

# Summary of the 1989 Budget

**ENVIRONMENTAL  
PROTECTION  
AGENCY**



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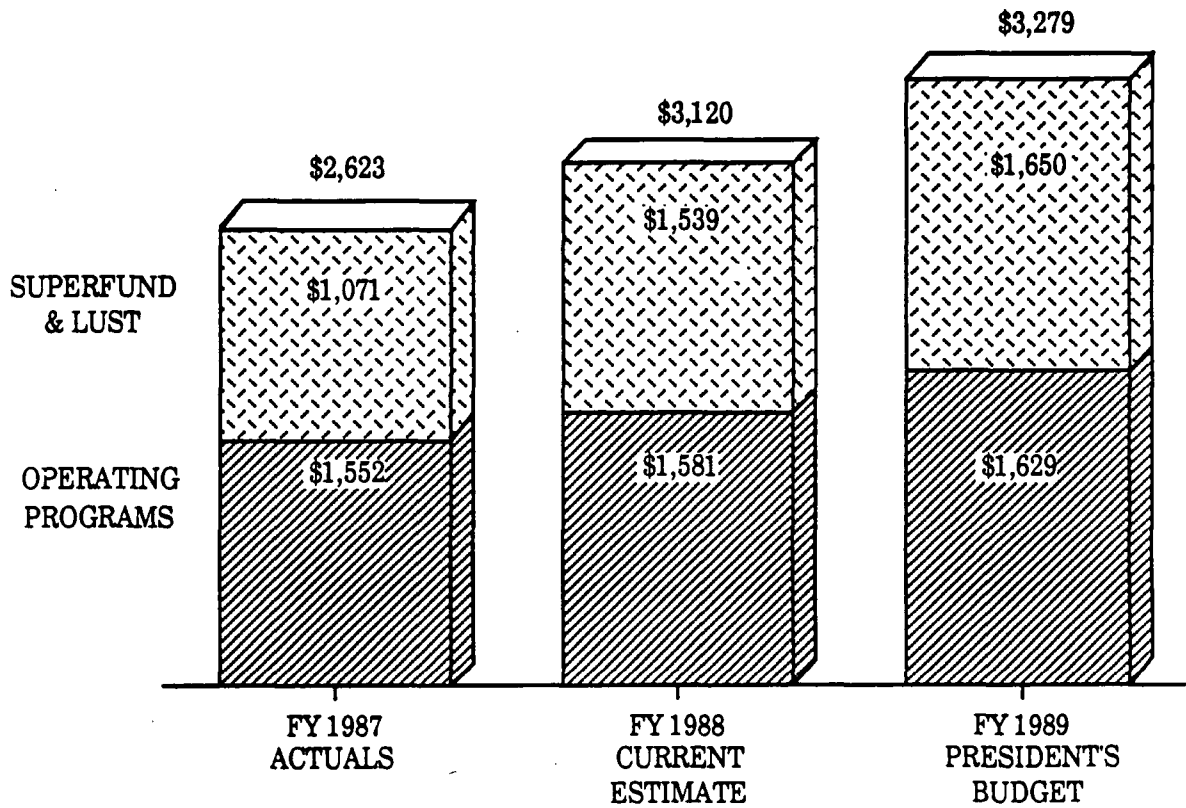
**NOTE:** The charts on the following pages include the 1987 Final Actuals, 1988 Current Estimate, and the 1989 President's Budget. Unless otherwise noted, all comparisons between 1989 and 1988 budget levels in the narrative refer to the 1988 Current Estimate and 1989 President's Budget. (The "Current Estimate" is the Agency's current plan for using its resources.)

Additionally, references to workyears refer to total workyears rather than only "permanent" workyears.

# **OVERVIEW**

**THE AGENCY'S FY 1989 BUDGET INCREASES BY \$159  
MILLION FROM THE FY 1988 CURRENT ESTIMATE**

(\$ IN MILLIONS)



(EXCLUDES CONSTRUCTION GRANTS)

# OVERVIEW OF THE 1989 BUDGET

The President's 1989 Budget for the Environmental Protection Agency was constructed within the constraints of the recent Bipartisan Agreement between the Administration and Congress. This agreement has placed substantial restrictions on budget increases throughout the Federal Government. However, in the development of the EPA's 1989 Budget, the Administration has shown a significant commitment to protect the environment. With the exception of our Construction Grants program, the Agency's budget will increase in 1989. Our operating programs will receive a modest increase, and in recognition of the need to achieve legislative mandates, the Superfund program will receive a substantial increase.

The Agency's 1989 Budget represents a request for approximately **\$4.8 billion** supported by **14,570 workyears**. The request includes \$1.6 billion and 11,730 workyears for our operating programs, \$1.6 billion and 2,750 workyears for the Superfund program, and \$50 million and 90 workyears for the Leaking Underground Storage Tank (LUST) program. When we include previously appropriated funds, we expect to conduct a total Superfund program of \$1.7 billion. Additionally, the request provides \$1.5 billion for the Construction Grants program.

The 1989 Budget request provides strong support for implementing the EPA's new requirements. It enhances the Superfund program for an increased number of site designs and constructions. It also provides increased support for the States in the Leaking Underground Storage Tank (LUST) program. It continues to build on the Agency's commitment to pesticides disposal. It provides substantial increases to implement the Clean Water Act, and it increases research and development necessary to support the Agency's programs.

At the same time, the 1989 request includes resources to ensure a stable base for the Agency's operating programs. It continues the expansion of the Agency's enforcement program and maintains the strong State-Federal partnership that is crucial to achieving our environmental goals.

The following provides a brief summary of key programmatic components in the President's 1989 Budget:

## **Disposal of Cancelled/Suspended Pesticides**

The Agency is requesting \$60.0 million for the transportation, storage and disposal of cancelled/suspended pesticides, an increase of \$51.6 million from 1988. The Agency plans to complete the disposal of ethylene dibromide (EDB) stocks and a significant portion of the 2,4,5-T/Silvex stocks in 1988. In 1989, the large increase in resources will enable the Agency to make significant progress on the final disposal of remaining 2,4,5-T/Silvex stocks and on the decanning, transportation, storage, and disposal of dinoseb.

## **Clean Water Act**

The President's 1989 Budget provides \$265.8 million supported by 2,235 workyears for water programs. The request includes \$57.1 million and 380 workyears for the protection of vulnerable and valuable ecosystems, including coastal areas and wetlands, an increase of \$5.5 million over 1988. For the control of toxic and hazardous pollutants, the request provides \$140.2 million supported by 1,097 workyears, an increase of \$13.9 million over 1988. A total of \$43.4 million and 479 workyears are requested to manage the Construction Grants program and the transition to State Revolving Funds. Finally, \$25.1 million will be devoted to research to support the new Clean Water Act amendments, an increase of \$0.4 million above 1988 levels.

## **Superfund**

The President's 1989 Budget for Superfund represents a significant commitment to eliminate the health and environmental problems caused by inadequate waste disposal practices of the past. The budget provides the Agency with \$1.6 billion in addition to an anticipated carryover of \$100 million of previously appropriated funds. Thus, with a total of \$1.7 billion supported by 2,750 workyears, the plan represents an increase of \$200 million and 117 workyears over 1988 operating levels. This reflects an aggressive effort to sustain the momentum regained after the reauthorization of the Superfund program in 1986.

Specifically, to maintain momentum in the program, the Agency's request includes an increased number of site designs and constructions in 1989, and it strengthens emergency response capabilities. It provides for increases in enforcement, in technical oversight for responsible parties, in legal support, and in research to improve cleanup technology. The request also provides for

enhanced administrative support for the Superfund program and for maintaining other Federal agencies' support for the EPA's implementation of SARA (Superfund Amendments and Reauthorization Act).

## **Construction Grants**

For 1989, the Agency requests a total of \$1.5 billion for the Construction Grants program of which \$750 million is for construction grants and \$750 million is for State Revolving Funds (SRFs). The request supports a \$12 billion phaseout of the Construction Grants program with Federal funding continuing through 1993. A key component of this plan is the transition to the SRF program which is already underway.

## **Research and Development**

The 1989 President's Budget provides a total of \$375.0 million and 1,848 workyears for our research program which represents an increase of \$22.7 million and 17 workyears over the 1988 level.

In 1989, research on stratospheric ozone depletion will be significantly expanded as part of a government-wide effort to better understand the causes and effects of this potentially serious environmental problem. This research will enable EPA policymakers to make informed decisions about the risks posed by ozone depletion before recommending any additional controls on chlorofluorocarbons (CFC's) in 1994 as required by the recent Montreal Protocol.

Reducing uncertainties in risk assessment (RURA) will also be a major priority of the Office of Research and Development (ORD). An additional \$7 million will be devoted to RURA projects in 1989 to increase the Agency's ability to make effective decisions on the nature and extent of environmental risks.

In addition, the 1989 research budget will focus on evaluating innovative and alternative control technologies and mitigation techniques that provide cost-effective solutions to such environmental problems as radon gas, Superfund site cleanups, and disposal of cancelled/suspended pesticides.

Finally, the EPA's acid rain research program will continue the current effort to provide the scientific information necessary to prepare the 1990 Assessment Report to Congress.



## **State and Local Grants**

The President's 1989 Budget allocates \$290 million to support State and local environmental programs, an increase of \$2.3 million from 1988 levels. The request will increase funding for the Underground Storage Tank (UST) program providing States the resources to expand their regulatory programs to incorporate Federal standards for leak detection, prevention, and corrective action.

## **Leaking Underground Storage Tanks (LUST) Program**

Under the President's 1989 Budget, the LUST program will receive 90 workyears and \$50.0 million, an increase of 5 workyears and \$10.6 million over 1988 levels. The Agency's request emphasizes the development of strong State LUST programs, provides a 30% increase in cooperative agreements, and strengthens enforcement activities to compel responsible party cleanup.

## **Title III**

The Title III program will receive \$17.9 million and 80 workyears under the President's Budget for 1989. This request emphasizes the Toxic Substances program with funding for 48 workyears and \$12.0 million, of which 11 workyears and \$2.0 million are for enforcement. The Agency will devote these resources to making quality emissions inventory data available through a public data base and to helping States develop their role as the first level of response to public inquiries. Resources for enforcement will provide computer support, compliance inspections, and case development. Regional staff will provide compliance assistance to regulated industries and training to State and local authorities.

## **Enforcement**

The President's 1989 Budget provides \$298.6 million supported by 3,519 workyears for the Agency's enforcement programs. This is an increase of \$19.5 million and 58 workyears above 1988 levels.

Under the Agency's request, the Superfund program will receive a majority of the increase providing for an additional \$10.3 million and 50 workyears in its enforcement programs. Also, the hazardous waste and Title III enforcement programs will be increased by \$1.0 million and \$1.5 million respectively.

## **Summary**

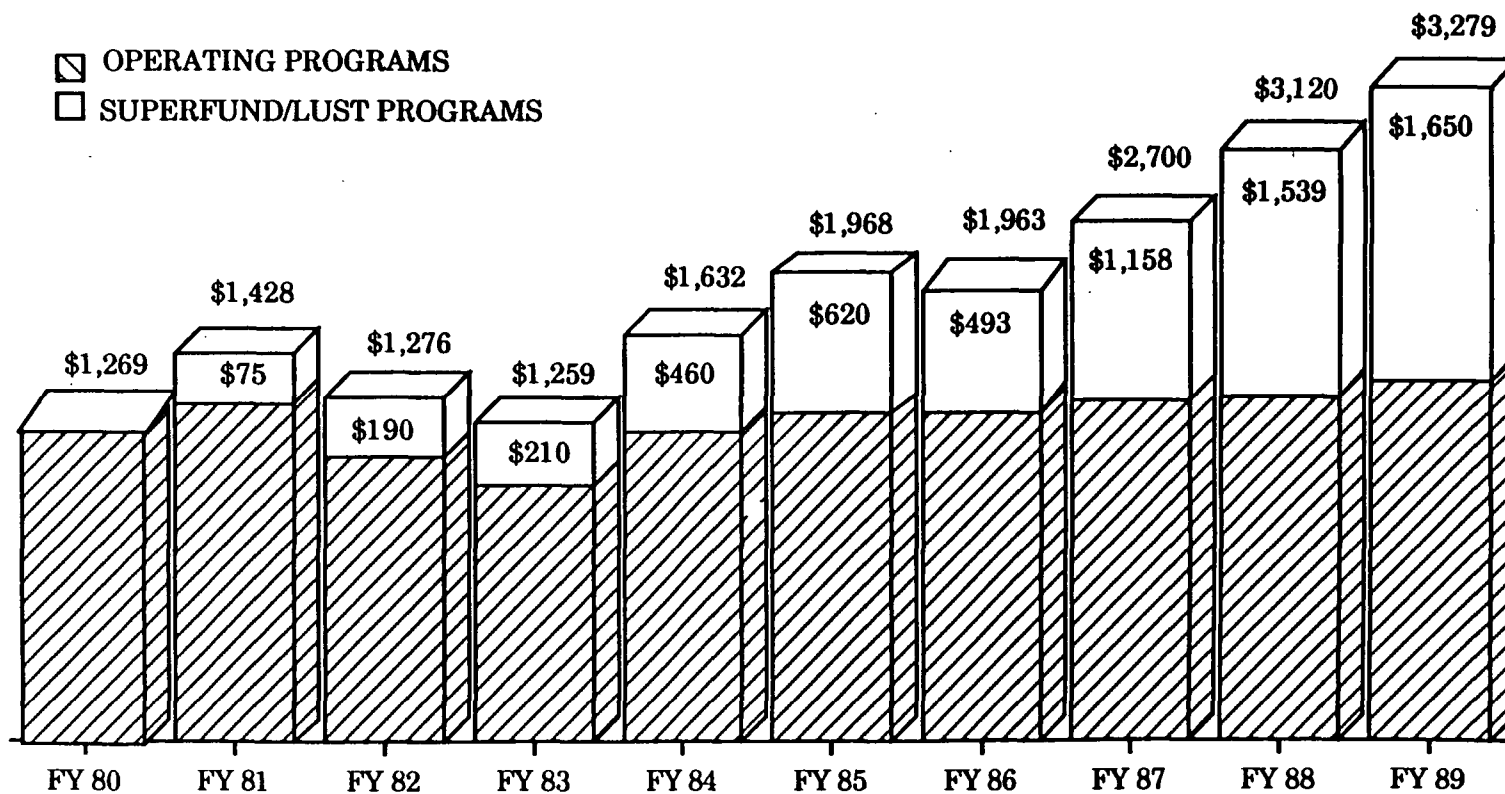
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The President's 1989 Budget for the Environmental Protection Agency provides the Agency with the necessary resources to address the nation's most critical environmental problems. It gives strong support to our new programs and priorities such as the Clean Water Act, pesticides disposal, and increased Superfund cleanup activities. It also ensures a stable base for the Agency's operating programs. This year's budget once again reflects the Administration's strong commitment to protect the environment.

# IN 1989, THE AGENCY'S BUDGET FOR SUPERFUND, LUST AND THE OPERATING PROGRAMS WILL TOTAL ALMOST \$3.3 BILLION

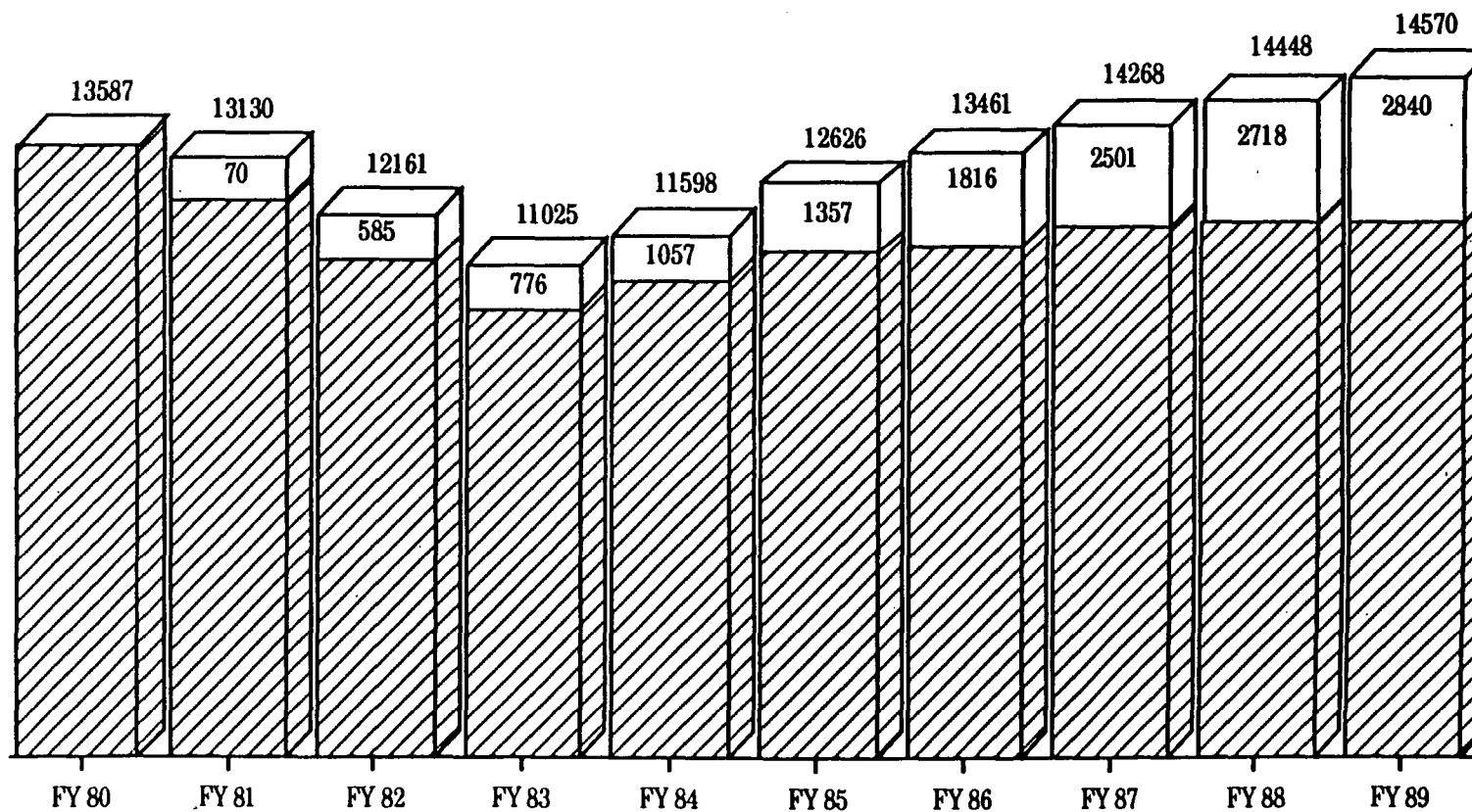
(\$ IN MILLIONS)

- ▨ OPERATING PROGRAMS
- SUPERFUND/LUST PROGRAMS



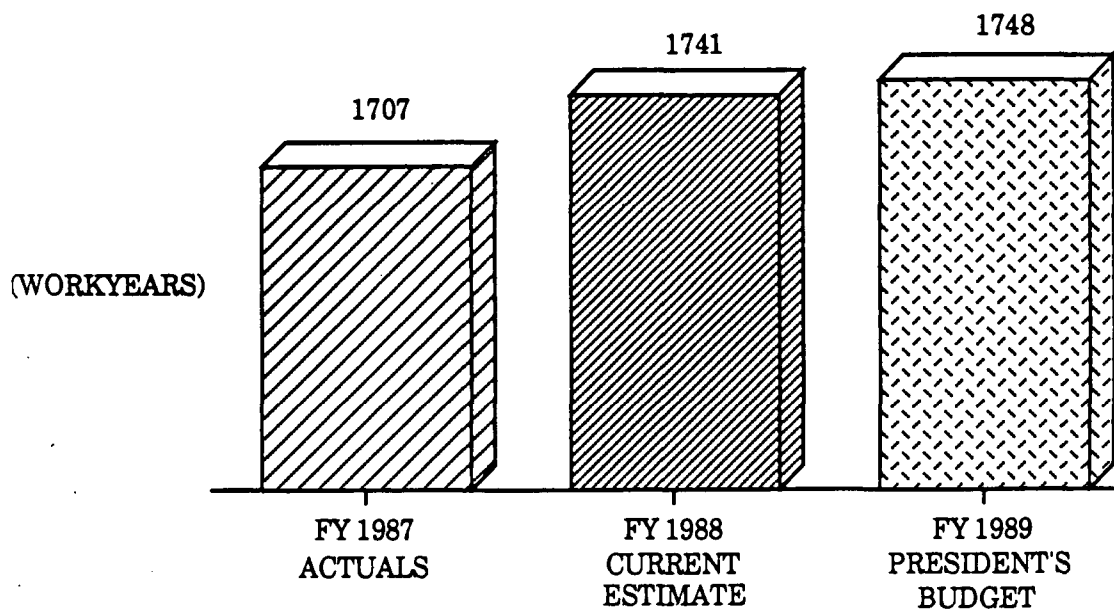
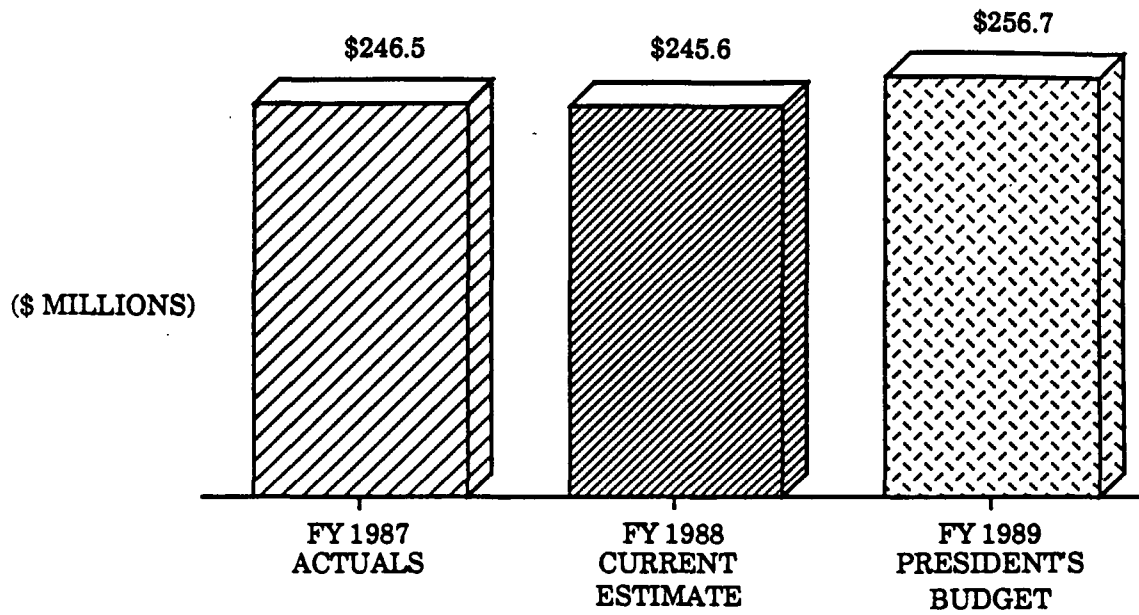
## THE AGENCY'S TOTAL WORKYEAR CEILING WILL INCREASE SLIGHTLY DURING FY 1989

 OPERATING PROGRAMS  
 SUPERFUND/LUST PROGRAMS



# **OPERATING BUDGET SUMMARY**

## AIR



# AIR PROGRAM HIGHLIGHTS

The President's 1989 Budget provides 1,748 workyears and \$256.7 million for the Air program, representing an increase of 7 workyears and \$11.1 million from 1988. The highlights of the 1989 Air program are as follows:

- **Air Quality Planning and Standards Program will Focus on Ozone Non-Attainment and Stratospheric Ozone Depletion:** In 1989, the EPA will receive 239 total workyears and \$25.5 million for the above programs, a decrease of 3 workyears and \$0.8 million from 1988. This program will support the post-1987 ozone attainment strategy, implementation of the revised particulate matter (PM<sub>10</sub>) standard, and implementation of domestic and international regulation of chlorofluorocarbons. The request also continues implementation of a comprehensive strategy for controlling toxic air pollutants as well as evaluating ways to address acid rain and indoor air pollution. The decrease reflects the completion of some of the preliminary National Emission Standards for Hazardous Air Pollutants (NESHAPs) development activities underway in 1988.
- **State Grants Support Attainment of Ozone and PM<sub>10</sub> Standards:** State and local grants under Section 105 of the Clean Air Act total \$95.0 million, an increase of \$2.4 million over 1988. The increase supports State implementation of the post-1987 attainment policy for ozone and carbon monoxide. In 1989, States will continue to focus on the three air pollution problems emphasized in 1988: addressing post-1987 ozone/carbon monoxide National Ambient Air Quality Standards (NAAQS) non-attainment, meeting the revised NAAQS for PM<sub>10</sub>, and reducing exposure to air toxics. Also, States will continue to carry out key core activities including source surveillance and compliance programs, operation of monitoring networks, and maintenance of quality assurance programs.
- **Regional Monitoring and Air Quality Management Emphasizes Ozone and Improved Data Systems:** The Agency requests 446 workyears and \$23.8 million, which represents an increase of \$2.1 million over 1988. The increase supports development of emission factors and guidance for post-1987 ozone State Implementation Plans (SIPs) and data bases for the Regional ozone transport model, as well as development of an expanded air quality data system. Regional programs will continue to provide effective and timely policy guidance and technical consultation to States. Emphasis will be placed on: restoration of environmental quality, particularly within the remaining non-attainment areas; SIP revisions related to revised NAAQS; and air toxics.

- **Mobile Sources Emphasizes Ozone and Air Toxics:** The 1989 request for mobile source air pollutant control and fuel economy totals 203 workyears and \$15.9 million, which represents an increase of \$0.7 million over 1988. The increase supports alternative fuels work and air quality attainment measures for ozone and carbon monoxide (CO) standards. The standards program in 1989 will continue to emphasize controlling ozone precursors and air toxics, focusing on fuel and fuel additive testing protocols, as well as implementation of on-board refueling regulations. Specific technology assessment work will focus on implementation of the post-1987 ozone/CO attainment strategy. Also, additional testing of in-use vehicles will assess controlling CO emissions under cold temperature conditions.
- **Mobile Source and Stationary Source Enforcement Increases Slightly:** The 1989 request for stationary and mobile source enforcement totals 420 workyears and \$23.7 million, representing an increase of 3 workyears and \$0.9 million. Initiatives in 1989 include implementation of the Agency's ozone control strategy through enforcement of the vehicle fuel volatility rules and evaluation of volatile organic compound (VOC) rule effectiveness in ozone non-attainment areas.

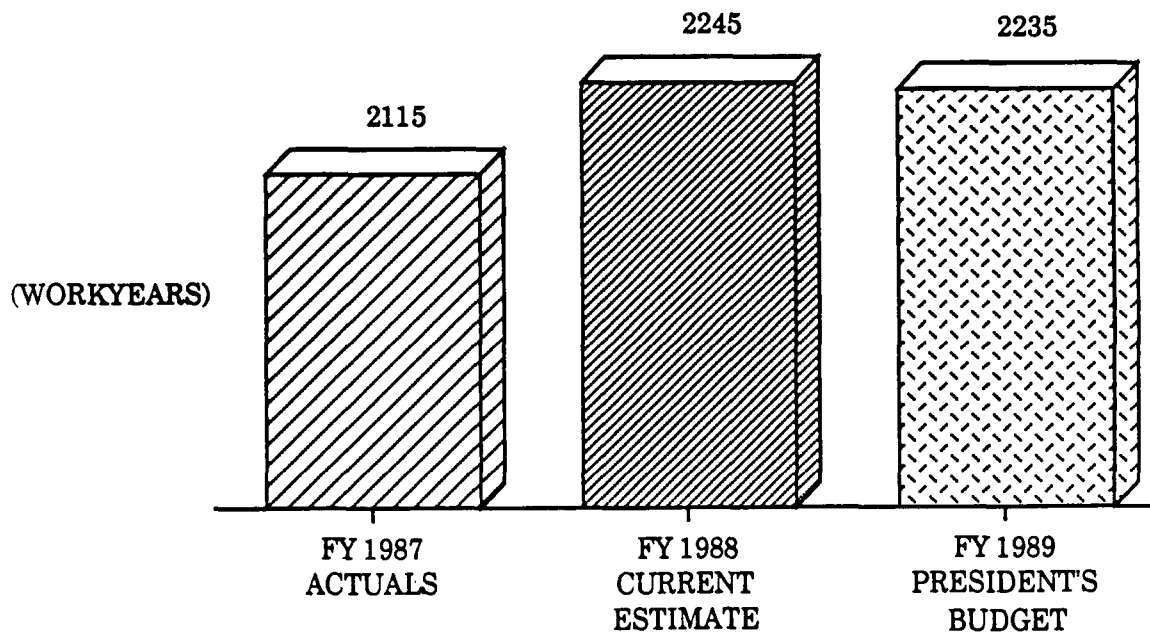
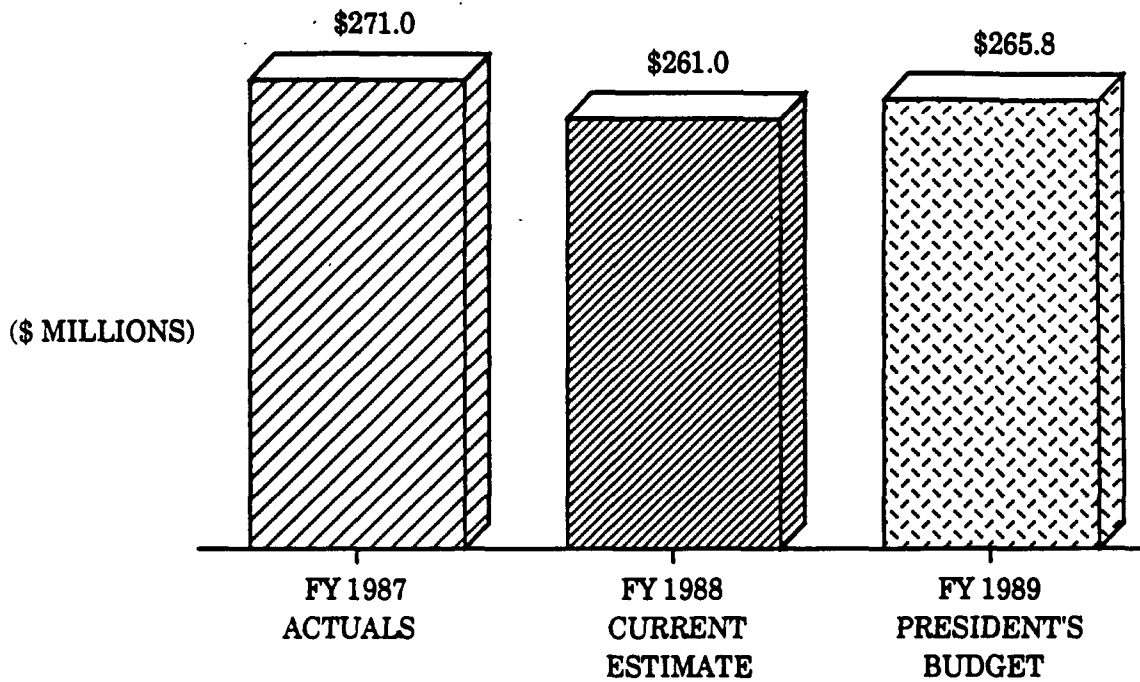
The stationary program will continue to ensure that noncomplying significant sources are brought into compliance. The mobile source enforcement program will continue to assist States and local governments in adopting and implementing their own tampering and fuel switching enforcement programs.

- **The Research and Development Program will Address Emerging Air Pollution Problems:** The 1989 request for the air research program is \$72.5 million and 435 workyears, an increase of \$6.7 million and 7 workyears. The causes and effects of stratospheric ozone depletion, global climate change and indoor air pollution will be studied to increase our understanding of the short and long-term impacts of these environmental problems. The additional resources in 1989 will be used to determine the effects of ozone depletion and the resulting increased levels of ultraviolet radiation (UV-B) on ecosystems and human health. Investment in these research programs now will enable the program office to make informed decisions concerning future regulatory and technology controls. In addition, research will be conducted to support revisions of NAAQS, implementation of the air toxics strategy and attainment of the ozone standard.





## WATER QUALITY



# WATER QUALITY PROGRAM HIGHLIGHTS

The President's 1989 Budget provides **2,235 workyears** and **\$265.8 million** for water programs, an increase of \$4.8 million and a reduction of 10 workyears from 1988. Resource increases are directed to the new statutory requirements of the amended Clean Water Act (CWA) and to the new or revised programs authorized in the CWA.

The major themes of the water program in 1989 include the protection of vulnerable and valuable ecosystems — especially near coastal waters and wetlands — control of discharges of toxic and hazardous pollutants, transition from the Construction Grants program to State Revolving Funds, maintenance of environmental gains, and research to support the new requirements of the CWA. The EPA is encouraging States to develop State Clean Water Strategies as a means to integrate and prioritize the many new and ongoing requirements of the CWA and achieve maximum water quality improvements.

- **Protection of Vulnerable and Valuable Ecosystems:** The EPA programs that address coastal areas, wetlands, nonpoint sources of pollution, and the Great Lakes and Chesapeake Bay are central to the goal of protecting critical water habitats. The 1989 Budget request includes \$57.1 million supported by 380 workyears for these programs, an increase of \$5.5 million over 1988.

The National Estuary program, under the new provisions of Section 320 of the CWA, will include a total of 12 estuaries in 1989. The EPA will continue the programs already underway in Albemarle/Pamlico Sounds, Buzzard's Bay, Long Island Sound, Narragansett Bay, Puget Sound and San Francisco Bay as well as initiate an additional six programs by 1989. In 1989, the EPA will continue the near coastal waters initiative; this includes the national baseline survey, pilot projects to identify innovative management techniques, and activities to address pollution affecting the Gulf of Mexico.

Nonpoint Source (NPS) pollution is a major contributor of both toxic and conventional pollutants and a significant cause of habitat destruction. The EPA will work with the States in 1989 to upgrade the NPS assessments and management plans that are submitted to the EPA in 1988, as required by Section 319 of the CWA. The EPA will review and approve these submissions, provide assistance to and monitor State implementation of management plans, award grants to States under Section 205(j)(5), and ensure Federal, State and local government consistency in NPS management.

The wetlands program will include a new focus on advanced identification of sensitive wetland areas. The EPA will study geographic areas with valuable and vulnerable wetlands, assess activities in high-risk areas, and involve other Federal, State and local governments early in the regulatory process. These activities will identify suitable regulated discharges in advance of permit applications, accelerate permit decisions, and minimize interagency disagreements concerning wetlands protection.

The Great Lakes program will continue to focus on the assessment and control of toxic pollutants, consistent with the new Great Lakes Water Quality Agreement with Canada and Section 118 of the amended CWA. Continued implementation of the Chesapeake Bay program will also proceed in accordance with a new agreement and authorization (Section 117 of the CWA). Program activities will concentrate on water quality monitoring and analysis, and implementation of nonpoint source controls and a Baywide toxics control strategy.

- **Control of Toxic and Hazardous Pollutants:** States must prepare and submit to the EPA (by February 1989) an inventory of waters not achieving water quality standards due to toxic pollutants, and develop individual control strategies needed to achieve standards. The EPA will work with States in 1989 to finalize these inventories and control strategies and will issue, and/or modify major permits to include toxics/toxicity limits for identified toxics problems. Including the Section 106 State grant, the 1989 Budget request includes \$140.2 million supported by 1,097 workyears for these programs, an increase of \$13.9 million over 1988.

The EPA will provide increased assistance to States for toxics monitoring and risk assessments. The Agency will also work with States as they revise their water quality standards to include appropriate numeric or narrative criteria for toxic pollutants. Pretreatment programs will be strengthened to provide greater reduction of toxic pollutants. The EPA will also implement a Toxics Control Strategy for NPDES enforcement that will require permittee biomonitoring and toxics sampling.

- **Transition to State Revolving Funds:** The transition from the Construction Grants program to State Revolving Fund (SRF) programs is a key aspect of the 1989 water program. Federally capitalized SRFs will enable the Federal subsidy of municipal wastewater treatment to be phased out by 1994. SRFs will provide the financial resources that State and local governments need to complete the municipal facilities still required to comply with the CWA.

The 1989 Budget request includes \$43.4 million supported by 479 workyears to manage this program, a reduction of \$15 million from 1988 which reflects the completion of three 1988 activities that were directed by Congress.

In 1989, the EPA will provide significant assistance to the States as they design and implement SRF programs. The EPA will review and approve SRF programs, award capitalization grants to States, and oversee implementation of SRFs consistent with the requirements of the CWA. The EPA will also continue to administer the Construction Grants program with emphases on cost-effective construction, prompt completion of grant-assisted projects, and effective operation and maintenance of constructed facilities.

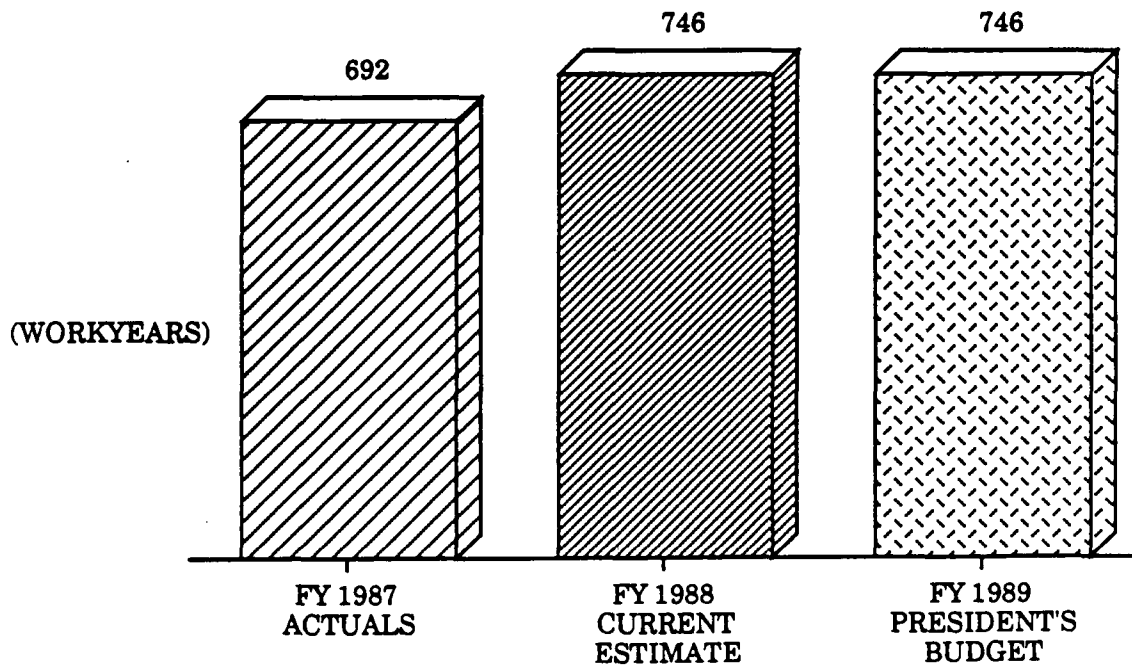
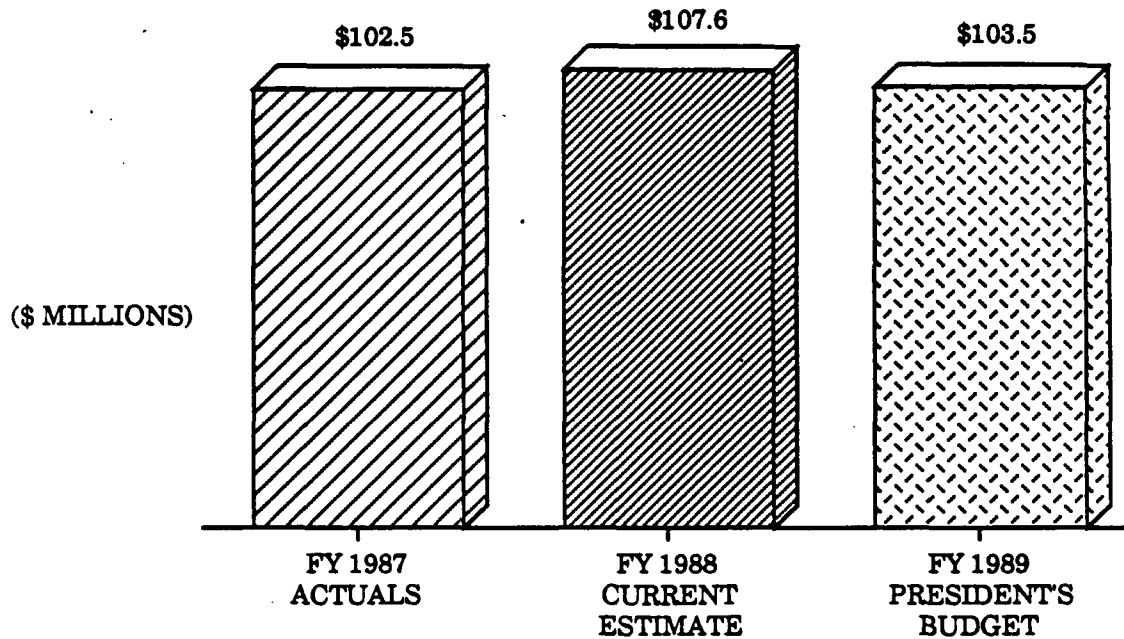
- **Maintain the Environmental Gains Already Achieved:** With the many new requirements of the CWA, it is essential to acknowledge the importance of ongoing water quality programs.

In 1989, for the National Permit Discharge Elimination System, the EPA will issue over 400 major municipal and industrial permits. Also, 1,900 inspections will be completed and a total of 500 administrative orders will be issued. Related to the National Municipal Policy, the EPA expects to establish 225 municipal compliance schedules in consent decrees.

The EPA's water quality data systems will be expanded and enhanced in 1989 to enable improved management decisions. Key changes will include incorporating human health and aquatic life risks and improving the ability to focus analysis on geographic areas.

- **Research to Support Clean Water Act Amendments:** In 1989, the budget for water quality research totals \$25.1 million and 279 workyears, an increase of \$0.3 million over 1988. In response to new CWA requirements, the program will focus on developing scientific data to support the development of sludge regulations as well as provide health and environmental information on toxic chemicals. In addition, the program will develop technical tools, such as bioassays, to enable the States to more effectively implement their programs. The Great Lakes research program will be maintained at the 1988 level and will continue to conduct studies on the fate and effects of toxic substances.

## DRINKING WATER



# DRINKING WATER PROGRAM HIGHLIGHTS

The Safe Drinking Water Act (SDWA) Amendments of 1986 significantly expanded the EPA's responsibilities to ensure that the nation's drinking water supplies are free from contamination which may pose a risk to public health. The Amendments set a 1989 deadline for the Agency to regulate 83 specific contaminants. The States, and ultimately the systems themselves, will implement new compliance responsibilities, including installation of filtration and pretreatment technology and more rigorous monitoring for microbiological contaminants. The Agency will encourage States to implement and enforce other SDWA activities such as the Underground Injection Control (UIC) and the Wellhead Protection (WHP) program.

The President's 1989 Budget provides **746 workyears** and **\$103.5 million** for the Drinking Water program. This is a decrease of \$4.1 million from the 1988 current estimate. The reduction reflects the completion of Special Studies mandated by Congress in 1988 and UIC permitting activities for Class II wells. Major areas of emphasis in the Drinking Water program include the following:

- **Set New Drinking Water Standards:** The 1989 Budget provides \$16.4 million and 112 workyears, an increase of \$0.5 million over 1988. In 1989, the program will promulgate standards for 34 toxic chemicals and radionuclides, including radon, the last of the 83 contaminants specified in the Amendments. The program will continue to establish Maximum Contaminant Level Goals for new National Primary Drinking Water Regulations and establish regulations for disinfection and treatment of water supplies. Compounds that occur in drinking water as by-products of chemical disinfection will be focal points for standard-setting. The Drinking Water program will build on a pilot project for the Pesticides in Ground Water Survey and proceed with the Survey in 1989.
- **Improve Public Water Supply (PWS) Compliance:** The program will continue to place high priority on improving compliance with existing PWS standards in primacy States and in States in which the EPA must assume direct implementation, particularly for "significant non-compliers". In 1989, the first new maximum contaminant levels (MCLs) for 9 volatile organic compounds will be in effect as well as the new surface water treatment rule and a revamped microbiological MCL. The Agency will ensure that EPA and State laboratory certification capacity is put into place for the 83 chemicals and microbiological parameters that will embody the PWS compliance program. Other program activities will focus on enforcement of lead plumbing bans, revised public notice requirements for systems, and new ground

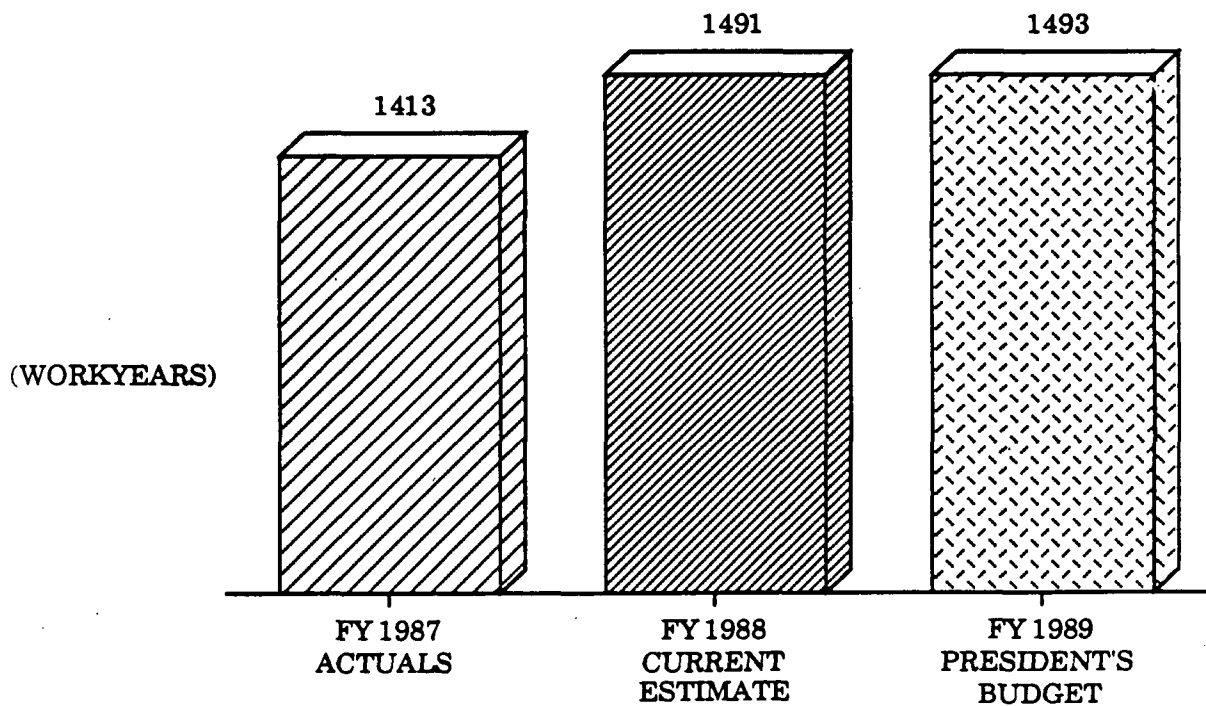
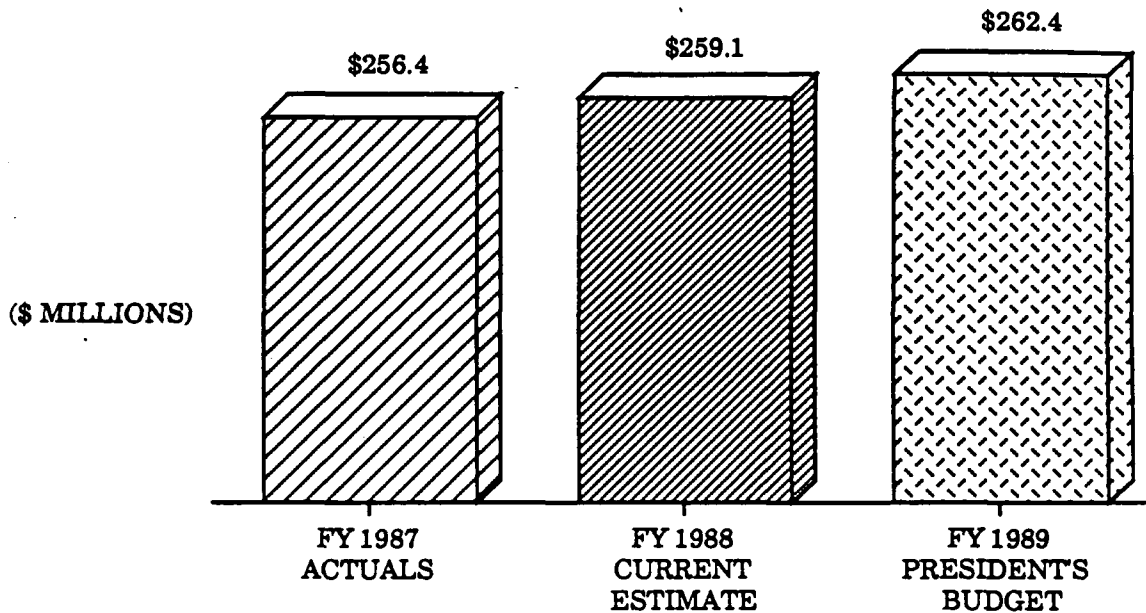
rules for variances and exemptions. In 1989, the EPA will also be involved in examining the capabilities of Indian tribal authorities to develop programs necessary to assume responsibility for PWS supervision, as authorized in the Amendments.

- **Continue Ground-Water Protection Programs:** The Agency is requesting \$6.9 million and 81 workyears for the Ground-Water Protection program, approximately the same level as in 1988. The Agency will support the Wellhead Protection (WHP) program by providing technical assistance and support to States and Indian tribes in carrying out related activities, and by coordinating with other Federal agencies on compliance with applicable State laws and regulations. A key focus of the Ground-Water Protection program will be to encourage States to design comprehensive strategies which clearly determine the protection measures required for their ground-water resources. The Agency will also assist States in developing or implementing systems for determining the use, value and vulnerability of ground-water resources using the EPA's classification guidelines. The Agency will continue to review petitions for designation of sole source aquifers (SSAs).
- **Maintain Enforcement of Underground Injection Control (UIC) Program:** The EPA will continue to enforce compliance with regulatory requirements pertaining to underground injection practices where States have no primary enforcement responsibility or fail to act against violators in a timely and appropriate manner. The program will implement the mandated new monitoring requirements for waste disposal (Class I) injection wells and provide technical assistance and guidance to the 41 States enforcing their own programs. The EPA will also provide recommendations to States on the use of protective measures to control "high risk" practices related to Class V ("miscellaneous") injection wells not now regulated.
- **Focus Research on Health and Ground-Water Studies:** The Agency's request of \$22 million and 193 workyears for drinking water research will provide the data necessary to support regulatory development, revisions and implementation mandated by the Safe Drinking Water Act. In 1989, the Health Effects Research program will concentrate on providing the scientific base to develop maximum contaminant levels and health advisories for selected contaminants with particular emphasis on identifying and characterizing disinfectants and their by-products. Ground-water research will provide both technical information and improved methods of predicting contaminant movement and transformation. In addition, research on in situ restoration techniques may lead to more cost effective cleanup of aquifers.





## HAZARDOUS WASTE



# HAZARDOUS WASTE PROGRAM HIGHLIGHTS

The goal of the Hazardous Waste management program is to ensure that human health and the environment are protected from the risks of hazardous waste, through development and implementation of sound national waste management practices.

In 1989, the EPA will achieve several major regulatory milestones established by the Hazardous and Solid Waste Amendments (HSWA) of 1984. In addition, the Agency will issue permits for all land disposal facilities and for a substantial number of incineration facilities. The Agency will continue to refocus its resources to meet new program directions.

The President's 1989 Budget provides **\$262.4 million** and **1,493 workyears** for the Hazardous Waste management program. This is an increase of \$3.3 million and 2 workyears from the EPA's 1988 Budget. Highlights of the 1989 Hazardous Waste program are as follows:

- **Regulatory Efforts will Emphasize Emerging Issues of National Significance such as Solid Waste Management:** The EPA is requesting \$75.2 million and 337 workyears for regulations and guidelines, an increase of \$2.0 million and a decrease of 5 workyears from 1988 levels. The EPA will significantly enhance its efforts on clear National standards and guidelines for solid waste management to reduce the amount and risk of solid waste disposal. The EPA will also continue its emphasis on banning untreated hazardous waste from land disposal, and it will work to improve the definition of wastes by evaluating the degree of hazard posed by a waste along with the stringency of waste management standards. In addition, the program will promulgate major regulations including financial responsibility regulations for underground storage tanks (UST) and corrective action requirements. The Agency will also issue technical guidelines to supplement completed rules.
- **Similarly, Enforcement and Implementation Activities will Emphasize Emerging Issues:** The EPA is requesting \$40.8 million and 485 workyears for enforcement activities, an increase of \$1.0 million and 3 workyears over 1988 levels. The Agency will expand its efforts to monitor corrective action at environmentally significant facilities and to enforce new regulatory standards such as land ban requirements. The Agency will continue to emphasize compliance monitoring and enforcement against hazardous waste violators.

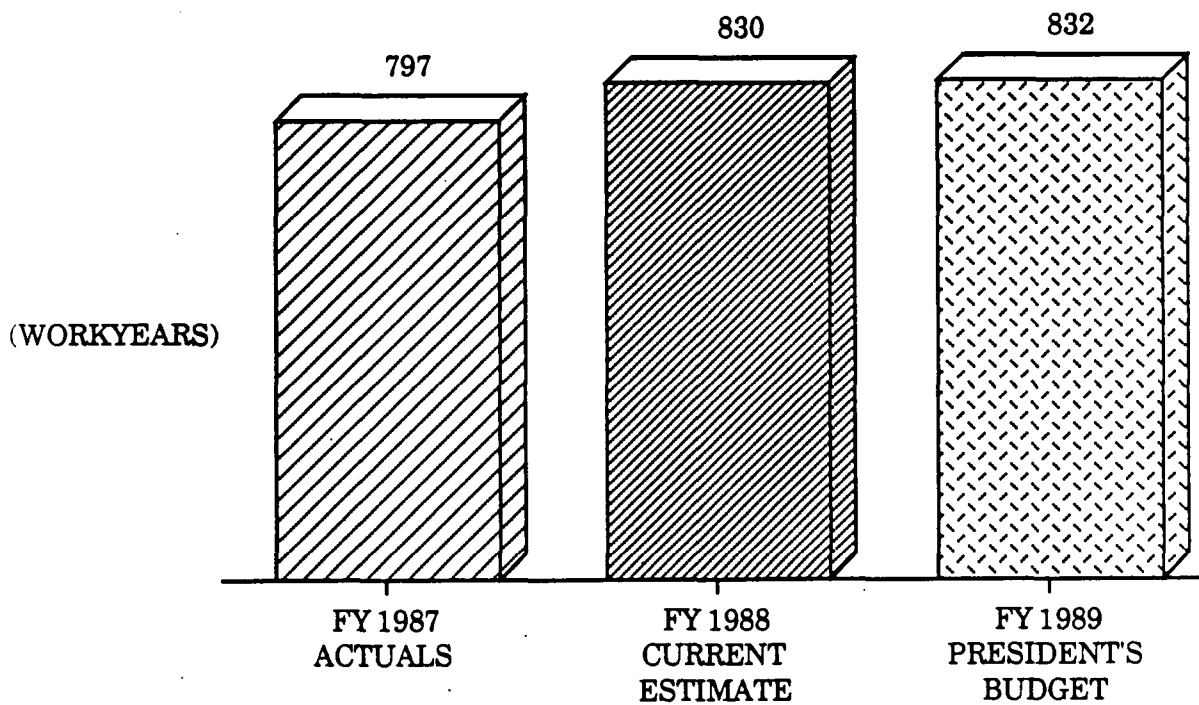
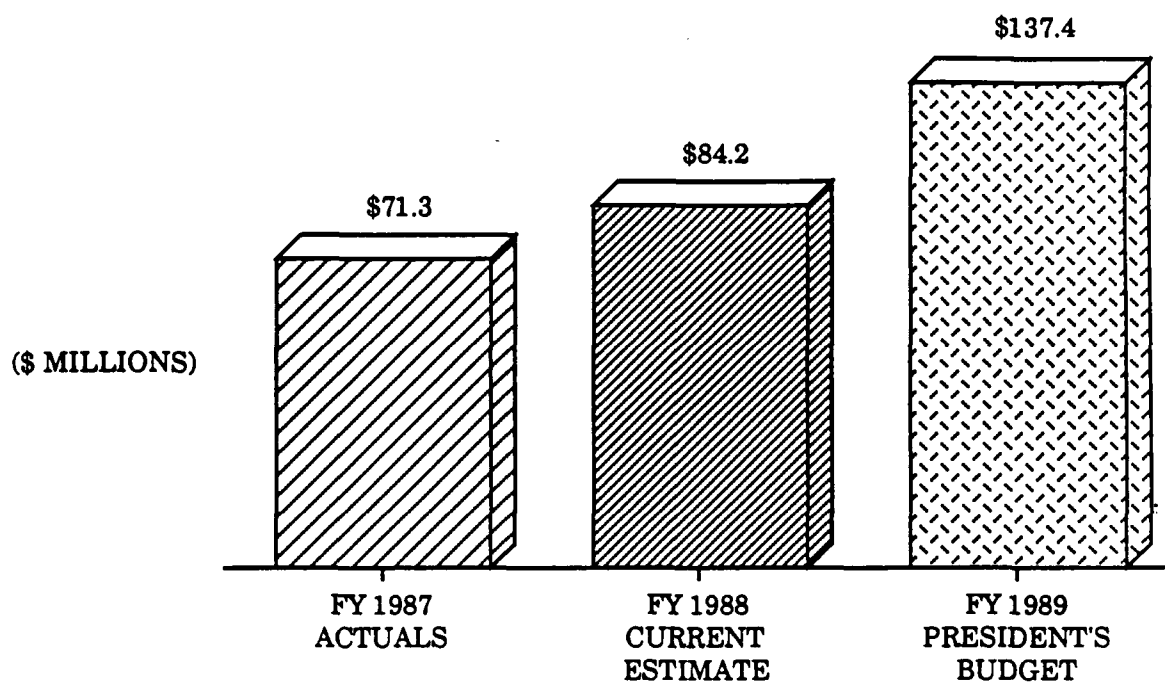
Implementation activities will receive \$30.1 million and 448 workyears, increases of \$5.1 million and 11 workyears. Major efforts will include meeting the incinerator permitting deadline, processing increasing numbers of permit modifications, providing technical assistance to States for UST program implementation, and Title III.

- **Our Strong Federal/State Relationship will Continue to Develop and Mature:** State grant resources will total \$75.0 million, \$66.0 million for Hazardous Waste and \$9.0 million for UST grants. This is an increase of \$3.6 million over 1988 levels to support development of State UST programs, corrective action, and permit processing. The Agency will also continue to emphasize State program development and authorization for HSWA requirements.

In addition to grants, the Agency will develop cooperative agreements with States to implement mining waste programs and will work closely with States to implement emergency preparedness and community-right-to-know programs.

- **The Agency's Research Program will Support New Regulatory Thrusts as well as Implementation Efforts:** The Agency is providing \$41.3 million and 223 workyears for the Hazardous Waste research program. Major research efforts in 1989 will focus on the development of analytical methods and risk assessments to support both hazardous waste identification and waste-banning decisions. The research program will also continue to seek improved methods for ground water monitoring. In addition, studies will support waste minimization, treatment and disposal alternatives, emission controls for municipal waste combustors, and improved methods for the installation, design, and monitoring of underground storage tanks.

## PESTICIDES



# PESTICIDES PROGRAM HIGHLIGHTS

The goal of the EPA's Pesticides program is to ensure that pesticides perform their intended functions without unreasonable adverse effects on public health and the environment. The EPA is charged with this responsibility under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and portions of the Federal Food, Drug, and Cosmetic Act (FFDCA). The Agency's 1989 pesticide regulatory strategy includes the following elements: 1) registration of new products and control of pesticide residues in the food chain, 2) review and reregistration of existing products, 3) assuring the correct and safe use of pesticides, 4) significant progress on the storage and disposal of pesticides that have been suspended and cancelled, and 5) research and development to support and improve the Agency's ability to evaluate risks and benefits of pesticides.

The President's 1989 Budget provides **832 workyears** and **\$137.4 million** for the Pesticides program, increases of 2 workyears and \$53.2 million, respectively, from 1988. Highlights of the 1989 President's Budget for the Pesticides program are as follows:

- **Continued Emphasis on Existing Pesticides:** The Agency requests 319 workyears and \$27.1 million to continue its efforts on existing chemicals under the Generic Chemical Review program. In 1989, the Agency will place major emphasis on the second round reviews of existing pesticides and achieving closure on final reregistrations.

The Agency will continue to provide resources for the Special Review program to conduct risk/benefit analyses of pesticides suspected of causing unreasonable adverse health and environmental effects.

The Agency will begin the implementation of its strategy for dealing with the problem of agricultural chemicals in groundwater.

- **Disposal of Cancelled/Suspended Pesticides:** The Agency is requesting \$60.0 million for the transportation, storage, and disposal of cancelled/suspended pesticides, an increase of \$51.6 million from 1988. The Agency plans to complete the disposal of ethylene dibromide (EDB) stocks and a significant portion of the 2,4,5-T/Silvex stocks in 1988. In 1989, the large increase in resources will enable the Agency to make significant progress on the final disposal of 2,4,5-T/Silvex stocks and on the decanning, transportation, storage, and disposal of dinoseb.

- **Continued Registration of Pesticides:** The Agency requests 269 workyears and \$17.0 million to continue efforts on the registration and special registration of pesticides and the establishment of safe and enforceable maximum residue levels for pesticides.

The Agency will continue to give priority to applications for new chemicals and new uses to facilitate the entry of new, potentially safer, chemicals into the marketplace. Continued attention will also be given to biochemical/microbial agents in order effectively to regulate these pesticides. The Pesticides program expects to issue regulations in 1988 establishing user fees for this program.

- **Support of Pesticides Enforcement:** The Agency requests 127 workyears and \$18.9 million to maintain its enforcement program. Regional programs will continue to be the focus of compliance monitoring strategies in 1989. Resources will be directed toward use enforcement -- especially for new program areas such as groundwater, farmworker safety, and endangered species protection.

The Pesticides Enforcement program will continue to support State participation in the nationwide pesticides compliance monitoring program. Emphasis will continue to shift from marketplace compliance to use compliance.

The Agency will continue to assist States, through cooperative enforcement agreements, with certification and training (C&T) of pesticide applicators. Evaluation of State C&T programs for commercial applicators will begin and Regional educational packages will be developed to meet emerging pesticide issues such as pesticides in groundwater and endangered species protection.

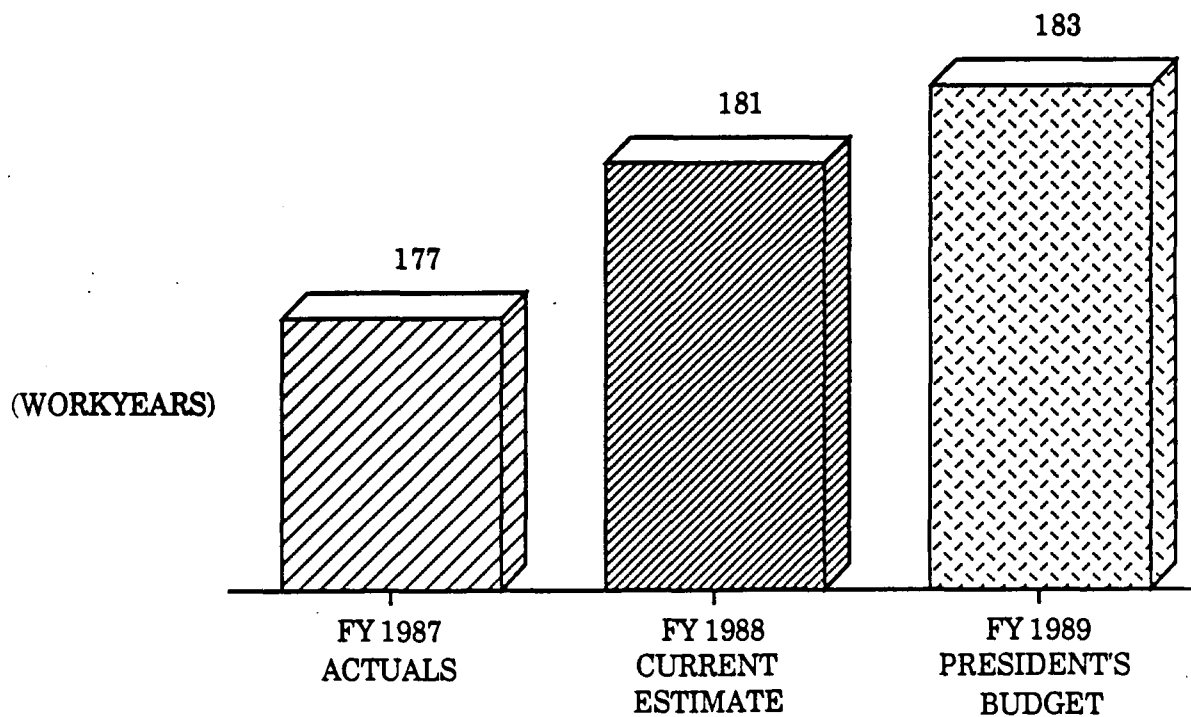
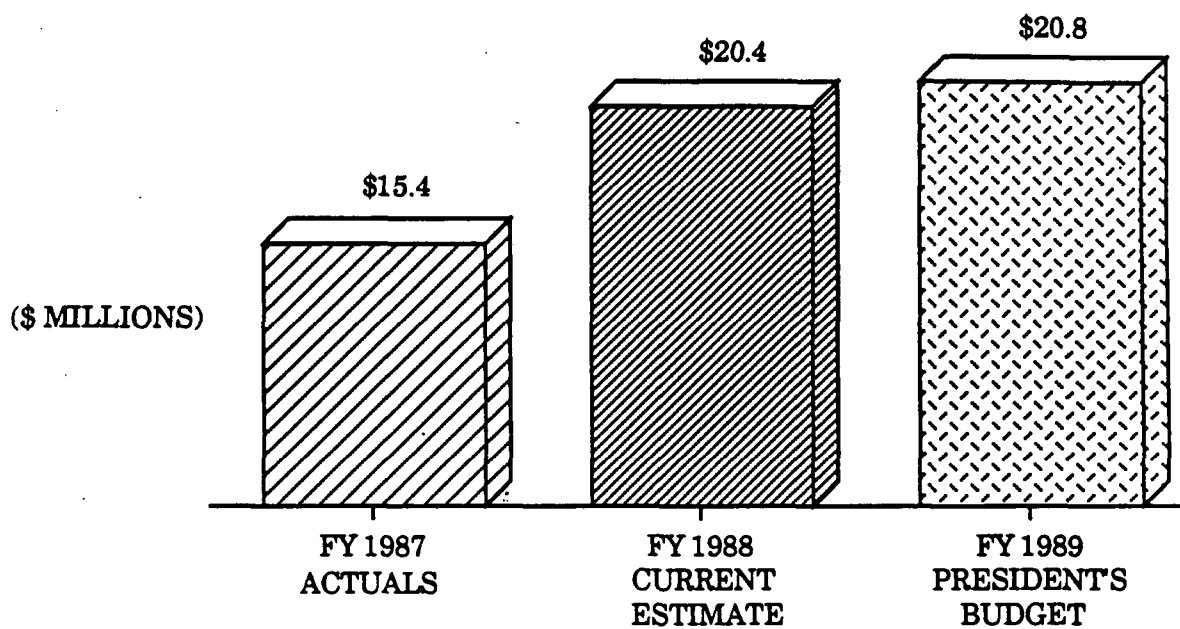
- **Support of Pesticides Disposal with Research:** The Agency requests 116 workyears and \$14.4 million for the Pesticides research and development program, representing increases of 2 workyears and \$1.5 million over 1988. The 1989 resource increase will support the development and evaluation of technologies for destruction and disposal of cancelled/suspended pesticides.

The pesticides research program will continue to develop the scientific methods needed to assess risks to human health and the environment from pesticides products. Research focused on determining the health and environmental effects of genetically engineered pesticides will also continue.





## RADIATION



# **RADIATION PROGRAM HIGHLIGHTS**

The President's 1989 Budget provides 183 workyears and \$20.8 million for this program, an increase of 3 workyears and \$0.4 million from 1988. Highlights of the 1989 program are as follows:

- **Continued Support for Radiation Standards and Implementation:** The 1989 request for radiation standards and guidelines totals 53 workyears and \$4.2 million, a decrease of \$2.0 million from 1988. The decrease reflects completion of the revisions of the radionuclide National Emission Standards for Hazardous Air Pollutants (NESHAPs) in accordance with the court remand of established standards. The program will focus on three major areas of regulatory effort: airborne radionuclides, radioactive waste management, and Federal guidance.
- **Regional Offices Will Emphasize Technical Assistance to States on Radon and Emergency Planning:** In 1989, the Regional radiation program will total 24 workyears and \$1.2 million, an increase of 3 workyears and \$0.2 million from 1988. The increase is for technical assistance to States in assessment and mitigation of radon sites. The program will also emphasize technical assistance to States in the areas of emergency response planning and in the characterization and identification of hazardous radioactive waste sites.
- **Emphasis on Radon Assessment and Monitoring:** The 1989 request for the radiation environmental impact assessment and Radon Action program is 83 workyears and \$11.4 million. The request represents a decrease of 3 workyears and an increase of \$1.1 million from 1988. The decrease in workyears reflects a shift in emphasis to the Regions working directly with States to assess and mitigate radon, and the increase in dollars provides for a radon information clearinghouse and mitigation contractor proficiency program.

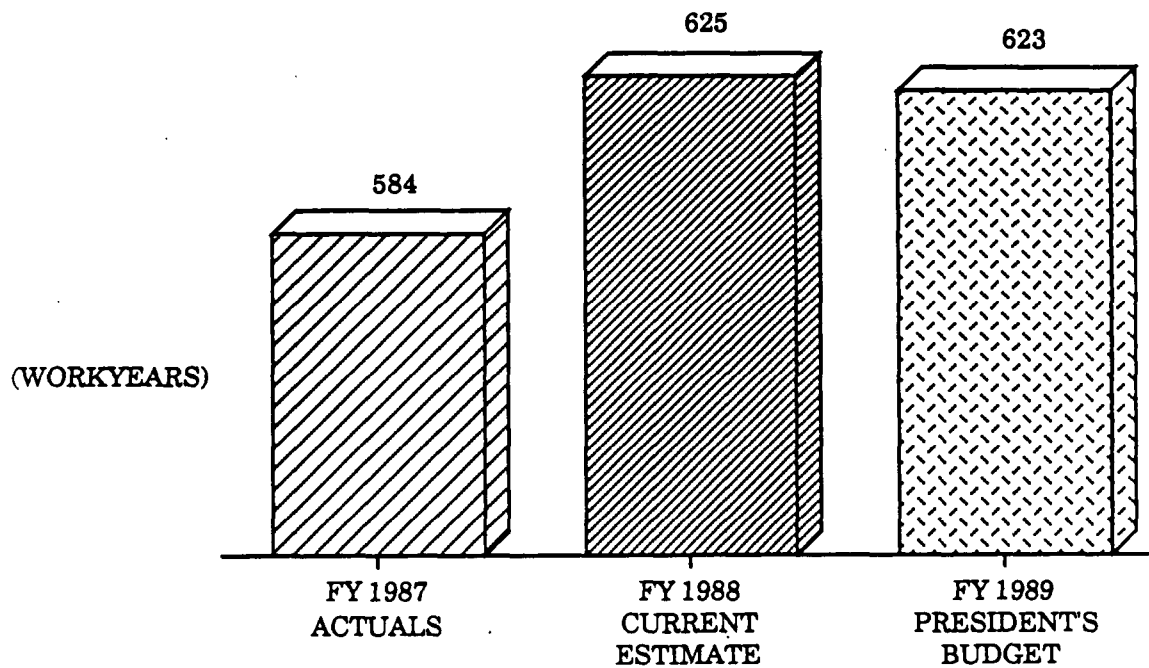
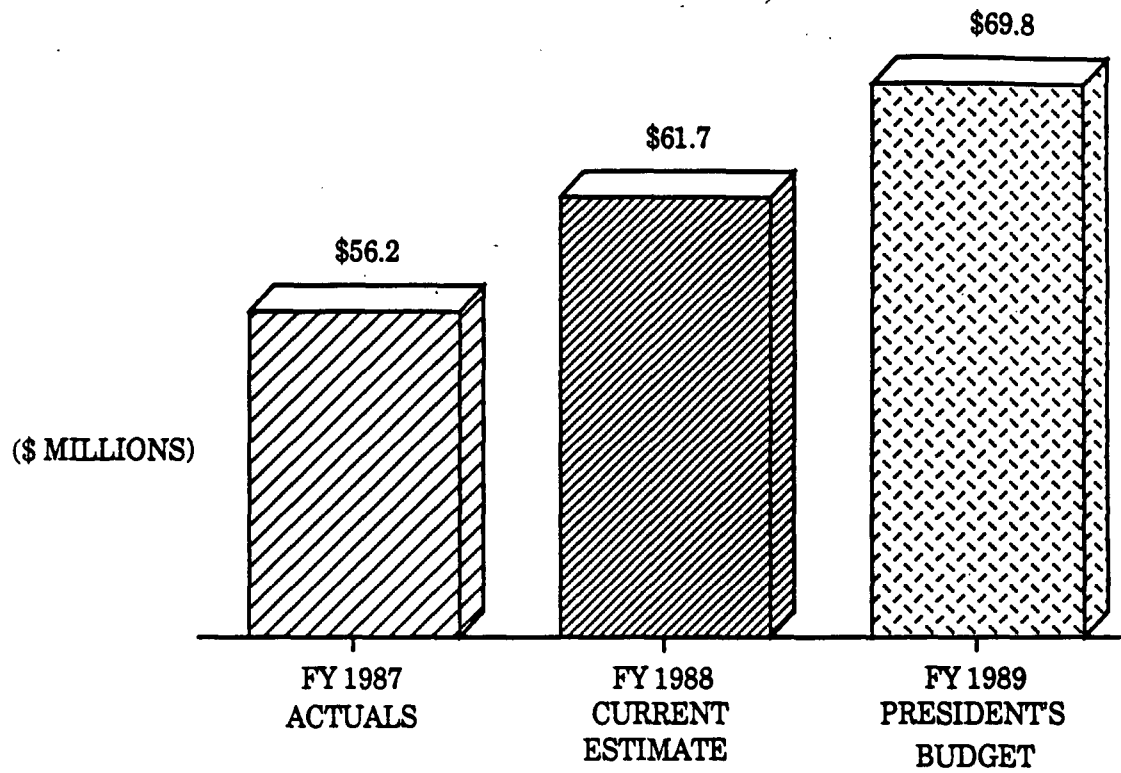
Other activities of this program will be to continue monitoring environmental radiation, participating in emergency preparedness and response activities and support development of standards under the Clean Air Act and Atomic Energy Act.

- **The Research and Development Program will Focus on Testing Radon Mitigation Techniques in a Variety of Housing Structures Across the Country:** In 1989, the request for radiation research and development totals 23 workyears and \$4.0 million. These resources include 18 workyears and \$3.9 million, an increase of 3 workyears and \$1.1 million from the 1988 level, for engineering research to demonstrate techniques for reducing exposure to radon gas in homes. Demonstrations will be conducted in a variety of housing structures in different regions of the country and the results will be used by the Office of Radiation Programs (ORP) to recommend cost-effective mitigation techniques to the general public. In addition, the mitigation manual for builders will be updated to include information on innovative technologies.

The request also includes 61 reimbursable workyears to provide monitoring support for the Department of Energy at the Nevada Test Site.



## INTERDISCIPLINARY



# INTERDISCIPLINARY PROGRAM HIGHLIGHTS

The President's 1989 Budget provides **623 workyears** and **\$69.8 million** for Interdisciplinary Programs, a decrease of 2 workyears and an increase of \$8.1 million. Highlights of the 1989 President's Budget for the Interdisciplinary program are as follows:

- **The Agency Will Maintain Liaison with Other Federal Agencies and Continue to Implement EPA Programs on Indian Reservations:** The budget request includes \$12.7 million and 115 total workyears for these activities. This represents no change in total workyears and an increase of \$0.4 million from 1988. The program will continue both to ensure that actions undertaken by Federal agencies and their facilities comply with environmental laws and statutes and to conduct environmental assessments of Federally funded municipal wastewater treatment projects and of permits issued to new sources.
- **The Agency Continues to Maintain an Effective Criminal and Civil Enforcement Presence:** The budget request includes \$22.9 million and 417 total workyears for the Office of Enforcement and Compliance Monitoring, an increase of 1 workyear and \$0.5 million from 1988. This program will continue to provide for full support to a national civil and criminal investigations program. Within the base program there will be continued emphasis upon hazardous waste and water enforcement. Enforcement activity emphasis is on significant noncompliers and on the efforts successfully to resolve on-going cases.
- **The Research Program will Focus on Improving Environmental and Health Risk Assessments:** The intermedia program is composed of several activities that cut across research media and are not readily assignable to a specific media. The program consists of five major activities: scientific assessments, technical information and liaison, exploratory research, quality assurance management, and an integrated program to reduce uncertainties in risk assessment.

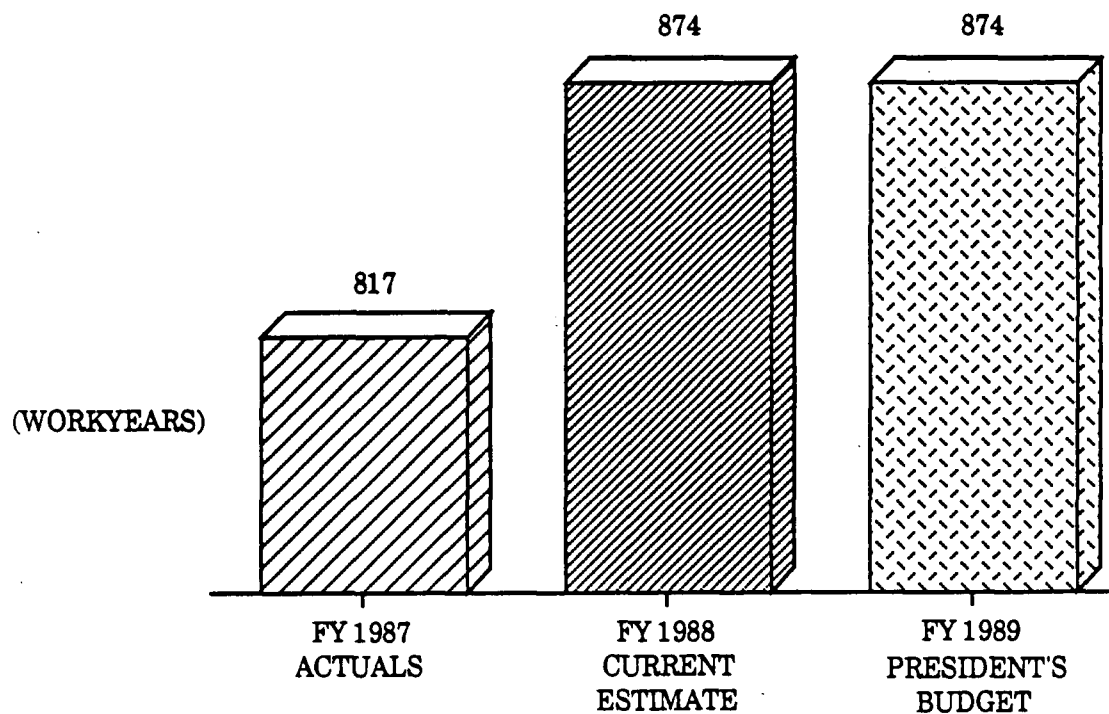
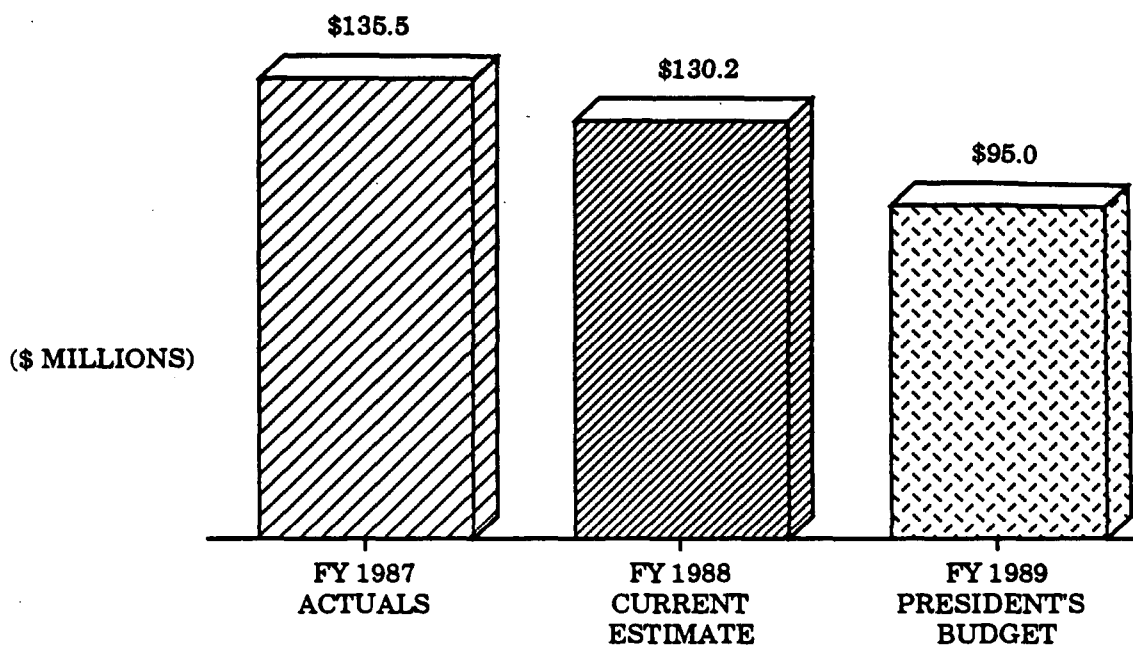
The budget request includes 91 workyears and \$34.1 million for interdisciplinary research, a decrease of 3 workyears and an increase of \$7.2 million from 1988. These resources will be used to expand the integrated efforts initiated in 1988 to reduce uncertainties in risk assessments. Emphasis will be placed on the development of improved methods for measurement and estimation of human and ecosystem risks to enable policymakers to make more effective decisions on the appropriate responses to environmental problems. In

addition, the EPA plans to strengthen and expand its technology transfer program in order to enhance the State/EPA partnership. The base program will continue to support basic, long-term research through the Exploratory Grants and Centers program.





## TOXIC SUBSTANCES



# TOXIC SUBSTANCES PROGRAM HIGHLIGHTS

The Toxic Substances Control Act (TSCA) of 1976 provides authority to protect human health and the environment from risks arising from the manufacture, processing, distribution, use or disposal of chemicals. TSCA covers approximately 66,000 chemicals now in commerce and any new chemicals introduced by industry.

The President's 1989 Budget provides 874 workyears and \$95.0 million to the Toxic Substances program, a decrease of \$35.2 million from 1988. The largest portion of the reduction reflects the EPA's decision not to request funds provided in 1988 for asbestos abatement. The Federal Government has already provided over \$150 million to fund abatement projects which have greatly reduced the problem. Funding of these activities should now be the responsibility of State and local governments.

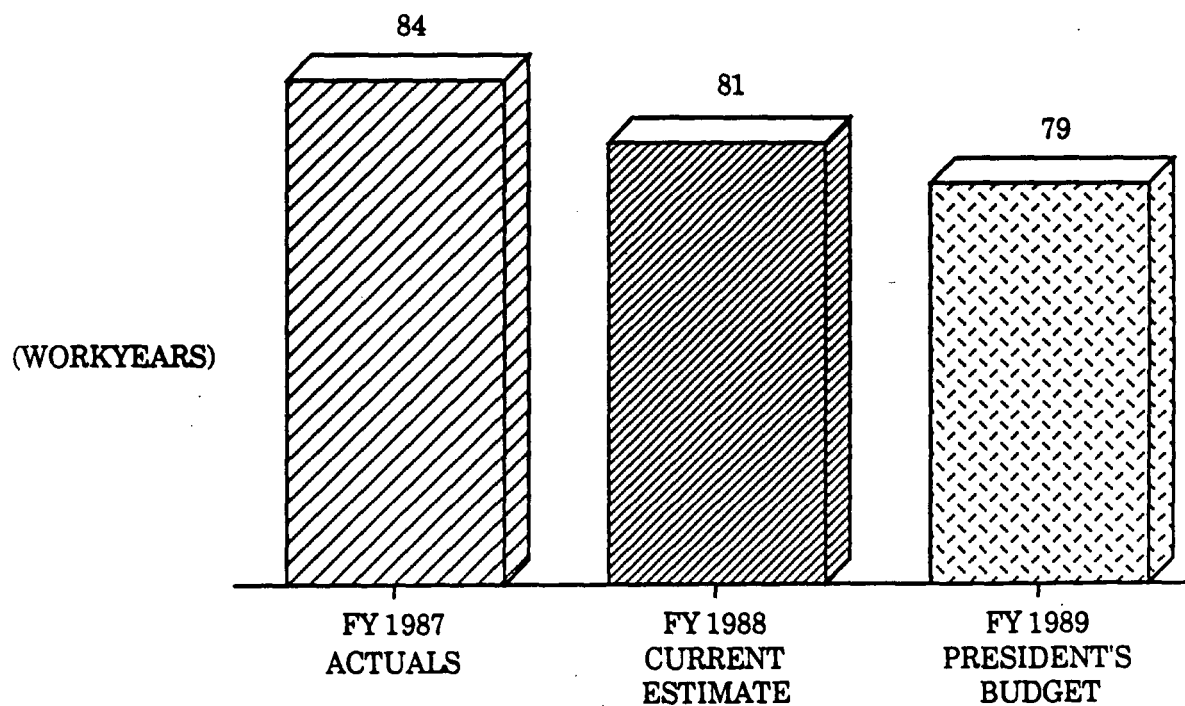
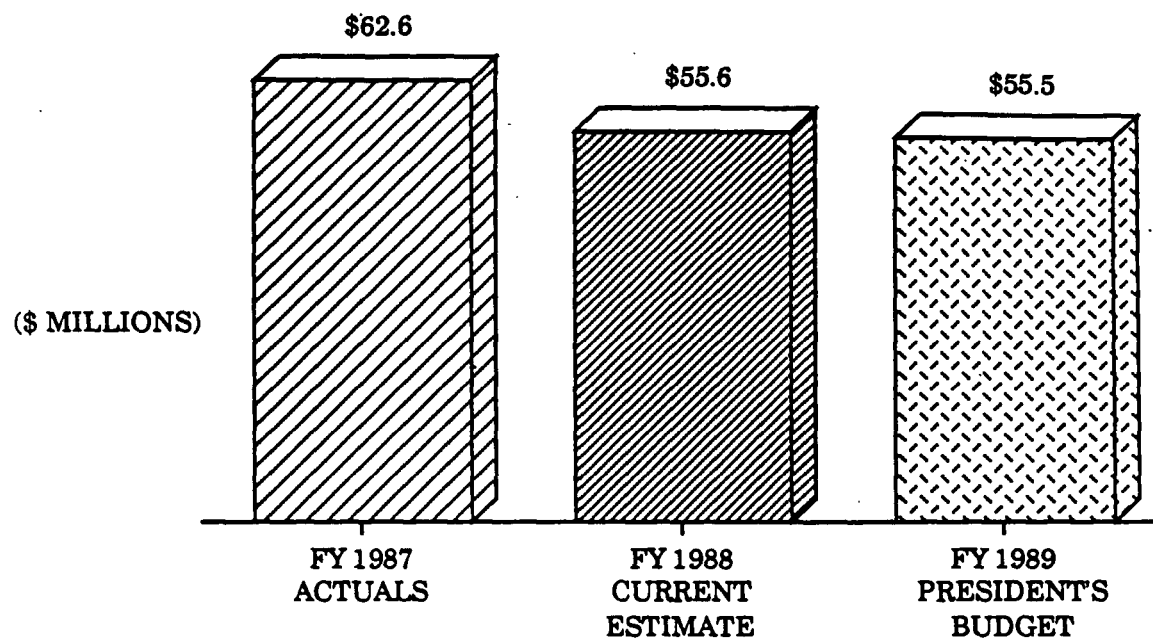
The highlights of the 1989 President's Budget for the Toxic Substances Program are as follows:

- **Implementation of the TSCA Biotechnology Program and Continuation of a Responsive New Chemical Review Program:** The 1989 President's Budget requests 253 workyears and \$21.6 million, an increase of 8 workyears and \$0.8 million over 1988, to fully implement the biotechnology program. The rulemakings required for full implementation will be promulgated and a minimum of 35-50 biotechnology notices, which require interdisciplinary scientific and technical expertise, will be reviewed. The President's Budget also reflects continued emphasis on the New Chemical Review Program in order to meet the 90-day statutory review period required by TSCA Section 5. In addition, a more efficient follow-up program will be in place due to the promulgation of the expedited follow-up Significant New Use Rule (SNUR) in 1988. The Toxics program expects to issue regulations in 1988 establishing user fees for the review of new chemicals.
- **Reducing Significant Risks from Existing Chemicals:** The 1989 President's Budget includes a request of 110 workyears and \$11.2 million for the TSCA Existing Chemical Program. The major priority is to implement improvements to the tracking and disposal of PCB wastes and to obtain better information on companies that handle and store PCB wastes prior to disposal. These improvements will facilitate disposal as a significant amount of PCBs are discontinued over the next several years. Other risk management activities will focus on commercial use of asbestos, formaldehyde, and chlorinated solvents. The Toxics program will implement improvements in information gathering through the application of the Comprehensive Assessment Information Rule (CAIR) promulgated in 1988.

- **Using TSCA Authority to Support Agency Priorities:** Resources in the President's Budget will be used to implement an initiative to require industry to test chemicals identified under Section 110 of the Superfund Amendments and Reauthorization Act (SARA). The Toxic Substances Office will use the test data to prepare toxicological profiles of the chemicals. The Chemical Testing program will also maintain emphasis on response to testing designations made by the Interagency Testing Committee (ITC) and on reaching final test decisions on ITC designations from past years.
- **Establishing and Making Publicly Available the Emissions Inventory Data Gathered Under the Title III Program:** A total of 48 workyears and \$12 million, including 11 workyears and \$2.0 million for enforcement, will be devoted to processing of emissions reports and making the reports available on a public data base. The anticipated level of reporting by industry is 300,000 reports annually. To the extent that this volume of reporting does not occur, we will work to improve the overall quality of the emissions inventory data and to help States develop their role as the first level of response to public inquiries.
- **Ensuring Compliance With the Toxic Substances Control Act:** The President's Budget for 1989 will maintain a program that ensures compliance with toxic substances regulations. A total of 184 workyears and \$12.2 million will support EPA enforcement programs and cooperative agreements in up to 21 States. The major objectives of the 1989 program are to improve overall compliance assistance to the regulated community, to conduct compliance inspections and provide case development, with particular emphasis on PCB disposal sites and broker/transporter/storer facilities, and to manage the laboratory data integrity program.
- **A Continued Focus on Addressing Asbestos Hazards in Schools:** In 1989, the President's Budget includes 11 workyears and \$3.4 million to maintain programs designed to address asbestos hazards in schools. The Asbestos Hazard Emergency Response Act (AHERA) of 1986 and the Asbestos School Hazard Abatement Act (ASHAA) of 1984 establish the need for compliance activities and technical guidance. Emphasis in 1989 will be placed on providing assistance and guidance to States and schools on activities required by AHERA, including the implementation of management plans and the establishment of inspector and management planner certification and training programs.

- **Increased Research On Asbestos Sampling and Control Technologies:** The Agency requests 188 workyears and \$26.6 million for the Toxic Substances research program. Research support to the Office of Toxic Substances will continue in the areas of test methods development and evaluation, structure activity relationships, biomarkers, environmental engineering and technology, and biotechnology. Technical support in the area of risk assessment methodologies will also continue. In 1989, increased research emphasis will be placed on asbestos sampling protocols and control technologies.

## **ENERGY**



# ENERGY PROGRAM HIGHLIGHTS

The President's 1989 Budget provides **\$55.5 million** and **79 workyears** for energy research, a decrease of \$0.1 million and 2 workyears from 1988. This research provides the scientific information necessary to evaluate environmental impacts and potential controls on the energy sector. The highlights of the 1989 energy research program are as follows:

- **Acid Rain Research:** The EPA will reduce scientific uncertainties about acid rain through research coordinated by the Interagency Task Force of the National Acid Precipitation Assessment Program (NAPAP). In 1989, EPA funding for acid rain research will be approximately the same level as in 1988. Total Federal funding for acid rain research in 1989 will be roughly the same level as in 1988.

In 1989, the EPA's acid rain research program emphasizes projects in six major areas that will provide information for the 1990 NAPAP Assessment Report to Congress. First, air emissions inventories (wet and dry) will be refined to develop trends on acid rain precursor emissions. Second, the Regional Acid Deposition Model (RADM) will be evaluated to determine how changes in air emissions affect acid deposition across the nation. Third, a classification system of surface waters acidification potential will be developed to target monitoring activities on those surface waters that might be adversely affected by continued acid rain. Fourth, theoretical causes of forest damage will be tested to assess the exact effects of acid rain on forests. Fifth, material damage will be researched to assess the effects of acid rain on building materials and paints. Finally, "cost of control" data will be developed to help evaluate acid rain control strategies.

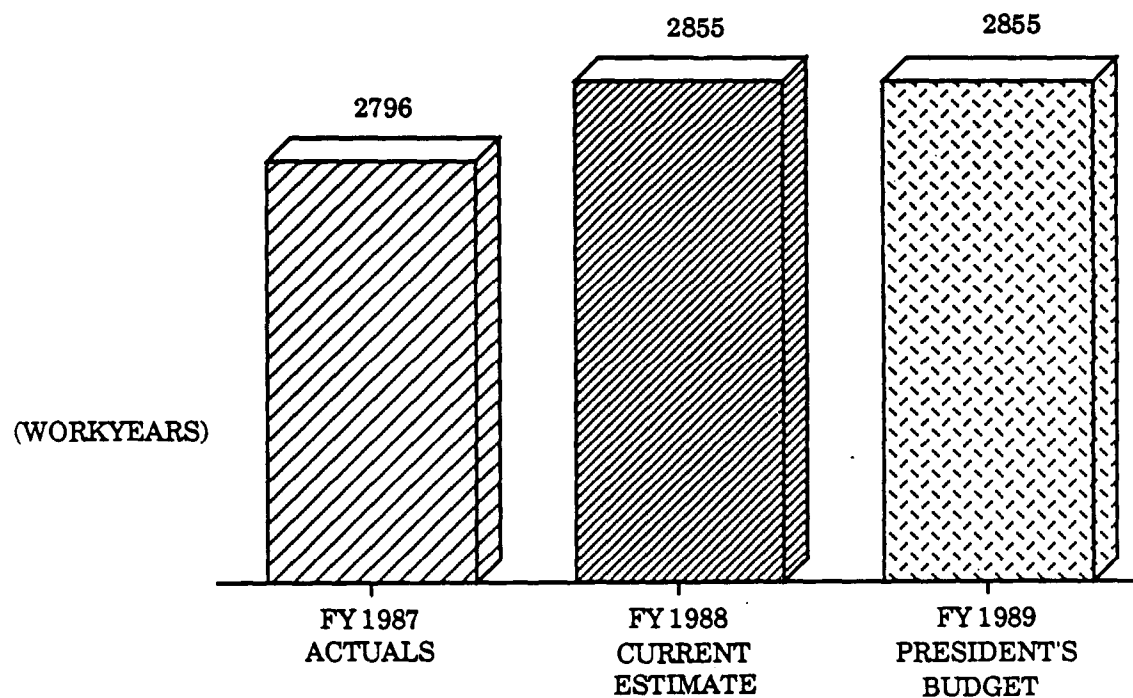
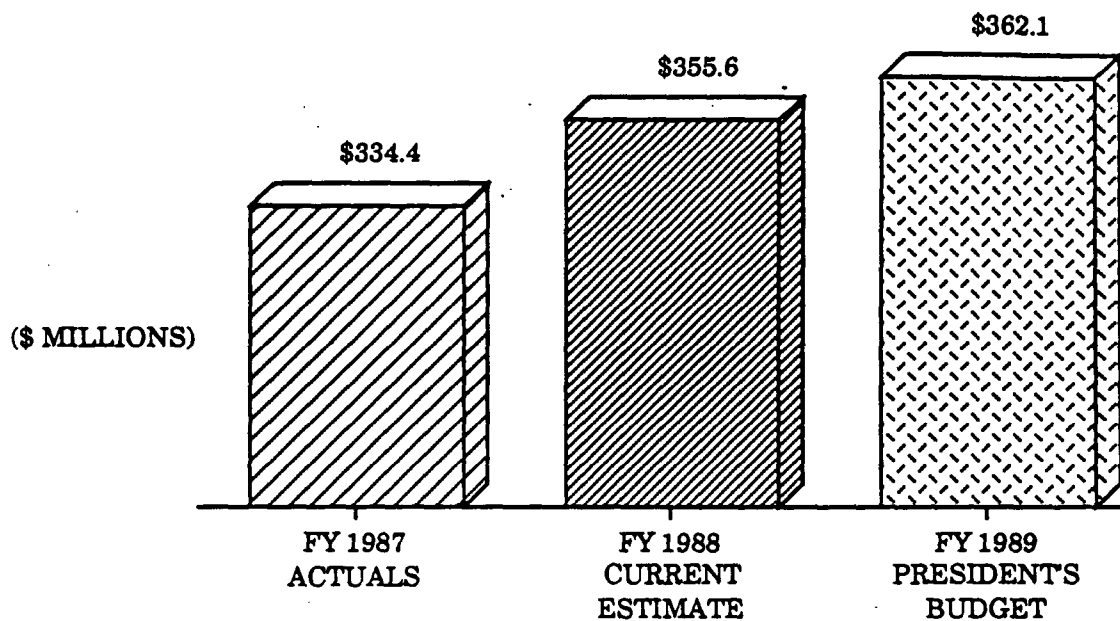
- **LIMB Control Technology Research:** The LIMB (Limestone Injection Multistage Burner) research program develops and evaluates emission control technologies that will remove sulfur oxides (SO<sub>x</sub>) and nitrogen oxides (NO<sub>x</sub>) from the flue gases of coal-fired boilers. If these technologies are successfully demonstrated, they may prove to be a cost-effective method of controlling air emissions which are acid rain precursors. In 1989, funding for LIMB research will roughly the same level as in 1988.

- **Clean Coal Technology (CCT) Demonstration Program:** The Joint Report of the Special Envoys on Acid Rain in 1986 recommended the initiation of a five-year, \$5 billion program to foster demonstrations of innovative technologies to control acid rain. Half of the funding (\$2.5 billion) will be provided by the Federal Government, the other half by the private sector. The Department of Energy (DOE) has major Federal responsibility for implementing this program. The EPA will work with the DOE in implementing this demonstration program on innovative acid rain controls.





## MANAGEMENT & SUPPORT



# MANAGEMENT AND SUPPORT PROGRAM HIGHLIGHTS

The President's FY 1989 Budget requests **2,855 total workyears** and **\$362.1 million** for management and support, an increase of \$6.5 million with no change in workyears.

Highlights of the 1989 President's Budget for Management and Support are as follows:

- **Policy and Planning will Continue to Emphasize Regulatory Review, Risk Assessment and Management:** The budget provides 294 workyears and \$27.4 million to support the Agency's policy analysis efforts. Particular emphasis will be placed on studies to evaluate the economic impact of EPA's regulations, analysis of risk management across Agency programs and the expansion of the Agency's knowledge in the area of economic benefits. Management tracking systems will continue to be given priority. The potential impacts of global climate change will continue to be examined as well.
- **Legal Support for Agency Priorities:** The budget for legal services supports a total of 219 workyears and \$11.8 million to provide legal advice and assistance to Agency managers. This represents no change from 1988. The program will continue to assure legal consistency in policies and decision-making throughout the Agency. In addition, this program defends the Agency in all litigation filed against it.
- **Better Relations with Congress, the Public, State and Local Governments, and Other Federal Agencies:** The budget provides 141 workyears and \$8.1 million for the Office of External Affairs. This represents an increase of \$.2 million. This office provides Agency outreach functions such as Congressional, legislative, and community relations programs.
- **Continued Implementation of the Waste, Fraud, and Abuse Prevention Program:** The budget provides 228 workyears and \$16.0 million to support the Office of the Inspector General. This is an increase of \$0.6 million with no change in workyears over 1988. The Inspector General will continue its fraud prevention program as well as continue existing audit and investigative efforts within the Agency.
- **Continued Administrative and Financial Management Services to the Programs:** The budget provides 1,385 workyears and \$66.5 million for Headquarters and Regional components of the Office of Administration and

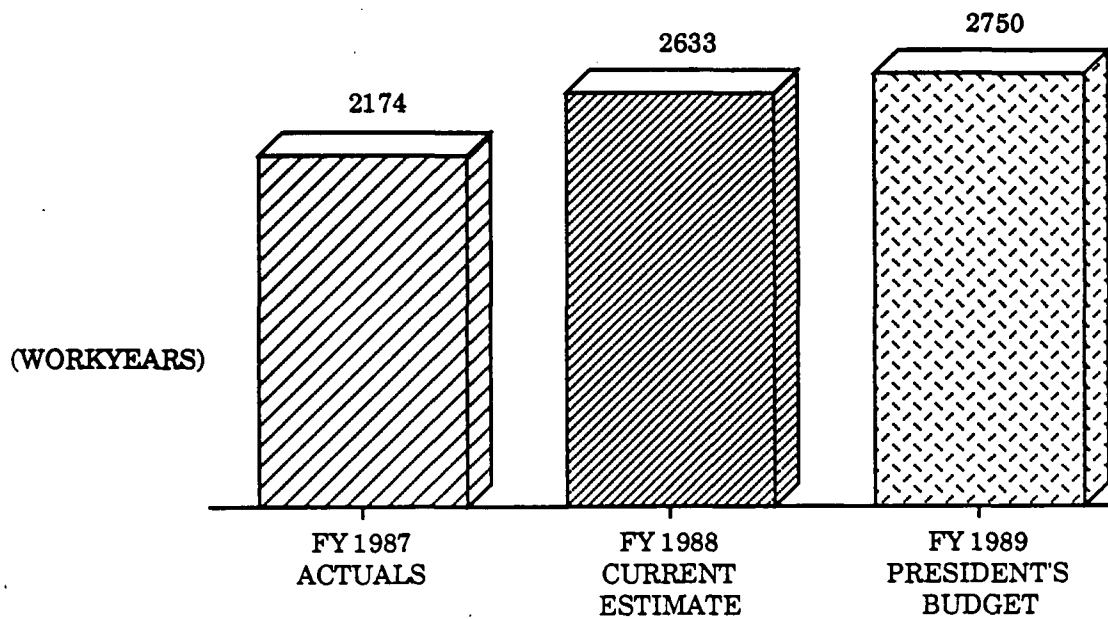
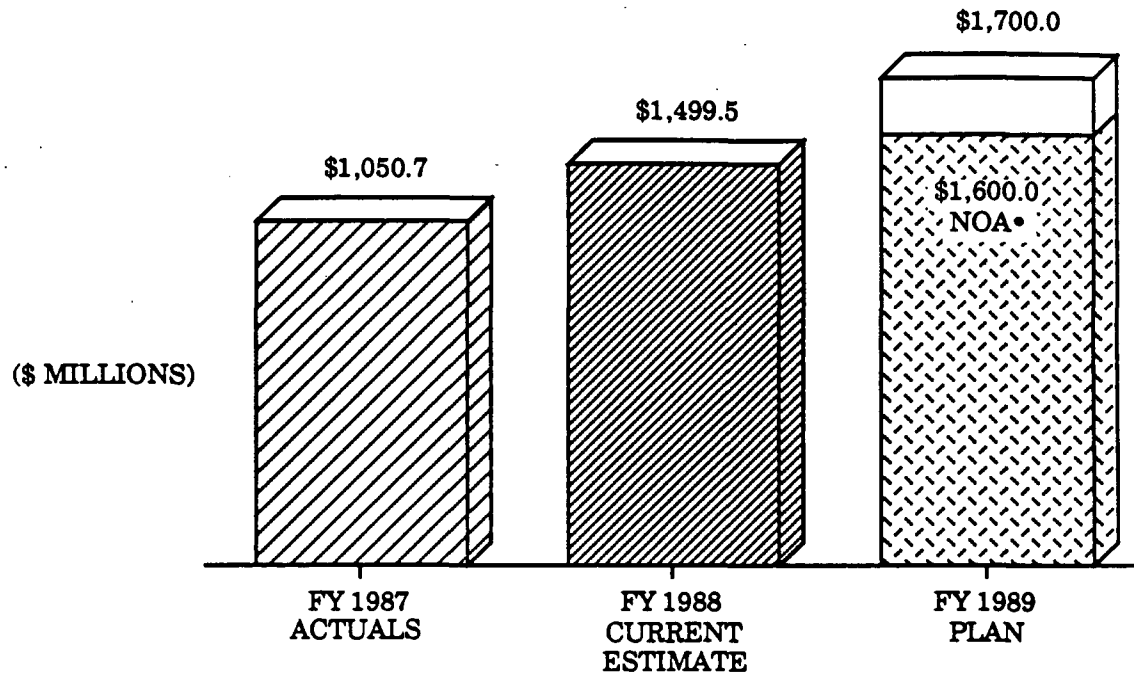
Resources Management. This represents an increase of \$2.6 million over 1988. The Office of Administration and Resources Management will build on progress already achieved in assuring a strong system of financial internal controls, integrating financial management systems in accordance with Circular A-127, placing greater emphasis on achieving significant productivity improvements, and ensuring sufficient administrative support to Agency programs.

- **Establishing a Private Sector Initiative:** A program is being established within the Office of Administration and Resources Management to encourage privatization of activities which can be more efficiently operated by the private sector. An example of this approach is the Construction Grants program where the State Revolving Fund will encourage private construction and operation of sewage treatment plants that are less costly.
- **Increased Agency-wide Services:** The budget contains \$190.9 million for support services, an increase of \$15.5 million over 1988. These resources will provide for general support services such as rent, utilities, maintenance, laboratory support, postage and supplies to all Agency programs. The support accounts also provide for agency-wide data processing networks and support for Agency laboratories.
- **Address Critical Repairs and In-House Environmental Compliance:** The budget contains \$8.0 million for buildings and facilities. Repair and improvement funds will be used to address critical repairs related to employee health and safety, required alterations, and maintenance and energy conservation efforts. The Agency will emphasize projects to bring EPA facilities into compliance with environmental regulations.
- **The Agency Plans to Design and Construct a New Facility in Gulf Breeze, Florida:** The budget contains \$1.9 million to support the new laboratory in Florida. This facility will enable the Agency to evaluate biotechnological applications and methods that will address problems of permit application and issuance and assure the protection of human health and the environment.



**SUPERFUND**

## SUPERFUND



# SUPERFUND PROGRAM HIGHLIGHTS

The basic authority under which the Agency addresses threats from uncontrolled hazardous waste sites is the Comprehensive Environmental Response, Compensation, and Liability Act of 1981 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). Superfund is financed primarily by excise taxes on petroleum and certain chemical feedstocks, a corporate environmental tax, cost recoveries, and general revenues.

SARA significantly broadens Superfund authorities in key response, enforcement, and research areas. It establishes cleanup standards and mandatory schedules to ensure rapid and permanent solutions in cleaning up the nation's worst hazardous waste sites. It expands State and public participation in the cleanup process and ensures that response actions at Federal facilities are addressed in a timely fashion.

In carrying out its mandate to protect public health and the environment from emergency and long-term threats from uncontrolled hazardous wastes, the EPA will provide direct Federal site cleanup or will initiate enforcement actions to compel responsible parties to clean up. When direct Federal action occurs, the EPA will seek to recover the cleanup costs from those responsible.

The 1989 President's Budget for Superfund represents a significant commitment to eliminate the health and environmental problems caused by inadequate waste disposal practices of the past. The budget provides the Agency with \$1,600.0 million in new authority and \$100.0 million in prior year funds anticipated to be available supported by 2,750 workyears. The plan represents an increase of \$200.5 million and 117 workyears over 1988 operating levels and reflects the aggressive effort made to sustain the momentum regained in 1987 and 1988.

Highlights of the President's Budget for 1989 areas follows:

- **The EPA will Expand the Number of Site Designs and Constructions in 1989:** The EPA is requesting \$1,218.5 million supported by 1133 total workyears for site response. This represents an increase of \$78.9 million and 49 total workyears, not including the \$100 million in anticipated prior year funds.

Over half of this funding will support the 75 remedial designs and 50 constructions which the EPA plans to initiate in 1989. However, the total cleanup program managed by the Agency is significantly higher as respon-

sible parties and other Federal agencies begin to play an expanded role in these final cleanup phases. They are expected to initiate 79 designs and 37 constructions in 1989. Together this represents a 10 percent increase in designs and a 20 percent increase in constructions over 1988 levels.

The Agency also intends to implement site planning work at 70 sites for eventual Fund-financed cleanup efforts. Responsible parties and other Federal agencies are expected to start planning activities at an additional 53 sites. By the end of 1989, planning work will have been initiated at nearly 900 National Priorities List sites.

- **The EPA will Continue to Strengthen its Emergency Response Capabilities:** The Agency will continue an aggressive removal program providing short-term emergency cleanup actions. Expanded removal authorities in the statute will provide more extensive cleanups. Removals will be consistent with future remedial actions at those sites where additional cleanup measures will be required.
- **Enforcement Activities Increase to Provide Technical Oversight of Responsible Party (RP) Response and Legal Support:** The Agency is requesting \$131.5 million, supported by 1,027 workyears, for enforcement activities. This represents an increase of \$10.3 million and 51 workyears from the 1988 level. Resource increases requested will primarily support direct technical oversight of RP remedial response actions. During 1989, the Agency expects to begin oversight of 70 remedial designs and 35 remedial actions conducted by RPs. This represents an increase of 16 remedial design and 16 remedial action starts above 1988.

Increases also provide support for cases to compel RPs to undertake response action and for new and ongoing cases to recover Trust Fund monies where a Federal response action has been completed. The Agency's aggressive cost recovery efforts will continue to expand and improve through better coordination among Agency offices.

The EPA will also provide greater technical assistance to other Federal agencies that are addressing hazardous waste sites on their own facilities.

- **Other Federal Agencies will Continue to Provide Support for the EPA's Implementation of SARA:** The EPA is requesting \$87.0 million for other Federal agencies, an increase of \$2.9 million from 1988. Over 65 percent of the interagency budget is targeted to support the significantly expanded health authorities under SARA. These activities are primarily conducted by the Department of Health and Human Services. Consistent

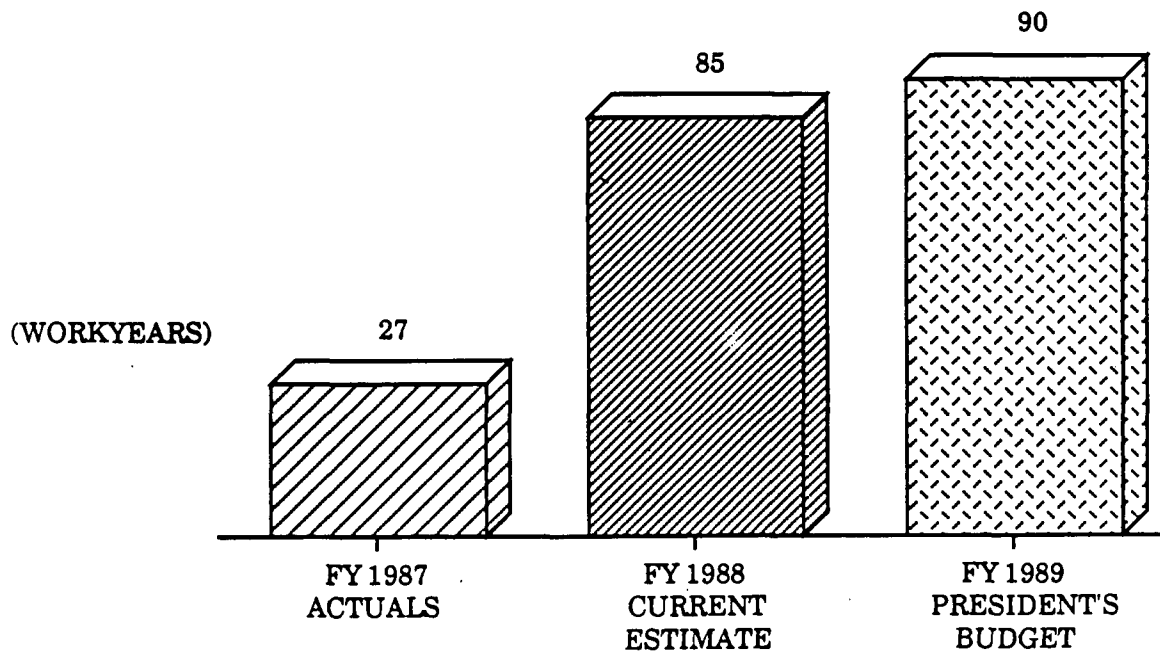
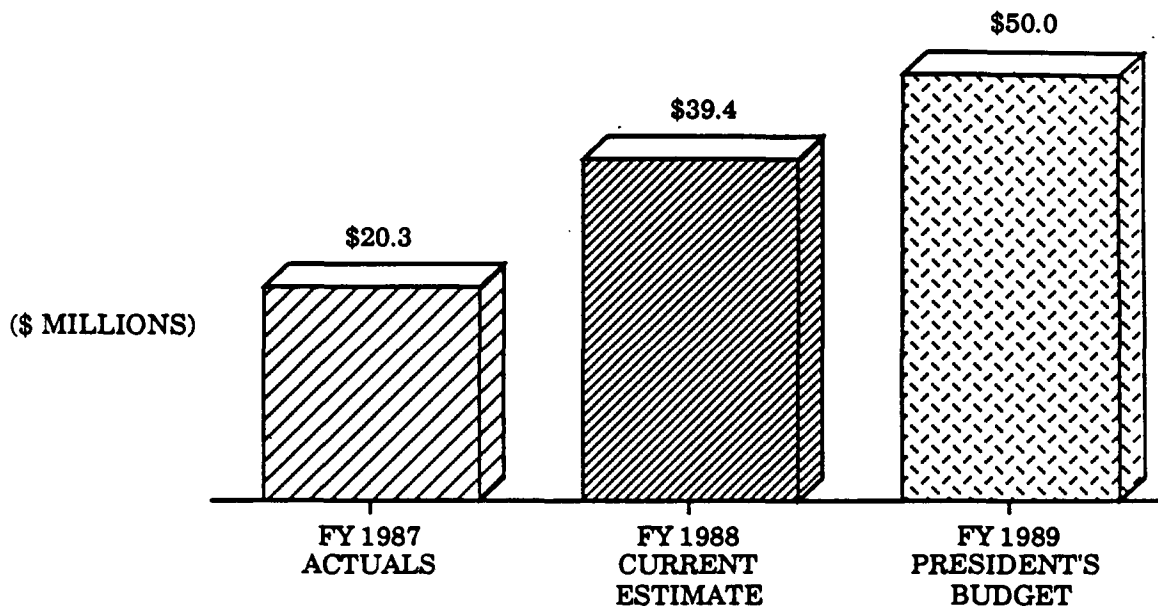


with the Agency's emphasis on strengthening its enforcement efforts, the Department of Justice will receive greater resources to ensure adequate support of its larger caseload.

- **Increased Research to Improve Cleanup Technology:** The Agency requests 103 workyears and \$66.8 million for the Superfund research program, an increase of 17 workyears and \$8.4 million over 1988. The Superfund research program supports the Agency, States, and industry in resolving technical problems which inhibit the effective implementation of removal and remedial actions. The research program also supports the commercialization of alternative and innovative treatment technologies for use in response actions through the Superfund Innovative Technology Evaluation (SITE) program. In 1989, research to evaluate biological treatment systems for cleanup at Superfund sites will be increased as will research to develop advanced monitoring techniques for use in the field. In addition, \$5.0 million will be provided for the University Research Centers established in 1988.
- **The EPA Plans Enhanced Administrative Support, Financial Management, Legal Counsel, and Management:** A total of 488 workyears and \$96.1 million is requested for administrative and management services to support the Superfund program. While the 1989 resource levels remain the same as in 1988, the Agency expects to enhance its management support activities through productivity savings. The Agency will emphasize the award and monitoring of an increasing number of Superfund contracts and grants, recruitment for Superfund employees, development of property management procedures for Superfund contracts, and meeting the program's demand for new and revised information systems. The Agency will also continue to implement improvements in financial documentation procedures for cost recovery cases.

**LUST**

# LUST



# LEAKING UNDERGROUND STORAGE TANKS (LUST) TRUST FUND PROGRAM HIGHLIGHTS

The goal of the LUST program is to assure timely and appropriate response to leaking underground petroleum tanks. While owners and operators have the primary responsibility for cleanup, the LUST Trust Fund provides a supplemental response capability, particularly for abandoned sites. The Agency is implementing this program through cooperative agreements with States.

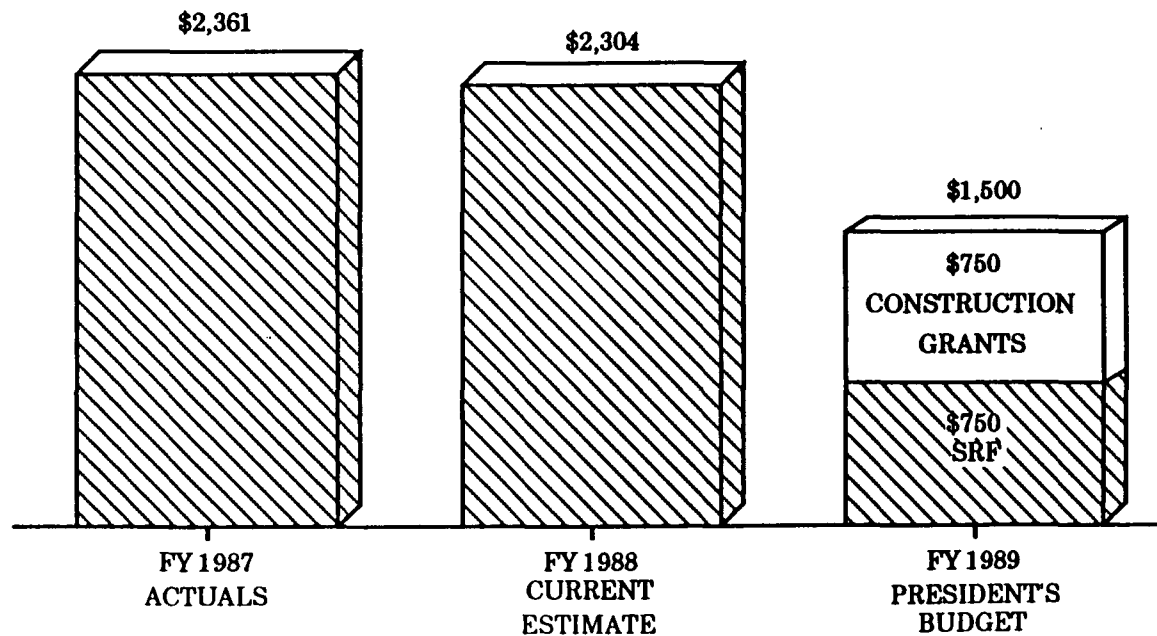
The President's 1989 Budget provides **90 workyears** and **\$50.0 million** for the LUST Trust Fund, an increase of 5 workyears and \$10.6 million over 1988 levels. The highlights of the 1989 LUST program are as follows:

- **The Agency will Emphasize the Development of Strong State Programs:** States will receive \$40.5 million for cooperative agreements, an increase of \$10.1 million over 1988 levels. Most States already have generic cooperative agreements in place. Through these agreements, the Agency will target resources to increase the number of response activities and cleanups in States with highly developed programs, while continuing program development in other States.
- **The Agency will Work with States to Strengthen Enforcement Activities in order to Compel Responsible Party Cleanup:** The new leak detection requirement is expected to increase significantly the number of leaks reported. States will emphasize response by owners/operators through enforcement and oversight activities. When States actually perform cleanups, they will seek recovery of appropriate costs. The EPA will directly respond only in a very limited number of cases.
- **The Agency will Continue to Provide Guidelines and Oversight for State Activities:** These include guidelines on financial responsibility, corrective action, enforcement, cost recovery, and Fund management systems. The Agency will also provide technical assistance on remedial technologies, and will work with States to evaluate and identify improvements to their programs.

# **CONSTRUCTION GRANTS**

# OUR CONSTRUCTION GRANTS REQUEST IS CONSISTENT WITH THE \$12 BILLION PHASEOUT

(\$ IN MILLIONS)



# CONSTRUCTION GRANTS HIGHLIGHTS

The Administration supports a **\$12 billion phaseout** of the Construction Grants program. This level of Federal funding for 1986-1993 will provide a smooth transition to State and local self-sufficiency in financing wastewater treatment facilities. The \$12 billion provides the Federal funding needed to complete ongoing phased and segmented projects and bring existing facilities into compliance with secondary treatment requirements.

A key component of this plan is the transition to the State Revolving Funds (SRFs) program, which is already underway. For 1989, the Agency requests a total of **\$1.5 billion** for the Construction Grants appropriation, of which \$750 million is for construction grants and \$750 million is for State revolving funds.

- **Transition to State Revolving Funds (SRFs):** The Clean Water Act, as amended by the Water Quality Act of 1987, provides for a complete transition from the current Construction Grant program to SRFs by 1991. For 1989, one-half of the authorized funding can be used only to capitalize SRFs. The authorized forms of local assistance for SRFs include low-interest/long-term loans, refinancing, loan guarantees and bond insurance for wastewater treatment facility construction. Additionally, once a State's wastewater facility needs are satisfied, similar assistance can be provided for nonpoint source management and estuary protection programs.

Several States are expected to submit SRF program proposals to the EPA in 1988, and it is estimated that twelve SRF programs will be approved. Nearly all the remaining States will submit their programs for approval in 1989, and by 1990 essentially all States will have approved SRFs. The EPA will work with States to assure that these programs will be self-sustaining after Federal financial assistance is phased out. An important aspect of the transition to SRFs will be greatly increased State control and responsibility for wastewater treatment construction assistance and program management.

- **SRF Payments by Letter of Credit:** The Agency has worked with the Office of Management and Budget (OMB) and the Congress to develop a payment system for SRFs consistent with the Intergovernmental Cooperation Act and the Clean Water Act. The letter of credit (LOC) payment system which is being implemented provides for the cash needs of State programs at the time cash is demanded to support project-related needs. This system provides for all authorized uses of SRF funds, including leveraging. However, cash is not made available in advance of a project-related need (e.g. cash is not available to States solely for the purpose of earning interest), thus avoiding unwarranted outlays of Federal funds.

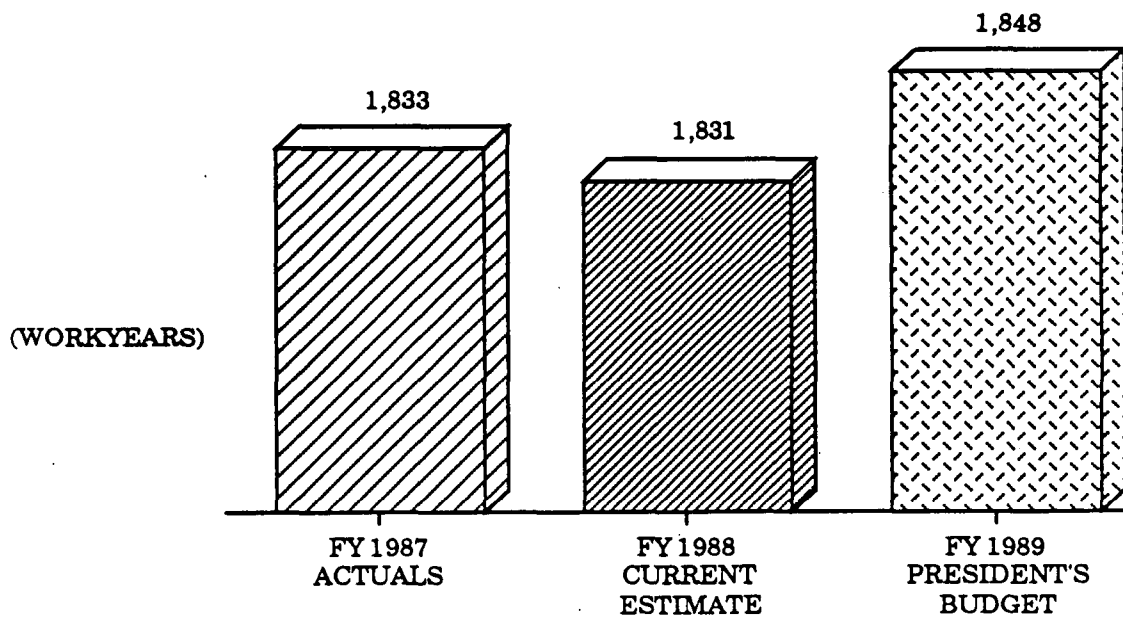
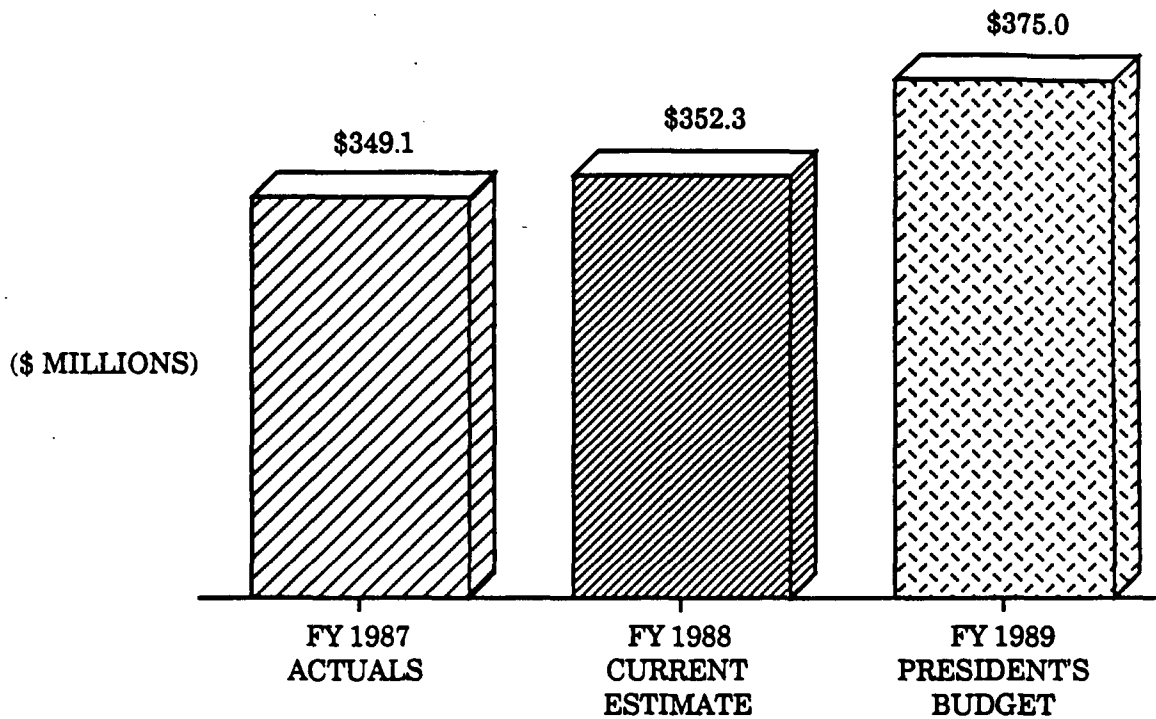
- **Protecting Existing Federal Investment:** Under the Clean Water Act, the EPA has obligated over \$48 billion in construction grant funds for the construction of wastewater treatment facilities. Nearly 5,000 of the grant-assisted projects are either still under construction or are in various stages of completion. The EPA will continue to work with the States to ensure effective construction, timely completion and closeout, and effective operation and maintenance of these facilities.

Over the past 15 years, the EPA has developed significant expertise in cost-effective wastewater treatment designs and construction techniques, local revenue systems, effective facility operations and maintenance, and overall program and project management. As the direct Federal role in the municipal wastewater treatment program draws to a close, one of the Agency's goals is to effectively transfer this expertise to State and local governments.



# **RESEARCH AND DEVELOPMENT**

## RESEARCH & DEVELOPMENT



# RESEARCH AND DEVELOPMENT SUMMARY

The 1989 President's Budget for the EPA's Research and Development Program totals **\$375.0 million** and **1,848 workyears**. This represents an increase of \$22.7 million and 17 workyears over the 1988 level, or 6 percent in dollars and 1 percent in workyears.

The goals of our research program are to develop the scientific data needed by Agency decisionmakers to select the most cost-effective and environmentally safe means of achieving environmental results; to provide the necessary scientific data in support of the Agency's statutory and regulatory responsibilities; and to advance our state of knowledge on those environmental problems we do not yet fully understand.

To implement these goals in 1989, the EPA's Research and Development program will emphasize research in the following areas:

- **Understanding Stratospheric Ozone Depletion:** The recent Montreal Protocol has focused international attention on the causes and effects of stratospheric ozone depletion. The Protocol requires the United States and other participating nations to tighten controls on chlorofluorocarbons (CFCs) by 1994. As part of a government-wide effort to better understand the impacts of a depleted ozone layer and the resulting increases in ultraviolet radiation (UV-B), the Agency is significantly increasing research on the environmental and human health effects associated with increased levels of UV-B.

In 1989, the EPA's stratospheric ozone depletion program will be funded at a level of \$8.6 million, an increase of \$7.3 million over 1988. This research will enable the EPA policymakers to make informed decisions about the risks posed by stratospheric ozone depletion before recommending any additional controls in 1994.

- **Evaluating Control Technologies To Provide Cost Effective Solutions To Environmental Problems:** Environmental problems such as Superfund site cleanups, radon gas, and cancelled/suspended pesticides present a major challenge to the Agency because few inexpensive and environmentally safe solutions to these problems currently exist. In response, the 1989 research budget will focus on evaluating innovative and alternative control technologies and mitigation techniques that provide cost-effective solutions. Under the Superfund program a new initiative will be undertaken to evaluate biological treatment systems which may reduce the cost of cleaning up Superfund sites. The Agency's radon mitigation program will demonstrate techniques to alleviate the radon problem in new and

existing homes. Finally, research will be increased to support the testing and evaluation of technologies for environmentally safe destruction and disposal of pesticides cancelled and suspended under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

- **Reducing Uncertainties in Risk Assessments:** In order to make effective decisions, policymakers must have precise information on the nature and extent of health and environmental risks. In 1989, research to reduce uncertainties in risk assessments (RURA) will be increased by \$7.0 million to improve the Agency's assessments of environmental and health risks. Emphasis will be placed on developing improved methods for measurement and estimation of human exposure and response to pollutants. In addition, new methods to measure ecosystem risks will be examined.
- **Providing Scientific Data on the Causes and Effects of Acid Rain:** Acid Rain remains one of today's most complex environmental issues. The 1989 research program will continue the effort to reduce scientific uncertainties about acid rain through research coordinated by the Interagency Task Force of the National Acid Precipitation Assessment Program (NAPAP). Such research will ultimately provide information and predictive tools for the 1990 NAPAP Assessment Report to Congress on acid deposition. Research will focus primarily on evaluating models developed to predict acid deposition from air emission levels and determining the extent of actual (and potential) damage to the aquatic and terrestrial environment.
- **Promoting Technology Transfer Activities to Enhance Program Performance:** Recently reauthorized environmental statutes such as the Clean Water Act, Superfund, and the Resource Conservation and Recovery Act (RCRA) Amendments mandate increased involvement by State and local governments. As more and more States and localities move to implement these environmental programs, it will become increasingly important that the EPA provide the necessary technical tools and information. In 1989, the Agency plans to strengthen and expand its technology transfer activities so as to enhance the performance of our State and local partners. As part of this program, the Office of Research and Development (ORD) will establish a Regional Scientists program in which laboratory personnel will rotate to positions in the ten EPA Regional Offices to further understand regional and State needs and enhance technology transfer in the field.

## **1989 Research and Development Resources**

Funding for the EPA's Research and Development program is provided through four major appropriations. The following table summarizes the 1989 Budget request for each of these appropriations.

## President's Budget Request for Research and Development By Appropriation

(Dollars in Millions)

Appropriation	1989 Total Dollars	Change From 1988 Level
Salaries & Expenses	\$110.4	+ \$3.7
Research & Development	197.0	+ 10.6
Superfund	66.8	+ 8.4
<u>LUST Trust Fund</u>	<u>0.8</u>	<u>-</u>
<b>Total</b>	<b>\$375.0</b>	<b>+\$22.7</b>

The structure of the research program also tracks with the Agency's regulatory programs. Research is provided to support each of the media programs as follows:

## President's Budget Request for Research and Development by Media

(Dollars in Millions)

Research Program	1989 Total Dollars	Change From 1988 Level
Air	\$72.5	+\$6.7
Water Quality	25.1	+ 0.4
Drinking Water	22.0	- 0.5
Hazardous Waste	41.3	- 3.4
Pesticides	14.4	+ 1.5
Radiation	4.0	+ 1.1
Interdisciplinary	34.2	+ 7.2
Toxic Substances	26.6	- 0.2
Energy/Acid Rain	55.5	- 0.1
Superfund/LUST	67.6	+ 8.4
<u>Management &amp; Support</u>	<u>11.8</u>	<u>+ 1.6</u>
<b>Total</b>	<b>\$375.0</b>	<b>+\$22.7</b>

A description of the major emphasis of each medium's research activities in 1989 and changes from 1988 is described below.

- **Air Research:** This research area will be increased \$6.7 million (10%) to support a significant expansion in stratospheric ozone depletion research. Other emerging programs such as characterizing the effects of global climate change and assessing the environmental risks of indoor air pollutants will continue. Research to support revisions of National Ambient Air Quality Standards (NAAQS) and the air toxics program will also be conducted.
- **Water Quality Research:** This research area will be increased \$0.4 million (1%) to support the mandates of the 1987 Clean Water Act Amendments. The program will focus on the development of scientific data to support sludge regulations as well as provide health and environmental information on toxic chemicals of concern. The Great Lakes Program will be maintained at the 1988 level.
- **Drinking Water Research:** This research area will be decreased by \$0.5 million (2%) reflecting the completion of toxicological testing for the first set of the Safe Drinking Water Act (SDWA) priority pollutants. Emphasis will be placed on identifying and characterizing the health impact of disinfectants and their by-products. In addition, research on in situ restoration techniques may lead to a more cost-effective cleanup of contaminated aquifers.
- **Hazardous Waste Research:** This research area will be decreased \$3.4 million (8%) reflecting the elimination of funding for an outside research center and the shifting of some personnel to the technology evaluation program under Superfund. Emphasis will be placed on research into alternatives to conventional means of disposing of and destroying wastes. Research on controlling emissions from municipal waste combustors will also be conducted.
- **Pesticides Research:** This research area will be increased by \$1.5 million (12%) to support the testing and evaluation of technologies for the destruction and disposal of pesticides cancelled/suspended under FIFRA. In addition, emphasis will be placed on developing scientific methods to assess risks to human health and the environment from exposure to pesticide products. Research will also be focused on determining the health and environmental effects of genetically engineered pesticides.
- **Radiation Research:** This research area will be increased \$1.1 million (36%) to expand the number of demonstrations of techniques for reducing exposure to indoor radon gas in new and existing housing structures.

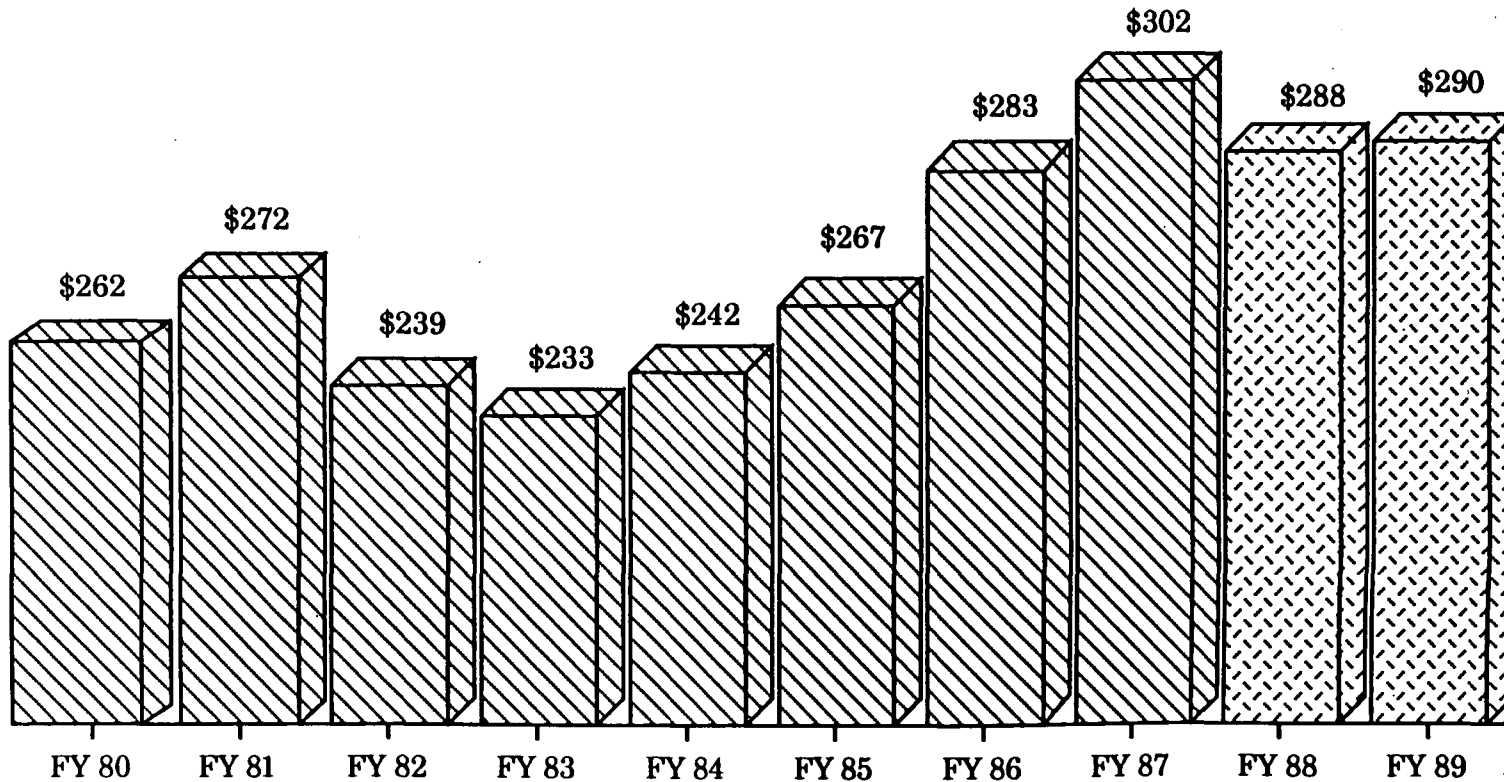
- **Interdisciplinary Research:** This research area will be increased by \$7.2 million (27%) to support a new program, initiated in 1988, on reducing uncertainties in risk assessments. This new research area is designed to improve the EPA's assessments of environmental and health risks in order to reduce uncertainties in risk management decisions. Exploratory research grants and centers will be funded at approximately the 1988 level of \$12.8 million.
- **Toxic Substances Research:** This research area will be maintained at approximately the 1988 level. Increased emphasis in 1989 will be placed on evaluating asbestos sampling protocols and control technologies. Research support to the Office of Toxic Substances will continue in the areas of: test methods development and evaluation; environmental engineering and technology; and biotechnology.
- **Energy/Acid Rain Research:** This research area will be funded at \$55.5 million, approximately the 1988 level. Research will emphasize projects that provide information and predictive tools for the 1990 Assessment Report to Congress by the National Acid Precipitation Assessment Program (NAPAP). In addition, the Limestone Injection Multistage Burner (LIMB) program will continue to evaluate retrofit boiler technology to reduce sulphur oxides (SOx) and nitrogen oxides (NOx) in emissions. This program will be coordinated with the Department of Energy's Clean Coal Technology program.
- **Superfund Research:** This research area will be increased \$8.4 million (14%) to support the EPA, the States, and industry in resolving technical problems which inhibit the effective implementation of removal and remedial actions at Superfund sites. In addition, the research program is supporting the commercialization of alternative and innovative treatment techniques for use in response actions through the Superfund Innovative Technology Evaluation (SITE) program. In 1989, a new initiative will be undertaken to evaluate biological treatment systems (biosystems) which may reduce the cost of cleaning up Superfund sites.
- **Leaking Underground Storage Tanks (LUST) Research:** This program will be maintained at the 1988 level. This research program provides technical support to the EPA's Office of Underground Storage Tanks, EPA Regions, States, and local agencies responsible for the implementation of the LUST Trust Fund Program. Technical support will focus on providing scientific expertise on low cost approaches for assessing site contamination and evaluating remedial technologies.

# **STATE AND LOCAL GRANTS**



## EPA MAINTAINS STABLE STATE GRANT RESOURCE LEVELS FOR 1988 & 1989

(\$ IN MILLIONS)



## STATE AND LOCAL GRANTS

The President's 1989 Budget allocates **\$290.0 million** to support State and local environmental programs, an increase of \$2.3 million from 1988.

Recognizing the important role these grant programs play in maintaining and improving environmental quality in the States, the President's Budget for 1989 continues to maintain the commitment for these essential programs while addressing necessary fiscal constraints throughout the Federal Government.

- **Addressing a Critical Area of Concern:** In order to provide sufficient support for major environmental problems in the States, the President's Budget increases funding for the Underground Storage Tank program. This increase in resources will allow the States to expand their regulatory programs to incorporate Federal standards on leak detection, prevention and corrective action. This increase will enable the EPA to fulfill requirements under the Solid Waste Disposal Act, as amended.
- **Maintaining the State-Federal Partnership:** The President's Budget recognizes the need to maintain and, where appropriate, improve the partnership that has developed and matured over the years. The funding levels proposed for 1989 recognize that the continued support of the States is necessary if we are to meet our statutory environmental goals and also address the pressing national need to control Federal expenditures.

The following chart shows State and local grants by program area:

# STATE AND LOCAL GRANTS

(DOLLARS IN THOUSANDS)

	<b><u>1987 ACTUAL OBLIGATIONS</u></b>	<b><u>1988 PRESIDENT'S BUDGET</u></b>	<b><u>1988 CURRENT ESTIMATE</u></b>	<b><u>1989 PRESIDENT'S BUDGET</u></b>	<b><u>1989-1988 DIFFERENCE</u></b>
<b><u>AIR</u></b>					
SECTION 105 .....	\$94,570.1	\$95,000.0	\$92,603.4	\$95,000.0	+\$2,396.6
<b><u>WATER QUALITY</u></b>					
SECTION 106 .....	71,100.1	62,100.0	60,850.0	62,100.0	+1,250.0
CLEAN LAKES .....	4,765.4	0.0	0.0	0.0	0.0
<b><u>DRINKING WATER</u></b>					
PUBLIC WATER SYSTEM					
PROGRAM GRANTS .....	33,391.0	33,450.0	33,450.0	33,450.0	0.0
UNDERGROUND INJECTION					
CONTROL PROGRAM .....	9,756.6	9,500.0	11,500.0	9,500.0	-2,000.0
WELLHEAD PROTECTION .....	0.0	8,000.0	0.0	0.0	0.0
SPECIAL STUDIES .....	2,600.0	0.0	3,000.0	0.0	-3,000.0
<b><u>HAZARDOUS WASTE</u></b>					
H.W. FINANCIAL ASSISTANCE .	62,919.5	66,000.0	64,812.0	66,000.0	+1,188.0
H.W. MGMT INITIATIVES .....	1,208.7	0.0	0.0	0.0	0.0
UNDERGROUND STORAGE					
TANKS .....	6,903.1	6,700.0	6,579.0	9,000.0	+2,421.0
<b><u>PESTICIDES</u></b>					
PESTICIDES ENFORCEMENT					
GRANTS .....	8,624.2	8,703.4	8,703.4	8,703.4	0.0
PESTICIDES CERTIFICATION					
AND TRAINING.....	2,482.9	4,000.0	4,000.0	4,000.0	0.0
<b><u>TOXIC SUBSTANCES</u></b>					
TOXIC SUBSTANCES					
ENFORCEMENT GRANTS .....	2,241.7	2,200.0	2,200.0	2,200.0	0.0
<b>TOTAL</b>	<b>\$300,563.3</b>	<b>\$295,653.4</b>	<b>\$287,697.8</b>	<b>\$289,953.4</b>	<b>\$2,255.6</b>

# **APPENDIX: BUDGET TABLES**

# ENVIRONMENTAL PROTECTION AGENCY SUMMARY OF AGENCY RESOURCES BY MEDIA

(WORKYEARS)

<u>MEDIA</u>	<u>FY 1988 CURRENT ESTIMATE</u>	<u>FY 1989 BUDGET ESTIMATE</u>	<u>1989-1988 DIFFERENCE TOTAL DOLLARS</u>
AIR	1,740.9	1,747.9	+7.0
WATER QUALITY	2,245.3	2,235.3	-10.0
DRINKING WATER	746.1	746.1	0.0
HAZARDOUS WASTE	1,491.0	1,492.9	+1.9
PESTICIDES	829.5	831.7	+2.2
RADIATION	180.6	183.2	+2.6
INTERDISCIPLINARY	625.2	623.5	-1.7
TOXIC SUBSTANCES	873.6	873.6	0.0
ENERGY	80.6	79.1	-1.5
MANAGEMENT & SUPPORT	2,855.2	2,854.7	-.5
REIMBURSEMENTS	62.0	62.0	0.0
 SUBTOTAL OPERATING PROGRAMS	 11,730.0	 11,730.0	 0.0
 HAZARDOUS SUBSTANCE RESPONSE TRUST FUND	 2,633.0	 2,750.0	 +117.0
 LEAKING UNDERGROUND STORAGE TANK TRUST FUND	 85.0	 90.0	 +5.0
 GRAND TOTAL	 14,448.0	 14,570.0	 +122.0

# ENVIRONMENTAL PROTECTION AGENCY

## SUMMARY OF AGENCY RESOURCES

### BY MEDIA

(DOLLARS IN THOUSANDS)

<u>MEDIA</u>	<u>FY 1988 CURRENT ESTIMATE</u>	<u>FY 1989 BUDGET ESTIMATE</u>	<u>1989-1988 DIFFERENCE TOTAL DOLLARS</u>
AIR	\$245,589.5	\$256,666.9	+\$11,077.4
WATER QUALITY	261,005.5	265,784.6	+4,779.1
DRINKING WATER	107,583.3	103,480.5	-4,102.8
HAZARDOUS WASTE	259,105.1	262,427.6	+3,322.5
PESTICIDES	84,231.8	137,420.0	+53,188.2
RADIATION	20,438.1	20,799.9	+361.8
INTERDISCIPLINARY	61,668.0	69,825.4	+8,157.4
TOXIC SUBSTANCES	130,225.7	95,007.6	-35,218.1
ENERGY	55,620.3	55,457.5	-162.8
MANAGEMENT & SUPPORT	355,575.0	362,130.0	+6,555.0
<b>SUBTOTAL OPERATING PROGRAMS</b>	<b>1,581,042.3</b>	<b>1,629,000.0</b>	<b>+47,957.7</b>
 HAZARDOUS SUBSTANCE RESPONSE TRUST FUND	 1,128,000.0	 1,600,000.0	 +472,000.0
 HAZARDOUS SUBSTANCE RESPONSE TRUST FUND CARRYOVER	 371,499.8	 100,000.0	 -271,499.8
<b>SUBTOTAL SUPERFUND</b>	<b>1,499,499.8</b>	<b>1,700,000.0</b>	<b>+200,500.2</b>
 LEAKING UNDERGROUND STORAGE TANK TRUST FUND	 14,400.0	 50,000.0	 +35,600.0
 LEAKING UNDERGROUND STORAGE TANK TRUST FUND CARRYOVER	 25,000.0	 0.0	 -25,000.0
<b>SUBTOTAL LUST</b>	<b>39,400.0</b>	<b>50,000.0</b>	<b>+10,600.0</b>
 CONSTRUCTION GRANTS	 2,304,000.0	 1,500,000.0	 -804,000.0
 <b>GRAND TOTAL</b>	 <b>\$5,423,942.1</b>	 <b>\$4,879,000.0</b>	 <b>-\$544,942.1</b>