

# ENVIRONMENTAL PROTECTION AGENCY

## The President's Proposal:

- Provides the highest funding levels ever to implement core environmental programs, including the operating program and state grants;
- Provides funding to implement the Clear Skies legislation that, when enacted, will cut air pollution from power plants by approximately 70 percent—the most aggressive Presidential initiative of its kind in American history;
- Provides additional funds for the Brownfields Initiative, bringing new life to abandoned sites in our cities and towns;
- Increases the federal commitment for capitalization of the Clean Water State Revolving Fund, expanding the amount available for loans from the current level of \$42 billion to over \$63 billion, and enabling states to finance an additional 15,000 new projects over the next 20 years;
- Increases the federal commitment for capitalization of the Drinking Water State Revolving Fund; and
- Significantly increases Superfund cleanup resources to address the remaining more complex and expensive cleanups.

## The Agency's Major Challenges:

- Improving its capability for unbiased, sound science in its decision-making; and
- Tracking and demonstrating programs' effectiveness in achieving public health and ecosystem protection goals.

### Environmental Protection Agency

Christine Todd Whitman, Administrator

[www.epa.gov](http://www.epa.gov) 202-564-4700

**Number of Employees:** 17,648

**2003 Spending:** \$8.0 billion

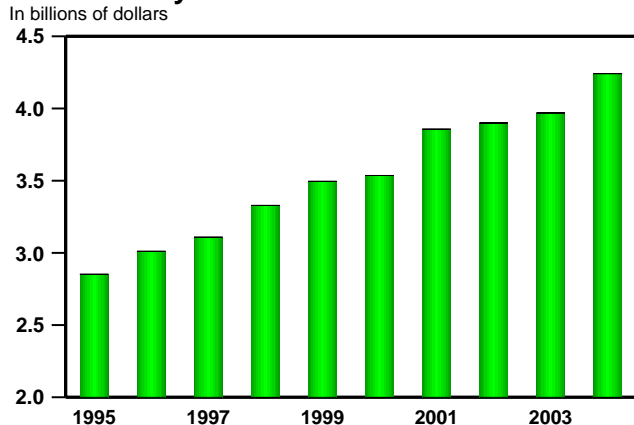
**Major Assets:** 31 laboratories, and 46 owned or leased buildings.

The Environmental Protection Agency (EPA), in conjunction with its state partners, provides public health protection from air, water, solid waste, and chemical pollution. Over 40 percent of EPA's budget provides grants to states to build water infrastructure such as sewage treatment plants and drinking water facilities, and oversee delegated programs for air, water, hazardous waste, and leaking underground storage tanks. EPA runs the Superfund program and regulates vehicle emissions and fuels.

## Overview

Our nation has a solid record of environmental accomplishment over the past 30 years. We have experienced historic economic growth while improving the health of our air, water, and land resources. Public health protection has also improved, as exposure to contaminants in drinking water has declined significantly, and average air pollution concentration levels have dropped. Challenges remain, and through the work of EPA and other agencies, this Administration intends to continue progress toward making America’s air cleaner, its water purer, and its land better protected.

**EPA's Operating Program Grows  
By Seven Percent in 2004**



EPA carries out a significant portion of its mission through the Operating Program, which includes its core responsibilities for regulatory development, enforcement, research, and program grants to states. The 2004 Budget increases the Operating Program by seven percent over 2003 levels, providing additional resources for critical environmental activities.

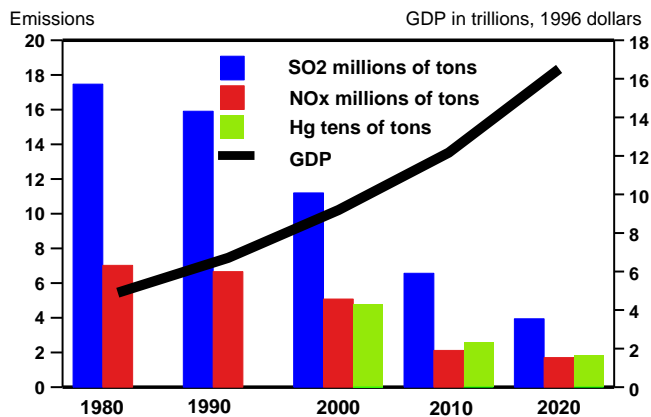
In July 2002, the President proposed legislation to dramatically cut air pollutants from power plants. His Clear Skies initiative would mandate greater reductions than called for by the current Clean Air Act. Sulfur dioxide, nitrogen oxides, and mercury emissions would each be cut by approximately 70 percent

under Clear Skies, resulting in 35 million fewer tons of pollutants released over the next decade alone. By relying on a market-based trading mechanism, the Clear Skies initiative provides necessary flexibility and cost-effective compliance. The results are guaranteed by caps instituted over a period of time, and avoid the need for more expensive, more resource-intensive, and more complicated approaches that currently apply. Clear Skies would also significantly expand the Clean Air Act’s market-based Acid Rain program, which reduced pollution faster and at far less cost than any other Clean Air Act program. The program guarantees results, eliminating costly regulation, litigation, inspection, and enforcement actions. As a result, industry compliance has been nearly 100 percent. The market-based Acid Rain program has proven that flexible, economically efficient alternatives can protect the environment better, faster, and at less cost than command and control approaches.

In October 2002, the President declared the beginning of the Year of Clean Water to renew the nation’s commitment to building on successes of the Clean Water Act and to developing new approaches and partnerships. Through collaboration with private organizations, landowners, and all levels of government, new technologies and innovative approaches to protecting our water will be developed that appreciate regional differences, employ market forces, and empower individual stewardship.

In January 2002, the President signed a landmark brownfields bill into law to further address contaminated, abandoned industrial

**Emission Levels of SO<sub>2</sub>, NO<sub>x</sub> and Mercury  
under the Clear Skies Initiative**



Source: EPA.

sites. Through this program, EPA provides grants to return these sites to productive use, arresting urban sprawl and revitalizing neighborhoods.

EPA's success in these and other programs depends on collaboration with states, consistent with the principles of federalism. States measure air and water quality, carry out the majority of enforcement actions, and ensure compliance. EPA assists the states in their environmental efforts by providing grants for this work—\$1.2 billion in 2004. EPA believes that working closely with the states while giving them flexibility in administering the programs presents the opportunity for the best environmental results.

### Performance Evaluation of Select Programs

To help improve program and funding decisions, 11 EPA programs, accounting for 20 percent of EPA's budget, were evaluated using the new Program Assessment Rating Tool (PART). EPA and OMB found that the programs generally have well-defined purposes and are well-managed. However, tracking performance of environmental programs can be complex, and many of the evaluated programs face difficulties in linking their activities to actual improvements in health or ecosystem quality and in assessing the actual costs to the economy of the programs.

EPA's challenge in the next few years is to improve the linkage between its program results and budget resources, which includes developing program measures to better assess results and inform budget decisions. The absence of outcome-based performance data, and in some cases, any data, has hindered the agency in evaluating the impacts of its programs on the environment and public health. For more detail on these and other EPA programs rated by the PART, please see the EPA chapter in the *Performance and Management Assessments* volume.

Program	Rating	Explanation	Recommendation
Civil Enforcement	Results Not Demonstrated	The program enforces federal environmental laws. It lacks adequate outcome-based performance measures, affecting program planning and results. Outside evaluators have identified data quality as a barrier to determining compliance.	Establish performance measures focused on measuring outcomes and efficiencies. Fund an improved compliance data system.
Leaking Underground Storage Tanks	Results Not Demonstrated	The program oversees cleanup of leaking underground petroleum tanks, and is well-managed and has achieved its statutory goals. However, the program is unable to demonstrate its impact on public health and the environment because it lacks outcome-based performance measures.	Establish performance measures focused on measuring outcomes and efficiencies. Maintain the rapid pace of cleanups at storage tank sites.

## EPA's Programs

### Improving Air Quality

As a result of the Clean Air Act's focus on the six major air pollutants (carbon monoxide, sulfur dioxide, ozone, nitrogen dioxide, particulate matter, and lead), emissions of these pollutants have decreased by 25 percent, even as the economy has grown over 160 percent since 1970. In particular, lead emissions levels in particular have dramatically fallen by 98 percent—from 219 thousand tons in 1970 to approximately four thousand tons today. Since 1991, there has been a dramatic improvement in children's blood lead levels—recent data from the Centers for Disease Control and Prevention shows that children's blood lead levels have fallen by a remarkable 25 percent over the past decade.

Annual emissions of toxic air pollutants also have dropped by 1.5 million tons since 1993. EPA's long term goal is to reduce the unacceptable risk of cancer from toxic air pollutants by 95 percent. Compared with the six major air pollutants, little is known about exposure to most toxic air pollutants. An assessment of the air toxics program using the PART found EPA lacked data that can demonstrate health-based results. Accordingly, the budget provides a \$7 million increase in state grants for monitoring actual toxic exposure levels. This funding proposal also supports an air toxics recommendation by the National Academy of Sciences that EPA use actual exposure information provided by well-placed and well-designed air monitors.

In 2001, EPA Administrator Whitman affirmed a rule that will reduce air pollution from large trucks and buses, and will reduce sulfur levels in diesel fuel. This will have significant health benefits, particularly for people with impaired respiratory systems. EPA has also finalized new, stringent penalties for any companies that produce heavy duty diesel engines that violate the new emission standards.

EPA also recently issued a final rule that will establish emissions standards for hydrocarbons, carbon monoxide, nitrogen oxides and particulates for several categories of off-road engines, including large spark ignition (SI) gasoline engines used to power a variety of equipment (e.g., fork lifts, welding equipment, pumps), recreational marine diesel engines, off-road motorcycles, snowmobiles and all-terrain vehicles. Overall the rule will achieve substantial emissions reductions from this group of previously unregulated engines. The standards will ultimately require emissions reductions ranging from 50 percent (snowmobiles) to over 95 percent (large SI engines) from current levels.

### Protecting Watersheds and Drinking Water

Since enactment of the Clean Water Act (CWA) 30 years ago, government, citizens, and the private sector have worked together to make dramatic improvements in the quality of our water. As a result, pollution from industrial sources and municipal sewage treatment plants has plummeted. By any measure—pounds of pollution prevented, stream segments improved, fisheries restored—tremendous reductions of pollution from point sources have occurred, resulting in substantial improvements in water quality from coast to coast. In 1968, secondary or advanced wastewater treatment facilities served only 86 million people. Today, of the 190 million people served by wastewater treatment facilities,



Networking in Maryland Watershed: EPA Deputy Administrator Linda Fisher releases native fish to a Maryland stream in the Patapsco River Basin. The stream was restored with an EPA nonpoint source grant.

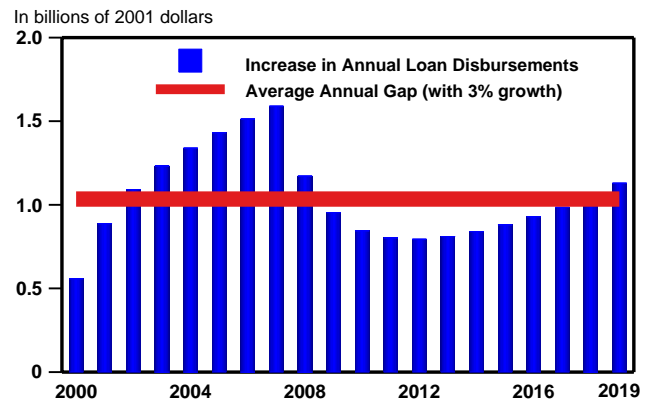
more than 87 percent—about 165 million people—are served by secondary or better wastewater treatment. Cleaner water has led to a rebirth of recreational, ecological, and economic values in communities across the United States.

The Clean Water State Revolving Fund (SRF) plays an integral role in improving water quality. Congress created the Clean Water SRF, and later the Drinking Water SRF, to provide a stable water infrastructure funding resource. Through these programs, EPA distributes grants to capitalize each state’s revolving fund. States then make loans to finance water infrastructure projects, such as new sewage treatment plants or drinking water facilities. Loan repayments, leveraging, and bond issuances help each state replenish and maintain its SRFs, allowing them to “revolve” without further federal funding. Because of the revolving nature of the program, funds invested in the SRFs generate about four times the purchasing power of grants over 20 years.

Both the Clean Water and Drinking Water SRF programs have met the revolving level goals established during the Clinton Administration. This would dictate the termination of further capitalization grants. Nevertheless, the President’s 2004 Budget extends the federal commitment to capitalize the Clean Water and Drinking Water SRF programs with annual grants to each of \$850 million through 2011 and 2018, respectively. For the Clean Water SRF, this extended federal capitalization will provide an additional \$21 billion in loans over the next 20 years, enough to fund over 15,000 additional projects. For the Drinking Water SRF, it will cover the projected compliance costs for federally mandated drinking water regulations. Through both SRFs, EPA will be able to close the gap between current funding levels and the future water infrastructure needs. Most importantly, the long-term annual revolving levels for each fund will increase by more than \$500 million over current levels—to \$2.8 billion for the Clean Water SRF and to \$1.2 billion for the Drinking Water SRF.

Using the PART, this year EPA and OMB evaluated the Drinking Water SRF, widely considered a successful program. The program was found to have a clear purpose, an effective design, and strong management practices. However, EPA is not able to demonstrate the degree to which the program’s drinking water infrastructure investments actually protect public health, a primary purpose of the program. The challenge facing the Drinking Water SRF is to develop performance measures that capture the impact of water treatment improvements on public health. The PART results support the Administration’s decision to extend federal capitalization of the Drinking Water SRF to address documented drinking water needs, while strengthening its accountability.

**2004 Budget Closes Clean Water Infrastructure Gap**



In addition to increasing the federal commitment to the SRFs, the President’s Budget also increases resources available for other water quality programs. The 2004 Budget increases funds for states’ water pollution control programs by \$20 million. It also provides EPA with additional funding for Total Maximum Daily Loads (TMDLs), a planning tool which considers all sources of water pollution in a watershed and develops pollution “budgets” to help lakes, rivers, or streams meet water quality standards. These funds will help EPA provide states with better TMDL guidance and training, ultimately improving water quality. The President’s Budget also provides an additional \$5 million for states to protect wetlands and isolated waters not covered by the Clean Water Act, and continues the Administration’s commitment to help restore 20 watersheds per year.

Following the Clean Water Act, the Safe Drinking Water Act of 1974 and its subsequent amendments helped the United States develop one of the cleanest drinking water supplies in the world. EPA's goal is that by 2005, 95 percent of the population served by community water systems will receive drinking water that meets all health-based standards. As of 2002, 91 percent of the population served by community water systems received drinking water that met all health-based standards, up from 83 percent in 1994. The President's 2004 Budget provides \$4.5 million so that EPA can provide enhanced guidance, training, and technical assistance to states and tribes working to comply with drinking water regulations, which will help EPA get closer to achieving this goal.

The President's 2004 Budget also provides \$8 million to begin upgrades to the public water system in Puerto Rico, which has long been out of compliance. Most of the customers served by the system live in poverty and cannot afford the required improvements. When all upgrades are complete, EPA estimates that about 1.4 million people will benefit from safer, cleaner drinking water. EPA expects that over the life of the project there will be 200 to 300 fewer cancer cases among the population served by the system, and that incidences of gastroenteritis and other waterborne diseases will significantly decline.

### **Cleaning Contaminated Sites and Revitalizing Neighborhoods**

Twenty-five years ago, the infamy of Love Canal, a long-abandoned landfill seeping chemicals into homes and yards, inspired the creation of EPA's Superfund program to clean up old, hazardous waste sites. Since then, EPA's Superfund program has identified nearly 1,500 waste sites around the country and put them on the National Priorities List for cleanup. Most have been addressed—protective action has taken place at nine of every 10 of these sites, and cleanup has been completed at nearly six of every 10 of these sites. Some have been returned to productive use, including Love Canal.

About 70 percent of cleanups are done by the companies who are responsible for the contamination. EPA only pays for cleanup of those sites where no entity can be found to take responsibility. These "orphan" sites are sometimes over 100 years old and often created by companies long out of business. These and the other remaining sites will be more challenging and expensive to clean up than those already completed. Recognizing this, the Administration proposes a \$150 million increase for long-term cleanup, almost 75 percent more than the amount budgeted in 2002.

In 2003 OMB and EPA evaluated Superfund's removal program using the PART. The removal program focuses on short-term cleanups of hazardous substances that pose an immediate threat to the public or the environment. Unfortunately, while the program has been successful in cleaning up hazardous materials, it has not been able to demonstrate how its activities affect human health and the environment. Over the next year, the program will work to put this link into place.

## The President's Brownfields Initiative



Before: In Salt Lake City, these rail yards remained abandoned for decades as potential purchasers feared toxic cleanup liability. Brownfields assessments found little contamination.

no contamination, St. Louis County then transferred the 12 lots to Habitat for Humanity, which constructed 15 houses for low-income families.

In May 2002, EPA issued \$14.6 million in grants to help 80 communities across the country to assess and clean up brownfields. EPA also awarded \$21.5 million in grants under EPA's Brownfields Cleanup Revolving Loan Fund program. These grants provide funding to communities to support the cleanup and redevelopment of brownfields by enabling states, cities, and regional government entities to facilitate loans for cleanup of brownfields. EPA also awarded \$20 million to states for their state-run voluntary cleanup programs. Last year, the President proposed doubling the brownfields program and this year proposes a further increase of \$10 million.

### Promoting Safer Chemicals and Pesticides

Congress created the Toxic Substances Control Act (TSCA) to protect the public and environment from possible harm from chemicals. EPA administers TSCA primarily through two programs: the New Chemicals and Existing Chemicals programs. The New Chemicals program reviews chemicals being manufactured or imported in order to prevent unreasonable risk to human health and the environment. Since its inception, approximately 17,000 new chemicals reviewed by this program have entered U.S. commerce. The New Chemicals program also encourages the development of safer, or "green," chemicals as substitutes for more dangerous ones. Through green chemistry technologies, the use and generation of 38 million pounds and approximately three million gallons of hazardous chemicals have been eliminated, and 275 million gallons of water have been saved. A PART evaluation of the New Chemicals program showed that it has very strong purpose and management and collaborates with other federal agencies. In addition, the Existing Chemicals program continues its review of the original 62,000 TSCA chemicals for health impacts.

Another type of orphan site known as brownfields also dots the American landscape. These sites are lightly contaminated, but similar enough to the costly Superfund sites to discourage investors. As a result, they sit fenced and unused, year after year. The brownfields program determines the extent of a site's contamination, if any, and makes money available for cleanup. Sometimes EPA invests less than \$1,000 to turn around a property and put it back to use. After sites are evaluated, investments have followed, turning barren lots into productive properties. For example, in St. Louis County 12 sites were assessed by EPA for only \$275 apiece. Because EPA found



After: With the stigma of liability removed, the city and federal government built a park and a roadway to access the property. So far, private investment of \$375 million has built shops, offices, and housing on 40 acres.

Under other federal laws EPA has been charged with evaluating pesticides to ensure that when used according to label directions or widespread and commonly recognized practices, they do not pose unreasonable risks to human health or the environment. To meet this charge, EPA's Registration program ensures that proposed new pesticides meet science-based safety standards. The agency then registers those for use in strict accordance with EPA-established label directions. Older, already-registered pesticides are reviewed through a separate Reregistration program to ensure they meet today's stricter safety standards. Through this year's PART analysis, it was apparent that both programs have clear missions and are structured to address statutory requirements. The assessment also showed that the programs have annual goals that reflect program activities. However, revised long-term goals clearly linked to human health are needed, as well as quantified starting points and targets and information on social and economic costs of the programs

### Common Measures—Nonpoint Source Programs

To compare the performance of similar programs, the Administration completed a common measures exercise. The nonpoint source common measures exercise compared EPA's Nonpoint Source (Section 319) Grants, the Department of Agriculture's (USDA's) Conservation Reserve Program, and its Environmental Quality Incentives Program.

	Agency dollars spent <sup>1</sup>	Reduction in P concentration (µg/L) <sup>2, 3</sup>	Agency dollars spent per reduction in P concentration
EPA: Nonpoint Source Grants:			
Big Birch Lake (MN) .....	100,000	30	3,333
Otter Creek (WI) .....	400,000	50	8,000
Long Creek (NC) .....	1,100,000	140	7,857
USDA: Farm Service Agency (FSA), Conservation Reserve Program (CRP)	FSA recently began collecting similar project-level data for all CRP projects. This will eventually allow FSA to estimate the program's nationwide impact on water quality.		
USDA: Natural Resources Conservation Service (NRCS), Environmental Quality Incentives Program	NRCS lacks similar data. The agency plans to improve its performance tracking and accountability over the next year.		

<sup>1</sup> EPA Nonpoint Source Grant funds only; does not include state/local matching funds.  
<sup>2</sup> P stands for phosphorus, a nutrient and common water pollutant from both point and nonpoint sources. The table compares P concentrations only, since it was a common pollutant for all three projects, but each project likely affected multiple pollutants.  
<sup>3</sup> Water volumes and flows significantly affect a project's impact on water quality.

All three programs provide financial and technical assistance for the implementation of best management practices, such as streamside buffers, which can help reduce the amount of polluted runoff entering waterbodies. However, no data are available that would allow comparisons between the programs. EPA has collected project-level data for some, but not all, of its nonpoint source grants (see table for examples), but this data cannot be used to assess the nationwide results of the program. As of 2002, EPA began systematically collecting project-specific performance data, which will eventually allow the agency to estimate the program's nationwide impact on water quality.



### Update on the President’s Management Agenda

	Human Capital	Competitive Sourcing	Financial Performance	E-Government	Budget and Performance Integration
Status	●	●	●↑	●	●
Progress	●	●	●	●	●

Arrow indicates change in status since baseline evaluation on September 30, 2001.

EPA is green on progress for all five management agenda initiatives. The agency continues to make progress on its human capital strategy, and has made its innovative Senior Executive Service mobility program part of its standard operations. This program rotates senior managers throughout the agency, expanding their program knowledge and skill sets. EPA exceeded its 2002 competitive sourcing goal by 20 percent, and is on track to meet its 2003 goal. The agency improved its financial management score by correcting all material weaknesses and completing an erroneous payments review, which found minimal problems. EPA also implemented a grants competition policy and will complete a preliminary evaluation of its effectiveness in early 2004. By 2004, the agency will have a revised strategic plan. The new strategic plan will help clarify and strengthen the links between the budget and performance, and will include improved performance measures.

### Environmental Protection Agency

(In millions of dollars)

	2002	Estimate	
	Actual	2003	2004
<b>Spending</b>			
Discretionary Budget Authority:			
Operating program .....	4,038	3,970	4,250
Clean water state revolving funds .....	1,350	1,212	850
Drinking water state revolving fund .....	850	850	850
Brownfields cleanup funding <sup>1</sup> .....	—	121	121
Targeted water infrastructure funding:	459	123	98
Requested .....	(115)	(123)	(98)
Unrequested .....	(344)	(—)	(—)
Superfund .....	1,310	1,273	1,390
Other .....	73	68	68
Total, Discretionary budget authority <sup>2</sup> .....	8,080	7,617	7,627
Mandatory Outlays:			
Environmental services .....	–12	–10	–19
Superfund recoveries .....	–248	–175	–175
Reregistration and expedited processing .....	—	–44	—
Total, Mandatory outlays .....	–260	–229	–194

<sup>1</sup> An additional \$89 million in brownfields funding for personnel costs and state program grants is included in the 2004 operating program.

<sup>2</sup> Total includes \$0.2 billion in 2002 supplemental funding, of which \$0.1 billion is in the Operating program.