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Environmental Protection
Agency

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Summary Of The 2002 Budget



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Photos courtesy of Steve Delaney and Renell Mcewan

EPA's Mission and Goals

The mission of the U.S. Environmental Protection Agency (EPA) is to protect human health and to safeguard the natural environment—air, water, and land—upon which life depends.

- **Clean Air:** The air in every American community will be safe and healthy to breathe. In particular, children, the elderly, and people with respiratory ailments will be protected from health risks of breathing polluted air. Reducing air pollution will also protect the environment, resulting in many benefits, such as restoring life in damaged ecosystems and reducing health risks to those whose subsistence depends directly on those ecosystems.
- **Clean and Safe Water:** All Americans will have drinking water that is clean and safe to drink. Effective protection of America's rivers, lakes, wetlands, aquifers, and coastal and ocean waters will sustain fish, plants, and wildlife, as well as recreational, subsistence, and economic activities. Watersheds and their aquatic ecosystems will be restored and protected to improve public health, enhance water quality, reduce flooding, and provide habitat for wildlife.
- **Safe Food:** The foods Americans eat will be free from unsafe pesticide residues. Particular attention will be given to protecting sub-populations that may be more susceptible to adverse effects of pesticides or have higher dietary exposures to pesticide residues. These include children and people whose diets include large amounts of noncommercial foods.
- **Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces, and Ecosystems:** Pollution prevention and risk management strategies aimed at eliminating, reducing, or minimizing emissions and contamination will result in cleaner and safer environments in which all Americans can reside, work, and enjoy life. EPA will safeguard ecosystems and promote the health of natural communities that are integral to the quality of life in this nation.
- **Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response:** America's wastes will be stored, treated, and disposed of in ways that prevent harm to people and the natural environment. EPA will work to clean up previously polluted sites, restore them to uses appropriate for surrounding communities, and respond to and prevent waste-related or industrial accidents.
- **Reduction of Global and Cross-Border Environmental Risks:** The United States will lead other nations in successful, multilateral efforts to reduce significant risks to human health and ecosystems from climate

EPA's Mission and Goals

change, stratospheric ozone depletion, and other hazards of international concern.

- **Quality Environmental Information:** The public and decision makers at all levels will have access to information about environmental conditions and human health to inform decision making and help assess the general environmental health of communities. The public will also have access to educational services and information services and tools that provide for the reliable and secure exchange of quality environmental information.

- **Sound Science, Improved Understanding of Environmental Risk, and Greater Innovation to Address Environmental Problems:** EPA will develop and apply the best available science for addressing current and future environmental hazards as well as new approaches toward improving environmental protection.

- **A Credible Deterrent to Pollution and Greater Compliance with the Law:** EPA will ensure full compliance with laws intended to protect human health and the environment.

- **Effective Management:** EPA will maintain the highest-quality standards for environmental leadership and for effective internal management and fiscal responsibility by managing for results.

Annual Plan and Budget Overview

A New Era of Cooperation in Environmental Protection

The Environmental Protection Agency's 2002 Annual Plan and Budget request of \$7.313 billion in discretionary budget authority, and 17,500 workyears, reflects a commitment to work for the American people to protect the air, land, and water, demonstrating that environmental protection and economic prosperity go hand in hand.

The Nation has made significant progress in protecting the environment and human health over the past three decades. The Administration is committed to providing all Americans a clean, healthy environment, while developing new and effective methods to achieve environmental progress. This budget reflects the Administration's commitment to setting high standards for environmental protection, focusing on results and performance.

Strengthening Partnerships with State, Local and Tribal Governments

The budget works for the American people by providing critical environmental and health protections, while recognizing that state, local and tribal governments often have the best solutions for their environmental challenges. Included within the Agency's \$3.7 billion Operating Program totals, the Agency's program grants to state and tribal governments are funded at the highest level ever – \$1.1 billion. These grants help states and tribes administer programs delegated to states and tribes under Federal environmental statutes. Our commitment is to provide more flexibility to states and local communities to

craft solutions that meet their unique environmental needs.

In particular, two new grant programs allow states to craft solutions that meet their unique needs. A new enforcement grant for states, funded at \$25 million, provides effective enforcement of environmental laws at the state level. This enforcement grant program supports state efforts in inspections, civil actions, investigations, and training activities, while reducing the Agency's direct role in these areas. In addition, this budget provides \$25 million for grants to help states upgrade and integrate their environmental data, providing a powerful tool for citizens, state and local governments, and industry.

Cleaning and Protecting America's Water

Over the past three decades, our Nation has made significant progress in water pollution prevention and cleanup. While we have substantially cleaned up many of our most polluted waterways, and provided safer drinking water for millions of U.S. residents, significant challenges remain. This budget request addresses the challenge to provide clean and safe water in every American community.

- Protection from Drinking Water Contaminants. The 2002 request strengthens work with the states and tribes to implement new health-based standards to control for microbial contaminants, disinfectants and their byproducts, and other contaminants.

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- Drinking Water State Revolving Fund. The Drinking Water State Revolving Fund (DWSRF) request of \$823 million will provide substantial funding to states and tribes to upgrade and modernize drinking water systems.

91 percent of the population served by community water systems is expected to receive drinking water meeting all health-based standards in effect as of 1994, up from 83 percent in 1994.

- Beaches Grants. This budget includes \$2 million for grants to states to develop monitoring and notification programs for coastal recreation waters. This funding supports the Agency's implementation of the "Beaches Environmental Assessment and Coastal Health Act of 2000."
- Helping States Address Run-off and Restore Polluted Waters. The President's 2002 Budget provides significant resources to states to build on successes we have achieved in protecting the Nation's waters, by providing states and tribes with grants to address polluted run-off, protect valuable wetlands, and restore polluted waterways.

In 2003, water quality will improve on a watershed basis such that 600 of the Nation's 2,262 watersheds will have greater than 80 percent of assessed waters meeting all water quality standards. (Water quality is surveyed biennially.)

- Sewer Overflow Control Grants. The President's 2002 budget includes \$450 million for State Sewer Overflow Control grants, a newly authorized program to address pollution from combined sewer overflows and sanitary sewer overflows, which remains the Nation's most significant municipal wastewater problem. These funds will be allotted to states according to the existing formula for allotting wastewater grants.
- Clean Water State Revolving Fund. This budget request includes \$850 million for states and tribes for the Clean Water State Revolving Fund (CWSRF). States receive

700 CWSRF projects are intended to initiate operations, including 400 projects providing secondary treatment, advanced treatment, combined sewer overflow correction (treatment), and/or stormwater treatment. Cumulatively, 7,900 CWSRF-funded projects will have initiated operations since program inception.

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capitalization grants, which enable them to provide low interest loans to communities to construct wastewater treatment infrastructure and fund other projects to enhance water quality. This investment keeps EPA on track with our commitment to meet the goal for the CWSRF to provide \$2 billion average in annual financial assistance over the long-term even after Federal assistance ends.

- Protecting Human Health along the U.S./Mexico Border. This budget includes \$74.8 million for water and wastewater projects along the U.S./Mexico Border. These resources help the Agency address the serious environmental and human health problems associated with untreated and industrial and municipal sewage on the U.S./Mexico border.

A cumulative 790 thousand residents of the U.S./Mexico border area will be protected from health risks because of the construction of adequate water and wastewater sanitation systems since 1994.

Clean and Healthy Air

Under the Clean Air Act, EPA works to make the air clean and healthy to breathe by setting standards for ambient air quality,

toxic air pollutant emissions, new pollution sources, and mobile sources. In 2002, EPA will assist states, tribes and local governments in devising additional stationary source and mobile source strategies to reduce ozone and

Certify that 3 new areas of the remaining 52 nonattainment areas have attained the 1-hour NAAQS for ozone, thus increasing the number of people living in areas with healthy air quality by 2.9 million.

particulate matter. The Agency also will develop strategies and rules to help states and tribes reduce emissions and exposure to hazardous air pollutants, particularly in urban areas, and reduce harmful deposition in water bodies. A key to achieving the Clean Air Goal is \$219.6 million included in this budget for air grants which go directly to states and tribes.

Air toxic emissions nationwide from stationary and mobile sources combined will be reduced by five percent from 2001 (for a cumulative reduction of 40 percent from the 1993 annual level of 4.3 million tons).

Addressing Climate Change

This budget request includes \$122.7 million to meet the Agency's climate change objectives by working with business and other sectors to deliver multiple benefits – from cleaner air to lower energy bills – while improving overall scientific understanding of

Annual Plan and Budget Overview

climate change and its potential consequences. The core of EPA's climate change efforts are government/industry partnership programs designed to capitalize on the tremendous opportunities available to consumers, businesses, and organizations to make sound investments in efficient equipment and practices. These programs remove barriers in the marketplace, resulting in faster deployment of technology into the residential, commercial, transportation, and industrial sectors of the economy.

Greenhouse gas emissions will be reduced from projected levels by approximately 73 million metric tons of carbon equivalent per year through EPA partnerships with businesses, schools, state and local governments, and other organizations. This reduction level will be an increase of 7 million metric tons over 2001 reduction levels.

Integrating Environmental Information

The President's Budget provides \$25 million for new grants to states to develop and implement the National Environmental Information Exchange Network. These grants will build on work that is already underway in several states, allowing them to participate in an integrated multi-media information network that will streamline reporting, improve information quality, and make the management and accessibility of environmental information more efficient. This approach will provide improved information for environmental assessment and decision-making, help to provide more reliable, quality information for the public,

ease reporting burdens for the regulated community, and standardize business processes.

Cleaning Up Toxic Waste

- Keeping Superfund Working. This budget continues a commitment to clean up toxic waste sites with \$1.3 billion for Superfund cleanups. The Agency will also work to maximize the participation of responsible parties in site cleanups while promoting fairness in the enforcement process. This budget will continue the dramatic progress we have made in cleaning up

EPA and its partners intend to complete 65 Superfund cleanups (construction completions) for an overall total of 897 construction completions by the end of 2002.

toxic waste sites, while protecting human health, and returning land to productive use. Through 2000, cleanups have been completed at 757 sites, and 6,286 removal actions have been taken.

- Revitalizing Local Economies and Creating Jobs Through Brownfields Cleanup and Redevelopment. The 2002 budget request includes over \$97 million for the Brownfields program, which is an increase of \$5 million above the 2001 Enacted Level. The additional resources will support the redevelopment and revitalization of Brownfields communities by

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providing funding for additional assessment pilots and state voluntary cleanup programs. The Brownfields program will continue to promote local cleanup and redevelopment of industrial sites, returning abandoned land to productive use and bringing jobs to blighted areas.

In 2002, EPA Brownfields funding will result in 250 site assessments (for a cumulative total of 2,750), 2,000 jobs generated (for a cumulative total of 14,000), and the leveraging of \$300 million in cleanup and redevelopment funds (for a cumulative total of \$3.4 billion).

Sound Science

The 2002 President's Budget supports EPA's efforts to improve the role of science in decision-making by using scientific information and analysis to help direct policy and establish priorities. The Agency will achieve maximum environmental and health protections by employing the best methods, models, tools, and approaches. This budget request includes \$575 million to develop and apply sound science to address both current and future environmental challenges. The budget request supports a balanced research and development program designed to address Administration and Agency priorities, and meet the challenges of the Clean Air Act (CAA), the Safe Drinking Water Act (SDWA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Food Quality Protection Act (FQPA), and others.

Research will provide data on health effects and exposure to particulate matter (PM), and provide methods for assessing the exposure and toxicity of PM in healthy and potentially susceptible subpopulations to strengthen the scientific basis for reassessment of the PM NAAQS.

Supporting States' Enforcement Efforts

The President's Budget includes a new \$25 million enforcement grant program. This reflects a shift in emphasis for enforcement from Federal enforcement to state enforcement for those programs already delegated to the states. This shift creates a new \$25 million grant program for states and tribes that will bring enforcement closer to the entity being regulated. EPA will offer media specific and multi-media funding to states and tribes for compliance assurance activities including compliance assistance and incentives, inspections, and enforcement actions.

Ensuring Safe Food through the Food Quality Protection Act (FQPA)

The 2002 request includes \$148.8 million to help meet the multiple challenges of the implementation of the Food Quality Protection Act (FQPA) of 1996 so that all Americans will continue to enjoy one of the safest, most abundant, and most affordable food supplies in the world. FQPA focuses on the registration of reduced risk pesticides to provide an alternative to the older versions on

Annual Plan and Budget Overview

the market, and on developing and delivering information on alternative pesticides/techniques and best pest control practices to pesticide users. FQPA implements a "whole farm" approach to pollution management and will help farmers transition - without disrupting production - to safer substitutes and alternative farming practices. Expanded support for tolerance reassessments will reduce the risks to human health from older pesticides. Reassessing existing tolerances ensures food safety, especially for infants and children; and ensures that all pesticides registered for use meet the most current health standards. This budget request also supports FQPA-related

By the end of 2002, EPA will reassess a cumulative 66% of the 9,721 pesticide tolerances required to be reassessed over ten years. This includes 70% of the 893 tolerances having the greatest potential impact on dietary risks to children.

science through scientific assessments of cumulative risk, including funds for validation of testing components of the Endocrine Disruptor Screening Program.

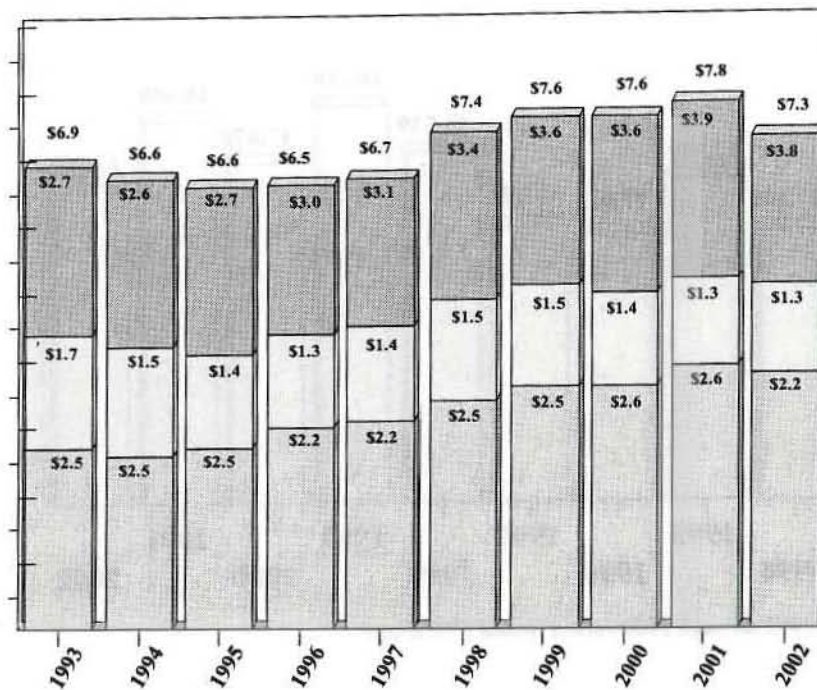
Summary

This President's 2002 Budget for EPA provides the resources and vision necessary to reach our Nation's environmental mission to protect the environment and human health. This budget represents this Administration's commitment to work with our environmental partners to develop innovative environmental programs that ensure stewardship of our land, air, and water for generations to come.

Environmental Protection Agency's 2002 Budget Totals \$7.3 Billion

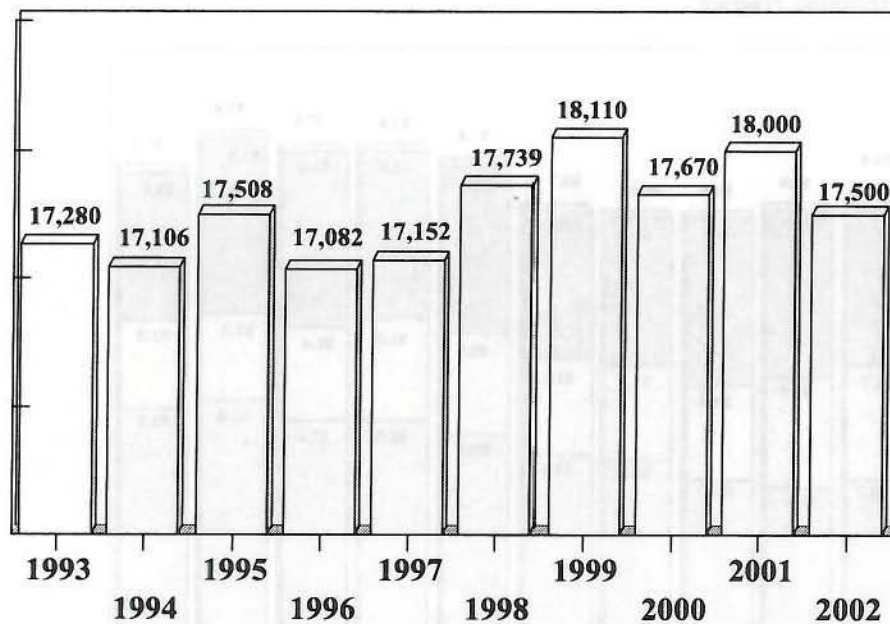
(dollars in billions)

- Water Infrastructure
- Trust Funds
- Operating Program



* FY 1993-2001 reflect EPA's final enacted operating plan.

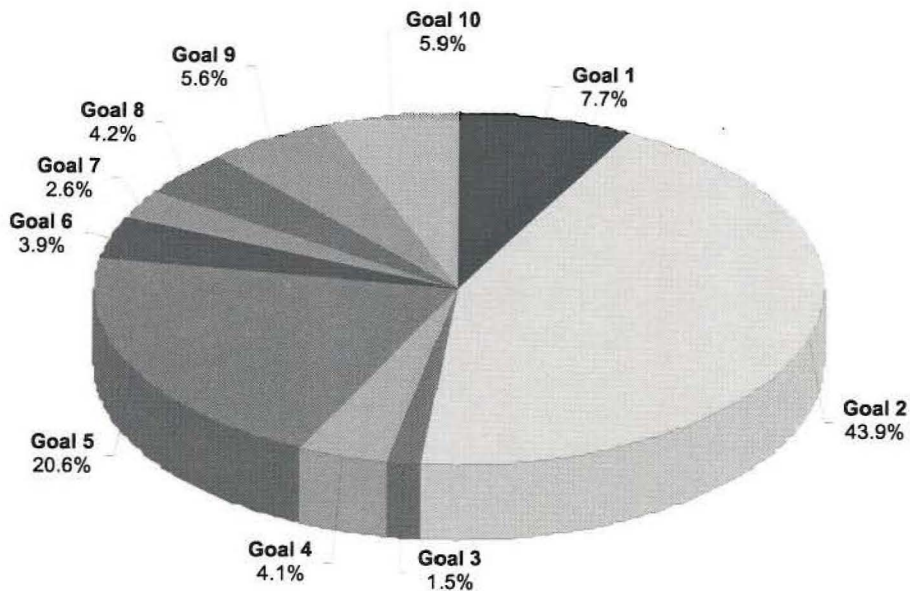
Environmental Protection Agency's 2002 Workforce Totals 17,500



NOTE: FY 1993 through 2000 reflect actual FTE usage.

Environmental Protection Agency's 2002 Budget by Goal

Total Agency: \$7,312.6 million*



Goal 1: Clean Air

Goal 2: Clean & Safe Water

Goal 3: Safe Food

Goal 4: Preventing Pollution & Reducing Risk in Communities, Homes, Workplaces, & Ecosystems

Goal 5: Better Waste Management, Restoration of Contaminated Waste Sites, & Emergency Response

Goal 6: Reduction of Global & Cross-Border Environmental Risks

Goal 7: Quality Environmental Information

Goal 8: Sound Science, Improved Understanding of Environmental Risk, & Greater Innovation to Address Environmental Problems

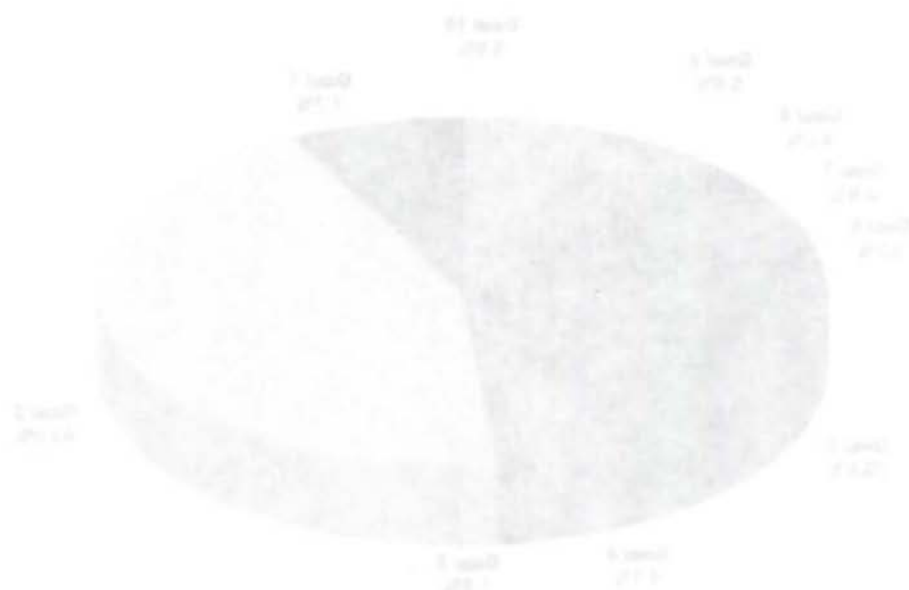
Goal 9: A Credible Deterrent to Pollution & Greater Compliance with the Law

Goal 10: Effective Management

* Includes \$4.0M in offsetting receipts

Environmental Protection Agency's 2002 Budget by Goal

Total Agency: \$7,713.6 million*



Goal 1: To protect and improve the quality of the Nation's air resources, and to prevent, reduce, and eliminate air pollution. Goal 2: To protect and improve the quality of the Nation's water resources, and to prevent, reduce, and eliminate water pollution. Goal 3: To protect and improve the quality of the Nation's land resources, and to prevent, reduce, and eliminate land pollution. Goal 4: To protect and improve the quality of the Nation's soil resources, and to prevent, reduce, and eliminate soil pollution. Goal 5: To protect and improve the quality of the Nation's natural resources, and to prevent, reduce, and eliminate natural resource pollution. Goal 6: To protect and improve the quality of the Nation's wildlife resources, and to prevent, reduce, and eliminate wildlife pollution. Goal 7: To protect and improve the quality of the Nation's fish and shellfish resources, and to prevent, reduce, and eliminate fish and shellfish pollution. Goal 8: To protect and improve the quality of the Nation's marine resources, and to prevent, reduce, and eliminate marine pollution. Goal 9: To protect and improve the quality of the Nation's coastal resources, and to prevent, reduce, and eliminate coastal pollution. Goal 10: To protect and improve the quality of the Nation's estuarine resources, and to prevent, reduce, and eliminate estuarine pollution. Goal 11: To protect and improve the quality of the Nation's wetland resources, and to prevent, reduce, and eliminate wetland pollution.

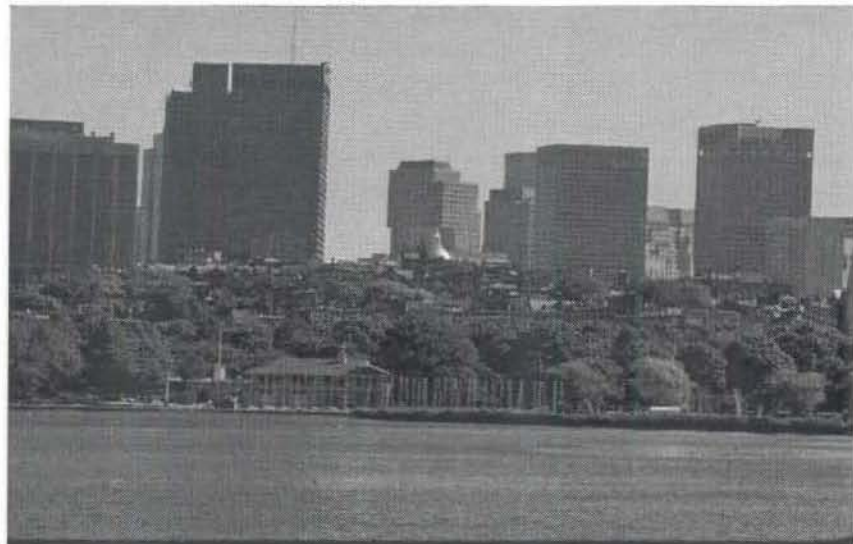
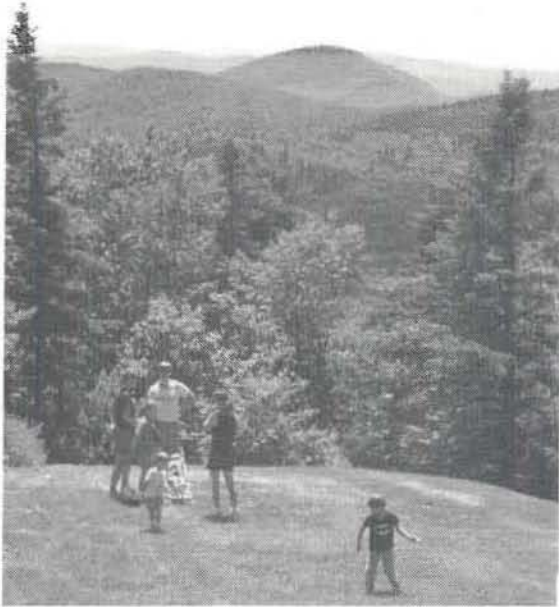
* Includes \$400 million in off-budget resources

GOALS

GOALS

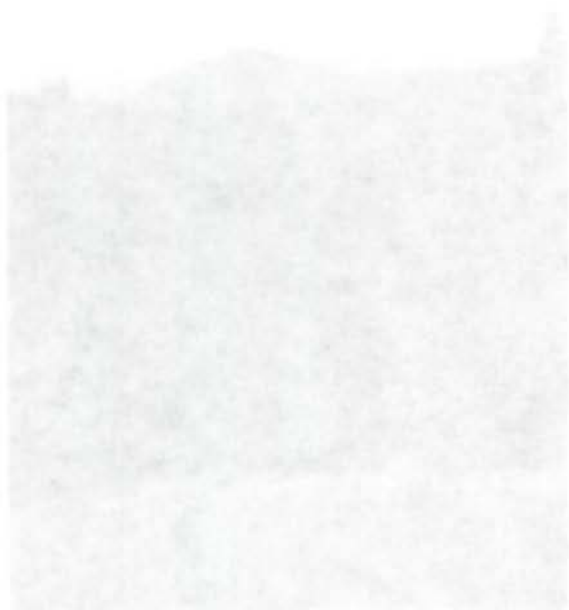
GOAL 1:

Clean Air



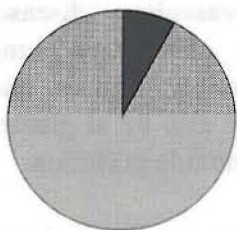
GOAL 1:

Clean Air



Goal 1: Clean Air

Goal 1: 7.7%



Strategic Goal: The air in every American community will be safe and healthy to breathe. In particular, children, the elderly, and people with respiratory ailments will be protected from health risks of breathing polluted air. Reducing air pollution will also protect the environment, resulting in many benefits, such as restoring life in damaged ecosystems and reducing health risks to those whose subsistence depends directly on those ecosystems.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Clean Air	\$590,082.0	\$564,628.0	(\$25,454.0)
Attain NAAQS	\$456,019.5	\$436,470.3	(\$19,549.2)
Reduce Air Toxics Risk	\$112,272.7	\$109,247.2	(\$3,025.5)
Reduce Acid Rain	\$21,789.8	\$18,910.5	(\$2,879.3)
Workyears	1,855.6	1,810.8	(44.8)

Means and Strategies

Criteria pollutants. EPA develops standards to protect human health and the environment that limit concentrations of the most widespread pollutants (known as criteria pollutants), which are linked to many serious health and environmental problems:

- **Ground-level ozone.** Impairs normal functioning of the lungs in healthy people, as well as in those with respiratory problems. Relatively low amounts can cause coughing, shortness of breath, and pain, especially when taking a deep breath. Ground-level ozone can aggravate

lung conditions, such as asthma, and is associated with increased medication use, visits to emergency rooms, and hospital admissions. Ozone can inflame and damage the lining of lungs. Also causes damage to vegetation and contributes to visibility problems.

- **Particulate matter (PM).** Coarse particles can aggravate respiratory conditions such as asthma. Exposure to fine particles is associated with several serious health effects, including premature death. When exposed to PM, people with existing heart or lung diseases — such as asthma, chronic obstructive

Goal 1: Clean Air

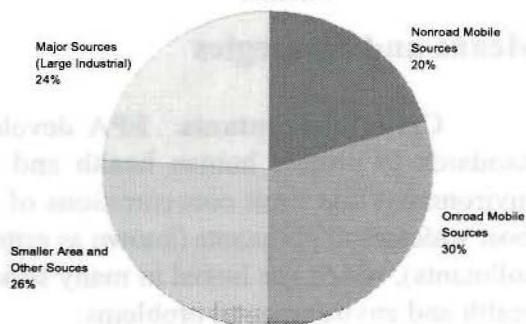
pulmonary disease, congestive heart disease, or ischemic heart disease — are particularly vulnerable and are at increased risk of premature death or admission to the hospital or emergency room. Also PM affects the environment through visibility impairment.

- Sulfur dioxide (SO₂). Long-term exposure to both sulfur dioxide and fine particles can aggravate respiratory illness, alter the defense mechanisms of lungs, and aggravate existing cardiovascular disease. People who may be most susceptible to these effects include individuals with cardiovascular disease or chronic lung disease, as well as children and the elderly. Sulfur dioxide is also a major contributor to acid rain.
- Nitrogen dioxide (NO₂). Exposure to NO₂ causes respiratory symptoms such as coughing, wheezing, and shortness of breath in children and adults with respiratory disease, such as asthma. Even short exposures to nitrogen dioxide affect lung function. Nitrogen dioxide also contributes to acidic deposition, eutrophication in coastal waters, and visibility problems.
- Carbon monoxide (CO). People with cardiovascular disease may experience chest pain and generally increased cardiovascular symptoms when exposed to carbon monoxide, particularly while exercising. People with marginal or compromised cardiovascular and respiratory systems (e.g., individuals with congestive heart

failure, cerebrovascular disease, anemia, chronic obstructive lung disease) and possibly fetuses and young infants may also be at greater risk to carbon monoxide pollution.

- Lead. Accumulates in the body in blood, bone, and soft tissue and can affect the kidneys, liver, nervous system and other organs. Excessive exposure to lead may cause kidney disease, reproductive disorders, and neurological impairments such as seizures, mental retardation, and/or behavioral disorders. Fetuses and children are especially susceptible to low doses of lead, often suffering central nervous system damage or slowed growth.

1996 National Toxic Air Pollutant Emissions by Source



General summary of the summed national emissions in the 1996 National Toxics Inventory—based on source sectors and urban and rural designations.
Note: Mobile source emissions do not include diesel particulates.

Hazardous air pollutants.

Hazardous air pollutants (HAPs), commonly referred to as air toxics or toxic air pollutants, are pollutants that cause, or may cause, adverse health effects or ecosystem damage. The Clean Air Act Amendments of 1990 list

Goal 1: Clean Air

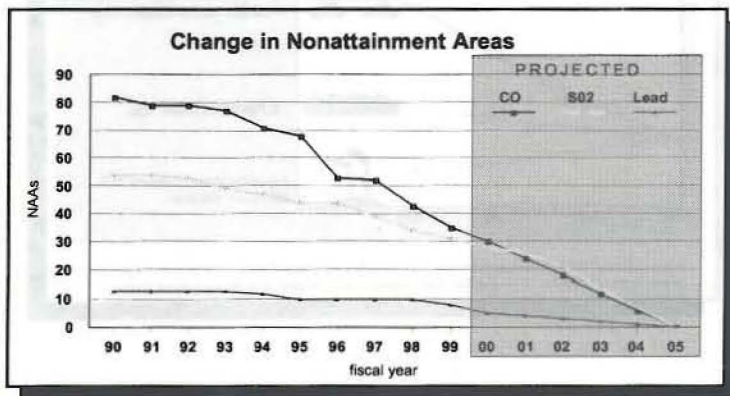
188 pollutants or chemical groups as hazardous air pollutants and target sources emitting them for regulation. Examples of air toxics include: heavy metals such as mercury and chromium, dioxins, and pesticides such as chlordane and toxaphene. HAPs are emitted from literally thousands of sources including stationary as well as mobile sources. Adverse effects to human health and the environment due to HAPs can result from even low level exposure to air toxics from individual facilities, exposures to mixtures of pollutants found in urban settings, or exposure to pollutants emitted from distant sources that are transported through the atmosphere over regional, national, or even global airsheds.

Compared to information for the criteria pollutants, the information about the potential health effects of HAPs (and their ambient concentrations) is relatively incomplete. Most of the information on potential health effects of these pollutants is derived from experimental animal data. Of the 188 HAPs listed in the Clean Air Act, almost 60 percent are classified by EPA as known, probable, or possible carcinogens. One of the often documented ecological concerns associated with toxic air pollutants is the potential for some to damage aquatic ecosystems. Deposited air pollutants can be significant contributors to overall pollutant loadings entering water bodies.

Acid rain. The Clean Air Act Amendments of 1990 established a program to control emissions from electric power plants that cause acid rain and other environmental and human health problems. Emissions of SO_2 and nitrogen oxides (NO_x) react in the atmosphere and fall to earth as acid rain, causing acidification of lakes and streams and contributing to the damage of

trees at high elevations. Acid deposition also accelerates the decay of building materials and paints and contributes to degradation of irreplaceable cultural objects such as statues and sculptures. NO_x emissions are a major precursor of ground-level ozone, which affects human health and damages crops, forests, and materials. Additionally, NO_x deposition contributes to eutrophication of coastal waters, such as the Chesapeake Bay and Tampa Bay. Before falling to earth, SO_2 and NO_x gases form fine particles that ultimately may affect human health by contributing to premature mortality, chronic bronchitis, and other respiratory problems. The fine particles also contribute to reduced visibility in national parks and elsewhere.

Trends. Air quality has continued to improve during the past 10 years. Concentrations of all six criteria pollutants have decreased. Nationally, air quality concentration data taken from thousands of monitoring stations across the country have continued to show improvement since the 1980s for ozone, PM, CO, NO_2 , SO_2 , and lead. Areas in the country where air pollution levels persistently exceed national ambient air quality standards are designated in "nonattainment." As this chart shows, all the years throughout the 1990s have shown better air quality than any of the years in the 1980s



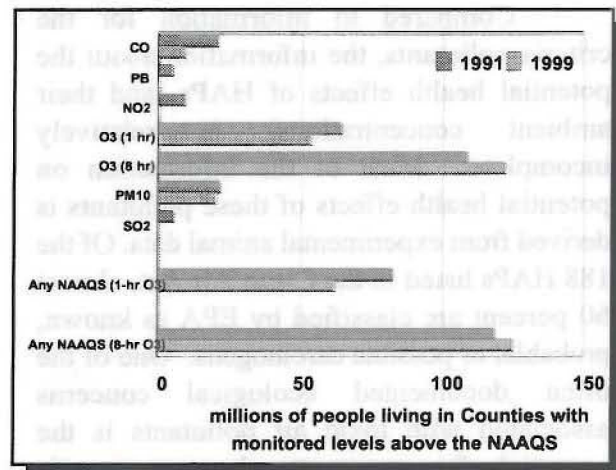
Goal 1: Clean Air

based upon nonattainment areas. This steady trend of improvement resulted in spite of weather conditions in the 1990s which were generally more conducive to higher pollution levels, especially ground-level ozone formation. Emissions of hazardous air pollutants have also been reduced significantly; estimates of nationwide air toxic emissions have dropped approximately 23 percent between 1990 and 1996. For example, perchloroethylene monitored in 16 urban sites in California showed a drop of 60 percent from 1989 to 1998. Benzene, emitted from cars, trucks, oil refineries and chemical processes, is another widely monitored toxic air pollutant. Measurements taken from 84 urban monitoring sites around the country show a 39 percent drop in benzene levels from 1993 to 1998. There have been dramatic reductions (10 to 25 percent) in sulfates deposited in the most sensitive systems located in the northeastern United States since the implementation of the acid rain program in 1995.

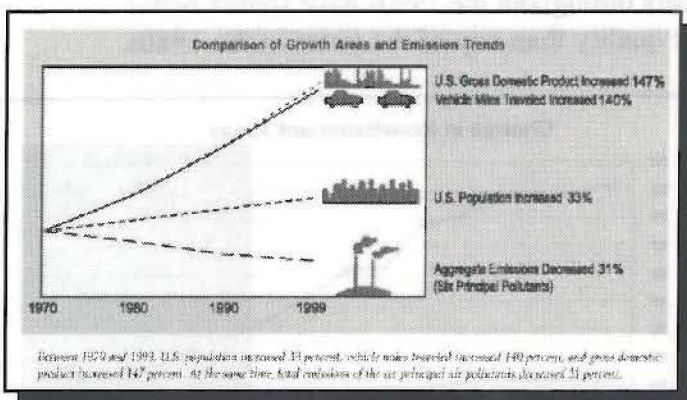
The dramatic improvements in emissions and air quality occurred simultaneously with significant increases in economic growth and population. The

improvements are a result of effective implementation of clean air laws and regulations, as well as improvements in the efficiency of industrial technologies.

While substantial progress has been made, it is important not to lose sight of the magnitude of the air pollution problem that still remains. Despite great progress in air quality improvement, over 150 million tons of air pollution were released into the air in 1999 in the United States and approximately 62 million people lived in counties where monitored data showed unhealthy air for one or more of the six principal pollutants. Even in cities with nonattainment status, air quality



standards were met most of the time of hours monitored. However, it is important to note that serious health effects can occur with even limited exposure. Some national parks, including the Great Smoky Mountains and the Shenandoah, have high air pollution concentrations resulting from the transport of pollutants many miles from their original sources and from biogenic VOCs within the parks. In 1999, for the second consecutive year, average rural 1-hour ozone (smog) levels



Goal 1: Clean Air

were greater than the average levels observed for urban sites.

Strategy. To continue to reduce air pollution, the Clean Air Act sets specific targets for the mitigation of each air pollution problem. The Act also mandates the air quality monitoring that helps measure progress. In addition, the Act lays out a specific roadmap for achieving those goals that EPA and its partners -- states, tribes, and local governments -- have to do to clean up the air. One constant across the titles in the Act is that the pollution control strategies and programs it contains are all designed to get the most cost-effective reductions early on. The early reductions program in toxics, Phase 1 of the Acid Rain program, Tier I and Tier 2 auto emission standards, more stringent standards on diesel exhaust from trucks and buses, the reformulated gasoline program, and the Maximum Available Control Technology (MACT) standards program were all designed to achieve early reductions, making our air cleaner and safer to breathe. The problems that remain are some of the most difficult to solve.

The Agency has developed strategies to address this difficult increment and overcome the barriers that have hindered progress towards clean air in the past. The Agency will use flexible approaches, where possible, instead of hard and fast formulas or specific technological requirements. Efforts will focus on:

- Coupling ambitious goals with steady progress - The emphasis will be on achieving near-term actions towards meeting the standards, while giving states, tribes, and local governments time to implement more difficult

measures. The Agency recognizes that it will be difficult for some areas of the country to attain the new National Ambient Air Quality Standards (NAAQS) for ozone and fine particles, and the Agency believes it will take more than individual state efforts to achieve the needed emission reductions. The Agency will work with states, tribes, and local governments to identify ways to achieve interim reductions, principally through regional strategies, national strategies, and the air toxics and acid rain programs by building on multi-pollutant emission reductions.

This approach ensures progress toward the goal and, for many areas, will achieve the goal. For those areas where additional measures are required, this work will allow progress toward the goal while providing the time to identify measures that will get that last increment to fully achieve the goal. For example, many areas will still be implementing measures to implement the 1-hour ozone standard while they are developing new strategies for achieving the revised 8-hour standard.

- Maintaining accountability with flexibility - In 2001, the Agency released final guidance for states that want to use economic incentive programs to improve air quality and visibility. Economic incentive programs include a variety of measures designed to increase flexibility and efficiency, while maintaining accountability and enforceability of traditional air quality

Goal 1: Clean Air

management programs. EPA's guidance encourages cost-effective and innovative approaches to achieving air pollution goals. Economic incentive programs are incorporated into states' strategies for meeting air quality standards and visibility goals.

In addition, recent mobile source rulemakings established programs to reduce vehicle and engine emissions and to reduce sulfur levels in fuel. These programs meet industry needs for flexibility, while containing clear deadlines, milestones, and reporting requirement to monitor compliance.

- Fostering technical innovations where they provide clear environmental benefits - Market-based approaches provide "niches" for many types of technologies; no one size will fit all. Sources of pollution can improvise, innovate, and otherwise be creative in reducing emissions. The Agency will promote such technological innovation and then disseminate it to others to show how they can get needed reductions. For example, in 2002 EPA plans to work with states on developing a process for State Implemented Plan (SIP) credits for new technologies and for developing early emissions reductions programs that could help minimize the impact of environmental regulations on economic growth in urban areas.
- Building partnerships - There are numerous forms of partnerships, all of which have been used by EPA at one point or another in implementing the

Clean Air Act. EPA uses public outreach to educate people on air problems and encourages them to work to solve them. EPA involves broad-based groups, such as the multi-state Ozone Transport Assessment Group, to study a problem and provide recommendations to EPA on ways to solve it. EPA also works with organizations like the National Academy of Sciences (NAS) on both short-term and long-term research priorities. EPA also engages in regulatory negotiations to bring stakeholders to work on a problem and address a specific regulatory issue. EPA will continue to use these types of partnerships, as appropriate. For example, EPA is working with five regional planning bodies on regional strategies for addressing regional haze. Since many of the strategies for addressing haze and PM are the same, this effort will also provide for partnering to implement the PM standard.

- Anticipating upcoming issues and ensuring that research is underway in those areas. The Agency is seeking to better understand the root causes of the environmental and human health problems created by air toxics in urban areas, thereby improving the ability to weigh alternative strategies for solving those problems. Research will be devoted to the development of currently unavailable health effects and exposure information to determine risk and develop alternative strategies for reducing risks. Based on this research the Agency will be able to model and characterize not only the

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current toxics risks and compare national program alternatives, but also identify regional and local "hot spots," and model alternative strategies to assist states and localities in solving their air and water toxics problems.

Using these strategies, the Agency will work with areas that have the worst problems to develop strategies accounting for unique local conditions that may hinder them from reaching attainment. The Agency also will work with states, tribes, and local governments to ensure that work they are doing on the PM and ozone standards effectively targets both pollutants, as well as regional haze, air toxics and greenhouse gas emissions to maximize the effectiveness of control strategies. On the national level, the Agency will continue to implement or establish Federal standards to require cleaner motor vehicles, fuels and non-road equipment that are cost effective and technically feasible. The Agency also will target source characterization work, especially development and improvement of emissions information, that is essential for the states, tribes and local agencies to develop strategies to meet the standards. The Agency will look closely at urban areas to determine the various sources of toxics that enter the air, water, and soil and determine the best manner to reduce the total toxics risk in these urban areas. The Agency will also focus on research that will inform and enhance our regulatory decisions as well as research that explores emerging areas.

Research

To reach the objective of attaining and reviewing the NAAQS for tropospheric ozone, particulate matter (PM), and other pollutants, research will provide methods,

models, data and assessment criteria on health risks, focusing on the exposures, mechanisms of injury, and components which affect human health. In 2002, EPA will provide tropospheric ozone precursor measurements methods, emissions-based air quality models, observation-based modeling methods, and source emissions information to guide SIP development. In support of Agency efforts to attain the NAAQS for PM, research in 2002 will continue to provide data on human exposure to PM and the health effects of that exposure, as well as provide methods for assessing the exposure and toxicity of PM. Modest research and technical support efforts to support other NAAQS pollutants will also be carried out.

Air toxics research investigates the root causes of air toxics environmental and human health problems in urban areas. Efforts will focus on providing new methods to estimate human exposure and health effects from high priority air toxics, and mobile source air toxics. With this information, the Agency will be in a better position to determine risk and develop alternative strategies for maximizing risk reductions.

Highlights

Reduce emissions of criteria pollutants

Ground-level ozone, fine PM and regional haze have many similarities. All three problems result from their formation under certain atmospheric conditions in the presence of gases, such as NO_x and Volatile Organic Compounds (VOCs), emitted by the same types of sources. Because of these similarities, there are opportunities for integrated strategies for reducing pollutant

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emissions in the most cost-effective ways.

In 2002, EPA will assist states, tribes and local governments in devising additional stationary source and mobile source strategies to reduce ozone and particulate matter. Some specific activities and initiatives in this program for 2002 will include:

- Propose a decision on whether to retain or revise the NAAQS for PM.
- Implement Tier II (light-duty) vehicle and gasoline standards and 2004/2007 heavy-duty highway engine and diesel sulfur requirements. This includes continued assessment of required technology. Continue implementing other mobile source programs, such as the Tier 1 standards for locomotives and Phase 2 standards for small spark-ignition handheld engines (e.g., trimmers, brush cutters, and chainsaws).
- Continue to help create voluntary diesel retrofit projects to reduce PM and, where possible, NO_x. Continue to develop projects to reduce diesel idling time at truck stops and along highways.
- Propose standards for heavy-duty non-road, land-based diesel engines and vehicles, potentially including new diesel fuel sulfur requirements. Propose standards for commercial marine diesel engines used in ocean-going vessels. Finalize regulatory program that will address emissions from a range of unregulated non-road sources and highway motorcycles.

The non-road sources include industrial spark-ignition engines (e.g., forklifts and generators), recreational gasoline engine (e.g., all terrain vehicles and off-road motorcycles), and recreational marine gasoline and diesel engines.

- Continue and expand the voluntarily organized, state-run regional program for seasonal ozone control. EPA administers the NO_x Allowance and Emissions Tracking Systems for the NO_x Budget Program, as requested by nine states in the Northeast Ozone Transport Region (OTR). In 2002, this program will be in its fourth compliance year. The Clean Air Markets Division has launched a multi-year effort to re-engineer the information technology support structure for the Allowance and Emissions Tracking Systems; system modernization is needed to handle increased emissions reporting and allowance trading activities, for improved public access, and timely exchange of data with state partners.
- Continue to work with tribes: developing programs for Indian Country, making eligibility determinations, completing VOC and NO_x emission inventories and approving tribal air programs as appropriate.
- Continue efforts to improve emission models and start development of the "new generation model" that will greatly improve EPA's ability to support the development of emissions

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control programs, as well as providing support to the states and tribes in their determination of program needs to meet air quality standards

- Continue outreach efforts to promote public awareness of the Air Quality Index and the effects of pollution. Continue to enhance the content and promotion of the Green Vehicle Guide website. These activities will encourage consumers to purchase the cleanest and most fuel efficient vehicle that meets their needs.
- Develop a program of SIP credits that result from voluntary measures to reduce emissions.

For all NAAQS pollutants, the Agency will continue to redesignate areas in attainment as they meet the standards, carry out the regular review of the NAAQS using the most current science, and ensure the maintenance of NAAQSs in areas that have clean air. For the CO, SO₂, and lead NAAQSs, there are some states that have areas that cannot meet the standards because of some particular, source-specific problem. These sources are often high-profile and critical to the local economy. EPA will work cross-Agency to develop strategies that help them to comply, while being sensitive to economic and other issues.

Target air toxics in urban areas

In 2002, EPA will develop strategies and rules to help states and tribes reduce emissions and exposure to hazardous air pollutants, particularly in urban areas, and reduce harmful deposition in water bodies.

Some specific activities and initiatives in this program for 2002 include:

- Implement the final mobile source air toxics rule, issued in December 2000, by gathering emissions data, conducting exposure analyses, and evaluating the need for additional controls in 2002.
- Incorporate toxics emissions data into the mobile source models.
- Make further progress in linking release and exposure information from the various media programs to determine multi-media toxics exposure and use this information to develop cross-media strategies to more effectively reduce urban exposures to toxic emissions.
- Develop the final Federal plan for small municipal waste combustors.
- Promulgate a Generic MACT rule that covers carbon black production, cyanide chemical manufacturing, ethylene processes, and spandex production.
- Promulgate remaining 10-year MACT standards, including standards covering plywood and composites wood products with facilities in 41 states, reciprocating internal combustion engines with over 30,000 facilities, over 10,000 municipal landfills, and miscellaneous organic hazardous air pollutants from 23 different source categories.

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Continue market-based acid rain program

In 2002, Phase II of the Acid Rain Program will complete its second compliance year and commence the third year of operation. The Program requires annual reductions in SO₂ emissions from more than 2,500 electric utility units (gas-fired, oil-fired, and coal-fired) and reductions in year-round NO_x emissions from approximately 750 coal-fired units. The market-based approaches pioneered by EPA in the Acid Rain Program are being used to solve other air quality problems (e.g., ground-level ozone).

Research

EPA's NAAQS-related research program focuses on the information needed to support NAAQS implementation and review and to help guide states in developing their SIPs used to achieve the NAAQS. In 2002, research on tropospheric ozone will produce a final version of the ozone Air Quality Criteria Document (AQCD), a critical part of the ozone NAAQS review. The PM research program will continue work to strengthen the scientific basis for the five-year reassessment of the PM NAAQS, including epidemiological studies that will help move the Agency toward its objective of reducing Americans' exposure to harmful PM. Also included under this objective will be research supporting implementation and review of the lead, carbon monoxide, sulphur dioxide and nitrogen dioxide NAAQS.

Air toxics research will provide effects information, as well as the exposure, source characterization, and other data to quantify existing emissions, key pollutants, and strategies for cost effective risk management.

In 2002, research will focus on completing health assessments for some of the highest priority hazardous air pollutants, and improving our understanding of the current distribution and actual exposures to these high priority air toxics. These products will yield new information that will be essential to effectively and efficiently decreasing future risk to the American public through reduced air toxics emissions.

2002 Annual Performance Goals

- In 2002, certify that three new areas of the remaining 52 nonattainment areas have attained the 1-hour NAAQS for ozone, thus increasing the number of people living in areas with healthy air quality by 2.9 million.
- In 2002, maintain healthy air quality for 1.3 million people living in 15 areas attaining the PM standards and increase by 60 thousand the number of people living in areas with healthy air quality that have newly attained the standard.
- In 2002, maintain healthy air quality for 44.3 million people living in 70 areas attaining the CO, SO₂, NO_x, and Lead standards and increase by 350 thousand the number of people living in areas with healthy air quality that have newly attained the standard.
- In 2002, provide data on the health effects and exposure to PM and provide methods for assessing the exposure and toxicity of PM in healthy and potentially susceptible

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subpopulations to strengthen the scientific basis for reassessment of the NAAQS for PM.

- In 2002, air toxics emissions nationwide from stationary and mobile sources combined will be reduced by 5 percent from 2001 (for a cumulative reduction of 40 percent from the 1993 level of 4.3 million tons per year.)
- In 2002, maintain or increase annual SO₂ emission reduction of approximately 5 million tons from the

1980 baseline. Keep annual emissions below level authorized by allowance holdings and make progress towards achievement of Year 2010 SO₂ emissions cap for utilities.

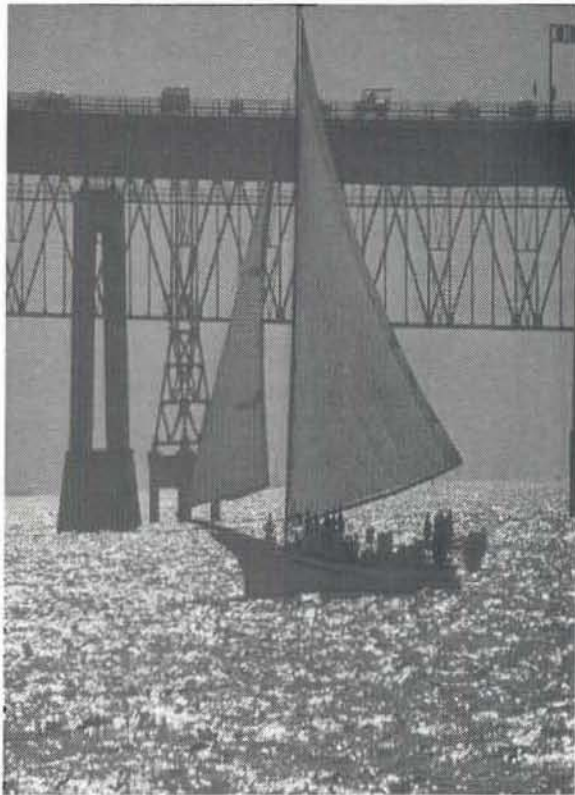
- In 2002, 2 million tons of NO_x from coal-fired utility sources will be reduced from levels that would have been emitted without implementation of Title IV of the Clean Air Act Amendments.

Goal 1: Clean Air

Goal 1: Clean Air Key Programs

(dollars in thousands)

	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>
Acid Rain -CASTNet	\$3,991.2	\$3,991.2
Acid Rain -Program Implementation	\$12,248.7	\$12,581.3
Administrative Services	\$4,678.6	\$4,345.6
Air Toxics Research	\$22,238.7	\$18,924.4
Air,State,Local and Tribal Assistance Grants: Other Air Grants	\$219,584.6	\$219,584.6
Carbon Monoxide	\$4,062.3	\$4,128.8
EMPACT	\$2,107.6	\$0.0
Hazardous Air Pollutants	\$52,044.2	\$50,786.5
Lead	\$329.5	\$339.9
Nitrogen Oxides	\$1,379.4	\$1,323.1
Ozone	\$67,981.6	\$69,615.1
Particulate Matter	\$55,617.3	\$54,693.0
Particulate Matter Research	\$68,765.0	\$65,743.3
Regional Haze	\$2,305.9	\$2,352.1
Regional Management	\$1,674.4	\$1,477.1
Rent, Utilities and Security	\$24,652.0	\$26,059.1
Sulfur Dioxide	\$12,158.1	\$12,495.2
Tropospheric Ozone Research	\$6,551.0	\$6,786.0



GOAL 2:

***Clean and Safe
Water***



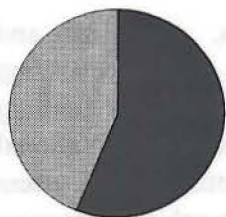
GOAL 2:

Clean and Safe
Waste



Goal 2: Clean and Safe Water

Goal 2: 43.9%



Strategic Goal: All Americans will have drinking water that is clean and safe to drink. Effective protection of America's rivers, lakes, wetlands, aquifers, and coastal and ocean waters will sustain fish, plants, and wildlife, as well as recreational, subsistence, and economic activities. Watersheds and their aquatic ecosystems will be restored and protected to improve public health, enhance water quality, reduce flooding, and provide habitat for wildlife.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Clean and Safe Water	\$3,675,947.8	\$3,213,402.5	(\$462,545.3)
Safe Drinking Water, Fish and Recreational Waters	\$1,223,716.1	\$1,096,096.6	(\$127,619.5)
Protect Watersheds and Aquatic Communities	\$457,289.8	\$406,121.4	(\$51,168.4)
Reduce Loadings and Air Deposition	\$1,994,941.9	\$1,711,184.5	(\$283,757.4)
Workyears	2,715.0	2,694.1	(20.9)

Means and Strategy

To achieve the Nation's clean and safe water goals, EPA will operate under the overarching watershed approach in carrying out its statutory authorities under both the Safe Drinking Water Act (SDWA) Amendments of 1996 and the Clean Water Act (CWA). Protecting watersheds involves participation by a wide variety of stakeholders, a comprehensive assessment of the condition of the watershed, and implementation of solutions based on the assessment of conditions and stakeholder input. Full involvement of stakeholders at all levels of government, the regulated community, and the public is fundamental to

the watershed approach. The watershed approach helps EPA, its Federal partners, states, tribes, local governments, and other stakeholders to implement tailored solutions and maximize the benefits gained from the use of increasingly scarce resources.

EPA will continue to implement the SDWA Amendments of 1996 that chart a new and challenging course for EPA, states, tribes, and water suppliers. The central provisions of the Amendments include: 1) improving the way that EPA sets drinking water safety standards and develops regulations that are based on good science and data, prioritization of effort, sound risk assessment, and effective risk management; 2) establishing new prevention approaches, including provisions

Goal 2: Clean and Safe Water

for operator certification, capacity development, and source water protection; 3) providing better information to consumers, including consumer confidence reports; and 4) capitalizing and managing the Drinking Water State Revolving Fund (DWSRF) program to assist public water systems in meeting drinking water standards.

EPA has increased efforts to provide states and tribes tools and information to assist them in protecting their residents from health risks associated with contaminated recreational waters and non-commercially-caught fish. These tools will help reduce health risks, including risks to sensitive populations such as children and subsistence and recreational anglers. EPA activities include development of criteria, enhanced fish tissue monitoring, risk assessment, and development of fish and shellfish consumption advisories. For beaches, EPA's three-part strategy is to strengthen beach standards and testing, improve the scientific basis for beach assessment, and develop methods to inform the public about beach conditions. These efforts were strengthened by passage of the Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000 and its emphasis on development of strong monitoring and notification programs.

Key to the watershed approach is continuation of EPA-developed scientifically-based water quality standards and criteria under the CWA. Where water quality standards are not being met, EPA will work with states and tribes to improve implementation of total maximum daily load (TMDL) programs that establish the analytical basis for watershed-based decisions on needed pollution reductions. EPA will continue to develop and revise national effluent guideline

limitations and standards, capitalize and manage the Clean Water State Revolving Fund (CWSRF) program and other funding mechanisms, and streamline the National Pollutant Discharge Elimination System (NPDES) permit program to achieve progress toward attainment of water quality standards and support implementation of TMDLs in impaired water bodies. The Agency will continue to work on reducing the NPDES permit backlog, in partnership with states, by targeting permitting activities toward those facilities posing the greatest risk to the environment. In addition, the Agency will continue to expand its training and electronic information activities to improve the efficiency and effectiveness of the NPDES program. These strategies and activities are particularly important as the NPDES program faces significant new demands with the implementation of the Phase II storm water rule, and increased focus on concentrated animal feeding operations (CAFOs), combined sewer overflows (CSOs), and sanitary sewer overflows (SSOs).

The CWSRF is a significant financial tool for achieving clean and safe water and for helping to meet the significant needs for wastewater infrastructure over the next 20 years. This budget request includes \$850 million for the CWSRF. This investment keeps EPA on track with the Agency's commitment to meet the goal for the CWSRF to provide \$2 billion average in annual financial assistance over the long-term even after Federal assistance ends. Total SRF funds available for loans since 1987, reflecting loan repayments, state match dollars, and other sources of funding, are approximately \$34 billion, of which \$30 billion has been provided to communities as financial assistance. As of June 2000, \$3.4

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billion remained available for loans. For 2002, the Agency requests that state flexibility to address their most critical demands be continued by extending their authority for limited funds transfers between the CWSRF and DWSRF.

Core NPDES programs face significant new demands as the Agency continues to emphasize control of wet weather sources of pollution, particularly from CSOs and SSOs, to reduce water quality impairments and achieve designated uses. For 2002, the Agency is requesting \$450 million for a new state sewer overflow control grant program to address CSOs and SSOs as authorized by the Consolidated Appropriations Act of 2000. Municipal point sources, including sewer overflows, result in thousands of discharges of raw sewage each year and are a leading source of water quality impairment generally.

EPA is assisting states and tribes to characterize risks, rank priorities, and implement a mix of voluntary and regulatory approaches through improved state non-point source (NPS) management programs. Working with EPA, states and tribes are strengthening their NPS to ensure that needed nonpoint source controls are implemented to achieve and maintain beneficial uses of water. States will continue to implement coastal NPS approved by EPA and the National Oceanic and Atmospheric Administration under the Coastal Zone Act Reauthorization Amendments, and to work with the U.S. Department of Agriculture to promote implementation of Farm Bill programs consistent with state non-point source management needs and priorities. EPA will also provide tools to states to assess and

strengthen controls on air deposition sources of nitrogen, mercury, and other toxics.

With respect to wetlands, EPA will work with Federal, state, tribal, local, and private sector partners on protection and community-based restoration of wetlands, and with its Federal partners to avoid, minimize, and compensate for wetland losses through the CWA Section 404 and Farm Bill programs.

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.

EPA will work with states, tribes, municipalities, and the regulated community to ensure that the Phase II rules for the stormwater program are implemented to solve problems caused by sediment and other pollutants in our waters. EPA will also establish criteria for nutrients (i.e., nitrogen and phosphorus) so that more states can develop water quality standards that protect waters from harmful algal blooms such as *parity*, dead zones, and fish kills, which develop as a result of an excess of these nutrients. EPA will work with states to fund priority watershed projects through the CWSRF to reduce nonpoint and estuary pollution. The Agency will also work to reduce pollution from failing septic systems.

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Research

EPA's research efforts will continue to strengthen the scientific basis for drinking water standards through the use of improved methods and new data to better evaluate the risks associated with exposure to chemical and microbial contaminants in drinking water. To support the SDWA and its 1996 Amendments, the Agency's drinking water research will develop dose-response information on disinfection by-products (DBPs), waterborne pathogens, arsenic and other drinking water contaminants for characterization of potential health risks from consuming tap water, with a focus on filling key data gaps and developing analytical detection methods for measuring the occurrence of chemicals and microbial contaminants on the Contaminant Candidate List (CCL). The Agency will develop and evaluate cost-effective treatment technologies for removing pathogens from water supplies while minimizing DBP formation, and for maintaining the quality of treated water in the distribution system and preventing the intrusion of microbial contamination. By reducing uncertainties and improving methods associated with the assessment and control of risks posed by exposure to microbial contaminants in drinking water, EPA is providing the scientific basis necessary to protect human health and ensure that by 2005, 95 percent of the population served by community water systems will receive water that meets health-based drinking water standards.

The research to support the development of ecological criteria includes understanding the structure and function and characteristics of aquatic systems, and evaluating exposures and effects of stressors

on those systems. Research to develop biological and landscape indicators of ecosystem condition, sources of impairment, and stressor response/fate and transport models are being developed to improve risk assessment methods to develop aquatic life, sediment, habitat, and wildlife criteria, and risk management strategies. Through the development of a framework for diagnosing adverse effects of chemical pollutants in surface waters, EPA will be able to evaluate the risks posed by chemicals that persist in the environment and accumulate in the food chain, threatening wildlife and potentially human health. This research will facilitate the assessment of ecological health of the nation's waters, providing water resource managers with a tool for determining whether their aquatic resources support healthy aquatic communities. The Agency also will develop cost-effective technologies for managing suspended solids and sediments with an emphasis on identifying innovative *in situ* solutions.

EPA will continue to develop diagnostic tools to evaluate human and ecological exposures to toxic constituents of wet weather flows (WWF) (CSOs, SSOs and stormwater). These events pose significant risks to human and ecological health through the uncontrolled release of pathogenic bacteria, protozoans and viruses as well as a number of potentially toxic, bioaccumulative contaminants. EPA will develop and validate effective watershed management strategies and tools for controlling wet weather flows, especially when they are and toxic. These strategies and tools include: (1) new and improved indicator methods to describe the toxic inputs to watersheds from WWFs; (2) methods to use condition and diagnostic ecological indicators to evaluate wet weather

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flow management strategies in preventing degradation of water and sediments quality by contaminated runoff; (3) methods for diagnosing multiple stressors in watershed ecosystems; and (4) evaluation of low cost watershed best management practices to evaluate risks associated with various control technologies for wet weather flows. This research will also develop effective beach evaluation tools necessary to make timely and informed decisions on beach advisories and closures.

Highlights

So that all Americans have water that is safe to drink, EPA will work to ensure that 91 percent of the population will continue to receive drinking water from systems meeting all health-based standards in effect as of 1994, up from 83 percent in 1994. The Agency will continue to work with the states in implementing rules required by the 1996 amendments to the SDWA to control for microbial contaminants especially *Cryptosporidium*, disinfectants and their byproducts, arsenic, radon, radionuclides, and other contaminants. By the end of 2002, EPA will have promulgated or proposed regulations on all the contaminants specifically identified in the 1996 SDWA amendments. Consequently, primary attention in 2002 will be focused on setting standards or issuing guidance/health advisories for any of the up to five unregulated microbes and chemicals that have been determined through the 2001 Contaminant Candidate List (CCL) process to warrant regulation. The CCL process, a new provision in the 1996 SDWA amendments, makes risk prioritization the dominant factor

in selecting contaminants to regulate. EPA, in partnership with the states, water systems, environmental and public health groups, the scientific community, and the public, must use three criteria to determine whether or not to regulate a contaminant, i.e., 1) the contaminant adversely affects human health; 2) it is known or substantially likely to occur in public water systems with a frequency and at levels of public health concern; and 3) regulation of the contaminant presents a significant opportunity for health risk reduction. In addition, the Agency is continuing to: identify potential high-risk drinking water contaminants, conduct the necessary scientific analyses and health risk assessments, collect occurrence data, increase monitoring, and involve the public in the development of the second Drinking Water CCL that, based on the requirements of the 1996 SDWA amendments, must be issued in 2003.

EPA, in concert with our many partners, is pursuing a comprehensive strategy for assessing and restoring the Nation's most impaired watersheds. Fundamental to the Agency's efforts to conserve and enhance the Nation's waters is the management of water quality resources on a watershed basis, with the full involvement of all stakeholders including communities, individuals, businesses, state and local governments, and tribes. States may continue to develop and implement integrated watershed plans, such as strategies for watershed restoration, in those waters identified by the states as most in need of restoration. Starting in 2000, incremental CWA section 319 funds are only available to states with approved upgraded section 319 programs. EPA will also encourage, using a watershed approach, the establishment of

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additional planning groups or partnerships to develop local comprehensive plans for managing dredged material in an environmentally sound manner (including beneficial use). EPA will be an active participant in the development of these plans.

By 2002, with EPA's support, the National Estuary Program will have restored and protected an additional 50,000 acres of habitat, including sea grass and shellfish beds. In 2002, EPA will continue implementing the national assessments regarding the causes of, and appropriate management responses to, harmful algal blooms and other marine pests and diseases (including implementation of the National Invasive Species Management Plan), and hypoxia. EPA will also continue working on an agency-specific action plan to implement the Invasive Species Executive Order. Finally, EPA will continue its assessment of cruise ship discharges and ballast water discharges, their impacts on the environment, and management options for addressing these discharges.

A key element of the Agency's effort to achieve its overarching goal of clean and safe water is the reduction of pollutant discharges from point sources and nonpoint sources. The NPDES program (which includes NPDES permits, urban wet weather, large animal feeding operations, mining, the pretreatment program for non-domestic wastewater discharges into municipal sanitary sewers, and biosolids management controls) establishes controls on pollutants discharged from point sources into waters of the United States. Key annual performance goals for 2002 are to reduce industrial discharges of toxic pollutants, nonconventional pollutants, and conventional pollutants. For 2002, the

Agency is requesting \$450 million to fund a state grant program to address CSO and SSO problems as authorized by the Consolidated Appropriations Act of 2000. The Consolidated Appropriations Act of 2000 provides the Agency the ability to better target funds to the states and communities with the greatest CSO and SSO needs, and to give priority to financially-distressed communities. To ensure that all point sources are covered by current permits, EPA has developed a backlog reduction strategy under which 90 percent of major permittees and 73 percent of minor permittees will have current permits in place by the close of 2002. EPA will also continue evaluating data received from monitoring sites under the National Marine Debris Monitoring Program. This program monitors marine debris in an effort to determine sources of the debris, much of which enters coastal waters through stormwater runoff.

States report that pollution from NPS is the largest cause of water pollution, with agriculture as a leading cause of impairment in 20 percent of the river miles assessed. In order to restore and maintain water quality, significant loading reductions from nonpoint sources must be achieved. State NPS programs are critical to protecting and restoring the Nation's water resources. To achieve reductions in NPS loadings, it is essential for EPA to work with states to expeditiously implement the nine key program elements in their strengthened state NPS programs. In addition, EPA will continue to encourage states to make use of CWSRF and other Federal resources to finance projects that address polluted runoff. As of mid-2000, states had invested nearly \$1.2 billion in nonpoint source pollution controls through the CWSRF.

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Research

In 2002, EPA's drinking water research program will conduct research to reduce uncertainties and improve methods associated with the assessment and control of risks posed by exposure to microbial contaminants in drinking water, with a focus on emerging pathogens listed on the CCL. As required by the SDWA amendments, the first CCL was published in 1998 and included nine microbial contaminants in its Research Priorities Category that require more data before a regulatory determination can be made. There are significant data gaps with regard to understanding the occurrence of these microbes in source and distribution system water, linkages between water exposure and infection, and the effectiveness of candidate treatment technologies to remove and inactivate these contaminants. The development of this crucial information will provide the scientific basis necessary to protect human health and ensure that 95 percent of the population served by community water systems will receive water that meets drinking water standards.

Although suspended solids and sediment (non-contaminated) are a natural part of aquatic ecosystems critical to the energy cycle of the water body as well as the provision of microhabitats, they have become a stressor associated with human activity that adversely affects aquatic habitats. In a 1998 EPA Water Quality Inventory, Report to Congress, suspended solids and sediments were identified among the leading causes of water quality impairment for streams and rivers. As part of EPA's efforts in 2002 to conserve and enhance the nation's waters, the aquatic stressors research program will initiate

a suspended solids and sediments research program that will focus on developing tools which allow for the determination of background levels of sediments and suspended solids inherent to a region.

Another area of research will focus on growing evidence of the risk of infectious diseases resulting from exposure to microbes in recreational waters. Exposure to these diseases is of particular concern after major rainfall events that cause discharges from both point sources and non-point sources. In 2002, the beaches research program will continue to develop monitoring and risk communication alternatives in order to provide water quality managers with tools to make timely and informed decisions on beach advisories.

2002 Annual Performance Goals

- In 2002, 91 percent of the population served by community water systems will receive drinking water meeting all health-based standards in effect as of 1994, up from 83 percent in 1994.
- In 2002, 85 percent of the population served by community water systems will receive drinking water meeting health-based standards promulgated in 1998.
- In 2002, reduce exposure to contaminated recreation waters by increasing the information available to the public and decision-makers.
- In 2002, assure that states and tribes have effective, up-to-date water quality standards programs adopted in

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accordance with the Water Quality Standards regulation and the Water Quality Standards program priorities.

- In 2002, restore and protect estuaries through the implementation of Comprehensive Conservation and Management Plans (CCMPs).
- By 2003, water quality will improve on a watershed basis such that 600 of the Nation's 2,262 watersheds will have greater than 80 percent of assessed waters meeting all water quality standards, up from 500 watersheds in 1998.
- In 2002, 700 projects funded by the Clean Water SRF will initiate operations, including 400 projects providing secondary treatment, advanced treatment, CSO correction (treatment), and/or storm water treatment. Cumulatively, 7,900

projects will have initiated operations since program inception.

- In 2002, industrial discharges of pollutants to the nation's waters will be significantly reduced through implementation of effluent guidelines.
- In 2002, current NPDES permits reduce or eliminate discharges into the nation's waters of (1) inadequately treated discharges from municipal and industrial facilities; and (2) pollutants from urban storm water, CSOs, and CAFOs.
- In 2002, produce scientific reports to support the development of the next Contaminant Candidate List of chemicals and pathogens for potential regulatory action and research. These reports will help ensure that future regulations address the contaminants of greatest public health concern.

Goal 2: Clean and Safe Water

Goal 2: Clean and Safe Water Key Programs

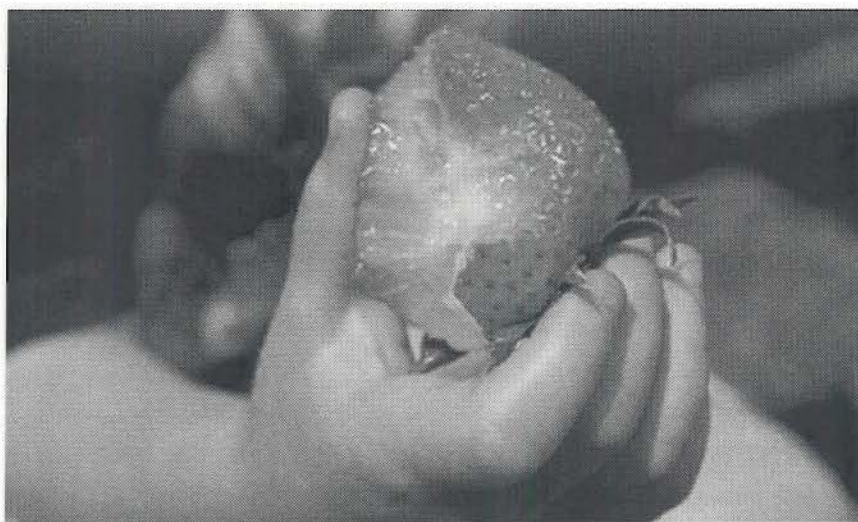
(dollars in thousands)

	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>
Administrative Services	\$9,122.0	\$8,487.1
Beach Grants	\$0.0	\$2,000.0
Chesapeake Bay	\$20,728.1	\$18,818.7
Clean Water Exposure Research	\$2,640.6	\$2,686.6
Drinking Water Consumer Awareness	\$1,462.6	\$2,463.2
Drinking Water Implementation	\$32,149.1	\$35,200.6
Drinking Water Regulations	\$34,321.4	\$30,398.6
Effluent Guidelines	\$21,782.4	\$21,492.3
EMPACT	\$894.0	\$0.0
Great Lakes	\$3,114.4	\$3,027.0
Gulf of Mexico	\$4,341.2	\$4,276.7
Harmful Algal Blooms (HABs) and Related Research	\$5,436.9	\$5,441.6
Lake Champlain	\$1,995.6	\$954.8
Long Island Sound	\$4,989.0	\$477.4
Marine Pollution	\$7,797.9	\$7,820.2
National Estuaries Program/Coastal Watersheds	\$18,192.5	\$17,053.2
National Nonpoint Source Program Implementation	\$16,170.7	\$16,342.4
NPDES Program	\$39,405.2	\$40,249.6
Pacific Northwest	\$1,078.6	\$1,103.8
Pfiesteria	\$99.8	\$95.5
Project XL	\$238.2	\$0.0
Regional Management	\$5,861.9	\$5,523.8
Rent, Utilities and Security	\$39,794.0	\$45,073.2
Rural Water Technical Assistance	\$15,154.6	\$656.9
Safe Drinking Water Research	\$51,501.6	\$46,994.7
Source Water Protection	\$10,689.8	\$10,337.2
South Florida/Everglades	\$2,942.0	\$2,855.0
State Nonpoint Source Grants	\$237,476.8	\$237,476.8
State Pollution Control Grants (Section 106)	\$171,883.3	\$169,883.3
State PWSS Grants	\$93,100.2	\$93,100.2
State Underground Injection Control Grants	\$10,950.9	\$10,950.9
State Water Quality Cooperative Agreements	\$18,958.2	\$18,958.2
State Wetlands Program Grants	\$14,967.0	\$14,967.0
UIC Program	\$10,836.9	\$11,199.2
Water Infrastructure: Sewer Overflow Control Grants	\$0.0	\$450,000.0
Water Infrastructure: Alaska Native Villages	\$34,923.0	\$34,923.0
Water Infrastructure: Bristol County	\$1,935.7	\$0.0
Water Infrastructure: Clean Water State Revolving Fund (CW-SRF)	\$1,347,030.0	\$850,000.0
Water Infrastructure: Drinking Water State Revolving Fund (DW-SRF)	\$823,185.0	\$823,185.0
Water Quality Criteria and Standards	\$18,380.6	\$18,787.5
Water Quality Monitoring and Assessment	\$11,166.9	\$11,309.2
Watershed Research	\$7,872.1	\$5,852.9
Wetlands	\$16,959.8	\$17,291.2



GOAL 3:

Safe Food



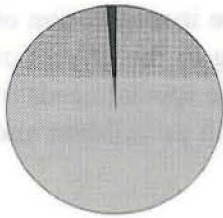
GOAL 3:

Safe Food



Goal 3: Safe Food

Goal 3: 1.5%



Strategic Goal: The foods Americans eat will be free from unsafe pesticide residues. Particular attention will be given to protecting sub-populations that may be more susceptible to adverse effects of pesticides or have higher dietary exposures to pesticide residues. These include children and people whose diets include large amounts of noncommercial foods.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Safe Food	\$109,303.9	\$108,245.0	(\$1,058.9)
Reduce Risks from Pesticide Residues in Food	\$44,577.4	\$45,199.4	\$622.0
Eliminate Use on Food of Pesticides Not Meeting Standards	\$64,726.5	\$63,045.6	(\$1,680.9)
Workyears	796.9	770.9	(26.0)

Means and Strategy

The Agency uses a two-fold strategy for accomplishing the objectives of the Safe Food goal:

- Encouraging the introduction of new, reduced risk pesticides (including new plant incorporated protectants) within the context of new pest-management practices; and
- Reducing the use of currently registered pesticides with the highest potential to cause adverse health effects.

In 2002, the Agency will continue to promote accelerated registrations for

pesticides that provide improved risk reduction or risk prevention compared to those currently on the market. Progressively replacing older, higher-risk pesticides is one of the most effective methods for curtailing adverse impact on health and the ecosystem while preserving food production rates.

EPA uses its authorities to systematically manage the risks of pesticide exposures by establishing legally permissible food-borne pesticide residue levels, or tolerances. EPA manages the legal use of pesticides, up to and including the elimination of pesticides that present a danger to human health and the environment. This task involves a comprehensive review of existing pesticide use as stipulated by the reregistration provision, as well as a comprehensive reassessment and update of existing tolerances

Goal 3: Safe Food

within ten years, as required by Food Quality Protection Act (FQPA).

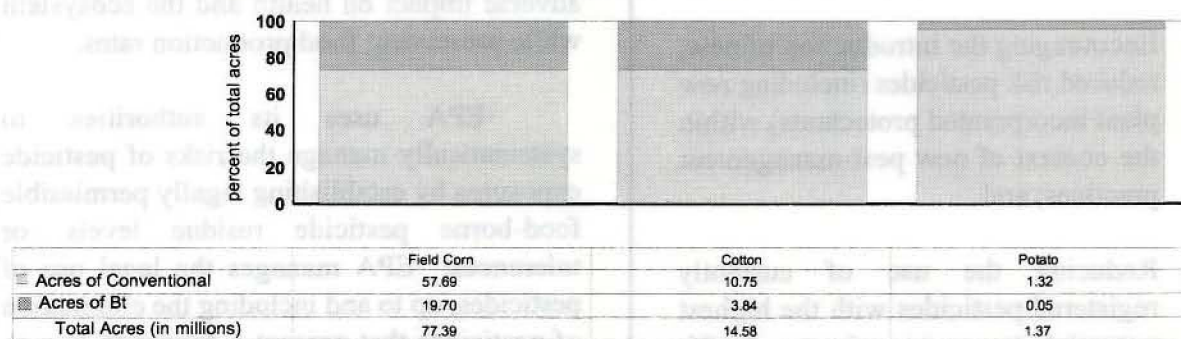
The 2002 request emphasizes efforts to evaluate existing tolerances for currently registered pesticides to ensure they meet the new FQPA health standards. This tolerance reassessment program screens and requires testing of certain pesticides and chemicals to evaluate their potential for disrupting endocrine systems in animals or in humans. The emphasis will be on balancing the need for pesticides with the risks of exposure, and allowing for smooth transitions to safer pesticide alternatives, through an open and transparent process that seeks input from all stakeholders.

EPA uses the latest scientific advances in health-risk assessment practices, to ensure that current pesticides meet the test of a reasonable certainty of no harm, as stipulated

by FQPA. This includes the incorporation of new scientific data relating to the effects of endocrine disruption and the special needs of susceptible populations such as children and Native Americans.

New registration actions result in more pesticides on the market that meet FQPA standards, which brings the Agency closer to the objective of reducing adverse risks from pesticide use. Tolerance reassessments may mean mandatory use changes because a revision in the allowable residue levels can involve changes in pesticide application patterns, changes in the foods the pesticides may be applied to, and other risk management methods. As measured by the number of tolerances that have been reassessed, the Agency's progress in the tolerance reassessment program directly serves the objective of reducing the use on food of pesticides that do not meet the new standards.

Bt and Conventional Crops as a Proportion of Total Acres, 1999



Goal 3: Safe Food

Biotechnology (Bt) is likely to be the focus of continued public scrutiny in 2002 as it accounts for a large share of acres planted. For example, Bt corn and cotton made up about 25 percent of all field corn and cotton acres in 1999 (see box). Biotechnology has great potential to reduce our reliance on some older, more risky chemical pesticides, and to lower worker risks. Given the public interest in foods derived from biotechnology, EPA has increased the number of public meetings and scientific peer reviews of our policies and assessments.

EPA is working closely with other Federal agencies involved in biotechnology and is also actively involved in developing international standards for the regulation of biotechnology products. Specific activities in 2002 will include: advancing scientific knowledge of allergenicity; finalizing decisions on exemptions to the plant incorporated protectant rule, which defines the type of substances used in bioengineered plants that must undergo scientific evaluation by the Agency; and participating in the Codex Ad-Hoc Intergovernmental Task Force on Food Derived from Biotechnology, which is working on international standards governing foods derived from biotechnology. In addition, EPA plans to register three new plant incorporated protectants, provided they are found not have adverse effects on human health or the environment.

Finally, in addition to setting the requirements of continued legal use of agricultural pesticides, EPA works in partnership with United States Department of Agriculture (USDA), Food and Drug Administration (FDA) and the states toward the broader effort to prevent the misuse of pesticides. In the ever changing environment

of pesticide use, accessibility to information is a primary component of an effective strategy to inform the public on the appropriate, safe use of pesticides to minimize risk.

More information about EPA's food safety efforts is available on the Agency's website at <http://www.epa.gov/pesticides>.

Research

Current approaches to human health risk assessment focus on single pesticides and do not adequately account for cumulative risks arising from complex exposure patterns and human variability due to age, gender, pre-existing disease, health and nutritional status, and genetic predisposition. Existing tools for controlling and preventing exposure are limited to certain processes and materials.

The FQPA identifies clear science needs, including the evaluation of all potential routes and pathways of exposures to pesticides, and resulting health effects, particularly for sensitive subpopulations and considering effects from cumulative exposures.

EPA must develop tools adequate to address the needs imposed by FQPA. In 2002, EPA's research program will continue to focus on developing and validating methods to identify and characterize, and models to predict, the potential increased susceptibility to human health effects experienced by infants and children; identifying and understanding major exposure routes, and pathways and processes, and developing theoretical and experimentally based multipathway exposure models for pesticides and other toxic substances; and addressing the adequacy of current risk

Goal 3: Safe Food

assessment methods and providing the necessary risk assessment guidance. More specifically, health effects research will continue to focus on developing new and improved test methods to evaluate the effects of environmental exposure to pesticides and other chemicals in sensitive subpopulations.

Highlights

Reduce Public Health Risk from Pesticide Residues

The Federal Food, Drug and Cosmetics Act (FFDCA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) authorize EPA to set terms and conditions of pesticide registration, marketing and use. EPA will use these authorities to reduce residues of pesticides with the highest potential to cause cancer or neurotoxic effects, including those which pose particular risks to children and other susceptible populations. All new pesticides, including food/feed-use pesticides are registered after an extensive review and evaluation of human health and ecosystem studies and data, applying the most recent scientific advances in risk assessment. The Registration program includes registration activities, such as setting tolerances, registering new active ingredients, new uses, and handling experimental use permits and emergency exemptions.

In 2002, the Agency will continue its efforts to decrease the risk the public faces from agricultural pesticides through the regulatory review of new pesticides, including reduced risk pesticides and biopesticides. EPA expedites the registration of reduced risk pesticides, which pose lower potential dietary risks to consumers, lower

risks to agricultural workers, and reduce potential risk to the earth's ozone layer, groundwater, aquatic organisms or wildlife. These accelerated pesticide reviews provide an incentive for industry to develop, register, and use lower risk pesticides. Additionally, the availability of these reduced risk pesticides provides alternatives to older, potentially more harmful products currently on the market.

Reduce Use on Food of Pesticides Not Meeting Current Standards

In 2002, the Agency will continue toward its ten year statutory deadline of reassessing all 9,721 tolerances by meeting its second statutory deadline of reassessing a cumulative 66 percent of these tolerances by August 2002. The Agency will also continue to develop tools to screen pesticides for their potential to disrupt the endocrine system. In 2002, EPA will work toward completing 30 Reregistration Eligibility Decisions (REDs) and 750 product reregistrations.

The tolerance reassessment process addresses the highest-risk pesticides first. Using data surveys conducted by the USDA, the FDA and other sources, EPA has identified a group of "top 20" foods consumed by children and matched those with the tolerance reassessments required for pesticides used on those foods. The Agency has begun to track its progress in determining appropriate tolerances for these pesticides under the new FQPA standards. In 2002, EPA will continue its effort to reduce dietary risks to children, by completing a cumulative 70 percent of these tolerances of special concern.

Goal 3: Safe Food

Organophosphates and carbamates are believed to pose higher risks than other groups of pesticides. These pesticides are widely used and curtailing or restricting the use of these chemicals will mean changes in current farming practices. The need for broad input and participation lead to a special stakeholder process to address data, analysis and regulatory requirements, protocol, and scientific and public review as the Agency moves to reduce the risks posed by some of these pesticides. The Agency will continue this important dialogue with stakeholders as we work together to protect human health and the environment.

The reregistration maintenance fee, which funds the salaries of the 200 workyears that are involved in reregistering older pesticides to ensure they meet current health and safety standards, expires at the end of 2001. The 2002 President's Budget reflects the expiration of the authority to collect reregistration maintenance fees. Despite the expiration of the fee, the reregistration program will be fully funded in 2002. The 2002 budget request fills the resource gap with funds previously appropriated for the tolerance reassessment program.

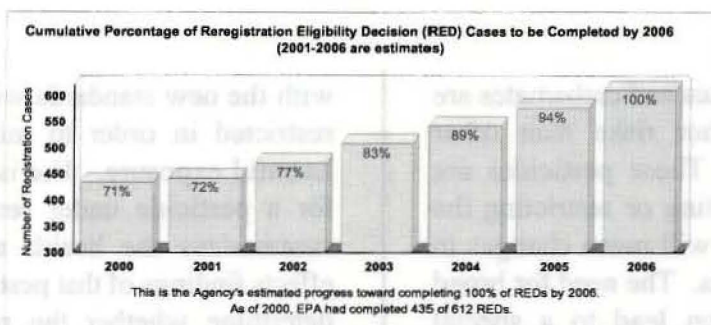
The Reregistration program was accelerated by the 1988 amendments to FIFRA and enhanced by FQPA, which included adding a tolerance reassessment requirement. Through the Reregistration program, EPA reviews pesticides currently on the market to ensure they meet the latest health standards. Pesticides not in compliance

with the new standards will be eliminated or restricted in order to minimize potentially harmful exposure. The issuance of an RED for a pesticide under reregistration review summarizes the health and environmental effects findings of that pesticide. The findings determine whether the products registered under this chemical are eligible for reregistration.

FQPA added considerably more complexity into the process of reregistering pesticides. New statutory requirements have made risk assessment more complex and lengthened the "front end" of reregistration. These requirements include considering aggregate exposure and cumulative risk, implementing new processes to increase involvement of pesticide users and other stakeholders, and ensuring a reasonable opportunity for agriculture to make the transition to new pest control tools and practices. Over the longer run, these changes will enhance protection of human health and the environment.

Also, by the end of 2002, EPA expects to have incorporated public comments into all science policy papers, finalizing most of them, and will begin implementing these policies in our risk assessments. Developing and implementing these science policies — particularly the policy for cumulative risk assessment for pesticides with common methods of toxicity — will cause a sharp increase in the number of tolerances reassessed in 2002.

Goal 3: Safe Food



In 2000, the Agency targeted the organophosphate pesticides (OPs) for tolerance reassessment. Because the OPs share a common mechanism of toxicity, a cumulative risk assessment across all of the OPs is required before the reassessment of their tolerances is completed. This extra stage of cumulative assessment was not needed for the tolerances reassessed in 1999 since pesticides reviewed at that time either were canceled voluntarily or had no common mechanism of toxicity. The cumulative assessment requires that EPA establish a cumulative risk policy, which has taken the Agency longer than first anticipated. EPA expects to issue that policy by the end of 2001. Following that, the Agency will be able to complete the reassessment of all of the OP tolerances, producing a surge of reassessments completed in 2002. We are on schedule to meet our statutory deadline of 66 percent of all tolerances reassessed by August 3, 2002.

As required by FQPA, EPA has developed a tolerance fee rule that recovers from pesticide manufacturers the full cost of setting and reevaluating pesticide tolerances on food. The tolerance program will be fully funded through a combination of appropriated funds and fees that begin in 2002. In future years, the program will be entirely funded through the new tolerance fee.

FQPA also requires that EPA establish a process for periodic review of pesticide registrations. This requires the updating of all pesticide registrations using current health standards, scientific data, risk assessment methodology, program policies and effective risk reduction measures. In 2002, the Agency will continue developing the framework for the registration review program.

Research

In 2002, EPA's research program will continue to develop pesticides exposure and effects data, risk assessment methods and models for children, and control technologies needed to comply with the requirements of FQPA. Specifically, health effects research will continue to focus on developing new and improved test methods to evaluate the effects of environmental exposure to pesticides and other chemicals in sensitive subpopulations. The exposure research program will continue to devote attention to identifying those pesticides, media, pathways, and activities that represent the highest potential exposures to children and other susceptible and/or sensitive subpopulations and determine the factors that influence these exposures. Risk assessment research will develop methods for combining exposures and assessing exposure-dose-response relationships for pesticides and other compounds with common modes of action and different exposure patterns.

Goal 3: Safe Food

2002 Annual Performance Goals

- In 2002, decrease adverse risk from agricultural uses from 1995 levels and assure that new pesticides that enter the market are safe for humans and the environment, through ensuring that all registration action are timely and comply with standards mandated by law.
- By the end of 2002, EPA will reassess a cumulative 66 percent of the 9,721 pesticide tolerances required to be reassessed over ten years. This includes 70 percent of the 893 tolerances having the greatest potential impact on dietary risks to children.
- In 2002, detections of residues of carcinogenic and cholinesterase—inhibiting neurotoxic pesticides on

foods eaten by children will have decreased by 15 percent (cumulative) from their average 1994 to 1996 levels.

- In 2002, assure that pesticide active ingredients registered prior to 1984 and the products that contain them are reviewed to assure adequate protection for human health and the environment. Also consider the unique exposure scenarios such as subsistence lifestyles of Native Americans in regulatory decisions.
- In 2002, at least one percent of acre-treatments will use applications of reduced risk pesticides.

Goal 3: Safe Food

Goal 3: Safe Food Key Programs (dollars in thousands)

	FY 2001 Enacted	FY 2002 President's Budget
Administrative Services	\$1,809.4	\$1,317.5
Endocrine Disruptor Screening Program	\$5,721.0	\$5,290.2
Pesticide Registration	\$29,229.2	\$29,669.3
Pesticide Reregistration	\$33,469.2	\$43,331.9
Pesticide Residue Tolerance Reassessments	\$14,801.6	\$5,846.0
Rent, Utilities and Security	\$10,604.9	\$10,437.8



GOAL 4:

***Preventing Pollution and
Reducing Risk in
Communities, Homes,
Workplaces, and
Ecosystems***



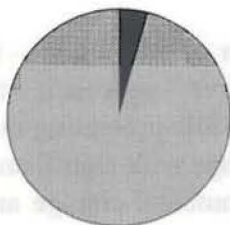
GOAL 4:

Preventing Pollution and
Reducing Risk in
Communities, Homes,
Workplaces, and
Ecosystems



Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

Goal 4: 4.1%



Strategic Goal: Pollution prevention and risk management strategies aimed at eliminating, reducing, or minimizing emissions and contamination will result in cleaner and safer environments in which all Americans can reside, work, and enjoy life. EPA will safeguard ecosystems and promote the health of natural communities that are integral to the quality of life in this nation.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems	\$301,113.7	\$297,572.3	(\$3,541.4)
Reduce Public and Ecosystem Risk from Pesticides	\$51,453.5	\$54,472.9	\$3,019.4
Reduce Risks from Lead and Other Toxic Chemicals	\$34,304.2	\$34,741.7	\$437.5
Manage New Chemical Introduction and Screen Existing Chemicals for Risk	\$64,915.8	\$65,233.1	\$317.3
Ensure Healthier Indoor Air	\$38,634.2	\$37,854.0	(\$780.2)
Facilitate Prevention, Reduction and Recycling of PBTs and Toxic Chemicals	\$47,448.3	\$40,661.2	(\$6,787.1)
Assess Conditions in Indian Country	\$64,357.7	\$64,609.4	\$251.7
Workyears	1,171.3	1,161.7	(9.6)

Means and Strategy

The diversity and sensitivity of America's environments (communities, homes, workplaces and ecosystems) requires EPA to adopt a multi-faceted approach to protecting the public from the threats posed

by pesticides, toxic chemicals and other pollutants. The underlying principle of the activities in this goal is the application of pollution prevention, which can be cheaper and smarter than cleanup and remediation, as evidenced by the high cost of Superfund, Resource Conservation and Recovery Act (RCRA), and Polychlorinated Biphenyls

Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

(PCB) cleanups. Pollution Prevention (P2) involves changing the behavior of those that cause the pollution and fostering the wider use of preventive practices as a means to achieve effective, sustainable results.

Under this Goal, EPA ensures that pesticides and their application methods do not present unreasonable risks to human health, the environment, and ecosystems. In addition to the array of risk-management measures entailed in the registration authorities under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) for individual pesticide ingredients, EPA has specific programs to foster worker and pesticide-user safety, groundwater protection, and the safe, effective use of antimicrobial agents. These programs work to ensure the comprehensive protection of the environment and wildlife, endangered species in particular, and to reduce the contribution of pesticides to ecological threats such as pollutant loading in select geographic areas. Within this context, EPA pursues a variety of field activities at the regional, state and local levels, including the promotion of pesticide environmental stewardship. EPA is also addressing emerging threats such as endocrine disruptors by developing and implementing new screening technologies to assess a chemical's impact on hormonal activity. Finally, EPA promotes the use of sensible Integrated Pest Management (IPM) and the prevention of pesticide misuse in the panoply of uses within both the urban and rural environments.

The Agency remains committed to safeguarding our Nation's communities, homes, workplaces, and ecosystems. Preventing pollution through regulatory, voluntary, and partnership actions -- educating

and changing the behavior of our public -- is a sensible and effective approach to sustainable development while protecting our nation's health. Two groups with significant potential to effect environmental change are industry and academia. The Agency pursues a number of these P2 with both of the these groups. Likewise, improved understanding of the potential risks to health from airborne toxic chemicals present indoors may strengthen our ability to reduce residents' exposure through voluntary changes in behavior and through potential product reformulation.

Preventing pollution through partnerships is central to Agency chemical right-to-know activities. These activities include providing the public with information on the basic health and environmental effects of the 2,800 highest production volume (HPV) chemicals in the United States (chemicals manufactured in or imported into the U.S. in quantities of at least 1 million pounds). Most residents come into daily contact with many of these chemicals, yet relatively little is known about their potential impacts. Getting basic hazard testing information on large volume chemicals is the focus of the "HPV Challenge Program," a voluntary program recognizing industry's contribution to the public knowledge base on these prevalent chemicals. More than 469 companies have committed to voluntarily provide these test data for more than 2,155 of the HPV chemicals— a remarkable partnership between government and the private sector. The Agency intends to further evaluate whether additional testing is warranted for chemicals to which children are exposed.

Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

Children's health is also the continuing focus of the multi-agency initiative begun in 2000 to combat asthma in children. Efforts in 2002 will target reductions in the presence of indoor triggers of asthma, such as environmental tobacco smoke and biological contaminants, by continuing to educate the public about the disease and about the steps they can take to reduce the severity and frequency of asthma attacks. Additional voluntary work will be undertaken by schools to empower their students to manage their asthma symptoms better, by school personnel to improve the indoor environments of their schools, and by health care personnel to incorporate education about managing environmental asthma triggers into asthma treatment plans for their patients. Partnerships with non-profit environmental and public health organizations with a particular focus on children are used to bring about these voluntary reductions in exposure to asthma triggers found indoors. Achieving the goals of the multi-agency effort to maintain the government's efforts to combat asthma in children requires effective collaboration between EPA and other Federal agencies.

Also central to the Agency's work under this goal in 2002 will be continued attention on documenting and taking action to reduce potential risk from persistent, bioaccumulative and highly toxic chemicals (PBTs) and from chemicals that have endocrine disruption effects. PBT chemicals are of particular concern not only because they are toxic but also because they may remain in the environment for a long period of time, are not readily destroyed, and may build up or accumulate to high concentrations in plant or animal tissue. In cases involving

mercury and PCBs, they may accumulate in human tissue.

The Agency mixes both regulatory and voluntary methods to accomplish its job. For example, each year the Toxic Substances Control Act (TSCA) New Chemicals program reviews and manages the potential risks from approximately 1,800 new chemicals and 40 products of biotechnology that enter the marketplace. This new chemical review process not only protects the public from the possible immediate threats of harmful chemicals, like PCBs, from entering the marketplace, but it has also contributed to changing the behavior of the chemical industry, making industry more aware and responsible for the impact these chemicals have on human health and the environment. This awareness has led industry to produce safer "greener" alternative chemicals and pesticides. Fewer harmful chemicals are entering the marketplace and our environment today because of the New Chemicals Program.

The Design for the Environment (DfE), Green Chemistry Program and Green Engineering (GE) build on and expand the new chemistry efforts. They target industry and academia to maximize pollution prevention. The Agency's DfE Program forms partnerships with industry to find sensible solutions to prevent pollution. In one example, taking a sector approach, EPA has worked with the electronics industry to reduce the use of formaldehyde and other toxic chemicals in the manufacture of printed wiring boards. The Agency's Green Chemistry Program also forms partnerships with industry and the scientific community to find economically viable technical solutions to prevent pollution. In addition, the Green Engineering Program works with the

Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

American Society of Engineering Education (ASEE) to incorporate GE approaches into engineering curricula.

The Pollution Prevention Framework is another example of EPA successfully influencing industry's approach to chemical selection prior to commercialization. The P2 Framework accomplishes the following: (1) integrates analytical methods and tools that help predict exposures and risks of chemicals, based on chemical structure and estimates of environmental releases and exposure; (2) allows stakeholders to evaluate and compare chemical choices and to identify environmentally preferable products and processes; and (3) helps industry identify risk issues early in product development, when pollution prevention opportunities are most cost-effective. In 2001 and 2002 EPA is using the P2 Framework as part of the Sustainable Futures effort to help companies shorten the review cycle for introduction of new safer chemicals into commerce, thereby benefitting the environment, the companies and EPA.

In several cases, achieving the strategic objectives under this goal is a shared responsibility with other federal and state agencies. For example, EPA's role in reducing the levels of children's lead exposure involves promotion of federal-state partnerships to lower specific sources of lead to children, primarily from addressing lead-based paint hazards. These partnerships emphasize development of a professional infrastructure to identify, manage and abate lead-based paint hazards, as well as public education and empowerment strategies, which fit into companion Federal efforts with the Department of Health and Human Services (HHS), Department of Defense (DOD),

Department of Energy (DOE), Department of Justice (DOJ), Centers for Disease Control (CDC), and Department of Housing and Urban Development (HUD). These combined efforts help to monitor lead levels in the environment, with the intent of virtually eliminating lead poisoning in children.

Intrinsic to the effort to prevent pollution is the minimization of the quantities of waste generated by industry, government agencies, and hazardous-waste management operations. Strategies range from fostering materials reuse and recycling and other resource-recovery processes to broad-based campaigns to re-engineer the consumption and use of raw materials or personal conservation of resources. Effective and sustainable programs reduce the need for storage, treatment or disposal of hazardous or municipal wastes, while reducing costs to industry and municipalities.

Since this Goal focuses on how the public lives in communities, it features the Agency's commitment of fulfilling its responsibility for assuring human health and promoting environmental protection in Indian Country. EPA's policy is to work with tribes on a government-to-government basis that affirms the vital trust responsibility that EPA has with 572 tribal governments and remains cognizant of the Nation's interest in conserving the cultural uses of natural resources.

Research

Currently, there are significant gaps with regard to the understanding of actual human exposures to pesticides and toxic substances in consumer products in residential

Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

environments and potential human health risks from such exposures to the general population and susceptible subpopulations, such as infants and children. Methods for detecting and estimating human exposures to these chemical stressors are extremely limited. Health effects information is not available for most of these stressors. Tools that are currently available to control or prevent exposures are also limited to certain processes or materials. To reduce human health and ecological risks, research is needed to develop/improve methods to evaluate hazard on human health endpoints, models to improve the biological basis for human health risk assessment, and methods to identify ecological hazards, predict ecological risk, and characterize environmental stressor interactions. In 2002, the Agency will continue to support both human health and ecosystems research to reduce risks and improve the environmental safety of our communities.

Highlights

EPA seeks to prevent pollution at the source as the first choice in managing environmental risks to humans and ecosystems. Where pollution prevention at the source is not a viable alternative, the Agency will employ risk management and cost effective remediation strategies. Reducing pollution at the source will be carried out using a multi-media approach in the following environmental problem areas:

Reduce Public and Ecosystem Risks from Pesticides

Reducing risk from exposure to pesticides requires a multi-faceted approach. Beyond being exposed through the food we eat, the general public, applicators, and farm workers may be exposed to pesticides through direct handling, groundwater contamination or aerial spray. One intent of the Food Quality Protection Act (FQPA) is to protect the public by shifting the nation toward safer pesticide use. Appropriate transition strategies to safer pesticides are important to the nation to avoid disruption of food supply or sudden changes in the market that could result from abruptly terminating the use of a pesticide before well-targeted safer equivalents can be identified and made available. For these reasons, the strategic agricultural partnership program will continue to be an important priority in 2002. The initiative develops alternative pest management tools and approaches. The Agency will continue to work closely with industry, agricultural pesticide users and other stakeholders to effectively transition to the safer pesticides and pest management practices envisioned by the FQPA. In 2002, the initiative will continue efforts to reach more farmers, encourage them to adopt safer pesticides, use environmental stewardship and integrated pest management practices, and adopt a "whole farm" approach to environmental protection.

In 2002, through the Certification and Training (C&T) and Worker Protection (WP) programs, EPA will continue training and educating farm workers and employers on the dangers of pesticides and good worker safety practices. EPA will continue to protect the

Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

Nation's ecosystems and reduce impacts to endangered species through the Pesticide Environmental Stewardship Program (PESP) and IPM. The Agency will emphasize efforts with our tribal partners to address pesticide issues and enhance the development of tribal technical capacity, particularly in the areas of risk management, worker safety, training, and pollution prevention.

Together, the WP and the C&T programs address the problem of worker pesticide exposure. These programs safeguard workers from occupational exposure to pesticides by providing training for workers, employers, and pesticide applicators and handlers. Training and certification of applicators of restricted use pesticides further ensures that workers and other vulnerable groups are protected from undue pesticide exposure and risk. Recertification requirements keep their knowledge current with label changes and application improvements. The Groundwater Strategy, a cooperative effort with states and regions to develop Pesticide Management Plans (PMPs), will further efforts to prevent pesticide pollution of surface and groundwaters. The Endangered Species program will enlist the support of the agricultural community and other interested groups to protect wildlife and critical habitats from pesticides. This voluntary program is carried out through communications and outreach efforts and in coordination with other Federal agencies. The PESP and IPM play pivotal roles in moving the nation to the use of safe pest control methods, including reduced risk pesticides. These closely related programs promote risk reduction through collaborative efforts with stakeholders to

utilize safer alternatives to traditional chemical methods of pest control.

Antimicrobial sterilants and disinfectants are used to kill microorganisms on surfaces and objects in hospitals, schools, restaurants and homes. Antimicrobials require appropriate labeling and handling to ensure safety and efficacy. EPA remains focused on accurate product labeling and product efficacy and meeting other requirements for antimicrobial sterilants set forth by FQPA.

Reduce Risks from Lead and Other Toxic Chemicals

EPA is part of the Federal effort to address lead poisoning and elevated blood levels in children by assisting in, and in some cases guiding, federal activities aimed at reducing the exposure of children in homes with lead-based paint. During 2002, EPA will continue implementing its comprehensive program to reduce the incidence of lead poisoning and elevated blood levels in children nationwide.

During 2002, EPA will continue the Lead Based Paint Training & Certification Program in all fifty states through EPA authorized state, territorial or tribal programs or, in states and territories without EPA authorization, through direct implementation by the Agency. In the lead regulatory program, EPA will propose one major rule setting standard for deleading of buildings and structures, and work towards finalizing a major rule on training and certification for renovation and remodeling activities.

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EPA will continue to implement the new Lead Hazards Standards Rule, the Lead Renovation Information Rule and the Real Estate Notification & Disclosure Rule. EPA is working with other Federal Agencies including HHS, HUD, DOD, DOE, Consumer Product Safety Commission (CPSC), and DOJ on implementing a Federal Strategy to virtually eliminate lead poisoning.

For other chemicals whose significant risks are well established (such as PCBs, asbestos, and dioxin), reductions in use and releases are important to reducing exposure of the general population as well as sensitive sub-populations. In 2002, EPA's PCB control efforts will encourage phase-out of PCB electrical equipment, ensuring proper waste disposal methods and capacity, and fostering PCB site cleanups. The Agency plans to develop a dioxin strategy to respond to the latest science and address dioxin risk management in a more comprehensive cross-media approach. EPA is also continuing work on identifying and quantifying the link between dioxin sources and the general population exposure.

Manage New Chemical Introduction and Screen Existing Chemicals for Risk

Under TSCA, EPA identifies and controls unreasonable risks associated with chemicals. The chemical right-to-know program addresses a critical gap in the nation's knowledge about the health and environmental hazards of HPV chemicals. EPA is working with industry to put information about those chemicals into the hands of the public so they can make better and more informed consumer choices.

Another Agency priority is implementation of the Endocrine Disruptor Screening Program (EDSP). The EDSP is based on the recommendations of the Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC), which provided advice and counsel to the Agency on a strategy to screen and test chemicals and pesticides that may cause endocrine disruption in humans, fish, and wildlife. In 1999, EPA began the validation of EDSP screening test protocols which will be completed in 2001. By 2005, EPA anticipates that all high production volume chemicals will be screened for endocrine disrupting potential. The resulting priority chemicals will be tested using the approach and test methods developed from recommendations of the EDSTAC.

In 2002, EPA will also continue work in the areas of existing chemicals, new chemicals, and national program chemicals (including lead, fibers, dioxin, PCBs, and mercury). The Agency reviews chemicals already in commerce, along with chemicals or microorganisms before commercialization (i.e., "new" chemicals) to determine whether they can be handled and used safely. Another approach to safer chemicals is green chemistry, which identifies opportunities for increasing the design, development and use of less toxic chemicals and chemical processes.

Ensure Healthier Indoor Air

In 2002, the Indoor Environments program will continue to build on work begun in 2000 and 2001 to protect children's health by reducing the presence of indoor triggers of asthma in homes and schools where children

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spend the majority of their time. In particular, the Agency will continue its education and outreach activities which implement portions of "Asthma and the Environment: An Action Plan to Protect Children," the inter-agency plan developed under the Task Force On Environmental Health Risks and Safety Risks to Children (January 1999). EPA's activities are designed to increase the understanding that children with asthma, parents, caregivers, health professionals, and school personnel have about the links between the condition of the indoor environment and asthma. Outreach and education efforts can empower the public to take voluntary actions to improve the quality of their indoor environment. EPA will continue to work in close collaboration with the HHS's CDC and the National Institutes of Health. EPA will continue its agreement with the Advertising Council to use television, print, and other media channels to educate the public about the seriousness of the asthma epidemic, and about the steps they can take to identify and reduce asthma triggers in their own environment. In addition, the Agency will continue its efforts to improve indoor air quality in Tribal lands.

Facilitate Prevention, Reduction and Recycling of PBT's and Toxic Chemicals

Pollution prevention and waste minimization require a comprehensive effort of minimizing the quantity and toxicity of waste generated by industries, the government and individual citizens. EPA's role includes several specific activities addressing industrial hazardous waste and municipal and industrial solid waste.

Preventing pollution can be cost-effective to industry in cases where it reduces excess raw materials and energy use. P2 can also reduce the need for expensive "end-of-pipe" treatment and disposal, enable firms to avoid potential liability, and support quality improvement incentives in place at facilities. Current EPA strategies include institutionalizing preventive approaches in EPA's regulatory, operating, and compliance/enforcement programs and facilitating the adoption of pollution prevention techniques by states, tribes, the academic community and industry.

One approach the Agency employs is the industrial sector-based focus that promotes cleaner technologies leading to a reduction of risks to health and the environment. EPA's DfE program works in partnership with industry to develop comparative risk, performance, and cost information about alternative technologies, chemicals, and processes in order to make environmentally informed business decisions.

EPA is a leader in reducing generation of municipal and industrial solid waste regulated under RCRA Subtitle D and in improving the recovery and conservation of materials and energy through source reduction and recycling. EPA encourages source reduction of municipal solid waste through its WasteWise program and encourages recycling and the recycling market through such programs as Pay As You Throw and Jobs Through Recycling. In addition, working with public and private sector stakeholders, EPA has promoted financing and technology opportunities for recycling/reuse businesses. In 2002, the Agency will serve as a catalyst

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for innovative source reduction and recycling in many industrial sectors, including waste reduction opportunities for construction and demolition debris, food wastes, tires, electronics equipment, carpet, transport packaging, and plastic beverage packaging.

In the hazardous waste arena, regulated under RCRA Subtitle C, the Agency is focusing on reducing the presence of the most PBT chemicals in hazardous waste by 50 percent by 2005 (compared to a 1991 baseline). This goal is consistent with other national and international priorities for reducing the presence of PBTs in the environment. In 2002 the Agency will encourage and support implementation at the regional, state and local levels through voluntary pollution prevention partnerships that make economic sense while they decrease human and environmental exposure to toxic wastes.

The Agency will continue reducing the barriers to safe recycling of hazardous waste through changes to recycling regulatory standards and ongoing outreach to stakeholders to explore additional options. The Agency will be focusing particularly on ways to increase safe hazardous waste recycling while reducing burden for small businesses such as printing, electronics recyclers, and metal finishing.

Assess Conditions in Indian Country

EPA places particular priority on working with Federally Recognized Indian Tribes on a government-to-government basis to improve environmental conditions in Indian country in a manner that affirms the vital trust

responsibility that EPA has with some 572 Tribal governments. The Agency will concentrate on building Tribal programs and completing a documented baseline assessment of environmental conditions for 38 percent of Tribes (covering 50 percent of Indian Country). These assessments will provide a blueprint for planning future activities identified in Tribal/EPA Environmental Agreements (TEAs) or similar tribal environmental plans to address and support priority environmental multi-media concerns in Indian country.

In 2002, EPA is requesting a total of \$52.5 million for Indian General Assistance Program grants. These resources will allow most Tribes to support at least one or two persons working in their community to build a strong, sustainable environment for the future. These people perform vital work by assessing the status of a Tribe's environmental condition and building an environmental program tailored to that Tribe's needs. Another key role of this workforce is to alert EPA of serious conditions requiring attention in the near term so that, in addition to assisting in the building of Tribal environmental capacity, EPA can work with the Tribe to respond to immediate public health and ecological threats.

EPA continues to consider additional approaches for how EPA and Indian Tribes might work together to protect public health and the environment in Indian Country. As part of that effort, EPA is proposing to continue authority granted in 2001 to enter into cooperative agreements with Tribes to assist EPA in implementing environmental programs in instances where the Tribe has not

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achieved primacy. Implementation of this approach would allow for a more gradual transition to full program authorization by allowing for varying degrees of Tribal involvement based on an individual Tribe's capabilities and interests. Agency-wide EPA Tribal funding has grown from about \$38 million to \$218 million in the last decade.

Research

Health effects research in 2002 will continue to focus on development of mechanistically-based predictive models for human health risk assessment, such as structure-activity-relationship models to help determine testing needs under Section 5 of TSCA, which addresses new chemicals. Research will also be conducted to address the needs for methods to evaluate the special sensitivities of certain subpopulations based on age, genetic factors and health status. Also, risk assessment research will continue to develop the tools, methodology, and data to conduct probabilistic assessments of ecological risk from exposure to pesticides, including the development of user friendly models that link distributions of exposure and toxicity to estimate the magnitude and probability of effects.

2002 Annual Performance Goals

- In 2002, divert an additional 1 percent (for a cumulative total of 31 percent or 69 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.3 pounds per day.
- In 2002, 848,000 additional people will be living in healthier residential indoor environments.
- In 2002, of the approximately 1,800 applications for new chemicals and microorganisms submitted by industry, ensure those marketed are safe for humans and the environment. Increase the proportion of commercial chemicals that have undergone pre-manufacturing notification (PMN) review to signify they are properly managed and may be potential green alternatives to existing chemicals.
- In 2002, the quantity of Toxic Release Inventory (TRI) pollutants released, disposed of, treated or combusted for energy recovery in 2002, (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2 percent, from 2001. This data will be reported in 2004.
- In 2002, 1,228,500 students, faculty and staff will experience improved indoor air quality in their schools.
- In 2002, implementation of 10-15 model agricultural partnership projects that demonstrate and facilitate the adoption of farm management decisions and practices that provide growers with a "reasonable transition" away from the highest risk pesticides.
- In 2002, implement certification and training of lead abatement professionals.

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- In 2002, baseline environmental information will be collected for 38 percent of tribes (covering 50 percent of Indian Country).
- In 2002, EPA will make publicly available screening level hazard data and Assessments for eight percent of the 2,800 High Production Volume chemicals, as part of the Agency's implementation of a comprehensive strategy for screening, testing, classifying and managing the potential risks posed by commercial chemicals.

Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

Goal 4: Preventing Pollution Key Programs

(dollars in thousands)

<u>Key Program</u>	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>
Administrative Services	\$2,322.2	\$1,860.5
Air, State, Local and Tribal Assistance Grants: Other Air Grants	\$8,139.9	\$8,139.9
Children's Indoor Environments	\$14,714.1	\$13,624.1
Common Sense Initiative	\$385.2	\$0.0
Design for the Environment	\$4,976.8	\$4,979.0
Endocrine Disruptor Screening Program	\$4,362.6	\$3,662.3
Environmental Monitoring and Assessment Program, EMAP	\$143.0	\$148.0
Existing Chemical Data, Screening, Testing and Management	\$24,429.6	\$25,423.4
Grants to States for Lead Risk Reduction	\$12,472.4	\$13,682.0
Indoor Environments	\$7,469.4	\$7,576.3
Lead Risk Reduction Program	\$14,248.6	\$14,519.4
National Program chemicals: PCBs, Asbestos, Fibers, and Dioxin	\$6,115.1	\$6,388.9
New Chemical Review	\$14,147.4	\$14,622.7
Pesticide Applicator Certification and Training	\$10,022.5	\$10,349.1
Pesticide Registration	\$11,986.5	\$11,383.3
Pesticide Reregistration	\$2,787.0	\$2,811.3
Pesticides Program Implementation Grant	\$13,085.5	\$13,085.5
Pollution Prevention Incentive Grants to States	\$5,986.3	\$5,986.3
Pollution Prevention Program	\$8,608.9	\$8,871.5
Radon	\$6,562.7	\$6,733.0
RCRA State Grants	\$3,066.2	\$3,066.2
Recycling	\$3,351.1	\$3,712.7
Regional Management	\$529.1	\$579.9
Rent, Utilities and Security	\$1,270.3	\$4,345.6
Source Reduction	\$1,883.3	\$2,052.7
Tribal General Assistance Grants	\$52,469.7	\$52,469.7
Waste Minimization	\$1,979.9	\$2,120.0



GOAL 5:

***Better Waste
Management,
Restoration of
Contaminated
Waste Sites, and
Emergency Response***



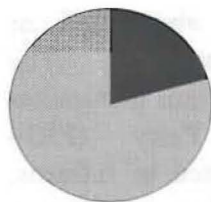
GOAL 2:

Better Waste
Management,
Restoration of
Contaminated
Waste Sites, and
Emergency Response



Goal 5: Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

Goal 5: 20.6%



Strategic Goal: America's wastes will be stored, treated, and disposed of in ways that prevent harm to people and the natural environment. EPA will work to clean up previously polluted sites, restore them to uses appropriate for surrounding communities, and respond to and prevent waste-related or industrial accidents.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response	\$1,517,539.9	\$1,510,758.2	(\$6,781.7)
Control Risks from Contaminated Sites and Respond to Emergencies	\$1,352,907.6	\$1,347,067.2	(\$5,840.4)
Regulate Facilities to Prevent Releases	\$164,632.3	\$163,691.0	(\$941.3)
Workyears	4,396.1	4,265.8	(130.3)

Means and Strategy

EPA and its partners will continue their efforts to achieve this goal by promoting better waste management, cleaning up contaminated waste sites, and preventing waste-related or industrial accidents. To date, EPA and its partners have made significant progress toward achieving its two primary objectives that address human health and the environment at thousands of Superfund, Brownfields, Resource Conservation and Recovery Act (RCRA), underground storage tank (UST), and oil sites. Brought together by

our common interest to protect health, environment, and livelihoods, EPA and its partners have established an effective structure to manage the nation's hazardous and solid wastes.

One of the objectives of this Goal is to reduce or control the unacceptable risks posed to human health and the environment through better waste management and restoration of abandoned waste sites. In partnership with states, tribal governments, the public, and other stakeholders, EPA will reduce or control the risks to human health and the environment at thousands of Superfund, Brownfields,

Goal 5: Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

RCRA, and UST sites. EPA's strategy is to apply the fastest, most effective waste management and cleanup methods available, while involving affected communities in the decision making process. The Agency will employ enforcement efforts to further assist in reducing risk to humans from hazardous waste exposure.

The Agency recently established objectives specific to Indian tribes to achieve EPA's strategic goal for better waste management in Indian Country and Alaska Native Villages. These objectives stress clean up and prevention assistance to tribes. In meeting these objectives for the Agency's programs, EPA will identify tribal needs, support and promote the involvement of tribes in implementation activities, and control risks in Indian Country through assessment and clean up of contaminated sites in consultation and partnership with tribes.

To accomplish its Superfund objectives, EPA works with states, tribes, local governments, and other federal agencies to protect human health and the environment and to restore sites to uses appropriate for the nearby communities. Site assessment is the first step in determining whether a site meets the criteria for placement on the National Priorities List (NPL) or for removal action to prevent, minimize or mitigate significant threats. The Agency also provides outreach and education to the surrounding communities to improve their direct involvement in every phase of the cleanup process and understanding of potential site risk, such as risks posed by radioactive materials.

One of the Superfund program's major goals is to have responsible parties pay for

and conduct cleanups at abandoned or uncontrolled hazardous waste sites. The Superfund enforcement program maximizes Potentially Responsible Party (PRP) participation and is committed to reforms, which increase fairness, reduce transaction costs and promote economic redevelopment. The Agency also seeks to recover costs associated with a site cleanup from responsible parties when Superfund trust fund monies have been expended.

EPA and its partners will support the cleanup and redevelopment of brownfields communities. Brownfields are abandoned, idled, or underused industrial and commercial properties and are not traditional Superfund sites as they are not generally highly contaminated and 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 initiative encourages the redevelopment of these sites by addressing concerns such as environmental liability and cleanup, infrastructure declines, and changing development priorities.

A significant number of industrial sites, including Federally-owned facilities, are addressed by the RCRA corrective action program, administered by EPA and authorized states. These sites include some of the most intractable and controversial cleanup projects in the country. Approximately 3,500 industrial facilities must undergo a cleanup under the RCRA program. Of these facilities, EPA and state partners have identified over 1,700 facilities as high priority – where people or the environment are likely to be at significant current or potential risk. As evidence of success in meeting this challenge,

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500 out of the 1700 high priority facilities have recently documented that both exposure to contamination and further migration of contaminated groundwater have been controlled. Furthermore, the RCRA corrective action program continues to emphasize redevelopment of RCRA "Brownfields" sites.

To accomplish its leaking underground storage tanks (LUST) objectives, the Agency promotes rapid and effective responses to releases from underground storage tanks (USTs) containing petroleum by enhancing state, local, and tribal enforcement and response capability. The Agency's highest priorities in the LUST program over the next several years will be to address the backlog of approximately 160,000 cleanups, and to address LUST sites that are difficult to remediate because they are contaminated by methyl tertiary butyl ether (MTBE) and other oxygenates. The LUST program addresses the threat to groundwater from leaking underground storage tanks that contain petroleum by guiding UST owners and operators to take appropriate measures to clean up releases. The goal is to promote corrective action in partnership with the states to address these cleanup challenges, including those posed by MTBE releases. Nearly all corrective actions are undertaken by UST owners and operators under the supervision of state or local agencies. The Agency oversees these activities in Indian Country.

As part of EPA's efforts to ensure the LUST cleanup goals are achieved, the Agency will also promote the cleanups of USTFields. USTFields are abandoned or underused industrial and commercial properties where redevelopment is complicated by real or

perceived environmental contamination from federally-regulated USTs. USTFields pilots demonstrate what can be done to bring more petroleum-impacted Brownfields sites back into productive use for ecological, economic, recreational, or other beneficial purposes.

The other objective of this Goal is to prevent, reduce, and respond to releases, spills, accidents or emergencies. Through the UST and RCRA permitting and inspection programs, the Agency and its partners oversee the practices of thousands of facilities. When releases do occur, EPA employees and those of its partners, who are properly trained and properly equipped, will ensure that the Agency's objective is met by having the capability to successfully respond.

In partnership with the states, the Agency prevents releases, detects releases early in the event they occur, and addresses leaks from USTs containing petroleum and hazardous substances. The strategy for achieving this goal is to promote and enforce compliance with the regulatory requirements aimed at preventing and detecting UST releases, thereby protecting our Nation's groundwater. While the vast majority of the 714,000 active USTs have the proper equipment per federal regulation, significant work still remains to ensure UST owners and operators properly maintain and operate their systems. The Agency's role is to work with states to promote compliance with the spill, overfill, and corrosion protection requirements, and ensure that the leak detection requirements continue to be a national priority. This encompasses compliance for all federally regulated UST systems, including those on private and public property, Tribal lands, and Federal facilities.

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The Agency has primary responsibility for implementation of the UST program in Indian Country.

For facilities that currently manage hazardous wastes, EPA ensures human health and environmental protection through the issuance of RCRA hazardous waste permits. The RCRA program works with state partners to reduce the risks of exposures to dangerous hazardous wastes by establishing a “cradle-to-grave” waste management framework. This framework regulates the handling, transport, treatment, storage, and disposal of hazardous waste, ensuring that communities are not exposed to hazards through improper management. Hazardous waste management facilities with appropriate controls in place have made significant progress in minimizing the threat of exposure to hazardous substances. To date, 47 states, Guam and the District of Columbia are authorized to issue permits. State authorization for all portions of the RCRA program, including regulations that address waste management issues included in permits, is an important Agency goal. In addition, the Agency has developed a strategy to address solid waste and hazardous waste on Indian lands. A highlight of this strategy is the interagency project with the Indian Health Service and the Bureau of Indian Affairs to address issues surrounding open dumps and their cleanup, the primary waste management concern for tribes.

The Agency’s chemical emergency preparedness and prevention program addresses some of the risks associated with the manufacture, transportation, storage and use of hazardous chemicals to prevent and mitigate chemical releases. The program also

implements right-to-know initiatives to inform the public about chemical hazards and encourages actions at the local level to reduce risk. Section 112(r) of the Clean Air Act requires an estimated 16,000 facilities to develop comprehensive risk management plans (RMPs) and submit them to EPA, state agencies, and Local Emergency Planning Committees. The Agency believes that states are best suited to implement the RMP program because they benefit directly from its success and they often have established relationships with the communities that may be at risk.

The oil spill program prevents, prepares for, and responds to oil spills mandated and authorized in the Clean Water Act and Oil Pollution Act of 1990. EPA utilizes its appropriated dollars to protect inland waterways through oil spill prevention, preparedness, and enforcement compliance. There are 450,000 non-transportation-related oil storage facilities that EPA regulates. When necessary, the Agency undertakes oil spill response which is funded through a reimbursable agreement with the U.S. Coast Guard.

Research

The 2002 research program supports the Agency’s objective of reducing or controlling potential risks to human health and the environment at contaminated waste sites by accelerating scientifically defensible and cost-effective decisions for cleanup at complex sites, mining sites, marine spills, and Brownfields in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),

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commonly known as Superfund. The research program will: 1) provide improved methods and dose-response models for estimating risks from complex mixtures contaminating soils and groundwater; 2) provide improved methods for measuring, monitoring, and characterizing complex waste sites in terms of soils and groundwater; and 3) develop more reliable technologies for cleanup of contaminated soils and groundwater. The Superfund Innovative Technology Program (SITE) fosters the development, use, and acceptance of lower cost characterization and cleanup technologies. In 2002, EPA will deliver the annual SITE report to Congress, which provides program/project status and cost savings information.

EPA regulates waste identification, waste management, and combustion under RCRA. These programs constitute the three major areas of research under RCRA in 2002 as the Agency works towards preventing releases through proper facility management. Waste identification research will focus on multimedia, multi-pathway exposure modeling and environmental fate and transport-physical estimation in support of risk-based exemption levels for wastes; development of targeted exemptions of waste streams that do not pose unacceptable risks; and efforts to streamline the waste delisting process. These risk-based efforts could significantly reduce compliance costs while maintaining EPA's goal to protect human health and the environment. Waste management research will focus on developing more cost-effective ways to manage/recycle non-hazardous wastes and will examine other remediation technologies, while combustion research will continue to

focus on characterizing and controlling releases of metals from waste combustion.

Highlights

In 2002, EPA and state cleanup actions will protect human health by reducing the effects of uncontrolled releases on local populations and sensitive environments. The Agency will build on past successes in cleaning up sites. The following accomplishments provide examples of what has been done by the Agency to achieve its goal:

- Cleaned up 757 Superfund NPL Sites through 2000;
- Completed over 6,200 Superfund removal response actions from 1982 through 2000;
- Secured PRP commitments, over the life of the Superfund program, with an estimated value of over \$18 billion (over \$14.9 billion in response settlements and more than \$3.1 billion in cost recovery settlements);
- Resolved potential liability of 22,800 small volume waste contributing parties through 460 de minimis settlements;
- Responded to an average of 70 oil spills and monitored 130 oil spill cleanups in a typical year;
- Signed more than 360 agreements for brownfields assessment pilots, over 100 agreements for brownfields

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cleanup revolving loan fund, and 37 for job training through 2000;

- 504 of approximately 1,700 high priority RCRA sites targeted for aggressive risk reduction have met GPRA Environmental Indicator goals;
- 65 percent of approximately 2,750 hazardous waste management facilities have controls in place;
- 86 percent of USTs are in compliance with the 1998 deadline requirements;
- Cleaned up 250,000 leaking underground storage tanks since 1987;
- Funded 10 USTFields pilots.

In 2002, EPA will complete construction at 65 private and Federal Superfund sites for a cumulative total of 897. The Agency will also take action to address contamination at 285 sites using removal authorities. The Superfund enforcement program will also obtain PRP commitments to initiate work at 70 percent of construction starts at non-Federal facility sites on the NPL and to conduct or fund removals.

In 2002, the Superfund redevelopment initiative will facilitate the return of additional Superfund sites to productive reuse. The Agency has compiled a list of over 190 Superfund sites that have been recycled. At these sites, more than 13,000 acres are now in ecological or recreational use. Approximately 14,500 jobs, representing more than \$450 million in annual income are located at sites that have been recycled for commercial use.

The Agency is working to improve its response capability, workforce safety, and coordination with its federal and local partners to support the national effort of responding to a terrorist event. Terrorist threats could include biological, chemical and radiological attacks on populations in the United States.

The Brownfields Initiative coordinates federal and state efforts to address environmental site assessment and cleanup. EPA's Brownfields program has experienced a growth in applications for new and supplemental pilots, averaging 198 applications per year. In 2002, half of the \$5 million new investment in brownfields will be used to award additional assessment demonstration pilots with the funds going directly to states, tribes, and local governments. The Agency will provide funding and technical support to 38 new assessment demonstration pilots and 38 existing assessment demonstration pilots. These pilots provide states (including U.S. territories), political subdivisions (including cities, towns, and counties), and Federally recognized tribes with useful information and new strategies for promoting a unified approach to environmental site assessment and characterization, and redevelopment. In addition, the Agency and its Federal partners will continue to support the existing 28 showcase community pilots which serve as models to demonstrate the benefits of interagency cooperative efforts in addressing environmental and economic issues related to brownfields. The showcase communities capitalize on a multi-agency partnership designed to provide a wide range of support depending on the particular needs of each community. In addition, the President's

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budget proposes that the Brownfields tax incentive be made permanent.

The Agency will also provide funding to states for activities that are part of brownfields site assessment pilots. These activities include facilitating communication among brownfields pilots and with state environmental authorities. In addition, the Agency will provide funding for the development or enhancement of state voluntary cleanup programs. The 2002 request for the Brownfields program will increase funding to the states for voluntary cleanup programs and targeted brownfields assessments.

To further enhance communities' capacities to respond to Brownfields redevelopment, the Agency will award brownfields cleanup revolving loan funds (BCRLF) pilots to 29 communities. All communities with brownfields properties are eligible to apply. EPA offers grants to governmental entities which may discount loans to nonprofit or other government entities. In addition, EPA will award 10 job training pilots for community residents and will provide \$3,000,000 to the National Institute of Environmental Health Sciences to supplement its minority worker training programs that focus on brownfields workforce development activities. In addition, EPA will continue to explore connections between RCRA low-priority corrective action efforts and cleanup of brownfields properties.

In 2002, 172 additional high priority RCRA facilities will have current human exposures under control and 172 additional high priority RCRA facilities will have

migration of contaminated groundwater under control. To accomplish its RCRA objectives, the Agency has improved the pace of cleanups through administrative reforms announced in 1999 and 2001. The 1999 reforms successfully established an environment for program implementers to be innovative and results-oriented. To reinforce and build upon the 1999 reforms, the Agency announced a second round of administrative reforms in 2001 with the theme of "fostering creative solutions." The Agency developed these reforms, with input from states, industry and environmental organizations, to accomplish the following objectives: pilot innovative approaches, accelerate the changing culture, connect communities to cleanups, and capitalize on redevelopment potential. As evidence of the success of the reform effort thus far, EPA recently announced that 500 high-priority facilities had met both GPRA goals.

In 2002, the RCRA hazardous waste permits program will have permits or other approved controls in place for 82 additional RCRA hazardous waste management facilities for a cumulative total of 71 percent of the universe (2,750 facilities). These efforts minimize the threat of exposure to hazardous substances because the RCRA program's comprehensive framework regulates the handling, transport, treatment, storage, and disposal of hazardous waste.

The Agency has several efforts underway to reform the RCRA program so that it better reflects actual levels of risk. The hazardous waste identification rule and follow-up efforts seek to exclude lower risk wastes from hazardous waste regulation. In

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2002, the Agency plans to develop exemptions for specific low-concern wastes as well as concentration-based exemption levels for constituents occurring in hazardous wastes. The Agency is working to improve test methods under its toxic constituent leaching procedure to better evaluate waste leaching potential for assessing whether a waste should be classified as hazardous and the effectiveness of treatment.

As the maximum achievable control technology (MACT) standards for hazardous waste incinerators and kilns are implemented, emissions of dioxins, furans, toxic metals, acid gases and particulate matter from these sources will be reduced. These efforts are intended to further reduce the indirect exposure to hazardous constituents in emissions, especially to children. Implementation efforts accelerate in 2001 and focus on the transition from RCRA to Clean Air Act (CAA)/ MACT air emissions permitting and tracking of facility progress. In 2000, the Agency initiated work on Phase II MACT standards for hazardous waste burning boilers and halogen acid furnaces. The Agency plans to propose the Phase II rule in 2002 to address emissions of dioxins, furans, toxic metals, and particulate matter.

In 2002, the Agency will work with states and industry to complete voluntary guidelines for industrial non-hazardous waste management and will begin implementation. These voluntary guidelines address a range of issues including groundwater contamination, air emissions, and alternatives to waste disposal.

Based on EPA's minimum national standards for municipal solid waste (MSW), states regulate landfill practices. The Agency has worked with states to review the national standards and is initiating regulatory revisions to provide additional flexibility so that compliance is less costly and easier to achieve.

In 2002, the Agency's LUST program will create and foster improved federal, state and local partnership efforts to assess, cleanup, and help coordinate the redevelopment of UST/field tank sites. The Agency will work with states to increase the pace at which LUST cleanups are initiated and completed, especially in respect to MTBE releases. The Agency's goal is to ensure that 23,000 LUSTs are cleaned up in conjunction with EPA's state, local, and tribal partners.

Reducing chemical accidents is vital to ensure that communities are not exposed to hazardous materials. The Agency continues its efforts to help states and local emergency planning committees implement the risk management plan (RMP) program. EPA has made steady progress in this area and, in 2002, it will delegate the program to two additional states for a cumulative total of seventeen. To reach this goal, EPA will provide technical assistance grants, technical support, outreach, and training to state and local emergency planning committees. Through these activities, states, local communities and individuals will be better prepared to prevent and prepare for chemical accidents.

Oil spills pose risks to human health and the environment. The Federal oil spill

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program prevents, responds to and monitors oil spills that occur in the waters of the United States and adjoining shorelines. Over 24,000 spills are reported annually, about half of these in the inland zone which is EPA's jurisdiction. EPA responds to approximately 70 significant spills a year and monitors the work of others at approximately 130 additional spills a year. To reduce the risk of hazardous exposure to people and the environment, the Agency aims to prevent oil spills from occurring, prepare for oil spills that do occur, and respond to spills when necessary.

Research

In 2002, contaminated sites research will be conducted to: 1) reduce uncertainties associated with soil/groundwater sampling and analysis and to reduce the time and cost associated with site characterization and site remediation activities; 2) evaluate the magnitude of the risks posed by contaminants to human health and the ecosystem, the contributions of multiple exposure pathways, the bioavailability of adsorbed contaminants and treatment residuals and the toxicological properties of contaminant mixtures; and 3) develop and demonstrate more effective and less costly remediation technologies involving complex sites and hard-to-treat wastes.

Waste Management research will support the Hazardous Waste Identification Rule (HWIR) and the study of improved ways to minimize waste releases and impacts. In 2002, research will focus on reducing the uncertainty associated with exposure assessment model predictions by providing improved data and models for quantifying

pollutant interactions in a variety of natural systems. In addition, EPA plans to develop additional targeted exemptions from the hazardous waste mixture and derived from rules, as part of its efforts to better estimate risk and regulatory standards. The research also provides consultation on sampling and sample design related to compliance with proposed exit levels (levels below which a waste is excluded from regulation) in support of the HWIR. In 2002, EPA plans to update the HWIR99 modeling methodology for delisting hazardous wastes. Additionally, waste management research will be conducted to improve the management of both solid and hazardous wastes. This includes development and/or evaluation of more cost-effective waste treatment, containment, and recycling processes, along with technical guidance on their design and implementation.

2002 Annual Performance Goals

- In 2002, 172 (for a cumulative total of 986 or 57 percent) of high priority RCRA facilities will have human exposures controlled and 172 (for a cumulative total of 909 or 53 percent) of high priority RCRA facilities will have groundwater releases controlled.
- In 2002, 82 additional hazardous waste management facilities will have approved controls in place to prevent dangerous releases to air, soil, and groundwater, for a total of 71 percent of 2,750 facilities.
- In 2002, EPA and its partners will complete 23,000 Leaking

Goal 5: Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

- Underground Storage Tank (LUST) cleanups for a cumulative total of approximately 294,000 cleanups since 1987.
- In 2002, EPA will provide additional site assessment funding to 38 new communities, and to 38 existing communities, resulting in a cumulative total of 2,750 properties assessed, the generation of 14,000 jobs, and the leveraging of \$3.4 billion in cleanup and redevelopment funds since 1995.
 - In 2002, EPA and its state and tribal partners will achieve levels of 75 percent UST compliance with EPA/State leak detection requirements; and 96 percent of UST compliance with EPA/State December 22, 1998 requirements to upgrade, close or replace substandard tanks. (EPA is in the process of changing the way it measures compliance, including changing from a per tank, to a per facility basis.)
 - In 2002, EPA and its partners will complete 65 Superfund cleanups (construction completions) to achieve the overall goal of 897 construction completions by the end of 2002.
 - In 2002, 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 2002, maximize all aspects of PRP participation which includes maintaining PRP work at 70 percent of the new remedial construction starts at non-Federal Facility Superfund, and emphasize fairness in the settlement process
 - In 2002, continue to make formerly contaminated parcels of land available for residential, commercial, and industrial reuse by addressing liability concerns through the issuance of comfort letters and Prospective Purchaser Agreements (PPAs).
 - In 2002, certify that 6,000 55 gallon drums of radioactive waste (containing approximately 18,000 curies) shipped by DOE to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards.
 - In 2002, provide at least six innovative approaches that reduce human health and ecosystem exposures from DNAPLs and MTBE in soils and groundwater, and from oil and persistent organics in aquatic systems.
 - In 2002, within 18 months after final listing on the NPL, EPA will make a final offer for an interagency agreement (IAG) that is consistent with Agency policy and guidance at 100 percent of Federal facility Superfund sites.

Goal 5: Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

Goal 5: Waste Management Key Programs

(dollars in thousands)

	FY 2001	FY 2002
	Enacted	President's Budget
<u>Key Program</u>		
Administrative Services	\$22,287.1	\$23,064.0
Assessments	\$82,701.5	\$77,651.3
Brownfields	\$92,608.6	\$97,420.5
Civil Enforcement	\$1,264.7	\$1,363.8
Community Right to Know (Title III)	\$5,207.8	\$5,136.8
Compliance Assistance and Centers	\$785.8	\$778.4
EMPACT	\$160.5	\$0.0
Federal Facilities	\$30,624.6	\$30,795.2
Federal Preparedness	\$12,859.3	\$12,963.4
Hazardous Substance Research: Hazardous Substance Research Centers	\$4,527.7	\$4,606.0
Hazardous Substance Research: Superfund Innovative Technology Evaluation (SITE)	\$6,554.0	\$6,636.9
Hazardous Waste Research	\$6,990.0	\$8,994.1
Leaking Underground Storage Tanks (LUST) Cooperative Agreements	\$58,341.3	\$58,269.3
Oil Spills Preparedness, Prevention and Response	\$11,948.9	\$11,943.5
Other Federal Agency Superfund Support	\$10,676.5	\$10,676.5
Planning and Resource Management	\$26.4	\$26.4
Project XL	\$126.4	\$144.6
RCRA Corrective Action	\$40,622.3	\$41,183.2
RCRA Permitting	\$14,309.0	\$16,889.0
RCRA State Grants	\$60,169.8	\$60,169.8
Regional Management	\$9,695.2	\$9,247.9
Rent, Utilities and Security	\$53,497.2	\$53,844.6
Risk Management Plans	\$8,041.8	\$7,643.9
Superfund - Cost Recovery	\$29,495.5	\$28,121.1
Superfund - Justice Support	\$28,437.3	\$28,150.0
Superfund - Maximize PRP Involvement (including reforms)	\$81,473.8	\$78,355.7
Superfund Remedial Actions	\$492,045.7	\$492,408.2
Superfund Removal Actions	\$198,638.1	\$202,618.8
Underground Storage Tanks (UST)	\$7,043.4	\$7,190.2
UST State Grants	\$11,918.4	\$11,918.4
Waste Combustion	\$4,302.2	\$5,423.1



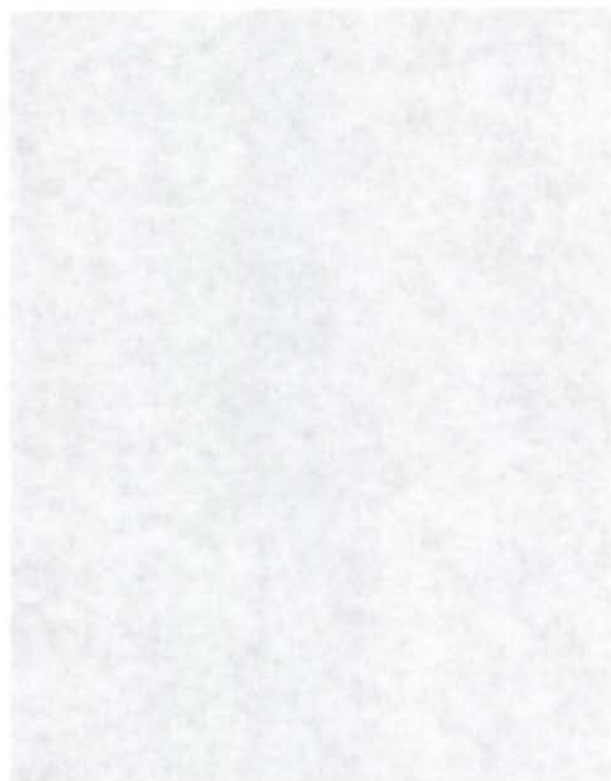
GOAL 6:

***Reduction of Global
and Cross-Border
Environmental Risks***



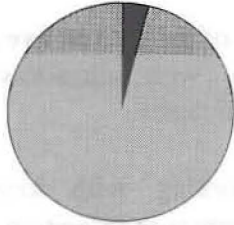
GOAL 6:

Reduction of Global
and Cross-Border
Environmental Risks



Goal 6: Reduction of Global and Cross-Border Environmental Risks

Goal 6: 3.9%



Strategic Goal: The United States will lead other nations in successful, multilateral efforts to reduce significant risks to human health and ecosystems from climate change, stratospheric ozone depletion, and other hazards of international concern.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Reduction of Global and Cross-border Environmental Risks	\$284,410.8	\$282,698.9	(\$1,711.9)
Reduce Transboundary Threats to Human and Ecosystem Health in North America	\$96,077.3	\$95,677.8	(\$399.5)
Reduce Greenhouse Gas Emissions	\$155,286.2	\$153,828.0	(\$1,458.2)
Reduce Stratospheric Ozone Depletion	\$17,249.9	\$17,115.3	(\$134.6)
Protect Human Health and Ecosystems from PBTs and other Toxics	\$4,636.1	\$4,809.7	\$173.6
Increase Domestic and International Use of Cleaner and More Cost-Effective Technologies	\$11,161.3	\$11,268.1	\$106.8
Workyears	521.0	506.6	(14.4)

Means and Strategy

To reduce environmental and human health risks along the U.S./Mexico Border and the Great Lakes, EPA employs both voluntary and regulatory measures. Efforts in the U.S./Mexico Border Area utilize a series of

workgroups that focus on priority issues ranging from water infrastructure and hazardous waste to outreach efforts focusing on communities and businesses in the border area. In the Great Lakes Basin, our strategy targets multimedia problems through monitoring and/or modeling efforts such as the Great Waters atmospheric deposition

Goal 6: Reduction of Global and Cross-Border Environmental Risks

program, the Integrated Atmospheric Deposition Network, and the Great Lakes National Program Office's (GLNPO) open water monitoring. Through these means, federal, state, tribal, and provincial environmental organizations are targeting their Great Lakes efforts and utilizing all available authorities in order to achieve restoration of these areas.

To prevent degradation of the marine environment, the Agency — in conjunction with the Department of State, the National Oceanic and Atmospheric Administration (NOAA), and other Federal agencies — is focusing on the negotiation and implementation of legally-binding multilateral agreements. These agreements are designed to address sources of marine pollution that impact the United States.

EPA will meet its climate change objectives by working with business and other sectors to deliver multiple benefits — from cleaner air to lower energy bills — while improving overall scientific understanding of climate change and its potential consequences. The core of EPA's climate change efforts are government/industry partnership programs designed to capitalize on the tremendous opportunities available to consumers, businesses, and organizations to make sound investments in efficient equipment and practices. These voluntary programs remove barriers in the marketplace, resulting in faster deployment of energy efficient technology into the residential, commercial, transportation, and industrial sectors of the economy. For example, the Partnership for a New Generation of Vehicles (PNGV) joins EPA and four other Federal agencies with Ford, General Motors, and DaimlerChrysler to

develop a new generation of safe, attractive, and affordable vehicles with ultra-low emissions and high-fuel efficiency.

EPA is also working with key developing countries, economies-in-transition, and regional groups to reduce greenhouse gas emissions through programs that focus on information and outreach, financing, energy efficiency, air quality, and technology transfer.

In order to restore and protect the earth's stratospheric ozone layer, EPA will work on both domestic and international fronts to limit the production and use of ozone-depleting substances (ODSs) and to develop safe alternative compounds. EPA will also provide education about the risk of environmental and health consequences of overexposure to ultraviolet (UV) radiation.

To address the risks associated with persistent and bioaccumulative substances and other toxics, the Agency employs two fundamental approaches. The first approach seeks to minimize the harmful impacts of toxic substances, known to circulate in the environment over long distances, through the negotiation and implementation of specific treaties. The second approach focuses on the cooperative efforts of the Organization for Economic Cooperation and Development (OECD) and other international organizations working to develop harmonized methods for testing and assessing the toxicity of chemicals and for measuring the effects of chemicals to humans and the environment.

In addition to the specific strategies noted above, the Agency employs a variety of

Goal 6: Reduction of Global and Cross-Border Environmental Risks

means to achieve the environmental objectives outlined in this goal. These include:

- Implementing formal bilateral and multilateral environmental agreements with key countries; executing environmental components of key foreign policy initiatives; and, in partnership with the Department of State, engaging in regional and global negotiations aimed at reducing risks via formal and informal agreements.
- Cooperating with other countries to ensure that domestic and international environmental laws, policies, and priorities are recognized and implemented.
- Cooperating with other Federal agencies, states, businesses, and environmental groups to promote the flow of environmentally sustainable technologies and services worldwide.

Research

EPA is working to assess the vulnerability of human health and ecosystems to various environmental stressors (e.g., climate change, land-use change, UV radiation) at the regional scale, and to assess adaptation strategies. The knowledge gained from these assessments (e.g., the impacts climate change could have on the spread of vector-borne and water-borne disease, as well as air and water quality), will allow policy makers to find the most appropriate, science-based solutions to reduce risks to human health and ecosystems posed by climate change.

Highlights

EPA's continued leadership is necessary to build international cooperation and technical capacity essential in preventing harm to the global environment and ecosystems we share with other nations. In 2002, EPA will use a variety of approaches to prevent harm to the global environment and ecosystems.

The Agency will host representatives of foreign governments, industry, and Non-governmental Organizations (NGOs) at the Agency's Headquarters, Regions, and labs. The Agency will also disseminate thousands of technical publications and CD-ROMs to developing countries and provide access to additional information through technical training courses, the Office of International Activities web site, the Spanish Language Resources site, and other services.

EPA will work directly with other countries and through multilateral organizations to share innovative practices for environmental management and to disseminate environmental information. These programs build the capacity of developing countries to improve quality of life for their citizens, while also providing reciprocal benefits to U.S. citizens. These benefits include: the introduction of new techniques for managing urban environments; reduced environmental damage to the global commons; reduced costs and effort through data sharing; an increased demand for U.S. environmental technologies and services; and, the implementation of more transparent enforcement and permitting regimes.

Goal 6: Reduction of Global and Cross-Border Environmental Risks

To reduce environmental and human health risks along the U.S./Mexico Border, EPA will continue its work with the border states and Mexico to target the quality of air, drinking water and wastewater treatment, and hazardous waste management and disposal. Nine working groups will address key issues while working closely with state and local agencies on both sides of the border. EPA will also continue to support the financing and construction of water, wastewater treatment, and solid waste facilities.

EPA, through GLNPO, will coordinate implementation of the ecosystem approach in the Great Lakes by its Federal, state, tribal, and local partners, fully implementing a "community-based" approach. GLNPO and its partners will act consistently with the goals of the Great Lakes Strategy and the Agency's Strategic Plan. EPA, states, and local communities will strategically target reductions of critical pollutants through Remedial Action Plans for Areas of Concern and through Lakewide Management Plans for Lakes Ontario, Michigan, Superior, and Erie.

Recognizing that no single country can resolve the problem of global climate change, EPA will help facilitate the international cooperation necessary to achieve the stabilization of greenhouse gas concentrations. The 1992 Framework Convention on Climate Change (FCCC) set the objective of stabilizing greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system. On the domestic side, EPA will encourage voluntary partnerships, provide technical assistance, and promote

state and local efforts to achieve future greenhouse gas emission reductions.

To protect the earth's stratospheric ozone layer in accordance with the United States' commitment to the Montreal Protocol, EPA will continue to regulate ozone-depleting compounds, foster the development and use of alternative chemicals in the U.S. and abroad, inform the public about the dangers of overexposure to UV radiation, and use pollution prevention strategies to require the recycling of ODSs and hydrofluorocarbons (HFCs).

Reduced risks from toxics, especially persistent organic pollutants (POPs) and selected metals that circulate in the environment at global and regional scales, will be achieved by working with other countries — within the frameworks established by international instruments — to control the production or phase-out from the use of targeted chemicals. EPA is also working to reach agreement on import and export requirements applicable to certain chemicals, an expansion of pollutant release and transfer registers, and the harmonization of chemical testing, assessment, and labeling procedures. The goal of international harmonization of test guidelines is to reduce the burden on chemical companies of repeated testing in satisfying the regulatory requirements of different jurisdictions both within the United States and internationally. Harmonization also expands the universe of toxic chemicals for which needed testing information is available, and fosters efficiency in international information exchange and mutual international acceptance of chemical test data. EPA will continue to cooperate closely with other Federal agencies

Goal 6: Reduction of Global and Cross-Border Environmental Risks

and with other industrialized nations within the program framework of the OECD in harmonizing testing guidelines.

The U.S. is working with other OECD member countries to implement the International Screening Information Data Set (SIDS) program, a voluntary international cooperative testing program begun in 1990. The program focuses on developing base-level test information (including data on basic chemistry, environmental fate, environmental effects, and health effects) for international high production volume chemicals. SIDS data will be used to screen chemicals and to set priorities for further testing and/or assessment. The Agency will review testing needs for 95 SIDS chemicals in 2002.

The United States expects to sign, in 2001, the legally-binding Stockholm Convention on POPs, substances such as dichlorodiphenyltrichloroethane (DDT), polychlorinated Biphenyl (PCBs) and dioxins. These substances travel great distances in the environment and thus threaten humans and the ecosystem in the United States, even though we have long worked domestically to reduce releases into the environment. This convention will require ratifying countries to reduce and/or eliminate their production, use, and/or release of specified POPs. To ensure that developing countries comply with obligations under this convention, the United States is working with the Global Environment Facility (a joint funding program run by the World Bank, the United Nations Environment Program, and the United Nations Development Program) to carry out capacity building programs in developing countries.

Research

EPA will assess the possible effects of global change, such as changes in climate and climate variability, changes in land use, and changes in UV radiation on air quality, water quality, ecosystem health, and human health. EPA will also examine possible adaptation strategies that could enable communities to take advantage of opportunities and reduce the potential risks associated with global change. The outcome of these assessments will help inform decision-making regarding strategies to address these possible changes.

2002 Annual Performance Goals

- In 2002, Great Lakes ecosystem components will improve, including progress on fish contaminants, beach toxics, air toxics, and trophic status.
- In 2002, increase the number of residents in the Mexico border area who are protected from health risks, beach pollution, and damaged ecosystems from nonexistent and failing water and wastewater treatment infrastructure by providing improved water and wastewater service.
- In 2002, greenhouse gas emissions will be reduced from projected levels by approximately 73 million metric tons carbon equivalent (MMTCE) per year through EPA partnerships with businesses, schools, state and local governments, and other organizations, thereby offsetting growth in greenhouse gas emissions above 1990 levels by about 20 percent.

Goal 6: Reduction of Global and Cross-Border Environmental Risks

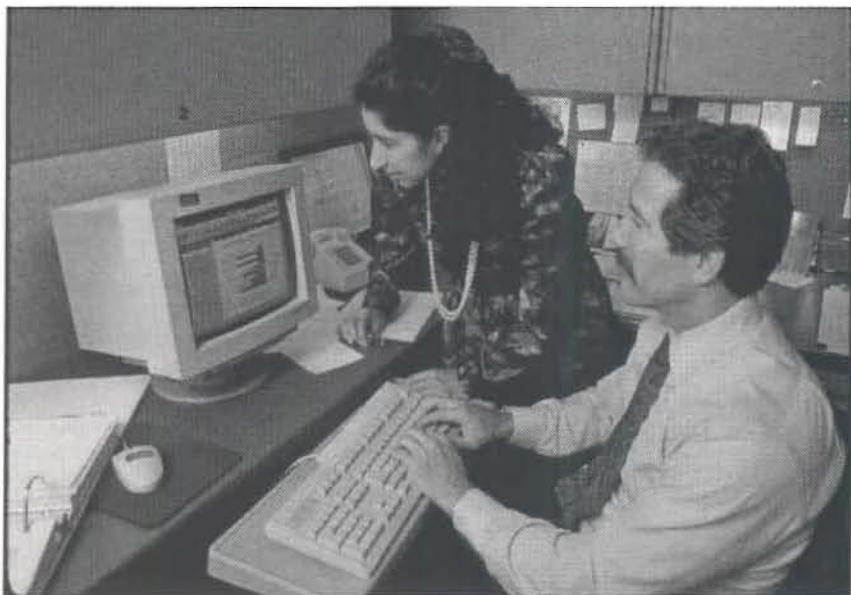
- In 2002, reduce energy consumption from projected levels by more than 85 billion kilowatt hours, contributing to over \$10 billion in energy savings to consumers and businesses.
- In 2002, demonstrate technology for an 85 miles per gallon (MPG) mid-size family sedan that has low emissions and is safe, practical, and affordable.
- In 2002, assist 10 to 12 developing countries and countries with economies-in-transition in developing strategies and actions for reducing emissions of greenhouse gases and enhancing carbon sequestration.
- In 2002, provide analysis, assessment, and reporting support to Administration officials, the Intergovernmental Panel on Climate Change, and the FCCC.
- In 2002, in close cooperation with the U.S. Department of Agriculture (USDA), identify and assess opportunities to sequester carbon in agricultural soils, forests, other vegetation, and commercial products, with collateral benefits for productivity and the environment, with carbon removal potential of up to 25 MMTCE by 2010.
- In 2002, provide assistance to at least 75 developing countries to facilitate emissions reductions and achieve the requirements of the Montreal Protocol.
- In 2002, restrict domestic consumption of class II HCFCs below 15,240 ODP-weighted metric tonnes (ODP MTs) and restrict domestic exempted production and import of newly produced class I CFCs and halons below 60,000 ODP MTs.
- In 2002, increase the number of children participating in the SunWise School Program by 25 percent, and reduce the rate of sunburns among participants by 5 percent.
- In 2002, enhance environmental management and institutional capabilities in priority countries.

Goal 6: Reduction of Global and Cross-Border Environmental Risks

Goal 6: Reduction of Environmental Risks Key Programs

(dollars in thousands)

	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>
Administrative Services	\$3,272.6	\$3,335.3
Climate Change Research	\$22,550.4	\$21,951.7
Climate Protection Program: Buildings	\$52,535.0	\$52,730.9
Climate Protection Program: Carbon Removal	\$997.8	\$1,700.0
Climate Protection Program: Industry	\$31,929.6	\$27,295.2
Climate Protection Program: International Capacity Building	\$5,501.7	\$6,315.1
Climate Protection Program: State and Local Climate Change Program	\$2,494.5	\$2,500.0
Climate Protection Program: Transportation	\$29,435.1	\$32,440.8
Commission for Environmental Cooperation - CEC	\$3,269.0	\$3,403.6
Environment and Trade	\$1,614.7	\$1,672.5
Great Lakes National Program Office	\$15,207.5	\$14,962.4
International Safe Drinking Water	\$384.4	\$301.8
Multilateral Fund	\$10,975.8	\$10,975.8
Regional and Global Environmental Policy Development	\$2,188.4	\$2,279.4
Regional Management	\$196.2	\$228.4
Rent, Utilities and Security	\$4,612.6	\$5,023.0
Technical Cooperation with Industrial and Developing Countries	\$4,162.2	\$4,125.9
U.S./Mexico Border	\$4,213.7	\$4,236.5
Water Infrastructure: Mexico Border	\$74,835.0	\$74,835.0



GOAL 7:

***Quality
Environmental
Information***



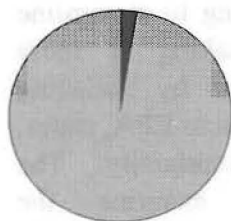
GOAL 7:

Quality
Environmental
Information



Goal 7: Quality Environmental Information

Goal 7: 2.6%



Strategic Goal: The public and decision-makers at all levels will have access to information about environmental conditions and human health to inform decision-making and help assess the general environmental health of communities. The public will also have access to educational services and information services and tools that provide for the reliable and secure exchange of quality environmental information.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Quality Environmental Information	\$178,253.4	\$189,128.1	\$10,874.7
Increase Availability of Quality Health and Environmental Information	\$95,812.3	\$117,378.7	\$21,566.4
Provide Access to Tools for Using Environmental Information	\$63,302.4	\$54,837.6	(\$8,464.8)
Improve Agency Information Infrastructure and Security	\$19,138.7	\$16,911.8	(\$2,226.9)
Workyears	890.6	854.3	(36.3)

Means and Strategy

The purpose of this goal is to empower the American public with information about the environment. Accurate and accessible environmental information better enables the public to understand conditions and make informed decisions about protecting the health and the environment of local communities. It can lead to creative and sustainable solutions to environmental problems and opportunities for pollution prevention. Environmental information of known and documented quality is crucial to sound decision-making and to

establishing public trust and confidence in those decisions. EPA and its partners will focus on six areas to accomplish this goal.

First, EPA will continue to increase the availability of health and environmental information by providing the public electronic and non-electronic access to accurate and reliable environmental data. This data will include information collected by EPA, its partners, and stakeholders.

Second, EPA will focus on Information Integration. EPA and the states are working together to develop a

Goal 7: Quality Environmental Information

comprehensive and integrated information exchange network to facilitate information sharing among EPA, the states, other Federal agencies, tribes, localities, and the regulated community. This will include standardized data formats and definitions, a centralized approach to receiving and distributing information, and improved access to timely and reliable environmental information. Information Integration will improve environmental decision making, improve data quality and accuracy, ensure security of sensitive data, avoid data redundancy, and reduce the burden on those who provide and those who access information.

Third, the Agency will solicit customer feedback to systematically improve information usability; clarity, accuracy, reliability, and scientific soundness. EPA will develop and implement necessary data standards and associated registries and ensure that data quality is known and appropriate for intended uses. EPA will also evaluate the appropriateness of data used in its decision-making processes. The Agency is committed to developing analytical and other tools to help users interpret and use environmental data and improve environmental decision-making.

Fourth, EPA will provide the means for using and understanding environmental information. Environmental data is most meaningful when examined from a holistic perspective, that is, when users are able to examine all of the data about a particular location at once. Users must also have access to information that helps them understand the limitations of data and the content or context in which it is most useful.

Fifth, EPA is working to streamline information collection, making it more efficient and cost-effective by reducing unnecessary costs and burden to EPA, states, tribes, and the regulated community. The Agency will critically examine the information reporting burdens placed on the Agency's partners and on the regulated community and ensure that information collection addresses specific needs.

Finally, the Agency believes that strengthening and securing its information infrastructure is fundamental to increasing the availability of environmental information. EPA must remain vigilant in maintaining a strong and secure information infrastructure that directly supports the mission of the Agency.

By focusing on these areas, EPA believes it will keep pace with the rapid advances in information technology (IT) and meet the growing demand for reliable, quality environmental information. Also of great importance is a communications strategy that will serve the Agency and the public as they seek to avail themselves of environmental information. Effectively managing the process by which the public is educated and informed regarding the Agency's resources is pivotal to accomplishing the mission of the Agency. To this end, the Agency will expand its two-way communications with the public, on a continuous loop of public participation and interaction, for improved information exchange and effective information dissemination. EPA, through its public and congressional liaison functions, Federal Advisory Committee Act (FACA) functions, media relations, print and web content review and oversight responsibilities, and environmental education responsibilities, will

Goal 7: Quality Environmental Information

implement strategies designed to inform and educate all segments of the public about Agency initiatives, policies, regulations, services, and environmental information resources, and will develop and monitor feedback mechanisms to learn from them.

Research

The research program supports this goal through the Integrated Risk Information System (IRIS) and the Risk Assessment Forum (RAF). IRIS is an EPA database of Agency consensus health information on environmental contaminants. The database is used extensively by EPA, the states, and the general public where consistent, reliable toxicity information is needed for credible risk assessments. In 2002, the Agency will develop new and updated Agency consensus human health assessments of environmental substances of high priority to EPA and make them publicly available on IRIS. The RAF promotes Agency-wide consensus on difficult and controversial risk assessment issues and ensures that this consensus is incorporated into appropriate Agency risk assessment guidance. In 2002, the RAF will develop technical papers to provide initial guidance on difficult cumulative risk assessment issues. These efforts provide data/guidance to improve the scientific basis for environmental decision-making.

Highlights

The unprecedented changes in information technology, combined with an increasing public demand for information, are fundamentally altering the way the Agency and the states collect, manage, analyze, use,

secure, and provide access to environmental information. EPA is working with the states and tribes to strengthen information quality, leverage information maintained by other government organizations, and develop new tools that provide the public with simultaneous access to multiple data sets, allowing users to understand local, state, regional, and national environmental conditions.

Information Integration will be key to achieving the Agency's objectives. Information Integration builds on a strengthened partnership between EPA and the states. It uses an Internet-based, multimedia approach to environmental information exchange that is standards-based, highly connected, dynamic, flexible, and secure. Integration, with the broad-based voluntary participation of the states and EPA programs, will provide a wide range of shared environmental information to the states, tribes, localities, regulated community, EPA, and the public.

In 2002, EPA will launch a new grant program that will provide states and tribes assistance to develop the National Environmental Information Exchange Network (NEIEN). This new grant program will build on work currently underway in several states and assist states and tribes in evaluating their readiness to participate in NEIEN, support their efforts to complete necessary changes to their information management systems to facilitate NEIEN participation, and enhance state information integration efforts.

The Central Data Exchange (CDX) will be EPA's enterprise-wide portal to the

Goal 7: Quality Environmental Information

Agency's information network. It will also serve as EPA's node on NEIEN with the states. CDX will support and translate different data transmission formats used by states, facilities, and laboratories.

In partnership with states, the Agency will continue its efforts to expand publicly available information, both electronically via the Internet and through other non-electronic media. This includes the Envirofacts database, a major data warehouse that contains 11 national databases. It is used extensively by EPA, the states, and the public.

In 2002, the Agency will continue its efforts to promote public access through the Agency-wide Access to Interpretative Documents (AID, formally known as Enhanced Public Access). This project is intended to make all significant Agency guidance, policy statements, and site-specific interpretations of the environmental management practices of regulated entities electronically accessible to the states, industry, and the public in a secure manner.

EPA will continue to manage the Toxics Release Inventory (TRI) Program. The TRI Program provides the public with information on the releases and other waste management activities 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. Using this information,

citizens, businesses, community groups, researchers, and governments can work together to better protect the environment.

In 2002, EPA will continue its effort to reduce the TRI reporting burden on industry and improve TRI data quality by distributing its new software tool, TRI Made Easy (TRI-ME). EPA also will increase the percentage of TRI chemical forms that are submitted in digital format (electronically and via floppy disc). EPA will also continue to refine and expand the public's access to the TRI data by improving the TRI data access tools.

In 2002, the Agency will continue to modernize its information systems in cooperation with the states. Modernization efforts will include data integration and data quality. These projects will be planned and managed under an Agency-wide process that includes the Clinger-Cohen Act investment review and oversight by EPA management.

EPA's IT program will maintain its commitment to strong customer service and strategic investment in new technology to ensure our continued ability to deliver IT service efficiently, effectively, and securely. Through a continuous emphasis on acquiring the right IT skills, technologies, and services, EPA will take additional steps in strengthening and securing the Agency's IT infrastructure. As a part of this effort, the Agency will complete 30 risk assessments on the Agency's central infrastructure and financial and mission critical environmental systems. The results of these assessments will be documented and used to guide future investment decision-making focused on improving IT security and services.

Goal 7: Quality Environmental Information

The Agency's Quality System is designed to ensure that the environmental data collected and used by the Agency are of appropriate quality for their intended use. Policies and procedures have been established throughout the Agency to assist individual data collectors, data users, and decision-makers in defining their needs for environmental data and in ensuring that the data they develop and use meet the stated needs. All Agency organizations that collect or use environmental data and their managers and staff have responsibilities under the Agency's Quality System to develop and implement a quality system for their program consistent with the Agency's system. Organizations that receive Agency funds for environmental data collection and use must also develop and implement quality systems to ensure that their decisions are supported by data of known and documented quality. These organizations include contractors, not-for-profit organizations (such as universities), state, local, and tribal governments.

EPA's Quality Staff will develop the Agency-wide policies and procedures for planning, documenting, implementing, and assessing data collection and use in Agency decisions. The Quality Staff will also develop training material on the various policies and oversee implementation of EPA organizations' Quality Systems. These Agency-wide policies are intended to ensure that the Agency gets the "right data" for its decisions.

To promote environmental literacy and help the nation meet its educational goals, EPA has created a national program to deliver environmental education training to educators across the country. A key ingredient of education reform is to provide teachers with

the knowledge and skills they need to be more effective educators. Many efforts are underway to better equip teachers for the 21st century. Students and adults are provided knowledge about environmental issues along with important critical thinking and problem solving skills needed to be effective learners and decision makers.

The Agency will continue to contribute to the Agency-wide Enhanced Public Access Project. This Project is intended to make all significant Agency guidance, policy statements, and site-specific interpretations of the regulated entities' environmental management practices electronically accessible to the regions, states, industry, and the public. In 2002, 90 percent of enforcement and compliance policy and guidance will be available on the Internet within 30 days of issuance. EPA will continue to manage telephone hotlines, disburse brochures and reports via the National Service Center for Environmental Publications (NSCEP), respond to public inquiries, and maintain EPA's national library networks to serve those without personal computers.

The Agency's environmental justice program will help communities access information to ensure that they do not experience a disproportionate amount of pollution. Since 1994, more than 950 grants have been awarded to community organizations. As a result of these grant awards, community-based organizations (i.e., grassroots groups, churches, and other nonprofit organizations) have expanded citizen involvement and given residents the tools to learn more about exposure to environmental harms and about associated risks, and, consequently, to protect their

Goal 7: Quality Environmental Information

families and their communities as they see fit. These small grants have served as the “seed-money” for empowerment of the residents of these communities, allowing them to speak for themselves and make their own decisions. In 2002, the program will continue to assist community-based organizations through the community small grants program.

Research

In 2002, to improve the scientific basis for decision-making, the Agency will continue to provide technical guidance for conducting risk assessments. To achieve this goal, the Agency's RAF will focus in three areas: cumulative risk assessment, ecological risk assessment, and risk assessments for children. Efforts will result in technical guidance on the identification of appropriate age groupings for exposure assessments for children, technical issue papers, and a framework for preparing cumulative risk assessments. The Agency will also collect, manage, and present environmental information for the benefit of the Agency and the public in order to enhance the availability and utility of data, information, and tools for decision making. To that end, the Agency will develop new and/or update Agency consensus human health assessments of nine environmental substances of high priority to EPA and make them publicly available on IRIS.

2002 Annual Performance Goals

- In 2002, ensure that EPA's policies, programs and activities address disproportionately exposed and under-represented population issues so that no segment suffers

disproportionately from adverse health and environmental effects.

- In 2002, improve public access to compliance and enforcement documents and data through multimedia data integration projects and other studies, analyses and communication/outreach activities.
- In 2002, the Central Data Exchange, a key component of the environmental information exchange network, will become fully operational and 15 states will be using it to send data to EPA, thereby improving data consistency with participating states.
- In 2002, 100 percent of the publicly available facility data from EPA's national systems accessible on the EPA Website will be part of the Integrated Error Correction Process, reducing data error.
- In 2002, EPA will reduce reporting burden, improve data quality, lower program costs, and speed data publication by increasing the amount of TRI electronic reporting from 70 to 85 percent.
- In 2002, complete risk assessments on the Agency's critical infrastructure systems, critical financial systems, and mission critical environmental systems.

Goal 7: Quality Environmental Information

Goal 7: Quality Environmental Information Key Programs (dollars in thousands)

	FY 2001 Enacted	FY 2002 President's Budget
Administrative Services	\$1,958.3	\$2,025.7
Congressional Projects	\$1,917.1	\$2,029.4
Congressional/Legislative Analysis	\$4,350.5	\$4,787.6
Data Collection	\$2,096.6	\$1,571.6
Data Standards	\$7,045.3	\$6,821.9
Direct Public Information and Assistance	\$4,331.2	\$11,097.8
EMPACT	\$10,607.5	\$0.0
Environmental Education Division	\$9,578.1	\$8,518.3
Geospatial	\$522.3	\$512.3
GLOBE	\$997.8	\$0.0
Information Exchange Network	\$0.0	\$25,000.0
Information Integration	\$5,860.2	\$5,900.0
Information Technology Management	\$25,297.8	\$25,275.4
NACEPT Support	\$1,556.2	\$1,654.6
NAFTA Implementation	\$402.2	\$427.6
National Association Liaison	\$235.2	\$258.7
Pesticide Registration	\$0.0	\$208.7
Pesticide Reregistration	\$0.0	\$201.1
Public Access	\$15,702.3	\$19,751.2
Regional Management	\$2,993.1	\$430.8
Regional Operations and Liaison	\$427.6	\$470.6
Reinvention Programs, Development and Coordination	\$1,623.1	\$1,791.3
Rent, Utilities and Security	\$10,264.3	\$10,957.4
SBREFA	\$570.6	\$603.6
Small, Minority, Women-Owned Business Assistance	\$2,040.8	\$2,152.8
System Modernization	\$13,474.2	\$13,690.0
Toxic Release Inventory / Right-to-Know (RtK)	\$14,060.9	\$13,547.8

Goal 7: Quality Environmental Information

Goal 7: Quality Environmental Information (continued)

See also Goal 6

1.1.1.1	1.1.1.1	1.1.1.1
1.1.1.2	1.1.1.2	1.1.1.2
1.1.1.3	1.1.1.3	1.1.1.3
1.1.1.4	1.1.1.4	1.1.1.4
1.1.1.5	1.1.1.5	1.1.1.5
1.1.1.6	1.1.1.6	1.1.1.6
1.1.1.7	1.1.1.7	1.1.1.7
1.1.1.8	1.1.1.8	1.1.1.8
1.1.1.9	1.1.1.9	1.1.1.9
1.1.1.10	1.1.1.10	1.1.1.10
1.1.1.11	1.1.1.11	1.1.1.11
1.1.1.12	1.1.1.12	1.1.1.12
1.1.1.13	1.1.1.13	1.1.1.13
1.1.1.14	1.1.1.14	1.1.1.14
1.1.1.15	1.1.1.15	1.1.1.15
1.1.1.16	1.1.1.16	1.1.1.16
1.1.1.17	1.1.1.17	1.1.1.17
1.1.1.18	1.1.1.18	1.1.1.18
1.1.1.19	1.1.1.19	1.1.1.19
1.1.1.20	1.1.1.20	1.1.1.20
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1.1.1.24	1.1.1.24	1.1.1.24
1.1.1.25	1.1.1.25	1.1.1.25
1.1.1.26	1.1.1.26	1.1.1.26
1.1.1.27	1.1.1.27	1.1.1.27
1.1.1.28	1.1.1.28	1.1.1.28
1.1.1.29	1.1.1.29	1.1.1.29
1.1.1.30	1.1.1.30	1.1.1.30
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1.1.1.32	1.1.1.32	1.1.1.32
1.1.1.33	1.1.1.33	1.1.1.33
1.1.1.34	1.1.1.34	1.1.1.34
1.1.1.35	1.1.1.35	1.1.1.35
1.1.1.36	1.1.1.36	1.1.1.36
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1.1.1.38	1.1.1.38	1.1.1.38
1.1.1.39	1.1.1.39	1.1.1.39
1.1.1.40	1.1.1.40	1.1.1.40
1.1.1.41	1.1.1.41	1.1.1.41
1.1.1.42	1.1.1.42	1.1.1.42
1.1.1.43	1.1.1.43	1.1.1.43
1.1.1.44	1.1.1.44	1.1.1.44
1.1.1.45	1.1.1.45	1.1.1.45
1.1.1.46	1.1.1.46	1.1.1.46
1.1.1.47	1.1.1.47	1.1.1.47
1.1.1.48	1.1.1.48	1.1.1.48
1.1.1.49	1.1.1.49	1.1.1.49
1.1.1.50	1.1.1.50	1.1.1.50



GOAL 8:

***Sound Science,
Improved
Understanding of
Environmental Risk,
and Greater Innovation
to Address
Environmental
Problems***



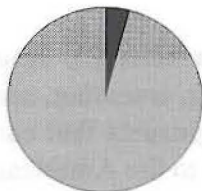
GOAL 8:

Environmental Problems
to Address
and Greater Innovation
Understanding of
Improved
Sound Science,



Goal 8: Sound Science, Improved Understanding of Environmental Risk, & Greater Innovation to Address Environmental Problems

Goal 8: 4.2%



Strategic Goal: EPA will develop and apply the best available science for addressing current and future environmental hazards as well as new approaches toward improving environmental protection.

Resource Summary

(dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Sound Science, Improved Understanding of Env. Risk and Greater Innovation to Address Env. Problems	\$334,326.0	\$307,247.7	(\$27,078.3)
Conduct Research for Ecosystem Assessment and Restoration	\$118,158.6	\$114,865.9	(\$3,292.7)
Improve Scientific Basis to Manage Environmental Hazards and Exposures	\$55,349.0	\$55,388.0	\$39.0
Enhance Capabilities to Respond to Future Environmental Developments	\$57,719.7	\$55,848.2	(\$1,871.5)
Improve Environmental Systems Management	\$58,562.1	\$45,462.3	(\$13,099.8)
Quantify Environmental Results of Partnership Approaches	\$9,604.2	\$7,626.8	(\$1,977.4)
Incorporate Innovative Approaches	\$25,313.6	\$21,449.6	(\$3,864.0)
Demonstrate Regional Capability to Assist Environmental Decision-Making	\$6,843.7	\$3,594.1	(\$3,249.6)
Conduct Peer Review to Improve Agency Decisions	\$2,775.1	\$3,012.8	\$237.7
Workyears	1,024.1	998.4	(25.7)

Means and Strategy

EPA is continuing to ensure that it is a source of sound scientific and technical information, and that it is on the leading edge of environmental protection innovations that will allow achievement of the Agency's strategic objectives. The Agency consults a

number of expert sources, both internally and externally, and uses several deliberative steps in planning its research programs. As a starting point, the Agency draws input from the EPA Strategic Plan, available research plans, EPA program offices and Regions, Federal research partners, and outside peer advisory bodies such as the Science Advisory Board (SAB) and others. This input is used

Goal 8: Sound Science, Improved Understanding of Environmental Risk, & Greater Innovation to Address Environmental Problems

internally by cross-office teams that prioritize research areas using risk and other factors such as National Science and Technology Council (NSTC) research and development priorities, client office priorities, court orders, and legislative mandates. EPA's research program will increase our understanding of environmental processes and our capability to assess environmental risks to both human health and ecosystems.

In the area of ecosystem protection research, EPA will strive to establish baseline conditions from which changes, and ultimately trends, in the ecological condition of the Nation's aquatic ecosystems can be confidently documented, and from which the results of environmental management policies can be evaluated at regional scales. Currently, there is a patchwork of monitoring underway in the aquatic systems of the United States. Due to differences in objectives, methods, monitoring designs and needs, these data cannot be combined to estimate, with known confidence, the magnitude or extent of improvement or degradation regionally or nationally in this economically critical resource. Therefore, the ability to demonstrate success or failure of increasingly flexible watershed management policies, regionally and nationally, is also not possible. EPA's ecosystem protection research program will provide the methods, designs, and summary of existing monitoring programs to develop the baseline required to address these weaknesses. This work is an important step toward providing the scientific understanding to measure, model, maintain, or restore the integrity and sustainability of ecosystems.

In order to improve the scientific basis for identifying, characterizing, assessing, and managing environmental exposures that can pose the greatest health risks to the American public, EPA is committed to developing and verifying innovative methods and models for assessing the susceptibilities of populations to environmental agents. Many of the current human health risk assessment methods, models, and databases are based on environmental risks for adults. This research is aimed at enhancing current risk assessment and management strategies and guidance to better consider risk determination needs for children. This information will be useful in determining whether children are more susceptible to environmental risks than adults and how to assess risks to children.

EPA's leadership role in protecting both human and ecosystem health requires that the Agency continue to be vigilant in identifying and addressing emerging issues. EPA will continue to enhance its capabilities to anticipate, understand, and respond to future environmental developments. EPA will address these uncertainties by conducting research in areas that combine human health and ecological considerations. Additionally, EPA will conduct research to enhance its capacity to evaluate the economic costs and benefits and other social impacts of environment policies. EPA is currently investigating, with the help of the National Academy for Public Administration (NAPA), a number of futures methodologies for their potential use in strategic, multi-year, and annual planning efforts. Continued research in the areas of endocrine disrupting chemicals and mercury are leading toward the development of improved methodologies for

Goal 8: Sound Science, Improved Understanding of Environmental Risk, & Greater Innovation to Address Environmental Problems

integrated human health and environmental risk assessment and sound approaches for risk management. EPA efforts, in concert with other agencies, will result in improved methods to assess economic costs and benefits, such as improved economic assessments of land use policies, improved assessments for the valuation of children's health, and other social impacts of environmental decision-making. Benefits of these programs will include an improved framework for decision-making, increased ability to anticipate and perhaps prevent potentially serious environmental risks, improved methods for integrated human health and ecosystem risk assessments, improved methods for assessing socio-economic factors, and enhanced communication with the public and other stakeholders.

The Agency also seeks to develop and verify improved tools and technologies for characterizing, preventing, and cleaning up contaminants associated with high priority human health and environmental problems. In order to do this, EPA will develop, evaluate, and deliver technologies and approaches from multiple sectors (e.g., metal finishing, printing, pulp and paper, and textile). Emphasis will be placed on developing preventive approaches and assessing those that are currently available for industries and communities having difficulty meeting pollution standards. The Agency is accumulating data on performance and costs of environmental pollution prevention and control technologies which will serve as a basis for EPA, as well as other organizations, to evaluate and compare the effectiveness and

costs of a variety of technologies developed within and outside the Agency.

EPA's strategy for solving environmental problems and improving our system of environmental protection also includes developing, implementing and institutionalizing new policy tools, collaborative community-based and sector-based strategies, and the capacity to experiment, test, and disseminate ideas that result in better environmental outcomes. For example, EPA's Sector Program Plan 2001-2005 sets forth a vision and specific actions to enhance the effectiveness of innovative sector activities (at the Federal and state levels) and to fully integrate sector approaches into the Agency's overall mission and core programs. Similarly, EPA is strengthening its capacity to evaluate innovative approaches and make institutional changes that adopt successful innovations.

Sector strategies complement current EPA activities by allowing the Agency to approach issues more effectively; tailor efforts to the particular characteristics of each sector; identify related groups of stakeholders with interest in a set of issues; link EPA's efforts with those of other agencies; and craft new approaches to environmental protection. EPA is building on successful experiences from its current sector-based programs such as the Sustainable Industries Partnership Programs, Design for the Environment, and sector-based compliance assistance programs to expand the ways in which the Agency is working in partnership with industry sectors to meet high environmental standards using flexible, innovative approaches. While these programs are innovative in and of themselves, they also

Goal 8: Sound Science, Improved Understanding of Environmental Risk, & Greater Innovation to Address Environmental Problems

foster the development of innovations at the industry sector level, testing new regulatory ideas, technologies, tools, and incentives in non-adversarial settings.

Project XL provides regulated entities a gateway to work with EPA, its co-regulators, and other stakeholders to develop and implement alternative environmental management strategies that achieve superior environmental performance in exchange for regulatory flexibility. These initiatives offer a balance between the uncertainty in testing promising new approaches and safeguards to ensure the protection of human health and the environment. These pilots, and those conducted under the EPA/State Joint Agreement to Pursue Regulatory Innovation and other initiatives, if successful, will be integrated into our system of environmental protection. Sector-based and facility-based approaches will offer valuable supplements to traditional media-specific environmental policy and, along with place-based and pollutant-based approaches, offer a menu of solutions to environmental issues.

Highlights

Research for Ecosystem Assessment and Restoration

In order to balance the growth of human activity and 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. In 2002, the Western Environmental

Monitoring & Assessment Program (WEMAP) study will be a primary activity of EPA's monitoring research. Streams and coastal estuaries will continue to be sampled in 2002 and landscape indicators will continue to be developed. This study will determine the aquatic biological health of streams in arid, grassland, and alpine ecosystems in western states. The national coastal monitoring program will survey the condition of the Nation's coastal resources (with an emphasis on estuaries) by creating an integrated, comprehensive coastal monitoring program among the coastal states. By the end of 2001, all coastal states will have completed at least an initial round of estuarine sampling. Activities in 2002 will focus on analysis and reporting of data resulting from 2000 and 2001 sampling.

Research for Human Health Risk Assessment

An important aim of human health research in 2002 will be the development of measurements, methods, and models to evaluate exposures and effects of environmental contaminants, particularly in children. The Agency will continue to support a children's research program specifically targeted at addressing major areas of uncertainty and susceptibility. An important element of the program is the children's research centers. These nine university-based research centers (eight of which are co-funded by NIEHS) explore a range of children's risk issues, including childhood asthma and development disorders. Other children's research focuses on data gaps (e.g., longitudinal birth cohort study) and endocrine disruptors. To address evidence suggesting that the effects of endocrine

Goal 8: Sound Science, Improved Understanding of Environmental Risk, & Greater Innovation to Address Environmental Problems

disrupting chemicals (EDCs) exposure in children could be different from those experienced by adults, research will continue to support the development of methods to evaluate hazards in immature organisms exposed to EDCs that are quantitatively or qualitatively different from those observed in adults.

Research to Enhance Environmental Decision Making

In recent years, EPA has begun to move beyond environmental regulation to anticipate and prevent potential problems before they evolve into major concerns. In 2002, research will focus on improving our understanding of the impact of potential exposure to environmental pollutants on human health and the environment, and on developing approaches to reduce human health and ecological risks. This research will result in accessible, seamless, common methodologies for combined human health and ecological risk assessments. This research will provide sound approaches for risk management so that decision-makers will have the integrated view of risk needed to make intelligent choices.

Improve Environmental Systems Management

EPA supports pollution prevention as a necessary and logical strategy for dealing with potential high risk human health and environmental problems that are addressed by federal, environmental, and health and safety regulations. In 2002, the Agency will incorporate a systems-based approach to pollution prevention that more closely matches the multiple, interactive stressors that

threaten both human and environmental health. In addition, pollution prevention research will test the ability of risk assessors and risk managers to develop tools and methodologies to better convey the costs and benefits associated with the magnitude of risk that may be identified.

Increased Community-Based Approaches

In 2002, EPA will promote development of community-based efforts to manage local environments and strengthen the links between healthy environments and prosperous local economies. EPA will continue to assist communities by providing information, analysis, and management tools; and by working with other Federal departments and agencies and state and tribal governments to coordinate activities that support local planning and decision-making to manage natural resources and ecological services. The Agency will also demonstrate integrated measures of ecological and economic change to provide a foundation for better decision-making at all levels, and will provide key evaluations of processes and projects that allow successful approaches to be shared more broadly. In addition, EPA will use Regional Geographic Initiatives (RGI) to partner with states, local governments, private organizations, and others to solve environmental problems.

Increased Facility and Sector-Based Strategies

EPA's strategy for improving our system of environmental protection is to pilot innovative approaches designed to achieve better protection at less cost and, if successful, integrate those pilots into our core practices.

Goal 8: Sound Science, Improved Understanding of Environmental Risk, & Greater Innovation to Address Environmental Problems

Through Project XL, the EPA/State Joint Agreement to Pursue Regulatory Innovation, and other initiatives, the Agency is testing and implementing a number of innovative ideas in various environmental programs that will lead to changes in rules, permits, information management, environmental stewardship, enforcement and compliance assurance, stakeholder involvement, and Agency culture. For example, as part of Project XL, EPA is testing ways to streamline permitting so manufacturers can respond more quickly to market demands.

Science Advisory Board Peer Review and Consultations

The Agency will continue to support the activities, principally peer reviews, of the SAB, which provides independent scientific and technical advice to Congress and the Administrator on scientific, engineering, and economic issues that serve as the underpinnings for Agency positions, such as research direction to regulations.

The agenda of SAB activities is derived from requests from Congress and the Agency, as well as self-initiated activities aimed at highlighting areas of concern that may have escaped Agency attention or may be incompletely addressed by individual Agency office programs.

The SAB's broad objective is to help the Agency perform the best science and use the results of that science appropriately and effectively in making regulatory decisions. In so doing, the SAB promotes sound science within the Agency and a wider recognition of the quality of that science outside the Agency.

The SAB actively consults with the Agency on how to incorporate science appropriately and effectively into current and new environmental decision-making approaches.

The use of the SAB for peer reviews also supports the Agency-wide commitment to sound science based on rigorous peer review, a commitment that has been re-emphasized as a result of GAO findings in 1997 that such efforts are applied unevenly within the Agency. In addition, the SAB's activities provide the kind of support described in the 1999 National Academy of Sciences report, "Evaluating Federal Research Programs: Research and the Government Performance and Results Act", which concludes that the most effective way of evaluating a Federal research program is by expert review, which includes quality review, relevance review, and benchmarking.

2002 Annual Performance Goals

- In 2002, improve pollution prevention (P2) tools for the industrial sector and other sectors by providing updated and/or new methods and approaches to help users simulate product, process, or system redesign and evaluate resulting pollution levels, impacts, and costs.
- In 2002, produce a report on trends in acid deposition and the acidity of lakes and streams to assess progress toward reducing the impacts of acid rain.
- In 2002, formalize generic testing protocols for technology performance

Goal 8: Sound Science, Improved Understanding of Environmental Risk, & Greater Innovation to Address Environmental Problems

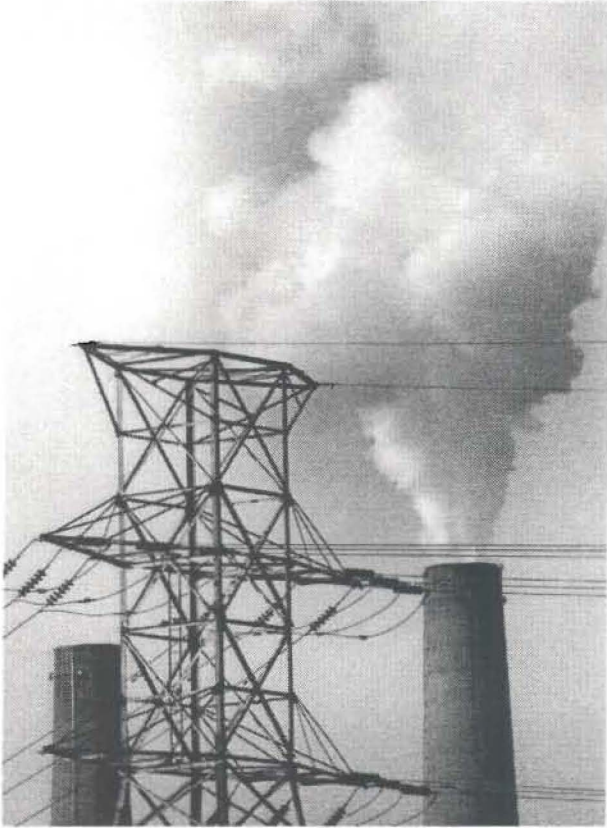
verification, and provide additional performance verifications of pollution prevention, control, and monitoring technologies in all environmental media.

**Goal 8: Sound Science, Improved Understanding of
Environmental Risk, & Greater Innovation to Address
Environmental Problems**

Goal 8: Sound Science Key Programs

(dollars in thousands)

	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>
Administrative Services	\$3,872.0	\$3,561.6
Clean Water Exposure Research	\$4,448.7	\$4,577.8
Coastal Environmental Monitoring	\$7,467.5	\$7,607.6
Common Sense Initiative	\$1,781.1	\$1,921.6
Endocrine Disruptor Research	\$12,849.4	\$11,321.4
Environmental Monitoring and Assessment Program, EMAP	\$29,470.7	\$32,985.7
Environmental Technology Verification (ETV)	\$6,294.0	\$3,619.6
Exploratory Grants Program	\$10,368.5	\$10,290.0
Human Health Research	\$50,940.4	\$50,807.2
Performance Track	\$1,995.6	\$1,843.6
Pollution Prevention Tools and Technologies	\$24,386.7	\$21,890.0
Project XL	\$2,922.2	\$3,090.2
Regional Geographic Program	\$8,192.3	\$7,421.3
Regional Management	\$93.2	\$108.5
Regional Science and Technology	\$6,843.7	\$3,594.1
Reinvention Programs, Development and Coordination	\$16,923.2	\$18,105.1
Rent, Utilities and Security	\$13,484.7	\$14,612.3
Science Advisory Board	\$2,763.3	\$3,012.8
Small Business Ombudsman	\$3,000.9	\$3,106.6
STAR Fellowships Program	\$9,704.3	\$9,708.4



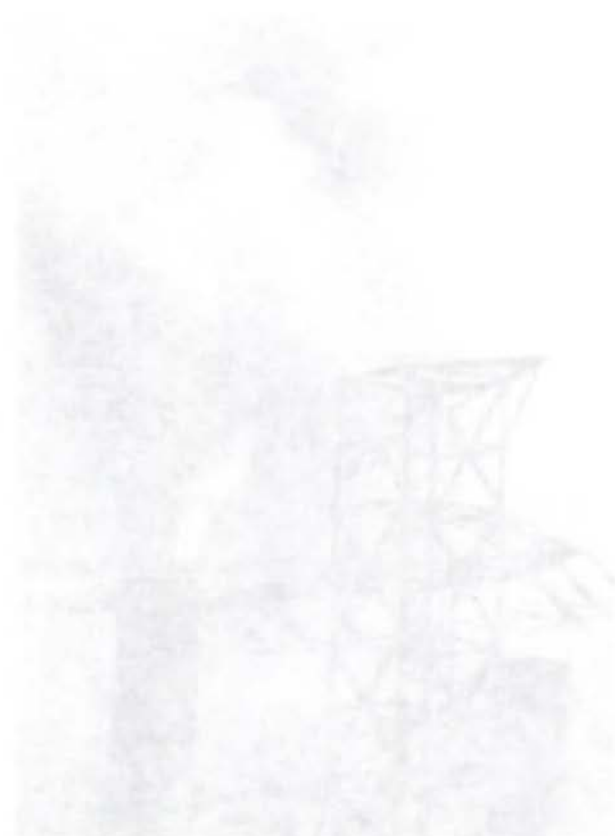
GOAL 9:

***A Credible Deterrent to
Pollution and Greater
Compliance with
the Law***



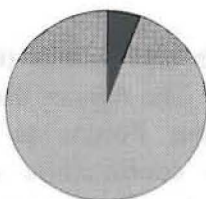
GOAL 9:

A Credible Deterrent to
Pollution and Greater
Compliance with
the Law



Goal 9: A Credible Deterrent to Pollution and Greater Compliance with the Law

Goal 9: 5.6%



Strategic Goal: EPA will ensure full compliance with laws intended to protect human health and the environment.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
A Credible Deterrent to Pollution and Greater Compliance with the Law	\$397,274.6	\$411,215.7	\$13,941.1
Increase Compliance Through Enforcement	\$344,745.7	\$356,652.5	\$11,906.8
Promote Compliance Through Incentives and Assistance	\$52,528.9	\$54,563.2	\$2,034.3
Workyears	2,553.8	2,330.3	(223.5)

Means and Strategies

Many of the environmental improvements in this country during the past 30 years can be attributed to a strong set of environmental laws and EPA's enforcement of them. Due to the breadth and diversity of private, public, and federal facilities regulated by EPA under various statutes, the Agency needs to target its enforcement and compliance assurance activities strategically 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. A strong enforcement program identifies noncompliance problems, punishes violators, strives to secure a level economic playing

field for law-abiding companies, and deters future violations. 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 risks to human health or the environment, display patterns of noncompliance, and include disproportionately exposed populations.

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. Further, EPA cooperates with other nations to enforce and ensure compliance with environmental regulations. At the Federal level, EPA addresses its responsibilities under the

Goal 9: A Credible Deterrent to Pollution and Greater Compliance with the Law

National Environmental Policy Act (NEPA) by seeking remedies for potentially adverse impacts of major actions taken by EPA and other Federal agencies.

The Agency's enforcement and compliance assurance program uses voluntary compliance assistance and incentive tools to ensure compliance with regulatory requirements and reduce adverse public health and environmental problems. Maximum compliance requires the active efforts of the regulated community to police itself. EPA supports the regulated community by assuring that requirements are clearly understood and by helping industry find cost-effective options to comply through the use of pollution prevention and innovative technologies. EPA will continue to investigate options for encouraging self-directed audits and disclosure; measure and evaluate the effectiveness of Agency programs in improving compliance rates; provide information and compliance assistance to the regulated community; and develop innovative approaches to meeting environmental standards through better communication, cooperative approaches, and application of new technologies.

Highlights

Environmental Enforcement

Coordinating its activities with the states, EPA will continue to support deterrence and compliance activities by focusing its compliance monitoring onsite inspections and investigations. In setting the compliance and enforcement priorities and strategic direction of the program, EPA

coordinates its efforts with and solicits the views of our states partners. The Agency uses the State/EPA Enforcement Forum as a vehicle in advancing the coordination of efforts for joint strategic planning between EPA and the states.

The Agency will continue to work with states and tribes to target areas that pose risks to human health or the environment, display patterns of noncompliance, or include disproportionately exposed populations. Media-specific and industry sector-based priorities will be established for the national program through the Office of Enforcement and Compliance Assurance's Memorandum of Agreement 2002/2003 guidance, developed in conjunction with the Regional offices and states.

The civil and criminal enforcement programs, in contributing to EPA's goal to protect public health and the environment, target actions based on health and environmental risk. The programs aim to level the economic playing field by ensuring that violators do not realize an economic benefit from noncompliance and seek to deter future violations. In 2002, the Agency's enforcement initiatives include enforcement of the lead paint rules and modernization of its data systems to assist in targeting compliance and enforcement efforts.

State, Tribal, and International Capacity Building

A strong state and tribal enforcement and compliance assurance presence contributes to creating deterrence and to reducing noncompliance. In 2002, the enforcement and compliance assurance

Goal 9: A Credible Deterrent to Pollution and Greater Compliance with the Law

programs will work with and support state agencies implementing authorized, delegated, or approved environmental programs. This effort will increase in 2002 with the establishment of a new grant program. These grants will allow states to expand their responsibility for enforcement of environmental laws and regulations. Consistent with regulations and EPA policy, the Agency will provide an appropriate level of oversight and guidance to states to ensure that environmental regulations are fairly and consistently enforced across the nation.

The Agency provides grant funding, oversight, training, and technical assistance to states and tribes. The state and tribal grant programs are designed to build environmental partnerships with states and tribes and strengthen their ability to address environmental and public health threats. These threats include contaminated drinking water, pesticides in food, hazardous waste, toxic substances, and air pollution.

Meeting its objective of achieving the benefits of environmental requirements through an enforcement presence requires EPA to effectively implement international commitments for enforcement and compliance cooperation with other countries, especially those along the U.S. border. Through such arrangements, EPA works to reduce environmental risks to U.S. citizens from external sources of pollution, as well as to prevent or reduce the impact of pollution origination in the United States.

Compliance Incentives and Assistance

The Agency will continue to support the regulated community's compliance with

environmental requirements through voluntary compliance incentives and assistance programs. In 2002, the compliance incentives program will continue to implement the policy on Incentives for Self-Policing as a core element of the enforcement and compliance assurance program. In addition, the Agency will provide information and technical assistance to the regulated community through the compliance assistance program to increase its understanding of all statutory or regulatory environmental requirements, thereby reducing risk to human health and the environment and gaining measurable improvements in compliance. The program will also continue to develop strategies and compliance assistance tools that will support initiatives targeted toward improving compliance in specific industrial and commercial sectors or with certain regulatory requirements.

2002 Annual Performance Goals

- In 2002, maintain and improve quality and accuracy of EPA's enforcement and compliance data to identify noncompliance and focus on human health and environmental problems.
- In 2002, improve capacity of states, localities, and tribes to conduct enforcement and compliance programs. EPA will provide training as well as assistance with state and tribal inspections to build capacity, including implementation of the inspector credentials program for tribal law enforcement personnel.
- In 2002, EPA will direct enforcement actions to maximize compliance and

Goal 9: A Credible Deterrent to Pollution and Greater Compliance with the Law

address environmental and human health problems; 75 percent of concluded enforcement actions will require environmental or human health improvements such as pollutant reductions and/or changes in practices at facilities.

- In 2002, EPA will conduct 15,000 inspections, 400 criminal investigations, and 200 civil investigations targeted to areas that pose risks to human health or the environment, display patterns of noncompliance, or include disproportionately exposed populations.

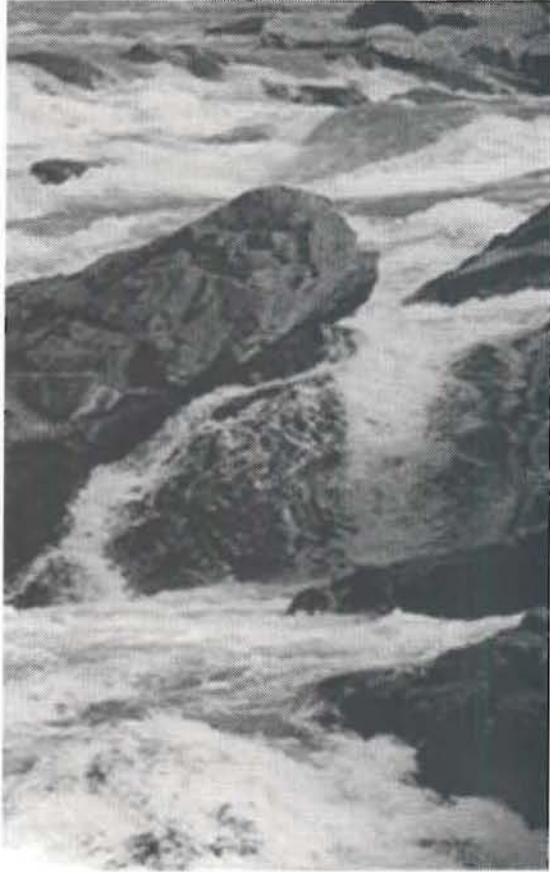
- In 2002, increase opportunities through new targeted sector initiatives for industries to voluntarily self-disclose and correct violations on a corporate-wide basis.
- In 2002, promote the use of Environmental Management Systems (EMS) to address known compliance and performance problems.
- In 2002, ensure compliance with legal requirements for proper handling of hazardous waste imports and exports.

Goal 9: A Credible Deterrent to Pollution and Greater Compliance with the Law

Goal 9: Deterrent to Pollution Key Programs

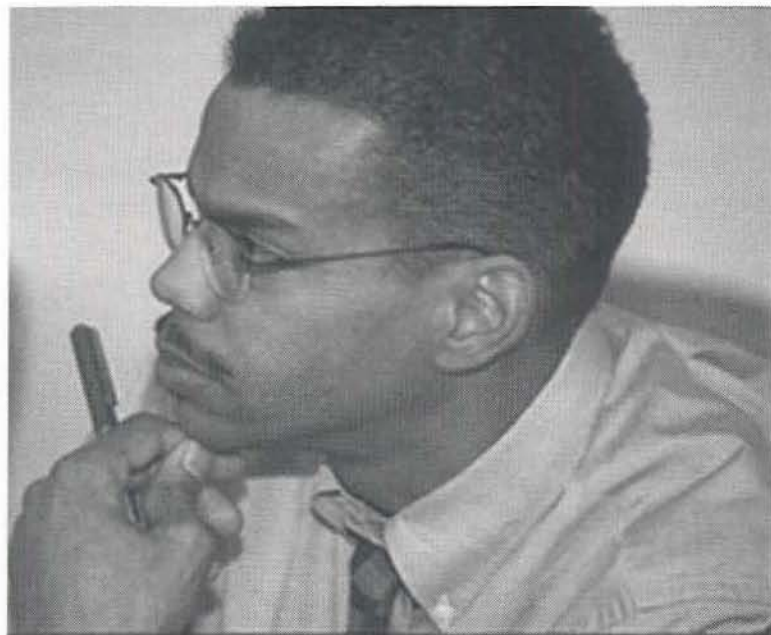
(dollars in thousands)

	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>
Administrative Services	\$6,233.7	\$5,901.4
Civil Enforcement	\$101,817.0	\$99,229.6
Civil Enforcement CWA - CWAP/AFOs	\$977.3	\$0.0
Compliance Assistance and Centers	\$24,579.9	\$26,047.9
Compliance Incentives	\$10,433.5	\$10,175.8
Compliance Monitoring	\$56,781.2	\$50,127.0
Criminal Enforcement	\$40,840.1	\$41,867.0
Enforcement Training	\$5,277.7	\$4,312.6
NEPA Implementation	\$11,081.4	\$11,670.9
Public Access	\$179.3	\$0.0
RCRA State Grants	\$43,127.6	\$43,127.6
Regional Management	\$3,191.7	\$2,363.8
Rent, Utilities and Security	\$38,046.5	\$37,417.2
State Multimedia Enforcement Grants	\$0.0	\$25,000.0
State Pesticides Enforcement Grants	\$19,867.8	\$19,867.8
State Toxics Enforcement Grants	\$7,348.2	\$7,348.2



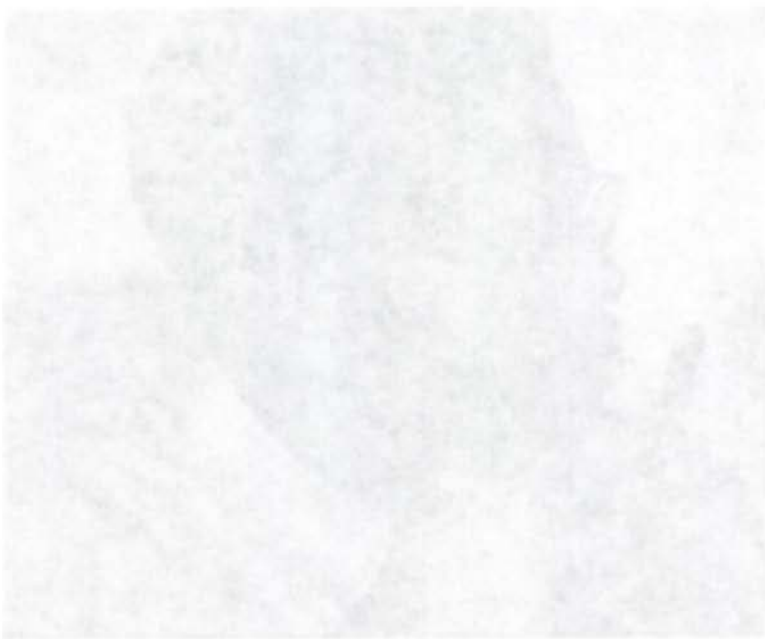
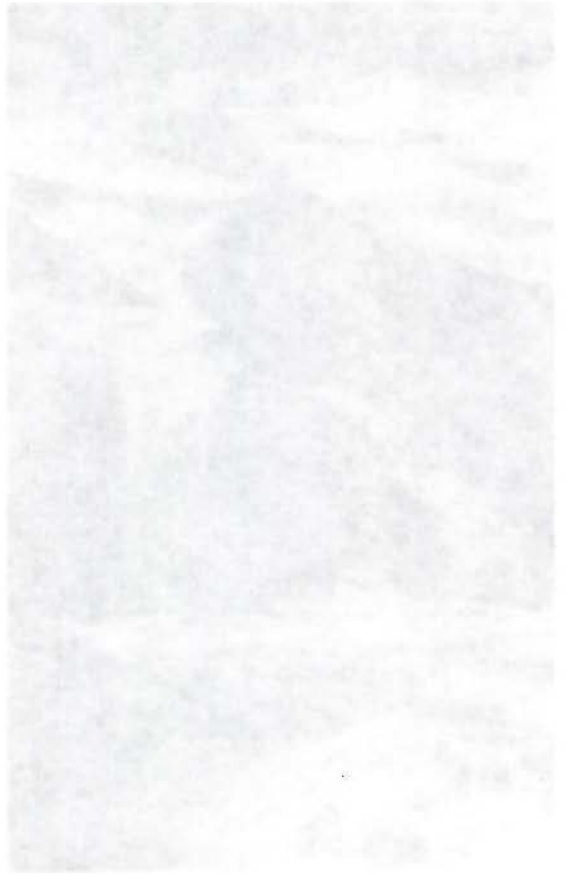
GOAL 10:

Effective Management



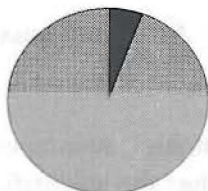
GOAL 10:

Effective
Management



Goal 10: Effective Management

Goal 10: 5.9%



Strategic Goal: EPA will maintain the highest-quality standards for environmental leadership and for effective internal management and fiscal responsibility by managing for results.

Resource Summary (dollars in thousands)

	FY 2001 Enacted	FY 2002 Request	FY 2002 vs. FY 2001
Effective Management	\$423,375.5	\$431,703.8	\$8,328.3
Provide Leadership	\$40,833.8	\$46,998.0	\$6,164.2
Manage for Results Through Services, Policies, and Operations	\$176,982.3	\$189,686.0	\$12,703.7
Provide Quality Work Environment	\$152,537.9	\$141,812.2	(\$10,725.7)
Provide Audit, Evaluation, and Investigative Products and Services	\$53,021.5	\$53,207.6	\$186.1
Workyears	2,075.6	2,107.1	31.5

Means and Strategy

The Agency will continue to provide vision, leadership, policy, and oversight for all its programs and partnerships. It will employ management strategies to advance the protection of human health and the environment. Strategies that cut across all organizational boundaries and are key to performing the Agency's mission are:

- Employment of work relationships with stakeholders;
- Promotion of cost-effective investment in environmental protection and public health through technological changes, fiscal accountability, improved customer and stakeholder relationships, and delivery of services;
- Responsive and accountable management;

Goal 10: Effective Management

- Investments in core infrastructure that maintain a safe, healthy, and productive work environment;
- Assessment of management challenges and program risks identified by Congress, oversight agencies, EPA's Office of the Inspector General (OIG) and state and tribal partners;
- Commitment to manage human resources; fostering diversity and work to secure, develop, empower, and retain talented people the Agency needs to accomplish its environmental mission;
- Recognition of the special vulnerability of children to environmental risks and facilitating the intensified commitment to protect children's health;
- Reduction of administrative compliant cases.

By building on the success of its integrated plans, budgets, accountable processes, and initiatives, EPA continues to implement the Government Performance and Results Act (GPRA) to ensure sound stewardship of Agency fiscal resources. As part of this effort, the Agency is improving its capabilities to use performance data and other information to make cost-effective investments for environmental results. The Agency also works closely with partners and stakeholders to meet GPRA challenges. EPA consults with both internal and external customers to ensure fiscal management

services meet their needs for timeliness, efficiency, and quality.

Investment in human resources ensures that the workforce has the scientific and technological skills needed for the future and reflects the talents and perspectives of a growing multi-cultural society. This strategy will enable EPA to attract, retain, and further develop a diverse workforce prepared to meet the Agency's current and future challenges.

EPA works toward providing a quality work environment which places high value on employee safety, security and the design and establishment of state-of-the-art laboratories. These facilities provide the tools essential to research innovative solutions for current and future environmental problems and enhances our understanding of environmental risks. Plans for building operations and new construction to support existing infrastructure requirements ensure healthy, safe, and secure work environments and reflect energy conservation goals. These plans also fulfill the scientific and functional requirements of our programs. EPA has adopted an aggressive strategy to utilize energy saving performance contracts in order to reduce energy consumption significantly over the next five years.

The Agency's efforts in contract management will focus on selecting the appropriate contract vehicle to deliver the best value for the taxpayer. Performance-based contracts allow the government to manage for results. Under this system the government pays for results, not effort or process, and contractors are encouraged to determine the best and most cost-effective ways to fulfill the government's needs. Performance-based contracts save time and money for the Agency

Goal 10: Effective Management

by reducing unnecessary contract administration costs. This is accomplished by moving away from cost reimbursement and level of effort to fixed price completion contracts. In addition, the Agency will put increased emphasis on contract oversight, including speeding up the contract process through fast-track system enhancements and automation efforts.

All OIG work is focused on the anticipated value it will have on influencing and resolving the Agency's major management challenges, reducing risk, improving practices and program operations, and saving taxpayer dollars while leading to the attainment of EPA's strategic goals. Highlights of expected Agency 2002 achievements in effective management are:

- Improvement of environmental quality and human health;
- Improvement of Agency management and program operations; and
- Producing timely, quality, and cost-effective products and services.

The Agency will continue its commitment to protect children's health by targeting resources towards activities that will assure that the decisions and actions taken by the Agency consider risks to children, including working to develop sound scientific information to provide the basis for these decisions and actions. The Agency will also provide policy direction and guidance on equal employment opportunity and civil rights. The Agency's Administrative Law Judges and its Environmental Appeals Board Judges will issue timely decisions on

administrative complaints and environmental adjudications.

Highlights

Agency management provides vision, leadership and conducts policy oversight for all Agency programs. Sound management principles, practices, results-based plans and budgets, fiscal accountability, quality customer service, policy guidance, and careful stewardship of Agency's resources are the foundation of EPA's efforts to protect the human health and the environment.

In 2002, EPA will build on its progress of linking resources to environmental results through goals-based fiscal resource management. The Agency will provide more useful cost accounting information for environmental decision-making. EPA will make continued progress to evaluate the environmental results of its program activities. Highlights of expected Agency 2002 achievements in effective management are:

- Continued improvement in the accountability process that provides timely performance information used in strategic and annual plans, budget formulation, and reports.
- Maintenance of a clean audit opinion on the Agency's financial statements to demonstrate the highest caliber of resource stewardship and the credibility and reliability of Agency financial information.
- Implementation of a new payroll system that will reduce processing costs and burdens through use of efficient technology and processes.

Goal 10: Effective Management

- Continued development a long-term solution for the replacement of the Agency's major financial system and ancillary specialized systems that will better integrate these systems with other Agency resource database and administrative systems.
- Expansion of cost accounting and financial reporting capabilities to make relevant financial information readily available for decision-making purposes.

The Agency continues to strengthen pre-award and post-award management of assistance agreements. In 2002, EPA will closeout all interagency agreements and non-construction grants that end before September 30, 2001, ensuring projects are closed in a timely manner and that backlogs are avoided. The Agency will move toward electronic execution of grants internally and continue its commitment to integrate with Federal Commons, the central source for electronic grants administration for the government. The Agency will improve electronic commerce by providing electronic communication and contract management between EPA Program Offices and EPA contractors through the use of EPA's Program Office Interface System. In 2002, the Agency will continue to improve efficiencies in the contract process, while saving taxpayers dollars, through use of performance-based contracts. All new contracts will be evaluated for possible award or conversion to performance-based contracts.

In 2002, the Agency's request reflects the need to invest in our human resources to ensure that EPA has the science, technology,

and interdisciplinary skills needed for the future and that EPA's workforce reflects the talents and perspectives of a growing multicultural society. To support this priority, the Agency will continue to implement its "Strategy for Human Capital." The Strategy represents a strategic direction in which to invest in and manage the Agency's human resources. The effort includes workforce planning, to ensure that human resource requirements are aligned with strategic goals, and training, to enable our workforce to deliver national leadership, science, and technology expertise in environmental protection. The Agency recognizes that investing in human resources is fundamental to achieving our strategic goals and objectives. The Agency's human resource goals are:

- Attracting and retaining a diverse and highly skilled workforce;
- Ensuring the workforce performs to its highest potential;
- Encouraging the workforce to be innovative, creative, and risk-taking at all levels of the organization;
- Continuing to develop a sense of community, where differences are recognized as contributing to the whole, all employees' contributions are appreciated, and all views are solicited and welcomed;
- Practicing teamwork and collaboration with internal and external partners; and

Goal 10: Effective Management

- Integrating human resource systems with planning, budgeting, and accountability processes.

The Agency's building operations and new construction budget ensures a healthy, safe, and secure work environment for its employees, and integrates energy conservation and state-of-the-art technology into its daily activities. The Agency will ensure that all new and ongoing construction projects are progressing and completed as scheduled. Renovation activities will continue at the New Headquarters project. EPA will also address critical repairs in EPA facilities related to employee health and safety, as well as environmental protection. These facilities provide the tools essential for researching innovative solutions to current and future environmental problems and enhancing our understanding of environmental risks.

The OIG will conduct and supervise independent and objective audits, evaluations, and investigations relating to Agency programs and operations, and will provide advisory services. The OIG will also review and make recommendations regarding existing and proposed legislation and regulations impacting the Agency. In addition, program evaluations and five types of audits will be conducted: contract, assistance agreement, program, financial statement, and systems audits. Five types of investigations will be performed: program integrity, assistance agreement, contract and procurement, employee integrity, and computer forensic investigations. Combined, these activities promote economy, efficiency, and effectiveness within the Agency, prevent and detect fraud, waste, and abuse, and contribute to improved environmental quality

and human health. The OIG will keep the EPA Administrator and Congress fully informed of problems and deficiencies identified in Agency programs and operations and the necessity for corrective actions.

EPA will continue its commitment to protect children's health. The Agency will direct resources toward the programs that reduce risks to children from a range of environmental hazards. In 2002, the Agency will focus on research and analyses to provide scientific and economic information needed to address the heightened risks faced by children from environmental contaminants. The Agency will continue to work to decrease the frequency and severity of asthma attacks in children through reduction and avoidance of key asthma triggers, including environmental tobacco smoke, prevalent indoor allergens, and ambient air pollution. The Agency will continue efforts to reduce children's exposure to lead, particularly in low income minority neighborhoods, where children living in older housing are much more likely to be exposed to lead. We will continue to build partnerships and work with other Federal agencies, states, health care providers, schools, and international organizations to incorporate children's environmental health into their programs and activities. Highlights of expected Agency 2002 achievements in effective management are:

- Improvement of internal discrimination complaints process to provide employees and applicants for employment an opportunity to seek redress; and
- Improvement of external discrimination complaints process to

Goal 10: Effective Management

prohibit discrimination against any entity that receives Federal financial assistance.

2002 Annual Performance Goals

- In 2002, improve environmental quality and human health by recommending 50 improvements across Agency environmental goals, identifying and recommending solutions to reduce 15 of the highest environmental risks, and identifying 15 best environmental practices.
- In 2002, EPA continues improving how it measures progress in achieving its strategic objectives and annual goals by increasing external performance goals and measures characterized as outcomes by 2 percent in the 2003 Annual

Performance Plan and Congressional Justification compared to 2002.

- In 2002, EPA strengthens goal-based decision-making by developing and issuing timely planning and resource Management products that meet customer needs.
- In 2002, EPA will initiate a demonstration fuel cell at Fort Meade Laboratory.
- In 2002, EPA will ensure personnel are relocated to new space as scheduled.
- In 2002, EPA will ensure that all new and ongoing construction projects are progressing and completed as scheduled.

Goal 10: Effective Management

Goal 10: Effective Management Key Programs

(dollars in thousands)

	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>
Administrative Law	\$2,566.3	\$2,828.3
Administrative Services	\$81,612.9	\$87,341.1
Assistance Agreement Audits	\$5,352.1	\$2,000.0
Assistance Agreement Investigations	\$2,765.0	\$2,900.0
Brownfields	\$0.0	\$231.1
Civil Rights/Title VI Compliance	\$9,140.1	\$11,898.3
Contract and Procurement Investigations	\$2,979.7	\$3,100.0
Contract Audits	\$5,346.2	\$5,200.0
Employee Integrity Investigations	\$921.2	\$1,000.0
Environmental Appeals Boards	\$1,548.8	\$1,711.6
Environmental Finance Center Grants (EFC)	\$1,249.0	\$1,249.0
Financial Statement Audits	\$4,247.3	\$4,000.0
Immediate Office of the Administrator	\$3,300.0	\$4,294.2
Information Technology Management	\$3,250.4	\$0.0
Planning and Resource Management	\$47,567.1	\$47,246.8
Planning, Analysis, and Results - IG	\$1,612.2	\$1,600.0
Program Audits	\$12,763.4	\$4,900.0
Program Evaluation - IG	\$2,842.0	\$15,000.0
Program Integrity Investigations	\$1,483.1	\$1,500.0
Regional Management	\$21,304.8	\$52,843.6
Regional Program Infrastructure	\$28,670.4	\$6,032.1
Regional Science and Technology	\$1,369.5	\$0.0
Rent, Utilities and Security	\$38,920.1	\$42,794.8

Goal 10: Effective Management for Programs

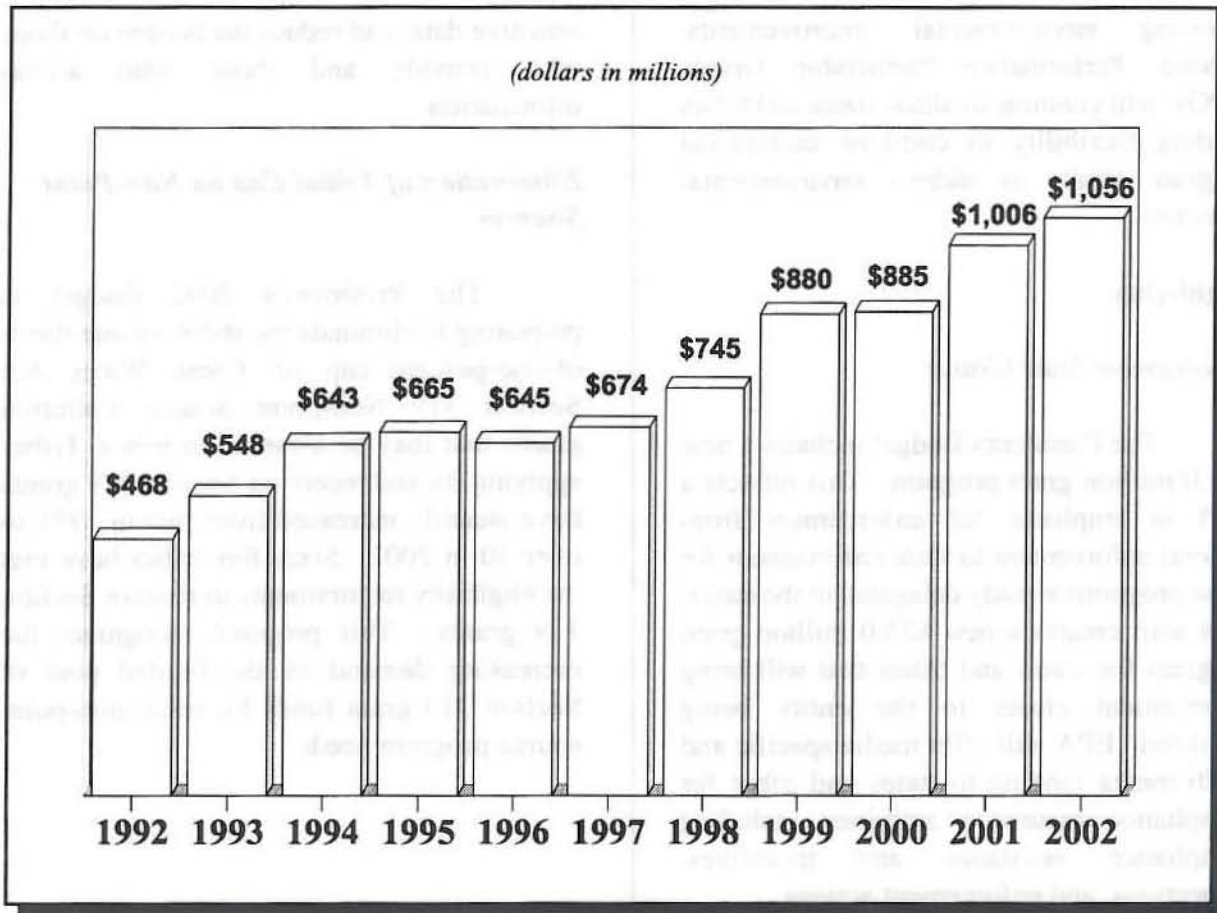
(Include a description)

Program	Indicator	Target
Program 1	Program 1 Indicator 1	Target 1
Program 2	Program 2 Indicator 1	Target 2
Program 3	Program 3 Indicator 1	Target 3
Program 4	Program 4 Indicator 1	Target 4
Program 5	Program 5 Indicator 1	Target 5
Program 6	Program 6 Indicator 1	Target 6
Program 7	Program 7 Indicator 1	Target 7
Program 8	Program 8 Indicator 1	Target 8
Program 9	Program 9 Indicator 1	Target 9
Program 10	Program 10 Indicator 1	Target 10
Program 11	Program 11 Indicator 1	Target 11
Program 12	Program 12 Indicator 1	Target 12
Program 13	Program 13 Indicator 1	Target 13
Program 14	Program 14 Indicator 1	Target 14
Program 15	Program 15 Indicator 1	Target 15
Program 16	Program 16 Indicator 1	Target 16
Program 17	Program 17 Indicator 1	Target 17
Program 18	Program 18 Indicator 1	Target 18
Program 19	Program 19 Indicator 1	Target 19
Program 20	Program 20 Indicator 1	Target 20
Program 21	Program 21 Indicator 1	Target 21
Program 22	Program 22 Indicator 1	Target 22
Program 23	Program 23 Indicator 1	Target 23
Program 24	Program 24 Indicator 1	Target 24
Program 25	Program 25 Indicator 1	Target 25
Program 26	Program 26 Indicator 1	Target 26
Program 27	Program 27 Indicator 1	Target 27
Program 28	Program 28 Indicator 1	Target 28
Program 29	Program 29 Indicator 1	Target 29
Program 30	Program 30 Indicator 1	Target 30
Program 31	Program 31 Indicator 1	Target 31
Program 32	Program 32 Indicator 1	Target 32
Program 33	Program 33 Indicator 1	Target 33
Program 34	Program 34 Indicator 1	Target 34
Program 35	Program 35 Indicator 1	Target 35
Program 36	Program 36 Indicator 1	Target 36
Program 37	Program 37 Indicator 1	Target 37
Program 38	Program 38 Indicator 1	Target 38
Program 39	Program 39 Indicator 1	Target 39
Program 40	Program 40 Indicator 1	Target 40
Program 41	Program 41 Indicator 1	Target 41
Program 42	Program 42 Indicator 1	Target 42
Program 43	Program 43 Indicator 1	Target 43
Program 44	Program 44 Indicator 1	Target 44
Program 45	Program 45 Indicator 1	Target 45
Program 46	Program 46 Indicator 1	Target 46
Program 47	Program 47 Indicator 1	Target 47
Program 48	Program 48 Indicator 1	Target 48
Program 49	Program 49 Indicator 1	Target 49
Program 50	Program 50 Indicator 1	Target 50

ADDITIONAL INFORMATION

ADDITIONAL
INFORMATION

Categorical Program Grants



The President's 2002 Budget requests a total of \$1,055.8 million for 21 'categorical' program grants for state and tribal governments. This is an increase of \$50.0 million over 2001. These grants are part of EPA's Operating Programs even though they are funded in the State and Tribal Assistance Grant (STAG) appropriation account. 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 2002, EPA will continue to give more flexibility to state and tribal governments to manage their environmental programs as well as provide technical and financial assistance. 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 with less interference from the Federal government, while increasing emphasis on measuring and

Categorical Program Grants

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.

Highlights

Enforcement State Grants

The President's Budget includes a new \$25.0 million grant program. This reflects a shift in emphasis for enforcement from Federal enforcement to state enforcement for those programs already delegated to the states. This shift creates a new \$25.0 million grant program for states and tribes that will bring enforcement closer to the entity being regulated. EPA will offer media specific and multi-media funding to states and tribes for compliance assurance activities including compliance assistance and incentives, inspections, and enforcement actions.

Information Exchange Network

The President's 2002 Budget requests \$25.0 million to launch a new grant program that will provide states and tribes assistance to develop the National Environmental Information Exchange Network (NEIEN). This new grant program will build on work currently underway in several states and assist states and tribes in evaluating their readiness to participate in NEIEN. This grant will also support state and tribal efforts to complete necessary changes to their information management systems to facilitate participation, and enhance state information integration efforts. NEIEN will improve environmental decision-making, improve data quality and accuracy, ensure security of

sensitive data, and reduce the burden on those who provide and those who access information.

Elimination of Tribal Cap on Non-Point Sources

The President's 2002 Budget is proposing to eliminate 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. Tribes applying for and receiving Section 319 grants have steadily increased from two in 1991 to over 30 in 2001. Sixty-five tribes have met the eligibility requirements to receive Section 319 grants. This proposal recognizes the increasing demand on the limited pool of Section 319 grant funds for tribal non-point source program needs.

Water Infrastructure Financing

(dollars in millions)		
	FY 2001 Enacted	FY 2002 President's Budget
Wastewater Grants	<u>\$1,347.0</u>	<u>\$1,300.0</u>
- Clean Water State Revolving Fund (CWSRF)	\$1,347.0	\$850.0
- Sewer Overflow Control Grants	\$0.0	\$450.0
Drinking Water State Revolving Fund (DWSRF)	\$823.2	\$823.2
Mexican Border Projects	\$74.8	\$74.8
Alaska Native Villages	\$34.9	\$34.9
Special Needs Projects	\$335.0	\$0.0
Total	\$2,615.0	\$2,232.9

Water Infrastructure Funds

The President's 2002 Budget requests a total of \$2,232.9 million for EPA's Water Infrastructure programs, a decrease of \$382.1 million from 2001. Of the total water infrastructure request, \$2,158.1 million will support EPA's Goal 2: Clean and Safe Water, and \$74.8 million will support EPA's Goal 6: Reduction of Global and Cross-Border Environmental Risks. The \$382.1 million decrease is the net result of an increase of \$450.0 million for the new sewer overflow control grants, a \$497.0 million decrease in the Clean Water State Revolving Fund (CWSRF) program, and a \$335.0 million reduction in 2001 Congressional earmarks.

The resources requested in this budget will enable the Agency, in conjunction with EPA's state, local, and tribal partners, to achieve several important goals for 2002. Some of these goals include:

- 91 percent of the population served by community water systems will receive drinking water meeting all

health-based standards in effect as of 1994, up from 83 percent in 1994.

- 700 projects funded by the CWSRF will initiate operations, including 400 projects providing secondary treatment, advanced treatment, combined sewer overflow (CSO) correction (treatment), and/or storm water treatment. Cumulatively, 7,900 projects will have initiated operations since program inception.

Water infrastructure funding under the State and Tribal Assistance Grants (STAG) appropriation provides financial assistance to states, municipalities and tribal governments to fund a variety of drinking water, water, and wastewater infrastructure 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. States and localities rely on a variety of revenue sources to finance their environmental

Water Infrastructure Financing

programs and to pay for the facilities needed to keep the water clean and safe from harmful contaminants.

Providing STAG funds through State Revolving Fund (SRF) programs, EPA works in partnership with the states to provide low-cost loans to municipalities for infrastructure construction. SRF funds are also provided as grants to tribal governments to help them address their water, drinking water, and wastewater needs.

Goal 2: Clean and Safe Water

Sewer Overflow Control Grants

For 2002, the Agency is requesting \$450.0 million for a new sewer overflow control grant program to address CSOs and State Sewer Overflows (SSOs) as authorized by the Consolidated Appropriations Act of 2000. Sewer overflows result in thousands of discharges of raw sewage each year, and are a significant source of water quality impairment generally. Funds will be allocated to the states in 2002 using the same formula that is used to allot Clean Water SRF funding. A new allocation method will be developed for 2003.

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 of the Agency's premier tools for building the financial capacity of our partners.

EPA will continue to capitalize the CWSRF. Through this program, the federal government provides financial assistance for wastewater and other water projects, including non-point source, estuary, stormwater, and sewer overflow projects. Water infrastructure projects contribute to direct ecosystem improvements by lowering the amount of nutrients and toxic pollutants in all types of surface waters.

This budget request includes \$850.0 million for the CWSRF. Over \$18 billion has already been provided to capitalize the CWSRF, more than twice the original authorized level of \$8.4 billion. The 2002 request keeps EPA on track with our commitment to meet the goal for the CWSRF to provide an average of \$2 billion in annual financial assistance, even after the federal capitalization ends. Total SRF funds available for loans since 1987, reflecting loan repayments, state match dollars, and other sources of funding, are approximately \$34.0 billion, of which \$30.0 billion has been provided to communities as financial assistance and \$3.4 billion remains available as of June 30, 2000. In 2000 alone, over \$4 billion in financial assistance was provided to local communities from state CWSRF programs.

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

Water Infrastructure Financing

million people, use secondary treatment or better.

To improve public health and water quality in Indian Country, the Agency proposes to continue the 1 ½ percent set-aside of the CWSRF for wastewater grants to tribes as provided in the Agency's 2001 appropriation. More than 70,000 homes in Indian Country have inadequate or nonexistent wastewater treatment. EPA and the Indian Health Service estimate that tribal wastewater infrastructure needs exceed \$650.0 million as of 1997.

In 2002, the President is requesting \$823.2 million for the Drinking Water State Revolving Fund (DWSRF). Through the DWSRF program, states will provide loans to finance improvements to community water systems so that they can achieve compliance with the mandates of the 1996 Safe Drinking Water Act (SDWA) Amendments and continue to protect public health. Some non-state recipients, such as the District of Columbia and the tribes, will receive their DWSRF allocations in the form of grants.

The DWSRFs will be self-sustaining in the long run and will help offset the costs of ensuring safe drinking water supplies and assist small communities in meeting their responsibilities. The 2002 request keeps EPA on track with our commitment to meet the goal for the DWSRF to provide an average of \$500 million in annual financial assistance, even after the federal capitalization ends. Through 2001, Congress has appropriated \$4.4 billion for the DWSRF program. Through June 30, 2000, states had received \$2.7 billion in capitalization grants, which when combined with the state match, bond proceeds and other funds provided \$3.7

billion in total cumulative funds available for loans. Through June 30, 2000, states had made close to 1,200 loans totaling \$2.3 billion and \$1.4 billion remained available for loans.

State Flexibility Between SRFs

The Agency requests continuation of authority provided in the 1996 SDWA Amendments which allows states to transfer an amount equal up to 33 percent of their DWSRF grants to their CWSRF programs, or an equivalent amount from their CWSRF program to their DWSRF program. The transfer provision gives states flexibility to address the most critical demands in either program at a given time. Unless extended, the transfer provision expires September 30, 2001.

Supporting Alaska Native Villages

The President's Budget requests \$34.9 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, and local communities to provide needed financial and technical assistance.

Goal 6: Reducing Cross-Border Environmental Risks – U.S./Mexico

The President's Budget requests a total of \$74.8 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. The communities along both sides of the Border are facing

unusual human health and environmental threats because of the lack of adequate wastewater and drinking water facilities. 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 U.S./Mexico Border.

The Agency's program is authorized by the 1994 NDWA. An authority which allows states to provide an amount equal to 10 percent of their DWSPR from the federal DWSPR program, an estimated amount from the DWSPR program is their DWSPR program. The federal program gives states flexibility to address the most critical demands in their programs given the limited federal funds. Human health and environmental threats are the primary focus of the program.

Supporting Human Health

The President's Budget requests \$1.9 million for Alaska state water for the construction of wastewater and drinking water facilities to address water sanitation problems. EPA will continue to work with the Department of Health and Human Services, Indian Health Service, the State of Alaska, and local communities to provide needed financial and technical assistance.

Linking Environmental Risk - A Solution

The President's Budget requests a total of \$34.4 million for water infrastructure projects along the U.S./Mexico Border. The goal of the program is to reduce environmental and human health risks along the U.S./Mexico Border. The communities along the border are facing

unusual human health and environmental threats because of the lack of adequate wastewater and drinking water facilities.

In response to public health and water quality in Indian Country, the Agency proposes to continue the 10 percent set-aside of the DWSPR for wastewater grants to other as needed in the Agency's 2001 fiscal year. More than 20,000 people in Indian Country have inadequate or no wastewater treatment. EPA and the Indian Health Service estimate that about 100,000 people are exposed to untreated wastewater in Indian Country.

In 2001, the President is requesting \$21.7 million for the Drinking Water State Revolving Fund (DWSRF). Through the DWSRF program, states will provide loans to their communities to construct water treatment facilities. This is an advance commitment to the President of the 1994 Safe Drinking Water Act (SDWA) Amendments and continues to protect public health. Some one-state projects, such as the District of Columbia and the Virgin Islands, will receive their DWSRF allocations in the form of grants.

The DWSRF will be self-sustaining as the long-term and will help offset the costs of drinking water treatment and distribution. The DWSRF program is managed by the states and local communities. The 2001 request for EPA is \$21.7 million. The DWSRF program is a key part of the President's strategy to provide an average of \$200 million in annual financial assistance to states for the federal capitalization needs. Through 2001, Congress has appropriated \$4.4 billion for the DWSRF program. Through the 2001 DWSRF program, \$2.7 billion in capitalization grants will be provided with the state match from proceeds and other funds provided \$2.7

Trust Fund

(dollars in millions)

	FY 2001 Enacted	FY 2001 Enacted FTE	FY 2002 President's Budget	FY 2002 President's Budget FTE
Superfund				
Response	\$912.8	1,576.6	\$914.1	1,559.9
Enforcement	\$168.1	1,137.4	\$161.2	1,069.3
Management & Support	\$127.7	500.7	\$133.3	491.6
Other Federal Agencies	\$10.7	0.0	\$10.7	0.0
<i>Transfers</i>				
Inspector General	\$11.5	94.4	\$11.9	92.2
Research & Development	\$36.4	121.6	\$36.9	109.4
Superfund Total	\$1,267.2	3,430.7	\$1,268.1	3,322.4
 Base Realignment and Closure (BRAC)	 \$0.0	 97.7	 \$0.0	 83.6
 LUST	 \$71.9	 81.9	 \$71.9	 80.4
 Trust Fund Total:	 \$1,339.1	 3,610.3	 \$1,339.8	 3,486.4

Superfund

The President's 2002 Budget requests a total of \$1,268.1 million and 3,322.4 workyears for Superfund. Currently, more than 92 percent of 1,450 sites on the Superfund final national priorities list (NPL) are either undergoing cleanup construction (remedial or removal) or are completed.

Of the total funding requested, \$914.1 million and 1,559.9 workyears are for Superfund cleanups and Brownfields redevelopment. The Agency's Superfund cleanup program addresses public health and environmental threats from uncontrolled

releases of hazardous substances. In 2002, EPA and its partners will complete 65 Superfund cleanups at NPL sites to achieve the overall goal of 897 construction completions by the end of 2002.

The Agency is requesting \$97.7 million for the Brownfields program within the total Superfund request of \$914.1 million. This is a \$5.0 million increase to the 2001 Budget for the Brownfields program. The additional resources will provide funding for brownfields assessment pilots and State Voluntary Cleanup programs. Brownfields are abandoned, idled, or underused industrial and commercial properties, and are not traditional Superfund sites as they are not

Trust Funds

generally highly contaminated and present lesser health risks. The Agency's Brownfields program encourages the redevelopment of these sites by addressing concerns such as environmental liability and cleanup, infrastructure declines, and changing development priorities.

Of the total funding requested, \$161.2 million and 1,069.3 workyears for the Superfund Enforcement program. One of Superfund's primary goals is to have responsible parties pay for and conduct cleanups at abandoned or uncontrolled hazardous waste sites. The program focuses on maximizing all aspects of potentially responsible party (PRP) participation, including having PRPs initiate work at 70 percent of the new construction starts at non-Federal Facility Superfund sites, and emphasizing fairness in the settlement process. Where PRP negotiations and previous enforcement actions fail, EPA uses its appropriation to clean up sites and then seeks to recover these costs from the PRPs. In 2002, EPA will also make offers to compensate settling parties, through forgiveness of past costs and future oversight costs, and for orphan shares at all eligible settlement negotiations for response work.

The remaining portion of the Superfund 2002 President's Budget comprises Management and Support, other Federal agencies, Research and Development and Inspector General. The President's Budget requests \$133.3 million and 491.6 workyears for management and support activities. These resources support Agency-wide resource management and control functions including: essential infrastructure, contract

administration, financial accounting and other fiscal operations.

Included in the Superfund request is \$10.7 million for other Federal Agency partners. The Agency works with several other Federal agencies to perform essential services in areas where the Agency does not possess the specialized expertise. Currently the Agency has interagency agreements with the United States Coast Guard, the Department of the Interior, the Federal Emergency Management Agency, and the Occupational Safety and Health Administration.

The President's Budget also requests \$48.8 million and 201.6 workyears to be transferred to Research and Development for innovative cleanup technology testing and the Inspector General for program auditing.

Base Realignment and Closure Act (BRAC)

The 2002 President's Budget requests 83.6 reimbursable workyears to conduct the BRAC program. Since 1993, EPA has worked with the Department of Defense (DoD) and the states' environmental programs to make property environmentally acceptable for transfer, while protecting human health and the environment — at realigning or closing military installations. Between 1988 and 1995, 497 major military installations representing the Army, Navy, Air Force, and Defense Logistics Agency were slated for realignment or closure.

LUST

The 2002 President's Budget requests \$71.9 million and 80.4 workyears for the Leaking Underground Storage Tank (LUST) program. Approximately 85 percent of this will be used for state cooperative agreements and support for tribal cleanup. The Agency's highest priorities in the LUST program over the next several years will be to address the backlog of 160,000 cleanups (as of September 1999), and to address LUST sites that are difficult to remediate because they are contaminated by methyl tertiary butyl ether (MTBE) and other oxygenates. In 2002, the Agency's goal is to complete 23,000 cleanups under the supervision of EPA and its state, local and tribal partners. The Agency will also support the "USTFields" program which focuses attention on abandoned or idled industrial and commercial UST facilities.

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The first section of the report
 is a summary of the work done
 during the year. It is divided
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<p align="center">Environmental Protection Agency Summary of Agency Workforce by Goal</p>
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	<i>Workyears</i>		
	FY 2001	FY 2002	Delta
		President's	FY 2002
			vs.
	<u>Enacted</u>	<u>Budget</u>	<u>FY 2001</u>
1. Clean Air	1,855.6	1,810.8	(44.8)
2. Clean & Safe Water	2,715.0	2,694.1	(20.9)
3. Safe Food	796.9	770.9	(26.0)
4. Preventing Pollution	1,171.3	1,161.7	(9.6)
5. Better Waste Management	4,396.1	4,265.8	(130.3)
6. Global & Cross Border	521.0	506.6	(14.4)
7. Quality Environmental Information	890.6	854.3	(36.3)
8. Sound Science	1,024.1	998.4	(25.7)
9. Credible Deterrent	2,553.8	2,330.3	(223.5)
10. Effective management	2,075.6	2,107.1	31.5
Grand Total	18,000.0	17,500.0	(500.0)

<p align="center">Environmental Protection Agency Summary of Agency Resources by Goal</p>
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(dollars in thousands)

	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>	Delta FY 2002 vs. <u>FY 2001</u>
1. Clean Air	\$590,082.0	\$564,628.0	(\$25,454.0)
2. Clean & Safe Water	\$3,675,947.8	\$3,213,402.5	(\$462,545.3)
3. Safe Food	\$109,303.9	\$108,245.0	(\$1,058.9)
4. Preventing Pollution	\$301,113.7	\$297,572.3	(\$3,541.4)
5. Better Waste Management	\$1,517,539.9	\$1,510,758.2	(\$6,781.7)
6. Global & Cross Border	\$284,410.8	\$282,698.9	(\$1,711.9)
7. Quality Environmental Information	\$178,253.4	\$189,128.1	\$10,874.7
8. Sound Science	\$334,326.0	\$307,247.7	(\$27,078.3)
9. Credible Deterrent	\$397,274.6	\$411,215.7	\$13,941.1
10. Effective management	\$423,375.5	\$431,703.8	\$8,328.3
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Offsetting Receipts	\$0.0	(\$4,000.0)	(\$4,000.0)
GRAND TOTAL Budget Authority	\$7,811,627.6	\$7,312,600.2	(\$499,027.4)

<p align="center">Environmental Protection Agency Summary of Agency Resources by Appropriation</p>

(dollars in thousands)

	FY 2001 <u>Enacted</u>	FY 2002 President's <u>Budget</u>	Delta FY 2002 vs. <u>FY 2001</u>
Science & Technology	\$695,466.6	\$640,537.8	(\$54,928.8)
Environmental Program & Mgt.	\$2,083,396.4	\$1,972,960.0	(\$110,436.4)
Building & Facilities	\$23,878.4	\$25,318.4	\$1,440.0
Oil Spill Response	\$14,967.0	\$14,967.0	\$0.0
Inspector General	\$34,019.0	\$34,019.0	\$0.0
Superfund	\$1,267,206.0	\$1,268,135.2	\$929.2
<i>Superfund Program</i>	<i>\$1,219,311.6</i>	<i>\$1,219,377.7</i>	<i>\$66.1</i>
<i>Research Transfer</i>	<i>\$36,419.7</i>	<i>\$36,890.5</i>	<i>\$470.8</i>
<i>IG Transfer</i>	<i>\$11,474.7</i>	<i>\$11,867.0</i>	<i>\$392.3</i>
State & Tribal Assistance Grants	\$3,620,756.8	\$3,288,725.4	(\$332,031.4)
Leaking Underground Storage Tanks	\$71,937.4	\$71,937.4	\$0.0
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Offsetting Receipts	\$0.0	(\$4,000.0)	(\$4,000.0)
GRAND TOTAL Budget Authority	\$7,811,627.6	\$7,312,600.2	(\$499,027.4)

CATEGORICAL PROGRAM GRANTS (STAG)
by National Program Manager and State Grant
(Dollars in Thousands)

<u>Grant</u>	<u>FY 2000 Enacted /1</u>	<u>FY 2001 Enacted /2</u>	<u>FY 2002 President's Budget</u>
Air & Radiation			
State and Local Assistance	\$198,690.0	\$208,540.1	\$208,540.1
Tribal Assistance	\$11,068.8	\$11,044.5	\$11,044.5
Radon	<u>\$8,158.0</u>	<u>\$8,139.9</u>	<u>\$8,139.9</u>
	\$217,916.8	\$227,724.5	\$227,724.5
Water			
Pollution Control (Section 106)	\$115,529.3	\$171,883.3	\$169,883.3
BEACH Program	\$0.0	\$0.0	\$2,000.0
Nonpoint Source	\$200,000.0	\$237,476.8	\$237,476.8
Wetlands Program Development	\$15,000.0	\$14,967.0	\$14,967.0
Water Quality Cooperative Agrmts	<u>\$19,000.0</u>	<u>\$18,958.2</u>	<u>\$18,958.2</u>
	\$349,529.3	\$443,285.3	\$443,285.3
Drinking Water			
Public Water System Supervision (PWSS)	\$93,305.5	\$93,100.2	\$93,100.2
Underground Injection Control (UIC)	<u>\$10,975.0</u>	<u>\$10,950.9</u>	<u>\$10,950.9</u>
	\$104,280.5	\$104,051.1	\$104,051.1
Hazardous Waste			
H.W. Financial Assistance	\$98,598.2	\$106,363.6	\$106,363.6
Underground Storage Tanks	<u>\$11,944.7</u>	<u>\$11,918.4</u>	<u>\$11,918.4</u>
	\$110,542.9	\$118,282.0	\$118,282.0
Pesticides & Toxics			
Pesticides Program Implementation	\$13,114.6	\$13,085.5	\$13,085.5
Lead	\$13,712.2	\$13,682.0	\$13,682.0
Toxic Substances Compliance	\$5,150.0	\$5,138.8	\$5,138.8
Pesticides Enforcement	<u>\$19,911.6</u>	<u>\$19,867.9</u>	<u>\$19,867.9</u>
	\$51,888.4	\$51,774.2	\$51,774.2
Multimedia			
Information Exchange Network	\$0.0	\$0.0	\$25,000.0
Multi-Media Enforcement Grants	\$0.0	\$0.0	\$25,000.0
Pollution Prevention	\$5,999.5	\$5,986.3	\$5,986.3
Enforcement & Compliance Assurance	\$2,214.2	\$2,209.3	\$2,209.3
Indian General Assistance Program	<u>\$42,628.4</u>	<u>\$52,469.7</u>	<u>\$52,469.7</u>
	\$50,842.1	\$60,665.3	\$110,665.3
<u>TOTALS</u>	<u>\$885,000.0</u>	<u>\$1,005,782.4</u>	<u>\$1,055,782.4</u>

1/ Includes 0.38% rescission.

2/ Includes 0.22% rescission.