermined). To calculate the Index, the data for each indicator are compared to the evaluation criteria for the numeric, 1 to 5, rating system. Each of the index components is included in the broader suite of Great Lakes indicators, which was developed through an extensive multi-agency process to satisfy the overall criteria of necessary, sufficient and feasible. Information on the selection process is in the document, "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4."

QA/QC Procedures: GLNPO has an approved Quality Management System in place[1](see reference #1 below) that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management.

The SOLEC process relies on secondary use of data, i.e., data for many of the indicators are collected, maintained and analyzed by agencies and organizations other than USEPA. Participating agencies and organizations follow their own QA/QC procedures to assure high quality data. A Quality Assurance Project Plan (QAPP) was developed to document procedures for data assessment and review for the indicators reports prepared for the State of the Great Lakes 2005 report. See "State of the Lakes Ecosystem Conference 2004 QAPP."

Data Quality Review: GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews[2] (see reference #2 below). GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

An external Peer Review of SOLEC processes and products was conducted in 2003 by an international panel of experts familiar with large-scale regional or national indicator and reporting systems. Panel findings were generally positive and several recommendations were made to consider for future SOLEC events and reports. Many of the recommendations have been implemented, and others are being considered for feasibility. The final report by the review panel is available online at http://epa.gov/glnpo/solec/index.html. See "State of the Lakes Ecosystem Conference Peer Review Report" in the SOLEC 2004 section.

A second review of the suite of Great Lakes indicators was conducted by Great Lakes stakeholders in 2004. As a direct result of the findings and recommendations from the participants, several indicators were revised, combined or dropped, and a few others were added. The indicators were also regrouped to allow the user to more easily identify the indicators relevant to particular ecosystem components or environmental issues. The final report from the review is available online at http://epa.gov/glnpo/solec/index.html. See "State of the Lakes Ecosystem Conference Peer Review Report, Part 2: Stakeholder Review of the Great Lakes Indicators" in the SOLEC 2004 section.

Data Limitations: Data limitations vary among the indicator components of the Index. The data are especially good for phosphorus concentrations, fish tissue contamination, benthic health, and air toxics deposition. The data associated with other components of the index (coastal wetlands, AOC sediment contamination, beach closures, and drinking water quality) are more qualitative. Some data are distributed among several sources, and without an extensive trend line. Limitations for each of the index components are included in the formal indicator descriptions in the document, "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4."

Error Estimate: Error statistics for the Great Lakes Index have not been quantified. Each unit of the 40 point scale represents 2.5% of the total, so any unit change in the assessment of one of the component indicators would result in a change of the index of that magnitude. The degree of environmental change required to affect an indicator assessment, however, may be significantly large.

New/Improved Data or Systems: The data system specifically for this index is being developed. Data continue to be collected through the SOLEC process by various agencies, including GLNPO. Efforts are currently in progress to integrate various Great Lakes monitoring programs to better meet SOLEC objectives and to increase efficiencies in data collection and reporting.

References:

1. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.

2. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.

3. "State of the Lakes Ecosystem Conference 2004 QAPP." Unpublished. Prepared as part of Cooperative Agreement between USEPA and Environment Canada.

4. Canada and the United States. "State of the Great Lakes 2003." ISBN 0-662-34798-6, Environment Canada, Burlington, Ontario, Cat. No. En40-11/35-2003E, and U.S.

5. Environmental Protection Agency, Chicago, EPA 905-R-03-004. 2003. Available on CD and online at <www.binational.net>.

6. Canada and the United States. "Implementing Indicators 2003 - A Technical Report." ISBN 0-662-34797-8 (CD-Rom), Environment Canada, Burlington, Ontario, Cat. No. En164-1/2003E-MRC (CD-Rom), and U.S. Environmental Protection Agency, Chicago, EPA 905-R-03-003. 2003. Available on CD from U.S. EPA/Great Lakes National Program Office, Chicago. Available online at http://epa.gov/glnpo/solec/index.html

7. Canada and the United States. "State of the Great Lakes 2005 - Draft." Environment Canada, Burlington, Ontario, and U.S. Environmental Protection Agency, Chicago, 2004. Available online at <http://epa.gov/glnpo/solec/index.html>

8. Bertram, Paul and Nancy Stadler-Salt. "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4." Environment Canada, Burlington, Ontario, and U.S. EPA, Chicago. 2000. Available online at <www.binational.net>.

All SOLEC documents, background reports, indicator reports, indicator development processes, conference agenda, proceedings and presentations are available online at http://epa.gov/glnpo/solec/index.html The documents are sorted by SOLEC year and include the State of the Great Lakes reports which are released the following calendar year.

FY 2007 Performance Measure:

- **The average concentrations of PCBs in whole lake trout and walleye**

Performance Database: Great Lakes National Program Office (GLNPO) Great Lakes Fish Monitoring Program (GLFMP) [1](see reference #1 below). This program is broken into two separate elements, Element 1 – Open Water Trend Monitoring and Element 2 – Game Fish Fillet Monitoring. Each program collects and monitors contaminants in Great Lakes fish at alternating locations throughout the Great Lakes Basin; fish are collected at one set of sites during even years and at another set in odd years. Element 1 began with the collection of data in Lake Michigan in 1972 and the additional lakes were added in 1976. Element 2 began with the collection of data in all five of the Great Lakes in the early 1980's. In FY07, the database will contain QA/QC data from fish collected in 2005. Data are reported on a calendar year basis and are specific to the even or odd year sampling schedule (even year sites are only compared to other even year sites etc.)

Data Source: GLNPO is the principal source of data for the Great Lakes Fish monitoring program. The Great Lakes States and Tribes assist with fish collection. Previous cooperating organizations include the U.S. Geological Survey (USGS), the U.S. Fish and Wildlife Service (USFWS), and the Food and Drug Administration (FDA).

Methods, Assumptions, and Suitability: This indicator provides concentrations of selected organic contaminants in Great Lakes open water fish. The Great Lakes Fish Monitoring Program is broken into two separate elements that monitor potential exposure to contaminant concentrations for wildlife (Element 1) and humans through consumption (Element 2). Only Element 1 is included in this indicator.

The first element, Open Lakes Trend Monitoring Program, was created to: (1) determine time trends in contaminant concentrations, (2) assess impacts of contaminants on the fishery using fish as biomonitors, and (3) assess potential risk to the wildlife that consume contaminated fish. The first element includes data from ten 600-700 mm lake trout (*Salvelinus namaycush*) whole fish composites (5 fish in each composite) from each of the lakes. Since sufficient lake trout are not found in Lake Erie, data for 450 – 550 mm walleye (*Stizostedion vitreum vitreum*) are used for that Lake.

All GLFMP data are quality-controlled and then loaded into the Great Lakes Environmental Database (GLENDA). Included in GLENDA are flags for each data point that can be used to evaluate the usability of the data. Each Great Lake is a unique environment with a distinct growth rate, food web, and chemical integrity. For this reason, a direct comparison of annual concentrations between basins is not appropriate. However, an average annual basin-wide percent decrease can be determined using an exponential decrease function, and the 1990 data as the baseline. The percent decrease of Element 1 can be calculated and compared to the 5% reduction target to determine if the target has been met. All years of data from all lakes are plotted on the same graph, with each year containing 5 data points. An exponential decrease is then found for the entire data set and the percent decrease is calculated from the best fit line. The Lake Michigan data set represents the worst case scenario in the Great Lakes Basin for the Open Lakes Trend Monitoring Program.

QA/QC Procedures: GLNPO has an approved Quality Management System in place[2] (see reference #2 below) that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management. The Quality Assurance (QA) plan that supports the analytical portion of the fish contaminant program is approved and available online[3] (see reference #3 below). The draft field sampling Quality Assurance Project Plan (QAPP) is being revised and will be submitted to the GLNPO QA Officer for review upon the completion of the Quality Management Plan.

Data Quality Review: GLNPO's Quality Management System has been evaluated as "outstanding" in previous peer and management reviews[4] (see reference #4 below). GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

Data Limitations: Great Lakes Fish Monitoring Program data are not well-suited to portray localized changes. Nevertheless, data collected at a certain site (odd year or even year sites) can be compared to data collected from the same site. In addition, only very general comparisons can be made of contaminant concentrations between lakes. A recent review of the odd year Open Lake Trend Monitoring in Lake Erie data indicate an increased variability in the data between the years of 1999 and 2003 because during those years several individual samples (fish) fell outside of the desired size range leading to a higher or lower than average mean sample size for the composite.

Error Estimate: The data quality objective of the fish contaminant program was to detect a 20% change in each measured contaminant concentration between two consecutively sampled periods at each site. Based on changing environmental conditions, the data quality objective has been revised to detect trends in concentration of 0.1 mg/kg/year based on three consecutive sampling periods (6 years, as sites are sampled every other year) for a specific site, with a power of 80% or greater. The program was designed to reach that goal with 95% confidence.

New/Improved Data or Systems: The GLENDA database is a significant new system with enhanced capabilities. Existing and future fish data will be added to GLENDA.

References:

1. "*The Great Lakes Fish Monitoring Program - A technical and Scientific Model For Interstate Environmental Monitoring.*" September, 1990. EPA503/4-90-004.

2. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003. http://www.epa.gov/glnpo/qmp/

3. *"Great Lakes Fish Monitoring Program – Quality Assurance Project Plan for Sample Collection Activities"*, Great Lakes National Program Office. http://www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP_QAPP_082504.pdf

4. "*GLNPO Management Systems Review of 1999."* Unpublished - in USEPA Great Lakes National Program Office files.

5. "*Trends in Great Lakes Fish Contaminants", Dr. Deborah Swackhammer, University of Minnesota Environmental Occupational Health, School of Public Health, EPA Grant #GL97524201-2, 7/1/02.*De Vault, D. S. 1984. Contaminant analysis of fish from Great Lakes harbors and tributary mouths. U.S. Environmental Protection Agency, Great Lakes National Program Office. USEPA 905/3-84-003, http://www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP%20QAPP%20v7.pdf

6. De Vault, D. S., R. Hesselberg, P. W. Rodgers and T. J. Feist. 1996. Contaminant trends in lake trout and walleye from the Laurentian Great Lakes. Journal of Great Lakes Research 22: 884-895.

7. De Vault, D. S., W. A. Willford, R. Hesselberg, E. Nortrupt and E. Rundberg. 1985. Contaminant trends in lake trout (Salvelinus namaycush) from the upper Great Lakes. Archives of Environmental Contamination and Toxicology 15: 349-356.

8. De Vault, D. S., W. A. Willford, R. J. Hesselberg and D. A. Nortrupt. 1986. Contaminant trends in lake trout (Salvelinus namaycush) from the upper Great Lakes. Archives of Environmental Contamination and Toxicology 15: 349-356.

9. GLNPO. 1981. A Strategy for Fish Contaminant Monitoring in the Great Lakes. USEPA Great Lakes National Program Office. .

10. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.

11. Swackhammer, D. L. 2001. "*Trends in Great Lakes Fish Contaminants.*" Unpublished - in USEPA Great Lakes National Program Office files.

12. Swackhammer, D.L. February 2002. "*Trends in Great Lakes Fish Contaminants.*" Unpublished - in USEPA Great Lakes National Program Office files.

13. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.

FY 2007 Performance Measure:

- **Concentration trends of toxic chemicals in the air in the Great Lakes basin will decline**

Performance Database: Great Lakes National Program Office (GLNPO) integrated atmospheric deposition network [1] (see reference #1 below) (IADN) operated jointly with Environment Canada. Reporting starts with 1992 data and includes concentrations of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and organochlorine pesticides in air and precipitation; however, this Performance Measure addresses only PCBs. Monitoring results from 2005 will be reported in 2007. Data are reported on a calendar year basis.

Data Source: GLNPO and Environment Canada are the principal sources of the data. Data also come through in-kind support and information sharing with other Federal agencies and Canada.

Methods, Assumptions, and Suitability: There are five master IADN stations, one for each lake, which are supplemented by satellite stations in other locations. The master stations are located in remote areas and are meant to represent regional background levels. Concentrations

from the master stations are used for the performance measure. Concentrations from the satellite stations in Chicago and Cleveland are also sometimes used to demonstrate the importance of urban areas to atmospheric deposition to the Lakes.

Air samples are collected for 24 hours using high-volume samplers containing an adsorbent. Precipitation samples are collected as 28-day composites. Laboratory analysis protocols generally call for solvent extraction of the organic sampling media with addition of surrogate recovery standards. Extracts are then concentrated followed by column chromatographic cleanup, fractionation, nitrogen blow-down to small volume (about 1 mL) and injection (typically 1 uL) into gas chromatography instruments.

All IADN data are loaded and quality controlled using the Research Database Management System (RDMQ), a Statistical Analysis System (SAS) program. RDMQ provides a unified set of quality assured data, including flags for each data point that can be used to evaluate the usability of the data. Statistical summaries of annual concentrations are generated by the program and used as input into an atmospheric loading calculation. The loadings calculation is described in detail in the Technical Summary referenced below. However, calculating loadings requires additional data and constants that introduce further error. Therefore, the averaged annual concentrations rather than the loadings are used in the performance measure. Concentrations can vary from year to year due to differences in weather (temperature, wind patterns, etc.), so comparing concentrations from one year to the next is not always appropriate. This performance measure examines the average percent decline for the **long-term trend** determined using an exponential decrease function. Each year the average percent decline is calculated after adding new data. A baseline percent decrease was determined using data through 2000, and the aim is that this rate of decrease will continue.

QA/QC Procedures: GLNPO has a Quality Management System in place, which conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management[2] (see reference #2 below). Quality Assurance Project Plans are in place for the laboratory grantee, as well as for the network as a whole. A jointly-funded QA contractor conducts laboratory and field audits, tracks QA statistics, and carries out special QA studies. Data from all contributing agencies are quality-controlled using the SAS-based system.

Data Quality Review: GLNPO's Quality Management System has been evaluated as "outstanding" in previous peer and management reviews[3] (see reference #3 below). GLNPO has implemented all recommendations from these external audits and complies with Agency Quality Standards[4] (see reference #4 below). The IADN program has a joint Canadian-US quality system and binational Steering Committee that meets periodically in person or via conference calls to make decisions on network operation and data management and quality.

A regular set of laboratory and field blanks is taken and recorded for comparison to the IADN field samples. In addition, a suite of chemical surrogates and internal standards is used extensively in the analyses. A jointly-funded QA contractor conducts laboratory and field audits, tracks QA statistics, and carries out special QA studies. As previously mentioned, data from all contributing agencies are quality-controlled using a SAS-based system.

Data Limitations: The sampling design is dominated by rural sites that under-emphasize urban contributions to deposition; thus, although the data are very useful for trends information, there is less assurance of the representativeness of deposition to the whole lake. U.S. and Canadian laboratories use somewhat different sampling and analytical methods; QA studies have found that differences in resulting data are attributable mostly to the sampling differences. There are gaps in open lake water column organics data, thus limiting our ability to calculate atmospheric loadings. This gap is being addressed through the recent implementation by GLNPO of the Great Lakes Aquatic Contaminant Surveillance (GLACS) program, which will collect water contaminant data in the Lakes.

In the past, there has been a lag in the data from the Canadian sites (Burnt Island on Lake Huron and Point Petre on Lake Ontario). U.S. data is usually reported two years after it is collected (i.e., 2002 data was reported in 2004); the Canadian data may not be available on this schedule.

Error estimate: The performance measure examines the long-term trend in concentrations. Concentrations have an error of +/- 40%, usually less. Differences between laboratories have been found to be 40% or less. This is outstanding given the very low levels of these pollutants in the air and the difficulty in analysis. Improvements in quality assurance (use of a clean lab for Canadian precipitation analysis, making calibration standards consistent among agencies, etc.) are helping to further close this gap.

New/Improved Data or Systems: GLNPO expects to post joint data that has passed quality review to < http://binational.net/ >, a joint international Web Site, and to the IADN Web Site at < www.msc.ec.gc.ca/iadn/ >. Copies of IADN data are now held in U.S. and Canadian databases. Efforts are being made to be able to streamline data requests through the National Atmospheric Chemistry Database (NAtChem), which includes atmospheric data from many North American networks. Environment Canada management is working to reduce the data lag from the Canadian IADN stations.

References:

1. *"Great Lakes National Program Office Indicators. Air Indicators."* http://www.epa.gov/glnpo/glindicators/air.html

Details of these analyses can be found in the Laboratory Protocol Manuals or the agency project plans, which can be found on the IADN resource page at http://www.epa.gov/glnpo/monitoring/air/iadn/iadn.html

Overall results of the project can be found in "*Technical Summary of Progress under the Integrated Atmospheric Deposition Program 1990-1996"* and the *"Technical Summary of Progress under the Integrated Atmospheric Deposition Network 1997-2002"*. Both (as well as the Atmospheric Loadings reports) can be found on the IADN resource page.

2. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.

3. *"GLNPO Management Systems Review of 1999."* Unpublished - in USEPA Great Lakes National Program Office files.

4. *"Integrated Atmospheric Deposition Network Quality Assurance Program Plan - Revision 1.1.* Environment Canada and USEPA. June 29, 2001. Unpublished - in USEPA Great Lakes National Program Office files.

FY 2007 Performance Measure:

- **Cumulative total of Areas of Concern within the Great Lakes Basin that have been restored and delisted**

Performance Database: USEPA's Great Lakes National Program Office will track the cumulative total Areas of Concern (AOC) and post that information http://www.epa.gov/glnpo/aoc/index.html> Forty-three AOCs have been identified: 26 located entirely within the United States; 12 located wholly within Canada; and five that are shared by both countries. Since 1987, GLNPO has tracked the 31 that are within the US or shared; however, none of these are currently restored and delisted. Information is reported on a calendar year basis, however the system is being designed for semi-annual or more frequent updates.

Data Source: Internal tracking and communications with Great Lakes States, the US Department of State and the International Joint Commission (IJC).

Methods, Assumptions, and Suitability: USEPA's Great Lakes National Program Office is in regular communication with the Great Lakes States, the US Department of State and the IJC, and is responsible for coordinating and overseeing the de-listing of AOCs. Generally speaking, under the Great Lakes Water Quality Agreement, an AOC is an area in the Great Lakes determined to have significant beneficial use impairments, such as restrictions on fish and wildlife consumption, fish tumors, eutrophication, beach closings, added costs to agriculture or industry. In 1989, the IJC established a review process and developed AOC listing/delisting criteria (http://www.ijc.org/rel/boards/annex2/buis.htm#table1) for existing and future AOCs. In 2001, the U.S. Policy Committee, led by GLNPO and including State, Tribal, and Federal agencies responsible for Great Lakes environmental issues, developed delisting guidelines for domestic AOCs (http://www.epa.gov/glnpo/aoc/delist.html) and for the binational AOCs shared by Michigan and Ontario http://www.epa.gov/glnpo/aoc/delist.html - appendix 5).

QA/QC Procedures: GLNPO has an approved Quality Management System in place[1] (see reference #1 below) that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management.

Data Quality Review: GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews[2] (see reference #2) below. GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

Data Limitations: None known.

Error Estimate: None.

New/Improved Data or Systems: NA

References:
GLNPO will develop and maintain the appropriate tracking system once there are any de-listed U.S. or binational Areas of Concern. Information regarding Areas of Concern is currently available online at: http://www.epa.gov/glnpo/aoc/index.html

1. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.

2. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.

FY 2007 Performance Measure:

- **Cubic yards of contaminated sediment in the Great Lakes remediated (cumulative from 1997)**

Performance Database: Data tracking sediment remediation are compiled in two different formats. The first is a matrix that shows the annual and cumulative totals of contaminated sediment that was remediated in the Great Lakes basin in the reporting year and from 1997 for each Area of Concern or other non-Areas of Concern with sediment remediation. The second format depicts the yearly totals on a calendar year basis graphically. These databases are reported approximately one year after the completion of work.

Data Source: GLNPO collects sediment remediation data from various State and Federal project managers across the Great Lakes region that conduct and coordinate contaminated sediments work. These data are obtained directly from the project manager via an information fact sheet the project manager completes for any site in the Great Lakes basin that has performed any remedial work on contaminated sediment. The project manager also indicates whether an approved Quality Assurance Project Plan (QAPP) was used in the collection of data at the site. GLNPO does not accept unsolicited data without adequate assurance that a QAPP was in place and the reporters of the data are not likely to be biased.

Methods, Assumptions, and Suitability: The data collected to track sediment remediation in the Great Lakes show the amount of sediment remediated (dredged, capped, other) for that year, the amount of sediment remediated in prior years, and the amount of sediment remaining to be addressed for a particular site. This format is suitable for year-to-year comparisons for individual sites.

QA/QC Procedures: GLNPO relies on the individual government/agency project managers to provide information on whether an approved QAPP was in place during remediation of contaminated sediment. This information is used to decide if the data provided by the project manager are reliable for GLNPO reporting purposes. If an approved QAPP was not used, sediment data would not likely be reported by GLNPO, unless GLNPO finds that alternative information is available that provides sufficient quality documentation for the project and associated data. This approach allows GLNPO to use best professional judgment and flexibility in reporting data from any cases where there was not a QAPP, but (a) the remedial action is noteworthy and (b) the project was conducted by recognized entities using widely accepted best practices and operating procedures.

The tracking database houses information on the calculated amount of sediment remediated at individual sites as provided by the project managers. The individual site project managers are responsible for completing the data request forms, reviewing draft figures to verify that the GLNPO project manager transferred the data correctly, and providing any updated or improved estimates. It is GLNPO's responsibility to determine if the data are usable based upon the information sheet provided by the project managers. GLNPO does not attempt to verify mass and volume estimates due to the variability in how to calculate them. GLNPO ensures that the estimates provided make sense for the site, and that all estimates are reported in the same units. GLNPO management and Sediment Team members review the data, in the graphic and matrix formats, prior to reporting. GLNPO's Sediment Team works closely with partners and has confidence in those who provide data for the summary statistics. This familiarity with partners and general knowledge of ongoing projects allows GLNPO management to detect mistakes or questionable data.

Data Quality Review: The data, in both the graphic and matrix formats, are reviewed by individual project managers, GLNPO's Sediment Team, and management prior to being released. Data quality review procedures are outlined in the QAPP referenced below. GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews. GLNPO has implemented all recommendations from these external audits and complies with Agency Quality Standards.

Data Limitations: The data provided in the sediment tracking database should be used as a tool to track sediment remediation progress at sites across the Great Lakes. Many of the totals for sediment remediation are estimates provided by project managers. For specific data uses, individual project managers should be contacted to provide additional information.

Error Estimate: The amount of sediment remediated or yet to be addressed should be viewed as estimated data. A specific error estimate is not available.

New/Improved Data or Systems: Existing tracking systems are anticipated to remain in place.

References:

1. Giancarlo Ross, M.B. Quality Assurance Project Plan for " Great Lakes Sediment Remediation Project Summary Support." Unpublished – in USEPA Great Lakes National

Program Office files.

2. Giancarlo Ross, M.B. "*Sediment Remediation Matrix*". Unpublished - in USEPA Great Lakes National Program Office files.

3. Giancarlo Ross, M.B. "*Sediment Remediation Pie Charts*". Unpublished - in USEPA Great Lakes National Program Office files.

4. Giancarlo Ross, M.B. "Compilation of Project Managers Informational Sheets". Unpublished - in USEPA Great Lakes National Program Office files.

FY 2007 Performance Measure:

- **Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay**

Performance Database: SAV acres in Chesapeake Bay. Total acres surveyed and estimated additional acres from 1978 through 2004, excluding the years 1979-1983 and 1988 when no surveys were conducted. The FY 2007 Annual Performance Report for this measure will be based on the results of the survey conducted the previous calendar year (2006). We expect to receive the preliminary survey results for calendar year 2006 in March 2007.

Data Source: Virginia Institute of Marine Sciences provides the data (via an EPA Chesapeake Bay Program (CBP) grant to Virginia Institute of Marine Sciences). EPA has confidence in the third party data and believes the data are accurate and reliable based on QA/QC procedures described below.

Methods, Assumptions and Suitability: The SAV survey is a general monitoring program, conducted to optimize precision and accuracy in characterizing annually the status and trends of SAV in tidal portions of the Chesapeake Bay. The general plan is to follow fixed flight routes over shallow water areas of the Bay, to comprehensively survey all tidal shallow water areas of the Bay and its tidal tributaries. Non-tidal areas are omitted from the survey. SAV beds less than 1 square meter are not included due to the limits of the photography and interpretation. Annual monitoring began in 1978 and is ongoing. Methods are described in the Quality Assurance Project Plan (QAPP) on file for the EPA grant and at the VIMS web site (http://www.vims.edu/bio/sav/).

QA/QC Procedures: Quality assurance project plan for the EPA grant to the Virginia Institute of Marine Sciences describes data collection, analysis, and management methods. This is on file at the EPA Chesapeake Bay Program Office. The VIMS web site at http://www.vims.edu/bio/sav/ provides this information as well. Metadata are included with the data set posted at the VIMS web site (http://www.vims.edu/bio/sav/metadata/recent.html).

Data Quality Reviews: This indicator has undergone extensive technical and peer review by state, Federal and non-government organization partner members of the SAV workgroup and the Living Resources subcommittee. Data collection, data analysis and QA/QC are conducted by the principal investigators/scientists. The data are peer reviewed by scientists on the workgroup.

Data selection and interpretation, the presentation of the indicator, along with all supporting information and conclusions, are arrived at via consensus by the scientists and resource manager members of the workgroup. The workgroup presents the indicator to the subcommittee where extensive peer review by Bay Program managers occurs.

There have been no data deficiencies identified in external reviews

Data Limitations: Due to funding constraints, there were no surveys in the years 1979-1983 and 1988. Spatial gaps in 1999 occurred due to hurricane disturbance and subsequent inability to reliably photograph SAV. Spatial gaps in 2001 occurred due to post-nine-eleven flight restrictions near Washington D.C. Spatial gaps in 2003 occurred due to adverse weather in the spring and summer and Hurricane Isabel in the fall.

Error Estimate: No error estimate is available for this data.

New/Improved Data or Systems: Some technical improvements (e.g., photointerpretation tools) were made over the 22 years of the annual SAV survey in Chesapeake Bay.

References:
See Chesapeake Bay SAV special reports at http://www.vims.edu/bio/sav/savreports.html and bibliography at http://www.vims.edu/bio/sav/savchespub.html. The SAV distribution data files are located at http://www.vims.edu/bio/sav/savdata.html and also at http://www.chesapeakebay.net/pubs/statustrends/88-data-2002.xls. The SAV indicator is published at http://www.chesapeakebay.net/status.cfm?sid=88.

FY 2007 Performance Measures:

- **Reduce nitrogen loads entering Chesapeake Bay, from 1985 levels (2002 Baseline: 51 million pounds/year reduced)**
- **Reduce phosphorus loads entering Chesapeake Bay, from 1985 levels (2002 Baseline: 8 million pounds/year reduced)**
- **Reduce sediment loads entering Chesapeake Bay, from 1985 levels (2002 Baseline: 0.8 million tons/year reduced)**

Performance Database: Nutrient and Sediment Loads Delivered to the Chesapeake Bay. The Bay data files used in the indicator are located at http://www.chesapeakebay.net/pubs/statustrends/186-data-2003.xls. Data have been collected in 1985, 2000, 2001, 2002, 2003 and are expected on an annual basis after 2003. There is a two year data lag. Load data are from Chesapeake Bay watershed portions of NY, MD, PA, VA, WV, DE, and DC.

The FY 2007 Annual Performance Report for these measures will be based on the results of the 2005 data collection. We expect to receive the preliminary results for 2005 in January 2007.

Data Source: State/district data are provided to the Chesapeake Bay Program Office for input into the Chesapeake Bay Program Watershed Model.

Methods, Assumptions and Suitability: The data are of high quality. Data are consolidated by watershed boundaries at the state level and provided to the Chesapeake Bay Program Office for input into the watershed model.

What is the Watershed Model?

A lumped parameter Fortran based model (HSPF) that mimics the effects of hydrology, nutrient inputs, and air deposition on land and outputs runoff, groundwater, nutrients and sediment to receiving waters. Ten years of simulation are used and averaged to develop the reduction effects of a given set of Best Management Practices (BMPs). Using a ten-year average of actual weather (hydrologic, temperature, wind, etc.) ensures wet, dry and average conditions for each season are included. The effectiveness of the model is dependent upon the quality of the assumptions, BMPs and landuse descriptions used. The model is calibrated extensively to real-time monitoring, outside peer review and continual updates as better information, data collection and computer processing power become available.

What are the input data?

The model takes meteorological inputs such as precipitation, temperature, evapotranspiration, wind speed, solar radiation, dewpoint, and cloud cover to drive the hydrologic simulation. The changes in nutrient outputs are primarily determined by such factors as land use acreage, BMPs, fertilizer, manure, atmospheric deposition, point sources, and septic loads.

BMPs: Watershed Model BMPs include all nutrient reduction activities tracked by the jurisdictions for which a source has been identified, cataloged and assigned an efficiency. Efficiencies are based on literature review, recommendations of the appropriate source workgroup and approved by the Nutrient Subcommittee. It is the responsibility of the jurisdictions to track and report all nutrient reduction activities within their borders and maintain documentation to support submissions.

Land use acreage is determined by combining analyses of satellite imagery and county-based databases for agricultural activities and human population. Fertilizer is determined by estimated application rates by crops and modified by the application of nutrient management BMPs. Manure applications are determined by an analysis of animal data from the census of agriculture.

Atmospheric deposition is determined by an analysis of National Atmospheric Deposition Program (NADP) deposition data and modified by scenarios of the Regional Acid Deposition Model. Point Source loads are determined from Discharge Monitoring Reports. Septic loads are estimated in a study commissioned by the CBP.

http://www.chesapeakebay.net/pubs/1127.pdf
http://www.chesapeakebay.net/pubs/114.pdf
http://www.chesapeakebay.net/pubs/112.pdf
http://www.chesapeakebay.net/pubs/777.pdf

What are the model outputs?

The watershed model puts out daily flows and nitrogen, phosphorus, and sediment loads for input to the water quality model of the Chesapeake Bay. The daily loads are averaged over a 10-year hydrologic period (1985-1994) to report an average annual load to the Bay. The effect of flow is removed from the load calculations.

What are the model assumptions?

BMPs: Model assumptions are based on three conditions: knowledge, data availability and computing power. The ability to alter what is used in the watershed model is a function of the impact the change would have on calibration. In many cases there is new information, data or methodologies that would improve the model, but changes are not possible because of the impact on the current calibration.

Changes in manure handling, feed additives, new BMPs and some assumptions could be incorporated into the model without impacting the calibration. In these cases, the changes were made.

Other input assumptions, such as multiple manure application levels, increasing the number and redefining some land uses, defining new nutrient or sediment sources, adjusting for varying levels of management (range of implementation levels) are items scheduled for incorporation in the new model update (2005).

Input assumptions are documented in the above publications. Assumptions of the actual model code are in the HSPF documentation:
ftp://water.usgs.gov/pub/software/surface_water/hspf/doc/hspfhelp.zip

Data are collected from states and local governments programs. Methods are described at http://www.chesapeakebay.net/data/index.htm, (refer to CBP Watershed Model Scenario Output Database, Phase 4.3). For more information contact Kate Hopkins at hopkins.kate@epa.gov or Jeff Sweeney jsweeney@chesapeakebay.net

QA/QC Procedures: State offices have documentation of the design, construction and maintenance of the databases used for the performance measures, showing they conform to existing U.S. Department of Agriculture Natural Resources Conservation Service (USDA/NRCS) technical standards and specifications for nonpoint source data and EPA's Permit Compliance System (PCS) standards for point source data. State offices also have documentation of implemented Best Management Practices (BMPs) based on USDA NRCS standards and specification and the Chesapeake Bay Program's protocols and guidance. BMPs are traditionally used to reduce pollutant loads coming from nonpoint sources such as urban/suburban runoff, agriculture, and forestry activities.

References include: the USDA NRCS Technical Guide and Appendix H from the Chesapeake Bay Program (contact Russ Mader at mader.russ@epa.gov or Kate Hopkins at hopkins.kate@epa.gov). Quality assurance program plans are available in each state office.

Data Quality Reviews: All data are reviewed and approved by the individual jurisdictions before input to the watershed model. QA/QC is also performed on the input data to ensure basic criteria, such as not applying a BMP at a higher level than allowed. A specific level of input should yield output within a specified range of values. Output is reviewed by both the CBPO staff and the Tributary Strategy Workgroup as an additional level of QA/QC. Any values out of the expected range is analyzed and understood before approval and public release. The model itself is given a quarterly peer review by an outside independent group of experts. There have been no data deficiencies identified in external reviews.

Data Limitations: Data collected from voluntary collection programs are not included in the database, even though they may be valid and reliable. The only data submitted by state and local governments to the Chesapeake Bay Program Office are data that are required for reporting under the cost share and regulatory programs. State and local governments are aware that additional data collection efforts are being conducted by non-governmental organizations, however, they are done independently of the cost share programs and are not reported.

Error Estimate: There may be errors of omission, misclassification, incorrect georeferencing, misdocumentation or mistakes in the processing of data.

New/Improved Data or Systems: The next version of the watershed model is currently under development and will be completed in 2006. The new version (phase 5) will have increased spatial resolution and ability to model the effects of management practices. The phase 5 watershed model is a joint project with cooperating state and Federal agencies. Contact Gary Shenk gshenk@chesapeakebay.net or see the web site at http://www.chesapeakebay.net/phase5.htm

References:

See http://www.chesapeakebay.net/data/index.htm, refer to CBP Watershed Model Scenario Output Database, Phase 4.3. Contact Kate Hopkins at hopkins.kate@epa.gov or Jeff Sweeney jsweeney@chesapeakebay.net
The nutrient and sediment loads delivered to the Bay indicator are published at http://www.chesapeakebay.net/status.cfm?sid=186. The nutrient and sediment loads delivered to the Bay data files used in the indicator are located at http://www.chesapeakebay.net/pubs/statustrends/186-data-2003.xls. See "Chesapeake Bay Watershed Model Application and Calculation of Nutrient and Sediment Loadings, Appendix H: Tracking Best Management Practice Nutrient Reductions in the Chesapeake Bay Program, A Report of the Chesapeake Bay Program Modeling Subcommittee", USEPA Chesapeake Bay Program Office, Annapolis, MD, August 1998, available at http://www.chesapeakebay.net/pubs/777.pdf
See USDA NRCS Field Office Technical Guide available at http://www.nrcs.usda.gov/technical/efotg/

FY 2007 Performance Measures:

- **Prevent water pollution and protect aquatic ecosystems so that overall aquatic system health of coastal waters of the Gulf of Mexico is improved on the "good/fair/poor" scale of the National Coastal Condition Report**

- **Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico**

Performance Database: (1) Louisiana Coastal Hypoxia Shelfwide Survey metadata (data housed at National Oceanic and Atmospheric Administration/National Ocean Data Center, Silver Spring, Maryland). Funds for this research are provided by the National Oceanic and Atmospheric Administration, Coastal Ocean Program (NOAA/COP)

(2) Southeast Area Monitoring and Assessment Program (**SEAMAP)** - Gulf surveys.

The data used in assessing performance under this measure have been collected annually on a calendar year basis since 1982.

Data Source: (1) Hydrographic data are collected during annual surveys of the Louisiana continental shelf. Nutrient, pigment and station information data are also acquired. The physical, biological and chemical data collected are part of a long-term coastal Louisiana dataset. The goal is to understand physical and biological processes that contribute to the causes of hypoxia and use the data to support environmental models for use by resource managers.

(2) The Southeast Area Monitoring and Assessment Program (SEAMAP) is a state/Federal/university program for collection, management and dissemination of fishery-independent data and information in the southeastern United States.

Methods, Assumptions and Suitability: The distribution of hypoxia on the Louisiana shelf has been mapped annually in mid-summer (usually late July to early August) over a standard 60- to 80- station grid since 1985. During the shelfwide cruise, data are collected along transects from the mouth of the Mississippi River to the Texas border. Information is collected on a wide range of parameters, including conductivity/temperature/depth (CTD), light penetration, dissolved oxygen, suspended solids, nutrients, phytoplankton, and chlorophyll. Hydrographic, chemical, and biological data also are collected from two transects of Terrebonne Bay on a monthly basis, and bimonthly, off Atchafalaya Bay. There is a single moored instrument array in 20-m water depth in the core of the hypoxic zone that collects vertical conductivity/temperature data, as well as near-surface, mid, and near-bottom oxygen data; an upward directed Acoustic Doppler Current Profiler (ADCP) on the seabed measures direction and speed of currents from the seabed to the surface. There is also an assortment of nutrient and light meters.

Station depths on the cruises range from 3.25 to 52.4 meters. Northern end stations of transects are chosen based on the survey vessel's minimum depth limits for each longitude.

Standard data collections include hydrographic profiles for temperature, salinity, dissolved oxygen, and optical properties. Water samples for chlorophyll *a* and phaeopigments, nutrients,

salinity, suspended sediment, and phytoplankton community composition are collected from the surface, near-bottom, and variable middle depths.
The objective is to delimit and describe the area of midsummer bottom dissolved oxygen less than 2 (mg. L).

Details of data collection and methodology are provided in referenced reports.

QA/QC Procedures: NOAA does not require written QA/QC procedures or a Quality Management Plan; however, the procedures related to data collection are covered in metadata files.

The SEAMAP Data Management System (DMS) conforms to the SEAMAP Gulf and South Atlantic DMS Requirements Document developed through a cooperative effort between National Marine Fisheries Service (NMFS) and other SEAMAP participants.

Data Quality Reviews: (1) Essential components of the environmental monitoring program in the Gulf of Mexico include efforts to document the temporal and spatial extent of shelf hypoxia, and to collect basic hydrographic, chemical and biological data related to the development of hypoxia over seasonal cycles. All data collection protocols and data are presented to and reviewed by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (the Task Force) in support of the adaptive management approach as outlined in the Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico (the Action Plan).

(2) Biological and environmental data from all SEAMAP-Gulf surveys are included in the SEAMAP Information System, managed in conjunction with National Marine Fisheries Service – Southeast Fisheries Science Center (NMFS-SEFSC). Raw data are edited by the collecting agency and verified by the SEAMAP Data Manager prior to entry into the system. Data from all SEAMAP-Gulf surveys during 1982-2003 have been entered into the system, and data from 2004 surveys are in the process of being verified, edited, and entered for storage and retrieval.

Data Limitations: Monitoring for shelf-wide conditions are currently performed each year primarily, but not exclusively, in July. The spatial boundaries of some monitoring efforts are limited by resource availability. Experience with the datasets has shown that when data are plotted or used in further analysis, outlying values may occasionally be discovered.

Error Estimate: (1) The manufacturers state +/- 0.2mg/L as the error allowance for both SeaBird and Hydrolab oxygen sensors.

References:
Mississippi River/Gulf of Mexico Watershed Nutrient Task force.2001. Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico. Washington, DC.

Rabalais N.N., R.E. Turner, Dubravko Justic, Quay Dortch, and W.J. Wiseman. 1999. Characterization of Hypoxia. Topic 1 Report for the Integrated assessment on Hypoxia in the

Gulf of Mexico. NOAA Coastal Ocean Program Decision Analysis Series No. 15. Silver Spring Maryland: National Oceanic and Atmospheric Administration.

Hendee, J.C. 1994. Data management for the nutrient enhanced coastal ocean productivity program. *Estuaries* 17:900-3

Rabalais, Nancy N., W.J. Wiseman Jr., R.E. Turner ; Comparison of continuous records of near-bottom dissolved oxygen from the hypoxia zone of Louisiana. *Estuaries* 19:386-407

SEAMAP Information System http://www.gsmfc.org/sis.html

GOAL 4 OBJECTIVE 5

FY 2007 Performance Measures:

- **Identification and evaluation of in silico, biochemical and molecular indicators that can be used to validate the predictiveness of high through put tools for categorizing potential for toxicity for a subset of well studied chemicals such as food use pesticides**

- **Improved risk assessment tools and characterization of ecological risks of genetically modified crops**

- **Conduct numerical air quality simulations using as input regional climate modeling, emissions modeling, and driver scenarios**

- **Final Air Quality Criteria Document (AQCD) for Lead which serves as the basis for the EPA/OAQPS staff paper for the National Ambient Air Quality Standard (NAAQS)**

- **Complete 16 human health assessments of high priority chemicals for interagency review or external peer review, including acrylonitrile, methanol, methylene chloride, trichloroethylene, and dioxin for interagency review**

- **Improved protocols for screening and testing (PART Measure)**

- **Effects and exposure milestones met (PART Measure)**

- **Assessment milestones met (PART Measure)**

- **Risk management milestones met (PART Measure)**

- **Provide guidance documents, journal articles or models to support efficient and effective outdoor clean-ups and safe disposal of decontamination wastes after chemical, biological, or radiological terrorist attacks. These materials can be used by emergency and remedial response personnel, and building and facility managers**

- **Generate emergency/laboratory capacity documents, guidance or other tools to improve the standardization of methods and/or safety of personnel involved with the collection or analysis of environmental samples generated during a nationally significant**

- **Test and evaluate homeland security-related technologies and produce a technology evaluation report for each. The reports will contain detailed performance information that can be used by emergency and remedial response personnel, water utility operators, and building and facility managers for selecting technologies for purchase and for deployment in protecting against or recovering from a chemical, biological, or radiological terrorist**

- **Provide products, such as monitoring systems, journal articles, analytical methods, and detectors, to enhance the security of water systems (through early detection of a contamination attack of a water system) and prepare for a terrorist attack on water system (through improved analytical techniques and response techniques for treatment of the water and decontamination of the infrastructure). Intended for use by water utilities, first responders and Local, State and Federal Government**

- **Evaluate relevant health and risk-related information and data and summarize into usable tools, such as applied risk assessment methodologies, guidance, and journal articles, to support risk assessors and other decision-makers in the rapid assessment of risk and the determination of cleanup goals and procedures following the contamination of buildings/facilities, water distribution systems or outdoor areas with chemical, biological or radiological agents as a result of a terrorist**

Performance Database: Program outputs.

Data Source: Internal tracking system, the Integrated Management Resources System (IMRS).

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

FY 2007 Performance Measure:

- **Number of states using a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of national programs and policies (PART measure)**

Performance Database: Internal Regional EPA tracking system; Environmental Monitoring and Assessment Program (EMAP) database for public access. The internal tracking database is for partners in twenty-three states. These data have not undergone QA and are works-in-progress. The public database, on the other hand, contains all information that has completed QA and has been made public in the National Coastal Condition Report.

Data Source: Survey responses from coastal states that have adopted a standard protocol for monitoring the ecological condition of estuaries; including, probabilistic sampling designs, response designs for indicators, laboratory analyses, statistical analyses and reporting formats.

Methods, Assumptions and Suitability: EPA has a cooperative agreement with twenty-three states to conduct the National Coastal Assessment Monitoring survey. As part of the National Coastal Assessment (NCA) Quality Assurance Program, participating states are trained on the application of the probability-based sampling design and standardized methods required for sample collection.

QA/QC Procedures: Each State or Cooperative Agreement recipient participates in an extensive, three-level QA review process outlined in the Quality Assurance Project Plan coordinated by EPA's National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division (AED).

Data Quality Reviews: The NCA Program monitors and assesses the quality of the data collected. To ensure a high quality data set, states collect a suite of field data for laboratory analysis. The states may elect to forward the samples to a national contract laboratory or conduct the analytical analyses themselves. The results of the field and laboratory analyses are sent to AED for incorporation into an internal EPA regional database.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: EPA anticipates by 2007, all states will have adopted and implemented the National Coastal Assessment Monitoring survey. Improvements in the management of contracts, coordination of the shipment of samples, and distribution of resulting data are now performed by EPA to give states without capability opportunity to partner with the agency.

References:

US EPA. 2000. Coastal 2000 Northeast Component Information Management Plan. Office of Research and Development, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, Narragansett, RI.

US EPA. 2001. Environmental Monitoring and Assessment Program (EMAP): National Coastal Assessment Quality Assurance Project Plan, 2001-2004. EPA/620/R-01/002. Office of Research and Development, National Health and Environmental Effects Research Laboratory, Gulf Ecology Division, Gulf Breeze, FL.

US EPA. 2001 National Coastal Condition Report. EPA-620/R-01/005. Office of Research and Development & Office of Water, Washington, DC.

US EPA. 2005. National Coastal Condition Report II. EPA-620/R-03/002. Office of Research and Development & Office of Water, Washington, DC.

US EPA. 2005. National Coastal Condition Report II. Appendix A - Quality Assurance. pp. 259-264. EPA-620/R-03/002. Office of Research and Development & Office of Water, Washington, DC.

US EPA. 2005. National Coastal Condition Report II. Appendix B - Three-Level QA Review of Coastal 2000 Northeast Database. pp. 265-266. EPA-620/R-03/002. Office of Research and Development & Office of Water, Washington, DC.

FY 2007 Performance Measure:

- **Percentage of planned outputs delivered in support of public health outcomes long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support of mechanistic data long-term goal (PART Measure)**
- **Percentage of planned outcputs delivered in support of the aggregate and cumulative risk long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support of the susceptible subpopulations long-term goal (PART Measure)**
- **Average time (in days) to process research grant proposals from RFA closure to submittal to EPA's Grants Administration Division, while maintaining a credible and efficient competitive merit review system (as evaluated by external expert review) (PART Measure)**

Performance Database: No internal tracking systems.

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

GOAL 5 OBJECTIVE 1

VERIFICATION AND VALIDATION OF PERFORMANCE MEASURES

FY 2007 Performance Measures:

- **Percentage of concluded enforcement cases (including SEPs) requiring that pollution be reduced, treated, or eliminated**
- **Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions**
- **Percentage of concluded enforcement cases (including SEPs) requiring implementation of improved environmental management practices**
- **Dollars invested in improved environmental performance or improved environmental management practices as a result of concluded enforcement actions (i.e., injunctive relief and SEPs)**
- **Pounds of pollutants reduced, treated, or eliminated as a result of audit agreements**

Performance Databases: The Integrated Compliance Information System, (ICIS), which tracks EPA civil enforcement (e.g., judicial and administrative) actions. The Criminal Case Reporting System (CCRS), the new enhanced database for tracking criminal enforcement actions, will track the criminal enforcement components of the pollution reduction and improved environmental management measures and, conjunction with ICIS, will track the criminal enforcement recidivism measure.

Data Source: Most of the essential data on environmental results in ICIS are collected through data developed originally through the use of the Case Conclusion Data Sheet (CCDS), which

Agency staff begin preparing after the conclusion of each civil (judicial and administrative) enforcement action. EPA implemented the CCDS in 1996 to capture relevant information on the results and environmental benefits of concluded enforcement cases. The information generated through the CCDS is used to track progress for several of the performance measures. The CCDS form consists of 27 specific questions which, when completed, describe specifics of the case; the facility involved; information on how the case was concluded; the compliance actions required to be taken by the defendant(s); the costs involved; information on any Supplemental Environmental Project to be undertaken as part of the settlement; the amounts and types of any penalties assessed; and any costs recovered through the action, if applicable. The CCDS documents whether the facility/defendant, through injunctive relief, must: (1) reduce pollutants; and (2) improve management practices to curtail, eliminate or better monitor and handle pollutants in the future. The Criminal Enforcement Program also maintains a separate case conclusion data form and system for compiling and quantifying the results of criminal enforcement prosecution, including pollution reduction and the percentage of concluded criminal enforcement cases requiring improved environmental management practices. The revised criminal enforcement case conclusion form will be used in FY06.

Methods, Assumptions and Suitability: For enforcement actions which result in pollution reductions, the staff estimate the amounts of pollution reduced for an immediately implemented improvement, or an average year once a long-term solution is in place. There are established procedures for the staff to calculate, by statute, (e.g., Clean Water Act), the pollutant reductions or eliminations. The procedure first entails the determination of the difference between the current Aout of compliance@ quantity of pollutants released and the post enforcement action Ain compliance@ quantity of pollutants released. This difference is then converted into standard units of measure.

QA/QC Procedures: Quality Assurance/Quality Control procedures [See references] are in place for both the CCDS and ICIS entry. There are a Case Conclusion Data Sheet Training Booklet [See references] and a Case Conclusion Data Sheet Quick Guide [See references], both of which have been distributed throughout Regional and Headquarters= (HQ) offices. The criminal enforcement program has prepared a companion guide for use by its field agents. Separate CCDS Calculation and Completion Checklists [See references] are required to be filled out at the time the CCDS is completed. Criminal enforcement measures are quality assured by the program at the end of the fiscal year.

Quality Management Plans (QMPs) are prepared for each Office within The Office of Enforcement and Compliance Assurance (OECA). OC=s QMP, effective for 5 years, was approved July 29, 2003 by the Office of Environmental Information (OEI) and is required to be re-approved in 2008. OECA instituted a requirement for semiannual executive certification of the overall accuracy of ICIS information to satisfy the Government Performance and Results Act (GPRA), the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. In addition, in FY 2003, the Office of Compliance (OC) established extensive processes for ensuring timely input, review and certification of ICIS information. OC implements this process on a quarterly basis to assure a high level of quality of the data in the ICIS data system.

Data Quality Review: Information contained in the CCDS and ICIS are required by policy to be reviewed by regional and headquarters= staff for completeness and accuracy. ICIS data is reviewed quarterly and reviewed and certified at mid-year and end-of-year.

Data Limitations: The pollutant reductions or eliminations reported on the CCDS are estimates of what will be achieved if the defendant carries out the requirements of the settlement. Information on expected outcomes of state enforcement is not available. The estimates are based on information available at the time a case is settled or an order is issued. In some instances, this information will be developed and entered after the settlement, during continued discussions over specific plans for compliance. Because of the time it takes to agree on the compliance actions, there may be a delay in completing the CCDS. Additionally, because of unknowns at the time of settlement, different levels of technical proficiency, or the nature of a case, OECA=s expectation is that based on information on the CCDS, the overall amounts of pollutant reductions/eliminations will be prudently underestimated.

Error Estimate: Not available

New & Improved Data or Systems: In November 2000, EPA completed a comprehensive guidance package on the preparation of the Case Conclusion Data Sheet. This guidance, issued to headquarters= and regional managers and staff, was made available in print and CD-ROM, and was supplemented in FY 2002 [See references]. The guidance contains work examples to ensure better calculation of the amounts of pollutants reduced or eliminated through concluded enforcement actions. EPA trained each of its ten regional offices during FY 2002. OC=s Quality Management Plan was approved by OEI July 29, 2003, and is effective for five years. [See references]. A new criminal enforcement case management, tracking and reporting system (Criminal Case Reporting System) will come on line during FY 2006 that will replace the existing criminal docket (CRIMDOC). This new system allows for a more user friendly database and greater tracking, management, and reporting capabilities.

In FY 2006, a new version of the ICIS data system, ICIS 2.0, will become operational. The new data system will have all of the functionality of old ICIS (ICIS 1.0) but will also: a) add some functionality for tracking EPA enforcement and compliance activities and b) become the database of record for the Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) program, including all federal and state enforcement, compliance and permitting data. (States will be migrated in waves over to ICIS 2.0 from the predecessor data system, the Permit Compliance System (PCS), over a period of about two years.)

References: Quality Assurance and Quality Control procedures: Data Quality: Life Cycle Management Guidance, (IRM Policy Manual 2100, dated September 28, 1994, reference Chapter 17 for Life Cycle Management). Case Conclusion Data Sheets: Case Conclusion Data Sheet, Training Booklet, issued November 2000 available: http://www.epa.gov/compliance/resources/publications/planning/caseconc.pdf; Quick Guide for Case Conclusion Data Sheet, issued November 2000. Information Quality Strategy and OC=s Quality Management Plans: Final Enforcement and Compliance Data Quality Strategy, and Description of FY 2002 Data Quality Strategy Implementation Plan Projects, signed March 25, 2002. ICIS: U.S. EPA, Office of Enforcement and Compliance Assurance, ICIS Phase I,

implemented June 2002. Internal EPA database; non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA). Criminal Enforcement Division Case Conclusion

FY 2007 Performance Measure:

- **Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations**

Performance Databases: ICIS and manual reporting by regions

Data Sources: EPA regional offices and Office of Civil Enforcement (specifically, the Clean Air Act (CAA)- Mobile Source program) and Office of Compliance – Agriculture Division.

Methods, Assumptions and Suitability: A new measurement tool, the Inspection Conclusion Data Sheet, (ICDS) will be used to analyze results from inspections/evaluations conducted under some of EPA=s major statutes. EPA will analyze data on the three pieces of information from the ICDS: on-site actions taken by facilities, deficiencies observed, and compliance assistance provided. The inspectors complete the Inspection Conclusion Data Sheet (ICDS) for each inspection or evaluation subject to ICDS reporting and the information is either entered into ICIS or reported manually by the Regions and HQ programs.

QA/QC Procedures: ICIS has been developed per Office of Information Management Lifecycle Management Guidance, which includes data validation processes, internal screen audit checks and verification, system and user documents, data quality audit reports, third party testing reports, and detailed report specifications for showing how data are calculated.

Data Quality Review: Regional manual reports are reviewed and checked against the inspection or evaluation data entered into other Agency databases (Air Facilities Subsystem (AFS), Permit Compliance System (PCS), Online Tracking Information System (OTIS), Integrated Data for Enforcement Analysis (IDEA)). Manual reports are also checked against ICIS if the Region entered the manual reported inspections/evaluations into that system. Information contained in the CCDS, ICDS and ICIS are required by policy to be reviewed by regional and headquarters= staff for completeness and accuracy. In FY2003, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. ICIS data are reviewed quarterly and certified at mid-year and end of year.

Data Limitations: Through FY 2005, ICIS is the database of record for only CAA 112(r) inspections and audits. Beginning in FY 2006, ICIS becomes the databases of record for all inspections that are not reported into one of the other legacy data bases (with the exception of the reporting by a couple of Regions' Underground Injection Control (UIC) inspections). The legacy databases into which certain program's inspections will continue to be reported are AFS, PCS, RCRAInfo, and NCDB/FTTS. Regions are encouraged to use ICIS specifically for ICDS

reporting, for all inspection programs. This may result in redundant, incomplete, or contradictory data.

New & Improved Data or Systems: In FY 2006, a new version of the ICIS data system, ICIS 2.0, will become operational. The new data system will have all of the functionality of old ICIS (ICIS 1.0) but will also: a) add some functionality for tracking EPA enforcement and compliance activities and b) become the database of record for the Clean Water Act (CWA) national Pollutant Discharge Elimination system (NPDES) program, including all federal and state enforcement, compliance and permitting data. (States will be migrating in waves over to ICIS 2.0 from the predecessor data system, the Permit Compliance System (PCS), over a period of about two years.)

References: ICIS: U.S. EPA, Office of Enforcement and Compliance Assurance, ICIS Phase I, implemented June 2002. Internal EPA database; non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA).

FY 2007 Performance Measures:

- **Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved environmental management practices as a result of EPA assistance**

- **Percentage of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or eliminated pollution, as a result of EPA assistance**

Performance Database: EPA Headquarters and Regions will manage data on regulated entities receiving direct compliance assistance from EPA through ICIS.

Data source: Headquarters and EPA=s Regional offices will enter information in ICIS upon completion and delivery of media and sector-specific compliance assistance including workshops, training, on-site visits and distribution of compliance assistance tools. ICIS is designed to capture outcome measurement information such as increased awareness/understanding of environmental laws, changes in behavior and environmental improvements as a result of the compliance assistance provided.

Methods, Assumptions and Suitability: N/A

QA/QC: Automated data checks and data entry guidelines are in place for ICIS.

Data Quality Review: Information contained in the ICIS is reviewed by Regional and Headquarters staff for completeness and accuracy. In FY2003, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. ICIS data are reviewed quarterly and certified at mid-year and end of year.

Data Limitations: None

Error Estimate: None

New & Improved Data or Systems: EPA plans to improve and/or modify elements of the compliance assistance module in ICIS based on use of the system.

References: US EPA, Integrated Compliance Information System Compliance Assistance Module, February 2004; US EPA, Compliance Assistance in the Integrated Compliance Information System Guidance, February 20, 2004. US EPA, 2005 Guidance Addendum for Reporting Compliance Assistance in the Integrated Compliance Information system, March 2005.

GOAL 5 OBJECTIVE 2

FY 2007 Performance Measure:

- **Number of pounds reduced (in millions) in generation of priority list chemicals from 2001 baseline of 84 million pounds**

Performance Database: Toxics Release Inventory (TRI) provides facility/chemical-specific data quantifying the amount of TRI-listed chemicals entering wastes associated with production processes in each year. The total amount of each chemical in production-related wastes can be broken out by the methods employed in managing such wastes, including recycling, energy recovery, treatment, and disposal/release. Amounts of these wastes that are not recycled are tracked for this performance measure. The performance measure uses the Chemical Abstract System (CAS) numbers for the 23 chemicals identified by EPA as priority chemicals (http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm).

Data Source: Regulated facilities report facility-specific, chemical-specific release, waste and recycling data to EPA. For example, in calendar year 2003, 23,811 facilities filed 91,648 TRI reports.

Methods, Assumptions, and Suitability: TRI data are collected as required by Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and expanded by the Pollution Prevention Act of 1990. (40 CFR Part 13101; www.epa.gov/tri/). Only certain facilities in specific Standard Industrial Classification (SIC) codes are required to report annually the quantities of over 650 listed toxic chemicals and chemical categories released to each environmental medium and otherwise managed as waste (40 CFR Part 13101; www.epa.gov/tri/). Regulation requires covered facilities to use monitoring, mass balance, emission factors and/or engineering approaches to estimate releases and recycling volumes. For purposes of the performance measure, data controls are employed to facilitate cross-year comparisons: a subset of chemicals and sectors are assessed that are consistently reported in all years.

QA/QC Procedures: Most facilities use EPA-certified automated Toxics Release Inventory (TRI) Form R reporting tools, which contain automated error checking mechanisms. Upon receipt of the facilities' reports, EPA conducts automated edits, error checks, data scrubs, corrections and normalization during data entry and subsequent processing. The Agency does not control the quality of the data submitted by the regulated community. EPA does, however, work with the regulated community to improve the quality of their estimates.

Data Quality Review: The quality of the data contained in the TRI chemical reports is dependent upon the quality of the data that the reporting facility uses to estimate its releases and other waste management quantities. Use of TRI Form R by submitters and EPA's data reviews help assure data quality. The GAO Report Environmental Protection: EPA Should Strengthen Its Efforts to Measure and Encourage Pollution Prevention (GAO - 01 – 283, http://www.gao.gov/new.items/d01283.pdf), recommends that EPA strengthen the rule on reporting of source reduction activities. Although EPA agrees that source reduction data are valuable, the Agency has not finalized regulations to improve reporting of source reduction activities by TRI-regulated facilities.

Data Limitations: Use of the data should be based on the user's understanding that the Agency does not have direct assurance of the accuracy of the facilities' measurement and reporting processes. TRI release data are reported by facilities on a good faith, best-estimate basis. EPA does not have the resources to conduct on-site validation of each facility's reporting data, though on-site investigations do occur each year at a subset of reporting facilities.

Error Estimate: From the various data quality efforts, EPA has learned of several reporting issues such as incorrect assignment of threshold activities and incorrect assignment of release and other waste management quantities (EPA-745-F-93-001; EPA-745-R-98-012; www.epa.gov/tri/tridata/data_quality_reports/index.htm; www.epa.gov/tri/report/index.htm.)

For example, certain facilities incorrectly assigned a 'processing' (25,000 lb) threshold instead of an 'otherwise use' (10,000 lb) threshold for certain non-persistent, bioaccumulative and toxic (PBT) chemicals, so they did not have to report if their releases were below 25,000 lbs. Also, for example, some facilities incorrectly reported fugitive releases instead of stack releases of certain toxic chemicals.

New/Improved Data or Systems: EPA plans to develop regulations for improving reporting of source reduction activities by TRI reporting facilities.

References: <www.epa.gov/tri/> and <www.epa.gov/tri/report/index.htm≥Bureau of Economic Analysis (BEA) indices are available at http://www.bea.gov/bea/regional/gsp/

FY 2007 Performance Measures:

- **Reduction in overall pounds of pollution**
- **Billions of BTUs of energy conserved**
- **Billions of gallons of water saved**
- **Millions of dollars saved through reductions in pollution**

- **Cumulative reduction of hazardous chemical releases to the environment and hazardous chemicals in industrial waste, in millions of pounds. (PART measure)**

The Agency's Pollution Prevention programs include Green Chemistry, Design for the Environment, Green Engineering, and other Pollution Prevention (P2) Programs. Each of these programs operates under the principles of the Pollution Prevention Act and works with others to reduce waste at the source, before it is generated. These programs are designed to facilitate the incorporation of pollution prevention concepts and principles into the daily operations of government agencies, businesses, manufacturers, nonprofit organizations, and individuals.

Performance Database: *Green Chemistry (GC):* EPA is developing an electronic database ("metrics" database) which will allow organized storage and retrieval of green chemistry data submitted to EPA on alternative feedstocks, processes, and safer chemicals. The database is being designed to store and retrieve, in a systematic fashion, information on the environmental benefits and, where available, economic benefits that these alternative green chemistry technologies offer. The database is also being designed to track the quantity of hazardous chemicals and solvents eliminated through implementation of these alternative technologies. Green Chemistry technology nominations are received up to December 31 of the year preceding the reporting year, and it normally takes 6-12 months to enter new technologies into the database. By the end of FY 2005, EPA expects to achieve its target of having a single instance of each unique nominated technology for 1996-2003 in the database.

Design for the Environment (DfE): DfE does not have a performance database. Instead, DfE is populating an evaluation spreadsheet for its programs (i.e., Alternatives to Lead Solder in Electronics, Furniture Flame Retardants Alternatives, the Formulator Program, and a collaboration with the Air Office on DfE approaches as implementation mechanisms for regulating Local Area Sources, such as Auto Refinishing). Spreadsheet content will vary by approach, and generally will include measures comparing baseline technologies or products to "cleaner" ones, as well as information on partner adoption and/or market share of cleaner alternatives; for example, the DfE formulator approach tracks chemical improvements (such as pounds of chemicals of concern no longer used by partners, and conversely pounds of safer ingredients) and resource savings. This information will allow benefit calculations. Information is collected on an ongoing basis.

Green Engineering (GE): Similar to the Green Chemistry Program, EPA will be developing an electronic database to keep track of environmental benefits of GE projects including, gallons of water, British Thermal Units (BTUs) and dollars saved and pounds of carbon dioxide (CO_2) emissions eliminated

Pollution Prevention (P2) Programs: EPA has worked closely with state and local P2 programs to develop a national system that will provide data on environmental outcomes (the core P2 metrics included in the above performance measures). Many EPA Regional offices, state and local P2 programs are currently collecting data on P2 program activities, outputs, and outcomes. EPA has worked successfully with these programs to reach consensus on standardized metrics, including definitions, and to reach consensus on an ongoing system to gather data on these metrics. The core measures in the National Pollution Prevention Results System were adopted in

April 2005. Over 25 state and state-level P2 organizations have signed Memoranda of Agreements to provide data using the metrics. The system will also benefit from new reporting requirements in EPA P2 grants. The new system has the cooperation of key stakeholder groups, such as the National Pollution Prevention Roundtable, which is currently updating a January 2003 report providing baseline data for the period 1990-2000 to add data from 2001-2003. The new system also has the cooperation of the regional Pollution Prevention Resource Exchange (P2RX) centers. As the system is implemented, data collected from the program will be placed in a new national database, facilitating convenient data storage and retrieval.

Data Source: *Green Chemistry (GC):* Industry and academia submit nominations annually to the Office of Pollution Prevention and Toxics (OPPT) in response to the Presidential Green Chemistry Challenge Awards. Environmental and economic benefit information is included in the nomination packages. The metrics database pulls this benefit information from the nominations.

Design for the Environment (DfE): The source of DfE's evaluation information varies by the approach and the partner industry. For example, in DfE's formulation improvement partnerships, partners provide proprietary information on both their original formulation and their environmentally improved one. Partners sign a memorandum of understanding with EPA/DfE which includes information on how the company uses cleaner chemistry to formulate a product, the environmental and health benefits of the product, and customer and sales information. For other partnerships, data sources typically include technical studies (e.g., cleaner technology substitutes assessments, life-cycle assessments) and market/sales/adoption information from associations.

Green Engineering (GE): Data will come from profiles of recognized projects by technical journals or organizations, such as the American Institute of Chemical Engineers, or directly reported by project leaders on industry projects or joint academia-industry projects.

Pollution Prevention (P2) Programs: State and local P2 programs will submit data as described above.

Methods, Assumptions, and Suitability: *Green Chemistry (GC):* The information will be tracked directly through internal record-keeping systems. No models or assumptions or statistical methods are employed.

Design for the Environment (DfE): Methods and assumptions vary by approach and partner industry. Each DfE partnership identifies and focuses on a unique set of chemicals and industrial processes. For most DfE approaches, the general method is to 1) develop a model for a "typical" or "average" facility, 2) assess the differences between traditional and alternative technologies on metrics such as toxics use, resource consumption, cost, and performance, 3) track market share of alternative technologies over time, and 4) multiply the increase in use of alternative, cleaner technologies by the environmental, cost, and performance differences identified in Step 2. Through this quantitative process, the Agency is able to calculate the benefits generated by the cleaner technology: e.g. how much toxics use reduction is occurring, how much less resources are consumed. Similarly, for DfE's formulation improvement approach, the method is to

analyze environmental (e.g., toxics use, resource consumption) and cost differences between the old and improved formulations. Proprietary information, including sales data, are provided by our partners. For each approach, we will develop a spreadsheet that includes the methods and assumptions.

Green Engineering (GE): The information will be tracked directly through EPA record keeping systems. No models or statistical extrapolations are expected to be used.

Pollution Prevention (P2) Programs: The data will come from state and local P2 programs as described above. No models or assumptions or statistical methods are employed.

QA/QC Procedures: All Pollution Prevention and Toxics programs operate under the Information Quality Guidelines as found at http://www.epa.gov/oei/qualityguidelines/index.html and under the Pollution Prevention and Toxics Quality Management Plan (QMP). The Quality Management Plan is for internal use only.

Green Chemistry: Data undergo a technical screening review by the Agency before being uploaded to the database to determine if they adequately support the environmental benefits described in the application. Subsequent to Agency screening, data are reviewed by an external independent panel of technical experts from academia, industry, government, and nongovernmental organizations (NGOs). Their comments on potential benefits are incorporated into the database. The panel is convened by the Green Chemistry Institute of the American Chemical Society, primarily for judging nominations submitted to the Presidential Green Chemistry Challenge Awards Program and selecting winning technologies.

Design for the Environment (DfE): Data undergo a technical screening review by DfE before being uploaded to the spreadsheet. DfE determines whether data submitted adequately support the environmental benefits described.

Green Engineering (GE): Data collected will be reviewed to ensure it meets EPA's Quality Guidelines in terms of transparency, reasonableness and accuracy.

Pollution Prevention (P2) Programs: Data will undergo technical screening review by EPA and other program participants (e.g., National Pollution Prevention Roundtable) before being placed in the database. Additional QA/QC steps to be developed, as appropriate.

Data Quality Review: All Office of Pollution Prevention and Toxics (OPPT) programs operate under EPA's Information Quality Guidelines as found at http://www.epa.gov/oei/qualityguidelines/index.html and under the OPPT Quality Management Plan (QMP).

Green Chemistry (GC): Review of industry and academic data as documented in U.S. EPA, Office of Pollution Prevention and Toxics, Green Chemistry Program Files available at http://www.epa.gov/opptintr/greenchemistry/

Design for the Environment (DfE): Not applicable.

Green Engineering (GE): Data collected will be reviewed to meet data quality requirements.

Pollution Prevention (P2) Programs: The new metrics and data system were based, in part, on recommendations in the February 2001 GAO report, "EPA Should Strengthen Its Efforts to Measure and Encourage Pollution Prevention" (GAO-01-283). They also incorporate work by such organizations as the Northeast Waste Management Officials Association, Pacific Northwest Pollution Prevention Resource Center, and National Pollution Prevention Roundtable

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Data Limitations: *Green Chemistry (GC):* Occasionally data are not available for a given technology due to confidential business information (the Presidential Green Chemistry Challenge Awards Program does not process CBI). Because the Presidential Green Chemistry Challenge is a voluntary public program, it cannot routinely accept or process CBI. If the program stakeholders cannot verify a technology because of proprietary information, especially during the final judging stage of the awards program, they can and do ask EPA to conduct the verification internally. EPA will then ask the company to share confidential information with CBI-cleared OPPT staff in order for EPA to conduct the verification. It also is occasionally unclear as to what is the percentage market penetration of implemented alternative green chemistry technology (potential benefits vs. realized benefits). In these cases, the database is so noted.

Design for the Environment (DfE): Occasionally, data on innovative chemistries or technologies are claimed CBI by the developing company, thus limiting the implementation of beneficial pollution prevention practices on a wider scale.

Green Engineering (GE): There may be instances in which environment benefits are not clearly quantified. In those instances, the data will be excluded.

Pollution Prevention (P2) Programs: Limitations arise from the reliance on individual state and local P2 programs to gather data. These programs vary in attention to data collection from sources within their jurisdictions, data verification and other QA/QC procedures. Also, despite plans described above to move toward consistent metrics and definitions, some differences exist. EPA is attempting to address these concerns by strengthening reporting requirements in its P2 grants (which fund much of the state and local P2 work) and focusing those requirements on outcomes, adding comprehensive new grant reporting forms and databases which are parallel with the National P2 Results System, and adding a P2 component to EPA Information Exchange Network (which provides financial support and a comprehensive data system to link state data with EPA).

Error Estimate: *Green Engineering (GE):* There may be instances in which environmental benefits are not clearly quantified. In those instances, the data will be excluded. Not applicable for other programs contributing data to this measure.

New/Improved Data or Systems: *Green Chemistry (GC), Design for the Environment (DfE), Green Engineering (GE):* The American Chemistry Council (ACC) has initiated an industry self-monitoring program called Responsible Care. Beginning in 2003, member companies will collect and report on a variety of information. Measures tentatively include Toxics Release Inventory (TRI) releases; tons of CO_2 equivalent per pound of production; total BTUs consumed per pound

of production; systems for assessing or, reassessing potential environmental, health, and safety risks; percentage of products re-evaluated; percentage of commitments for chemical evaluation programs; documentation of process for characterizing and managing product risks; and documentation of communication of risk characterization results. Many of these measures are similar to the EPA program targets identified under Goal 5, Objective 2. These reports may be an invaluable source of industry baseline information. It is important that the EPA programs identified under Goal 5 evaluate the utility of the reports generated under the ACC's Responsible Care Program in support of the EPA's programs as well as the goals of Responsible Care. (CAPRM II, *Chemical and Pesticide Results Measures*, March 2003 pp. 313). The Pollution Prevention (P2) program's data collection system is currently under development through a partnership with the National Pollution Prevention Roundtable and EPA.

References:
Chemical and Pesticide Results Measures II: http://www.pepps.fsu.edu./CAPRM/index.html
Green Chemistry (GC): http://www.epa.gov/opptintr/greenchemistry/
Design for the Environment (DfE): http://www.epa.gov/opptintr/dfe/
Green Engineering (GE): http://www.epa.gov/opptintr/greenengineering/
Pollution Prevention (P2) Programs: http://www.epa.gov/oppt/p2home/index.htm
http://www.p2.org/workgroup/Background.cfm
http://www.epa.gov/Networkg/

FY 2007 Performance Measures:

- **Percent reduction in Toxics Release Inventory (TRI) chemical releases to the environment from the business sector per unit of production ("Clean Index")**

- **Percent reduction in TRI chemicals in production-related wastes generated by the business sector per unit of production ("Green Index")**

- **Percent reduction in Toxics Release Inventory (TRI) reported toxic chemical releases at Federal Facilities.**

Performance Database: TRIM: Toxics Release Inventory Modernization, formerly TRIS (Toxics Release Inventory System) provides facility/chemical-specific data quantifying the amount of TRI-listed chemicals entering wastes associated with production process in each year. The total amount of each chemical in production-related wastes can be broken out by the methods employed in managing such wastes, including recycling, energy recovery, treatment, and disposal/release. Amounts of these wastes that are not recycled are tracked for these performance measures. The fourth performance measure uses the Chemical Abstract System (CAS) numbers for the 23 chemicals identified by EPA as priority chemicals (http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm).

Data Source: Regulated facilities report facility-specific, chemical-specific release, waste and recycling data to EPA on a calendar year basis. For example, in calendar year 2003, 23,957 facilities filed 97,251 TRI reports. FY 2007 results will not be available until FY 2009 due to a two year data lag.

Methods, Assumptions, and Suitability: TRI data are collected as required by sections 313 of EPCRA and 6607 of Pollution Prevention Act (PPA) (40 CFR ' 372; www.epa.gov/tri/). Only certain facilities in specific Standard Industrial Classification (SIC) codes are required to report annually the quantities of over 650 listed toxic chemicals and chemical categories released to each environmental medium and otherwise managed as waste (40 CFR ' 372; www.epa.gov/tri/). Regulation requires covered facilities to use monitoring, mass balance, emission factors and/or engineering calculations approaches to estimate releases and recycling volumes. For the Clean and Green Index measures and priority list chemicals measure, data controls are employed to facilitate cross-year comparisons: a subset of chemicals and sectors are assessed that are consistently reported in all years; data are normalized to control for changes in production using published U.S. Bureau of Economic Analysis (BEA) gross product indices (chain-type quantity index for the manufacturing sector). [Please note the federal facility measure data are not normalized to control for changes in production.]

QA/QC Procedures: Most facilities use EPA-certified automated Toxics Release Inventory (TRI) FORM R reporting tools, which contain automated error checking mechanisms. Upon receipt of the facilities' reports, EPA conducts automated edits, error checks, data scrubs, corrections and normalization during data entry and subsequent processing to verify that the information provided by the facilities is correctly entered in TRIM. The Agency does not control the quality of the data submitted by the regulated community. EPA does, however, work with the regulated community to improve the quality of their estimates.

Data Quality Review: The quality of the data contained in the TRI chemical reports is dependent upon the quality of the data that the reporting facility uses to estimate its releases and other waste management quantities. Use of TRI Form R by submitters and EPA's performance data reviews combine to help assure data quality.

Data Limitations: Use of the data should be based on the user's understanding that the Agency does not have direct assurance of the accuracy of the facilities' measurement and reporting processes. TRI release data are reported by facilities on a good faith, best-estimate basis. EPA does not have the resources to conduct on-site validation of each facility's reporting data, though on-site investigations do occur each year at a subset of reporting facilities.

Error Estimate: From the various data quality efforts, EPA has learned of several reporting issues such as incorrect assignment of threshold activities and incorrect assignment of release and other waste management quantities (EPA-745-F-93-001; EPA-745-R-98-012; www.epa.gov/tri/tridata/data_quality_reports/index.htm; www.epa.gov/tri/report/index.htm.) For example, certain facilities incorrectly assigned a 'processing' (25,000 lb) threshold instead of an 'otherwise use' (10,000 lb) threshold for certain persistent, bioaccumulative and toxic (PBT) chemicals, so they did not have to report if their releases were below 25,000 lbs. Also, for example, some facilities incorrectly reported fugitive releases instead of stack releases of certain toxic chemicals.

New/Improved Data or Systems: To improve reporting efficiency and effectiveness, reduce burden, and promote data reliability and consistency across Agency programs, EPA simplified

the Toxics Release Inventory (TRI) reporting requirements. The TRI Form Modification Rule effective September of 2005, will simplify data elements, reduced the number of reporting codes, and make two technical corrections to the regulations by correcting contact information and removing an outdated description of a pollution prevention data element. The revised TRI form, will allow the EPA to better target pollution prevention efforts, improve public access to information about source reduction and pollution control activities undertaken by some facilities, and encourage manufacturers to comply by making it easier to use. Please see the following for additional information on this rule: http://www.epa.gov/tri/tridata/modrule/index.htm

References: www.epa.gov/tri/ and additional citations provided above: EPA-745-F-93-001;EPA-745-R-98-012; http://www.epa.gov/tri/report/index.htm; www.epa.gov/tri/tridata/data_quality_reports/index.htm; OSWER priority chemicals and fact sheets http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm; www.epa.gov/tri/report/index.htm; Bureau of Economic Analysis (BEA) indices are available at http://www.bea.gov/bea/regional/gsp/.

FY 2007 Performance Measures:

- **Specific annual reductions in six media/resource areas: water use, energy use, materials use, solid waste generated, air releases, and water discharges**

- **Reduce 3.7 billion gallons of water use; 16.3 million MMBTUs of energy use; 1,050 tons of materials use; 460,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges**

Performance Databases: Both the Performance Track On-Line (a Domino database) and the Performance Track Members Database (a Microsoft Access database) store information that facilities have provided to EPA in applications and annual performance reports. Performance Track members select a set of environmental indicators on which to report performance over a three-year period of participation. The externally reported indicators (listed above) may or may not be included in any particular facility's set of indicators. Performance Track aggregates and reports only that information that a facility voluntarily reports to the Agency. A facility may make progress towards one of the above indicators, but if it is not among its set of "commitments", then Performance Track's data will not reflect the changes occurring at the facility. Similarly, if a facility's performance declines in any of the above areas and the indicator is not included among its set of commitments, that decline will not be reflected in the above results.

Members report on results in a calendar year. Fiscal year 2007 corresponds most closely with members' calendar year 2006. That data will be reported to the Performance Track program by April 1, 2007. The data will then be reviewed, aggregated, and available for external reporting in September 2007. (Calendar year 2005 data will become available in September 2006.)

Data Source: All data are self-reported and self-certified by member facilities. As described below, Performance Track engages in quality control to the extent possible, but it does not conduct formal auditing. However, a criterion of Performance Track membership is the

existence of an environmental management system (EMS) at the facility, a key element of which is a system of measurement and monitoring. Most Performance Track facilities have had independent third-party audits of their EMSs, which create a basis for confidence in the facilities' data. It is clear from submitted reports that some facilities have a tendency to estimate or round data. Errors are also made in converting units and in calculations. In general, however, EPA is confident that the externally reported results are a fair representation of members' performance.

Methods, Assumptions, and Suitability: Data collected from members' applications and annual performance reports are compiled and aggregated across those members that choose to report on the given indicator. The data reflect the performance results at the facility; any improvements or declines in performance are due to activities and conditions at the specific facility as a whole. However, in some cases, facilities report results for specific sections of a facility and this may not be clear in the reports submitted to the program. For example, Member A commits to reducing its VOCs from 1000 tons to 500 tons over a 3-year period. In Year 1, it reports a reduction of VOCs from 1000 tons to 800 tons. Performance Track aggregates this reduction of 200 tons with results from other facilities. But unbeknownst to Performance Track, the facility made a commitment to reduce its VOCs from Production Line A and is only reporting on its results from that production line. The facility is not intentionally hiding information from EPA, but mistakenly thought that its commitment could focus on environmental management activities at Production Line A rather than across the entire facility. Unfortunately, due to increased production and a couple of mishaps by a sloppy technician, VOC emissions at Production Line B increased by 500 tons in Year 1. Thus, the facility's VOC emissions actually increased by 300 tons in Year 1. Performance Track's statement to the public that the facility reduced its emissions by 200 tons is therefore misleading.

The data can be used to make year-to-year comparisons, but reviewers and analysts should bear in mind that Performance Track membership is constantly in flux. Although members should retain the same set of indicators for their three-year participation period, as new members join the program and others leave, the baseline constantly changes.

Due to unavoidable issues regarding the timing of the application period, a small subset of reported data will represent two years of performance at certain facilities, i.e., the baseline will be two years prior rather than one year.

QA/QC Procedures: Data submitted with applications and annual performance reports to the program are reviewed for completeness and adherence to program formatting requirements. In cases where it appears possible that data is miscalculated or misreported, EPA or contractor staff follows up with the facility. If the accuracy of data remains under question or if a facility has provided incomplete or non-standard data, the database is coded to ensure that the data is excluded from aggregated and externally reported results.

Additionally, Performance Track staff visit up to 20% of Performance Track member facilities each year. During those visits, facilities are asked about their data collection systems and about the sources of the data reported to the program.

Performance Track contractors conduct a quality review of data entered manually into the database. Performance Track staff conduct periodic checks of the entered data.

As described, Performance Track is quality controlled to the extent possible, but is not audited in a formal way. However, a prerequisite of Performance Track membership is an environmental management system (EMS) at the facility, a key element of which is a system of measurement and monitoring. Most Performance Track facilities have had independent third-party audits of their EMSs, which create a basis for confidence in the facilities' data.

A Quality Management Plan is under development.

Data Quality Reviews: N/A.

Data Limitations: Potential sources of error include miscalculations, faulty data collection, misreporting, inconsistent reporting, and nonstandard reporting on the part of the facility. Where facilities submit data outside of the Performance Track On-Line system, Performance Track staff or contractors must enter data manually into the database. Manually entered data is sometimes typed incorrectly.

It is clear from submitted reports that some facilities have a tendency to estimate or round data. Errors are also made in converting units and in calculations. In general, however, EPA is confident that the externally reported results are a fair representation of members' performance.

Error Estimate: Not calculated.

New/Improved Performance Data or Systems: Since spring 2004, all Performance Track applications and annual performance reports have been submitted electronically (i.e., through the Performance Track On-Line system), thus avoiding the need for manual data entry. Additionally, the program is implementing a new requirement that all members gain third-party assessments of their EMSs. Also, the program has reduced the chances that data may reflect process-specific (rather than facility-wide) data by paying additional attention to the issue in the review process and by instituting "facility-wide data" requirements for all indicators.

References: Members' applications and annual performance reports can be found on the Performance Track website at https://yosemite.epa.gov/opei/ptrack.nsf/faMembers?readform. *Performance Track On-Line* and the *Performance Track Members Database* are not generally accessible. Performance Track staff can grant access to and review of the databases by request.

GOAL 5 OBJECTIVE 3

FY 2007 Performance Measures:

- **Percent of tribes with delegated and non-delegated programs (PART measure)**
- **Percent of tribes with EPA-reviewed monitoring and assessment occurring (PART measure)**

- **Percent of tribes with EPA-approved multimedia work plans (PART measure)**

- **Number of environmental programs implemented in Indian country per million dollars (PART efficiency measure)**

Performance Database:

EPA's American Indian Environmental Office (AIEO) developed an information technology infrastructure, named the Tribal Program Enterprise Architecture (TPEA). The TPEA is a suite of ten secure Internet-based applications that track environmental conditions and program implementation in Indian country as well as other AIEO business functions. One TPEA application, the Objective 5.3 Reporting System, tracks progress in achieving the performance targets under Goal 5 Objective 3 of EPA's National Strategic Plan – "Build Tribal Capacity." EPA staff use the Objective 5.3 Reporting System to establish program performance commitments for future fiscal years, to record actual program performance for overall national program management. Therefore, the Objective 5.3 Reporting System serves as the performance database for all of the annual performance measures.

Data Source:

The performance measure, "Percent of tribes with delegated and non-delegated programs," tracks the number of: Treatment in a manner similar to a State (TAS) approvals or primacies; implementations of a tribal program; executions of Direct Implementation Tribal Cooperative Agreements (DITCA); and GAP (General Assistance Programs) grants that have provisions for the implementation of solid waste or hazardous waste programs.

EPA Regional project officers managing Tribes with delegated and non-delegated environmental programs input data, classified by tribe, into the Objective 5.3 Reporting System to derive a national cumulative total.

The performance measure, "Percent of Tribes with EPA approved multi-media workplans," tracks the number of: Performance Partnership Grants (PPGs); Tribal Environmental Agreements (TEAs), Tier I, Tier II, and Tier III; Memoranda of Agreement (MOAs); and Memoranda of Understanding (MOUs).

EPA Regional tribal program liaisons input data, which are summed annually. It is possible a tribe will contribute to the measure in more than one way.

The performance measure, "Percent of tribes with EPA-reviewed monitoring and assessment occurring (cumulative)," reports the number of active Quality Assurance Project Plans (QAPPs). All ongoing environmental monitoring programs are required to have active QAPPs. Regional tribal program liaisons obtain the information from Regional Quality Assurance Officers and input it into the Objective 5.3 Reporting System. The data are updated continuously and summed at the end of the fiscal year.

The performance measure, "Number of environmental programs implemented in Indian Country per million dollars," is calculated annually by summing the number of tribes receiving GAP grants, the number of TAS approvals or primacies, the number of DITCAs, and the number of GAP grants that have provisions for the implementation of solid or hazardous waste programs and dividing that sum by the annual GAP appropriation (less rescissions and annual set-asides.)

Methods, Assumptions and Suitability: The Objective 5.3 Reporting System contains all the information for reporting on performance. The measure that tracks delegated and non-delegated programs can be cross-referenced and verified with records from the Integrated Grants Management System. The measure that tracks monitoring and assessment programs can be verified from databases maintained by the Regional Quality Assurance Officers. The measure that tracks multimedia work plans can be verified from official correspondence files between EPA Regions and Tribes, or from project officer case files.

QA/QC Procedures: Data used in the Tribal Program Enterprise Architecture contains quality assurance and metadata documentation prepared by the originating agency or program. Because the information in the Tribal Program Enterprise Architecture is used for budget and strategic planning purposes, AIEO requires adherence to the Agency's Information Quality Guidelines. <http://www.epa.gov/quality/informationguidelines/>

Data Quality Reviews: Data correction and improvement is an ongoing component of the Tribal Program Enterprise Architecture. The Objective 5.3 Reporting System relies on multiple staff-level reviews. In addition, a special application, the Tribal Information Management System (TIMS) Data Center was developed to support the submission of corrections to boundary information, narrative tribal profiles, and factual database information – particularly latitude and longitude coordinates for facilities. The AIEO collects and passes along recommendations regarding the correction or modification of databases whenever errors are detected or suggestions for database improvement are received. Each database manager retains the responsibility of addressing the recommended change according to quality assurance protocols. Because the data submittals are used for budget or strategic planning purposes, AIEO requires that all submittals comply with the Agency's Information Quality Guidelines. <http://www.epa.gov/quality/informationguidelines/>

Data Limitations: A large part of the data used by the Tribal Program Enterprise Architecture has not been coded to particular Tribes by the recording agency. AIEO uses new geographic data mining technologies to extract records based on the geographical coordinates of the data points. For example, if a regulated facility has latitude and longitude coordinates that place it in the boundaries of the Wind River Reservation, then it is assigned to the Arapaho and Shoshone Tribes of the Wind River Reservation. This technique is extremely powerful because it Atribally enables@ large numbers of information systems which were previously incapable of identifying Tribes. This approach will be applied to all EPA databases. There are limitations, however. When database records are not geographically identified with latitude and longitude, the technique does not work and the record is lost to the system. For EPA regulated facilities in the Facility Registry System, AIEO estimates that 64% have latitude and longitude recorded. Therefore, the accuracy of EPA's data concerning environmental conditions in Indian country will depend on additional improvements to Agency data systems.

Error Estimate: Analysis of variation of reservation boundary coverages available to EPA indicates deviations of up to 5%. Another source of error is that some records are not sufficiently described geographically to be assigned to specific Tribes. It is estimated that 36% of the regulated facilities in EPA's regulatory databases are not geographically described. The TPEA identifies the non-geographically indexed facilities by postal zip code for zip codes that overlap tribal boundaries.

New/Improved Data or Systems: The technologies used by the Tribal Program Enterprise Architecture are new, secure and state–of-the-art. The geographic interface is a product called ARC/IMS, which is a web-based application, with a fully functional scalable Geographic Information System (GIS). The Tribal Program Enterprise Architecture uses XML protocols to attach to and display information seamlessly and in real-time from cooperating agency data systems without having to download the data to an intermediate server. In addition, the TPEA project has developed web-based, secure data input systems that allow Regional project officers and tribal program liaisons to input programmatic data directly into performance reporting systems, TIMS and other customizable reports.

References:

Objective 5.3 Reporting System: https://oasint.rtpnc.epa.gov/TATS/tats_prv/entry_page
EPA's Information Quality Guidelines: http://www.epa.gov/quality/informationguidelines

GOAL 5 OBJECTIVE 4

FY 2007 Performance Measure:

- **Percent increase in Pollution Prevention/Sustainability program publications rated as highly cited papers**

Performance Database: No internal tracking system

Data Source: The source of data will be a contractor-produced bibliometric analysis of Pollution Prevention/Sustainability program publications.

Methods, Assumptions and Suitability: The analysis will be completed using Thomson's Essential Science Indicators (ESI) and Journal Citation Reports (JCR) as benchmarks. ESI are a comprehensive compilation of essential science performance statistics and science trends data derived from Thomson's databases. The chief indicator of output, or productivity, is journal article publication counts. For influence and impact measures, ESI employs both total citation counts and cites per paper scores. The former reveals gross influence while the latter shows weighted influence, also called impact. JCR presents quantifiable statistical data, which provide a systematic, objective way to evaluate the world's leading journals and their impact and influence in the global research community.

QA/QC Procedures: Source data will be used in comparing program publications to field benchmarks, Essential Science Indicators (ESI) and Journal Citation Report (JCR).

Data Quality Reviews: Additional benchmarks will be used to determine the number of self-citations of articles by the same author in order to reduce the self-citation rate.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:

Essential Science Indicators®· Thomson Scientific. 2003.

Journal Citation Reports®. Thomson Scientific. 2003.

US EPA. December 2004. BOSC Program Review. Citation Analysis of ORD's Endocrine Disruptors (EDCs) Research Program, publication list.

ENABLING SUPPORT PROGRAMS

FY 2007 Performance Measures:

- **Percent to which competency/skill gaps are reduced (beginner to intermediate) in mission-critical occupations (MCO)**

- **Percent to which competency/skill gaps are reduced (intermediate to expert) in MCOs**

Database: Database populated with competency/skills of employees obtained from a self-assessment survey, and competency/skills deemed necessary within each occupation.

Methods, Assumptions and Suitability: Survey data will be used to provide current competency/skills of the present MCO employees. These data will be compared to what competency/skills EPA feels is necessary for mission accomplishment within each MCO to arrive at a baseline assessment.

Yearly surveys of the MCO employee base will be completed and compared to the baseline.

QA/QC Procedures: The Office of Human Resources will be conducting a survey of EPA's MCO workforce to reflect competency/skills possessed within each MCO grouping.

Data Quality Reviews: N/A

Data Limitations: Employees will self-assess their competency/skills. If they over-inflate or under-inflate this assessment, analysis of the information may not correctly identify gaps.

Error Estimate: N/A

New/Improved Data or Systems: This is a new competency/skills database.

References: This is a new competency/skills database.

FY 2007 Performance Measures:

- **Number of new hires recruited through EPA's Environmental Intern Program (EIP) in Mission Critical Occupations (MCO)**

Data Source: The Office of Human Resources (OHR) PeoplePlus system.

Methods, Assumptions and Suitability: Data on new hires through the EIP is collected by OHR and maintained by the National EIP Manager. Using the information from the PeoplePlus New Hire Report and consulting with the headquarters National EIP Manager, a determination can be made if the new hire in an MCO was recruited through the EIP.

QA/QC Procedures: PeoplePlus contains nature of action codes (NOAC) designating the type of personnel action taken and the appointing authority. Efforts are underway to establish an EIP designation code. The NOAC and an EIP identifier will more readily identify new hires in MCOs recruited through the EIP.

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A.

New/Improved Data or Systems: The establishment of an EIP designation code in PeoplePlus will provide an integrated approach to identifying new hires through the EIP.

References: PeoplePlus.

FY 2007 Performance Measures:

- **Average time to hire non-SES positions from date vacancy closes to date offer is extended, expressed in working days**

Data Source: The Office of Human Resources (OHR) Ez-Hire System.

Methods, Assumptions and Suitability: Data on new hires is collected by OHR using the Ez-Hire system. A data file is obtained from the Ez-hire contractor and downloaded into Excel spreadsheets, which are formatted into the various components of the Office of Personnel Management's 45-day Hiring Model. OHR staff review the results and further investigate any data anomalies prior to finalizing the report and sending it to the servicing Human Resources Officer (HRO) who views and validates the data.

QA/QC Procedures: Ez-Hire contains new hire data from the time the vacancy is announced until the selection is made by the Selecting Official from the Referral Certification.

Data Quality Reviews: OHR staff review and analyze the results of the report, investigate any data anomalies, finalize the report, and send to the HRO. The servicing HRO further reviews and validates the data. Any discrepancies are reported to OHR's staff for review and remedy. The results of the OHR staff review is shared with the HRO.

Data Limitations: N/A

Error Estimate: N/A.

New/Improved Data or Systems: The Ez-Hire system provides adequate data for analysis of the average time to hire for non-Senior Executive Service (SES) applicants.

References: Ez-Hire

FY 2007 Performance Measures:

- **For SES positions, the average time from the date vacancy closes to date offer is extended, expressed in working days.**

Data Source: The Executive Resources Staff (ERS) weekly activity report. This is a text report that tracks SES personal actions through the various stages of the hiring process.

Methods, Assumptions and Suitability: Data from the weekly report is tracked and reported quarterly. ERS staff review the results and further investigate any data anomalies prior to finalizing the quarterly report.

QA/QC Procedures: Data are added as vacancy status changes

Data Quality Reviews: The ERS Operations Team Leader reviews data weekly, analyzes the results and notes instances where goals may not be met. The Team Leader meets with specialists to investigate any data anomalies in attempt to meet standards.

Data Limitations: N/A

Error Estimate: N/A.

New/Improved Data or Systems: N/A

References: Ez-Hire

FY 2007 Performance Measure:

- **Cumulative percentage reduction in energy consumption in EPA's 21 laboratories from the 2003 base**

Performance Database: The Agency's contractor provides energy consumption information quarterly and annually. The Agency keeps the energy consumption data in the "Energy Reporting System." The contractor is responsible for validating the data.

Data Source: The Agency's contractor collects quarterly energy data from each of EPA's laboratories. The data are based on metered readings from the laboratory's utility bills for certain utilities (natural gas, electricity, purchased steam, chilled water, high temperature hot water, and potable water) and from on-site consumption logs for other utilities (propane and fuel oil). The data from the on-site consumption logs are compared to invoices to verify that reported consumption and cost data are correct.

Methods, Assumptions, and Suitability: N/A

QA/QC Procedures: EPA's Sustainable Facilities Practices Branch compares reported energy use at each facility against previous years' data to see if there are any significant and unexplainable increases or decreases in energy quantities and costs.

Data Quality Reviews: N/A

Data Limitations: EPA does not have a formal meter verification program to ensure that an on-site utility meter reading corresponds to the charges included in the utility bill.

New/Improved Data or Systems: N/A

References: N/A

FY 2007 Performance Measures:

- **The Central Data Exchange (CDX) will fully support electronic data exchange requirements for major EPA environmental systems, enabling faster receipt, processing, and quality checking of data**
- **States will be able to exchange data with CDX through state nodes in real time, using new web-based data standards that allow for automated data-quality checking**
- **States, tribes, laboratories, and others will choose to use CDX to report environmental data electronically to EPA, taking advantage of automated data quality checks and on-**

line customer support.

- **Customer-help desk calls resolved in a timely fashion.**

Performance Database: CDX Customer Registration Subsystem.

Data Source: Data are provided by state, private sector, local, and tribal government CDX users.

Methods, Assumptions, and Suitability: All CDX users must register before they can begin reporting to the system. The records of registration provide an up-to-date, accurate count of users. Users identify themselves with several descriptors.

QA/QC Procedures: QA/QC have been performed in accordance with a CDX Quality Assurance Plan [*Quality Assurance Project Plan for the Interim Central Data Exchange System*. Document number: EP005T7. Sept. 17, 2001] and the CDX Design Document v.3, Appendix K registration procedures [*Central Data Exchange Electronic Reporting Prototype System Requirements*: Version 3; Document number: EP005S3. December 2000]. Specifically, data are reviewed for authenticity and integrity. The CDX Quality Assurance Plan was updated in FY 2004 [Quality Assurance Project Plan for the Central Data Exchange," 10/8/2004; contact: Wendy Timm, 202 566 0725] to incorporate new technology and policy requirements. Work is underway to complete the revision of the Design Document. Automated edit checking routines are performed in accordance with program specifications and CDX quality assurance guidance [*Quality Assurance Project Plan for the Interim Central Data Exchange System*. Document number: EP005T7. Sept. 17, 2001].

Data Quality Reviews: CDX successfully completed independent security risk assessment in the summer 2001. In addition, routine audits of CDX data collection procedures and customer service operations are provided weekly to CDX management and staff for review. Included in these reports are performance measures such as the number of CDX new users, number of submissions to CDX, number of help desk calls, number of calls resolved, ranking of errors/problems, and actions taken. These reports are reviewed and actions discussed at weekly project meetings.

Data Limitations: The CDX system collects, reports, and tracks performance measures on data quality and customer service. While its automated routines are sufficient to screen systemic problems/issues, a more detailed assessment of data errors/problems generally requires a secondary level of analysis that takes time and human resources.

Error Estimate: CDX incorporates a number of features to reduce errors, such as pre-populating data whenever possible, edit checks, etc. The possibility of an error in the number of states registered for CDX, e.g., double-counting of some sort, is extremely remote (far less than 1 %).

New/Improved Performance Data or Systems: CDX coalesces the registration/submission requirements of many different state-to-EPA, private sector-to-EPA, and local and tribal governments-to-EPA data exchanges into a single web-based system. The system allows for a more consistent and comprehensive management and performance tracking of many different

external customers. The creation of a centralized registration system, coupled with the use of web forms and web-based approaches to submitting the data, invite opportunities to introduce automated quality assurance procedures for the system and reduce human error.

References: CDX website (www.epa.gov/cdx).

FY 2007 Performance Measure:

- **Establish an improved suite of environmental indicators for use by EPA's programs and partners in the Agency's strategic planning and performance measurement process**

Performance Database: Initial collection of indicators compiled during the drafting of EPA's "Report on the Environment," supplemented by indicators currently used in the Agency's strategic planning and performance measurement process (e.g., EPA's Strategic Plan, Annual Performance Plan, Annual Performance Report, Annual Operating Plan, and National Environmental Performance Partnership Agreements), will comprise an Agency baseline of indicators (http://www.epa.gov/indicators/roe/index.htm).

Methods, Assumptions and Suitability: The Office of Environmental Information (OEI), the Office of Research and Development (ORD), and the Office of the Chief Financial Officer (OCFO) will review the planning documents and establish a baseline of indicators in consultation with key Agency steering committees.

QA/QC Procedures: As the baseline is established, protocols also will be developed to ensure that the data supporting the indicators are accurate and complete.

Data Quality Reviews: To be determined and conducted once a baseline has been established.

Data Limitations: The challenge is to develop suitable indicators with sufficient data of known quality.

Error Estimate: To be determined.

New/Improved Performance Data or Systems: The baseline indicators and supporting data are in development.

References: EPA's "Draft Report on the Environment" and "Technical Support Document" (EPA pub. no. 260-R-02-006). Draft Report on the Environment Technical Document (Publication # EPA 600-R-03-050). Both Dated June 2003

Web site: http://www.epa.gov/indicators/roe/html/roePDF.htm

FY 2007 Performance Measure:

- **Percent compliance with criteria used by OMB to assess Agency security programs reported annually to OMB under the Federal Information Security Management Act (FISMA)**

Performance Database: Automated Security Self-Evaluation and Remediation Tracking (ASSERT) database.

Data Source: Information technology (IT) system owners in Agency Program and Regional offices.

Methods, Assumptions, and Suitability: Annual IT security assessments are conducted using the methodology mandated by the Office of Management and Budget (OMB), the National Institute of Standards, and Technology (NIST) Security Self-Assessment Guide for Information Technology Systems. ASSERT has automated and web-enabled this methodology.

QA/QC Procedures: Automated edit checking routines are performed in accordance with ASSERT design specifications to ensure answers to questions in ASSERT are consistent. The Office of Inspector General consistent with §3545 FISMA, and the Chief Information Officer's information security staff conduct independent evaluations of the assessments. The Agency certifies results to OMB in the annual FISMA report.

Data Quality Reviews: Program offices are required to develop security action plans composed of tasks and milestones to address security weaknesses. Program offices self-report progress toward these milestones. EPA's information security staff review these self-reported data, conduct independent validation of a sample, and discuss anomalies with the submitting office.

Data Limitations: Resources constrain the security staff's ability to validate all of the self-reported compliance data submitted by program systems' managers.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:
Annual Information Security Reports to OMB: http://intranet.epa.gov/itsecurity/progreviews/; OMB guidance memorandum: http://www.whitehouse.gov/omb/memoranda/2003.html; ASSERT web site: https://cfint.rtpnc.epa.gov/assert/; NIST Special Publication 800-26, *Security Self_Assessment Guide for Information Technology Systems*, November 2001: http://csrc.nist.gov/publications/nistpubs/index.html; and, Federal Information Security Management Act, PL107-347: http://csrc.nist.gov/policies/FISMA_final.pdf

FY 2007 Performance Measures:

- **Number of environmental risks reduced, environmental actions taken, and environmental recommendations/risks/best practices identified.**

- **Number of actions taken for improved business practices and systems, criminal/civil/administrative actions, business recommendations/risks/best practices, and potential dollar return identified.**

Performance Database: The OIG Performance Measurement and Results System captures and aggregates information on an array of measures in a logic model format, linking immediate outputs with long-term intermediate outcomes and results. Because intermediate and long-term results may not be realized for several years, only verifiable results are reported in the year completed, while others remain prospective until completed and verified. Database measures include numbers of: 1) recommendations for environmental and management improvement, including management of assistance agreements; 2) legislative, regulatory policy, directive, or process changes; 3) environmental, program, and security and resource integrity risks identified, reduced, or eliminated; 4) best practices identified and implemented; 5) examples of environmental and management improvements; 6) monetary value of funds questioned, saved, fined, or recovered; and 7) public or congressional inquiries resolved.

Data Source: Designated OIG staff enter data into the system. Data are from OIG performance evaluations, audits, research, court records, EPA documents, data systems, and reports that track environmental and management actions or improvements made and risks reduced or avoided. OIG also collects independent data from EPA's partners and stakeholders.

Methods, Assumptions, and Suitability: OIG performance results are a chain of linked events, starting with OIG outputs (e.g., recommendations, reports of best practices, and identification of risks). The subsequent actions taken by EPA or its stakeholders/partners, as a result of OIG's outputs, to improve operational efficiency and environmental program delivery are reported as intermediate outcomes. The resulting improvements in operational efficiency, risks reduced/eliminated, and conditions of environmental and human health are reported as outcomes. By using common categories of performance measures, quantitative results can be summed and reported. Each outcome is also qualitatively described, supported, and linked to an OIG product or output. The OIG can only control its outputs, and has no authority, beyond its influence, to implement its recommendations that lead to environmental and management outcomes.

QA/QC Procedures: All performance data submitted to the database require at least one verifiable source assuring data accuracy and reliability. Data quality assurance and control are performed as an extension of OIG products and services, subject to rigorous compliance with the Government Auditing Standards of the Comptroller General[27], and regularly reviewed by OIG management, an independent OIG Management Assessment Review Team, and external independent peer reviews. Each Assistant Inspector General certifies the completeness and accuracy of performance data.

Data Quality Reviews: There have not been any previous audit findings or reports by external groups on data or database weaknesses in the OIG Performance Measurement and Results System. All data reported are audited internally for accuracy and consistency.

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[27] Government Auditing Standards (2003 Revision), General Accounting Office, GAO-03-673G, June 2003

Data Limitations: All OIG staff are responsible for data accuracy in their products and services. However, there is a possibility of incomplete, miscoded, or missing data in the system due to human error or time lags. Data supporting achievement of results are often from indirect or external sources, with their own methods or standards for data verification/validation.

Error Estimate: The error rate for outputs is estimated at +/-2%, while the error rate for reported long-term outcomes is presumably greater because of the longer period needed for tracking results. Errors tend to be those of omission.

New/Improved Data or Systems: The OIG developed the Performance Measurement and Results System as a prototype in FY 2001 and anticipates replacing it in FY 2006 with a more sophisticated system designed to integrate data collection and analysis. We also expect the quality of the data to improve as staff gain greater familiarity with the system and measures. This system is a best practice in government for linking an array of measures from outputs to eventual results and impacts. With enhanced linkages to customer satisfaction results and resource investments, it will provide a full-balanced scorecard with return on investment information for accountability and decision making.

References: All OIG non-restricted performance results are referenced in the OIG Performance Measurement and Results System with supporting documentation available either through the OIG Web Site or other Agency databases. The OIG Web Site is www.epa.gov/oig.[28]

[28] U.S. EPA, Office of Inspector General, Audits, Evaluations, and Other Publications, Available on the Internet at www.epa.gov/oig, last updated November 30, 2005