United States
Environmental Protection
Agency

Office of
The Comptroller
Washington, DC 20460

January 1989

EPA

Annual Report for Fiscal Year 1987

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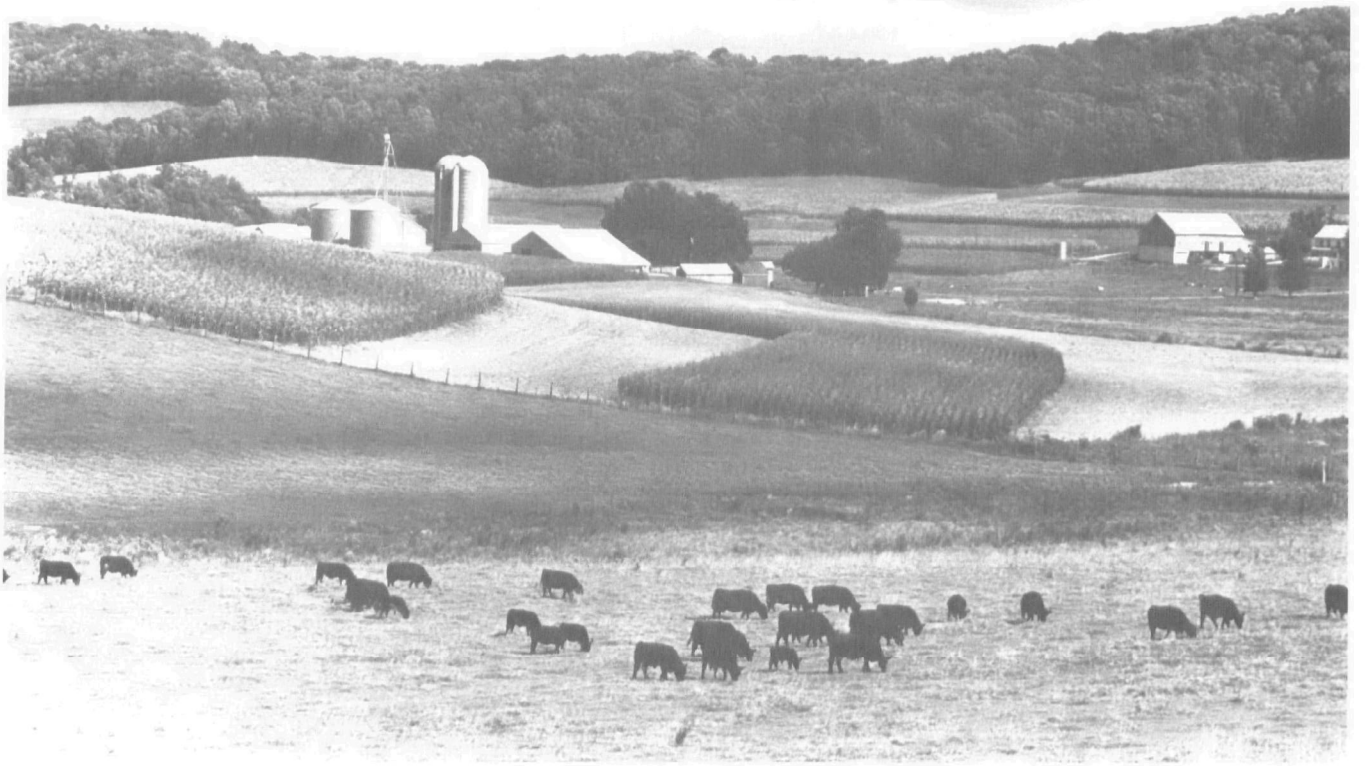


A farm in Carroll County, Maryland.

Tim McCabe
USDA Soil Conservation Service

Message From the Administrator

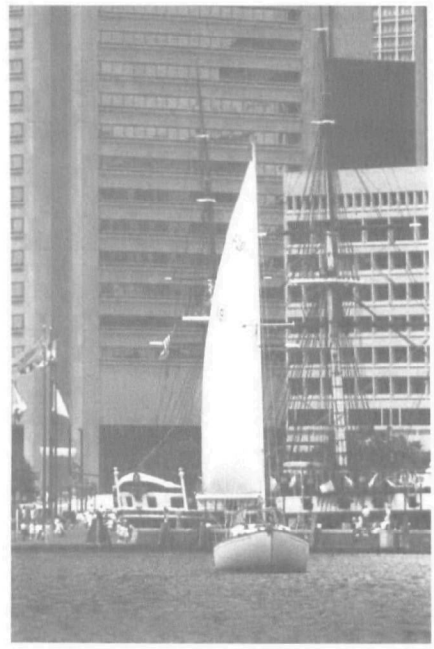
Over the last two decades Americans spent billions of dollars for cleaner air, water, and land. What have we gotten for these expenditures? Our accomplishments are impressive. There is no question that the air in most of our cities today is far cleaner and healthier than it was in the 1960s. Thousands of miles of rivers and streams, and thousands of acres of lakes, have been restored and protected for fishing and swimming. In addition, we have taken extraordinary steps to improve the management of hazardous wastes, toxic chemicals, and pesticides. Consider a few examples:

- Lead levels in urban air are down 87 percent from 1977. Sulfur dioxide levels have been reduced 37 percent and particulates are lower by 23 percent. Even the more intractable pollutants like ozone and carbon monoxide have been reduced by 13 percent and 32 percent, respectively.

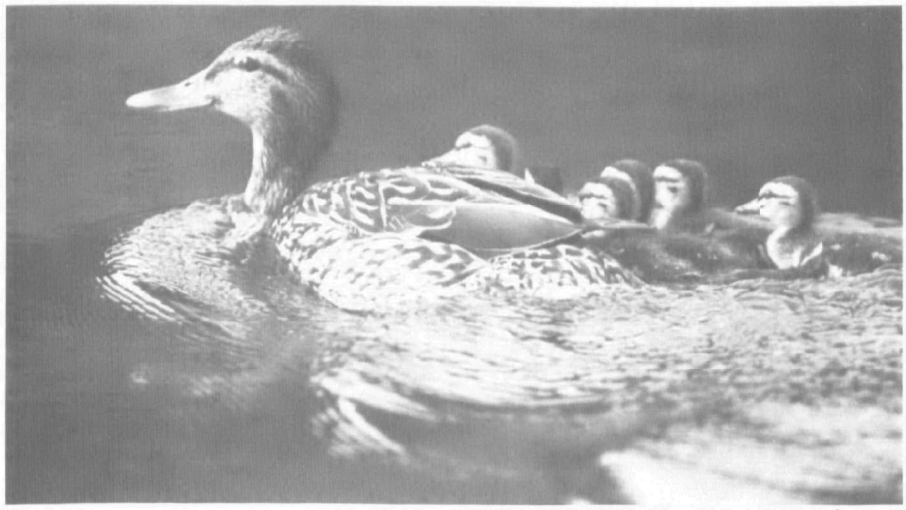
- We have dramatically improved municipal sewage treatment. Today, more than 127 million Americans are served by adequate public sewage treatment systems, a significant increase from the 85 million people served in 1972.

- Comprehensive hazardous waste management regulations are in place. Many untreated wastes are being banned from land disposal and thousands of potentially hazardous sites around the country have been identified and are being evaluated to determine whether federal actions are necessary. We have begun over 1000 short term actions to address immediate threats, and we have initiated response activities at more than 700 sites on the National Priorities List.

- Before 1980, we neglected some of our most productive and valuable ecosystems -- the Atlantic, Pacific and Gulf coastal waters. During the past eight years, EPA has been working with Maryland, Virginia, Pennsylvania and the District of Columbia to begin the restoration of the Chesapeake Bay. Now we are applying the experience we gained from this project to other estuaries, including Puget Sound, Albemarle-Pamlico Sound, Buzzards Bay, Narragansett Bay, Long Island Sound and San Francisco Bay -- and we will be adding more coastal waters to our National Estuaries Program this year.



- Prior to 1972, severely degraded conditions were evident in the Great Lakes. Cooperative efforts between the U.S. and Canada have resulted in a major recovery in the Lakes' condition through construction of new sewage treatment facilities, phosphate bans in some areas and strict industrial wastewater controls.



Photos this page by Steven C. Delaney

- The use of many pesticides has been cancelled, suspended or restricted. Some pesticides have been replaced with substitutes that are less persistent in the environment. The resurgence of bald eagle, osprey, peregrin falcon and brown pelican is the result of EPA's ban on DDT. We are also seeing marked declines of DDT, dieldrin and aldrin in the tissues of fish and wildlife. Currently we are re- evaluating the risks of tens of thousands of pesticide products whose uses were approved prior to the 1972 amendments to the nation's pesticide law.

These accomplishments are impressive when seen in the context of the economic expansion and population growth that occurred during the same period. There are 25 percent more people in the United States now than 20 years ago; our gross national product has increased 500 percent. There are more cars on the road traveling more miles, and more manufacturing facilities producing a greater number of products. These statistics indicate that economic growth and environmental health are not mutually exclusive; indeed, there is an important linkage between them. Environmental protection itself has proven to be a wise investment and a growth industry.

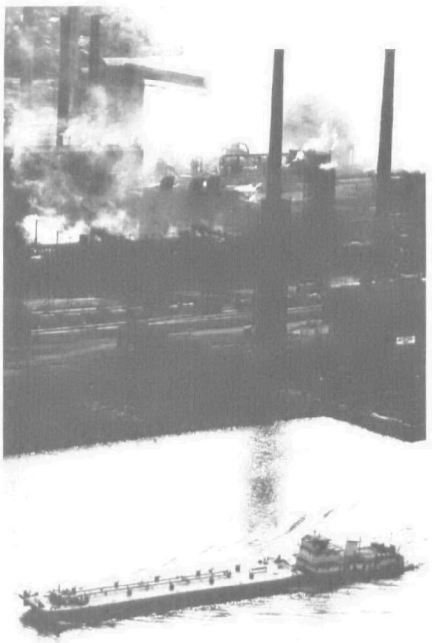
The Challenges Ahead

But the job is far from finished. More than 60 cities still do not meet federal air quality standards for ozone. Hundreds of communities are not in compliance with requirements for better treatment of municipal sewage. Our wetlands are disappearing at an alarming rate. Our oceans, estuaries, and near-coastal waters are victims of intensive coastal and upstream development and runoff from farms and cities. Many urban areas face a mounting crisis over municipal garbage disposal.

Clearly, much work remains to be done. While we continue to pursue our existing air, water, waste, and toxics programs, we also recognize that new challenges await us. Because many of the solutions of the past decades merely transferred pollutants from the water to the air or from the air to the land, we must adopt a more integrated or "systems" approach to environmental protection. We can no longer think simply of clean air or clean water; we must work for a clean environment.

We need to work harder to prevent environmental problems by reducing the amount of wastes from our homes and from industry. We need to recycle more waste. Future waste management should prevent disposal problems by reducing the amount of waste as a first step.

We also must reassess our notion of "environmental safety." We now know that many of



the things we do and chemicals we need to sustain our modern life style pose some risk to people and to our ecosystem. We have to develop better ways to assess these risks and make the choices which balance the benefits with the risks. This may be one of our toughest missions in the next decade.

Increased public understanding of environmental problems, risks, and solutions will be even more critical to our success than in the past. The problems we deal with today are not primarily the large smokestack concerns of the 1970's. As these major sources of pollution are being controlled, Americans will have to recognize that our individual actions in our homes, the products we buy and how we choose to relax all can affect the quality of our environment. We will have to

face choices in our daily lives to balance the risks of these actions with the benefits. EPA will have to play a large role in educating and involving the public in its decisions.

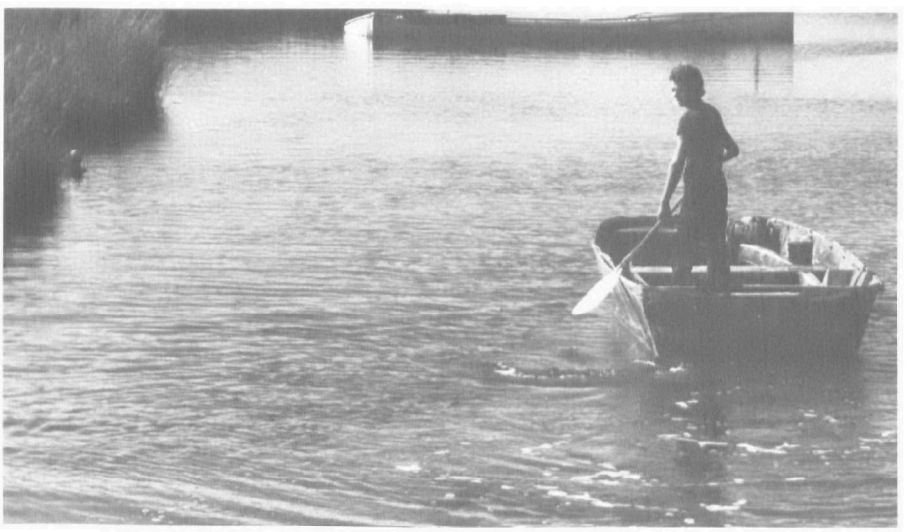
The responsibility for implementing our nation's environmental laws also is changing. Unlike the majority of issues in the 1970s, centralized pollution control efforts will not effectively address all of the major problems. State, local and Indian tribal governments are now playing an ever more significant role in environmental protection. We need to discover how EPA can best assist and encourage an even stronger future role for these players.

Finally, we now recognize through problems such as acid rain, global warming, and pollution of our oceans that the quality of the environment in America is also dependent on how the rest of the world treats our planet -- just as our actions affect other nations. One of our biggest challenges will be to assist and educate other nations and actively negotiate multinational agreements to protect the global environment.

Sandpiper migration in Cape Hatteras, N.C. *Steven C. Delaney*

EPA's Future Agenda

Our agenda should include several key components. It should take into account the problem of cross-media transfer of pollution. It should, to the extent possible, reflect priorities that are set on the basis of risk. It should encourage full involvement of the public in making tough choices in the future. It should promote an effective role for federal, state, local, and American Indian tribal governments. It should recognize the global nature of some issues. Finally, and perhaps most critically, it should strive to prevent pollution by reducing the amount of waste we produce, by recycling what we can, and by making other sound management approaches to avoid more costly cleanups in future years.



A Systems Approach

The environment is an integrated system. There is no such place as "away" where we can grow things. For example, when we remove pollutants from the air, we often inadvertently transfer them to the water or to the land. If we simply transfer the pollution, it likely will come to rest at the point of least regulation. The point of least regulation, how-

Hazardous waste site clean-up operation

ever, may not be the point of least risk.

To meet the challenges of the 1990s and the next century, a more systematic approach to protecting the environment must be taken, one involving a coordinated strategy by EPA and other government programs for achieving the maximum affordable reduction of the most significant risks.

Reducing Risk

We cannot eliminate all toxic chemicals from the environment. Given the tens of thousands of chemicals used today, basic decisions must be made as to which ones should be controlled, to what levels, and at what cost. This requires an assessment of the risks to human health, welfare, and the environment that are posed by different pollutants in different locations. It requires decisions on how to reduce the most significant risks, taking into consideration the benefits and the costs, as well as other public concerns. It requires the establishment of priorities through risk-based decisionmaking. EPA's challenge is to improve the way risk-based decisions are made in the future. To do this, we will need better risk information and better science.

Public Education and Involvement

EPA must share with the public its knowledge of the scope and severity of the environmental challenges before us. With improved information and an understanding of the reality of risk in an industrial society, the public can do a better job helping us establish our national environmental directions. EPA must also help people to understand that they are part of the pollution problem and its solution. The attention of the last fifteen years has been on controlling large sources of pollu-

Thousands of Americans daily collect beverage cans for recycling.

Reynolds Aluminum Recycling Company

tion such as smokestack industries and municipal sewage disposal facilities. As we strive for further environmental improvements in the 1990's, the focus of the nation's pollution control efforts must also include small sources that are widespread throughout the country. For example, we need to pay greater attention to how each of us can recycle more of our household waste, properly use and dispose of lawn chemicals, drive and maintain our cars to reduce air pollution. We cannot pass to someone else the responsibility for controlling pollution. Each of us must recognize the part that we play in environmental protection and become "part of the solution." Further progress, therefore, will require life style changes by the American people. All of us -- individual homeowners, farmers, shopkeepers, automobile drivers -- will have to make tough choices between convenience, the costs of goods and services, and a cleaner environment. EPA's job should grow from primarily "the enforcer" to include greater emphasis on helping citizens make informed choices in their daily lives.

State/EPA Partnership

EPA and the states need to continue to strive toward a proper balance in our working relationship. The challenges that face us now are not as amenable to centralized "command and control" approaches as past problems. EPA must further recognize the increasing capabilities and responsibilities of states -- including Indian tribal governments and local governments -- in protecting the environment. EPA must provide better technical support to state governments as they assume more responsibility for environmental program funding and management. This means more training and technical assistance to help states assess and address risks. It means improving data management so that states and EPA have access to each other's information, and creating other ways for all of us to share our expertise. A true partnership also requires EPA to be more sensitive to the separate needs of the states. Risks are not distributed uniformly nationwide; EPA must look for new ways to address priorities that differ around the country and recognize the growing role of state, local and Indian tribal governments in shaping their own environmental agendas. Although state and federal roles are changing, EPA will continue to carry out its statutory responsibility for setting standards and ensuring compliance with them. Our challenge is to get this job done while also giving states enough flexibility to solve important local problems that are not national priorities.

Environmental Outlook: Global

In the largest sense, the earth is a single, integrated ecosystem shared by all the people living on it. As the world's population and economy continue to grow, that ecosystem is being strained in a number of ways. Chlorofluorocarbons are threatening the stratospheric ozone layer; global emissions of carbon dioxide are contributing to a gradual warming of the earth's atmosphere; species of flora and fauna are being lost worldwide at an accelerating rate. These kinds of changes to the global environment are of especially serious concern because they have the potential to affect the quality of life of literally everyone on earth. Moreover, in a number of places natural resources shared by neighboring nations are being degraded. For example, acid rain is harming aquatic ecosystems in the northeastern United States, southeastern Canada, and Europe. Shared water bodies like the Mediterranean Sea and the Gulf of Mexico are being polluted by the combined economic activities of the different countries that border them. But whether these emerging environmental problems are global or regional, our response to them will entail international cooperation. Because pollution does not stop at international political boundaries, we are going to have to find new ways of cooperating with the community of nations to find shared solutions to shared problems. International cooperation in this

area will be complicated by the need to factor in the special economic circumstances of developing nations. Poorer countries often find it difficult to sustain their natural resource base in the face of immediate demands for food, fuel, and jobs. They have fewer resources to invest in waste disposal and pollution control. But as was proved by the recently signed Montreal Protocol to protect the stratosphere, nations are capable of resolving their economic and political differences in the interest of protecting a shared environment. We will have ample opportunity to put that lesson to work in the years ahead.

Preventing Future Environmental Problems

Environmental protection will be a never-ending battle against contaminated "hot spots" unless we take steps now to prevent them from developing. We are placing more emphasis on pollution prevention in all EPA programs. We need to do more of it, and so do state and local agencies as well as the private sector. We as a nation can do many things to prevent environmental problems from developing in the first place. We should reduce the amount of waste from our homes and industries before that waste becomes a disposal problem. Municipal recycling and industrial waste reduction ease the economic and environmental burden of waste disposal. Source reduction and recycling should become the centerpiece of a progressive national waste management strategy. We will continue to restrict the use of toxic chemicals in places where they might enter drinking water supplies or endanger fish and wildlife. We will continue to ban the disposal of untreated wastes on the land, where it threatens human health or the environment. We will continue to identify sensitive wetlands and restrict harmful development before irreparable damage is done. We will continue to promote better farming practices that will prevent agricultural chemicals from contaminating ground and surface waters. In short, we will do a better job of planning to prevent future problems. By so doing, we avoid costly cleanup later and we avoid the loss of irreplaceable resources. If we take precautions today, we will be making an important investment in a safer and cleaner environment tomorrow.

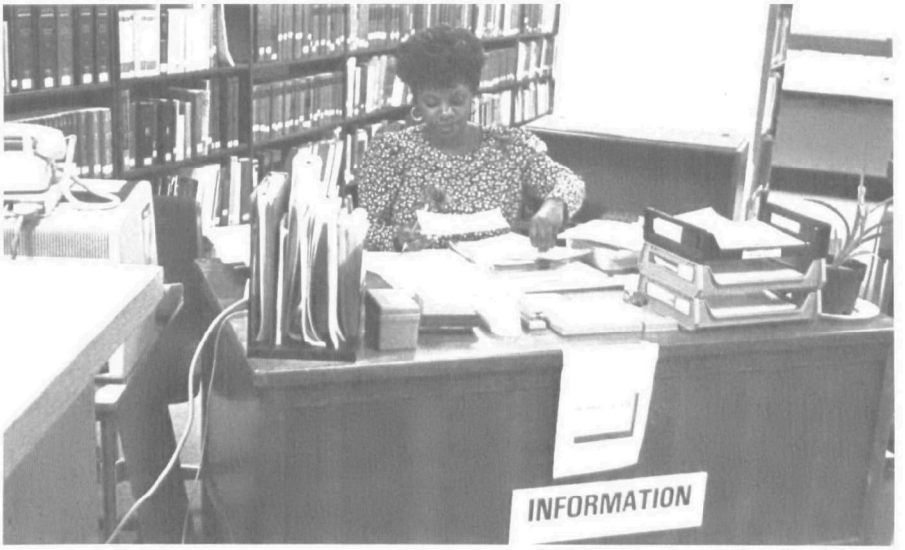
We have begun to do long-range planning at EPA. We are trying to determine what environmental results we want to see in the not-too-distant future, and the best strategies we can employ to achieve them. To do this well requires tremendous vision in establishing goals, taking into consideration the tough choices we and the American public need to make between environmental and other social goals. It requires creativity and hard-nosed realism in designing systematic, coordinated program strategies, and it requires dedication to follow through. This is EPA's ultimate challenge.

Jessie Cohen, Smithsonian Institution

Lee M. Thomas

Managing Our Resources

EPA, as the Federal agency with primary responsibility for environmental priorities, directly manages substantial resources. In 1987, EPA managed a budget of more than $5 billion and employed nearly 14,000 people at three dozen facilities for environmental protection programs and research throughout the United States. These EPA resource commitments result in additional resource requirements many times greater for state and local governments and for the private sector.



Jim Bradshaw

The public trust invested in us for managing these resources conscientiously and efficiently is a responsibility that has been the focus of a major program for improvement throughout this Administration and most particularly here at EPA. Toward this end we have made great progress in the past eight years in improving administrative management and program delivery at EPA. By adhering to both our own commitment to quality improvement and to the agenda of Reform '88, we have placed EPA in an advantageous position to face the management challenges of the 1990's. Highlights of our accomplishments as well as ongoing initiatives are outlined below.

Contract Management

EPA has established an outstanding record in competitive contracting. The Agency accomplished this by revising its contracting strategy to improve the quality of competition. For example, in the Superfund Remedial Program, the few big contracts that supported the entire program are being replaced with a large number of regional contracts. These procurements have resulted in better competition and in many new prime contractors supporting that program.

In order to ensure the highest quality of contract management, we developed the Contract Management Improvement Program. This program to improve the procurement operation and the program offices' management of contracts includes both Contracting Officer and Project Officer Training as well as several types of reviews conducted throughout the process. Post- award financial reviews of contractors during the life of the contract allow problems to be addressed and corrected. Many of these reviews have uncovered problems of improper charging and have resulted in money being returned to the federal government.

Administrative Support

Another successful management initiative is the Cooperative Administrative Support Unit (CASU), an organization of agencies in multi-tenant federal buildings which run joint mail, printing, library, and other administrative services. Several years ago, the President's Council on Management Improvement spearheaded the development of the CASU program. EPA has strongly supported this effort and several of our regional facilities are active participants. We are the lead agency for the Region I CASU, which is in the developmental stage. It is a novel CASU in that it is the first to service two separate federal buildings.

Integrating Financial Management Systems

To enhance the Agency's capability to effectively use and disseminate financial information to our internal and external clients, EPA has been pursuing an aggressive program of financial system improvements. The cornerstone of this program is the replacement of our current accounting and budgeting systems with a new Integrated Financial Management System (IFMS) in accordance with the guidelines of OMB Circular A-127. After conducting extensive analyses, we concluded that purchasing off-the-shelf software was the most cost-effective approach. We made the award to procure the necessary software in FY 1987.

During FY 1988, we completed key activities to prepare the Agency for the implementation of the new system in FY 1989. We installed and tested the software on the EPA computer, defined and developed software adaptations and interface programming, conducted system testing at several pilot sites, and trained financial staff.

Superfund Cost Recovery

Another very important ongoing initiative is the enhancement of the Superfund Cost Recovery Program. EPA is required to recover from responsible parties costs incurred in cleaning up hazardous waste sites. Our indirect cost methodology will be revised to increase the potential recovery of costs, and the Agency will complete the design and implementation of contractor site-specific accounting procedures to ensure that all appropriate contracts are allocated to Superfund sites. EPA is also developing a computerized system for the storage and retrieval of Superfund financial records and for the preparation of cost recovery documentation packages. This system will offer automated retrieval of Superfund financial records and automate the preparation of cost recovery documentation packages used for cost recovery cases. This system will provide more timely and responsive support for our cost recovery efforts and will be less labor-intensive.

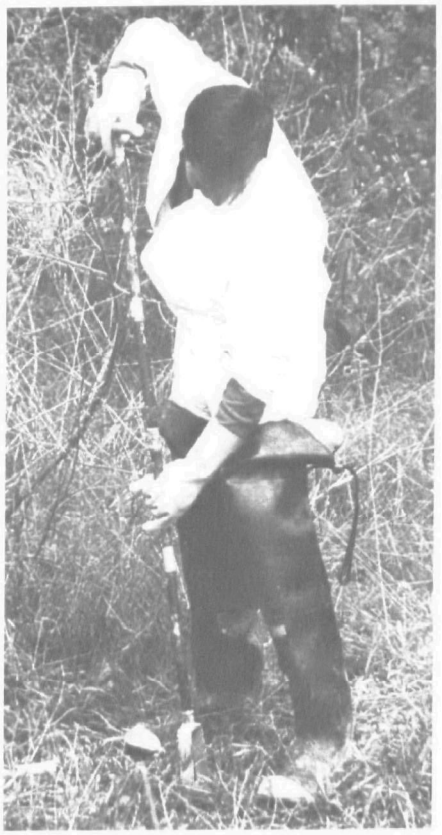
Marketing Our Systems

EPA is actively marketing its payroll/personnel system in order to identify and assist other agencies in need of these services. Reform '88 mandates that the total number of payroll/personnel systems throughout government be reduced to twelve. We have completed the software enhancement necessary for servicing other agencies, and we are demonstrating that our system deserves to be one of those selected.

Other Financial Management Improvements

In addition to the continuing advances addressed above, the Agency has completed many improvements in financial management. We have implemented effective cash management practices, moved aggressively on innovative alternatives to improve the travel management process, and installed the standard general ledger one year ahead of schedule. Also, we have instituted and strength-

A National Research Council Associate processes research data at an Environmental Research Lab.



ened several management controls against fraud and waste.

Internal Controls

EPA recognizes the need for a strong internal control program. On an annual basis we perform an evaluation of the system of internal accounting and administrative control which ensures compliance with the Federal Managers' Financial Integrity Act of 1982. In fiscal year 1987, EPA managers conducted over 1,300 internal control evaluations. The results of our evaluations indicate that the system of internal accounting and administrative controls during the fiscal year ended September 30, 1987, complies with the requirement to provide reasonable assurance with the objectives of internal control.

Human Resources Management

Top management at EPA is particularly proud of our achievements in the human resources area. By creating the Office of Human Resources Management, the Agency stated its commitment to its most valuable resource - its employees. Some accomplishments are:

- The implementation of the Federal Employees Retirement System (FERS) involved cross-cutting responsibility among several organizations at EPA. The process is now institutionalized due to excellent coordination among the responsible parties.

- We have strengthened the Agency's ability to attract and retain qualified personnel through a series of innovative programs including: implementing a comprehensive recruitment program to attract scientifically and technically skilled personnel, creating a National Recruitment Center to carry out national program activities and oversight, establishing a mid-career level program to support and train

Soil (above) and water (right) sampling activities are routinely conducted by EPA for research and compliance monitoring analyses.

employees, and initiating a highly successful intern program.

- To maximize the Agency's successful cost-saving concept of using EPA experts to train fellow employees through our "EPA Institute," we are expanding the EPA Institute to all of the EPA regional offices and major laboratory locations.

ADP Systems

In the ADP area, we have made substantial progress in modernizing our systems to provide Agency mangers with better and more timely regulatory information. We are conducting major Information Resources Management evaluations on an ongoing basis, and will complete the modernization of regional office computers during FY 1990.

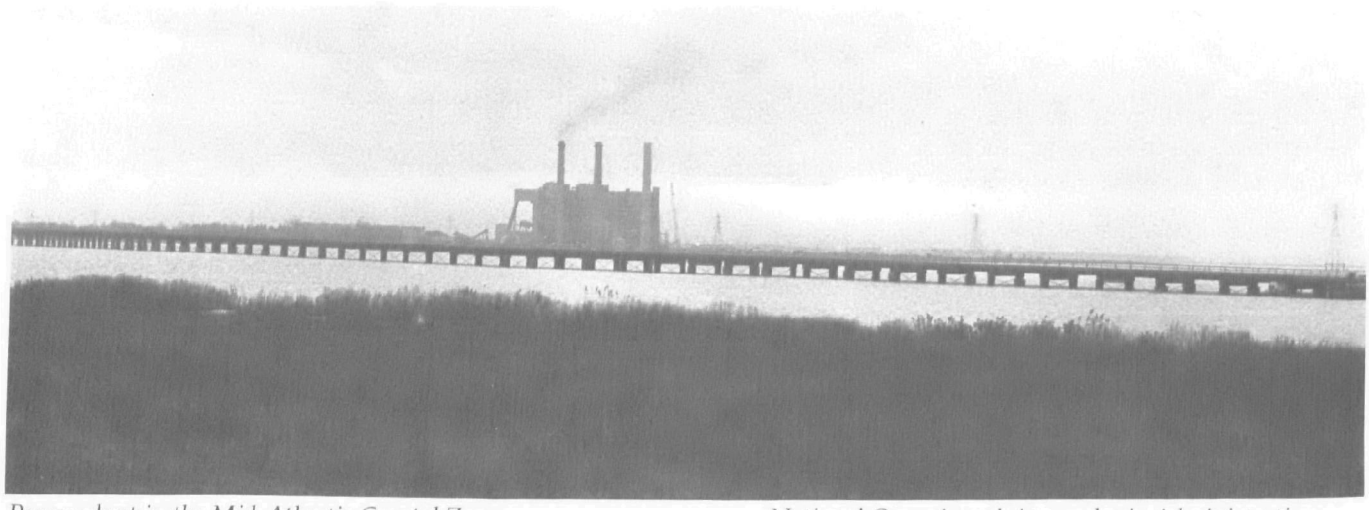
Productivity

EPA vigorously supports the Government-wide Productivity Improvement Program. Specific goals of this program are to improve the quality and timeliness of service to the public and to achieve annual increases in productivity in key Agency functions. EPA has steadily increased Agency participation in the Program, and within the next two years will have included all applicable functions in our annual Productivity Improvement Plan.

In addition to complying with OMB directives on productivity, EPA created a Productivity Improvement Investment Fund two years ago to serve as a catalyst for improved productivity at EPA. The Fund, open to all EPA employees, provides resources for implementing employees' innovative quality and productivity improvement initiatives. Capital for the Fund is obtained from EPA's appropriated funds and from reimbursements by offices which received money for productivity projects in the preceding year.

User Fees

The Agency Task Force on Fees was created in 1986 to examine establishing user fees for EPA's



Power plant in the Mid-Atlantic Coastal Zone *National Oceanic and Atmospheric Administration*

environmental programs. As a result, fees for two programs have been published in the Federal Register and several others are currently being evaluated. We are also working toward the establishment of a special fund through which the receipts from Agency user fees are available for appropriation to the program for which the fee was collected.

Public -Private Partnerships

The most serious challenge to our goal of achieving and retaining a high standard of environmental quality is the threat of an environmental financing shortfall. Two concurrent trends have emerged in this country: an increase in the amount and scope of environmental legislation coupled with serious federal budget constraints and growing demands on state resources.

In response to this issue, the Administrator has formed an Agency-wide Steering Committee and Task Force on Public-Private Partnerships to explore the use of alternative financing techniques with a focus on increasing private sector participation through public-private partnerships. The Agency will determine which financing techniques are viable, define the problems and issues associated with public-private partnerships and other financing schemes, and share information with state and local government officials responsible for implementing environmental legislation.

Our long term strategy involves an aggressive community outreach program designed to assist state and local governments in the areas of drinking water, wastewater treatment, and solid waste disposal. We will sponsor regional conferences and demonstration projects to show how local governments can successfully finance environmental projects through public-private partnerships or other financing schemes.

Conclusion

Examples presented above show how EPA has moved aggressively in recent years to better manage the resources entrusted to us by the American people. We intend in the future to continue this push of innovative and better management of our resources in all areas.

Success will depend on our most important resource - our people. The motto of those of us at EPA directly involved in resource management is "Our strength is in our people," and it has never been truer that it is today. EPA's work force consists of a high percentage of scientists, lawyers, computer specialists, and others with many years of education and training. We are firmly committed to developing, motivating and retaining this high quality work force which is needed to accomplish our critical mission. Since our Agency is maturing we will actively recruit to replace those who leave and, in some insttances, to support expanding programs. We invite any who might be interested in a challenging and rewarding career to join us in our efforts to protect the environment.

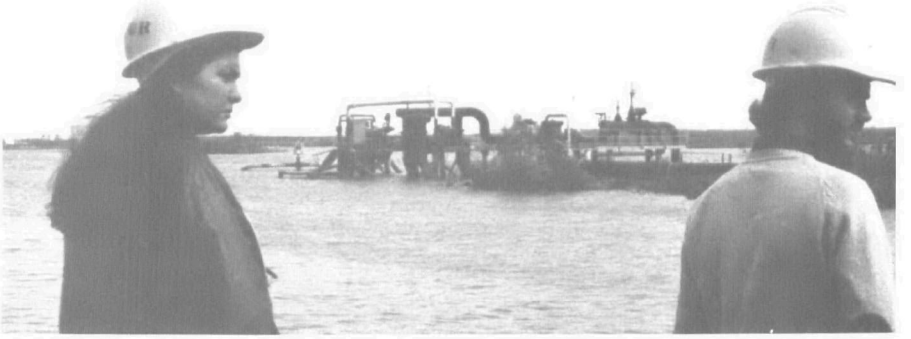
Charles L. Grizzle

Charles L. Grizzle
Assistant Administrator
for Administration and
Resources Management

Program Operations and Resources

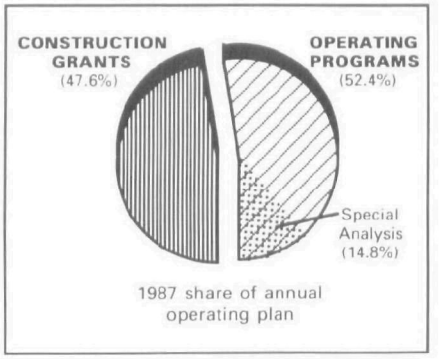
In 1987 the resources used by the EPA increased substantially to support the requirements of our broad range of statutory environmental protection programs. The total resources appropriated by Congress for all programs managed by the EPA increased from $3.5 to 5.0 billion. The majority of this increase (over 90 percent) occurred in the Superfund and the Construction Grants programs. Superfund program resources were increased in 1987 by a factor of 3 to total slightly over a billion dollars, its highest funded level to date. The Construction Grants program was increased to $2.4 billion, a funding level consistent with the resources made available to the program for the years 1982 through 1985. During the year, there was a more modest increase in the number of people working at the EPA. In 1987, the EPA employed approximately 13,700 people, representing an increase of about 200 persons from 1986. Forty percent of this increase is accounted for by the Superfund program.

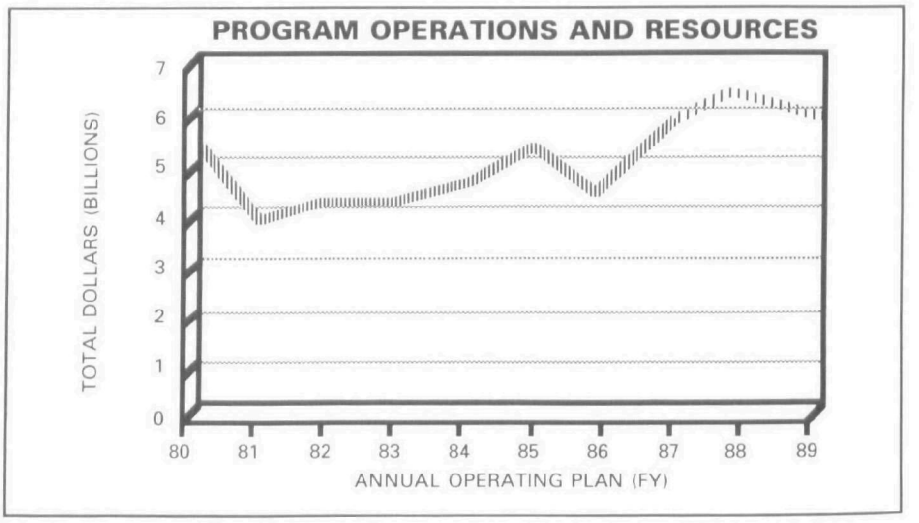
The following sections present descriptions of our Operating Programs and Construction Grants. Individual sections present a sketch of each program which includes a description of the program's statutory basis, key elements, operating highlights for 1987 and resource trend analysis. The dollar amounts associated with the charts provided are based on the Agency's operating plan at year-end and are not intended to reflect the audited financial records of the Agency. Essentially, the operating plan is the Agency's allocation of funds for program areas and may include carryover funds of previous years and planned expenditures of that year. The Special Analysis section, which follows, takes a separate look at certain high priority activities of the operating programs of the Agency.



Sewage treatment operations

All years referred to this report are, unless otherwise noted, fiscal years which begin October 1st of the preceding calendar year. Highlights included in each program description are not intended to be comprehensive; rather, they emphasize one-time 1987 accomplishments more than on-going activities. However, it should be noted that the majority of program resources and effort are expended for on-going activities.



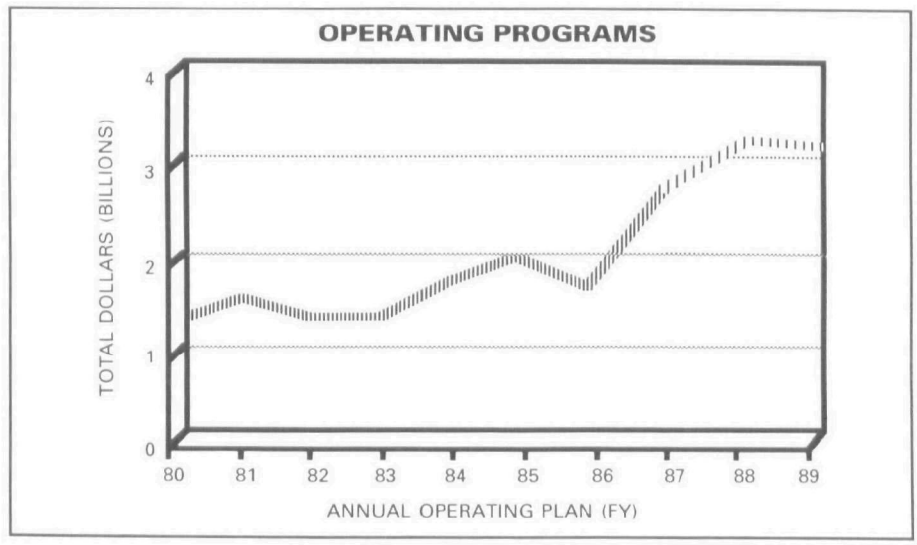


Operating Programs

EPA's 12 operating programs have 1987 appropriated resources of $2.6 billion. The Superfund program is the largest operating program by far with 1987 resources of $1.1 billion, or approximately 40 percent of the total operating program appropriated resources.

However, our most important environmental protection resource is not dollars, but rather the employees who manage our operating programs. Fulfilling EPA's mission of protecting human health and the environment from the effects of pollution requires a dedicated and highly qualified workforce. In 1987, EPA employed the equivalent of 13,662 full time people - a large percentage of whom have received extensive education and training. They include scientists, lawyers, computer specialists, accountants, statisticians, and many others. EPA's workforce, which is modestly expanding to staff new and growing programs, such as Superfund, increased 1.5 percent in 1987, and is projected to increase approximately 4 percent in fiscal years 1988 and 1989.

Coal supply for Midwestern power plants



Air

Federal legislation to control air pollution first appeared in 1955. Over the next 15 years, this legislation gathered strength and resulted in the Clean Air Act of 1970, with amendments, which defines the pollution control program we have in place today.

The Clear Air Act's objective is to protect public health and welfare from harmful effects of air pollution. EPA's role in implementing the Act is to set National Ambient Air Quality Standards which specify the maximum acceptable outdoor levels for "criteria pollutants" such as carbon monoxide, lead, and ozone, and to assure that state governments, using EPA-approved plans, attain these standards. The Clean Air Act also requires that EPA establish federal standards for motor vehicles, New Source Performance Standards for stationary sources, and National Emission Standards for Hazardous Air Pollutants. Hazardous pollutants controlled to date include asbestos, beryllium, mercury, vinyl chloride, benzene, and arsenic.

Finally, goals to preserve the pristine air and clear vistas in many national parks and wilderness areas are implemented through "Prevention of Significant Deterioration" programs, which are included in state plans.

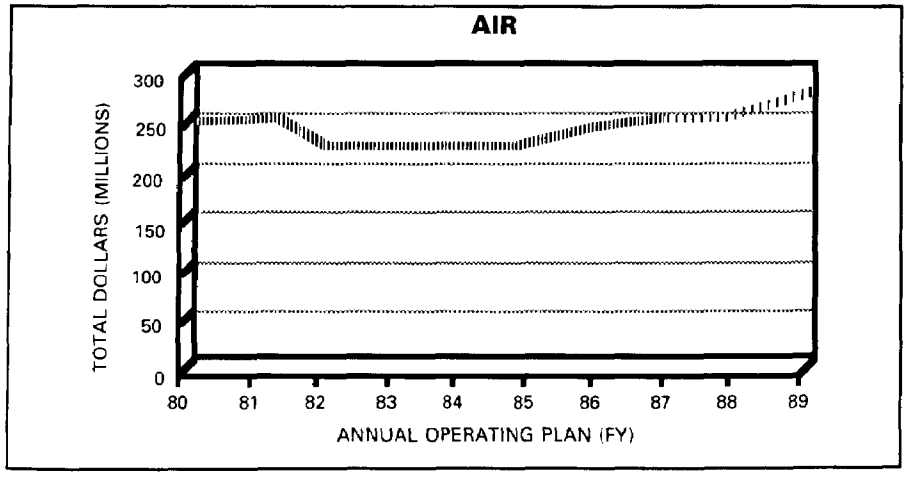
Air (1987 Highlights)

- Promulgated National Ambient Air Standards (NAAQSs) for particulate matter 10 micrometers in diameter or smaller (PM_{10}) which change the focus for controlling airborne particles from larger total particles to smaller, inhalable particles that are more damaging to human health.

- Promulgated New Source Performance Standards for volatile organic compound storage, rubber tire manufacturing, and industrial boilers.

- Proposed a major national policy to address meeting the NAAQSs for ozone, violations of which affect over 100 million people and causes billions in crop and forest losses annually. Proposed regulations to réduce hydrocarbon emissions from refueling of automobiles and to control volatility of vehicle fuels.

- Issued notices of violations with proposed penalties of over $50 million to gasoline refiners and distributors, and administrative orders to 112 major stationary sources of air pollution.



Water Quality

EPA's current program of water pollution control is based on the Clean Water Act of 1972 (CWA). The CWA's goal is to "restore and maintain the chemical, physical and biological integrity of the nations' waters." Under this mandate, EPA has developed regulations and programs to reduce pollutants entering surface waters, including lakes, rivers, estuaries, oceans and wetlands.

In 1987, Congress passed the Water Quality Act of 1987 that reauthorized and strengthened the Clean Water Act. The amendments ensure continued support for municipal sewage treatment plants, initiate a new state-federal program to control nonpoint source pollution, and accelerate the imposition of tighter controls on toxic pollutants.

To protect the marine environment from the harmful effects of ocean dumping, Congress enacted the Marine Protection, Research and Sanctuaries Act in 1972 which established a permit program to ensure that ocean dumping does not cause degradation of the marine environment.

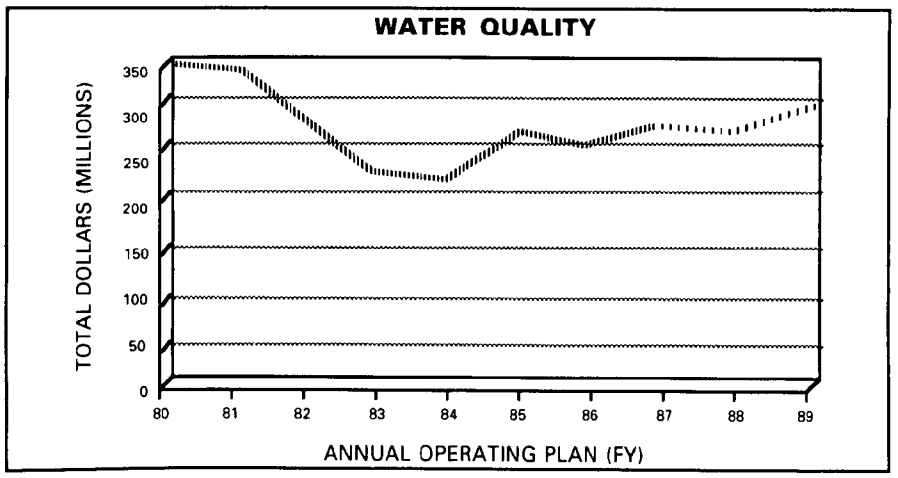
Water Quality (1987 Highlights)

- Issued policy, procedures and guidance to ensure effective implementation of EPA's Section 404 responsibilities including: efforts to develop a mitigation policy, issuance of rules and guidance under the new administrative penalty authority, joint guidance with the Corps of Engineers on interpretation of exemptions, and handling of major permit cases. Issued the final amendment to the phosphate fertilizer regulations and issued a report on dioxins in the pulp and paper industry.

- Established new program procedures and requirements for the Agency's ongoing estuary program which was formally authorized under Section 320 of the amended Clean Water Act. A priority focus was to ensure that six ongoing estuary projects were brought into compliance with the new legislation while progress on these projects continued under existing work plans.

- During 1987, implementating the National Municipal Policy (NMP) was the highest priority. Placed all but 23 of major municipalities needing construction to comply with the CWA and approximately 80 percent of the minor municipal facilities needing schedules on enforceable construction schedules. Approximately 100 major NMP facilities came into compliance in 1987, and about one-third of the NMP universe is now in compliance.

- Issued a total of 434 major permits, of which 276 were industrial and 158 were municipal.



Drinking Water

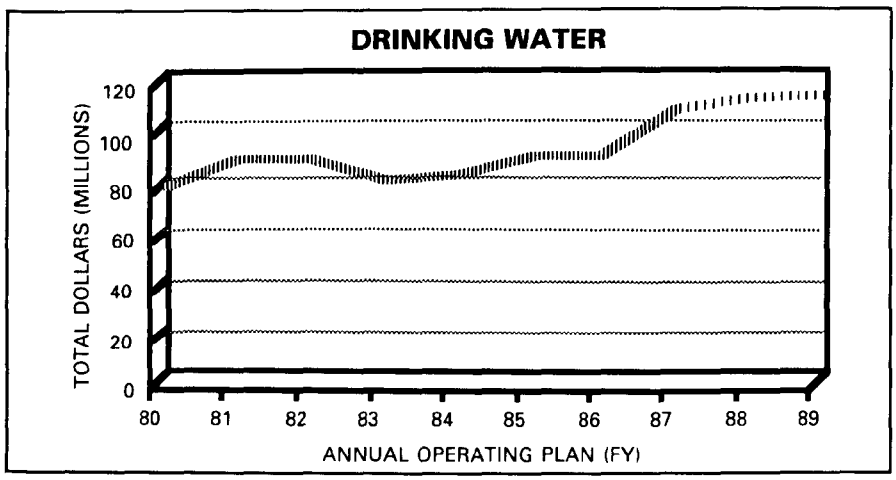
The Safe Drinking Water Act (SDWA) of 1974 created major legislative authority for protecting drinking water resources. This Act, which was amended in 1986, requires the establishment of additional drinking water standards and protection of underground sources of drinking water from underground disposal of fluids.

The 1986 amendments to the SDWA also established two new major groundwater protection programs: the Wellhead Protection Program to protect areas around public drinking water wells, and the sole-source aquifer demonstration program to protect unique underground water supplies.

Drinking Water (1987 Highlights)

- Promulgated nine National Primary Drinking Water Regulations (for fluoride and eight volatile organic contaminants) together with requirements for public water systems monitoring of unregulated chemical contaminants. Also promulgated were mandated revisions to systems' public notice requirements designed to simultaneously streamline and strengthen the content, manner and timeliness of notice. These included new requirements to notify the public that may be affected by lead contamination of drinking water systems.
- Issued guidelines on the delineation of Wellhead Protection Areas in accordance with the statutory deadline. The guidelines have been acknowledged as a significant accomplishment in this new and emerging environmental concern. In addition, EPA issued guidance on the overall development of a Wellhead Protection Program.

These two documents provided the framework for a national program to train state, local and tribal officials in the Wellhead Protection Program during the summer of 1987.



Hazardous Wastes

The Resource Recovery and Conservation Act (RCRA) of 1976 authorized EPA to regulate waste management and disposal practices for both hazardous waste and non-hazardous solid waste.

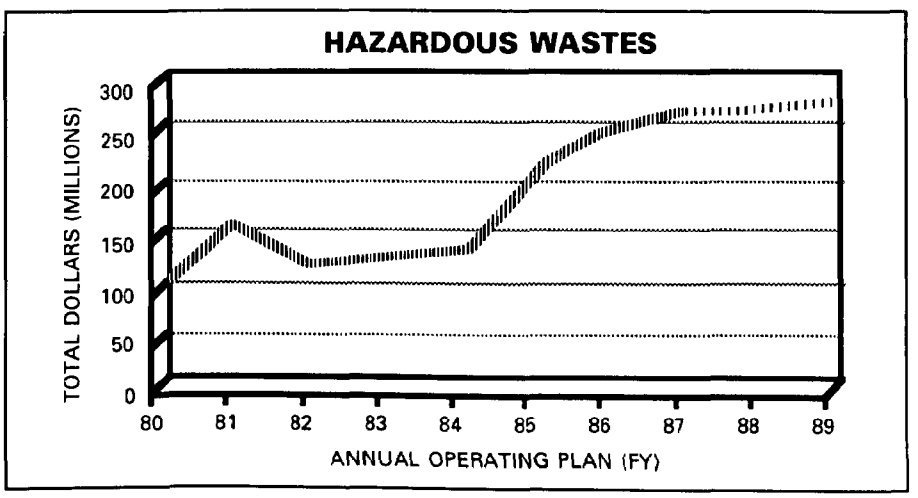
EPA's major priority under the Act is to develop "cradle-to-grave" regulations governing the generation, storage, transport, treatment and disposal of hazardous wastes. Hazardous wastes regulated under RCRA include toxic substances, caustics, pesticides, and other flammable, corrosive, or explosive materials.

Under RCRA, EPA is responsible for identifying general and specific categories of hazardous wastes, developing standards, and enforcing compliance with those standards. According to EPA requirements, hazardous waste generators must identify the wastes they produce and report the means of treatment, storage or disposal. Transport of waste must be monitored through a uniform manifest system which records the origin, route and destination of waste shipments. Treatment, storage, and disposal facilities must have permits to operate and must be designed to protect the environment. Owners or operators of such facilities must demonstrate financial responsibility for damage occurring during active operations, and must set aside funds for monitoring and maintaining sites that are closed. EPA enforcement activities require RCRA-regulated facilities to take actions to correct problems if they are not in compliance with Agency standards.

Another major goal under RCRA is to encourage states to develop comprehensive programs for non-hazardous solid waste management. EPA supports state efforts by funding waste research and development projects and guiding the development of waste management plans. EPA also establishes criteria for classifying land disposal facilities according to their environmental acceptability and publishes a national inventory of unacceptable facilities.

Hazardous Waste (1987 Highlights)

- Exceeded the national target for permitting land disposal facilities. The outlook for achieving the November 1988 deadline is good.
- Exceeded the national target for approving closure plans for land disposal facilities.
- Met most inspection targets, but a slight shortfall was experienced in the inspection of land disposal facilities.
- Regions made significant progress in addressing Significant Non-Compilers.



Pesticides

Through its Office of Pesticide Programs, EPA administers two Congressionally mandated statutes to control the more than 45,000 pesticide products registered for use in the United States: the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA).

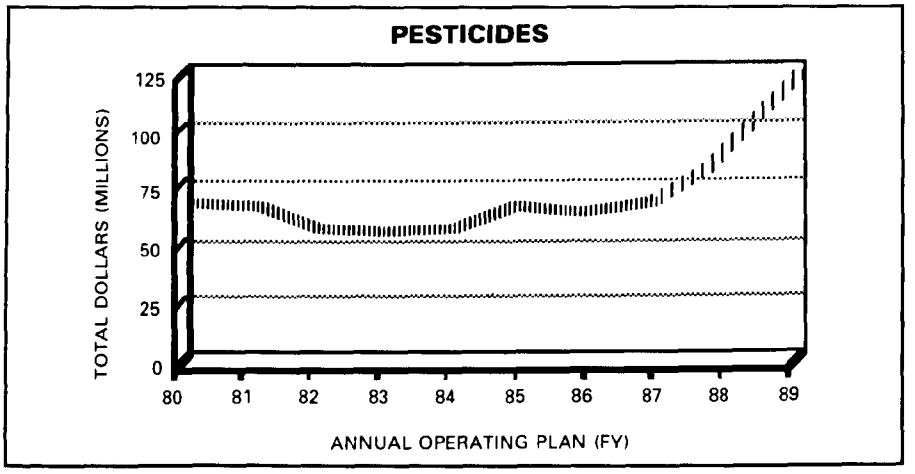
FIFRA was originally enacted in 1947 but was significantly amended in 1972 when the emphasis in pesticide regulation changed from ensuring pesticide efficacy to protecting the public health and environment. Under FIFRA, EPA is responsible for registering new pesticides to ensure that when properly used they will not present "unreasonable" risks to human health or the environment (based on an assessment of economic, social and environmental costs and benefits). Through reregistration requirements, EPA examines pesticides registered prior to the current regulations to assure that these chemicals also pose no "unreasonable risks." Additionally, EPA has the authority to perform special reviews of registered pesticides or to classify pesticides for restricted use.

FIFRA also includes provisions for: monitoring the distribution and use of pesticides; issuing civil or criminal penalties for violations; establishing cooperative agreements with the states; and certifying training programs for users of restricted chemicals. Primary enforcement of pesticide violations is performed by the states, subject to oversight by EPA.

Under the FFDCA, EPA sets tolerances or maximum legal limits for pesticide residues on food commodities and feed grains to prevent consumer exposure to unsafe pesticide levels. The Agency establishes tolerance levels that residue chemistry and toxicological studies indicate pose no unreasonable risk to consumers. The Department of Agriculture and the Food and Drug Administration are responsible for enforcing adherence to these tolerance levels for food and feed commodities in interstate commerce.

Pesticides (1987 Highlights)

- Met or exceeded goals in the core pesticides program, which includes registration of new pesticide products and review of "old" pesticides through reregistration. Processed 3,454 amended registrations, such as new uses and label changes; established new tolerances, which set legal pesticide residues; and issued 25 reregistration reviews.
- Issued 15 Special Review decisions or proposed decisions for existing pesticides which may pose health or environmental hazards. These included the emergency cancellation of dinoseb. Also, negotiated a voluntary removal of the termiticides chlordane and heptachlor from the market.
- Completed the review of 53 State Pesticides Certification Plans and reached agreements on schedules for implementing corrective action in the states with priority needs in certification and training.



Toxic Substances

Toxic substances are manufactured chemicals and naturally-occurring heavy metals and other materials which can cause death, disease, genetic damage or severe environmental harm. Congress enacted the Toxic Substances Control Act (TSCA) in 1976 to identify and control substances that pose an "unreasonable risk" to human health or the environment during their manufacture, processing, commercial use, or disposal.

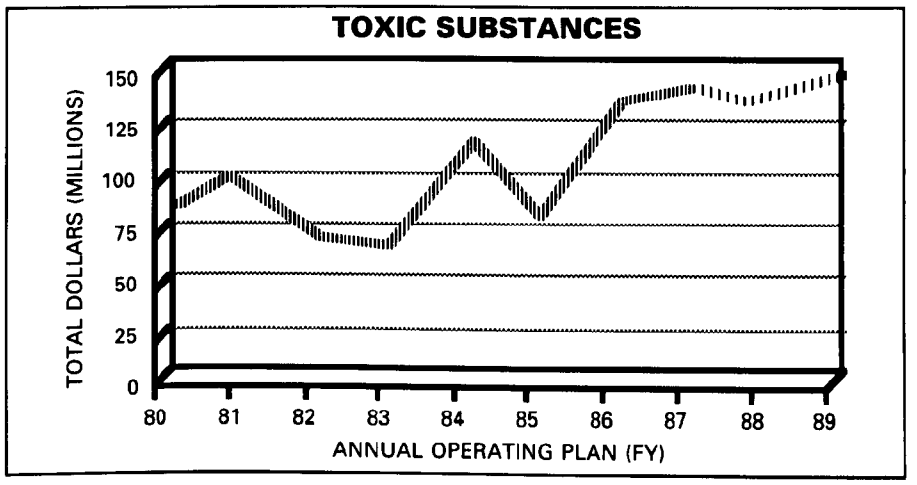
TSCA requires the EPA to maintain an inventory of all chemicals used for commercial purposes in the U.S. Under the Premanufacture Notification process, EPA has the authority to screen new chemicals. If unreasonable risk is suspected, EPA can require manufacturers to test substances for toxicity, cancer- causing potential, reproductive effects, or other characteristics. This testing and test data must conform with the Good Laboratory Practices standards for lab administration and management, and test control and documentation. Chemicals deemed to be harmful are regulated in a variety of ways, from imposing labeling requirements to outright bans on manufacture or use.

EPA monitors and evaluates the environmental and health effects of existing chemicals by analyzing mandated chemical industry reports and documentation concerning the manufacture, use processing, and disposal of chemical substances, and information.

Toxic substances which require special attention because of widespread use or high toxicity include chemicals such as polychlorinated biphenyls (PCBs), dioxins, and asbestos. The TSCA banned further production of PCBs, while EPA established inspection and notification requirements for schools containing asbestos as a fire retardant. Also, EPA keeps a close watch on biotechnology which employs biological processes in the production of potentially risky chemicals or living organisms for commercial use.

Toxic Substances (1987 Highlights)

- Received a high of 2,298 new chemical notices and took control action on 201 chemicals. Completed the Agency's first seven reviews of TSCA biotechnology Premanufacture Notices.
- Issued funds under the Asbestos in Schools Loans and Grants Program for 729 asbestos abatement projects in 422 schools to eliminate approximately 3 million exposure hours to students and employees each week.
- Began implementing Section 313 of Title III of the Superfund Amendments and Reauthorization Act by promulgating the proposed emissions reporting rule, developing technical guidance on estimating toxic releases, reviewing four petitions for adding or deleting chemicals from the list of chemicals subject to reporting, and contacting the interested public about the program.



Radiation

The EPA, with a number of other federal agencies, is authorized to protect the public from unnecessary exposure to ionizing radiation. Authorizing legislation includes the: Atomic Energy Act of 1954; Public Health Service Act of 1962; Safe Drinking Water Act of 1974; Clean Air Act Amendments of 1977; Uranium Mill Tailings Radiation Control Act of 1978; Marine Protection, Research, and Sanctuaries Act of 1972; Clean Water Act of 1972; Nuclear Waste Policy of 1982; and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980.

EPA's major responsibilities are to set radioactive emissions standards and exposure limits, assess new technology, and monitor radiation in the environment in four primary areas: radiation from nuclear accidents, radon emissions, land disposal of radioactive waste, and radiation in ground water and drinking water.

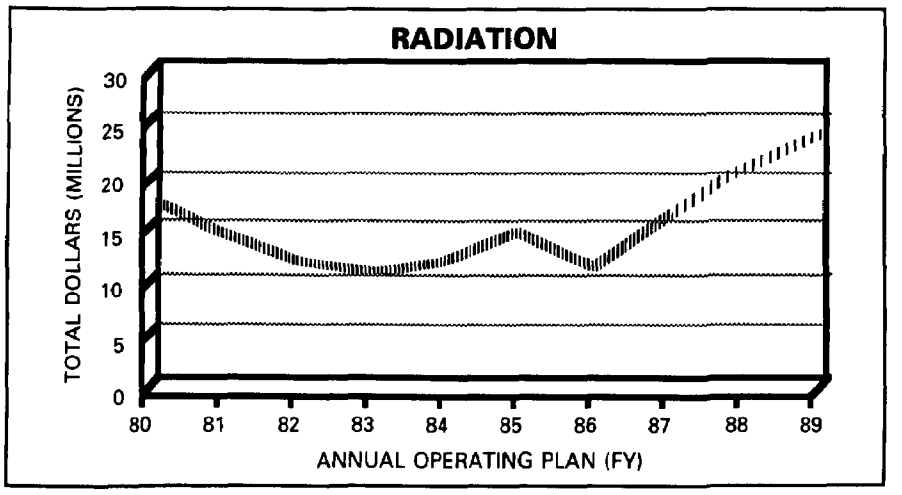
The Agency fulfills these responsibilities by setting emissions standards for nuclear power plants, for mill tailings at uranium processing sites and mills, and for radionuclides in drinking water and in the air. EPA prescribes work practices to reduce emissions of radon from underground uranium mines, develops radioactive waste disposal standards, issues guidance to limit occupational exposure (including measures to protect the unborn), and unnecessary exposure of patients to medical x-rays. The Agency's national indoor radon program assists states in identifying areas with high indoor radon levels, researches, demonstrates and evaluates techniques to reduce radon levels, and establishes standard methods for measuring radon levels.

Finally, EPA samples and monitors surface and drinking water, air, precipitation, and milk to identify trends in radiation levels, set standards, and assess actions needed to protect the public. In the event of a nuclear facility emergency, EPA can provide field-monitoring services, such as these, to other government organizations, as it did after the Three Mile Island accident and the 1987 Chernobyl accident in the Soviet Union.

Radiation (1987 Highlights)

- Initiated important elements of the action program for radon, an environmental pollutant that may cause up to 20,000 cancer deaths per year. EPA developed the design for statewide surveys of high-risk areas and established the House Evaluation Program to assist states in evaluating the causes and remedies for elevated levels of indoor radon.

- Published guidance, signed by the President, for occupational exposure to radiation.



Superfund

In 1980, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or "Superfund") that established a $1.6 billion trust fund and gave EPA authority to respond to hazardous substance situations or sites which threaten human health and the environment. The Superfund Amendments and Reauthorization Act (SARA) of 1986 increased the trust fund to $8.5 billion and gave the program new responsibilities and authorities.

Superfund authorizes EPA to take both immediate and long term actions to stop or substantially reduce hazardous material releases or threats of such releases. Situations requiring EPA to take immediate action, also known as removal actions, typically result from accidents, fires, or improper disposal involving hazardous materials. These situations require short term responses (or removal actions) to stabilize or cleanup immediate problems.

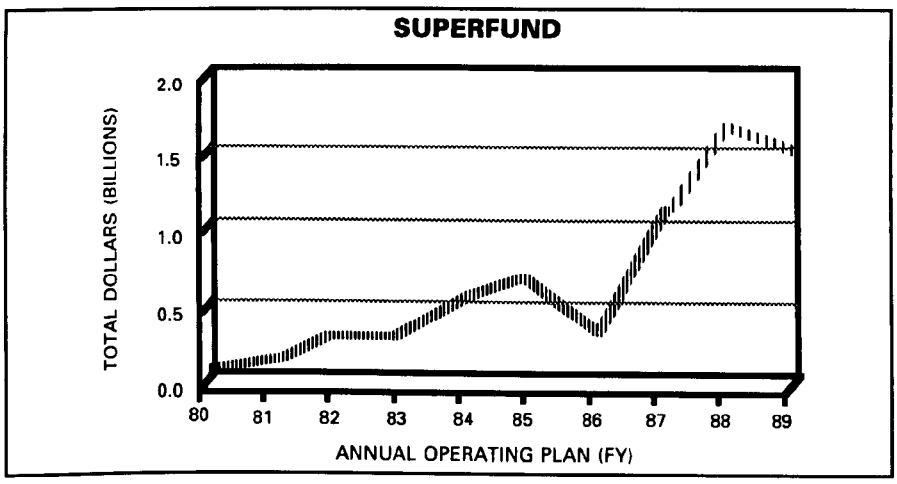
For hazardous waste sites that do not require immediate removal actions, EPA or state officials conduct a preliminary assessment based on site documents, and a site investigation if a potential problem exists. The sites throughout the nation with the highest risk are placed on the National Priorities List (NPL). Only sites on the NPL are eligible for Superfund remedial actions. During remedial actions, alternative cleanup actions are evaluated by EPA, responsible parties, and the public. Site cleanup is performed under the supervision of EPA and the Army Corps of Engineers.

EPA encourages parties responsible for hazardous waste sites to cleanup the sites voluntarily. However, if EPA must perform the cleanup, responsible parties may be liable for up to three times the costs of federal remedial work. If responsible parties are unknown, EPA and the states will do the work.

The Superfund effort at EPA is substantial. Currently, the Agency has an inventory of over 30,000 sites which may pose a threat to human health or the environment. Over 1,100 of these are currently on the NPL.

Superfund (1987 Highlights)

- Met or exceeded most annual targets and showed good overall performance. Records of Decisions and Remedial Action starts were the exception.
- Met targets for Remedial Action completions and Initiation of the Deletion process by all regions.
- Exceeded the target for cost recovery referrals. Achieved 40 cost recovery settlements in 1987 which account for over half of cost recovery settlements to date.



Leaking Underground Storage Tanks

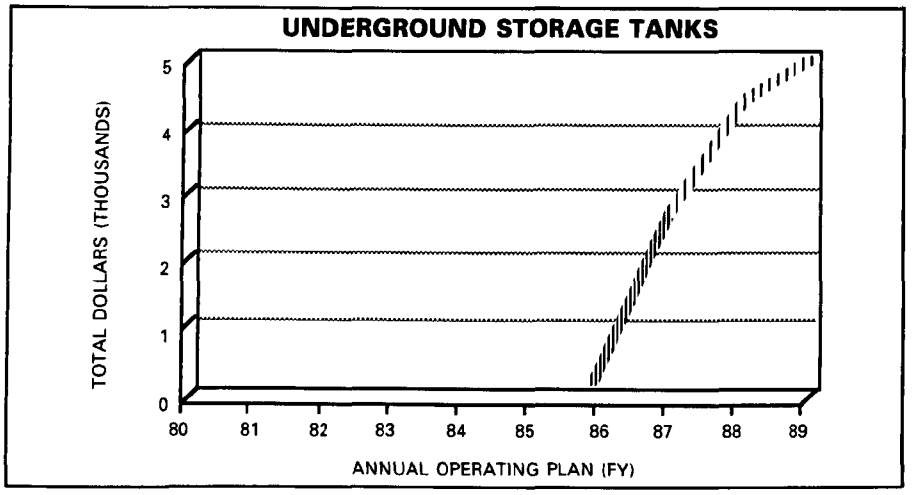
Since the 1950's, storage tanks for volatile liquids such as petroleum products have been buried underground to reduce the risk of fire and explosion. However, recent experience has shown leaking underground storage tanks to be a major source of ground water contamination and a great risk to human health and the environment. EPA estimates that there are 3 to 5 million tanks in the United States containing petroleum products or other hazardous substances. Thousands are thought to be leaking now and many more will begin to leak in the next 5 to 10 years.

In 1984, Congress amended the 1976 Resource Recovery and Conservation Act (RCRA) to require EPA to implement a comprehensive regulatory program for underground storage tanks. In 1988, the Agency issued regulations addressing leak detection, corrective action requirements, standards for new tanks, and other proper tank management practices. These regulations also include requirements for tank owners or operators to show that they have insurance or other financial resources to pay for damage caused by leaking underground tanks.

To provide funds for cleanup of leaking tanks, Congress amended RCRA in 1986 and established a trust fund to be used for emergency cleanup of petroleum leaks from underground tanks and to help finance state cleanup activities. This trust fund is financed by a tax on motor fuels that is expected to raise approximately $500 million over 5 years. As with Superfund hazardous waste sites, EPA encourages parties responsible for leaking underground tanks to clean up the problems voluntarily. However, if EPA must perform the cleanup, responsible parties may be liable for the cost of federal cleanup work.

Leaking Underground Storage Tanks (1987 Highlights)

- Assisted the states in preparing to implement the Underground Storage Tank program.
- Signed Leaking Underground Storage Tanks Trust Fund Cooperative Agreements with 43 states.
- 52 states report that they have operational notification data management systems.
- 41 states are implementing an Underground Storage Tank program.



Energy

This multi-media energy research and development program provides the scientific information necessary to evaluate environmental impacts from, and potential controls on the energy sector. This research program currently focuses on two issues: (1) reducing scientific uncertainties surrounding the phenomenon of acid deposition; and (2) developing and evaluating Limestone Injection Multistage Burner (LIMB) control technologies.

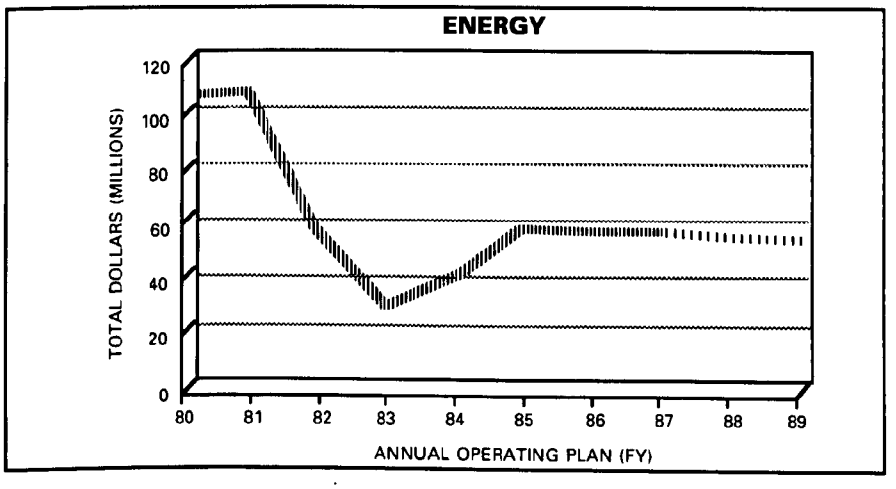
The acid deposition research program represents the Agency's part of the National Acid Precipitation Assessment Program (NAPAP). The purpose of this research is to increase understanding of the causes, effects, and potential mitigation measures for acid deposition. With more reliable information available to policymakers, more effective and cost-effective mitigation decisions should be developed.

The LIMB control technology program is designed to develop, demonstrate, and evaluate effective and inexpensive emission control systems that will reduce air emissions of sulfur oxides and nitrogen oxides. This research will provide data on performance, reliability, and cost-efficiency which will accelerate commercial viability of retrofit technologies for coal-fired boilers.

The following objectives define the Agency's energy research and development activities: estimating emissions from man-made sources, understanding atmospheric processes, establishing deposition monitoring data bases, understanding and quantifying aquatic effects, understanding and quantifying terrestrial effects, understanding and quantifying materials and cultural resource effects, evaluating control technologies, and developing and evaluating LIMB control technology.

Energy (1987 Highlights)

- The acid deposition research program installed a monitoring network for field evaluation of the Regional Acid Deposition Model and expanded the dry deposition monitoring network to include 50 sites.
- Produced reports on the Western Lake Survey, Mountain Cloud Chemistry Project, and on site-specific cost estimates of sulfur dioxide and nitrogen oxide controls from 12 coal-fired power plants.
- Stated the commercial-scale demonstration of the wall-fired technology, and issued a report on commercialization requirements for LIMB.
- Concluded research assessing the impacts of oil and gas development on coastal tundra wetlands.



Interdisciplinary

EPA's Interdisciplinary Program is composed of several activities that cut across programs and are not media specific. However, these activities address environmental concerns that simultaneously affect several media and therefore require an interdisciplinary approach. The Interdisciplinary Program includes the Intermedia Research Program, the Federal Agencies Compliance Program, the National Environmental Policy Act (NEPA) Compliance Program, and the legal aspects of the Agency's enforcement efforts.

The Intermedia Research Program consists of five major activities: scientific assessments, technical information and liaison (including regulatory support and technology transfer), exploratory research, quality assurance management, and an integrated program to reduce uncertainties in risk assessment.

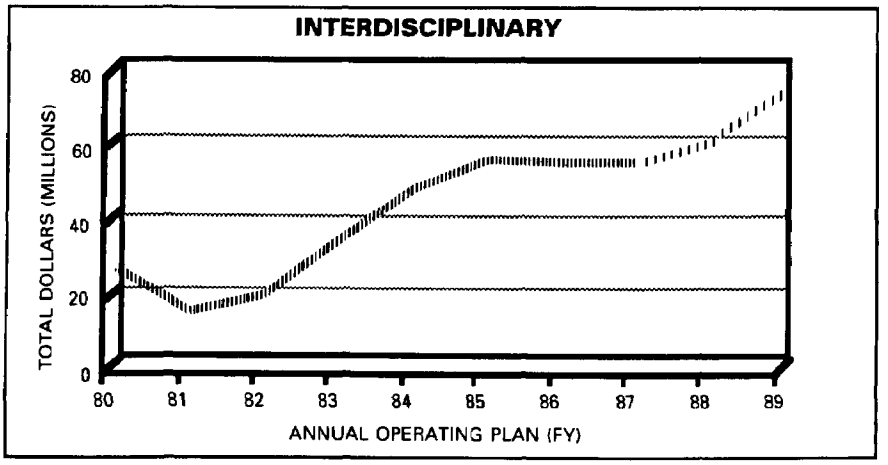
The Environmental Review and Coordination Program accomplishes statutory objectives under the authority of the National Environmental Policy Act (NEPA); Section 309 of the Clean Air Act; and Executive Order 12088 - Federal Compliance with Pollution Control Standards; and includes four program activities as well as support for regional interdisciplinary projects and EPA technology transfer activities.

Enforcement Policy and Operations provides consistent direction to EPA enforcement for all non-Superfund media to assure the most effective possible stewardship of EPA's enforcement responsibilities as they contribute to the protection of environmental quality.

The National Enforcement Investigations Center (NEIC) provides specialized technical expertise in support of EPA enforcement case preparation activities, and serves as a point of coordination and support for complex investigations which may have a national impact on environmental enforcement.

Interdisciplinary Programs (1987 Highlights)

- Published five risk assessment guidelines, prepared training materials and held guideline training sessions.
- Processed over 1,300 documents to the National Technical Information Service, produced and distributed approximately 400 project summaries, and answered over 30,000 requests for publications.
- The Exploratory Research program reviewed 375 grant proposals, awarded 40 new grants, and continued support for 97 grants.
- The NEPA Compliance program increased oversight of state programs which perform much of the basic environmental analysis.
- Continued efforts to provide technical advice and assistance to federal agencies to ensure that their facilities comply with pollution control requirements in a cost effective manner.



Management and Support

Management and Support provides executive direction and policy oversight for all Agency programs, as well as those administrative and support services that are not assigned to a specific program. The program provides quality legal services, promotes technically and economically defensible regulatory and policy alternatives, enhances the public's perception and understanding of Agency goals, manages for environmental results, and pursues a focused human resources management effort to build a skilled career environmental workforce.

Management and Support is comprised of Program Management, Agency Management, Regional Management, and Support Costs.

Program Management includes policy development and oversight, and associated management activities for the Agency's environmental program offices of: Air and Radiation, Water, Enforcement and Compliance, Monitoring, External Affairs, Pesticides and Toxic Substances, General Counsel, Research and Development, and Solid Waste and Emergency Response.

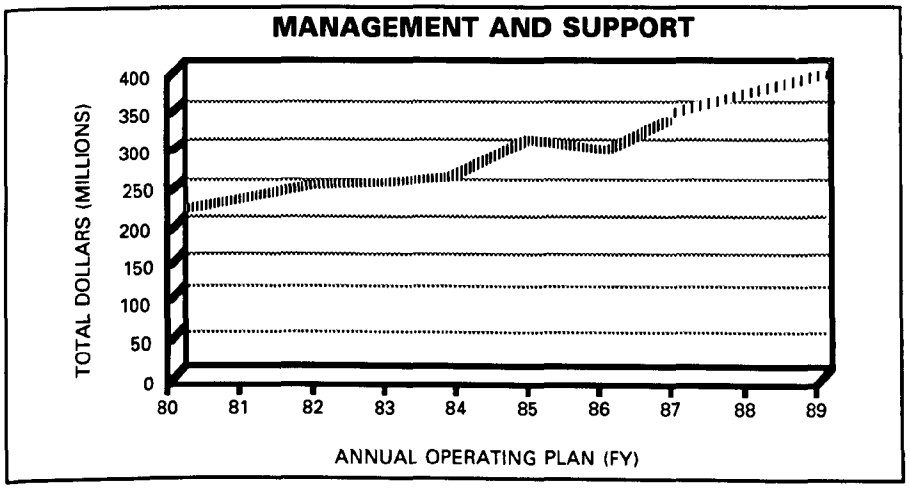
Agency Management includes Agencywide management functions and policy activities, and consists of: executive offices policy direction; planning for and evaluation of Agency activities; legal services for litigation in which the Agency is a defendant; external affairs; investigations and audits of Agency activities; and centralized administration and resources management services.

Regional Management includes centralized management and administrative functions for each EPA regional office.

Support costs include the costs of general Agency support services including: facility rental costs, telephone, mail, printing and copying, utilities, security, library services, maintenance, health and safety, and centralized data processing.

Management and Support (1987 Highlights)

- Published numerous EPA Journals, leaflets, fact sheets, and other public information materials on environmental activities and issues, including risk assessment, radon, hazardous waste, and ground water.
- Increased enforcement and compliance efforts under both environmental and civil rights regulations for the Administrative Law Judges and the Judicial Officers.
- Began development of the Integrated Financial Management System to integrate and improve the Agency's financial systems.
- Established the EPA Institute in which EPA employees share their expertise by teaching courses. The 20 courses offered were attended by approximately 2,000 employees.
- Finished design and began construction of the Radiation Laboratory in Montgomery, AL and the full containment facility in Cincinnati, OH.



Construction Grants

The Construction Grants program is described independently from EPA's operating programs because: it is a grants rather than an operating program, obligations substantially lag behind appropriations, and its funding dwarfs that of the operating programs both currently and historically.

The Construction Grants program provides funds to states and municipal agencies to assist in financing the construction of cost-effective and environmentally sound municipal wastewater treatment facilities, and to assist states in carrying out their program and project management responsibilities.

Since 1972, the Construction Grants program has completed about 7,000 construction projects and has provided $48 billion of the more than $65 billion invested in grant-assisted wastewater treatment works. There are currently about 15,000 treatment plants in the nation serving over 172 million people.

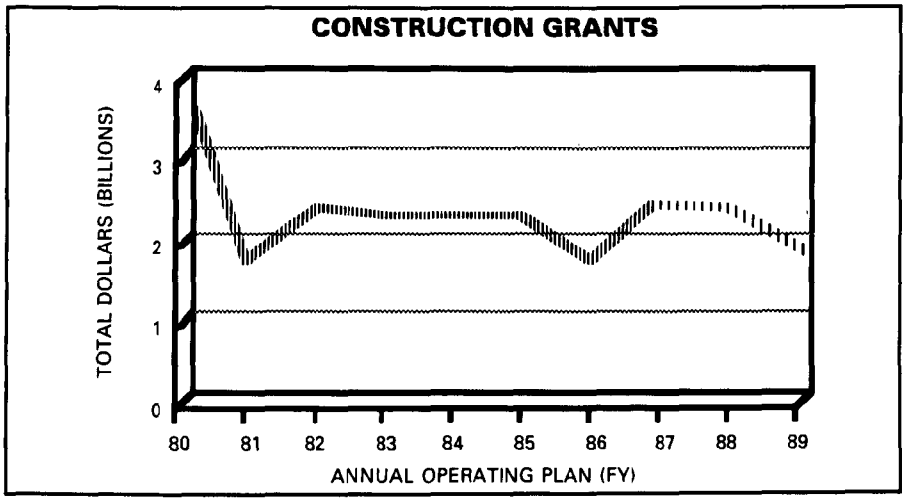
This program has been authorized since 1972 through Title II of the Clean Water Act.

Legislative amendments in 1977 and 1981 made a number of significant changes to the program which increased state responsibilities for direct grants management and reduced the federal role in financing project grants.

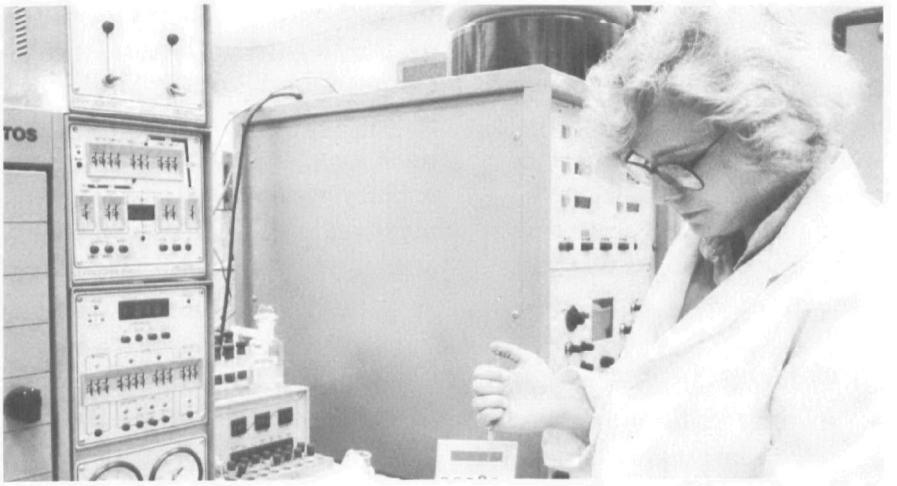
The Water Quality Act of 1987 set the stage for further, significant program changes. The traditional program of grants to communities for facilities construction is being replaced by grants to states to capitalize revolving loan funds (SRFs). This program ushers in expanded state responsibilities and autonomy in a program that is already delegated extensively. Although construction grants funding will end after 1990, grants management activities will continue at significant levels through the 1990's. In 1989, almost 5,000 projects will remain active. EPA will help assure that projects utilize appropriate and affordable designs, are constructed in the most cost-effective manner, and are managed and operated to comply with program and discharge requirements.

Construction Grants (1987 Highlights)

- Obligated construction grants of $2 billion and supported 514 awards for secondary and tertiary treatment.
- Federal outlays totaled $2.9 billion and states obligated $112 million for water quality and nonpoint source planning.
- Obligated $.6 million for the National Estuary Program.



Special Analysis

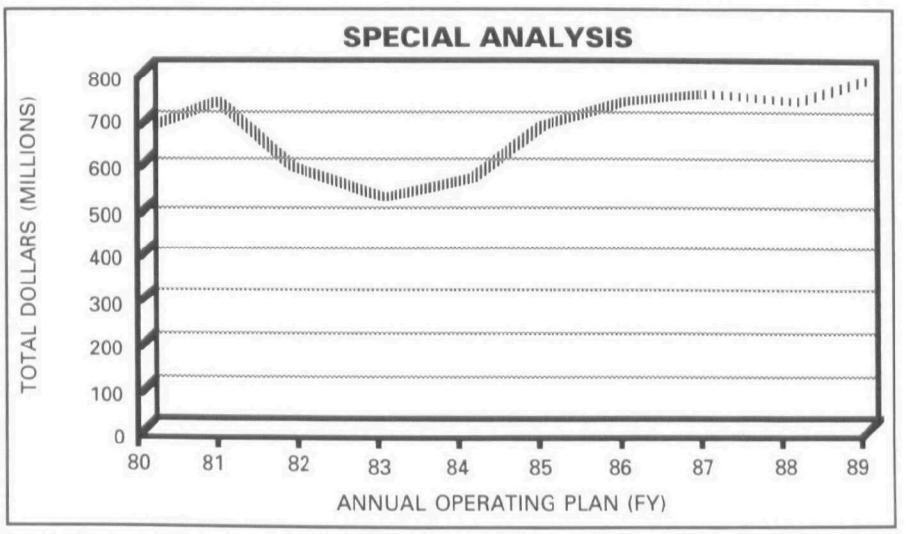


Environmental sample analysis

In recent years, and this year in particular, Agency priorities increasingly highlight three specific Agency activities. These include: providing state and local grants; ensuring enforcement of environmental laws and regulations; and conducting needed research and development.

Each of these activities is conducted as a component of programs discussed earlier, and the resources related to each of these activities are included in the resource estimates for each operating program. In total, however, these three high-priority activities utilized 28 percent of EPA's FY 1987 operating program resources.

This section examines each of these activities by describing their current scope and focus in a format similar to that used for operating programs.



State and Local Grants

EPA clearly recognizes that meeting our statutory environmental goals without continued support to the states is impossible. Recognizing the important role grant programs play in maintaining and improving environmental quality in the states, EPA in 1987 continued to maintain a strong financial commitment for these essential programs while, however, addressing necessary fiscal constraints throughout the federal government.

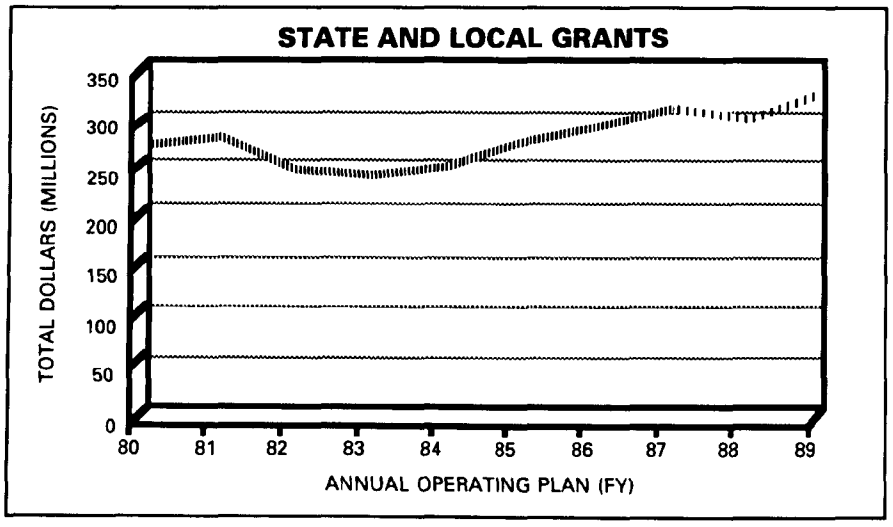
Funding for state and local environmental programs increased from $282 million to $302 million in 1987, or approximately 7 percent. The increase for ongoing programs totaled more than 11 percent since several of these programs were discontinued in 1987.

State and Local Grants (1987 Highlights)

- Maintained, and where appropriate, strengthened and improved the state-federal relationships that have developed over the years.

- Ceased funding the National Rural Water Association, the Clean Lakes Program, and the Hazardous Waste Program which received $11.5 million in 1986. These programs were judged to be able to carry out their purposes with alternative resources.

- Increased funding significantly for the Hazardous Waste and Underground Storage Tank programs to enable states to accomplish inspections, corrective action measures and enforcement for both RCRA facilities and underground storage tanks.



Enforcement

When regulated entities fail to comply voluntarily with EPA requirements, the Agency, in partnership with state agencies, can take a number of enforcement actions. Alternatives include: compliance promotion; administrative money penalties; negotiated compliance schedules; and ultimately, judicial enforcement involving criminal proceedings in federal court.

Judicial enforcement of environmental laws and regulations provides EPA a very important option because the possibility of financial and criminal penalties acts to deter potential violators. Seeking penalties at least as large as the gain a company may realize by violating the law, and seeking criminal convictions and prison sentences counters incentives for noncompliance.

EPA's National Enforcement Investigations Center in Denver combines laboratory, investigation, and engineering skills to develop evidence and help EPA win in court. The Agency's criminal investigation unit has successfully cracked down on illegal discharges into waterways, "midnight dumping" of toxic substances, and deliberate destruction or falsification of test results or environmental reports.

Enforcing environmental laws and regulations often calls for close cooperation among EPA, the U.S. Justice Department, and myriad state and local agencies. All play important roles in achieving significant improvements in environmental quality.

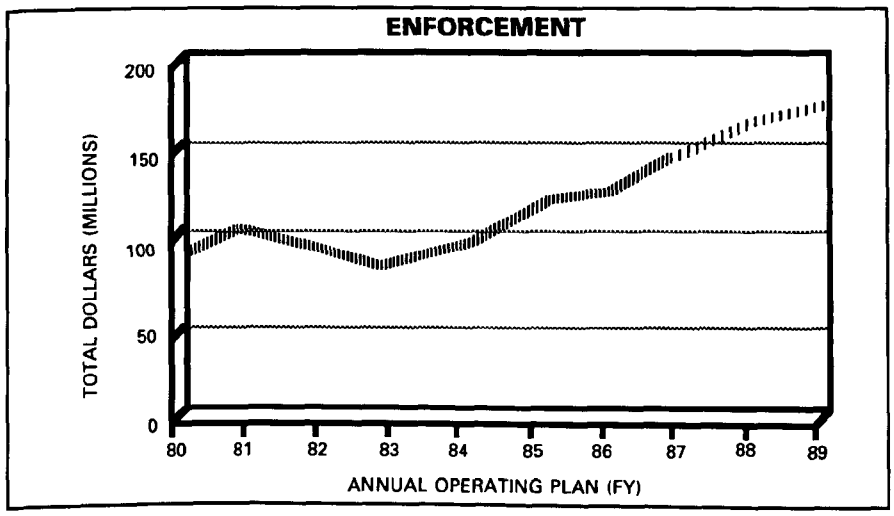
Enforcement (1987 Highlights)

- Referred 304 civil cases to the Justice Department of which 141 were direct referral from the regions , 122 were CAA, 85 were NPDES, 7 were SDWA, 23 were RCRA, 54 were CERCLA, 9 were TSCA, and 4 were FIFRA.

- Filed 285 cases with the Justice Department. As of September 30, 1987, the Enforcement Docket System reported that there were 820 civil judicial cases active, of which 530 were court pending.

- Issued 3,194 administrative orders - the largest increase occurring under TSCA with 1,015.

- The criminal enforcement program has referred 82 cases to the Justice Department for criminal prosecution - 41 in 1986 and 41 in 1987. Fifty-eight defendants in these cases were convicted or found guilty.

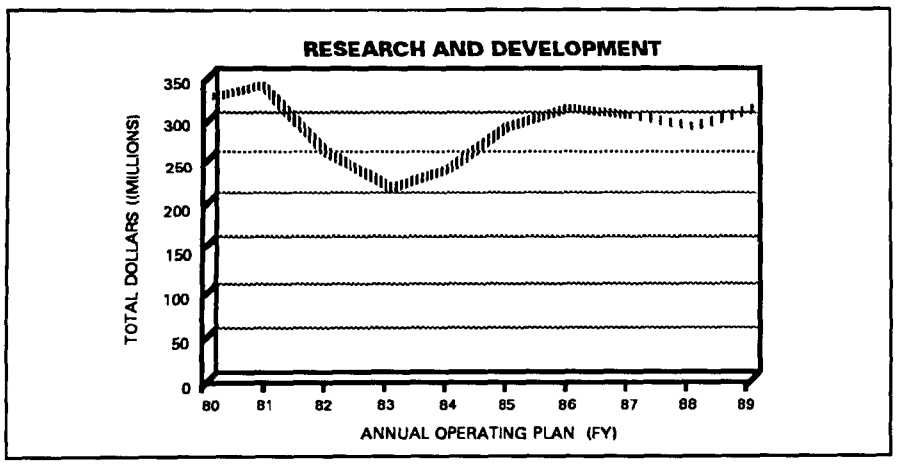


Research and Development

To maintain the public trust in EPA decisions, Agency managers must objectively work with and interpret the best available scientific data. This effort is accomplished through Agency research, grants, cooperative agreements, and contracts established with government entities, universities and private institutions. EPA's Office of Research and Development provides data in six areas:

- Environmental engineering and technology research which assesses pollution from industrial and municipal sources and analyzes alternative control techniques.
- Environmental processes and effects research which seeks data to predict and manage the movement and effect of pollution as it spreads through the environment and ecosystem.
- Monitoring systems and quality assurance research which develops standardized methods to measure and monitor pollutants.
- Health effects research which provides data needed to estimate human mortality and illness caused by pollutants.
- Health and environmental assessment research which provides an integrated, scientific basis for evaluating environmental risks and effects stemming from exposure to various substances.
- Exploratory research which assesses potential environmental trends and funds research to meet needs for basic scientific knowledge.

EPA relies on an independent Science Advisory Board, comprised of non-EPA scientists, to advise the Agency and review the quality of its scientific work.



Research and Development (1987 Highlights)

- Provided considerable research data for development of risk assessments and risk reduction.
- Produced 576 journal articles, 450 symposium papers, 417 published reports, 949 internal reports, and 1,632 miscellaneous articles.
- Updated the radon mitigation technical manual, of which over 20,000 copies have been printed for distribution to the states and others.
- Through cooperative funding by EPA and NASA, published significant findings on global warming, which will undoubtedly affect environmental decisions for years to come.
- Developed the Chernoff-Kavlock test for reproductive toxicity, which provided the Office of Pesticides Programs and the Office of Toxic Substances with validated testing alternatives to the current expensive and time-consuming three generation procedure.
- Originated further study on a unique gene system which self-destructs upon complete utilization of certain toxic chemicals and may lead to a safe, inexpensive alternative for eliminating toxic chemicals in the environment.

Financial Statements

Message From the Comptroller

We at EPA are pleased to be among the first federal agencies to prepare audited consolidated financial statements based on generally accepted accounting principles for federal agencies, and to present them in this, our first annual report. Given the complexity and size of our accounts, including a multi-billion dollar construction grants program and the Superfund trust fund, we feel we have made a significant contribution to the goal of each federal agency providing reliable financial information to both the federal government community and the general public.

EPA's fiscal year 1987 consolidated financial statements were prepared in accordance with generally accepted accounting principles for federal agencies. The statements are presented in a consistent manner using the accrual basis of accounting. Established accounting procedures are designed to provide accurate records and accounts which fairly reflect the transactions of EPA.

We designed this report to present, in addition to the consolidated financial statements, an overview of our accomplishments, goals, programs and resources. The Administrator's message describes EPA's accomplishments, challenges and future agenda. The next section discusses how we are managing our resources to meet these challenges. The final section before the statements provides a brief description of EPA's programs and the resources available to these programs. We feel the information in this report will be of interest to a wide range of readers who wish to know about EPA's activities and the resources used to support those activities.

Preparation of the audited consolidated financial statements for this report required a substantial effort and commitment of resources from EPA and from the General Accounting Office (GAO). We believe that the principal value of this effort lies in introducing discipline into our accounting systems which assure that the results of EPA's financial activities are presented fairly and consistent with applicable guidelines and regulations. This is particularly useful to us at this time since we are converting to a new integrated financial management system. Consequently, we are planning to prepare audited consolidated financial statements on an annual basis.

GAO

United States
General Accounting Office
Washington, D.C. 20548

Comptroller General
of the United States

B-216351

To the Administrator
Environmental Protection Agency

We have examined the consolidated statement of financial position of the Environmental Protection Agency (EPA) as of September 30, 1987, and the related consolidated statements of revenues and expenses and of changes in financial position and reconciliation to budget for the fiscal year then ended. Our examination was made in accordance with generally accepted government auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances, except as indicated in the following two paragraphs. In addition to this opinion, we are also reporting to you on our study and evaluation of EPA's internal accounting controls and on its compliance with laws and regulations.

Fiscal year 1987 represents the first year that EPA has prepared consolidated financial statements in accordance with generally accepted accounting principles for federal agencies. Because our examination did not commence until July 1987, it was not practical to perform various auditing procedures with respect to determining whether, as of the beginning of fiscal year 1987, assets, liabilities, equity, revenues, and expenses were recorded in the proper accounting period. Accordingly, we do not express an opinion on the accompanying consolidated statements of revenues and expenses and of changes in financial position and reconciliation to budget or on the consistency of application of accounting principles with the preceding year.

Conditions exist with respect to EPA's property accounts which represented departures from generally accepted accounting principles and internal control standards for federal agencies. These conditions include the manner in which EPA accounts for and supports property asset balances and weaknesses in the internal control system it utilizes to control and safeguard property assets. For example, EPA's property records do not provide the cost and depreciation data needed to account for property assets. In addition, EPA's property asset balances were not supported by adequate documentation or subject to periodic reconciliations. Because of these conditions, it was not practical to perform, nor did we perform, auditing procedures necessary to satisfy ourselves as to the aggregate net book value of land, buildings, and equipment reported on the consolidated statement of financial position as of September 30, 1987.

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, created a trust fund to help EPA respond to hazardous substances that threaten human health and the environment. The principal financing sources for the trust fund are taxes on petroleum and chemicals, an environmental tax on corporations, costs recovered from responsible parties, fines and penalties, and earned interest. The Congress provides, in annual appropriations, the amounts EPA may expend

from the trust fund. EPA accounts for and reports on only those funds the Congress has appropriated. As part of its Superfund program activities, EPA has inventoried over 30,000 sites which may pose a threat to human health or to the environment. Over 1,100 of these sites are currently on a priority list, making them eligible for Superfund remedial actions. The ultimate cost to address all potential sites requiring remedial action is unknown and, as a result, it is unclear whether the $8.5 billion currently authorized for the 5-year period beginning with fiscal year 1987 will be adequate.

In our opinion, except for the effects of adjustments, if any, on the consolidated statement of financial position as might have been necessary had we been able to satisfy ourselves as to the aggregate net book value of land, buildings, and equipment, as discussed in paragraph three, the accompanying consolidated statement of financial position presents fairly the financial position of the Environmental Protection Agency as of September 30, 1987, in accordance with generally accepted accounting principles for federal agencies.

Our examination was made for the purpose of forming an opinion on the consolidated statements taken as a whole. The supplemental schedules of financial position by fund activity, of revenues and expenses by fund activity, and of changes in financial position and reconciliation to budget by fund activity are presented for the purposes of additional analyses and are not a required part of the basic financial statements. The supplemental schedule of financial position by fund activity has been subjected to the same auditing procedures applied in the examination of the consolidated statement of financial position. In our opinion, except for the effects of the matters discussed in paragraph three above, the supplemental schedule of financial position by fund activity is fairly stated in all material respects in relation to the consolidated statement of financial position taken as a whole. For the reasons expressed in the second paragraph, we do not express an opinion on the supplemental schedules of revenues and expenses by fund activity and of changes in financial position and reconciliation to budget by fund activity.

Charles A. Bowsher
Comptroller General
of the United States

July 1, 1988

Consolidated Statement of Financial Position

As of September 30, 1987 (Dollars in thousands)

Assets	
Funds with U.S. Treasury (note 1)	$ 10,282,078
Advances, accounts and loans receivable, net (notes 1,3)	93,633
Land, buildings, and equipment, net of accumulated depreciation (notes 1,4)	129,775
Future financing sources	38,171
Total Assets	**10,543,657**
Liabilities and Equity	
Liabilities	
Accounts payable and accruals:	
To the public	258,834
To other federal agencies	103,662
Advances (note 1):	
From other federal agencies	14,269
From the public	11,925
Accrued payroll and leave	67,782
Total Liabilities	**456,472**
Commitments and contingencies (note 6)	
Equity of the U.S. Government	
Unexpended appropriations:	
Unobligated balances	1,913,682
Unliquidated obligations (note 1):	
Grants and other assistance	7,179,701
Contracts and other	915,158
Invested capital	181,073
Cumulative results of operations	(102,429)
Total Equity	**10,087,185**
Total Liabilities and Equity	**$ 10,543,657**

The accompanying notes are an integral part of these statements.

Consolidated Statement of Revenues and Expenses

For the Fiscal Year Ended September 30, 1987 (Dollars in thousands)

Expenses	
Grants and other assistance (note 7)	$ 3,353,538
Contractual services	796,675
Personnel compensation and fringe benefits	584,541
Rent, utilities, and telephone (note 1)	98,944
Travel, printing, supplies, and other expenses	104,647
Depreciation (note 1)	18,838
Total Expenses	**4,957,183**
Revenues (note 1)	
Appropriations expended	4,923,262
Transfers and reimbursements	32,410
Fines, penalties, and other revenues	2,711
Total Revenues	**4,958,383**
Excess of Revenues Over Expenses	**$ 1,200**

The accompanying notes are an integral part of these statements.

Consolidated Statement of Changes in Financial Position and Reconciliation to Budget

For the Fiscal Year Ended September 30, 1987 (Dollars in thousands)

Resources Used:	
Operating uses:	
Operating expenses	$ 4,957,183
Items providing funds:	
Depreciation (notes 1,4)	(18,838)
Loss on property	(8,897)
Decrease in advances, accounts, and loans receivable, net	(21,973)
Increase in accounts payable and accruals	(24,068)
Revenue accounted for as offsetting receipts	(32,124)
Funds used by operations	**4,851,283**
Nonoperating uses:	
Acquisitions of equipment (note 1)	24,348
Funds transactions excluded from outlays	31,074
Net Resources Used (Budgetary Outlays)	**4,906,705**
Resources Provided:	
Current-year appropriation	5,364,188
Net transfers and other	(57,229)
Net Resources Provided	**5,306,959**
Increase in U.S. Treasury Funds	**400,254**
U.S. Treasury Funds, Beginning of Year	**9,881,824**
U.S. Treasury Funds, End of Year	**$ 10,282,078**

The accompanying notes are an integral part of these statements.

Notes to Financial Statements

Note 1: Significant Accounting Policies

Entity

EPA was created in 1970 by executive reorganization from various components of other agencies in order to better marshal and coordinate federal pollution control efforts. The agency is generally organized around the media and substances it regulates--air, water, land, hazardous waste, pesticides, and toxic substances.

Basis of Consolidation

EPA's consolidated financial statements are prepared in conformity with generally accepted accounting principles for federal agencies as contained in title 2 of the General Accounting Office's (GAO) Policy and Procedures Manual for Guidance of Federal Agencies.

The accompanying consolidated financial statements of EPA include all accounts under EPA's control which have been established and maintained to account for the resources entrusted to the Agency's management. These accounts, as reflected, are maintained on the accrual basis of accounting. In our financial statements, all material intra-agency balances and transactions have been eliminated in consolidation.

Revenue Recognition and Expended Appropriations

Financing sources are provided through congressional appropriations on an annual, multi-year, and no-year basis. Appropriations may be used to finance operating expenses as well as capital expenditures for land, equipment, and other assets as specified by law. Additional revenue is recognized from services provided on a reimbursable basis, fines levied against nonperforming entities and persons making false claims, and penalties charged to delinquent debtors. Revolving fund revenue is recognized when services have been rendered.

The current budgetary process does not distinguish between capital and operating expenditures. For budgetary purposes, both are recognized as a use of budgetary resources (outlays) as paid. However, for financial reporting purposes under accrual accounting, operating expenses are recognized currently in the statement of operations, while advances, reimbursements, and expenditures for capital and other assets are recognized when consumed, or collected, in EPA

operations. Financing sources for these expenses, which are derived both from current and prior-year appropriations, are recognized on the same basis. The consolidated statement of changes in financial position and reconciliation to budget presents a reconciliation of operating expenses on an accrual basis with cash basis budgetary expenditures. Appropriations for fund activities are recorded as a financing source when expended. Unexpended appropriations are recorded as equity of the U.S. government.

Future financing sources represent annual leave expense accrued as earned in the current period, to be funded in the year leave is taken.

Advances

Advances receivable represent funds paid to employees (such as travel advances), other federal agencies, contractors, and grantees for goods or services; actual spending for goods and services which have not been received; or unspent funds which have not been returned. These advances include an accrual of $6.7 million representing EPA's estimate of drawdowns by letter-of-credit recipients for which costs have not yet been incurred.

Advances payable represent funds paid to EPA by other federal agencies and grantees to purchase goods and services on their behalf and prior to EPA providing the goods and/or services.

Property and Equipment

Land, buildings, and equipment with a cost greater than $5,000 and a useful life of 2 years or greater are capitalized. Currently, the Agency's procedure is not to calculate depreciation on buildings or library volumes; on equipment, it is calculated on a straight-line basis over an estimated useful life of 5 years.

Annual, Sick, and Other Types of Leave

Employee's annual leave is accrued as it is earned, and the accrual is reduced as leave is taken. At least once per year, the balance in the accrued leave account is adjusted to reflect current pay rates of cumulative annual leave earned but not taken. Senior Executive Services employees may carry forward an unlimited amount of annual leave from one year to the next. Most other employees may carry forward up to 240 hours. Any excess hours not taken are forfeited unless special approval is granted. Sick and other types of leave are expensed as taken.

Cost Allocation

Indirect overhead costs, consisting of rent, utilities, telephone, etc., are allocated to Superfund and Non-Superfund accounts based upon a formula of direct labor hours using budgeted or actual full-time equivalent personnel, not to exceed the administrative ceiling established by appropriations.

Funds with U.S. Treasury

This total represents all unexpended balances on EPA's accounts with the U.S. Treasury.

Note 2 : Intragovernmental Financial Activities

EPA's financial activities are affected by, and are dependent upon, those of the federal government as a whole. Thus, EPA's financial statements do not reflect the results of all financial decisions and activities applicable to EPA operations, as if it were a stand-alone entity.

- The U.S. Treasury receives, disburses, and holds moneys on behalf of EPA for 53 different account titles or fund types for which EPA has management responsibilities.

- EPA's consolidated financial statements are not intended to report the Agency's proportional share of the federal deficit or of public borrowings, including interest thereon.

- Financing for major construction projects was provided through appropriations. To the extent this financing was obtained through public borrowing by the U.S. Treasury, no interest has been capitalized, since such borrowings are recorded in total by the U.S. Treasury and are not allocated to individual departments and agencies.

- During fiscal year 1987, the majority of EPA's employees participated in the Civil Service Retirement System (CSRS). Contributions to the plan are based on 7 percent of the employees' gross pay, to which EPA made a matching contribution. EPA pension contributions for the year ending September 30, 1987, totaled approximately $27 million.

On January 1, 1987, the Federal Employees' Retirement System (FERS) was implemented, pursuant to Public Law 99-335. This is a defined contribution retirement plan and is comprised of a Social Security Benefits Plan, a Basic Benefit Plan, and a Savings Plan. Generally, it is mandatory for all employees hired on or after January 1, 1984. Employees hired before January 1, 1984, had the option until December 31, 1987, to elect to transfer coverage from CSRS (extended to June 30, 1988, for extenuating circumstances). Contributions to the plans are based on a percentage of the employees' gross pay. Under the Thrift Savings Plan, employees can also elect additional contributions between 1 and 10 percent of their gross pay and EPA will match up to 4 percent of the employee-elected contribution. EPA also pays 1 percent of the employees' salary into the Thrift Savings Plan. FERS and Thrift Savings employer contributions for the year ended September 30, 1987, totaled approximately $10.7 million. There is the potential for EPA to incur increased costs due to transfers from CSRS to FERS. However, EPA management does not believe the increase will be material.

EPA matches the employees' FICA and Medicare contributions. FICA and Medicare employer's contributions for the year ended September 30, 1987, totaled approximately $12.5 million.

EPA does not report CSRS or FERS assets, actuarial present value of accumulated plan benefits, or unfunded liabilities applicable to its employees, since this data is maintained by the Office of Personnel Management and is not allocated to individual departments and agencies.

- The General Services Administration (GSA) provides many services to the EPA, such as procurement and telecommunications, which are charged through interagency billings as goods are shipped or services are rendered.

- The EPA contracts for a wide range of goods and services through interagency agreements with other federal agencies and units of state and local governments (reimbursable only) which, for the fiscal year ended September 30, 1987, amounted to approximately $102.9 million in expenditures and $31 million in reimbursements.

Note 3: Receivables

Receivables, as of September 30, 1987, consisted of the following:

Advances		
Other federal agencies	$ 4,897,656	
The public	11,610,806	
EPA employees	652,548	
Total Net Advances		$17,161,010
Accounts Receivable		
Other federal agencies	2,303,204	
The public	84,308,755	
Less: Allowance for doubtful accounts	(61,797,960)	
Total Net Accounts Receivable		24,813,999
Loans Receivable (A, B)		
Due through July 31, 2007, at interest rates of up to 6.125 percent	51,297,291	
Interest on loans receivable	360,476	
Total Loans Receivable (including interest)		51,657,767
Total Net Receivables		$93,632,776

A. The Asbestos School Loans

The Asbestos School Hazard Abatement Act of 1984 (ASHAA), as amended by the Asbestos Hazard Emergency Response Act of 1986 (AHERA), gives EPA the lead responsibility to compile technical information on asbestos, to develop procedures and standards for both public and private local educational agencies (LEAs) to use in

abating asbestos hazards, and to provide financial assistance to LEAs on a school-by-school basis to carry out abatement projects. This financial assistance includes both grants and loans to the LEAs. In addition, AHERA provides authority for the issuance of grants in 1988 and 1989 to states or LEAs to carry out inspections for asbestos-containing material in school buildings and preparation of management plans for school buildings as defined by this Act. Not more than 10 percent of the 1988 and 1989 amounts available under ASHAA may be used for these purposes. Due to the recent nature of loans extended under ASHAA and AHERA, the related collection history was not sufficient to make possible the establishment of a meaningful allowance for doubtful loans receivable. As of September 30, 1987, there were outstanding loans under this Act of $46,812,306.

AHERA also established a trust fund in the U.S. Treasury, known as the "Asbestos Trust Fund." Repayments of loans must be made to EPA for deposit in the General Fund of the U.S. Treasury. Repayments of Asbestos School Loans totaled $846,184 for the fiscal year ended September 30, 1987.

B. Puerto Rico Loans

EPA, pursuant to Public Law 97-357 (October 1982), has loaned funds to the Commonwealth of Puerto Rico in the amount of $16,720,039. These loans were granted as a result of special congressional action to allow certain construction grant unobligated balances to be used as loans to enable the Commonwealth of Puerto Rico to fund five specific regional wastewater treatment systems. These funds may be used by the Commonwealth of Puerto Rico to fund the nonfederal share of the costs of such projects. Interest for these loans is recorded monthly, based on the U.S. Treasury rate established for this loan program. An allowance for doubtful loans receivable was not established for these loans due to the large amount of FY 1987 collections ($12.2 million) and the immaterial amount of the balance outstanding. As of September 30, 1987, there were outstanding loans for this program in the amount of $4,484,984.

Note 4: Property and Equipment

Property and equipment, as of September 30, 1987, consisted of the following:

	Cost	Accumulated depreciation	Net book value
	(Dollars in thousands)		
Land	$ 3,821		$ 3,821
Building	64,443		64,443
Equipment	239,038	$ 190,878	48,160
Library volumes	13,351		13,351
Total	$ 320,653	$ 190,878	$ 129,775

Note 5: Leases

The Agency leases office and laboratory space, copiers and computers from GSA and the public. The Agency also leases laboratory space directly from the lessors. All leases are considered to be operating leases; some may be cancelable without penalty cost and expire at variable intervals. Lease payments during fiscal year 1987 totaled $94.7 million.

The majority of EPA's office space is leased through GSA, and the majority of the leased laboratory space is leased directly. Rates charged to EPA by lessors are based upon appraisals of comparable space. GSA's rates are approximations based upon these appraisals, while rates for direct leases are negotiated. During fiscal year 1987, EPA did not cancel any leases. EPA does not foresee any termination of leases in the near future.

Note 6: Commitments and Contingencies

Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended at 7 U.S.C. 136m, EPA is authorized to suspend or cancel registration of pesticides determined to be hazardous. Under certain conditions, EPA makes indemnity payments to owners who suffer losses as a result of such actions. This has the poten-

tial to result in millions of dollars in claims. The continuing resolution for FY 1988 and appropriation bills for FY 1989 specify that during these years, EPA should seek payment for these claims from Treasury's Claims, Judgements, and Relief Acts Fund. As of September 30, 1987, EPA had actual outstanding indemnification claims for two chemicals totaling $12.5 million, with a possibility of an additional $27.5 million pending.

Both the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) provide for cost-recovery of funds. (See note 7). Potential cost recovery expenditures are expensed because potential collection of these funds is not measurable, and there is no assurance that these funds will be recovered. EPA establishes the account receivable when there is a greater potential (sum certain) in receiving the funds from the responsible party(ies). This is done when a judgement, order of payment, or an agreement is made for payment. Since the inception of Superfund, EPA has collected approximately $48.6 million in cost-recovery through fiscal year 1987.

EPA is a party in various administrative proceedings, legal actions, and claims brought by, or against, it. These include:

- Under the Federal Tort Claims Act, any award, compromise, or settlement in excess of $2,500 is paid from the Claims, Judgements, and Relief Acts Fund maintained by the Department of the Treasury, while those of $2,500 or less are paid by EPA. Payments during fiscal year 1987 for awards, compromises, and settlements resulting from such legal actions amounted to $25,000 from the Treasury's Claims, Judgements, and Relief Acts Fund, and $9,568 from EPA.

- Various personnel actions, suits, or claims brought against the Agency by employees and others.

- Various contract and assistance program claims brought against the Agency by vendors, grantees, and others.

- The legal recovery of Superfund costs incurred for pollution cleanup of specific sites, to include the collection of fines and penalties from responsible parties.

- Claims against recipients for improperly spent assistance funds which may be settled by a reduction of future EPA funding to the grantee or the provision of additional grantee matching funds. As of September 30, 1987, approximately

$33.7 billion of EPA payments to units of state and local governments for construction of wastewater treatment facilities are awaiting audit. EPA believes that recovery of any improperly spent costs will not be material to its financial statements.

In the opinion of EPA's management and General Counsel, the ultimate resolution of legal actions still pending will not materially affect EPA's operations or financial position.

Note 7: Major Activities

Superfund

On December 11, 1980, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), commonly referred to as "Superfund." This Act created the Hazardous Substance Response Trust Fund, which is administered by the U.S. Treasury. The Trust Fund was established to provide money to respond to actual or threatened releases of hazardous substances, pollutants, or contaminants that may endanger public health or the environment.

The Superfund Amendments and Reauthorization Act (SARA) was enacted October 17, 1986. SARA reauthorized CERCLA for $8.5 billion to be appropriated over a 5-year period for the continuation of the program launched by CERCLA to clean up hazardous waste sites, strengthen and expand the cleanup program, and change the tax structure for financing the Fund.

Grants and Other Assistance

The Agency, in fulfilling its responsibilities for protecting and enhancing the quality of the environment, provides financial assistance to various public, private, and state recipients in the form of grants and cooperative agreements. Assistance represents the most significant portion of the Agency's appropriation. In fiscal year 1987, the Agency obligated $2.6 billion for recipients.

At the expiration of an Assistance Agreement, unused or improperly applied funds are either collected from the recipients or appropriately adjusted by an offset, or otherwise utilized in accordance with the conditions of the Assistance Agreement. Arrangements are made for the disposition of property purchased through the Assistance Agreements according to federal regulations.

Supplemental Schedules

The following supplemental schedules provide further detail of, by major fund activity, assets, liabilities, and U.S. government equity; revenue, financing sources, and expenses; sources and uses of funds by major fund activity; and budgeted and actual outlays.

General fund accounts are used to record financial transactions arising under congressional appropriations or other authorizations to spend general revenues. EPA is managing 46 general fund accounts, of which 23 are funded by current-year appropriations, and 9 cannot incur new obligations. The remaining 14 are suspense, receipt, and deposit accounts. In addition, the general fund has been combined with a small certification revolving fund for financial reporting purposes. This revolving fund generated the full amount of the $1.2 million excess of revenues over expenses on EPA's consolidated statement of revenues and expenses.

Superfund accounts are used to record transactions arising from the fulfillment of EPA's responsibilities under CERCLA and SARA. (See note 7.) The Superfund Trust Fund has been consolidated with two smaller trust funds, the Leaking Underground Storage Tanks Trust Fund and the Miscellaneous Contributed Funds.

Schedule of Financial Position by Fund Activity

As of September 30, 1987 (Dollars in thousands)

	General fund appropriations	Superfund appropriations	Consolidated balances
Assets			
Funds with U.S. Treasury	$ 8,921,028	$ 1,361,050	$ 10,282,078
Advances, accounts and loans receivable, net	83,865	9,768	93,633
Land, buildings, and equipment, net of accumulated depreciation	120,933	8,842	129,775
Future financing sources	33,524	4,647	38,171
Total Assets	**9,159,350**	**1,384,307**	**10,543,657**
Liabilities and Equity			
Liabilities			
Accounts payable and accruals:			
To the public	210,749	48,085	258,834
To other federal agencies	59,476	44,186	103,662
Advances:			
From other federal agencies	710	13,559	14,269
From the public	1,566	10,359	11,925
Accrued payroll and leave	57,963	9,819	67,782
Total Liabilities	**330,464**	**126,008**	**456,472**
Equity of the U.S. Government			
Unexpended appropriations:			
Unobligated balances	1,409,681	504,001	1,913,682
Unliquidated obligations:			
Grants and other assistance	6,937,027	242,674	7,179,701
Contracts and other	385,034	530,124	915,158
Invested capital	172,231	8,842	181,073
Cumulative results of operations	(75,087)	(27,342)	(102,429)
Total Equity	**8,828,886**	**1,258,299**	**10,087,185**
Total Liabilities and Equity	**$ 9,159,350**	**$ 1,384,307**	**$ 10,543,657**

Schedule of Revenues and Expenses by Fund Activity

For the Fiscal Year Ended September 30, 1987 (Dollars in thousands)

	General fund appropriations	Superfund appropriations	Consolidated balances
Expenses			
Grants and other assistance	$ 3,310,592	$ 42,946	$ 3,353,538
Contractual services	423,210	373,465	796,675
Personnel compensation and fringe benefits	494,546	89,995	584,541
Rent, utilities, and telephone	84,535	14,409	98,944
Travel, printing, supplies, and other expenses	48,048	56,599	104,647
Depreciation	15,881	2,957	18,838
Total Expenses	**4,376,812**	**580,371**	**4,957,183**
Revenues			
Appropriations expended	4,343,800	579,462	4,923,262
Transfer and reimbursements	31,501	909	32,410
Fines, penalties, and other revenues	2,711	0	2,711
Total Revenues	**4,378,012**	**580,371**	**4,958,383**
Excess of Revenues Over Expenses	**$ 1,200**	**$ 0**	**$ 1,200**

Schedule of Changes in Financial Position and Reconciliation to Budget by Fund Activity

For the Fiscal Year Ended September 30, 1987 (Dollars in thousands)

	General fund appropriations	Superfund appropriations	Intra-Agency eliminations	Consolidated balances
Resources Used:				
Operating uses:				
Operating expenses	$ 4,376,812	$ 580,371	$ 0	$ 4,957,183
Items requiring (providing) funds:				
Depreciation	(15,881)	(2,957)		(18,838)
Loss on property	(7,846)	(1,051)		(8,897)
Increase (decrease) in advances, accounts, and loans receivable, net	(24,495)	2,522		(21,973)
Decrease (increase) in accounts payable and accruals	32,437	(56,505)		(24,068)
Revenue accounted for as offsetting receipts	(26,329)	(5,795)		(32,124)
Funds Used by Operations	**4,334,698**	**516,585**	**0**	**4,851,283**
Nonoperating uses:				
Acquisitions of equipment	19,378	4,970		24,348
Interfund transfers	650,000	0	(650,000)	0
Funds transactions excluded from outlays	28,570	2,504		31,074
Net Resources Used (Budgetary Outlays)	**5,032,646**	**524,059**	**(650,000)**	**4,906,705**
Resources Provided:				
Current-year appropriation	4,552,869	1,461,319	(650,000)	5,364,188
Net transfers and other	1,991	(59,220)		(57,229)
Net Resources Provided	**4,554,860**	**1,402,099**	**(650,000)**	**5,306,959**
Increase (decrease) in U.S. Treasury Funds	**(477,786)**	**878,040**	**0**	**400,254**
U.S. Treasury Funds, Beginning of Year	**9,398,814**	**483,010**	**0**	**9,881,824**
U.S. Treasury Funds, End of Year	**$ 8,921,028**	**$ 1,361,050**	**$ 0**	**$ 10,282,078**