U.S. Environmental Protection Agency Performance and Accountability Report

Fiscal Year

2005

Environmental and Financial Progress

EPA's FY 2005 Performance and Accountability Report

The FY 2005 report is available at:
http://www.epa.gov/ocfo/finstatement/2005par

EPA's *FY 2003-2008 Strategic Plan* is available at
http://www.epa.gov/ocfo/plan/plan.htm

Information on the development of EPA's *2006-2011 Strategic Plan* is available at
http://www.epa.gov/ocfo/plan/plan.htm

The *FY 2005 Annual Performance Plan* is available at
http://www.epa.gov/ocfo/budget/2005/2005ap/2005ap.htm

Information about EPA's programs:
http://www.epa.gov

Para informacion acerca de los programas de EPA:
http://www.epa.gov/espanol

WE WELCOME YOUR COMMENTS!

Thank you for your interest in the Environmental Protection Agency's *FY 2005 Performance and Accountability Report*. We welcome your comments on how we can make this report a more informative document for our readers. We are particularly interested in your comments on the usefulness of the information and the manner in which it is presented. Please send your comments to:

Office of the Chief Financial Officer
Office of Planning, Analysis, and Accountability
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

www.epa.gov/ocfopage
EPA190-R-05-001
November 2005

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

November 15, 2005

The President
The White House
Washington, DC 20500

Dear Mr. President:

I am pleased to present the Environmental Protection Agency's (EPA) *Fiscal Year 2005 Performance and Accountability Report*. This report reviews EPA's programmatic and financial performance over the past fiscal year. It meets the requirements of the Government Performance and Results Act and other management legislation. This report demonstrates EPA's commitment to be accountable for results measured against the annual performance goals presented in our *FY 2005 Annual Plan*.

With the help of our state, local, and tribal partners, EPA has made considerable progress toward each of the five long-term goals for protecting human health and the environment established in our *2003-2008 Strategic Plan*. Our accomplishments in FY 2005 are evidence of our commitment to accelerate the pace of environmental progress. We continue to adopt innovative approaches, focus on results, and use the best available science in making decisions.

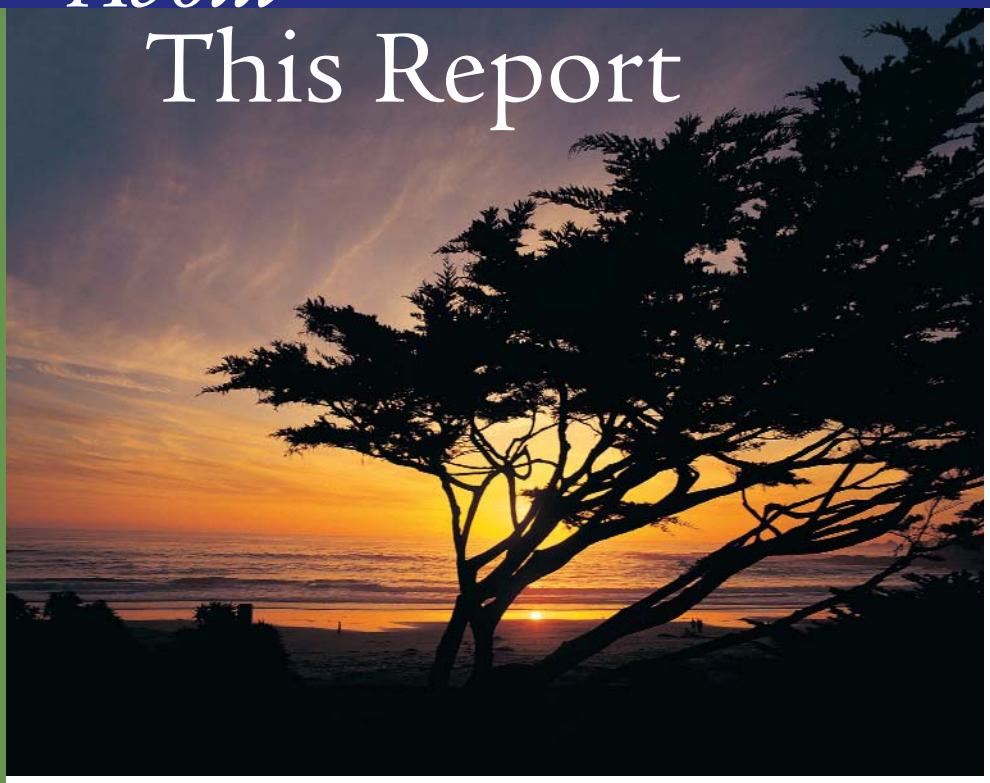
In addition, I give my assurance that the performance and financial data included in this report are complete and reliable, consistent with guidance provided by the Office of Management and Budget. EPA and its partners are proud of our achievements in improving the quality of air and water and protecting the land. We intend to learn from our experience, adjust our approaches as necessary, and build on our FY 2005 results to fulfill our responsibility for protecting human health and the environment.

Sincerely,

Stephen L. Johnson

Enclosure

About This Report



PURPOSE OF THE REPORT

The Environmental Protection Agency's (EPA's) *FY 2005 Performance and Accountability Report* provides performance and financial information that enables Congress, the President, and the public to assess the progress EPA is making in achieving environmental results—improving the quality of air and water and preserving and protecting the land—and using taxpayer dollars efficiently and effectively. This document also satisfies reporting requirements of the following legislation:

- Federal Managers' Financial Integrity Act of 1982 (FMFIA)
- Inspector General Act Amendments of 1988
- Chief Financial Officers Act of 1990
- Government Performance and Accountability Act of 1993 (GPRA)
- Government Management Reform Act of 1994
- Federal Financial Management Improvement Act of 1996 (FFMIA)
- Reports Consolidation Act of 2000
- Improper Payments Information Act of 2002
- Federal Information Security Management Act of 2002

HOW THE REPORT IS ORGANIZED

Transmittal Letter to the President

This letter transmits EPA's *FY 2005 Performance and Accountability Report* from the Administrator to the President, Congress, and Office of Management and Budget.

Message from the Administrator

The Administrator's message briefly describes EPA's mission and highlights some of the Agency's FY 2005 accomplishments. It provides an assessment of the reliability and completeness of the financial and performance data contained in the report and a statement of assurance, as required by the Federal Managers' Financial Integrity Act of 1982 (FMFIA), indicating whether the Agency's management controls and financial systems meet the objectives of the Act.

Message from the Chief Financial Officer (CFO)

The CFO's message describes progress and challenges pertaining to EPA's financial management. It discusses EPA's efforts to integrate budget and performance information, and it provides information on the Agency's management controls program under FMFIA and financial management systems under the Federal Financial Management Improvement Act of 1996 (FFMIA).

Section I—Management's Discussion and Analysis (MD&A)

The MD&A presents an overview of the entire report. It includes an organizational overview; a summary of the most significant performance results and challenges for FY 2005; information on the Agency's progress in implementing the President's Management Agenda; and a brief analysis of financial performance. It also discusses EPA's progress in strengthening its management practices and compliance with laws and regulations (FMFIA, FFMIA and others) to assure the integrity of its programs and operations. Lastly, the MD&A includes the Administrator's assurance statement on the soundness of the Agency's internal controls. The MD&A is supported and supplemented by detailed information contained in the Performance Section, Management Accomplishments and Challenges Section, Financial Section, and Appendices.

Section II—Performance Section

This section presents the annual program performance information required by GPRA and, combined with the Appendices, addresses all of the required elements of an annual program performance report as specified in "OMB Circular A-11, Preparing, Submitting and Executing the Budget." Performance results are presented for each of the Agency's five strategic goals and for its enabling and support programs. For more information on this section, please contact EPA's Office of Planning, Analysis and Accountability at (202) 564-9327.

Section III—Management Accomplishments and Challenges

This section discusses EPA's progress in strengthening management practices to achieve program results. It includes the Inspector General's list of top management challenges and the Agency's progress in responding to each issue. For more information on this section, please contact EPA's Office of Planning, Analysis and Accountability at (202) 564-9327.

Section IV—Financial Section

This section contains the Agency's financial statements and related Independent Auditor's Report, as well as other information on the Agency's financial management. For more information on this section, please contact EPA's Office of Financial Management at (202) 564-4905.

Appendices

The Appendices provide more detailed information on the Agency's performance results, including prior year performance data summaries of program evaluation results, and data quality. They also include a glossary of acronyms and a list of relevant EPA internet links.

Contents

Message from the Administrator v
Message from the Chief Financial Officer vii

Section I—Management's Discussion and Analysis

Introduction 2
Mission and Organization 2
Highlights of FY 2005 Performance 5
—Significant Environmental Accomplishments and Challenges 5
—Homeland Security 10
—The President's Management Agenda 12
—Summary of Performance Data 15
Improving Results 18
—Strengthening Collaboration with Partners 18
—Using Program Evaluation and the PART 19
—Improving Environmental Indicators, Performance Measurement, and Data Quality 20
—Considering Future Trends and Looking Ahead 21
Internal Controls, Financial Management Systems, and Compliance with Laws and Regulations 22
—Federal Managers' Financial Integrity Act 22
—Inspector General Act Amendments of 1988 23
—Federal Financial Management Improvement Act 24
—Federal Information Security Management Act 25
—Government Management Reform Act 25
Financial Analysis 26
—Measuring Financial Management Results 26
—Resources and Outlays 27
—Innovative Financing: Partnerships and the Environmental Finance Program 28
—New Financial Management Initiatives 28

Section II—Performance Results

Introduction to Performance Section 32
Goal 1: Clean Air and Global Climate Change 35
—Objective 1: Healthier Outdoor Air 39
—Objective 2: Healthier Indoor Air 40
—Objective 3: Protect the Ozone Layer 41
—Objective 4: Radiation 42
—Objective 5: Greenhouse Gas Intensity 43
—Objective 6: Science and Research 44
—Annual Performance Goals 46
—PART Measures with Data Availability Beyond FY 2005 64
Goal 2: Clean and Safe Water 66
—Objective 1: Protect Human Health 69
—Objective 2: Protect Water Quality 71
—Objective 3: Enhance Science and Research 73
—Annual Performance Goals 74
—PART Measures Without Corresponding FY 2005 Goals 89
—PART Measures with Data Availability Beyond FY 2005 89

Goal 3: Land Preservation and Restoration 92
—Objective 1: Preserve Land 95
—Objective 2: Restore Land 96
—Objective 3: Enhance Science and Research 97
—Annual Performance Goals 98
—PART Measures with Data Availability Beyond FY 2005 109
Goal 4: Healthy Communities and Ecosystems 110
—Objective 1: Chemical, Organism, and Pesticide Risks 115
—Objective 2: Communities 116
—Objective 3: Ecosystems 118
—Objective 4: Enhance Science and Research 119
—Annual Performance Goals 121
—PART Measures with Data Availability Beyond FY 2005 149
Goal 5: Compliance and Environmental Stewardship 151
—Objective 1: Improve Compliance 155
—Objective 2: Improve Environmental Performance Through Pollution Prevention and Innovation 156
—Objective 3: Tribal Capacity 157
—Objective 4: Enhance Science and Research 158
—Annual Performance Goals 159
—PART Measures with Data Availability Beyond FY 2005 169
Enabling and Support Programs 172
—Annual Performance Goals 174

Section III—Management Accomplishments and Challenges

Introduction to Management Section 180
OIG's 2005 Key Management Challenges and EPA Responses 181
GAO's 2005 Key Management Challenges and EPA Responses 192

Section IV—Financial Statements

Introduction to Financial Section 194
Chief Financial Officer's Analysis 196
Principal Financial Statements 198
Required Supplementary Information (Unaudited) 234
Required Supplementary Stewardship Information (Unaudited) 240
Supplemental Information and Other Reporting Requirements (Unaudited) 242
—Superfund Financial Statements and Related Notes 242
—Financial Management Plans and Reports (OMB Circular A-11, Section 52.4a) 249
—Improper Payments Information Act of 2002 (IPIA) Report 256
Inspector General's Report on EPA's Fiscal 2005 and 2004 Financial Statements 260

Appendices

Appendix A—Annual Performance Goals Results for Prior Years A-1
Appendix B—Program Evaluations Completed in FY 2005 ..... B-1
Appendix C—Data Quality C-1
Appendix D—Acronyms D-1
Appendix E—Public Access E-1

Administrator's Message

I am pleased to present EPA's *FY 2005 Performance and Accountability Report*. This report demonstrates the progress EPA has made with the help of our state, local, and tribal partners to provide people with cleaner air, purer water, and better protected land. It also provides an accounting of the resources we used to meet our goals and fulfill our mission of protecting human health and the environment.

Since its inception 35 years ago, EPA's environmental accomplishments have been remarkable. The air is the cleanest it has been in 30 years. Emissions of six principal air pollutants are down, and we estimate that the new Clean Air Interstate Rule, put in place in FY 2005, will result in the greatest health benefits of any rule since the phase-out of lead in gasoline. More Americans have reliably safe drinking water, and more people can safely fish and swim in waters that were once polluted. Working with our state and tribal partners, we have restored more than 8,000 acres of wetlands. Through our brownfields program, we are cleaning up contaminated properties and returning them to productive use. Brownfields grantees have assessed 7,752 properties and leveraged $7.2 billion in cleanup and redevelopment funding, creating 33,599 jobs. Waste recycling is up, with over 50 percent of all aluminum cans, steel packaging, and major appliances now being recycled. Finally, as a result of enforcement actions, 1.1 billion pounds of pollutants were reduced, treated, or eliminated.

In the aftermath of the hurricanes, EPA is committed to help the citizens of the affected states safely restore their communities and to provide the public and emergency personnel with the most accurate environmental information possible. After the storms passed, EPA national and regional emergency operations centers were activated 24 hours a day to coordinate response activities. Our headquarters and regional offices are working as part of a highly coordinated effort with our federal, state and local partners. We have assessed damage, monitored environmental effects, and assisted efforts to protect human health and the environment—part of which includes helping to restore the vital drinking water and waste water infrastructure systems.

EPA also has significant responsibilities in providing for the security of our nation's homeland. We play a lead role in supporting the protection of critical water infrastructure and coordinating development of national capabilities and strategies to address chemical, biological, and radiological contamination from a terrorist event. In FY 2005, EPA established health effects guidelines for exposure to hazardous chemicals, developed a web-based system to identify hazards and characterize risks in emergencies, continued to assist the nation's drinking water systems in protecting their

infrastructure from terrorist and other intentional attacks, enhanced national decontamination capabilities, and trained EPA field responders.

Performance information presented in this report is complete and reliable as defined by OMB in Circular A-11. In FY 2005, EPA continued work to detect and correct errors in environmental data, standardize reporting, and exchange and integrate electronic data and data quality information with our partners and the regulated community.

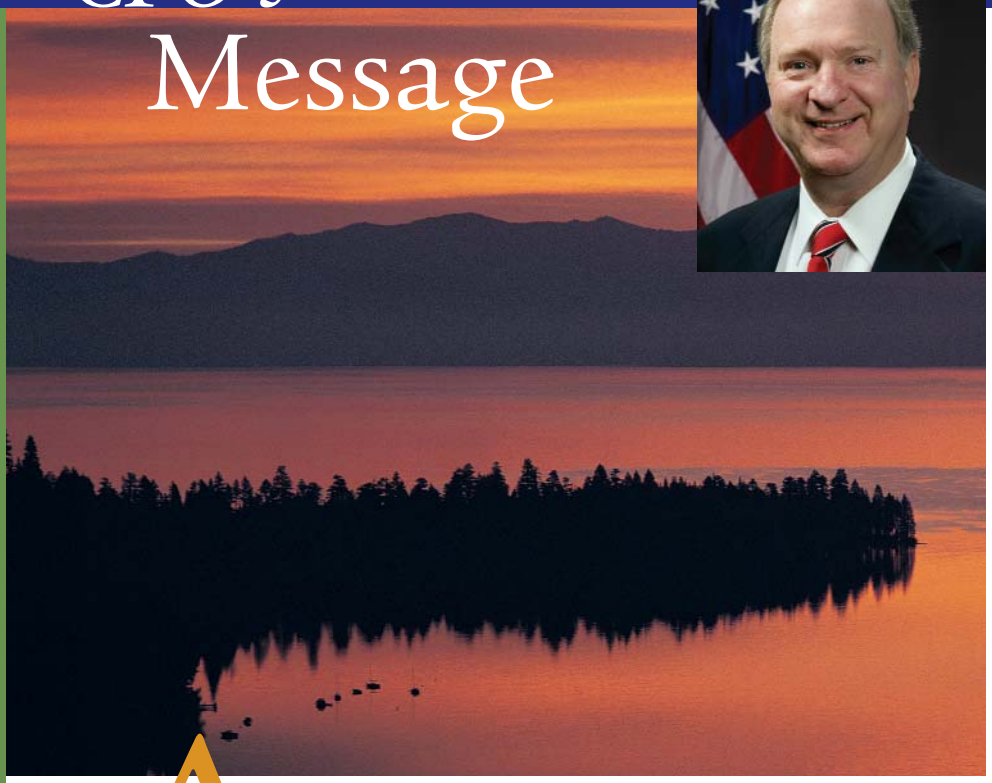
EPA is committed to achieving the goals set under the President's Management Agenda (PMA) for delivering environmental results to our customers—the American public—effectively and efficiently. We continually assess our management practices and structure to identify and address issues. Under the PMA, EPA has attained the highest rating possible for financial management, where we are focused on providing program managers with the performance and cost information they need to set priorities and make sound decisions. EPA is a leader in e-government, where we have worked to reduce the reporting burden on the regulated community and improve information sharing and data security. We are also making progress in other initiative areas: identifying our workforce needs and developing recruitment strategies to ensure that we maintain a highly skilled workforce, as well as refining our environmental goals and developing measures to gauge efficiency of our programs.

For the fourth year, EPA has no material weaknesses to report under the Federal Managers' Financial Integrity Act (FMFIA), a law focused on safeguarding against fraud, waste, abuse, and misappropriation of federal funds. During FY 2005, the Agency did resolve two of its less severe, internal Agency-level weaknesses in the areas of data management and water permitting.

We must continue to focus on achieving environmental outcomes and program efficiencies. Building on our FY 2005 accomplishments, we will strive to accelerate environmental progress; promote environmental stewardship within the United States and abroad; drive economic growth; and approach new challenges with enthusiasm, while meeting our responsibilities for enforcing environmental laws and regulations. As we look to the future, these priorities will help us meet our goals for cleaner air, purer water, better protected land, and healthy communities.

Stephen L. Johnson
Administrator

CFO's Message



As I begin my tenure as EPA's Chief Financial Officer, I am impressed by the progress the Agency has made toward its goals of protecting human health and the environment. This report reviews the goals we set for ourselves for FY 2005, describes our achievements, and discusses some of the work that remains before us. On behalf of the Agency, I thank our partners—state and local governments, tribes, businesses, and other federal agencies—for their contribution to these FY 2005 results and for their continued participation and collaboration as we address the challenges that lie ahead.

PERFORMANCE AND AUDIT RESULTS

The Administrator's Message, which introduces this report, highlights some of the Agency's accomplishments this year in protecting human health and the environment. These results are discussed in this report. We offer a broad perspective on the progress toward the goals and objectives established in EPA's *2003-2008 Strategic Plan* and discuss each of the 84 annual performance goals set out in EPA's *FY 2005 Annual Plan*. This report also reflects the improved alignment of the measures associated with the Government Performance and Results Act (GPRA) and the Program Assessment Rating Tool (PART).

EPA is committed to managing our programs in a fiscally responsible manner, ensuring that government resources are used wisely and efficiently to protect human health and the environment. The Agency's Office of Inspector General (OIG) issued an unqualified opinion in its FY 2005 Financial Statements Audit. As part of the audit, OIG noted nine reportable conditions and one noncompliance issue.

We continue our efforts to address areas of weakness proactively. We submitted corrective action plans for all reportable conditions and compliance issues within ten months of the OIG's FY 2004 Financial Statements Audit. We have already initiated corrective actions to address this year's issues and are dedicated to correcting audit recommendations in a timely manner.

FINANCIAL MANAGEMENT AND OTHER ACCOMPLISHMENTS

In addition to meeting federal financial requirements, we assess our own financial management goals and our progress in achieving them. EPA's success also is measured by our continued ability to meet the President's Management Agenda (PMA) standards. We have received a green status score for our accomplishments in the area of Improved Financial Performance and green progress scores for

Budget and Performance Integration and Eliminating Improper Payments. To demonstrate sound financial management, we continue to focus on improving our ability to meet and exceed government-wide financial performance metrics.

Additionally, we are modernizing our financial system infrastructure to help us manage the resources that support our environmental mission more efficiently, measure the costs of environmental programs more precisely, and inform the public about our activities more effectively. The enhanced internal control requirements under the Office of Management and Budget Circular A-123 will strengthen our existing management integrity efforts.

In FY 2005, as part of EPA's efforts to institute competitive sourcing, we placed the Agency's vendor payment services in competition against private sector businesses. EPA demonstrated that its process for handling the Agency's vendor payments was the most cost effective. We will be consolidating all vendor payments, saving approximately $3.5 million over five years.

DATA AVAILABILITY

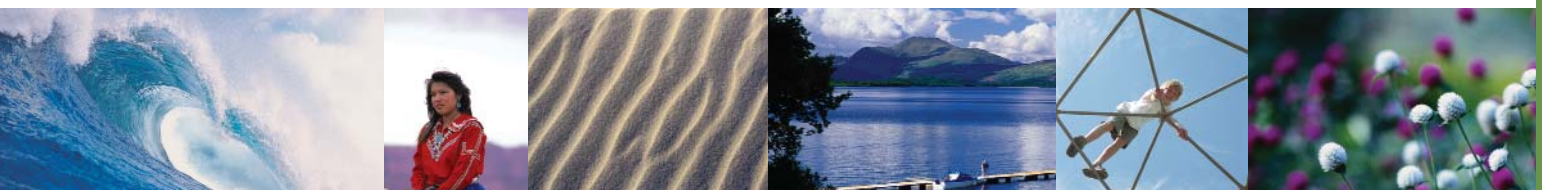
Readers should note that the Agency does not yet have all the data necessary to present a full picture of our FY 2005 performance. In many cases, the data will not be available until 2006. This FY 2005 PAR does, however, report information from past years that only became available this year.

LOOKING AHEAD

EPA has recently launched initiatives to sharpen its focus on environmental outcomes and results; to strengthen regional, state and tribal planning; and to enhance accountability at every level. As we develop our *2006-2011 Strategic Plan*, we will be building on these efforts. We will consider emerging challenges and opportunities and take advantage of recent efforts to develop better environmental indicators as we develop our measures of success. Our experience in measuring performance under GPRA and program effectiveness under the PART process will guide our planning. Like other agencies, we can anticipate tight budgets, complicated by rising fixed costs, in the years ahead. We intend to link performance and costs to inform our decision making and ensure that we use resources as efficiently and effectively as possible.

In closing, I also want to thank the dedicated EPA staff who contributed to the progress we have achieved this year and who assisted in developing this report.

Lyons Gray
Chief Financial Officer



Section I.

Management's Discussion *and* Analysis

CONTENTS

Introduction 2

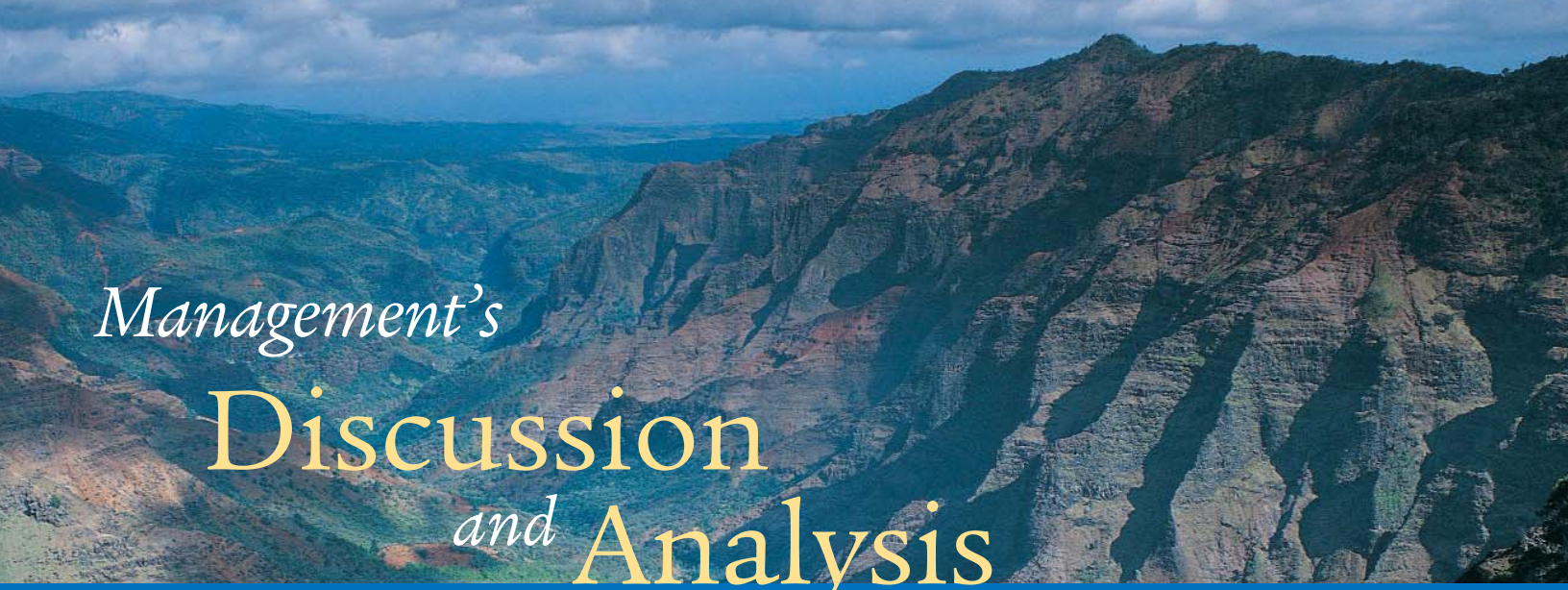
Mission and Organization 2

Highlights of FY 2005 Performance 5

Improving Results 18

Internal Controls, Financial Management Systems, and Compliance with Laws and Regulations 22

Financial Analysis 26



Management's Discussion *and* Analysis

The U.S. Environmental Protection Agency (EPA) and its state and local partners are making great progress in improving air quality; ensuring clean, safe water; and restoring and protecting the land. For example:

- Today, the air is the cleanest it has been in 30 years: total emissions of the six principal air pollutants—lead, ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide—decreased by more than 48 percent.
- More than 90 percent of the nation's population served by community water systems receives drinking water that meets all health-based standards—up from 79 percent a decade ago.
- Two percent of America's children have blood lead levels above 10 micrograms per deciliter, compared to 90 percent in the 1970s.
- In the last decade, more than 1,000 contaminated sites began cleanup operations, and recycling and composting of municipal solid waste has increased more than ten-fold.

EPA's Long-Term Strategic Goals

Clean Air and Global Climate Change
Clean and Safe Water
Land Preservation and Restoration
Healthy Communities and Ecosystems
Compliance and Environmental Stewardship

- Industrial releases of 332 chemicals tracked since 1988 are down by nearly 50 percent, a reduction of 1.55 billion pounds.
- Pesticides that pose the greatest risks to human health and the environment have been regulated to meet tough new health standards.

The nation's environment is steadily improving; however, there is more to do and much of it is very complex and costly. This report reviews progress EPA made toward its goals during FY 2005. It fulfills the requirements of the Government Performance and Results Act and other management legislation[1] for reporting on performance and demonstrating results.

To help measure EPA's annual progress, Agency leaders established 84 annual performance goals at the beginning of FY 2005. The chapters that follow describe EPA's progress toward meeting these annual goals. This report also presents a picture of the Agency's financial activities and achievements during the year, because managing taxpayer dollars efficiently and effectively is critical to delivering the greatest results to the American people.

Mission and Organization

EPA's mission is: "To protect human health and the environment." To achieve its mission, the Agency assesses environmental conditions and works with its partners and stakeholders to identify, understand, and solve current and future environmental problems. EPA develops and enforces regulations that

implement environmental laws to protect America's air, water, and land. It works with the regulated community to provide assistance and incentives for complying with environmental laws.

EPA employs approximately 18,000 people across the country, including its headquarters offices in Washington, DC, 10 regional offices, and more than a dozen laboratories. The Agency's staff is highly educated and technically trained; more than half are engineers, scientists, and policy analysts. In addition, EPA employs legal, public affairs, financial, information management, and computer specialists. EPA Administrator, Stephen L. Johnson, who was appointed by the President of the United States, is the first career scientist to lead the Agency.

U.S. Environmental Protection Agency

The mission of the Environmental Protection Agency is to protect human health and the environment.

EPA Offices

Office of the Administrator

Provides overall supervision of the Agency and is responsible directly to the President of the United States.

Office of Administration and Resources Management

Manages EPA's human, financial, and physical resources.

Office of Air and Radiation

Oversees the air and radiation protection activities, including national programs, technical policies, and regulations.

Office of the Chief Financial Officer

Manages and coordinates EPA's planning, budgeting, and accountability processes and provides financial management services.

Office of Enforcement & Compliance Assurance

Delivers compliance with U.S. environmental laws and promotes pollution prevention.

Office of Environmental Information

Advances the creation, management, and use of information as a strategic resource at EPA.

Office of General Counsel

Provides legal service to all organizational elements of the Agency.

Office of Inspector General

Conducts audits, evaluations, and investigations of Agency programs and operations.

Office of International Affairs

Manages Agency involvement in international policies and programs that cut across Agency offices and regions and acts as the focal point on international environmental matters.

Office of Prevention, Pesticides and Toxic Substances

Regulates pesticides and chemicals to protect public health and the environment, and promotes innovative programs to prevent pollution.

Office of Research and Development

Meets programs' research and development needs and conducts an integrated research and development program for the Agency.

Office of Solid Waste and Emergency Response

Provides policy, guidance, and direction for safely managing waste; preparing for and preventing chemical and oil spills, accidents, and emergencies; and cleaning up and reusing contaminated property. Provides technical assistance to all levels of government to safeguard the air, water, and land from the uncontrolled spread of waste.

Office of Water

Develops national programs, technical policies, and regulations relating to drinking water, water quality, ground water, pollution source standards, and the protection of wetlands, marine, and estuarine areas.

Research Triangle Park (RTP), North Carolina

The Agency's center for research on how humans and ecosystems are exposed to various pollutants, the extent of that exposure, and the health and ecological effects which result from such exposure. RTP is also the hub of EPA's air pollution programs under the Clean Air Act and home of the EPA National Computer Center.

Regional Offices

EPA has 10 regional offices, each responsible for several states and territories.

Highlights of FY 2005 Performance

In FY 2005, with resource obligations of $10.13 billion and 17,486 full-time-equivalent employees, EPA achieved significant results under each of the five long-term environmental goals established in its *2003-2008 Strategic Plan*. This section highlights the Agency's accomplishments and continuing challenges under each of its strategic goals. It also discusses progress under the Agency's homeland security programs and the President's Management Agenda. Detailed performance information is presented in Section II of this report.

SIGNIFICANT ENVIRONMENTAL ACCOMPLISHMENTS AND CHALLENGES

Goal 1: Clean Air and Global Climate Change. In FY 2005, EPA issued the Clean Air Interstate Rule (CAIR), which when fully implemented is expected to dramatically reduce pollution in the eastern United States by cutting power plant emissions of sulfur dioxide by more than 70 percent and nitrogen oxides by more than 60 percent. EPA estimates that CAIR could result in annually preventing approximately 17,000 premature deaths, 1.7 million lost workdays, 500,000 lost school days, 22,000 nonfatal heart attacks, and 12,300 hospital admissions at full implementation in 2015.[2]

EPA also released a rule designed to reduce mercury emissions from power plants. This rule, known as the Clean Air Mercury Rule (CAMR), is intended to provide a flexible multi-pollutant approach to reducing mercury emissions from power plants. Like CAIR, the CAMR limits emissions by using a market-based, cap and trade program that will permanently cap utility mercury emissions in two phases. The first phase is expected to reduce emissions from 48 tons to 31 tons by 2010, and the second phase is expected to achieve a reduction of 70 percent from current levels. As a result of this action, the United States is now the only country in the world to regulate mercury emissions from coal-burning power plants.[3]

EPA launched a "Clean Diesel Campaign" in FY 2005 as well. The Clean Diesel Campaign consists of both regulatory and voluntary efforts to reduce emissions from new and existing diesel engines by 2014. Many geographic areas in the country have not met the national standards for particulate matter and/or ozone. The campaign contains components to help those areas reduce emissions of these pollutants from diesel engines used in construction, agriculture and port equipment, waste haulers, locomotives, fire trucks, and ambulances. EPA's campaign is expected to help reduce the impacts of pollution on populations that are especially susceptible to the effects of diesel exhaust, including children, the elderly, and the chronically ill.

EPA issued the Clean Air Interstate Rule, which will result in the greatest health benefits of any rule EPA issued since the phase-out of lead in gasoline.

EPA Responds to Hurricanes Katrina and Rita

In August and September of 2005 EPA emergency response personnel partnered with the Federal Emergency Management Agency and state and local agencies to assess damages, test health and environmental conditions, and coordinate cleanup from Hurricanes Katrina and Rita. EPA served as the lead agency for cleaning up hazardous materials, including oil and gasoline. National and regional Emergency Operations Centers were activated 24 hours a day. Additional information about EPA's hurricane response activities can be found at www.epa.gov/katrina/index.html.

Environmental Health Needs & Habitability Assessment. EPA and the Centers for Disease Control and Prevention (CDC) formed a joint task force to advise local and state officials of the potential health and environmental risks associated with returning to the city of New Orleans. The initial Environmental Health Needs & Habitability Assessment was issued September 17, 2005.

Air Sampling. Soon after Hurricane Katrina, EPA began collecting air quality data to assess possible health risks to clean-up workers and inhabitants of New Orleans.

Water Sampling. EPA and local agencies sampled and performed a variety of biological and chemical tests on floodwaters. EPA made the results of these tests available to the public.

Fuel Waivers. EPA issued emergency waivers of certain fuel standards in affected areas to address disruptions to the fuel supply due to refinery and pipeline infrastructure damage in the Gulf Region.

Superfund Sites. EPA's emergency response team conducted initial assessments of the status of Superfund sites in areas affected by Hurricane Katrina. EPA teams are currently conducting more detailed, on-site inspections at these sites.

Disposal of Hazardous Waste and Other Debris. Along with the U.S. Army Corps of Engineers, EPA worked on the disposal of the enormous amounts of hazardous waste and other debris left behind by Hurricane Katrina, establishing several sites for debris collection. During September 2005, the EPA team collected over 50,000 unsecured or abandoned containers of potentially hazardous wastes.

EPA's CAIR and CAMR rules are critical components of the Agency's strategy to achieve the greatest reductions in air toxics emissions. The Agency's Air Toxics Program is also working to address requirements of the Clean Air Act Amendments (e.g., issuance of final standards for 70 stationary area source categories of toxic air pollution). EPA has completed 15 area source standards and is working to develop standards for an additional 25 area source categories, projected for completion in 2008. These 40 standards will address more than 90 percent of the 1990 baseline of toxic air pollutant emissions from area sources. The Agency has been and will continue to monitor progress in this area through its management integrity process, which tracks important management challenges.[4]

In FY 2005, EPA helped owners and managers of office buildings understand and achieve the benefits of good indoor air quality, thereby improving the health and productivity of office workers. The national cost of poor indoor air quality, including lost worker productivity, direct medical costs for those whose health is adversely affected, and damage to equipment and materials, runs to tens of billions of dollars per year.[5] EPA estimates that approximately 150,000 office workers experienced improved air quality in their workplaces, meeting the Agency's FY 2005 annual performance goal.

Goal 2: Clean and Safe Water. The importance of safe drinking water supplies for protecting public health has never been more evident than in the aftermath of Hurricane Katrina, which occurred late in FY 2005. In early September, EPA, state and local officials, systems operators, and volunteers worked around the clock to assist more than 895 drinking water systems in repairing their infrastructure and restoring sources of safe drinking water for all people in the affected region. In FY 2006, EPA will assess the impact of Hurricane Katrina on the Agency's progress towards achieving its 2008 drinking water protection goal.

EPA and its state partners attained water quality standards in eight percent of waters previously identified by the states as impaired, exceeding the Agency's FY 2005 annual performance goal of two percent. Also in 2005, permits implementing effluent guidelines under EPA's National Pollution Discharge Elimination System (NPDES) prevented the discharge of 26 billion pounds of pollutants, nearly double the amount removed in 2002 before new storm water and Concentrated Animal Feeding Operations regulations as well as new effluent guidelines took effect.

The NPDES Program prevented the discharge of 26 billion pounds of pollutants.

EPA issued the National Coastal Condition Report II (NCCR II) in January 2005.[6] The second in a series of environmental assessments of U.S. coastal waters and the Great Lakes, the report assesses 100 percent of the nation's estuaries in the contiguous 48 states and Puerto Rico. The NCCR II is based on data gathered by a variety of federal, state, and local sources, including more than 50,000 samples taken between 1997 and 2000 in all continental seacoasts and Puerto Rico. The NCCR II's data for FY 2005 indicate that the overall ecological health of coastal waters improved, meeting the Agency's FY 2005 annual performance goal.

The overall ecological health of coastal waters improved.

Finally, in addition to improving the quality of drinking and surface water data and information (see Section III of this report for more information on these data improvements), EPA completed data collection for the first wadeable streams assessment. This is the first time a national assessment of ecological conditions in small streams has been conducted using a random sampling, statistically valid approach. States worked with EPA to conduct monitoring using the same methods at each sampling site so that the results can be compared across the country. A report on small stream conditions, scheduled to be released in March 2006, will establish baseline conditions for tracking ecological trends over time in small streams nationwide. EPA intends to follow this report with nationwide assessments of lakes, large rivers, wetlands, and other water types.

Goal 3: Land Preservation and Restoration. In FY 2005, EPA completed the cleanup ("construction completes") of 40 sites on the Superfund National Priorities List (NPL), for a cumulative total of 966 sites—more than 64 percent of the sites on the NPL. At sites with groundwater contamination,

migration of contamination was brought under control at an additional 23 sites in FY 2005, for a cumulative total of 898, or 70 percent, of such sites on the NPL.[7] Among the challenges facing the Agency in FY 2006 is the need to balance limited resources between beginning construction at an increasing number of Superfund projects, and continuing long-term remedial actions at several ongoing, large and complex sites.

Under the Resource Conservation and Recovery Act (RCRA) Program, the Agency met its FY 2005 goal for increasing the number of RCRA hazardous waste management facilities with permits or other approved controls in place, and EPA expects to bring 95 percent of facilities under approved controls by FY 2008. Under the RCRA corrective action program, more than 96 percent of high-priority RCRA hazardous waste facilities have met Agency goals for having controls in place to prevent any human exposures from occurring under current land and groundwater use, and more than 78 percent have met goals for having controls in place to prevent groundwater migration. Under the Agency's Leaking Underground Storage Tank Program, 6,181 cleanups were completed by the end of March 2005.[8] Data for the end of the year, which were undergoing a quality assurance/quality control check at the time this report was published, indicate that the Agency's state partners completed 14,583 underground storage tank cleanups, meeting the Agency's FY 2005 goal of 14,500.[9]

The Agency's state partners completed 14,583 underground storage tank cleanups.

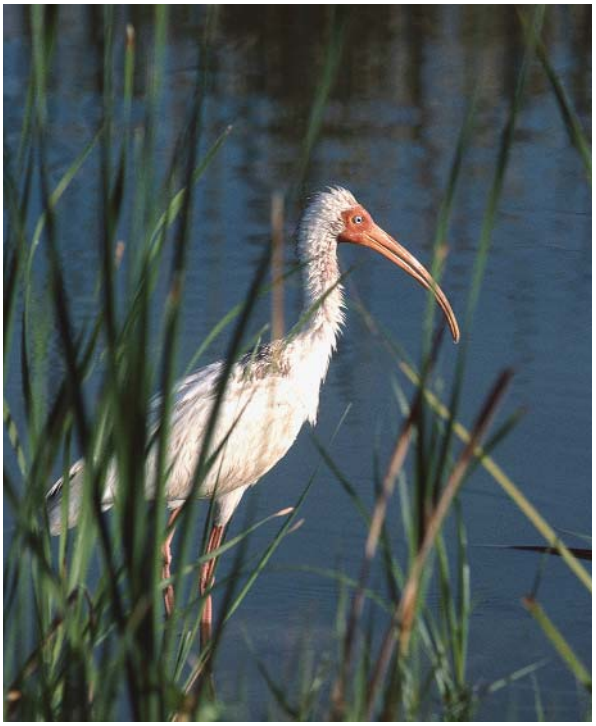
While recycling has increased in this country in general, recycling of specific materials has grown even more: 42 percent of all paper, 40 percent of all plastic soft drink bottles, 55 percent of all aluminum beer and soft drink cans, 57 percent of all steel packaging, and 52 percent of all major appliances are now recycled.[10] To achieve national recycling goals, the Agency continued to develop alliances with manufacturers, communities, and governments to: (1) foster a new recycling infrastructure, which will reclaim valuable materials, and (2) address the increasing variety and volume of obsolete electronic products entering the waste stream. Although recycling rates were lower than expected in FY 2003 (the last year for which the Agency has data), EPA expects that these collaborative efforts will encourage higher recycling rates in future years. In FY 2006, EPA will be initiating a challenge to major industries to encourage the "early retirement" of devices containing mercury.

Goal 4: Healthy Communities and Ecosystems. To protect human health and the environment from pesticide use, EPA reassessed risks posed by older chemicals and established new risk mitigation measures where needed. By the end of FY 2005, the Agency had reassessed 80 percent of the 9,721 pesticide tolerance levels requiring reassessment under the Food Quality and Protection Act.[11] In addition, EPA registered 14 new reduced risk pesticides, increasing the number of safer alternatives to older, more dangerous pesticides to 143.[12]

EPA identifies and addresses risks posed by chemicals already in commerce through its High Production Volume (HPV) Challenge Program. Under this program, the Agency will complete work by the end of

calendar year 2005 to provide the public with critical health and environmental effects data on more than 2,200 chemicals encountered in communities every day. In FY 2005, more than 360 chemical companies and 100 industry consortia volunteered to provide data for 1,397 HPV chemicals directly to EPA, and to provide data for 854 chemicals to the European component of the program—the International Council of Chemical Associations HPV Initiative[13]. Data for 300 of those chemicals will be publicly available by the end of 2005. EPA continues to encourage companies to sponsor additional HPV chemicals, and is obtaining data on un-sponsored "orphan" chemicals by issuing Test Rules under the Toxic Substances Control Act.

In FY 2005, EPA led a collaborative effort to develop guidelines on the potential health effects from various levels of exposure to hazardous chemicals during an accidental spill or a terrorist incident. The Agency partnered with nine federal agencies, numerous state agencies, private industry, academia, emergency medical associations, unions, and other organizations in the private sector as well as international participants on this project. In FY 2005, Acute Exposure Guideline Levels (AEGLs) were proposed for 32 highly hazardous chemicals, bringing the cumulative total to 165 chemicals. These guideline levels are meant to address the millions of pounds of highly toxic chemicals used in industry and routinely stored at fixed sites or shipped over road or rail in single containers of 50,000 to 300,000 pounds or more. AEGL values, including those proposed in 2005, were used in responding to the environmental devastation caused by Hurricane Katrina.



In 2005, the Centers for Disease Control released data demonstrating major reductions in the incidence of childhood lead poisoning—from approximately 900,000 children with elevated blood lead levels in the early 1990s to 310,000 children from 1999 to 2002.[14] To virtually eliminate childhood lead poisoning by 2010, EPA focused its FY 2005 outreach and education efforts on remaining "hot spots," often disadvantaged urban areas where the incidence of childhood lead poisoning remains high. In FY 2006, the Agency will be revamping its strategies and expanding its regulatory and voluntary tools to address the remaining population of children at risk for lead poisoning.

EPA increased the number of registered safer pesticides to 143.

EPA and its partners protected and restored 103,959 acres of estuarine habitat.

EPA continues to make progress on improving and protecting the health of ecosystems in the Great Lakes. The Great Lakes Index, indicating overall ecosystem condition in the Great Lakes, improved in FY 2005. Long-term concentrations of PCBs in predator fish and trends of toxic chemicals in the air are declining faster than targeted. Cumulatively, 3.7 million cubic yards of contaminated sediments have been remediated, including 345,000 cubic yards in 2004. However, phosphorus concentrations in the Lake Erie Basin increased slightly. Although EPA has not met the target of delisting three Areas of Concerns (AOC), significant progress has been made towards delisting of two AOCs for FY 2006.

EPA and its partners also protected and restored 103,959 acres of estuarine habitat within the 28 estuaries of the National Estuary Program in FY 2005. This acreage includes critical estuarine, riparian, and coastal wetlands, which help support many commercially valuable fisheries and the economic, environmental, and aesthetic functions on which coastal populations depend for their livelihood. EPA faces significant challenges in continuing to restore and protect estuaries as more difficult projects remain.

Goal 5: Compliance and Environmental Stewardship. In FY 2005, more than 1.1 billion pounds of pollutants were reduced, treated, or eliminated as a result of Agency enforcement actions. For example, EPA settled a Clean Air Act enforcement case against the Ohio Edison Company that will reduce more than 212,000 tons per year of emissions of harmful sulfur dioxide and nitrogen oxides from several of its plants. The company is required to install pollution controls and carry out other measures expected to cost approximately $1.1 billion. In addition, three enforcement actions taken in FY 2005 under the Clean Water Act will significantly reduce pollutants entering the Chesapeake Bay. One of the actions was taken with the District of Columbia Water and Sewer Authority and will lead to the elimination of 3.2 billion gallons a year of untreated sewage to the Anacostia and Potomac Rivers and cost the company an estimated $1.5 billion.[15]

More than 1.1 billion pounds of pollutants were reduced, treated, or eliminated as a result of Agency enforcement actions.

In an example of one of the Agency's criminal enforcement actions, criminal prosecution was taken against the owners of AAR Contractors, Inc. for conducting illegal asbestos operations at more than 1,500 sites, including schools, hospitals, and churches, in upstate New York. More than 500 workers were exposed to potentially deadly asbestos-related diseases. The company owners received the two longest jail sentences in environmental crimes history, 25 and 19½ years, along with almost $23 million in restitution.[16]

Finally, EPA has been working to replace the Agency's Permit Compliance System (PCS), which tracks Clean Water Act results for use in permitting, compliance and enforcement programs[17]. This project has been a top management challenge for a number of years and the Agency is now close to resolving it. Actions taken include working with states on interim solutions during development of the new system and adding capabilities to better track pollutant loadings, capture information on storm water sources of pollution, and assess the health of individual watersheds. In September 2005, EPA completed development of the replacement system (ICIS-NPDES) and officially moved into the testing phase. The first states are scheduled to begin accessing the system by March 2006.

HOMELAND SECURITY

Three years ago EPA assumed significant new responsibilities in homeland security work needed to protect human health and the environment from intentional

EPA's FY 2005 Progress in Homeland Security

Developed a Web-based system to quickly identify hazards and characterize risks in emergencies.

Completed vulnerability assessments for nearly all of nation's drinking water systems.

Worked with other federal agencies to establish a National Decontamination Team and Strategy.

Trained EPA field responders in detecting, analyzing, and responding to chemical, biological, and radiological agents.

Established health effects guidelines for 32 highly hazardous chemicals.

harm. EPA now plays a lead role in supporting the protection of critical water infrastructure and coordinating development of national capabilities and strategies to address chemical, biological and radiological contamination from a terrorist event. In FY 2005, the Agency conducted the following key work to understand and communicate the potential health effects of exposure to hazardous chemicals during an accidental spill or terrorist incident; to help water systems understand and address their vulnerability to intentional attacks; and, to enhance the nation's decontamination and emergency response capabilities:

- **Developing a Web-Based System to Identify Hazards and Characterize Risks in Emergencies:** In 2005, EPA began developing a Web-based system to quickly identify hazards, assess exposure to humans, and characterize risks during an emergency response. This Emergency Consequence Assessment Tool (ECAT) will help in preparing for and rapidly responding to terrorist incidents by integrating a variety of relevant information on the hazards and exposures for a specific situation. ECAT will be expanded to include a variety of scenarios and contaminants and will eventually be used to inform the general public and scientific community.
- **Protecting Critical Water Infrastructure from Terrorist Acts:** EPA continued to assist the nation's drinking water systems in protecting their infrastructure from terrorist and other intentional attacks. By the end of FY 2005, all of the 467 publicly and privately owned drinking water systems serving at least 100,000 people, and 100 percent of the nation's 444 medium-sized drinking water systems (those that serve 50,000 to 99,999 people) had completed vulnerability assessments. Furthermore, approximately 95 percent of the nation's small-sized community drinking water systems that serve populations of 3,301 to 49,999 people had completed vulnerability assessments. The Agency will continue to work with the small drinking water systems and its partners to ensure 100 percent of these systems have completed vulnerability assessments.
- **Enhancing the Nation's Decontamination Capabilities:** During FY 2005, EPA worked with other federal agencies, including the

Department of Homeland Security, to enhance the nation's decontamination capabilities by establishing a National Decontamination Team and by developing and implementing a National Decontamination Strategy. Additionally, EPA improved capabilities for characterizing chemical components that might be intentionally released during incidents of national significance by standardizing analytical method validation and determining laboratory training requirements.

- **Training EPA Field Responders:** In 2005, EPA improved the Agency's capability to respond to multiple chemical, biological, and radiological incidents. EPA field responders and National Response System personnel received extensive response-related training: scientific and technical training for detecting, analyzing and responding to chemical, biological, and radiological agents and training in managing incident command system responses.
- **Establishing Health Effects Guidelines for Exposure to Hazardous Chemicals:** In FY 2005, Acute Exposure Guideline Levels (AEGLs) were proposed for 32 highly hazardous chemicals. Some of these guideline levels are critical for responding to terrorist incidents when making decisions on evacuation, shelter-in-place, worker entry, decontamination, protective equipment, and monitoring and detection efforts.

EPA has attained the highest rating possible for financial management.

THE PRESIDENT'S MANAGEMENT AGENDA

Since 2001, the President's Management Agenda (PMA) has challenged federal agencies to improve performance, manage for results, and better serve the American people (see www.whitehouse.gov/results). During FY 2005, EPA made progress under each of the seven PMA initiatives: Human Capital, Competitive Sourcing, Expanded EGovernment, Improved Financial Performance, Budget and Performance Integration, Eliminating Improper Payments, and Research and Development.

Each quarter, the Office of Management and Budget (OMB) releases an executive scorecard that rates progress and overall status under each of the PMA initiatives using a color-coded "stop-light" system. As of September 2005, the EPA achieved three green scores for progress on implementation and one green score on the status of Improved Financial Performance initiatives. In addition to tracking PMA progress on a quarterly basis, each federal agency establishes yearly goals for where they would be "Proud to Be" on the status of PMA initiative implementation. The Proud to Be milestones and goals are set every July and assessed during the third quarter PMA Scorecard process. More information about the Agency's work under the PMA is available at www.epa.gov/pmaresults.

EPA's FY 2005 Progress Under the President's Management Agenda
(Scorecard ratings current as of the 4th Quarter of FY 2005)

INITIATIVE	STATUS[18]	PROGRESS	PROUD TO BE II (07/05) RESULTS	HIGHLIGHTS
Human Capital	Yellow	Yellow	"Yellow" EPA did not meet its goal of "Green" for P2B2 EPA has set a goal of "Green" for P2B3	—In FY 2005, EPA transitioned its employees to a new five-level Performance Appraisal and Recognition System (PARS). During Q4, EPA trained all Agency leaders on the new system, and assessed the system against OPM required elements to identify areas in need of improvement. —EPA revised and updated the HC Accountability plan to integrate assessments of office level HC activities and compliance with the Merit System Principles. —EPA analyzed the results of the FY 2004 Federal Human Capital Survey and developed and began implementing a plan of action for disseminating results and targeting areas for improvement to leadership Agency-wide. —As of the end of the Q4 FY 2005, EPA demonstrated that 100 percent of Agency employees are covered by the PARS.
EPA's Challenges in Human Capital—A cultural change is needed to strengthen EPA executives', managers', and employees' understanding of the connection between personal "on the job" performance and the Agency's ability to meet its strategic environmental goals. Additionally, the Agency must clearly differentiate levels of performance among employees and reward employees appropriately, based on the results they deliver and the way those results contribute the Agency's overall mission				
Competitive Sourcing	Yellow	Yellow	"Yellow" EPA met its goal for P2B2 EPA has set a goal of "Green" for P2B3	—The Agency completed six "streamlined" competitions for small activities that covered about 26 Full Time Equivalent (FTE) positions in the areas of information technology and clerical services. The Agency retained the work in all six competitions. —EPA also announced an additional seven "streamlined" competitions encompassing the work of about 39 FTE performing information technology services. —The Agency completed a standard competition for vendor payments, which involved 26 FTE. As a result, the work will continue to be performed by EPA employees at the Finance Center in NC and achieve about $3.5 million in savings over the next five years. —EPA completed creation of a Competitive Sourcing Plan identifying and scheduling approximately 800 FTE for competition between 2005 and 2008.
EPA's Challenges in Competitive Sourcing—EPA must overcome cultural reluctance to consider competitive sourcing as a means of more efficiently and effectively delivering government services. Once decisions are made to compete a particular organizational function, managers involved in the competitions must be held accountable for timely follow-through on their commitments.				
Expanded E-Government	Yellow	Yellow	"Green" EPA met its goal of "Green" for P2B2" EPA has set a goal of "Green" for P2B3	—Cost, schedule and performance for adherence with earned value management for major IT investments are less than 10%. —EPA's E-Gov Implementation Plan is approved and accepted. —100% of EPA's IT systems are secure. —EPA's IT systems are installed in accordance with security configurations. —E-Rulemaking deployed four agencies in the Federal Docket Management System. Late deployment of the fifth agency is the sole reason for the yellow score in progress and status. —To date E-Payroll completed scheduled modifications and testing of all necessary interfaces to ensure a migration to the Defense Finance and Accounting Service by March 2006.
EPA's Challenges in E-Gov—Successful performance in Human Capital, Competitive Sourcing, Budget and Performance Integration, Financial Performance, and Research and Development Investment will require development and integration of government-wide solutions embedded in numerous E-Gov projects. These interdependencies create special challenges for ensuring that EPA adopts E-Gov solutions as part of its strategic plan for success in each PMA area.				

EPA's FY 2005 Progress Under the President's Management Agenda *(continued)*

(Scorecard ratings current as of the 4th Quarter of FY 2005)

INITIATIVE	STATUS[18]	PROGRESS	PROUD TO BE II (07/05) RESULTS	HIGHLIGHTS
Improved Financial Performance	Green	Green	"Green" EPA met its goal of "Green" for P2B2" EPA has set a goal of "Green" for P2B3	—EPA maintained a green rating for both progress and status for all four quarters of FY 2005. EPA is one of only three federal agencies to maintain a green rating for 10 or more successive quarters (since FY 2003). —The Agency delivered its FY 2005 Performance and Accountability Report with audited financial statements by the required November 15, 2005, deadline and met all required deadlines for the its quarterly financial statements. —EPA is expanding the use of financial information by integrating additional financial information into EPA's decisionmaking processes, with an initial focus on grants.
EPA's Challenges in Improved Financial Performance—No challenges at this time				
Budget and Performance Integration	Yellow	Green	"Yellow" EPA did not meet its goal of "Green" for P2B2. EPA has set a goal of "Green" for P2B3.	—The Agency received green progress scores for all four quarters in FY 2004. —EPA worked cooperatively with OMB on the FY 2005 Program Assessment Rating Tool (PART) process, completing 43 PART assessments to date. —At the conclusion of the FY2005 PART Appeals process, EPA has developed efficiency measures for 35 of 43 completed PART programs. —Held meetings with EPA's senior leadership throughout the year to discuss the integration of budget, performance, and in particular the PART as a means to better manage the Agency's resources and deliver environmental results. —EPA has developed a process in alignment with the Enacted Budget identifying impacts of Congressional action on planned performance; specifically related to the targets associated with EPA's GPRA/PART annual and long-term performance measures. EPA senior leaders assess these impacts as part of their decisionmaking.
EPA's Challenges in Budget and Performance Integration (BPI)—EPA must continue to develop appropriate OMB-approved measures that gauge the efficiency of an environmental program's administration. Each program evaluated by the PART is required to have at least one OMB-approved efficiency measure. Currently 35 of 43 PARTed programs have OMB-approved efficiency measures.				
Eliminating Improper Payments	Yellow	Green	EPA did not have a goal for P2B2. EPA has set a goal of "Green" for P2B3.	—EPA successfully demonstrated that it has a low incidence of erroneous payments and was upgraded to a "yellow" status and "green" progress score during FY 2005. —EPA's FY 2005 error rate for its two State Revolving Funds was 0.16 percent, which surpassed the target error rate of 0.45 percent. —EPA documented its approach for conducting a statistical sample of sub-recipient payments in two states in FY 2006.
EPA's Challenges in Eliminating Improper Payments: No challenges at this time.				
Research and Development Investment Criteria	Red	Yellow	"Red" EPA did not meet its goal of "Yellow" for P2B2 EPA has set a goal of "Yellow" for P2B3	—EPA held four independent, external reviews of the following research programs: Drinking Water, Human Health, Ecological and Particulate Matter. —The Agency participated in the FY 2005 (formerly known as the FY 2007) PART process with two new PART assessments for Human Health Research and Drinking Water Research, and two PART reassessments for PM Research and Ecological Research. —EPA's FY 2007 Annual Research Planning process expanded to include regular discussions about resources and performance in the context of the R&D Investment Criteria.
EPA's Challenges in Research and Development—EPA's research and development programs do not yet have acceptable performance and efficiency measures for research programs. This has resulted in less than successful performance on the PMA Scorecard for the Research and Development Investment Criteria Initiative and a negative impact on EPA's performance on the Budget and Performance Integration Initiative. EPA continues to work with its research community and OMB to develop measures that are meaningful to environmental program managers and clearly illustrate performance over time.				

SUMMARY OF PERFORMANCE DATA

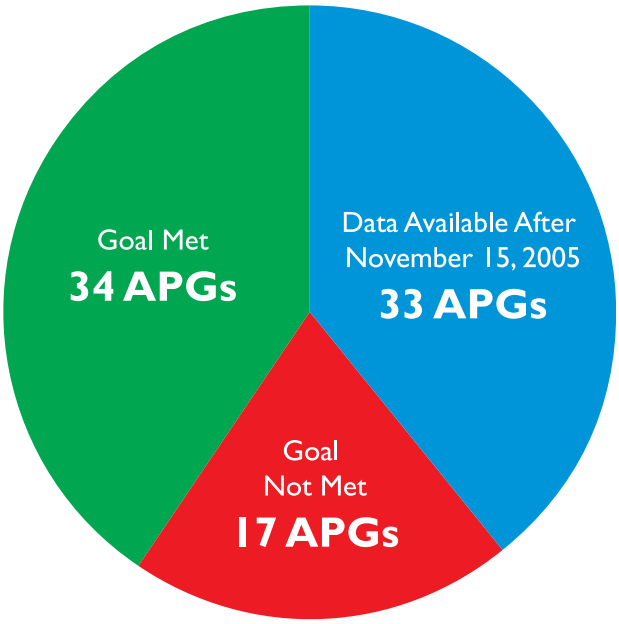
Goals Met. In its FY 2005 *Annual Plan*, EPA committed to 84 annual performance goals (APGs). In FY 2005, the Agency met 34 of these APGs, 67 percent of the APGs for which data were available at the time this report was published. FY 2005 results to date reflect a decrease in the number of APGs met from FY 2004 results; last year, EPA met 76 percent of its APGs for which data were available. EPA has significantly exceeded its targets for a number of its FY 2005 APGs. For example, the Agency restored eight percent of the nation's impaired waterbodies in accordance with Water Quality Standards, significantly exceeding its FY 2005 goal of two percent (APG 2.13). This achievement is partly due to the work EPA and states have done to refine water quality assessments, which now more accurately reflect improvements in impaired waterbodies. In another case, EPA greatly exceeded its cumulative goal of reducing by 11 percent the households on tribal lands lacking access to basic sanitation. By increasing coordination with other federal agencies to more effectively fund and implement infrastructure programs, the Agency and its partners have achieved a cumulative 34 percent reduction in the number of households lacking access to wastewater sanitation (APG 2.15).

Goals Not Met. Despite their best efforts, however, EPA and its partners were not able to meet all planned targets for FY 2005. EPA did not meet 17 of the 51 FY 2005 APGs for which performance data were available. The Agency is considering the various causes of these shortfalls as it adjusts its annual goals and program strategies for FY 2006 and beyond.

There are a number of reasons for these missed goals. In some cases the APGs were new in FY 2005—a part of EPA's effort to develop more meaningful goals and measures—and the Agency overestimated its ability to achieve annual results. For example, EPA anticipated improvements in water quality to reduce the levels of contaminants in fish, leading to a one percent decrease in waterbodies with fish consumption advisories (APG 2.8). EPA fell short of achieving this APG, and the Agency is assessing the information it has received to determine a more realistic future target.

External factors also contributed to missing APGs. For example, the Agency had anticipated reducing nitrogen, phosphorus, and sediment loadings from entering the Chesapeake Bay (APG 4.18). However, such external factors as continued growth in human and farm animal populations in the region and rainfall levels affect the Agency's success in reducing existing nutrient loading levels. In other cases, EPA relies on the efforts of its federal, state and local partners to help achieve annual goals, and the actions of the Agency's partners are a significant factor in performance results. For example, the Agency and its partners did not meet the goal for improving water and sanitation systems in the US-Mexico border region; funding for this effort was delayed pending development of a new system for setting project priorities in the region (APG 4.12). EPA recognizes that, as a result of missing several such APGs, the Agency may not be on track for reaching its longer term objective for protecting ecosystems. Despite these difficulties, EPA and its partners continue to work together to ensure progress in meeting these goals and achieving the objective.

EPA's FY 2005 Performance Results



Summary of FY 2005 Performance Results by Goal

Result	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	ESP	Total
Met	5	6	2	13	2	6	34
Not Met	0	2	3	7	4	1	17
Data Available After November 15, 2005	14	10	2	6	1	0	33
Total	**19**	**18**	**7**	**26**	**7**	**7**	**84**

Improved data can also contribute to missed goals. For example, EPA set a cumulative goal that by FY 2005 water quality assessed in 80 percent of the water segments in each of 462 watersheds across the nation would meet water quality standards (APG 2.12). In fact, however, the number of watersheds meeting these standards has decreased slightly since FY 2002. EPA attributes this regression to new data that more accurately reflect watershed condition, including adjustments for fish consumption advisories and increased environmental stresses on watersheds that not only impair waters that were once clean, but also further degrade waters already impaired. As its data improve, EPA is gaining a more accurate picture of environmental baseline conditions and progress achieved. Based on this information, the Agency expects to continue adjusting its performance goals and targets to achieve results.

Data Unavailable. Because final end-of-year data were not available when this report went to press, EPA is not yet able to report on 33 of its 84 APGs, an increase over the 25 APGs for which data were not available in EPA's FY 2004 report. This difference is largely due to the Agency's increased focus on achieving longer-term environmental and human health outcomes, rather than activity-based outputs. Environmental outcome results may not become apparent within a federal fiscal year, and assessing environmental improvement often requires multiyear information. As a result, EPA may not yet have the data required to determine whether an FY 2005 APG such as improving water quality to reduce contaminates in fish, leading to higher consumption of safe fish (APG 2.8), has been met. Many variables are involved in evaluating progress toward this goal, including the bioaccumulative nature of mercury, which affects the time it takes fish to rid their bodies of this contaminant.

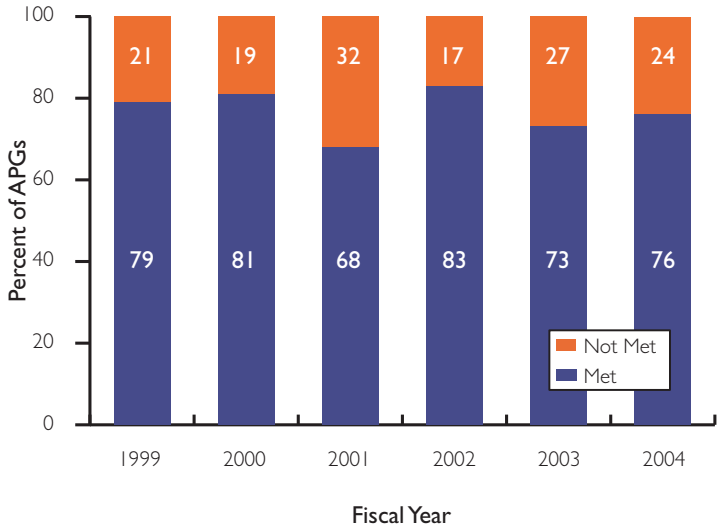
In many cases, reporting cycles—including some which are legislatively mandated—do not correspond with the federal fiscal year on which this report is based. Data reported biennially or on a calendar year basis, for example, are not yet available for this report. In some cases, such as for certain compliance and enforcement information, the Agency has adjusted data collection and QA/QC processes to meet the November 15 date for submitting this report. To provide as much information as possible on its progress toward achieving its goals, however, EPA continues to present the most current data available.

Furthermore, EPA obtains performance data from local, state, and tribal agencies, all of which require time to collect the information and review it for quality.

Often, EPA is unable to obtain complete end-of-year information from all sources in time to meet the deadline for this report. The Agency is working to reduce such delays in reporting, however, by capitalizing on new information technologies to exchange and integrate electronic data and information, improve data quality and reliability, and reduce the burden on its partners.

Data Now Available. The Agency is now able, however, to report data from previous years that became available in FY 2005. Final performance results data became available for 20 of the 25 FY 2004 APGs on which the Agency did not report in its *FY 2004 Annual Report*. Of these 20 FY 2004 APGs, EPA met 14. For example, the Agency met its FY 2004 goals for reducing greenhouse gas emissions and SO_2 emissions, as well as sulfur and nitrogen deposition and ambient concentrations. EPA can now report achieving 56 (76 percent) of the 79 FY 2004 APGs for which it has data. For FY 2003, EPA can now report achieving 45 (79 percent) of the 64 APGs for which it has performance data. Delays in reporting cycles and targets set beyond the fiscal year continue to affect one APG in FY 2003, FY 2002, and FY 1999.

EPA's Updated Performance Results
(Annual Performance Goals for Which Final Data Are Available)



Note: During FY 2005, final performance results data became available for a number of APGs from prior years: 20 for FY 2004, three for FY 2003, one for FY 2002, one for FY 2001, two for FY 2000, and one for FY 1999.

Improving Measures and Adjusting Targets. EPA is continuing to develop better and more meaningful measures of its performance. In FY 2005, for example, the Agency introduced more than 30 new or improved performance measures. Equipped with better data, EPA is also adjusting performance targets to reflect an improved understanding of current conditions and the outcomes to be achieved. For example, the Agency is adjusting its target for the improvement in air quality over time for the fine particle ($PM_{2.5}$) standard (APG 1.3). This goal was established in FY 2004 using initial targets while the Agency collected baseline data. Based on the FY 2004 results which significantly exceed the target, however, the Agency will adjust its target for FY 2006. Similarly, in FY 2006 EPA will be adjusting targets for reducing exposure to unhealthy levels of ozone (APG 1.6). EPA will continue to benefit from improved data, revising annual performance measures and adjusting targets to provide a more useful assessment of its progress.

Improving Results

EPA is continuing its efforts to focus more clearly on the results it wants to achieve, orient its programs around environmental outcomes, and develop better measures for assessing performance. Building on previous years' work, the Agency strengthened its collaboration with states and tribes to improve joint planning and priority-setting; develop innovative, effective approaches to environmental problems; and track and assess progress. In addition, EPA is working to expand its use of program evaluation; address data gaps and other information issues; strengthen its strategic planning; and resolve its management challenges reported by the Office of Inspector General (OIG) and Government Accountability Office.

STRENGTHENING COLLABORATION WITH PARTNERS

Protecting human health and the environment is a shared responsibility. In FY 2005, EPA continued important work with its partners in environmental protection—states, tribes, and other federal agencies—to ensure a national focus on the most important problems and the most efficient and effective use of scarce resources.

- In FY 2005, EPA and the Environmental Council of the States (ECOS) established a "Partnership and Performance Workgroup" to continue the Agency's work to improve joint state-EPA planning and priority-setting. The workgroup explored ways to support state strategic planning, expand the use of Performance Partnership Grants as a planning and management tool, and improve states' and EPA regional offices' dialogue on regional planning and priority-setting.
- EPA also funded a second Cooperative Agreement with ECOS for conducting pilot projects in 15 states to strengthen states' capabilities to manage for results and improve joint regional-state planning. For example, an Illinois pilot project is developing a stakeholder consultation process for considering innovative environmental programs.
- The Agency enhanced its Annual Commitment System (ACS), launched in FY 2004 to assist EPA managers in engaging states and tribes in setting annual regional performance goals. In FY 2005, the Agency improved the system to track actual regional performance against agreed-upon program measures and commitments. EPA's regional offices are also able to use the ACS to track state and tribal contributions to regional performance.
- On September 26, 2005, EPA Administrator Steven Johnson reaffirmed the Agency's formal Indian Policy, established in 1984. By this action, EPA recognized that the United States has a unique legal relationship with tribal governments based on the Constitution, treaties, statues, Executive Orders, and court decisions. This relationship includes recognition of the right of tribes as sovereign governments to self-determination, and an acknowledgment of the federal government's trust responsibility to tribes.
- In FY 2005 EPA continued to work with tribes on a

Enhancing Tribal Environmental Management

EPA is providing funding to enhance tribal capacity for environmental management. Strengthening tribal programs improves the Agency's program implementation and enables tribes to develop holistic multimedia programs that reflect their traditional use of natural resources.

As of FY 2005, 96 percent of tribes (549 tribes) have access to EPA funds for hiring environmental program staff, managing environmental activities, and implementing multimedia environmental programs in Indian country. This represents an increase of approximately 7 percent a year since 1996, when 36 percent of tribes had access.

government-to-government basis to protect the land, air, and water in Indian country. In June, the Grand Traverse Band of Chippewa Indians hosted the seventh National Tribal Environmental Conference for Environmental Management, attended by more than 750 tribal, federal, and state officials to share solutions on ongoing environmental and public health problems in Indian country.

EPA senior managers used the results of PART assessments to identify opportunities for program improvement and guide decisionmaking.

USING PROGRAM EVALUATION AND THE PART

EPA uses the results of program assessments, audits, and evaluations to adjust approaches, improve results, allocate resources, and ensure the most effective and efficient use of taxpayer dollars. In recent budget processes, for example, EPA senior managers used the results of Program Assessment Rating Tool (PART) assessments to identify opportunities for program improvement, justify resource requests, and guide decisionmaking.

The PART is a series of diagnostic questions used to assess and evaluate programs across a set of performance-related criteria, including program design and purpose, strategic planning, program management and results. To date, EPA and OMB have conducted PART reviews for 43 of the Agency's programs. PART reviews in 2005 included both new assessments of the indoor air, lead, oceans, surface water protection, oil spill and other programs, and reassessments from previous years.

The PART assessment was first used in 2002 in developing EPA's FY 2004 budget. During that year, only 1 of EPA's 11 assessed programs was rated able to demonstrate results. In EPA's third year of PART assessments (2004 for the FY 2006 budget) 24 of 32 programs were rated "adequate or "moderately effective." This improvement in PART ratings shows EPA's commitment to designing and implementing programs that maximize resource efficiency and deliver environmental results. Section II of this report lists PART assessments conducted under each of the Agency's five strategic goals, identifies performance measures associated with the PART, and reports FY 2005 results for the measures where data are currently available. Future PART measures are listed in a separate table in Section II, along with the year EPA expects to begin reporting data against them. Ratings for programs assessed during 2005 for the FY 2007 budget will be available in February 2006. Additional information on PART assessments and EPA's progress in making program improvements will be available in February 2006 at www.whitehouse.gov/omb/part.

EPA and its OIG also conducted other types of program evaluations and audits (Appendix B contains a list by strategic goal of program evaluations and audits completed in FY 2005). For example, working with the Compliance Committee of ECOS and

Achieving Results Through Grant Programs

Grants are a key tool for achieving EPA's mission. Each year EPA awards approximately one-half of its budget in grants to state, tribal, and local governments; educational institutions; and nonprofit organizations. The Agency has been working to ensure the grants EPA awards support its strategic goals, and that results achieved through grants are closely tracked and monitored.

In FY 2005, EPA issued a policy for awarding grants (EPA Order No.: 5700.7) that requires EPA offices to:

- Link results to EPA's Strategic Plan.
- Describe expected outputs and outcomes in grant announcements, work plans, and performance reports.
- Consider how the results from completed grant projects contribute to the Agency's programmatic goals and objectives.

In addition, for the first time, this report lists specific grants that contributed to the achievement of EPA's FY 2005 annual performance goals (see Section II).

representatives from state agencies, EPA completed an evaluation of an enforcement tool—the State Review Framework—which the Agency developed to assess state enforcement performance. The evaluation found that, overall, the framework is effective as a tool for evaluating state enforcement and compliance assurance programs on a nationwide basis. The evaluation also recommended ways to improve data collection and state performance interpretation under the framework. EPA intends to make the recommended improvements and apply the framework across all 50 states to: (1) evaluate whether state enforcement and compliance assurance programs are providing a consistent level of environmental and public health protection across states; and, (2) work collaboratively with states to ensure that authorized state agencies meet agreed-upon enforcement performance goals.

The Agency's OIG contributes to EPA's mission to improve human health and environmental protection by assessing the effectiveness of EPA's program management and results, developing recommendations for improvement, and ensuring that Agency resources are used as intended. In FY 2005, an OIG report found that air toxic monitoring was conducted in only ten percent of areas with the estimated highest health risks from exposure to toxic air pollutants. EPA has since begun using the National Air Toxics Assessment to identify and prioritize high-risk areas to be monitored. The Agency also modified its air toxics grant criteria to better address high-risk areas and emphasize methods for analyzing ambient air toxics conditions.

IMPROVING ENVIRONMENTAL INDICATORS, PERFORMANCE MEASUREMENT, AND DATA QUALITY

In June 2003, EPA's *Draft Report on the Environment* established baseline information on environmental conditions in the United States and their potential effects on human health. Since then, the Agency has been working to improve the indicator information, fill key gaps in environmental data, and make the information more accessible to the public.

In FY 2005, EPA issued for public comment a set of indicators for the Agency's next *Report on the Environment*, to be released in 2006. A scientific peer-review conducted in July elicited expert opinion on whether the indicators are supported by data that are technically sound, meet the established indicator definition and criteria, and help answer key questions on the current state of the environment. Over the next year, EPA plans to use these indicators in developing the Agency's long-term measures of success for its *2006-2011 Strategic Plan*. More information on the Agency's "Indicators Initiative" is available at www.epa.gov/indicators.

EPA also continued to focus annual performance goals and measures on environmental outcomes and program efficiencies, instead of on activity-based outputs. In EPA's FY 2006 Annual Performance Plan, approximately 65 percent of the annual performance goals track environmental or intermediate outcomes.

In addition, the Agency worked to align its annual performance measures with new performance and efficiency measures developed during OMB's 2005 PART process. In FY 2005, EPA developed a strategy for implementing new PART measures while reporting on the goals and measures in the Agency's FY 2005 Annual Plan. This process is another step in EPA's ongoing efforts to establish a set of measures that clearly defines environmental outcomes and achieves EPA's Budget and Performance Integration goals under the PMA.

In FY 2005, EPA continued to improve its ability to collect and use reliable and complete performance and financial data. EPA worked to detect and correct errors in environmental data, standardize reporting, and exchange and integrate electronic data and data quality information among its federal, state, and local data-sharing partners. Over the past year, the Agency completed all corrective actions for an Agency-level weakness in data management practices. Recent efforts include ensuring that

Data in FY 2005 Performance and Accountability Report Are Complete and Reliable

EPA determined that the performance information in this report is complete and reliable and no material inadequacies are present, as defined by OMB Circular A-11.[20] For more information on the data sources used in FY 2005 performance measures, see Section II of this report. Appendix C contains additional information on the quality of the data in this report.

Improved Performance Measures Developed in FY 2005

These new measures will help EPA describe trends over time, and demonstrate the results of specific environmental programs.

Tribal Access to Safe Drinking Water: EPA will measure the number of households on tribal lands lacking access to safe drinking water.

Water Pollutant Loadings Per Program Dollar Spent: EPA will estimate loadings of water pollutants removed per program dollar spent, including discharges to surface water such as municipal storm water and combined sewer overflows.

Contamination Levels at Superfund Sites: EPA will determine whether contamination levels at a Superfund site fall within the levels specified by EPA as safe, or if they do not, whether adequate controls are in place to prevent unacceptable human exposure to contamination.

data management policies and procedures are planned, maintained, and revised as appropriate. For example, the Agency changed the structure and operating procedures of its Quality Information Council to better fulfill its role as the information policymaking body.

CONSIDERING FUTURE TRENDS AND LOOKING AHEAD

As EPA looks to the future, Agency managers are focusing on several priorities. First, the Agency is striving to accelerate the pace of environmental progress by looking beyond rules and regulations to consider other solutions. Effective legislation, such as Clear Skies, puts mechanisms in place to achieve large-scale national protections. The Agency is committed to working cooperatively with its partners to support legislation over regulation, results over methods, and partnerships over conflicts to accelerate progress and usher in a new area of environmental protection.

EPA is also working to foster a culture of environmental stewardship through partnerships and innovative approaches to environmental issues. In the coming years, the Agency will promote collaboration, voluntary programs, and outreach as tools for strengthening stewardship. EPA will also focus on opportunities to leverage environmental protection actions to create opportunities for economic growth. Efforts such as Brownfields, for example, not only reduce pollution, but revitalize valuable land and strengthen local economies. In the coming years, while the Agency will maintain its vigilance in enforcing existing laws and regulations, it will also strive to approach new challenges with flexibility and enthusiasm.

To meet these challenges and make informed decisions in a rapidly changing, complex world, EPA leaders need to be aware of the environmental consequences of future social, economic, and technological change. Several years ago, the Agency began conducting "futures analysis" to help its leaders anticipate future environmental challenges and plan strategically to avoid problems.

In FY 2005, EPA continued to identify significant environmental and industrial trends, demographic issues, and transformative technologies that have implications for environmental protection. EPA senior managers and staff identified areas for increased focus under each of the Agency's five strategic goals—for example: (1) international increases in transboundary pollution, especially particulate matter; (2) water scarcity and its impact on water quality; (3) increased levels of pharmaceuticals in the waste stream due to the nation's aging population; and, (4) the environmental implications of genomics. In the spring of 2005, the Agency sought input on future issues from state environmental commissioners at an ECOS meeting and from tribal environmental professionals at the Seventh National Tribal Conference on Environmental Management. All of this input will be vital as the Agency considers the most significant future issues and develops its *2006-2011 Strategic Plan*.

EPA continued to identify significant environmental and industrial trends, demographic issues, and transformative technologies that have implications for environmental protection.

Internal Controls, Financial Management Systems, and Compliance with Laws and Regulations

This section discusses EPA's progress in strengthening its management practices and the internal controls the Agency relies on to assure the integrity of its programs and operations. It includes the Administrator's unqualified Statement of Assurance for FY 2005.

FEDERAL MANAGERS' FINANCIAL INTEGRITY ACT

The Federal Managers' Financial Integrity Act (FMFIA) requires agencies to establish and maintain management controls and financial systems that provide reasonable assurance that federal programs and operations are protected from fraud, waste, abuse, and misappropriation of federal funds. FMFIA holds agency heads accountable for correcting deficiencies and requires them annually to identify and report internal control and accounting systems problems and planned remedies.

Based on EPA's self-assessment of its internal controls and financial systems, Agency managers have determined that the Agency's controls are achieving their intended objectives. The Administrator's unqualified Statement of Assurance for FY 2005 is to the right.

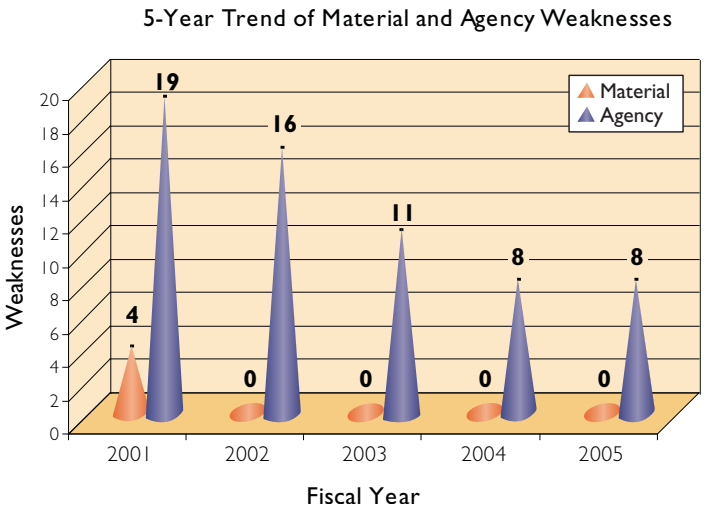
To identify management issues and monitor progress in addressing them, EPA's senior leaders use a system of internal program evaluations and independent audit reviews conducted by the Government Accountability Office, EPA's OIG, and other oversight organizations to assess program effectiveness. In FY 2005, for the 4th year, EPA has no material weaknesses to report under FMFIA. Material weaknesses are reportable conditions that could significantly impair or threaten fulfillment of the Agency's mission and must be reported to the President and Congress. While the Agency reported no new material weaknesses, EPA currently has a number of less severe, internal Agency-level weaknesses for which it is tracking progress. During the year, EPA added two new Agency-level weaknesses to its list and closed two of its existing Agency-level weaknesses in

For the fourth year, EPA had no material weaknesses to report under the Federal Managers' Financial Integrity Act.

Fiscal Year 2005 Annual Assurance Statement

I am pleased to give an unqualified statement of assurance that the Environmental Protection Agency's (EPA) programs and resources are protected from fraud, waste, abuse, and mismanagement. Based on EPA's annual self-assessment of its internal controls, I can reasonably assure that there are no material weaknesses in the Agency's control.

Stephen L. Johnson
Administrator
October 28, 2005



the areas of data management and water permitting. Half of the Key Management Challenges identified by OIG are also current Agency-level weaknesses. The Reports Consolidation Act of 2000 requires the Inspector General to identify, briefly assess, and report annually the most serious management and performance challenges facing the Agency (see Section III of this report).

OMB has recognized EPA's efforts to maintain effective and efficient internal controls. Since September 2003, EPA has maintained a green status score for Improved Financial Performance under the President's Management Agenda. EPA has also received a progress score of green for Budget and Performance Integration for all but one consecutive quarter since June 2002.

INSPECTOR GENERAL ACT AMENDMENTS OF 1988

The Inspector General (IG) Act Amendments require federal agencies to report to Congress on their progress in carrying out audit recommendations.

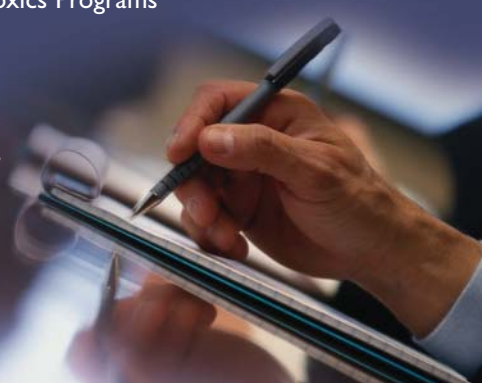
EPA's Audit Follow-up Activities: In FY 2005, EPA was responsible for addressing OIG recommendations and tracking follow-up activities on 396 audits. The Agency achieved final action (completing all corrective actions associated with an audit) on 248 audits, including Program Evaluation/Program Performance, Assistance Agreement, Contracts, and Single audits. EPA's FY 2005 audit management activities are summarized below.

- **Final Corrective Action Taken.** EPA completed final corrective actions on 55 audits with disallowed and better use dollars. Of these 55 audits, OIG questioned costs of more than $14.8 million. After careful review, OIG and the Agency agreed to disallow approximately $7.9 million of these questioned costs. In addition, the Agency also completed final corrective action on 193 audits.
- **Final Corrective Action Not Taken.** At the end of FY 2005, 148 audits were without final action and not yet fully resolved. (This total excludes audits with management decisions under administrative appeal by the grantee.)
- **Final Corrective Action Not Taken Beyond One Year.** Of the 148 audits, EPA officials had not completed final action on 30 audits within 1 year after the management decision (the point at which OIG and the Action Official reach agreement on the

EPA's Key Management Challenges Reported by the Office of Inspector General

1. Linking Mission and Management
2. Agency Efforts in Support of Homeland Security
3. Superfund Evaluation and Policy Identification
4. Information Resources Management and Data Quality
5. EPA's Use of Assistance Agreements to Accomplish Its Mission
6. Challenges in Addressing Air Toxics Programs
7. Human Capital Management
8. Information Systems Security

Section III of this report provides more detailed information on OIG's Key Management Challenges and EPA's response.



corrective action plan). Because the issues to be addressed may be complex, Agency managers often require more than 1 year after management decisions are reached with OIG to complete the agreed-upon corrective actions.

- **Audits Awaiting Decision on Appeal.** EPA regulations allow grantees to appeal management decisions on financial assistance audits that seek monetary reimbursement from the recipient. In the case of an appeal, EPA must not take action to collect the account receivable until the Agency issues a decision on the appeal. In FY 2005, 33 audits were in administrative appeal.

EPA Audits Involving Disallowed Costs and Funds Put to Better Use: As required by the IG Act Amendments, the following table presents information on audits that involve disallowed costs and funds put to better use.

EPA uses audit management as a tool in assessing its progress and its ability to meet its strategic objectives. The Agency is continuing to strengthen its audit management practices and is working to address issues and complete corrective actions in a timely manner.

FEDERAL FINANCIAL MANAGEMENT IMPROVEMENT ACT

The Federal Financial Management Improvement Act of 1996 (FFMIA) requires that agencies' financial management systems substantially comply with federal financial management system requirements, applicable federal accounting standards, and the U.S. Government Standard General Ledger. In response to the

Disallowed Costs & Funds Put to Better Use
October 1, 2004 – September 30, 2005

Category	Disallowed Costs Number	Disallowed Costs Value	Funds Put to Better Use Number	Funds Put to Better Use Value
A. Audits with management decisions but without final action at the beginning of FY 2005.	67	$74,329,390	0	$0
B. Audits for which management decisions were made during FY 2005: (i) Management decisions with disallowed costs. (43) (ii) Management decisions with no disallowed costs. (192)	237	$ 4,488,195	4	$2,868,844
C. Total audits pending final action during FY 2005. (A+B)	304	$78,817,585	4	$2,868,844
D. Final action taken during FY 2005:	245	$ 7,560,083	3	$ 866,548
(i) Recoveries				
a) Offsets		$ 939,846		
b) Collections		$ 3,849,707		
c) Value of Property		$0		
d) Other		$ 1,526,025		
(ii) Write-offs.		$ 388,228		
(iii) Reinstated through grantee appeal.		$ 856,277		
(iv) Value of recommendations completed.				$0
(v) Value of recommendations management decided should/could not be completed.				$0
E. Audit reports needing final action at the end of FY 2005. (C - D)	59	$71,257,502	1	$2,002,296

FY 1999 financial statement audit, EPA implemented an FFMIA remediation plan to improve the Agency's financial management systems in order to comply with federal financial system requirements. Currently, EPA has completed all but two corrective actions: security certification policy for contractor personnel, and security certification policy for grantee personnel. EPA anticipates completing these actions by the first quarter of FY 2007. The Agency continues to improve cost accounting and reconciliation of intragovernmental transactions. EPA has no substantial noncompliance findings.

The Agency is in the process of developing a modern financial system infrastructure to help EPA better manage the resources that support our environmental mission, more accurately measure the true costs of environmental programs, and better inform the public. The new system will be implemented in FY 2008. Detailed plans for this project are available at www.epa.gov/ocfo/modernization/index.htm.

For six consecutive years, the Agency submitted timely financial statements with a clean audit opinion.

FEDERAL INFORMATION SECURITY MANAGEMENT ACT

Federal Information Security Management Act (FISMA) directs federal agencies to conduct annual evaluations of information security programs and practices. It provides a comprehensive framework for ensuring the effectiveness of information security controls over information resources that support Federal operations and assets. Agencies must report annually to OMB on the effectiveness of their information security programs, which includes an independent evaluation by the Inspector General. Agencies also report quarterly to OMB on the status of remediation of weaknesses found.

EPA's FISMA Report for FY 2005, dated October 7, 2005, highlights the results of the Agency's annual security program reviews and was completed by EPA's Chief Information Officer, senior agency program officials, and Inspector General. The report reflects EPA's continued efforts to ensure that information assets are protected and secured in a manner consistent with the risk and magnitude of the harm resulting from the loss, misuse, or unauthorized access to or modification of information. In FY 2005, EPA reported no significant deficiencies in its information security systems under FISMA.

GOVERNMENT MANAGEMENT REFORM ACT—AUDITED FINANCIAL STATEMENTS

The Government Management Reform Act (GMRA) of 1994 amended the requirements of the Chief Financial Officers (CFO) Act of 1990 by requiring the annual preparation and audit of agency-wide financial statements. EPA's statements are audited by the Inspector General, who issues an audit report on the principal financial statements, internal controls, and compliance with laws and regulations.

For six consecutive years, the Agency submitted timely financial statements with a clean audit opinion—another important aspect of accountability. These statements (presented in Section IV of this report) provide a snapshot of the Agency's financial position at the end of fiscal year.

Financial Analysis

EPA's financial management strategy focuses on running environmental programs in a fiscally responsible manner to assure that resources are used wisely and effectively to protect human health and the environment. In FY 2005, the Agency continued its efforts to improve its financial management systems and processes, data quality and accessibility, and accountability. These improvements strengthen EPA managers' ability to use financial analyses as well as performance information to make priority-setting decisions that influence resource planning and environmental results. (See Section IV for more detailed information on financial strategies and initiatives.)

MEASURING FINANCIAL MANAGEMENT RESULTS

The Agency measures its financial management effectiveness against external and internal standards. External standards include the President's Management Agenda (PMA) initiatives, the Program Assessment Rating Tool (PART), audited financial statements, and Government-wide Financial Performance Metrics. Internally, the Agency tracks its performance in key financial management areas: processing payments and reconciling cash, as well as managing accounts receivable, obligations, budgets, contracts, Superfund billings, and property.

EPA has maintained its green score for the PMA Improved Financial Performance initiative by continuously setting and meeting higher performance goals. In FY 2005, EPA produced accurate and timely accelerated interim quarterly financial statements, completed Quality Assurance Reviews to ensure the accuracy of Agency financial data, and automated preparation of the Statement of Net Costs by Goal.

The PMA initiative on Eliminating Improper Payments is focused on identifying, preventing, and eliminating erroneous payments. As required by the Improper Payments Information Act (IPIA) of 2002 and the Office of Management and Budget (OMB) Memorandum M-03-07,

Financial Highlights

- Maintained green status score for Improved Financial Performance PMA initiative.
- Maintained "green" progress score for Budget/Performance Integration and Eliminating Improper Payments PMA initiatives.
- Maintained a less than one percent erroneous payment rate.
- Made progress integrating budget and performance data.
- Supported E-Government and Human Capital PMA initiatives.
- Earned an unqualified audit opinion on the FY 2005 financial statements.

Improper Payment Reduction Outlook for FY 2004–FY 2007 (dollars in millions)

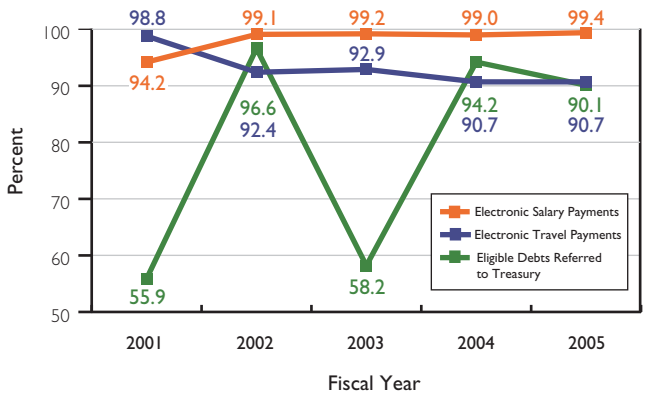
PROGRAM	FY 2004 OUTLAYS	FY 2004 Improper Payments %	FY 2004 Improper Payments	FY 2005 OUTLAYS	FY 2005 Improper Payments %	FY 2005 Improper Payments	FY 2006 Improper Payments %	FY 2007 Improper Payments %	FY 2008 Improper Payments %
Clean Water and Drinking Water SRFs	$2,182	.47%	$10.3*	$1,928	Actual 0.16% Target .45%	$3.1	.40%	.35%	.30%

*Approximately $10 million of the $10.3 million identified as erroneous payments was attributable to states prematurely drawing down funds for allowable expenses.

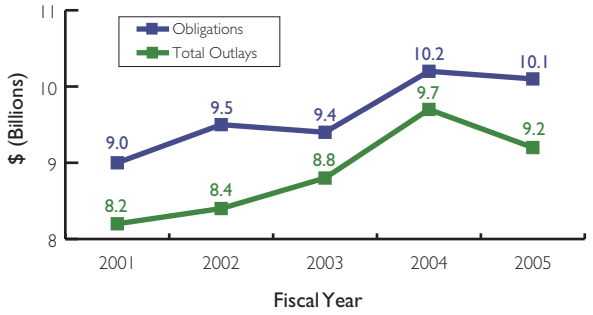
EPA samples and annually reports on improper payments in the two State Revolving Funds (SRFs) previously covered under OMB Circular A-11, Section 57. For FY 2005, the Agency assessed a statistical sample of direct state payments and judgemental sub-recipient payments. EPA's samples identified a less than 1 percent error rate in payments. The chart below provides 2 years of actual performance as well as planned reduction targets.

In FY 2005, the Agency met or exceeded the standard for four of the government-wide performance metrics and has an action plan to improve performance for the other five metrics. Additionally, EPA generally met or exceeded internal performance goals. Over 99.9 percent of the Agency's contracts were paid on time and EPA received $330 thousand in purchase card rebates from the purchase card contractor. The chart immediately below presents results for three internal Agency performance measures that support the EPA's E-government and improved financial performance priorities. To further improve efficiency and consistency, EPA is realigning major accounting functions and customer service responsibilities from 14 locations to four Finance Centers of Excellence. The Agency reached the 50 percent mark in the consolidation this year and plans to complete it by December 2006.

Financial Management Performance Measures



EPA Financial Trends
(Data from Statement of Budgetary Resources as of 11/10/05)



RESOURCES AND OUTLAYS

In FY 2005 EPA received $8.03 billion in Congressional appropriations.[21] EPA Financial Trends[22] (shown at bottom left) shows a 5-year snapshot of the Agency's used resources. The Statement of Budgetary Resources, included in Section IV, presents additional information on the Agency's resources. The table below shows EPA's FY 2005 obligations by Congressional appropriation.

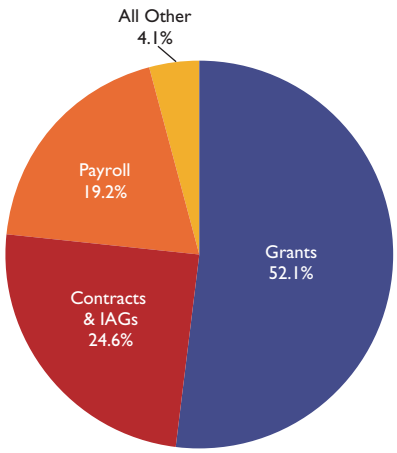
FY 2005 Obligations by Appropriation (Dollars in Millions)
(Data from Statement of Budgetary Resources as of 11/10/05)

State & Tribal Assistant Grants	$3,608.5 (35.6%)
Superfund	$1,544.9 (15.3%)
All Other	$4,971.0 (49.1%)
Total	**$10,124.4 (100%)**

EPA works with its partners in the public and private sectors to accomplish its mission and uses a variety of funding mechanisms—including grants, contracts, innovative financing, and collaborative networks—to protect human health and the environment. The pie chart below depicts EPA's costs (expenses for services rendered or activities performed) by spending category.[23]

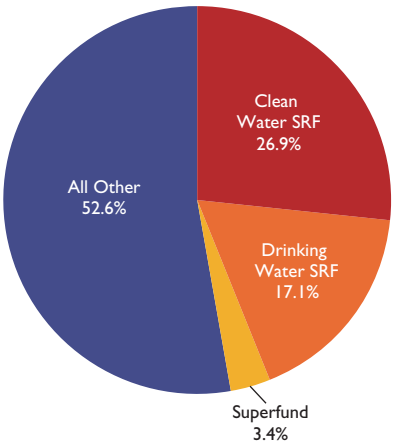
The majority of EPA's costs are for grant programs (see pie chart on next page). The Clean Water and Drinking Water SRF grants supporting the Agency's Clean and Safe Water goal account for 43 percent of EPA's grant awards. Other major environmental grant programs include assistance to states and tribes,

FY 2005 Cost Categories
(Data as of 11/10/05—Reconciles to Statement of Net Cost)



FY 2005 Major Grant Categories

(Data as of 11/10/05—reconciles to Statement of Net Cost & Stewardship Report)



consistent with EPA's authorizing statutes, and research grants to universities and nonprofit institutions. (See pie chart above.)

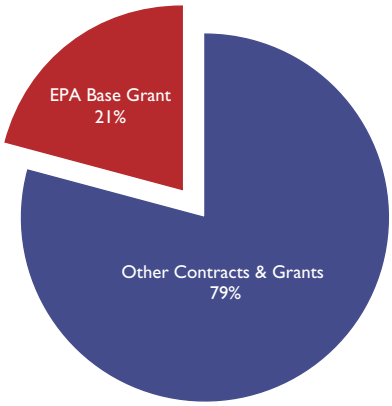
INNOVATIVE FINANCING: PARTNERSHIPS AND THE ENVIRONMENTAL FINANCE PROGRAM

EPA leverages federal funds through several innovative environmental financing efforts, mutually beneficial public–private partnerships, such as SRFs and the Environmental Finance Program, and Superfund program cost recoveries.

EPA uses collaboration and partnerships with the states to wisely manage its resources for keeping the nation's water clean and safe. As of early FY 2006, the Clean Water SRF had leveraged nearly $23 billion in federal capitalization grants into more than $52 billion in assistance to municipalities and other entities for wastewater projects. As of early FY 2006, the Drinking Water SRF had leveraged $6.5 billion in federal capitalization grants into more than $11 billion in assistance for drinking water infrastructure. (Note: The current FY 2005 Drinking Water SRF data includes information from 50 DWSRF Programs, including partial data from New York. The remaining data for New York is expected at the end of November 2005).

The Environmental Finance Program helps regulated parties find ways to pay for environmental activities. The program works to lower costs, increase investments, and build financial capacity. It provides leveraged financial outreach to governments and the private sector via an Environmental Financial Advisory Board, an online database, and a network of nine university-based Environmental Finance Centers (EFCs). To date, this network has provided educational, technical, and analytic support in 48 states. For every dollar that EPA has invested in it, the network has invested 3.67 dollars in project work (see pie chart below). Additional information on the program is available at www.epa.gov/efinpage.

EFCN Funding Sources



One of the Agency's compliance and enforcement success stories is its Superfund program, which leverages funding to increase cleanup of contaminated sites. Under Superfund, EPA may recover the cost of cleanups. Since 1980, EPA has collected $3.34 billion in cost recoveries ($63 million collected in FY 2005). EPA also retains and uses the proceeds received under settlement agreements to conduct cleanup activities, placing these funds in interest-bearing, site-specific special accounts. With careful management, EPA uses and leverages these resources to the fullest extent possible. As of September 30, 2005, EPA had established 540 special accounts with $1.5 billion in receipts. These accounts have earned $206 million in cumulative interest.[24]

NEW FINANCIAL MANAGEMENT INITIATIVES

Committed to providing managers with timely, accurate information critical for managing resources wisely, the Agency leverages technology and updates its systems to produce the information needed to make sound decisions. In the near term, the enhanced internal control requirements in OMB Circular A-123 will strengthen EPA's existing management integrity efforts and provide a platform to broaden our scope and expand our focus on programmatic efficiency and effectiveness. This activity will complement efforts planned or underway to achieve economies of scale and develop and enhance

financial information tools to meet the decisionmaking needs of EPA managers.

Additionally, the Agency is expanding the use of financial information by integrating additional financial information into EPA's decisionmaking processes, with an initial focus on grants data. EPA also successfully conducted the first Competitive Sourcing "Standard Competition" for vendor payment services. The Agency's Research Triangle Park Finance Center bested the private sector contractors' bids for providing these services, resulting in savings to the Agency of $3.5 million over 5 years.

Leveraging Technology

E-government—leveraging technology to gain efficiencies across government.

Financial accountability—integrating budget and performance data, providing more precise information about program costs, and identifying areas for improvement.

Modern resource management systems—implementing 21st century tools to manage Agency resources.

Data warehousing and reporting—searching data for latent correlations and providing easy access to useful data.

Security—protecting data against today's threats.

NOTES

1 The Federal Managers Financial Integrity Act, the Inspector General Act Amendments, the Government Management Reform Act, the Chief Financial Officers Act, and the Reports Consolidation Act.

2 EPA Announces Landmark Clean Air Interstate Rule (Agency Press Release, 3/10/05).

3 EPA Announces First-Ever Rule to Reduce Mercury Emissions from Power Plans (3/15/05).

4 For more information on the toxics program see www.epa.gov/ttn/atw/urban/urbanpg.html.

5 Clearing the Air: Asthma and Indoor Air Exposures. ISBN 0-309-06496. January 2000.

6 A copy of the report can be found at www.epa.gov/owow/oceans/nccr2.

7 More information on EPA's Superfund Program can be found at www.epa.gov/superfund/index.htm.

8 Memorandum from Cliff Rothenstein, Director, EPA Office of Underground Storage Tanks to Underground Storage Tanks/Leaking Underground Storage Tanks Division Directors in EPA Regions 1-10, June 2, 2005, "FY 2005 Semi Annual Mid-Year Activity Report."

9 Preliminary end-of-year data provided by EPA's Office of Underground Storage Tanks, November 9, 2005.

10 Additional information about EPA's recycling programs can be found at www.epa.gov/epaoswer/non-hw/muncpl/recycle.htm.

11 For additional information on EPA authorities for conducting work under the Food Quality Protection Act go to www.epa.gov/pesticides/regulating/tolerances.htm.

12 For additional information on pesticide registration and assessment go to www.epa.gov/pesticides/index.htm.

13 For additional information on the high production chemical program go to www.epa.gov/chemrtk/volchall.htm.

14 Centers for Disease Control, National Center for Health Statistics. National Health and Nutrition Examination Survey: 1999-2002: May 2005. More information is available at www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm.

15 More information can be found at www.epa.gov/compliance/resources/cases/civil.

16 More information can be found at www.epa.gov/compliance/resources/cases/criminal.

17 More information on PCS is available at www.epa.gov/compliance/data/systems/water/pcssys.html.

18 The Office of Management and Budget (OMB) regularly releases an executive scorecard which rates each federal agency's overall status and progress in implementing the PMA initiatives. The scorecard ratings use a color-coded system based on criteria determined by OMB.

19 US EPA, American Indian Environmental Office. "Target 1 Program Performance Report." Goal 5, Objective 5.3 Reporting System.

20 It is important to note that the Safe Drinking Water Information System (SDWIS) has been identified as an Agency-level Weakness under the Federal Managers Financial Integrity Act, with corrective action to be completed in 2007. The data are not considered materially inadequate, however, per OMB's definition. The Verification and Validation section of the Annual Performance Plan and Congressional Justification has details on data limitations associated with SDWIS.

21 Public Law 108-447 H.R. 4818.

22 Section IV, FY 2005 Statement of Budgetary Resources.

23 Section IV, FY 2005 Statement of Net Costs.

24 EPA's Integrated Financial Management System.

Section II.

Performance Results

CONTENTS

Introduction 32

Goal 1—Clean Air and Global Climate Change 35

Goal 2—Clean and Safe Water 66

Goal 3—Land Preservation and Restoration 92

Goal 4—Healthy Communities and Ecosystems 110

Goal 5—Compliance and Environmental Stewardship 151

Enabling and Support Programs 172

Introduction

EPA'S PERFORMANCE FRAMEWORK

EPA is committed to using the taxpayer funds it receives from Congress to produce meaningful environmental results. The Agency has established five long-term strategic goals that describe the results it is striving to achieve: (1) Clean Air and Global Climate Change, (2) Clean and Safe Water, (3) Land Preservation and Restoration, (4) Healthy Communities and Ecosystems, and (5) Compliance and Environmental Stewardship.

These goals are supported by a planning and budgeting framework, or "architecture," of long-term objectives and annual performance goals and measures.

The strategic "architecture" serves as a framework for EPA's

EPA's Performance Framework

*FY 2005 Costs and Obligations Are Presented for Each Strategic Goal (in Thousands of Dollars)**

Strategic Goals

Clean Air & Global Climate Change	Clean & Safe Water	Land Preservation & Restoration	Healthy Communities & Ecosystems	Compliance & Environmental Stewardship
Cost: $990,489 Obligation: $987,796	Cost: $3,507,201 Obligation: $3,578,976	Cost: $2,015,874 Obligation: $3,403,712	Cost: $1,272,852 Obligation: $1,367,964	Cost: $714,178 Obligation: $787,535

Strategic Objectives

Clean Air & Global Climate Change	Clean & Safe Water	Land Preservation & Restoration	Healthy Communities & Ecosystems	Compliance & Environmental Stewardship
Outdoor Air (8 APGs) Cost: 62.7% Obligation: 62.9%	Contamination in Drinking Water, Shellfish, and Recreational Waters (11 APGs) Cost: 33.2% Obligation: 35.7%	Preserved Land (2 APGs) Cost: 12.1% Obligation: 6.6%	Chemical, Organism & Pesticide Risks (10 APGs) Cost: 34.4% Obligation: 33.4%	Improved Compliance (3 APGs) Cost: 61.1% Obligation: 59.9%
Indoor Air (3 APGs) Cost: 5.3% Obligation: 5.0%	Water Quality (6 APGs) Cost: 62.8% Obligation: 60.3%	Restored Land (4 APGs) Cost: 84.5% Obligation: 90.4%	Communities (3 APGs) Cost: 18.8% Obligation: 21.0%	Improved Environmental Performance through P2 and Innovation (2 APGs) Cost: 16.7% Obligation: 16.3%
The Ozone Layer (1 APG) Cost: 2.4% Obligation: 1.8%	Science & Research (1 APG) Cost: 4.0% Obligation: 4.0%	Science & Research (1 APG) Cost: 3.4% Obligation: 3.0%	Ecosystems (6 APGs) Cost: 13.0% Obligation: 13.0%	Tribal Capacity to Implement Environmental Programs (1 APG) Cost: 10.0% Obligation: 10.8%
Radiation (3 APGs) Cost: 4.1% Obligation: 4.0%			Science & Research (7 APGs) Cost: 33.8% Obligation: 32.6%	Science & Research (1 APG) Cost: 12.2% Obligation: 13.0%
Greenhouse Gas Intensity (2 APGs) Cost: 11.3% Obligation: 11.8%				
Science & Research (2 APGs) Cost: 14.2% Obligation: 14.5%				

Note: See Performance Results for each Goal and Strategic Objective for presentation of dollars associated with FY 2005 costs and obligations.
* Reconciles with SF-133, Lines 8a and 8b—Obligations.

annual planning, budgeting and accountability work. By integrating these activities under one framework, the Agency has been better able to assess its performance, evaluate its programs, and use that information to make budget and program improvement decisions. EPA's strategic planning and budgeting architecture comprises strategic goals, objectives, annual performance goals, and annual performance measures.

ABOUT THE PERFORMANCE SECTION

The Performance Section of this report provides performance information for each of EPA's five strategic goals and enabling and support programs. Each goal chapter looks at EPA's FY 2005 performance from three perspectives: at the goal, objective, and annual performance goal (APG) levels. The more general information provided at the goal and objective levels enables the reader to get a sense of how EPA is performing in the goal area. Those who wish to learn more can "drill down" into the more complete and detailed information provided for each APG.

The Performance Section also lists Program Assessment Rating Tool (PART) assessments conducted under each of the strategic goals. It identifies performance measures associated with the PART and reports FY 2005 results for the measures for which data are currently available. Future PART measures are listed in a separate table for each strategic goal, along with the year EPA expects to begin reporting data against them. Ratings for programs assessed during 2005 for the FY 2007 budget will be available in February 2006. EPA is currently working to integrate GPRA and PART measures to meet standards for performance measurement established by both EPA and OMB. This integration is another step in EPA's ongoing efforts to establish a set of measures that clearly defines environmental outcomes and achieves EPA's Budget and Performance Integration (BPI) goals. Additional information on PART assessments and EPA's progress in making program improvements will be available in February 2006 at ExpectMore.gov.

Each goal chapter is organized as follows:

1. *Goal Section:* Provides a general overview of EPA's efforts under the goal.

Chapter Organization

- **STRATEGIC GOAL:** Identifies the overall environmental result that EPA is working to achieve in carrying out its mission to protect human health and the environment.
- **OBJECTIVE:** Supports EPA's strategic goals by identifying more specific environmental outcomes or results the Agency intends to achieve within a given time frame, using available resources. EPA's *2003-2008 Strategic Plan* includes 20 objectives.
- **ANNUAL PERFORMANCE GOAL (APG):** Specific results EPA intends to achieve in a given fiscal year. APGs represent the year-by-year accomplishments that EPA believes are needed to achieve its objectives. APGs generally include a target to be achieved (relative to a baseline) and performance measure. Some of EPA's APGs, however, are specific environmental outcomes or results that may take longer than a year to realize and quantify. As a result, data for a number of EPA's FY 2005 APGs will not be available until FY 2006 or beyond.
- **PERFORMANCE MEASURE (PM):** The metric that EPA uses to evaluate its success in meeting an annual performance goal. In many cases, the APG is itself the measure.

2. *Objective Section:* Discusses the Agency's progress toward meeting the objective and lists each of the supporting APGs, noting which have been met, missed, or are awaiting data. Also discusses future challenges EPA faces in achieving the objective.

3. ***APG Section:*** The most detailed discussion of EPA's FY 2005 performance. Provides results for each annual performance goal. Includes trend data, information on relevant program evaluation and management integrity issues, and plans for addressing performance issues. Also includes performance measures developed as a result of Program Assessment and Rating Tool (PART) assessments.

DATA AND INFORMATION QUALITY

The performance information in this report is reliable and, as defined by OMB, no material inadequacies are present.[1] Each of EPA's program offices has certified that the information it submitted for this report is accurate, reliable and unbiased; is transparent and reproducible to an acceptable degree of imprecision; and complies with EPA's Information Quality Guidelines (http://www.epa.gov/oei/qualityguidelines). The certifications, signed by senior EPA managers, are archived by the Office of the Chief Financial Officer.

This section of the report presents actual end-of-year performance information, or the date when it will become available. Where a date is provided, preliminary performance may be reported as estimates, projections, or extrapolations of partial year data. Based on OMB's definition of completeness, therefore, the performance data are considered complete. The report references data sources, including those external to EPA.

Note that EPA reports more detailed information on sources of performance data error, data quality reviews, and data improvements for each annual performance measure in the "Verification and Validation" section of its Annual Performance Plan and Congressional Justification. For the 2006 version, see "Program and Performance Assessment," pages 162-355, at http://www.epa.gov/ocfo/budget/2006/ppa.pdf.

INTRODUCTION TO PERFORMANCE SECTION

EPA's Performance Framework

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The strategic "architecture" serves as a framework for EPA's annual planning, budgeting and accountability work. By integrating these activities under one framework, the Agency has been better able to assess its performance, evaluate its programs, and use that information to make budget and program improvement decisions. EPA's strategic planning and budgeting architecture comprises strategic goals, objectives, annual performance goals, and annual performance measures.

About the Performance Section

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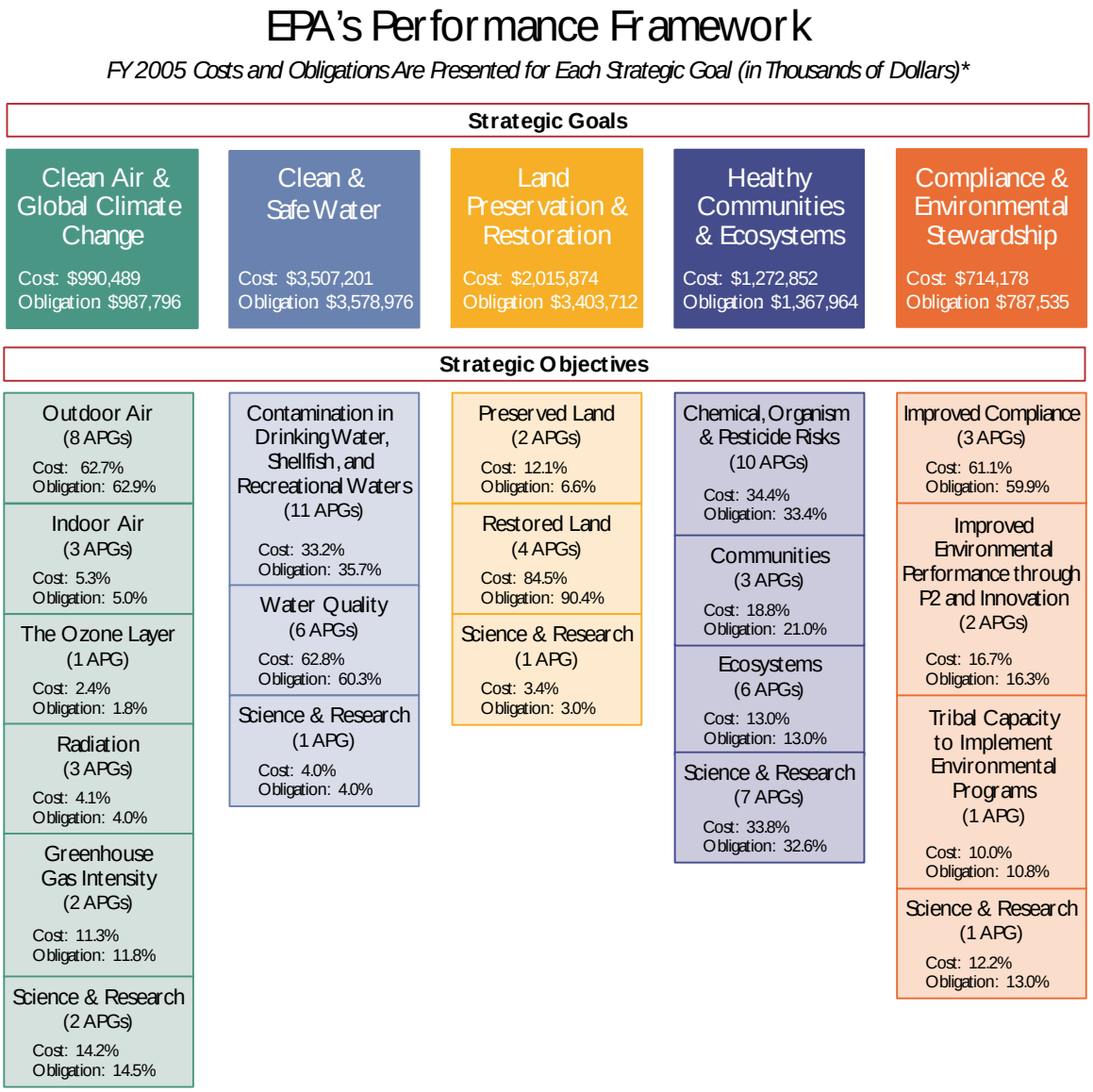
Each goal chapter is organized as follows:

Sub-Section	Purpose
Goal	Provides a general overview of EPA's efforts under the goal.
Objective	Discusses the Agency's progress toward meeting the objective and lists each of the supporting APGs, noting which have been met, missed, or are awaiting data. Also discusses future challenges EPA faces in achieving the objective.
APG	The most detailed discussion of EPA's FY 2005 performance. Provides results for each annual performance goal. Includes trend data, information on relevant program evaluation and management integrity issues, and plans for addressing performance issues. Also includes performance measures developed as a result of Program Assessment and Rating Tool (PART) assessments.



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[1] It is important to note that the Safe Drinking Water Information System (SDWIS) has been identified as an Agency-level Weakness under the Federal Managers Financial Integrity Act, with corrective action to be completed in 2007. The data are not considered materially inadequate, however, per OMB's definition. The Verification and Validation section of the *Annual Performance Plan and Congressional Justification* has details on data limitations associated with SDWIS.

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- **Performance Measure (PM):** The metric that EPA uses to evaluate its success in meeting an annual performance goal. In many cases, the APG is itself the measure.

Strategic Goal 1: Clean Air *and* Global Climate Change

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

Overview of Goal 1

Since 1970, EPA has been working with its partners and stakeholders to implement the Clean Air Act and other environmental laws and approaches to achieve cleaner, healthier air for all Americans. The Agency's strategy for protecting public health relies on national regulatory, voluntary, and market-based programs carried out in combination with state, tribal, and local efforts. By phasing out lead in gasoline, setting tougher standards for vehicle emissions, and using allowance trading to reduce acid rain precursors, national programs have contributed to reducing overall emission of air pollutants by 48 percent since 1970; at the same time, economic growth has increased by more than 160 percent.[2] Every year, state and federal criteria air pollutant programs established pursuant to the 1990 Clean Air Act Amendments significantly benefit human health and the economy.

OUTDOOR AIR POLLUTION

A better understanding by government and industry of fine particle pollution—including the role of sulfur dioxide (SO_2) and nitrogen oxides (NO_x) in forming fine particulate matter—and recent advances in diesel engine and power plant technologies are furthering EPA's progress in addressing outdoor air pollution. In FY 2005, the Agency issued two rules expected to achieve sizable improvements in air quality.

The new Clean Air Interstate Rule (CAIR) is expected to dramatically reduce pollution in the eastern United States, cutting power plant emissions of SO_2 by more than 70 percent and NO_x by more than 60 percent and permanently capping emissions that lead to smog and soot. When fully implemented, CAIR is expected to provide nearly $2 billion in visibility benefits, significantly reducing haze in eastern national parks. Most importantly, EPA estimates suggest that CAIR will result in significant health benefits.[3]

Contributing Programs

- Acid Rain Program
- AirNow
- Air Toxics
- Best Workplaces for Commuters
- Clean Automotive Technology Program
- Climate Leaders Partnership
- Combined Heat and Power
- National Ambient Air Quality Standards and Implementation
- Energy Star Programs
- Green Power Partnership
- High GWP Gas Programs
- Indoor Air Quality
- International Programs
- Methane
- Mobile Sources
- NO_x Budget Program
- Stratospheric Ozone Layer Protection Program
- Pollution Prevention
- Radiation Programs
- SmartWay New Source Review
- Transport Program
- Sunwise Schools Program
- Voluntary Diesel Retrofit Programs

Goal 1 At a Glance

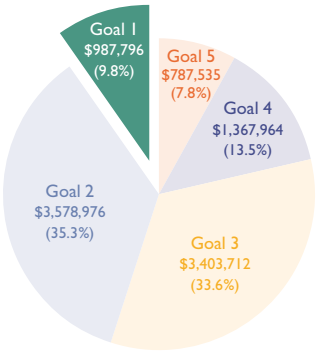
FY 2005 Annual Performance Goals (APGs)

Met = 5 Not Met = 0*

Data Available After November 15, 2005 = 14

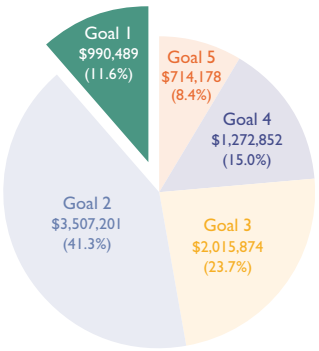
(Total APGs = 19)

FY 2005 Obligations (in thousands)



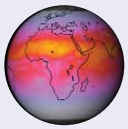
EPA Total = $10,125,983

FY 2005 Costs (in thousands)



EPA Total = $8,500,594

FY 2005 "Report Card"

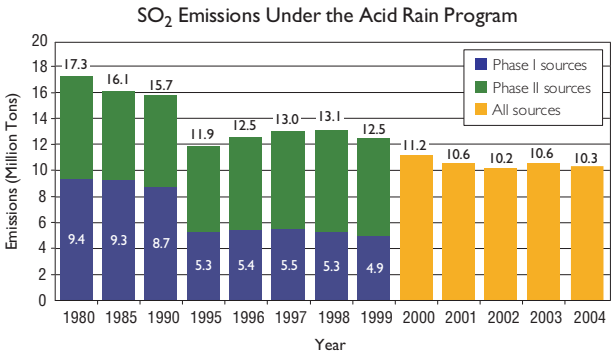
	STRATEGIC OBJECTIVE	APG STATUS
	OBJECTIVE 1–HEALTHIER OUTDOOR AIR Through 2010, working with partners, protect human health and the environment by attaining and maintaining health-based air-quality standards and reducing the risk from toxic air pollutants.	0 Met 0 Not Met 8 TBD
	OBJECTIVE 2–HEALTHIER INDOOR AIR By 2008, 22.6 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings.	1 Met 0 Not Met 2 TBD
	**OBJECTIVE 3–PROTECT THE OZONE LAYER** By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet radiation, particularly among susceptible subpopulations, such as children, will be reduced.	0 Met 0 Not Met 1 TBD
	OBJECTIVE 4–RADIATION Through 2008, working with partners, minimize unnecessary releases of radiation, and be prepared to minimize impacts to human health and the environment should unwanted releases occur.	2 Met 0 Not Met 1 TBD
	OBJECTIVE 5–REDUCE GREENHOUSE GAS INTENSITY Through EPA's voluntary climate protection programs, contribute 45 million metric tons of carbon equivalent (MMTCE) annually to the President's 18% greenhouse gas intensity improvement goal by 2012. (An additional 75 MMTCE to result from the sustained growth in the climate programs are reflected in the administrations' business-as-usual projection for GHG intensity improvement.)	0 Met 0 Not Met 2 TBD
	OBJECTIVE 6–ENHANCE SCIENCE & RESEARCH Through 2010, provide and apply sound science to support EPA's goal of Clean Air by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 1.	2 Met 0 Not Met 0 TBD

Summary of FY 2005 Performance: EPA is confident that, based on results through 2004 and preliminary FY 2005 information and trends, all six strategic objectives are on track. EPA works toward a set of strategic targets and annual goals that support the strategic objectives and help us estimate progress toward the stated long-term objectives.

The Clean Air Mercury Rule (CAMR) is designed to reduce mercury emissions from power plants. Working with CAIR, it provides a flexible multipollutant approach to air toxics, reducing SO_2, NO_x, and mercury emissions. Like CAIR, CAMR limits emissions by using a market-based, cap and trade program that will permanently cap utility mercury emissions. The United States is now the only country regulating mercury emissions from coal-burning power plants.[4]

In FY 2005, EPA also launched the Clean Diesel Campaign, which relies on regulatory and voluntary efforts to reduce emissions from new and existing diesel engines by 2014. Under this campaign, EPA is developing and implementing stringent emissions standards for new engines and fuel. The Agency is addressing the country's existing fleet by promoting such voluntary pollution-cutting measures as retrofits, use of cleaner fuels, replacement, and reduced idling.

EPA's Acid Rain Program and NO_x Budget Program employ market-based allowance trading to reduce SO_2 and NO_x emissions from the power industry. Now in its 10th year, the Acid Rain Program posted a cumulative reduction in SO_2 emissions of 7 million tons, a more than 40 percent reduction from the 1980 baseline. EPA has measured improvements in acid deposition and other environmental indicators, including an approximately 40 percent reduction in sulfate deposition in some regions of the country.[5]



INDOOR AIR POLLUTION

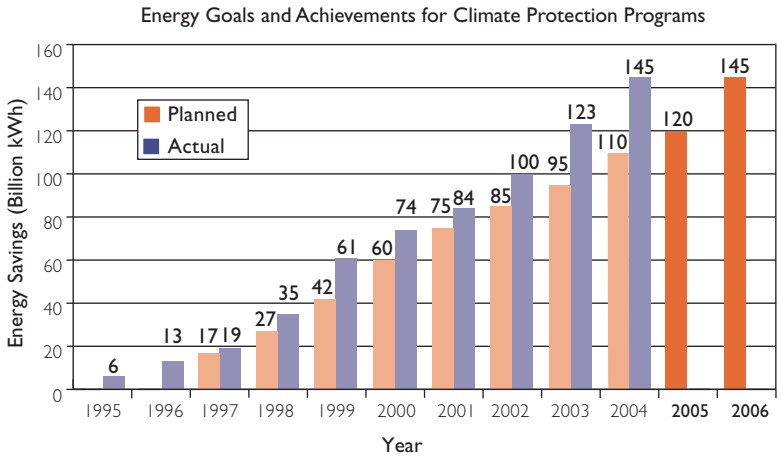
EPA's indoor air programs focus primarily on environmental management of asthma triggers, improving indoor air quality in schools, and reducing risks from radon. For example, the Agency's popular public service Goldfish Campaign, which highlights childhood asthma, has garnered close to $150 million in donated media time, generated nearly 50,000 calls to the "Asthma Hotline," and sparked more than 1 million Web site visits. During FY 2005, EPA trained more than 500 tribal environmental professionals, school nurses, school administrators, local housing authorities, respiratory health therapists, and council members servicing tribal nations on indoor air quality and techniques for reducing asthma risks. Under its schools program, EPA recruited an estimated 2,500 additional schools to use approaches promoted by the Agency's Tools for Schools Program. EPA also collaborated with five national school organizations on training, speaking engagements, mailings, articles, and other activities to make indoor air quality a key priority within the school community.

CLIMATE CHANGE

Most global climate change is attributed the buildup of greenhouse gases—primarily CO_2, methane, and nitrous oxide—in the atmosphere. These gases trap heat in the Earth's atmosphere, decreasing snow cover and floating ice, increasing precipitation over land, and causing other climate changes. Increasing concentrations of greenhouse gases could accelerate the rate of climate change.

EPA's climate protection efforts are centered on reducing emissions of CO_2 and other greenhouse gases such as methane and perfluorocarbons and reducing energy consumption. When consumers and businesses use less energy, power plants need generate less electricity, thereby reducing greenhouse gas emissions and improving air quality. Energy efficient products and practices also benefit the economy by saving consumers and businesses money on their utility bills. EPA programs work to address the most potent greenhouse gases emitted from industrial and waste management processes; challenge businesses, public institutions, and households to reduce greenhouse gas emissions by investing in energy efficiency, renewable energy, and other climate-friendly technologies; and provide information, technical assistance, and recognition to organizations taking measurable steps to reduce their greenhouse gas emissions.

In addition, EPA's climate protection programs have secured substantial energy conservation and environmental benefits for the next decade. Because many of the investments the Agency has promoted involve energy-efficient equipment with 10-year or longer lifetimes, investments made to date are expected to deliver environmental and economic benefits through 2014 and beyond. EPA estimates that organizations and consumers will net savings of more than $115 billion and reduce greenhouse emissions by more than 700 million metric tons of carbon equivalent (MMTCE) over the next 10 years. These programs continue to be cost-effective: EPA estimates that every dollar it spent deploying technology reduced



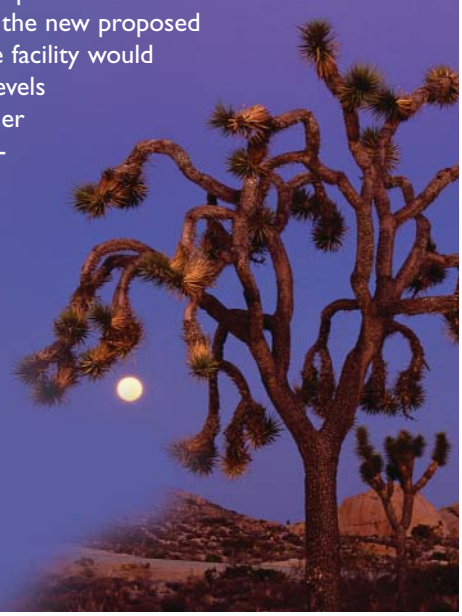
greenhouse gas emissions by more than 1 metric ton of carbon equivalent (3.67 tons of CO_2) and saved more than $75 in energy bills.[6]

STRATOSPHERIC OZONE DEPLETION

EPA also implements programs to protect the ozone layer, meeting requirements of the Montreal Protocol and Title VI of the Clean Air Act. The Agency reviews substitutes for ozone-depleting substances and develops voluntary programs to reduce emissions of gases that contribute to global climate change. If reduction targets are met on schedule, the Stratospheric Ozone Depletion program could help to prevent 6 million skin-cancer deaths over the next 100 years.

Radiation Standards for Yucca Mountain

In FY 2005, EPA prepared a revised radiation health and safety standard for the Yucca Mountain Nuclear Waste Repository that protects public health for an unprecedented 1 million years. Yucca Mountain is a potential permanent repository for spent nuclear fuel and high-level radioactive waste. Under the new proposed standards, people living close to the facility would not be exposed to total radiation levels higher than the levels people in other areas experience routinely. The proposed standards set a maximum dose level for the first 10,000 years. To ensure public safety to 1 million years, EPA proposed a separate, higher dose limit based on current natural background radiation levels in the United States. EPA is accepting public comments on the proposed standard and will carefully consider them before issuing a final standard for Yucca Mountain.



RADIATION

EPA is responsible for protecting the public and environment from radiation. The Radiation Monitoring Network (RadNet) provides data that federal agencies use to assess responses to nuclear emergencies, provides data on ambient levels of radiation in the environment for baseline and trend analysis, and informs decisionmakers and the public in the event of a nuclear incident. In FY 2005, EPA enhanced RadNet by acquiring state-of-the-art fixed and deployable radiation monitors. The Agency also met its FY 2005 responsibilities for reviewing and recertifying the Waste Isolation Pilot Plant (WIPP). EPA oversees radiation waste shipped to the WIPP from sites throughout the United States.

RESEARCH

EPA's 2005 research findings support the association between exposure to particulate matter (PM), illness, and even death. Susceptible groups, including asthmatic children, suffered such adverse effects as impaired health and hospitalization. People with heart disease were found more prone to fatal cardiac events as a result of acute PM exposure. Scientists also found that $PM_{2.5}$, the component of PM smaller than 2.5 microns in diameter, easily penetrates indoor environments, where people spend much of their time. EPA's Office of Research and Development continues to investigate various hypotheses on how PM causes disease and death and will use the results to help the Agency and its partners develop targeted control strategies to reduce human exposure. In addition, EPA will continue research to help implement the National Ambient Air Quality Standards (NAAQS), using modeling and monitoring data to determine which states and regions are out of compliance and developing new analytical tools to help them meet the standards.

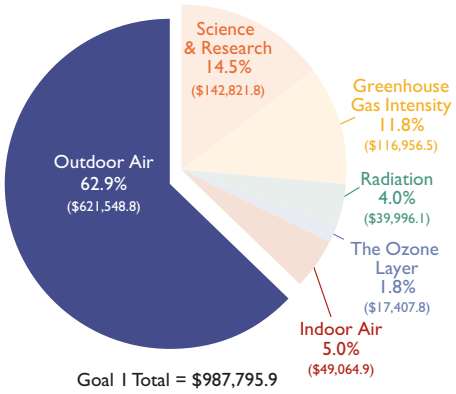
Goal 1 Strategic Objectives

Strategic Objective 1—Healthier Outdoor Air

Through 2010, working with partners, protect human health and the environment by attaining and maintaining health-based air-quality standards and reducing the risk from toxic air pollutants.

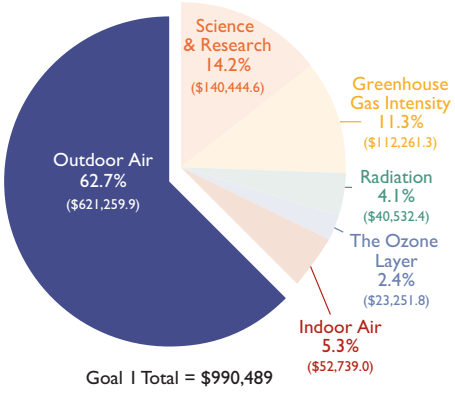
STRATEGIC OBJECTIVE 1—HEALTHIER OUTDOOR AIR		
APG #	APG Title	APG Status
1.1	Reduce CO, SO_2, NO_2, and Lead	FY 2005 data available in FY 2006
		✗ Not Met for FY 2004
1.2	Reduce Exposure to Unhealthy PM Levels—PM_{10}	FY 2005 data available in FY 2006
		✗ Not Met for FY 2004
1.3	Reduce Exposure to Unhealthy PM Levels—$PM_{2.5}$	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
1.4	Reduce SO_2 Emissions	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
1.5	Reduce Air Toxic Emissions	FY 2005 data available in 2015
		✗ Not met for FY 2001
		✗ Not met for FY 2000
1.6	Reduce Exposure to Unhealthy Ozone Levels—8-hour	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
1.7	Acid Rain—Reduce Sulfur Deposition	FY 2005 data available late in FY 2006
		✔ Met FY 2004 goals in FY 2005
1.8	Acid Rain—Reduce Nitrogen Deposition	FY 2005 data available late in FY 2006
		✔ Met FY 2004 goals in FY 2005

FY 2005 Obligations:
Goal 1, Strategic Objective 1
(in thousands)



Goal 1 Total = $987,795.9

FY 2005 Costs:
Goal 1, Strategic Objective 1
(in thousands)



Goal 1 Total = $990,489

OVERVIEW OF PERFORMANCE

EPA continues to make progress in improving air quality and is on track to meet its long-term objective of healthier outdoor air. The Agency's clean air rules provide tools for attaining and maintaining health-based standards and reducing risk from toxic air pollutants:

- The new Clean Air Interstate Rule (CAIR) will help 28 eastern states meet national health-based air quality standards and reduce pollution that moves across state boundaries. When fully implemented, CAIR is expected to reduce power plant emissions of SO2 by more than 70 percent and NOx by more than 60 percent.
- The Clean Air Mercury Rule (CAMR) will reduce mercury emissions from electric utilities. CAMR limits mercury emissions from new and existing coal-fired power plants and creates a market-based cap and trade program that will permanently cap utility mercury emissions, initially at 38 tons beginning in 2010 and finally at 15 tons beginning in 2018.
- The Clean Air Fine Particle Rule designated areas where air does not meet the health-based standards for fine-particulate pollution.

States are required to submit plans for reducing the levels of particulate pollution in these designated areas.

- The Clean Air Ozone Rules (dealing with 8-hour ground-level ozone designation and implementation) designate areas where air does not meet the health-based standards for ground-level ozone. The ozone rules classify the seriousness of the problem and require states to submit plans for reducing ozone levels in designated areas.

CHALLENGES

CAIR, CAMR, the Clean Air Ozone and Particulate Matter Rules, and the Non-Road Diesel and Tier 2 Rules lay the groundwork for meeting health-based air standards and reducing exposure to harmful pollutants. Progress requires effort at all levels of government. Delays in the development of states' clean air plans, for example, could lead to delays in meeting the standards.

Strategic Objective 2—Healthier Indoor Air

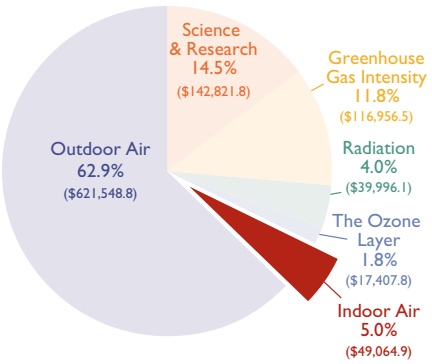
By 2008, 22.6 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings.

STRATEGIC OBJECTIVE 2—HEALTHIER INDOOR AIR		
APG #	APG Title	APG Status
1.9	Healthier Residential Indoor Air	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
1.10	Healthier Indoor Air in Schools	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
1.11	Healthier Indoor Air in Workplaces (NEW IN FY05)	✔ Met in FY 2005

OVERVIEW OF PERFORMANCE

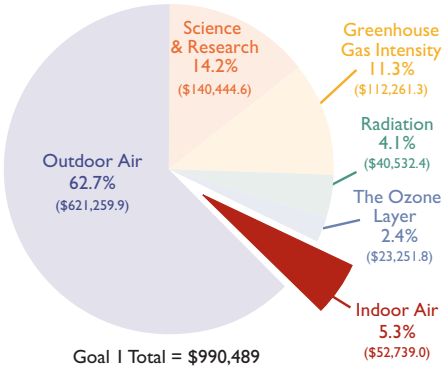
EPA is on track to achieve its objective for healthier air inside homes, schools, and office buildings. EPA estimates that as of 2003, people suffering from asthma avoided 42,000 emergency room visits because they took action to reduce their exposure to indoor environmental asthma triggers. The Agency expects that by 2007, 64,000 ER visits will be avoided annually as a result of reduced exposure to indoor environmental asthma triggers.[7] In addition, EPA estimates that radon mitigations and radon-resistant new construction through 2005 will help save 580 lives annually. The Agency projects an additional 100,000 new homes built with radon resistant construction and more than 70,000 new working mitigation systems in 2005.

FY 2005 Obligations:
Goal 1, Strategic Objective 2
(in thousands)



Goal 1 Total = $987,795.9

FY 2005 Costs:
Goal 1, Strategic Objective 2
(in thousands)



Goal 1 Total = $990,489

As of 2002, more than 25,000 schools (22 percent of U.S. schools) had Indoor Air Quality (IAQ) management plans meeting EPA's standard for effectiveness.[8] EPA expects that in 2007, an additional 1,100 schools will implement effective indoor air quality management plans, for a total of more than 35,000 schools implementing plans nationwide.

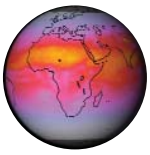
CHALLENGES

EPA's non-regulatory Indoor Environments program is designed to promote voluntary actions by the general public to improve indoor air quality. While the program has been effective using education and outreach to change behavior, in the future, increased authority in some areas could improve program results.

Healthier Indoor Air: Grant Projects

- Through an EPA grant, America's Health Insurance Plans (AHIP) worked with health plans to encourage the reduction of exposure to indoor air asthma triggers. To date, AHIP has educated approximately 200 health plans on evidence-based environmental asthma management; increased by 20 percent the number of health plans that integrate environmental management; and trained approximately 200 case managers who can actively demonstrate increased knowledge of indoor triggers and mitigation solutions.
- In FY 2005, more than 4,000 school nurses through a grant to the National Association of School Nurses were educated about ways to encourage approximately 65,000 children with asthma and their families on how to reduce exposures of indoor air asthma triggers.
- In FY 2005, Habitat for Humanity International, a national leader in the building construction industry, continued to include healthy indoor air quality (IAQ) principles as part of its building ethic. IAQ factors become integrated into Habitat builder training. At least 10 IAQ specific trainings occurred increasing the numbers of Habitat affiliates build homes radon-resistant allowing improved IAQ in residences.

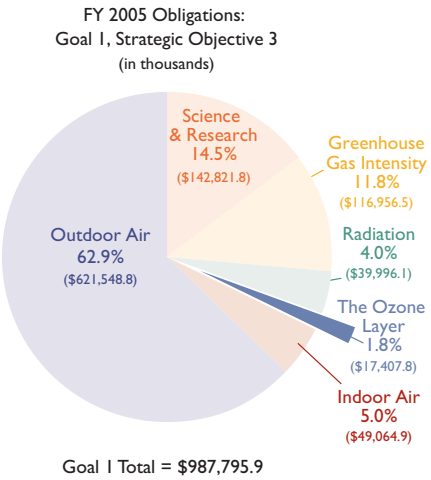
Radon is the leading cause of lung cancer after smoking. The World Health Organization (WHO) estimates that radon could cause up to 15 percent of lung cancers globally. To address this concern, WHO is collaborating with EPA and participating countries on an International Radon Project to increase public awareness about this invisible health threat and actions that can be taken to reduce risks. For additional information on the initiative, visit www.who.int/mediacentre/news/notes/2005/np15/en/index.html.

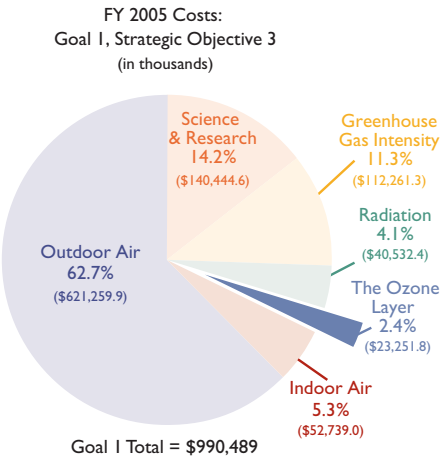


Strategic Objective 3—Protect the Ozone Layer

By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet radiation, particularly among susceptible subpopulations, such as children, will be reduced.

STRATEGIC OBJECTIVE 3—PROTECT THE OZONE LAYER		
APG #	APG Title	APG Status
1.12	Restrict Domestic Consumption of Class II HCFCs	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
		✔ Met FY 2003 goals in FY 2005





OVERVIEW OF PERFORMANCE

The Montreal Protocol on Substances That Deplete the Ozone Layer has reduced global production and use of ozone-depleting substances (ODS). Developed countries stopped producing chlorofluorocarbons (CFCs), methyl chloroform, and carbon tetrachloride in 1996, preventing emission of 400,000 metric tons of ODS. Developing countries are ahead of schedule in reducing their production, use, and emissions of ODS. As a result of these prudent international actions, the rate of increase of atmospheric concentrations of ozone-depleting chemicals has slowed, and in some cases, declined.

Through the Multilateral Fund, the United States helped more than 120 developing countries reduce their use of ozone-depleting chemicals, preventing emission of more than 150,000 metric tons of ODS. The fund has reached long-term agreements to eliminate more than two-thirds of developing countries' capacity for producing CFC and virtually all of their capacity for producing halon.

U.S. industry is benefiting from American leadership in this international arena. In 2004, U.S. firms exported ozone-friendly chemical alternatives, generating $80 million in revenue. In addition, the United States is supplying recycling technology, equipment, and technical assistance to support developing countries' phase-out activities.

CHALLENGES

To further progress in protecting and restoring the ozone layer, EPA must continue its efforts to phase out ODS, while ensuring that ODS remain available for specific uses when no alternatives exist. In particular, with minor, limited exceptions, EPA must phase out the use of hydrochlorofluorocarbons (HCFC-22 and HCFC-142b) by January 1, 2010, a development that is expected to provide largest economic and technical impact since the bulk of CFCs were phased out in 1996. Because these chemicals are so widely used, minimizing the impact on manufacturers and users will be extremely challenging. This effort will require in-depth research and analysis and close consultation with stakeholders around the world, including other governments.

A second challenge is continuing to phase out methyl bromide. Developing an appropriate critical use exemption, which allows production and import of this important agricultural chemical while alternatives are developed, is extremely difficult. EPA will need to conduct thorough technical analyses and carefully consider the views of methyl bromide users, state and local officials, other federal agencies, environmental and other non-governmental organizations, and the international community. Moreover, the window of opportunity to assist methyl bromide users in identifying and adopting practical, effective alternatives is extremely narrow. Farmers will need relevant, timely information to help them produce, ship, and store crops without using methyl bromide.

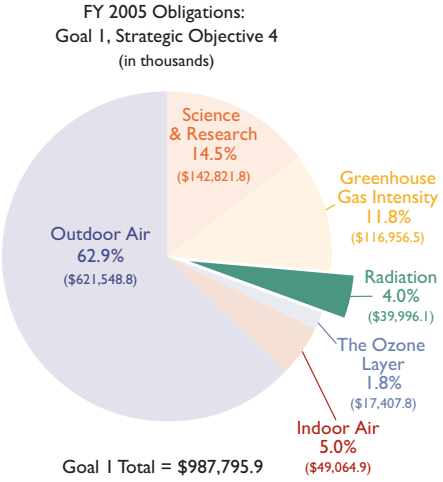
Strategic Objective 4—Radiation

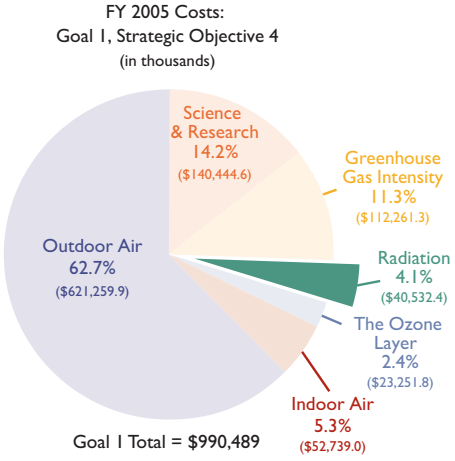
Through 2008, working with partners, minimize unnecessary releases of radiation, and be prepared to minimize impacts to human health and the environment should unwanted releases occur.

STRATEGIC OBJECTIVE 4—RADIATION		
APG #	APG Title	APG Status
1.13	Ensure WIPP Safety	✔ Met in FY 2005
1.14	Build National Radiation Monitoring System	✔ Met in FY 2005
1.15	Homeland Security—Readiness and Response (NEW IN FY05)	FY 2005 data available in FY 2006

OVERVIEW OF PERFORMANCE

EPA is making steady progress toward its 2008 objective of minimizing unnecessary releases of radiation and impacts to human health and the environment. The Agency has conducted regular radiological emergency response exercises; recertified the Waste Isolation Pilot Plant (WIPP);





drafted guidance on acceptable levels of radiation exposure (Federal Radiation Guidance for the General Public) and upgraded and enhanced the radiation monitoring system.

In FY 2005, EPA continued its work with other agencies to ensure the nation's security and readiness from terrorist incidents. The Agency purchased monitors for the Radiation Monitoring Network (RadNet) and will site the initial group of monitors in FY 2006. The initial RadNet plan had called for the full monitoring system to be in place by 2009. However, given the complexities of the system and technology, the date for implementing the monitoring system has been pushed back. Nonetheless, EPA expects to substantially meet its original target by providing radiation monitoring coverage to approximately 65 percent of the U.S. population by 2009. EPA worked with the Department of Energy (DOE) to ensure that the deliveries of radiation waste to WIPP were fully certified according to EPA standards. DOE did not ship as many drums as it had planned this year; however, due to over-shipments in the past, EPA remains on track to meet its long-term goal.

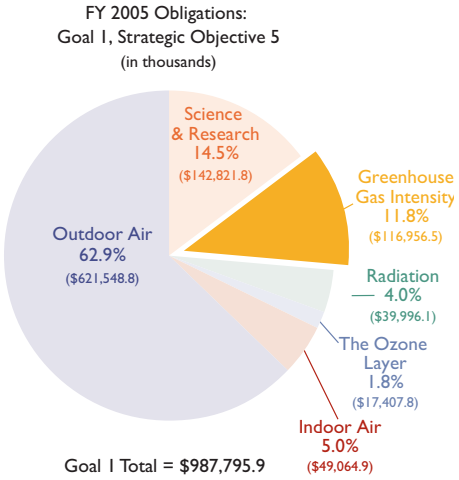
CHALLENGES

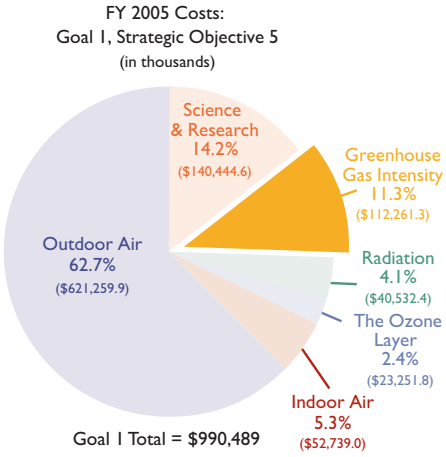
Ensuring the safety of Americans in the event of a terrorist event or other emergency is an ongoing concern. Many agencies contribute to this effort, making coordination complicated. EPA's role is critical but limited. Given the real and perceived danger from radiation, the range of radiation sources, and the expertise needed for cleanup, factoring radiation issues into all plans will be an ongoing challenge. Led by the Department of Homeland Security, EPA will work with other agencies to ensure the nation's safety in nuclear incidents as outlined in the Nuclear/Radiological Incident Annex.

Strategic Objective 5—Reduce Greenhouse Gas Intensity

Through EPA's voluntary climate protection programs, contribute 45 million metric tons of carbon equivalent (MMTCE) annually to the President's 18% greenhouse gas intensity improvement goal by 2012. (An additional 75 MMTCE to result from the sustained growth in the climate programs are reflected in the administrations' business-as-usual projection for GHG intensity improvement.)

STRATEGIC OBJECTIVE 5—REDUCE GREENHOUSE GAS INTENSITY		
APG #	APG Title	APG Status
1.16	Reduce Greenhouse Gas (GHG) Emissions	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
1.17	Reduce Energy Consumption	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005





OVERVIEW OF PERFORMANCE

EPA's voluntary climate protection programs have made progress in reducing emissions of greenhouse gases including carbon dioxide (CO_2), methane, and perfluorocarbons (PFCs). These reductions contribute to progress on the President's goal to reduce greenhouse gas intensity by 18 percent by 2012.

ENERGY STAR, EPA's flagship program, realized substantial economic and environmental benefits through 2004. National awareness of the ENERGY STAR program has grown from 40 to 64 percent. More than 40 types of products now carry the ENERGY

STAR label, and 30 percent of U.S. households knowingly purchased an ENERGY STAR-qualified product. In all, consumers have purchased more than 1.5 billion ENERGY STAR-qualified products. In the residential sector, more than 2,000 builders have constructed more 360,000 ENERGY STAR-qualified homes, providing $200 million in savings for homeowners annually.

Since 2002, the Agency has offered leading organizations the opportunity to be Climate Leaders, partners who take aggressive steps to reduce their impact on the global environment. They inventory their greenhouse gas emissions, set aggressive long-term reduction goals, report their progress to EPA, and are recognized for their achievements. EPA also provides technical assistance to help them assess the environmental and economic benefits of clean energy policies and programs, including those that advance energy efficiency, combined heat and power, and renewable sources of energy.

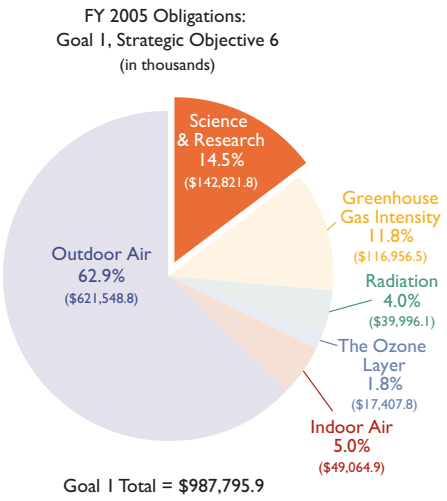
CHALLENGES

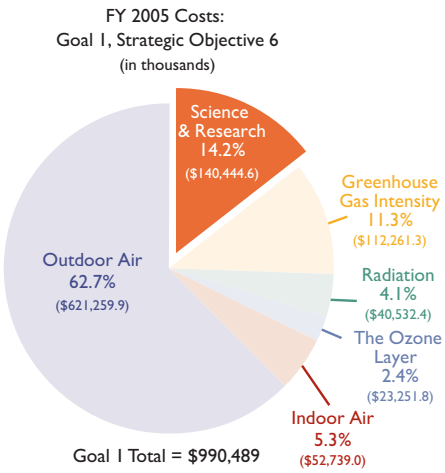
EPA's climate change programs include both domestic and international programs. The domestic programs support the Administration's goal of reducing greenhouse gas intensity by 18 percent by 2012. The Administration has also introduced a number of international initiatives, such as Methane to Markets, in which EPA participates. EPA will continue to work with its voluntary program partners to ensure adequate progress on domestic programs and with other agencies and international partners to support international programs.

Strategic Objective 6—Enhance Science and Research

Through 2010, provide and apply sound science to support EPA's goal of Clean Air by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 1.

STRATEGIC OBJECTIVE 6—ENHANCE SCIENCE AND RESEARCH		
APG #	APG Title	APG Status
1.18	Clean Automotive Technology	✔ Met in FY 2005
1.19	PM Effects Research (NEW IN FY05)	✔ Met in FY 2005



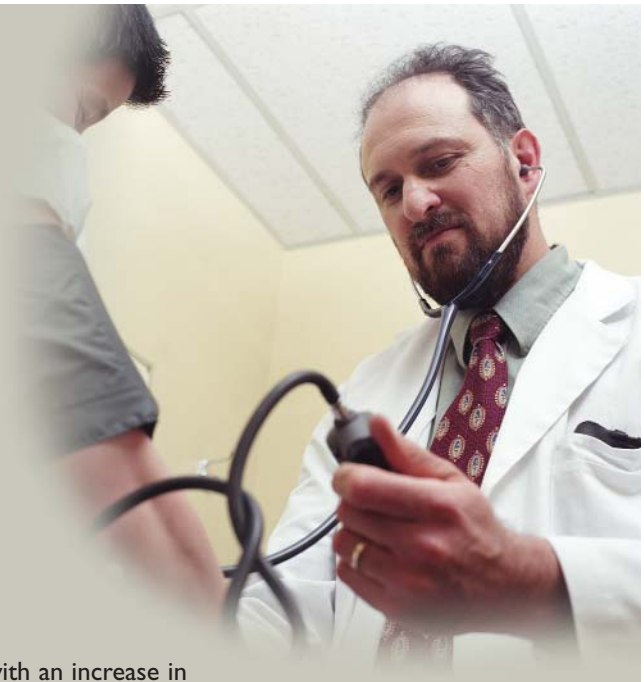


OVERVIEW OF PERFORMANCE

EPA is on track for meeting this objective. The work being done under the Clean Automotive Technology program supports the Agency's climate program's goal to reduce greenhouse gas emissions through significantly improving fuel efficiency of vehicles such as passenger cars, large sport utility vehicles, pickup trucks, urban delivery trucks, school buses, shuttle buses, and refuse trucks.

Additionally, in the area of PM research, EPA developed data on the chemical and physical characteristics of significant primary PM sources. These data will help states and others distinguish these from other sources of PM contributing to ambient PM burden, thereby enabling the development of effective State Implementation Plans (SIPs).

Harvard School of Public Health PM Center Study: Susceptibility to Particulate Air Pollution



Convincing evidence exists that particulate air pollution exacerbates heart and lung disease, which can lead to increased morbidity and mortality risks. However, scientists have been uncertain about which populations are most susceptible to these exposures. An understanding of susceptibility is essential for effectively reducing the adverse public health effects on those at greatest risk.

Under a grant from EPA, researchers at the Harvard PM Center have conducted several studies on susceptibility, using data from multiple cities. Study results show that:

- The risk of heart attacks from PM exposure is double in subjects with a secondary diagnosis of pneumonia or a previous admission for chronic obstructive pulmonary disease.
- Elevated levels of particulate air pollution are associated with an increase in the rate of hospital admissions for exacerbation of congestive heart failure.
- Elevations in ambient particles can transiently increase the risk of ischemic, but not hemorrhagic, stroke.

CHALLENGES

The emphasis of Clean Automotive Technology program work for the next five to 10 years will be research and collaboration with the automotive, trucking, and fleet industries. Through Cooperative Research and Development Agreements (CRADA), EPA's unique hydraulic hybrid technology and advanced clean-engine technologies will be demonstrated in vehicles such as large sport utility vehicles, pickup trucks, urban delivery trucks, school buses, shuttle buses, and refuse trucks. The intent of these real world demonstrations is to lead to the initial commercial introduction of significant elements of EPA's technologies by vehicle manufacturers.

Goal 1 Annual Performance Goals

Strategic Objective 1—Healthier Outdoor Air

Through 2010, working with partners, protect human health and the environment by attaining and maintaining health-based air-quality standards and reducing the risk from toxic air pollutants.

APG 1.1 Reduce CO, SO_2, NO_2, and Lead (Pb)

PERFORMANCE

Under this annual goal, EPA measures improvements in air quality over time associated with the CO, SO_2, Pb, and NO_x area standards. The Agency assesses progress in terms both of population and sources of air emissions reduced. (Note: No areas currently are designated as in non-attainment for the NO_x standard.)

Available data indicate that EPA did not meet its FY 2004 goal. EPA maintained healthy air quality for 173 million people living in 122 monitored areas attaining the CO, SO_2, NO_2 or Pb standards, falling slightly short of its 174 million goal. Out of 24 non-attainment areas that remain, EPA certified 14, five short of its FY 2004 goal of 19. As a result, the number of people living in areas with healthy air increased by 5.4 million fewer than EPA's target of 6.2 million.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-3–C-4.

CHALLENGES

In reviewing these performance results, EPA recognizes that

DATA AVAILABLE FY 2006

FY 2005: The number of people living in areas with monitored ambient CO, SO_2, NO_2, and Pb concentrations below the NAAQS will increase by less than 1% (relative to 2004) for a cumulative total of 53% (relative to 1992).

Performance Measures	*Planned*	*Actual*
• Cumulative percent increase in the number of people who live in areas with ambient CO, SO_2, NO_2, and Pb concentrations below the level the NAAQS as compared to 1992.	53%	Data avail 2006
• Cumulative percent increase in the number of areas with ambient CO, SO_2, NO_2, and Pb concentrations below the level of the NAAQS as compared to 1992.	108%	
• Total number of people who live in areas measuring clean air for CO, SO_2, NO_2, and Pb.	174.2 m	
• Areas measuring clean air for CO, SO_2, NO_2, and Pb.	10 areas	
• Additional people living in new areas measuring clean air for CO, SO_2, NO_2, and Pb.	4.1 m	
• *Tons of CO reduced from mobile sources. (PART)*	-841,971 tons	

✗ GOAL NOT MET FOR FY 2004

FY 2004: Same goal, different targets of 4% relative to 2003 and a cumulative total of 53% relative to 1992.

Performance Measures	*Planned*	*Actual*	
• Cumulative percent increase in the number of people who live in areas with ambient CO, SO_2, NO_2, or Pb concentrations below the level the NAAQS as compared to 1992.	53%	49%	✗
• Cumulative percent increase in the number of areas with ambient CO, SO_2, NO_2, or Pb concentrations below the level of the NAAQS as compared to 1992.	87%	99%	✔
• Total number of people who live in areas designated to attainment of the Clean Air Standards for CO, SO_2, NO_2, or Pb.	174 M	173.3 M	✗
• Areas newly designated to attainment for CO, SO_2, NO_2, or Pb standards.	19 areas	14 areas	✗
• Additional people living in newly designated areas with demonstrated attainment of the CO, SO_2, NO_2, or Pb standards.	6.2 M	5.4 M	✗
• *Tons of CO reduced from mobile sources. (PART)*	12.6 M	12.6M	✔

Data Source(s): The Air Quality Subsystem (AQS). AQS stores ambient air quality data used to evaluate an area's air quality levels relative to the National Ambient Air Quality Standards (NAAQS). The Findings and Required Elements Data System (FREDS) is used to track the progress of states and regions in reviewing and approving the required data elements of the State Implementation Plans (SIPs). SIPs are clean air plans that define what actions a state will take to improve the air quality in areas that do not meet NAAQS. National Emissions Inventory Database contains information about reductions from mobile sources. Also see www.epa.gov/ebtpages/air.html.

Program Assessment Rating Tool (PART)

OMB assessed the Mobile Source program related to this APG in the 2004 PART process. The program received a moderately effective rating. OMB is assessing the NAAQS program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Grants Supporting the Achievement of This APG

Clean Air Act Section 105 grants fund state and local development of control strategies and clean air plans for demonstrating attainment and maintenance of the standards. The grants also support the ambient monitoring networks that measure atmospheric concentrations of these pollutants.

an area may monitor ambient air at a level meeting the standard, yet not update its clean air plan (a requisite for designation to attainment). Therefore, to more accurately assess progress in meeting health-based standards, EPA has changed this goal/measure for FY 2006 to measure areas that are monitoring clean air.

EPA is working with states on other, unique areas that are not monitoring clean air for one of these standards to assist them in developing local solutions that reflect local geographic and economic considerations.

APG 1.2 Reduce Exposure to Unhealthy PM Levels—PM_{10}

PERFORMANCE

Acute exposure to particles can lead to various serious health effects. Coarse and fine particles pose the greatest problems. Many scientific studies link breathing particulate matter (PM) to aggravated asthma, respiratory symptoms like coughing and difficult or painful breathing, chronic bronchitis, decreased lung function, and premature death. Coarse particles (PM_{10}) come from such sources as wind-blown dust and unpaved roads and can contribute to respiratory problems such as asthma and bronchitis. Under this annual goal, EPA measures the improvement in air quality over time in meeting the health-based standard for PM_{10}.

In 1991, EPA designated 87 areas in the United States as not meeting the National Ambient Air Quality Standard (NAAQS) established for PM_{10}. Under the Clean Air Act, states were required to develop and implement control programs to reduce the emissions of PM_{10} in order to achieve the standard. As a result of state PM_{10}

DATA AVAILABLE FY 2006	**FY 2005:** The number of people living in areas with monitored ambient PM concentrations below the NAAQS for the PM_{10} standard will increase by less than 1% (relative to 2004) for a cumulative total of 7% (relative to 1992).	
Performance Measures	*Planned*	*Actual*
• Cumulative percent increase in the number of people who live in areas with ambient PM_{10} concentrations below the level of the NAAQS as compared to 1992.	7%	Data avail 2006
• Cumulative percent increase in the number of areas with ambient PM_{10} concentrations below the level of the NAAQS as compared to 1992.	74%	
• Total number of people who live in areas measuring clean air for PM_{10}.	120.8 m	
• Areas measuring clean air for PM_{10}.	10	
• Additional people living in new areas measuring clean air for PM_{10}.	453 K	
• *Tons of PM_{10} reduced from mobile sources. (PART)*	62,161 tons	

✗ GOAL NOT MET FOR FY 2004	**FY 2004:** Same goal, target of 1% relative to 2003 and cumulative total of 6% relative to 1992.		
Performance Measures	*Planned*	*Actual*	
• Cumulative percent increase in the number of people who live in areas with ambient PM_{10} concentrations below the level of the NAAQS as compared to 1992.	6%	6%	✔
• Cumulative percent increase in the number of areas with ambient PM_{10} concentrations below the level of the NAAQS as compared to 1992.	40%	54%	✔
• Total number of people who live in areas designated attainment of the Clean Air Standards for PM_{10}.	120 M	120.5 K	✔

(Continued on next page)

control programs, 64 of the original 87 areas designated as non-attainment (75 percent) are now measuring clean air with respect to PM_{10}.

EPA did not meet its FY 2004 goal. Although EPA made significant progress in maintaining air quality in FY 2004, it did not fully meet this goal, in part because it was also working with states to meet the newly established goal for particles less than 2.5 micros in diameter. The Agency met its goal of maintaining healthy air quality for 120.5 million people living in 31 areas designated as attaining the PM_{10} standard, EPA certified only six (rather than nine) of the remaining 54 non-attainment areas as attaining the NAAQS, increased the number of people living in areas with healthy air by 126,000, rather than the targeted increase of 380,000. Additional people are living in areas that are monitoring clean air for PM_{10} although these areas were not designated. EPA will continue to work with areas to ensure that progress is made on reducing ambient PM_{10}. For FY 2005, EPA dropped the measure for the number of areas designated in favor of the number of areas monitoring clean air to emphasize the progress in the ambient air monitoring.

✗ GOAL NOT MET FOR FY 2004

FY 2004: Same goal, target of 1% relative to 2003 and cumulative total of 6% relative to 1992. *(continued)*

Performance Measures (continued)	*Planned*	*Actual*	
• Additional people living in newly designated areas with demonstrated attainment of the PM_{10} standard.	380 K	126 K	✗
• Areas newly designated to attainment.	9 areas	6 areas	✗
• Percent of areas with improving ambient PM_{10} concentrations.	76%	62%	✗
• *Tons of PM_{10} reduced from mobile sources. (PART)*	18,100	18,100	✔
• *Tons of $PM_{2.5}$ reduced from mobile sources. (PART)*	13,500	13,500	✔

Data Source(s): The Air Quality Subsystem (AQS). See full writeup in APG 1.1. Also see www.epa.gov/ebtpages/air.html.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-3–C-4.

CHALLENGES

EPA provides annual air quality reports to states and works with them to address areas where violations of the PM_{10} NAAQS are recorded. States are responsible for developing action plans to address the violations and provide their plans to EPA. Challenges include working with states to update their clean air plans.

Program Assessment Rating Tool (PART)

OMB assessed the Mobile Source program related to this APG in the 2004 PART process. The program received a moderately effective rating. OMB is assessing the NAAQS program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Grants Supporting the Achievement of This APG

Clean Air Act Section 103 and105 grants support state, tribal, and local government development of control strategies and clean air plans for demonstrating attainment and maintaining the standards. The grants also support state ambient monitoring networks.

APG 1.3 Reduce Exposure to Unhealthy PM Levels—$PM_{2.5}$

PERFORMANCE

Studies link breathing PM to aggravated asthma, increased coughing and difficult or painful breathing, chronic bronchitis, decreased lung function, and premature death. In 1997, EPA strengthened its health protection standards for PM by adding an indicator for even smaller-sized or "fine" particles ($PM_{2.5}$) that

DATA AVAILABLE FY 2006

FY 2005: The number of people living in areas with monitored ambient PM concentrations below the NAAQS for the $PM_{2.5}$ standard will increase by 1% (relative to 2003) for a cumulative total of less than 1% (relative to 2001).

Performance Measures	*Planned*	*Actual*
• Cumulative percent increase in the number of people who live in areas with ambient $PM_{2.5}$ concentrations below the level of the NAAQS as compared to 2001.	1%	Data avail 2006
• Percent increase in the number of areas with ambient $PM_{2.5}$ concentrations below the level of the NAAQS as compared to 2001.	1%	
• *Tons of $PM_{2.5}$ reduced from mobile sources. (PART)*	61,217 tons	

generally come from industrial fuel combustion and vehicle exhaust. The Agency designated non-attainment areas for $PM_{2.5}$ in December 2004. Under this annual goal, EPA measures the improvement in air quality over time for the $PM_{2.5}$ or fine particle standard. This goal was implemented for the first time in FY 2004 with initial targets while the program collected baseline data. Based on the FY 2004 results, which significantly exceed the target, the program is working to adjust these numbers for FY 2006.

EPA met this goal for FY 2004, achieving a 20 percent increase in the number of people who live areas with ambient $PM_{2.5}$ concentrations below the level of the NAAQS and a 46 percent increase in the number of areas with ambient $PM_{2.5}$ concentrations below the level of the NAAQS as compared to 2001.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-3–C-5.

✔ GOAL MET FOR FY 2004

FY 2004: Same goal, different targets.

Performance Measures	Planned	Actual	
• Cumulative percent Increase in the number of people who live in ambient $PM_{2.5}$ concentrations below the level of the NAAQS as compared to 2001.	<1	20%	✔
• Cumulative percent Increase in the number of areas with ambient $PM_{2.5}$ concentrations below the level of the NAAQS as compared to 2001.	<1	46%	✔

Data Source(s): The Air Quality Subsystem (AQS). See full writeup in APG 1.1. Also see www.epa.gov/ebtpages/air.html.

Program Assessment Rating Tool (PART)

OMB assessed the Mobile Source program related to this APG in the 2004 PART process. The program received a moderately effective rating. OMB is assessing the NAAQS program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Program Evaluations

The Inspector General report: "EPA Needs to Direct More Attention, Efforts, and Funding to Enhance Its Speciation Monitoring Program for Measuring Fine Particulate Matter" (Report No. 2005-P-00004). Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-3.

Grants Supporting the Achievement of This APG

Clean Air Act Section 103 and 105 grants fund state, tribal, and local government development of control strategies and clean air plans for demonstrating attainment of the standards.

APG 1.4 Reduce SO_2 Emissions

PERFORMANCE

Acid deposition, more commonly known as acid rain, occurs when emissions of SO_2 and NO_x react in the atmosphere with water, oxygen, and oxidants to form various acidic compounds. These acid compounds (including small particles such as sulfates and nitrates) can impair air quality and damage public health; acidify lakes and streams; harm sensitive forest and coastal ecosystems; degrade visibility; and accelerate the decay of building materials, paints, and

DATA AVAILABLE FY 2006

FY 2005: Keep annual emissions below level authorized by allowance holdings and make progress toward achievement of Year 2010 SO_2 emissions cap for utilities. Annual emissions reduction target is 6.9 million tons from the 1980 baseline.

Performance Measures	Planned	Actual
• *SO_2 emissions reduced. (PART)*	6.9 M tons	Data avail 2006

✔ GOAL MET FOR FY 2004

FY 2004: Maintain or increase annual SO_2 emission reduction of approximately 5 M tons from the 1980 baseline. Keep annual emissions below level authorized by allowance holdings and make progress toward achievement of Year 2010 SO emissions cap for utilities.

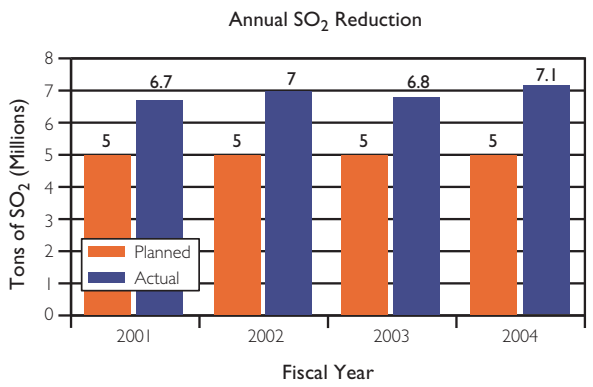
	Planned	Actual	
(Performance measure is included in the annual goal above.)	5 M	7.1M	✔

Data Source(s): Acid Rain Emissions Tracking System. Also see www.epa.gov/airmarkets/arp/.

cultural artifacts, such as buildings, statues and sculptures. Under this annual goal, EPA measures the progress of the acid rain allowance cap and trade program in reducing SO_2 emissions from electric utilities.

EPA met this goal for FY 2004, reducing SO_2 emissions by 7.1 million tons. SO_2 emissions have been reduced by approximately 41 percent from the 1980 level of 17.4 million tons, and the Agency is approaching its goal of a 50 percent reduction by 2010. In FY 2004, some acid rain program sources voluntarily reduced their SO_2 emissions below the level of their allowance allocation in order to bank the allowance for use in future years or to sell them. EPA exceeded the annual goal of 5 million tons because of these voluntary over-reductions.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-1–C-3.



Program Assessment Rating Tool (PART)

OMB assessed the Acid Rain program related to this APG in the 2003 PART process. The program received a rating of moderately effective.

APG 1.5 Reduce Air Toxic Emissions

PERFORMANCE

Under the Clean Air Act Amendments of 1990, EPA identified 187 compounds as hazardous air pollutants. Over 10 years, EPA has issued maximum available control technology (MACT) standards to reduce or eliminate emissions of these pollutants from specific source categories. By calculating the theoretical, expected emission reductions associated with meeting various MACT standards, EPA plans its reduction targets.

In 2001, EPA did not meet its goal of reducing air toxics emissions nationwide from stationary and mobile sources combined by an additional 5 percent of the updated 1993 baseline of 6.0 million tons for a cumulative reduction of 37 percent. Although there are annual slippages, projections developed through 2010 show that EPA will still achieve the estimated cumulative reductions in 2010.

DATA AVAILABLE FY 2015	**FY 2005:** Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by an additional 1% of the updated 1993 baseline of 6.0 million tons for a cumulative reduction of 38%.	
Performance Measures	*Planned*	*Actual*
• Mobile source air toxics emissions reduced.	.80 M tons	Data avail 2015[9]
• Major stationary source air toxics emissions reduced.	1.59 M tons	
• Area and all other air toxics emissions reduced.	+.14 M tons	
DATA AVAILABLE FY 2012	**FY 2004: Same goal,** cumulative target of 37% reduction from the 1993 level.	
Performance Measures	*Planned*	*Actual*
(Performance measure is included in the annual goal above.)	2%	Data avail 2012
• Mobile source air toxics emissions reduced.	.71 M tons	
• Major stationary source air toxics emissions reduced.	1.59 M tons	
• Area and all other air toxics emissions reduced.	+.13 M tons	
DATA AVAILABLE FY 2009	**FY 2003: Same goal,** cumulative target of 35% reduction from the 1993 level.	
Performance Measures	*Planned*	*Actual*
(Performance measure is included in the annual goal above.)	1%	Data avail 2009
• Mobile source air toxics emissions reduced.	.68 tons	
• Major stationary source air toxics emissions reduced.	1.57 tons	
• Area and all other air toxics emissions reduced.	+.12 tons	

(Continued on next page)

Program Assessment Rating Tool (PART)

OMB reassessed the Air Toxics program related to this APG most recently in the 2002 PART process. The program received a rating of adequate.

Program Evaluations

The Inspector General report: "Progress Made in Monitoring Ambient Air Toxics, But Further Improvements Can Increase Effectiveness" (Report No. 2005-P-00008). Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-2.

DATA AVAILABLE FY 2006	**FY 2002:** Same goal, cumulative target of 40% reduction from the 1993 level.		
(Performance measure is included in the annual goal above.)	*Planned* 5%	*Actual* Data avail 2006	
✗ GOAL NOT MET FOR FY 2001	**FY 2001:** Same goal, cumulative target of 35% reduction from the 1993 level.		
(Performance measure is included in the annual goal above.)	*Planned* 5%	*Actual* 1.7%	✗
✗ GOAL NOT MET FOR FY 2000	**FY 2000:** Same goal, cumulative target of 30% reduction from the 1993 level.		
(Performance measure is included in the annual goal above.)	*Planned* 3%	*Actual* 1.7%	✗

Data Source(s): National Toxics Inventory (NTI) and National Emissions Inventory (NEI) for Hazardous Air Pollutants (HAPS). Also see www.epa.gov/ebtpages/airairpohazardousairpollutantshaps.html.

One factor contributing to these results is that, since establishing its 2001 targets, EPA has updated and expanded the inventory of emission sources on which the original projections were based. EPA continues to refine its tools for analyzing emissions to provide better data with which to assess the impact of the MACT standards. Further, to address toxics emissions, EPA is required to re-examine its MACT standards to determine if any residual risk remains after that compliance period has passed. Finally, with EPA's assistance, states are operating and maintaining an air toxics monitoring network that includes 22 sites, strategically located and designed to measure long-range trends in ambient toxics levels.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-5–C-7.

CHALLENGES

EPA issued technology-based standards and has developed a strategy for addressing concerns about assessing and implementing residual risk standards and issues regarding the accuracy of air toxics data used to measure progress. The Agency issued 96 MACT standards that apply to 174 industrial categories. This effort has already resulted in estimated annual reductions of 1.5 million tons of toxic emissions and will achieve even greater reductions by 2007, when all sources come into compliance. To date, EPA has completed 15 area source standards and is working to develop standards for an additional 25 area source categories projected for completion in 2008. When completed, these 40 standards will address more than 90 percent of the 1990 baseline emissions from area sources.

Plans for further improvement include developing an innovative approach to assessing low-risk facilities quickly and assessing impacts from entire facilities, thereby grouping several source categories. EPA also plans to use ambient monitoring data from the air toxic monitoring network as a more direct measure of predicting exposure and risk. (Relates to management challenges discussed in Section III, page 188).

APG 1.6 Reduce Exposure to Unhealthy Ozone Levels—8-hour

PERFORMANCE

Ozone is formed from motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents, and natural sources that emit NO_x and volatile organic compounds (VOCs). Sunlight and hot weather cause ground-level ozone to form in harmful concentrations. Ozone can irritate lung airways, causing inflammation, wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities. In 1997, EPA revised the air quality standards for ozone to reflect scientific studies showing that longer-term exposures to moderate levels of ozone may cause irreversible changes in the lungs. Under this annual goal, EPA measures the improvement in air quality over time for the 8-hour ozone standard.

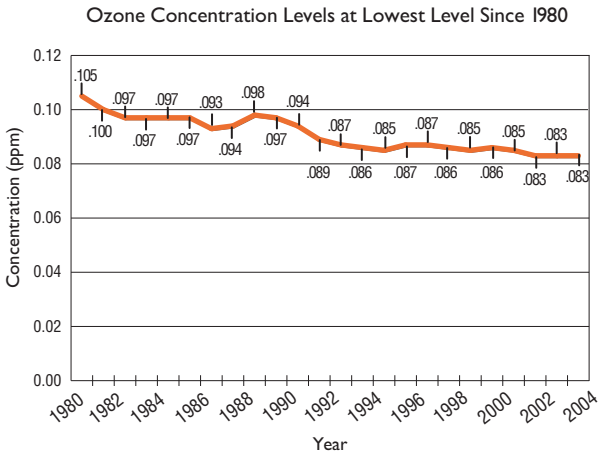
EPA met its goal for FY 2004. Based upon designations EPA made in April 2004, 126 areas of the United States—encompassing 159.3 million people—were determined to be in non-attainment for the ozone standard. This goal was implemented for the first time in FY 2004 with initial targets while the program collected baseline data. Based on the FY 2004 results, which significantly exceed the target, the program is working to adjust the annual targets for FY 2006.

DATA AVAILABLE FY 2006	**FY 2005:** The number of people living in areas with monitored ambient ozone concentrations below the NAAQS for the 8-hour standard will increase by 4% (relative to 2004) for a cumulative total of 7% (relative to 2001).	
Performance Measures	*Planned*	*Actual*
• Cumulative percent increase in the number of people who live in areas with ambient 8-hour ozone concentrations below the level of the NAAQS as compared to 2001.	<1%	Data avail 2006
• Cumulative percent increase in the number of areas with ambient 8-hour ozone concentrations below the level of the NAAQS as compared to 2001.	<1%	
• *Millions of tons of VOCs reduced from mobile sources. (PART)*	0.86 M	
• *Millions of tons of NOx reduced from mobile sources. (PART)*	1.69 M	

✔ GOAL MET FOR FY 2004	**FY 2004:** Same goal, target of 4% relative to 2003.		
Performance Measures	*Planned*	*Actual*	
• Cumulative percent increase in the number of people who live in areas with ambient 8-hour concentrations below the level of the NAAQS as compared to 2001.	<1%	19%	✔
• Cumulative percent increase in the number of areas with ambient 8-hour concentrations below the level of the NAAQS as compared to 2001.	<1%	31%	✔

Data Source(s): The Air Quality Subsystem (AQS). See full writeup in APG 1.1. Also see www.epa.gov/ebtpages/air.html.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-3–C-4.



Based on 3-year rolling averages of annual average fourth maximum 8-hour ozone concentration at 155 monitoring sites.

Program Assessment Rating Tool (PART)

OMB assessed the Mobile Source program related to this APG in the 2004 PART process. The program received a moderately effective rating. OMB is assessing the NAAQS program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Grants Supporting the Achievement of This APG

EPA's Clean Air Act Section 103, 105, and 106 grants support state, tribal, and local government air programs in developing control strategies and clean air plans for demonstrating attainment with the standards.

APG 1.7 Acid Rain—Reduce Sulfur Deposition

PERFORMANCE

Acid deposition, or acid rain, occurs when emissions of SO_2 and NO_x react with water, oxygen and oxidants in the atmosphere to form various acidic compounds. These acidic compounds (including small particles such as sulfates and nitrates) contribute to unhealthy air and respiratory problems in humans, particularly in children and other sensitive populations. Sulfur and nitrogen deposition can also acidify lakes and streams, making them unable to support fish and other aquatic life. This goal was met for FY 2004.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-1–C-3.

DATA AVAILABLE FY 2006	**FY 2005:** *Reduce total annual average sulfur deposition and ambient sulfate concentrations 27% from baseline. Baseline for annual targets up through 2010 is 1990 monitored levels. (PART)*		
(Performance measure is included in the annual goal above.)		*Planned* 27%	*Actual* Data avail 2006
✔ GOAL MET FOR FY 2004	**FY 2004:** *Reduce total annual average sulfur deposition and ambient sulfate concentrations 25% from baseline. (PART)*		
(Performance measure is included in the annual goal above.)		*Planned* 25%	*Actual* 31% ✔

Data Source(s): Clean Air Status and Trends Network (CASTNet) and National Acid Deposition Program (NADP) monitoring networks. Also see www.epa.gov/airmarkets/arp/.

Program Assessment Rating Tool (PART)

OMB assessed the Acid Rain Program related to this APG in the 2003 PART process. The program received a rating of moderately effective.

Grants Supporting the Achievement of This APG

Grants made under CAA Sections 103 and 105 contribute to the achievement of this goal. EPA has established an interagency agreement with National Park Service, U.S. Department of Interior, for the operation of 30 CASTNET monitoring sites (approximately one-third of the network). EPA has also entered into an interagency agreement with Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, to support National Acid Deposition Program (NADP) monitoring network operations.

CHALLENGES

Implementation of the Acid Rain Program has substantially reduced emissions of SO_2 and NO_x from power generation sources. However, the NAPAP 2005 Report to Congress, recent modeling, and many published articles indicate that SO_2 and NO_x emissions reductions achieved under Title IV are insufficient to achieve full recovery or to prevent further acidification in some regions. Additional emissions reductions will be achieved through implementation of existing or future regulations to address transport of ozone and fine particles.

APG 1.8 Acid Rain—Reduce Nitrogen Deposition

PERFORMANCE

EPA added this measure in 2003, when the Acid Rain Program was evaluated under the PART process. The new measure more accurately tracks progress toward EPA's environmental objectives than did the previous program measure of reduction in NO_x

DATA AVAILABLE FY 2006	**FY 2005:** *Reduce total annual average nitrogen deposition and ambient nitrate concentrations 5% from baseline. Baseline for annual targets up through 2010 is 1990 monitored levels. (PART)*	
(Performance measure is included in the annual goal above.)	*Planned* 5%	*Actual* Data avail 2006

✔ GOAL MET FOR FY 2004	**FY 2004:** *Reduce total annual average nitrogen deposition and ambient nitrate concentrations 5% from baseline. (PART)*		
(Performance measure is included in the annual goal above.)	*Planned* 5%	*Actual* 7%	✔

Data Source(s): Clean Air Status and Trends Network (CASTNet) and National Acid Deposition Program (NADP) monitoring networks. Also see www.epa.gov/airmarkets/arp/.

emissions from coal-fired utilities, which was discontinued in 2003.

Reductions in nitrogen deposition recorded since the early 1990s have been less dramatic than those of sulfur. Emission trends from source categories other than the acid rain program sources significantly affect air concentrations and deposition of nitrogen.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-1–C-3.

CHALLENGES

In many areas, emissions of nitrogen oxides from on- and off-road vehicles, industrial processes, and other sources not controlled under the Acid Rain Program, along with the use of fertilizers, contribute to nitrogen deposition and ambient nitrate concentrations. Reductions in NO_x emissions achieved through the Acid Rain Program, therefore, may not result in improvements under this measure.

Program Assessment Rating Tool (PART)

OMB assessed the Acid Rain Program related to this APG in the 2003 PART process. The program received a rating of moderately effective.

Grants Supporting the Achievement of This APG

Grants made under CAA Sections 103 and 105 contribute to the achievement of this goal. An interagency agreement with National Park Service, U.S. Department of Interior, has been established to support the operation of 30 CASTNET monitoring sites (approximately one-third of the network). EPA has also entered into an interagency agreement with Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, to support NADP monitoring network operations.

Strategic Objective 2—Healthier Indoor Air

By 2008, 22.6 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings.

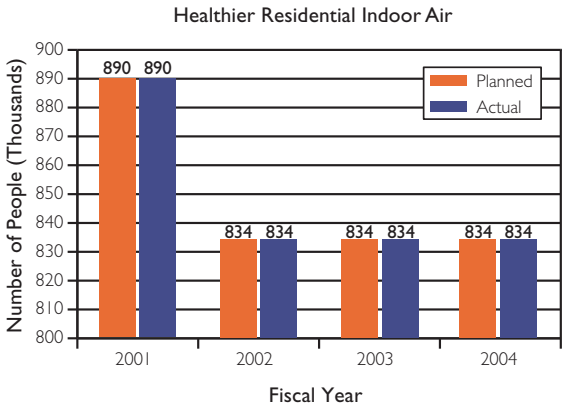
APG 1.9 Healthier Residential Indoor Air

PERFORMANCE

To improve air inside America's homes, EPA is focusing its efforts on reducing radon and asthma triggers related to indoor environments. Radon, a colorless, odorless, tasteless gas, is a significant indoor air problem in homes and is the second leading cause of lung cancer in America. In 1992, EPA estimated that nearly one out of every 15 homes had radon concentrations above the EPA recommended action level.[10]

DATA AVAILABLE FY 2006	**FY 2005:** 843,300 additional people will be living in homes with healthier indoor air.		
(Performance measure is included in the annual goal above.)	*Planned* 843,300	*Actual* Data avail 2006	
✔ GOAL MET FOR FY 2004	**FY 2004:** Same goal, different target.		
(Performance measure is included in the annual goal above.)	*Planned* 834,000	*Actual* 834,000	✔

Data Source(s): An external survey produced by National Association of Home Builders Research Center and reviewed by EPA to estimate the percentage of homes that are built radon resistant; Manufactures report their radon fan sales to the Agency (EPA assumes one fan per radon mitigated home and then multiplies it by the assumed average of 2.67 people per household); EPA-developed telephone survey (National Survey on Environmental Management of Asthma), which seeks information about the measures taken to minimize exposure to indoor environmental asthma triggers and how many people permit smoking in their home. Also see www.epa.gov/radon/index.html.



Asthma afflicts about 20 million Americans, including 6.3 million children. Since 1980, the largest growth in asthma cases has been in children under five. In 2000 there were nearly 2 million emergency room visits and nearly half a million hospitalizations due to asthma, at a cost of almost $2 billion, and causing 14 million school days missed each year.

Under this annual goal, EPA measures incremental changes in the number of people with improved indoor air in their homes, schools, and workplaces from actions they took as a result of EPA's radon and asthma programs. EPA met the annual target for FY 2004; FY 2005 results for radon will not be available until late 2006, and asthma results are not available until several months after the close of the fiscal year. However, EPA believes it is on track to achieve its 2005 goals.

Based on historical trends, EPA estimates that 90,000 to 100,000 radon-resistant homes were built in FY 2004, for a total of 1.3 million homes with radon-resistant new construction. Data suggest that the number of active mitigations increased to more than 575,000. Together, all houses with radon-reducing features led to more than 520 future premature cancer deaths prevented annually.

Results of EPA's *2003 National Survey on Environmental Management of Asthma and Children's Exposure to Environmental Tobacco Smoke* indicate that approximately 3 million people with asthma have taken the essential actions recommended by EPA to reduce exposure to indoor triggers. These actions result in an estimated 42,000 emergency room visits avoided on an annual basis.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-7–C-8.

Program Assessment Rating Tool (PART)

OMB is assessing the Indoor Air program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

APG 1.10 Healthier Indoor Air in Schools

PERFORMANCE

In 1999, indoor air quality was reported to be unsatisfactory in about one in five U.S. schools; ventilation was reported as unsatisfactory in about one-quarter of the nation's public schools. These figures translate to more than 11 million public school students experiencing unsatisfactory indoor air quality and about 14 million attending schools with unsatisfactory ventilation.[11] EPA's Tools for Schools Program is helping school districts evaluate indoor air problems and develop strategies to address them. Under this goal,

DATA AVAILABLE FY 2006	**FY 2005:** 1,312,500 students, faculty and staff will experience improved indoor air quality in their schools.		
(Performance measure is included in the annual goal above.)		*Planned* 1.3 M	*Actual* Data avail 2006
✔ GOAL MET FOR FY 2004	FY 2004: Same goal, different target.		
(Performance measure is included in the annual goal above.)		*Planned* 1.5 M	*Actual* 1.63 ✔

Data Source(s): EPA-developed survey. See www.epa.gov/iaq/schools/index.html.

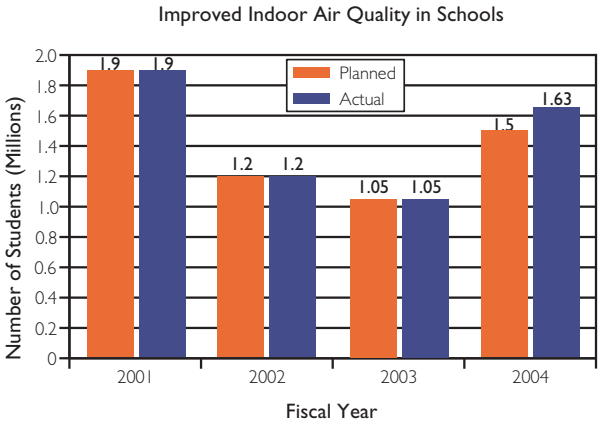
Program Assessment Rating Tool (PART)

OMB is assessing the Indoor Air program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

EPA tracks increases in the school-based populations with better indoor air in their schools as a result of EPA programs.

In recent years, 12 of the 15 largest U.S. school districts—including the Los Angeles, Miami, and Dallas districts—implemented indoor air quality management plans. EPA estimates that 2,000 schools established indoor air quality Tools for Schools Programs in 2003, and an additional 3,000 schools established programs in 2004.

EPA estimates that it met its FY 2004 goal: approximately 1.63 million students, faculty, and staff experienced improved indoor air quality in their schools. While data for FY 2005 achievements will be not be available until late 2006, the Agency is on track to achieve its FY 2005 target of reaching approximately 1.3 million students and school staff in approximately 2,500 schools.



Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-10–C-11.

APG 1.11 Healthier Indoor Air in Workplaces

PERFORMANCE

Indoor air pollution can pose high risks to human health, especially to sensitive populations. The national cost of poor indoor air quality, including lost worker productivity, direct medical costs for those whose health is adversely affected, and damage to equipment and materials, runs to tens of billions of dollars per year. EPA is helping owners and managers of office buildings understand and achieve the benefits of good indoor air quality, thereby improving the health and productivity of office workers.

✔ GOAL MET	**FY 2005:** 150,000 additional office workers will experience improved air quality in their workplaces. (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 150,000	*Actual* 150,000 ✔

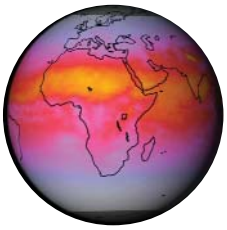
Data Source(s): The performance database consists of two sources, copies of building indoor air quality guidance documents, (e.g. Building Air Quality, I-Beam, and related guidance Mold Remediation in Schools and Commercial Buildings) and training conducted through cooperative agreements or other government agencies (GSA) using our documents. In addition, EPA conducted a voluntary, pilot survey of building owners and managers in 2001 to determine the use of indoor air quality (IAQ) management practices in U.S. office buildings. Also see www.epa.gov/iaq/largebldgs/index.html.

In FY 2005, EPA met the target for this measure, estimating that approximately 150,000 office workers experienced improved air quality in their workplaces.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-11–C-12.

Program Assessment Rating Tool (PART)

OMB is assessing the Indoor Air program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.



Strategic Objective 3—Protect the Ozone Layer

By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet radiation, particularly among susceptible subpopulations, such as children, will be reduced.

APG 1.12 Restrict Domestic Consumption of Class II HCFCs

PERFORMANCE

When gases containing chlorine and bromine, routinely emitted through human activities, are transported to the stratosphere, they can participate in reactions that destroy ozone. The Clean Air Act regulates ozone-depleting compounds based on their ozone depleting potential. Ozone-depleting compounds include chlorofluorocarbons (CFCs), commonly used as refrigerants, solvents, and foam blowing agents; halons, used as fire extinguishing agents; and hydrochlorofluorocarbons (HCFCs), a class of chemicals being used to replace CFCs because they deplete stratospheric ozone to a much lesser extent. (The United States stopped producing halons on December 21, 1993, due to their ozone-depleting potential.) Under this annual goal, EPA measures the annual consumption and production of these ozone-depleting compounds.

EPA met both its FY 2003 and FY 2004 goals, verifying that domestic consumption of Class II HCFCs was less than the target amounts. Progress on restricting domestic exempted consumption of Class I CFCs and halons for FY 2004 was tracked by monitoring industry reports of compliance with EPA's Clean Air Act phase-out regulations and U.S. obligations under the Montreal Protocol. As a result of excellent implementation of the program and long-term, effective communications with industry, EPA exceeded its annual performance goals.

DATA AVAILABLE FY 2006	**FY 2005:** Restrict domestic annual consumption of class II hydrochlorofluorocarbons (HCFCs) below 9,906 ODP-weighted metric tons (ODP MTs) and restrict domestic exempted production and import of newly produced class I chlorofluorocarbons (CFCs) and halons below 10,000 ODP MTs.			
	(Performance measure is included in the annual goal above.)	*Planned* < 9,906 < 10,000	*Actual* Data avail 2006	
✔ GOAL MET FOR FY 2004	**FY 2004:** Same goal, same targets.			
	(Performance measure is included in the annual goal above.)	*Planned* <9,906 <10,000	*Actual* 5,500 1,225	✔
✔ GOAL MET FOR FY 2003	**FY 2003:** Same goal, same targets.			
	(Performance measure is included in the annual goal above.)	*Planned* <9,906 <10,000	*Actual* 7,110 2,049	✔

Data Source(s): Progress on restricting domestic exempted consumption of Class I CFCs and halons is tracked by monitoring industry reports of compliance with EPA's CAA phase out regulations and U.S. obligations under the Montreal Protocol. Data are provided by U.S. companies producing, importing, and exporting Ozone Depleting Substances. Also see www.epa.gov/ozone/index.html.

Program Assessment Rating Tool (PART)

OMB assessed the Stratospheric Ozone program in the 2004 PART process. The program received a score of adequate.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-12.

Strategic Objective 4—Radiation

Through 2008, working with partners, minimize unnecessary releases of radiation, and be prepared to minimize impacts to human health and the environment should unwanted releases occur.

APG 1.13 Ensure WIPP Safety

PERFORMANCE

The Waste Isolation Pilot Plant (WIPP) Land Withdrawal Act requires EPA to issue final regulations for the disposal of spent nuclear fuel, high-level radioactive waste, and transuranic waste, and it gives the Agency authority to develop criteria for implementing final radioactive waste disposal standards for the WIPP. EPA is required to recertify the site every 5 years and oversee the wastes shipped to the WIPP from sites throughout the country. This measure tracks the progress of the Department of Energy (DOE) in meeting the criteria set by EPA and sending waste to WIPP.

EPA expects to complete its current review of the DOE Recertification Request in late winter 2006. During FY 2005, EPA held WIPP stakeholder meetings in New Mexico to discuss the first WIPP recertification application.

✔ GOAL MET	**FY 2005:** Certify that 40,000 55-gallon drums of radioactive waste (containing approximately 120,000 curies) shipped by the Department of Energy (DOE) to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards.		
	(Performance measure is included in the annual goal above.)	*Planned* 40,000 drums	*Actual* 35,000 ✔

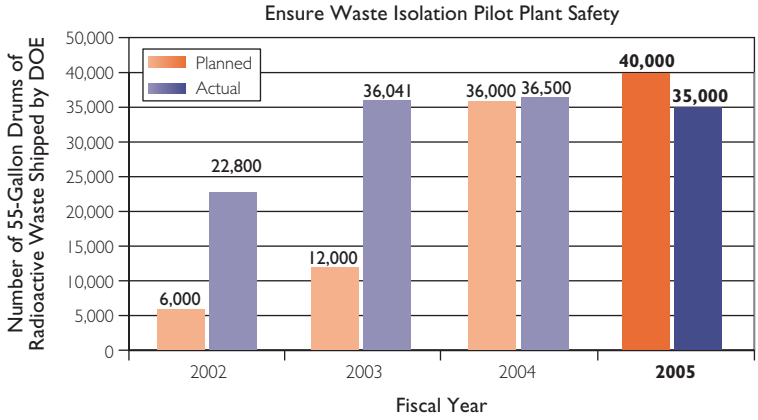
Data Source(s): The performance data used by EPA are collected and maintained by the Department of Energy. EPA ensures the safe characterization and disposal of drums of transuranic waste. Also see www.epa.gov/radiation/wipp/index.html and www.epa.gov/radiation/.

In FY 2005, DOE shipped approximately 35,000 55-gallon drums of radioactive waste (containing approximately 108,000 curies) to the WIPP, and EPA certified that all were permanently disposed of safely and accordance with EPA standards. Because DOE did not ship as many containers it had originally planned, EPA's target was unachievable, but the Agency considers this goal to have been met since EPA took action on all the drums provided. EPA does expect DOE to meet the long-term disposal goal, however, and the Agency to meet its inspection and certification goals. Having consulted with DOE, EPA is already prepared to inspect an additional 10,000 drums of waste over the original target of 45,000 drums set for FY 2006.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-14.

CHALLENGES

This performance goal is structured such that DOE must meet its estimated shipments for EPA to meet its performance target. Consequently, the Agency may miss or far exceed its performance goal, depending on DOE shipments. In preparation for the assessment of this program, EPA is developing additional measures to track the radiation program's progress.



APG 1.14 Build National Radiation Monitoring System

PERFORMANCE

EPA consolidated a number of existing radiation monitoring activities to establish the Radiation Monitoring Network (RadNet, formerly ERAMS). The RadNet program has three objectives: to provide data for nuclear emergency response assessments; to provide data on ambient levels of radiation in the environment for baseline and trend analysis; and to inform decision-makers and the public in the event of a nuclear incident. Measures under this annual goal track EPA's progress in expanding the network.

In FY 2005, EPA purchased 52 state-of-the-art monitors and initiated the deployment to sites. The first of the monitors will not be delivered until the first quarter of FY 2006. Most will be sited in FY 2006. Additional monitors will be delivered in FY 2006 and sited in FY 2006 and subsequent years. EPA will update its annual goals for FY 2006 and beyond to reflect the delay in obtaining the monitors. Based on EPA's current estimates, the full network will not be completed until 2012.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-13.

✔ GOAL MET	**FY 2005:** EPA will purchase 51 additional state of the art monitoring units and initiate deployment to sites selected based on populations and geographical coverage.		
	(Performance measure is included in the annual goal above.)	*Planned* 51 units	*Actual* 52 units ✔

Data Source(s): Output measure; internal performance tracking database. Also see www.epa.gov/narelweb/radnet/ and www.epa.gov/radiation/.

CHALLENGES

The RadNet plan initially called for the full monitoring system to be in place by 2009. Given the complexities of the system and the technology, however, and the delay in selecting a contractor and making an award, the plan has been pushed out to future years. Nonetheless, EPA expects to substantially meet its original target by providing radiation monitoring coverage to approximately 65 percent of the U.S. population by 2009.

APG 1.15 Homeland Security—Readiness and Response

PERFORMANCE

In the event of a radiological emergency, EPA's Radiological Emergency Response Team (RERT) works with other federal agencies, states, and international organizations to track, contain, and clean up the releases, while protecting people and the environment from harmful exposure to radiation. Under this annual goal, EPA tracks progress in training RERT members and implementing updated response procedures. Performance data will be available in late 2006.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-14.

DATA AVAILABLE FY 2006	**FY 2005:** Verify that 50% of EPA's Radiological Emergency Response Team (RERT) members meet scenario-based response criteria. (NEW IN FY 05)		
	(Performance measure is included in the annual goal above.)	*Planned* 50%	*Actual* Data avail 2006

Data Source(s): The Department of Homeland Security (DHS) is responsible for assuring that all Federal Emergency Response assets maintain an adequate level of readiness (Homeland Security Act of 2002). EPA assumes that DHS will maintain a data system to evaluate and assess the readiness of assets across the federal government. EPA will perform evaluations of its own assets and report results under this measure, but must rely on the DHS data source for key information. Also see www.epa.gov/radiation/rert/index.html and www.epa.gov/radiation/.

CHALLENGES

While EPA has not identified specific challenges to meeting its goal for FY 2005, emergency response preparedness continues to pose unique issues. While the Agency measures its performance based on meeting scenario-based response criteria, the Department of Homeland Security (DHS) has not yet finalized those criteria. EPA is developing standardized criteria based on the functional requirements identified in the National Response Plan's Nuclear/ Radiological Incident Annex and the National Oil and Hazardous Substances Pollution Contingency Plan.

Strategic Objective 5–Reduce Greenhouse Gas Intensity

Through EPA's voluntary climate protection programs, contribute 45 million metric tons of carbon equivalent (MMTCE) annually to the President's 18% greenhouse gas (GHG) intensity improvement goal by 2012. (An additional 75 MMTCE to result from the sustained growth in the climate programs are reflected in the administrations' business-as-usual projection for GHG intensity improvement.)

APG 1.16 Reduce Greenhouse Gas (GHG) Emissions

PERFORMANCE

EPA and its partners continue to achieve reductions in emissions of greenhouse gases, which contribute to meeting the President's greenhouse gas intensity reduction goal for 2012. Measures under this annual goal track greenhouse gas emissions (measured in million metric tons of carbon equivalent, or MMTCE) that have been avoided as a result of EPA programs.

In FY 2004, through EPA's partnerships with businesses, schools, state and local governments, and other organizations, greenhouse gas emissions were reduced from projected levels by approximately 87.9 MMCTE per year. FY 2005 performance data for this goal will be available in October 2006, after EPA assesses the data it receives from companies.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-15–C-16.

Program Assessment Rating Tool (PART)

OMB assessed the Climate Change program related to this APG in the 2004 PART process. The program received an adequate rating.

DATA AVAILABLE FY 2006

FY 2005: GHG emissions will be reduced from projected levels by approximately 90 MMTCE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.

Performance Measures (all are MMTCE)	*Planned*	*Actual*
• Annual GHG reductions—all EPA programs.	90.2	Data avail 2006
• *GHG reductions from EPA's Buildings Sector Programs (ENERGY STAR). (PART)*	23.8	
• *GHG reductions from EPA's Industrial Efficiency/Waste Management Programs. (PART)*	8	
• *GHG reductions from EPA's Industrial Methane Outreach Programs. (PART)*	19.1	
• *GHG reductions from EPA's HFC/PFC Programs. (PART)*	34.4	
• *GHG reductions from EPA's Transportation Programs. (PART)*	2.9	
• *GHG reductions from EPA's State and Local Programs.*	2.0	

✔ GOAL MET FOR FY 2004

FY 2004: Same goal, different targets.

Performance Measures	*Planned*	*Actual*	
• Annual GHG reductions—all EPA programs data available.	81.0	87.9	✔
• *GHG reductions from EPA's Buildings Sector Programs (ENERGY STAR). (PART)*	21.4	26.2	✔
• *GHG reductions from EPA's Industrial Efficiency/Waste Management Programs. (PART)*	7.3	9	✔
• *GHG reductions from EPA's Industrial Methane Outreach Programs. (PART)*	18.1	19.9	✔
• *GHG reductions from EPA's Industrial HFC/PFC Programs. (PART)*	29.6	28.2	✗
• *GHG reductions from EPA's Transportation Programs. (PART)*	2.6	2.6	✔
• *GHG reductions from EPA's State and Local Programs.*	2.0	2.0	✔

Data Source(s): EPA maintains a "tracking system" for emissions reductions relative to appropriate baselines. Baseline data for carbon emissions related to energy use come from the Energy Information Agency (EIA). Baseline data for non-carbon dioxide emissions, including nitrous oxide and other global warming potential gases are maintained by EPA. The non-carbon dioxide emissions data are compiled with input from industry and also independently from partners' information. EPA develops methane emissions baselines and reductions using information from industry partners, including the natural gas, coal, and landfill gas development industries. EPA continues to develop annual inventories as well as update methodologies as new information becomes available. Also see www.energystar.gov.

APG 1.17 Reduce Energy Consumption

PERFORMANCE

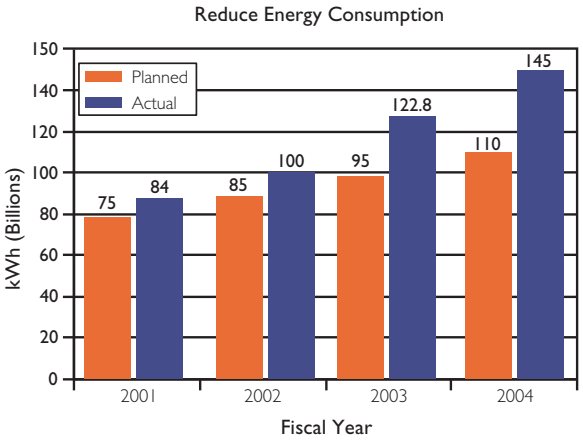
As a result of the ENERGY STAR program alone, Americans saved a significant amount of energy in 2004: 125 billion kilowatt-hours (kWh) and 25 gigawatts (GW) of peak energy required for about 25 million homes. Voluntary efforts also prevented greenhouse gas emissions equivalent to those from 20 million vehicles and saved approximately $10 billion in energy bills. In FY 2004, as a result of all climate change programs, EPA reduced energy consumption from the projected level by 145 billion kWh, contributing to over $10 billion in energy savings for consumers and businesses.

DATA AVAILABLE FY 2006	**FY 2005:** Reduce energy consumption from projected levels by more than 120 billion kilowatt-hours (kWh), contributing to more than $8.5 billion in energy savings to consumers and businesses. (all are MMTCE)		
(Performance measure is included in the annual goal above.)		*Planned* 120	*Actual* Data avail 2006
✔ GOAL MET FOR FY 2004	**FY 2004:** Same goal, different target.		
(Performance measure is included in the annual goal above.)		*Planned* 110B	*Actual* 145B ✔

Data Source(s): Climate Protection Partnerships Division Tracking System. Data collected by EPA's voluntary programs include partner reports on facility specific improvements (e.g. space upgraded, kWh reduced), national market data on shipments of efficient products, and engineering measurements of equipment power levels and usage patterns. Also see www.energystar.gov.

FY 2005 data for this performance goal will be available in October 2006.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-16.



Program Assessment Rating Tool (PART)

OMB assessed the Climate Change program related to this APG in the 2004 PART process. The program received an adequate rating.

Strategic Objective 6—Enhance Science and Research

Through 2010, provide and apply sound science to support EPA's goal of Clean Air by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 1.

APG 1.18 Clean Automotive Technology

PERFORMANCE

EPA's goal was to adapt technology originally developed for passenger vehicles for use in SUV's and urban delivery vehicles that would achieve 30 percent improvement in fuel economy, while also meeting the size, performance and durability requirements of these vehicles. The Agency demonstrated through vehicle testing that its hybrid powertrain could meet the fuel economy improvement goal for FY 2005. However, the towing

performance requirement was verified through modeling, as a high-performance configuration was not operationally tested. EPA modeling results, combined with vehicle testing, projects that the average fuel economy of the typical SUV with EPA-developed hybrid technology would represent at least a 30 percent increase over the baseline of 20.2 mpg.[12]

EPA anticipates that its work to facilitate industry's use of innovative clean automotive technology will lead to consumer benefits, increasing consumers' ability to recoup higher initial vehicle costs with lower operating costs. Continued success is evidenced by the International Truck and Engine Corporation's and Ford Motor Company's licensing of EPA's hybrid technology. EPA is also working with Autocar, to transfer this technology to refuse trucks, and with the Army, to demonstrate the feasibility of hydraulic hybrid technology on heavy vehicles.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-17.

✔ GOAL MET	**FY 2005:** Transfer hybrid powertrain components, originally developed for passenger car applications, to meet size, performance, durability, and towing requirements of sport utility vehicle (SUV) and urban delivery vehicle applications with an average fuel economy improvement of 30% over the baseline.		
	(Performance measure is included in the annual goal above.)	*Planned* 26.3 mpg	*Actual* 26.3 mpg ✔

Data Source(s): Powertrain components were subjected to EPA fuel economy tests at the National Vehicle and Fuel Emissions Laboratory (NVFEL), Ann Arbor, Michigan. Performance and towing performance data are based on EPA modeling of optimal vehicle configuration. For more information on modeling results, see www.epa.gov/otaq/technology/.

Program Assessment Rating Tool (PART)

OMB assessed the Climate Change program related to this APG in the 2004 PART process. The program received an adequate rating.

APG 1.19 PM Effects Research

PERFORMANCE

When ambient air PM concentrations exceed the PM NAAQS, states are required to develop State Implementation Plans (SIPs) to achieve PM goals. Under this annual goal, EPA develops data on the chemical and physical characteristics of significant primary sources of PM. States will use this information to help distinguish primary from other sources of PM, enabling them to develop more effective SIPs.

For example, EPA has characterized the chemical and physical properties of emissions from automobiles, aircraft engines, oil-fired boilers, and residential appliances. These characterizations allowed scientists to profile the combustion sources of PM2.5 that need to be developed or improved—information that states can use develop effective PM emission reduction strategies in their SIPs. These emissions profiles will be incorporated into EPA's SPECIATE database as part of an incremental process to upgrade emissions profiles for a wide variety of air pollution sources.

By the end of FY 2005, EPA's Office of Research and Development delivered improved receptor models and data on chemical compounds emitted from sources so that, by 2006, EPA and states will have the new data and tools needed to predict, measure, and reduce ambient PM and PM emissions to attain the existing PM NAAQS.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-17.

✔ GOAL MET	**FY 2005:** By FY 2005, deliver and transfer improved receptor models and data on chemical compounds emitted from sources so that by 2006, EPA's Office of Air and Radiation and the states have the necessary new data and tools to predict, measure, and reduce ambient PM and PM emissions to attain the existing PM NAAQS for the protection of public health. (NEW IN FY05)		
	Performance Measures	*Planned*	*Actual*
	• Improved receptor models and data on chemical compounds emitted from sources.	09/30/05 models/ data	09/30/05 models/ data ✔

CHALLENGES

EPA encountered the usual research challenges in accomplishing this work. The Agency anticipated and overcame quality assurance and data analysis issues.

Program Assessment Rating Tool (PART)

OMB is assessing the NAAQS Research program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Program Evaluations

The Board of Science Counselors Report: "Managerial and Scientific Review of the Particulate Matter (PM)/Ozone (Oz) Program." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-6.

Prior Year Annual Performance Goals Without Corresponding FY 2005 Goals

(Actual performance data available in FY 2004 and beyond)

PERFORMANCE

Ozone is formed from motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents, and natural sources that emit NOx and VOCs. Sunlight and hot weather cause ground-level ozone to form in harmful concentrations. Ozone can irritate lung airways, causing inflammation, wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities. In 1997, EPA revised the air quality standards for ozone to reflect scientific studies showing that longer-term exposures to moderate levels of ozone may cause irreversible changes in the lungs.

Goal Not Met. Under this annual goal, EPA measured the improvement in air quality over time for the 1-hour ozone standard. However, the 1-hour standard has been revoked in areas following designation of 8-hour ozone non-attainment areas. Because it now tracks progress on the 8-hour standard, EPA will not tracking this annual goal and associated measures in FY 2006 and beyond.

✗ GOAL NOT MET

The number of people living in areas with monitored ambient ozone concentrations below the NAAQS for the 1-hour ozone standard will increase by 4% (relative to 2003) for a cumulative total of 47% (relative to 1992).

Performance Measures	*Planned*	*Actual*	
• Cumulative percent increase in the number of people who live in areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992.	47%	44%	✗
• Cumulative percent increase in the number of areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992.	55%	96%	✔
• Total number of people who live in areas designated to attainment of the Clean Air Standards for ozone.	167.3 M	165.4 M	✗
• Areas newly designated to attainment for the ozone standards.	5 areas	3 areas	✗
• Additional people living in newly designated areas with demonstrated attainment of ozone standards.	5.8 M	3.9 M	✗
• *Millions of tons of VOCs reduced from mobile sources. (PART)*	2.0 M	2.0 M	✔
• *Millions of tons of NO_x reduced from mobile sources. (PART)*	1.65 M	1.65 M	✔

Program Assessment Rating Tool (PART)

OMB assessed the Mobile Source program related to this APG in the 2004 PART process. The program received a moderately effective rating. OMB is assessing the NAAQS program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-3–C-4.

Goal 1—PART Measures with Data Availability Beyond FY 2005

EPA and OMB established the annual and efficiency measures included on this table through PART Assessments. These measures will be incorporated into EPA's budget and GPRA documents, including the PAR, as data becomes available. The column titled "Data Available" provides the most current estimate for the date EPA expects to report on each measure.

PART Program	PART Measure	Status	Data Available
Air Toxics	Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics.	Collecting Data	FY 2008
	Cumulative percentage reduction in tons of toxicity-weighted (for noncancer risk) emissions of air toxics.	Collecting Data	FY 2008
	Tons of toxicity-weighted emissions (for cancer and noncancer risk) per total cost (EPA and industry dollars).	Collecting Data	TBD
Climate Change	Tons of greenhouse gas emissions (MMTCE) prevented per dollar spent—Industry.	Collecting Data	FY 2008
	Tons of greenhouse gas emissions (MMTCE) prevented per dollar spent—Transportation.	Collecting Data	FY 2008
	Tons of greenhouse gas emissions (MMTCE) prevented per dollar spent—Buildings.	Collecting Data	FY 2007
Mobile Sources	Cumulative reduction in tons of pollution from mobile sources per dollar spent by EPA and industry.	Collecting Data	FY 2010
	Percentage reduction in time (days) per certificate approval for large engines (Nonroad CI, Heavy duty gas and diesel engines).	Collecting Data	FY 2012
Stratospheric Ozone Protection	Remaining US consumption of HCFCs, measured in tons of ozone depleting potential (ODP).	Collecting Data	TBD

NOTES

1 It is important to note that the Safe Drinking Water Information System (SDWIS) has been identified as an Agency-level Weakness under the Federal Managers Financial Integrity Act, with corrective action to be completed in 2007. The data are not considered materially inadequate, however, per OMB's definition. The Verification and Validation section of the Annual Performance Plan and Congressional Justification has details on data limitations associated with SDWIS.

2 See www.epa.gov/airtrends/reports.html. Air pollutants include lead, CO, SO2, NOx, ozone, and PM.

3 EPA Announces Landmark Clean Air Interstate Rule (Agency Press Release, 3/10/05).

4 EPA Announces First-Ever Rule to Reduce Mercury Emissions from Power Plants. www.epa.gov/mercuryrule/.

5 More information is available in National Acid Precipitation Assessment Report to Congress: Integrated Assessment, August 2005. The National Acid Precipitation Assessment Program (NAPAP) is a legislatively mandated cooperative effort among federal agencies to coordinate acid rain research and assessment.

6 Investing in Our Future: Energy Star® and Other Voluntary Program. 2004 Annual Report www.energystar.gov/ia/news/downloads/annual_report2004.pdf.

7 2003 National Survey on Environmental Management of Asthma and Children's Exposure to ETS www.epa.gov/asthma/pdfs/survey_fact_sheet.pdf.

8 "IAQ Practices in Schools Survey," July 10, 2003. Prepared by Indoor Environments Division, U.S. Environmental Protection Agency and Environmental Health & Engineering, Inc. 60 Wells Ave., Newton, MA 02459-3210. IAQ Practices in Schools Survey, Office of Management and Budget Control No.: 2060-0436.

9 Approximately 3 years (from the end of the inventory) is required to compile/QA the inventory. The inventory is compiled on a 3-year cycle (2002, 2005, and 2008).

10 National Residential Radon Survey, 1992 and U.S. Surgeon General Health Advisory on Radon, January 13, 2005, http://www.surgeongeneral.gov/pressreleases/sg01132005.html. Reiterates 1988 U.S. Surgeon General Health Advisory recommending that all homes be tested below the third floor for radon. Also recommends fixing homes with radon levels at or above 4 picocuries per liter (pCi/L), EPA's National Voluntary Action Level.

11 Condition of America's Public School Facilities: 1999, National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education, NCES2000-032, June 2000.

12 The average fuel economy for a typical SUV is derived from EPA's Annual Fuel Economy Trends report.

Strategic Goal 2: Clean *and* Safe Water

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

Overview of Goal 2

In recent years, EPA and its federal, state, and tribal partners have made significant progress in protecting and restoring the nation's waters.

Contributing Programs

- Analytical Methods
- Beach Program
- Coastal and Ocean Programs
- Clean Water State Revolving Fund
- Drinking Water and Ground Water Protection Programs
- Drinking Water State Revolving Fund
- Effluent Guidelines
- Fish Consumption Advisories
- Great Lakes National Program
- Gulf of Mexico Program
- National Pollutant Discharge Elimination System
- Nonpoint Source Pollution Control
- Pollutant Load Allocation
- Targeted Watersheds
- Wastewater Management
- Water Efficiency
- Water Quality Standards, Criteria, and Methods
- Watershed Information Network
- Watershed Management
- Wetlands Program

Today, more Americans have safe and reliable drinking water, and people can fish and swim safely in rivers that were once polluted. Challenges remain, however, and EPA is using a variety of strategies to address them.

PROTECTING HUMAN HEALTH

Thirty years ago, many of the nation's drinking water systems provided water to the tap with very little treatment (usually disinfection) or no treatment at all. Drinking water was too often the cause of acute illnesses linked to microbiological contaminants or of longer term health problems resulting from exposure to low levels of toxins and other contaminants.

Today, drinking water systems monitor the quality of the water they provide and treat water to ensure that it complies with standards covering a wide range of contaminants. EPA has established health-based

Safe Drinking Water: Hoopa Valley Tribe

The Hoopa Valley Tribe's microfiltration surface water treatment plant was constructed in 2005 as part of a $4.3 million dollar project jointly funded by the Indian Health Service and the EPA Drinking Water Tribal Set-Aside Program ($3.5 million). The project provides access to safe drinking water for 719 tribal households on the reservation. The project included construction of the treatment plant, the Trinity River intake, and a transmission line that included a highway crossing.

drinking water standards for more than 90 contaminants.[1] To help drinking water systems implement the standards, EPA, states, tribes, and key stakeholders work together to provide water systems with extensive technical assistance and training. Today, approximately 90[2] percent of the population served by community water systems is receiving drinking water meeting drinking water standards.

The importance of safe drinking water supplies for protecting public health has never been more evident than in the aftermath of Hurricane Katrina, which occurred late in FY 2005. EPA, state and local officials, systems operators, and volunteers worked around the clock to assist communities in repairing the infrastructure of drinking water systems and restore sources of safe drinking water for all people in the affected region.

In addition to ensuring the safety of drinking water, EPA works with states, tribes, and local governments to protect and restore waters for fishing, swimming, and recreation. The Agency's work under Goal 1 to reduce mercury releases to the air should ultimately help to reduce unhealthy levels of mercury in fish. Under Goal 2, EPA's efforts to reduce discharges from storm water systems, combined sewer overflows, and concentrated animal feeding operations are improving water and sediment quality, making more waters safe for swimming and more fish safe to eat. EPA is expanding the amount and type of information about fish safety and making this information available to the public.

Goal 2 At a Glance

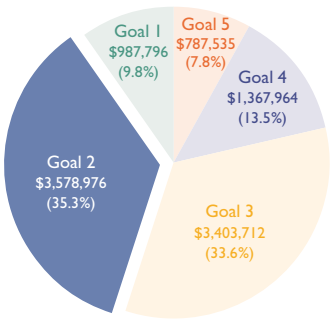
FY 2005 Annual Performance Goals (APGs)

Met = 6 Not Met = 2

Data Available After November 15, 2005 = 10

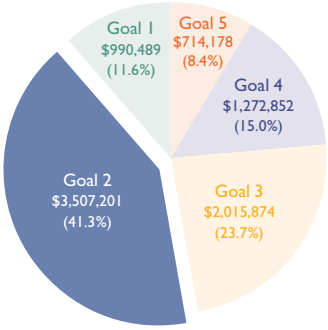
(Total APGs = 18)

FY 2005 Obligations (in thousands)



EPA Total = $10,125,983

FY 2005 Costs (in thousands)



EPA Total = $8,500,594

FY 2005 "Report Card"

STRATEGIC OBJECTIVE	APG STATUS
OBJECTIVE 1–PROTECT HUMAN HEALTH Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.	1 Met 1 Not Met 9 TBD
OBJECTIVE 2–PROTECT WATER QUALITY Protect the quality of rivers, lakes, and streams on a watershed basis and protect coastal and ocean waters.	4 Met 1 Not Met 1 TBD
OBJECTIVE 3–ENHANCE SCIENCE AND RESEARCH Provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 2.	1 Met 0 Not Met 0 TBD

EPA is also working to protect and restore the quality of beaches and other recreational waters. The Agency places high priority on monitoring waters and beaches and providing the public with current information on their safety.

PROTECTING WATER QUALITY

To protect water quality and restore impaired waters, EPA, states, interstate agencies, and tribes employ a watershed approach, which enables them to collaborate, share information, and leverage resources more effectively. For example, EPA works with its partners to help them establish state water quality standards and monitoring strategies. They are also increasing efficiencies and achieving better results by using a watershed perspective to develop

Managing Wastewater: Block Island–Green Hill Pond

Under EPA's Block Island–Green Hill Pond Demonstration Project to protect coastal waters, EPA's New England office is working with three Rhode Island south shore coastal communities to comprehensively manage all onsite sewage treatment systems (such as septic systems, cesspools, and community treatment facilities discharging to groundwater). Under recently enacted ordinances to restore and protect water quality, Charlestown, South Kingstown, and Block Island now permanently employ onsite wastewater managers and require that all systems be inspected on a recurring three- to five-year basis. All cesspools are banned and, if discovered, must be replaced within five years of the inspection. More than 8,125 systems have been inspected, and more than 700 cesspools and 220 failed or substandard systems identified. Towns will enact treatment standards for advanced systems to reduce bacteria and nitrogen loadings to the Green Hill Pond embayment and Rhode Island Sound.

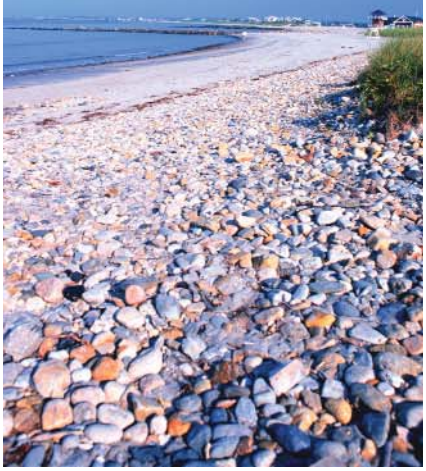


Photo: National Oceanic and Atmospheric Administration/Department of Commerce

Monitoring Coastal Water Quality

EPA promulgated water quality standards for those states and territories bordering Great Lakes or ocean waters that have not yet adopted more protective health-based bacteria standards in accordance with the BEACH Act of 2000 (69 FR 67217). This rule provides greater assurance that American families will be informed when pathogen levels at beaches are unsafe. Americans take 910 million trips to coastal areas each year and spend about $44 billion at those beach locations. Better indicators will provide decisionmakers with better information for making decisions about health risks in coastal recreation waters. Improved data are also likely to spur investigations into upstream pollution sources, preventing future contamination.

Photo: National Oceanic and Atmospheric Administration/Department of Commerce

Total Maximum Daily Loads (TMDLs) and set permitting priorities. EPA is working with its partners to upgrade and increase water quality onitoring, allowing states and tribes to provide better information on water conditions and sources of impairment.

EPA is working with states to evaluate the impact on water quality of key point source programs, like the Clean Water State Revolving Fund (CWSRF) Program. In collaboration with industry and others, EPA is implementing a strategy to help ensure that the nation's water infrastructure is sustainable in the future. This strategy is constructed around four key pillars—better management of utility operations, effective pricing of water and wastewater services, improvements in water efficiency, and watershed-based approaches to solving water quality and water quantity problems.

EPA works with a variety of partners to improve the condition of our nation's valuable coastal and ocean waters. In FY 2005, EPA focused its efforts on implementing the National Estuary Program (see Goal 4), reducing vessel discharges, managing dredged material, and managing non-indigenous invasive species.

ENHANCING SCIENCE AND RESEARCH

Finally, EPA's research programs under Goal 2 continue to supply the information needed to set and implement drinking water and water quality criteria. EPA provides scientific information about contaminants and identifies innovative approaches to develop criteria to support states and tribes in adopting standards that will protect water for swimming, public use, and fish and wildlife.

Goal 2 Strategic Objectives

Strategic Objective 1—Protect Human Health

Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.

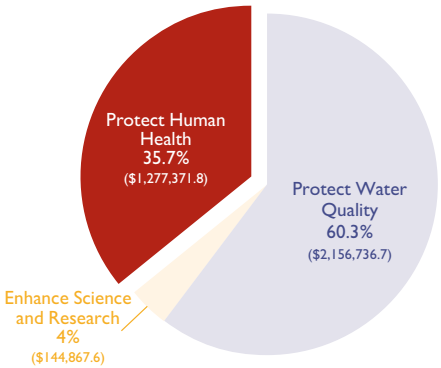
OVERVIEW OF PERFORMANCE

In collaboration with states, tribes, and local governments, EPA is working to protect human health by reducing contaminants in drinking water, fish and shellfish, and recreational waters. Despite the serious problems in the Gulf Coast resulting from Hurricane Katrina, EPA and the drinking water community at large continue to make steady progress in meeting the 2008 national goal of providing safe drinking water to 95 percent of the approximately 268 million people in the United States served by 54,000 community water systems. Although final 2005 data will not be available until January 2006, EPA has worked diligently in 2005 to sustain the 2004 level of 90 percent, an 11 percent increase in population from the 1993 level of 79 percent[3].

EPA also continues to provide the public with information about fish consumption and the quality of recreational waters. In FY 2005, EPA improved the database for reporting fish consumption advisories.

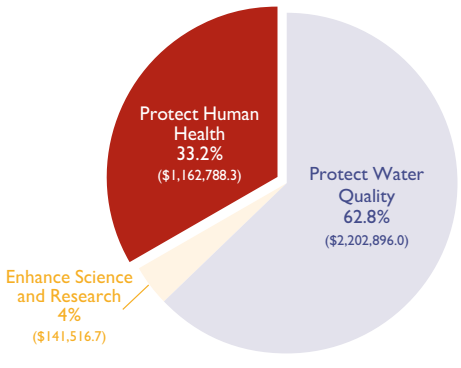
STRATEGIC OBJECTIVE 1—PROTECT HUMAN HEALTH		
APG #	APG Title	APG Status
2.1	Safe Drinking Water Meeting All Standards—Population	FY 2005 data available in FY 2006
		✗ Not met for FY 2004
2.2	Safe Drinking Water Meeting Existing Standards—Population (NEW IN FY05)	FY 2005 data available in FY 2006
2.3	Safe Drinking Water Meeting New Standards—Population	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
2.4	Safe Drinking Water Meeting Existing Standards—Systems (NEW IN FY05)	FY 2005 data available in FY 2006
2.5	Safe Drinking Water Meeting New Standards—Systems (NEW IN FY05)	FY 2005 data available in FY 2006
2.6	Safe Drinking Water—Tribal Communities (NEW IN FY05)	FY 2005 data available in FY 2006
2.7	Safe Drinking Water—Source Water Protection (NEW IN FY05)	FY 2005 data available late in FY 2006
2.8	Improve Water Quality to Support Increased Fish Consumption (NEW IN FY05)	✗ Not met for FY 2005
2.9	Improve Water Quality to Support Increased Shellfish Consumption (NEW IN FY05)	Data not available
2.10	Improve Water Quality to Allow Increased Safe Swimming (NEW IN FY05)	FY 2005 data available late in FY 2006
2.11	Increase Beach Safety (NEW IN FY05)	✔ Met in FY 2005

FY 2005 Obligations:
Goal 2, Strategic Objective 1
(in thousands)



Goal 2 Total = $3,578,976.0

FY 2005 Costs:
Goal 2, Strategic Objective 1
(in thousands)



Goal 2 Total = $3,507,201.0

Improving Tribal Drinking Water: Grants to Tribes

Until FY 2003, only about 60 percent of the tribal population in EPA Region 6 was receiving water meeting all drinking water health-based standards. Most violations of health-based standards involved the Total Coliform Rule (TCR). In 2002, EPA directed significant resources—including more than $1.1 million in drinking water infrastructure, TCR training, and direct technical assistance through EPA-funded circuit riders—toward tribes with the most violations. Discussions with tribal leaders secured their commitment to address Compliance Agreement milestones, which significantly improved tribal drinking water. Further compliance assistance efforts through the Region 6 tribal operator training and certification program and performance-based training approach resulted in a dramatic 30-percent improvement in compliance, to just more than 90 percent in FY 2005.

Beach Water Monitoring: Grants to States

As part of the Bush Administration's Clean Beach Plan, EPA awarded approximately $10 million in BEACH Act grants to all 35 eligible coastal and Great Lakes states and territories for implementing beach monitoring and notification programs. The grants support beach water monitoring, which helps provide people with information they can use to protect their health when visiting beaches. For example, officials use beach water monitoring results to issue warnings and closures if bacteria levels are unsafe and help identify actions needed to reduce pollution. The data for the 2004 swimming season show that only 4 percent of beach days were lost due to advisories or closures triggered by monitoring. Of the 3,574 beaches that were monitored in 2004, 942, or 26 percent, had a least one advisory or closing during the 2004 season.[4]

EPA continues to monitor improvements in water quality in waters used for swimming. The Agency and its partners are making progress toward the goal of reducing the risk of exposure to disease-causing bacteria at recreational beaches. Calendar year 2004 data, reportable in FY 2005, show that the percentage of days during the beach season that beaches were open and safe for swimming increased from 94 percent in 2003 to 96 percent in 2004, allowing EPA to exceed its FY 2005 goal by 2 percent[5].

CHALLENGES

Toward the end of FY 2005, Hurricane Katrina rendered many drinking water systems in the Gulf States non-operational. In early September, more than 895 public water systems in Alabama, Louisiana, and Mississippi had no water available to their customers or had boil water advisories in place[6]. EPA, state and local officials, systems operators, and volunteers worked around the clock to assist in repairing drinking water system infrastructure so that sources of drinking water could be filtered, treated, and declared safe to drink for all people in the affected region. By the end of October, less than 200 systems were still inoperable or operating under boil water advisories[7]. In FY 2006, EPA will assess the impact of Katrina on the Agency's progress towards achieving the 2008 drinking water protection goal. EPA is committed to providing safe drinking water nationally and restoring safe drinking water access to communities affected by Katrina.

In its 2004 performance report, EPA predicted that it would not meet its 2005 target of 93 percent of the population receiving drinking water meeting all standards because of the number of standards and regulations

that have been implemented over the past 7 years. EPA does not expect progress toward its FY 2008 goal of 95 percent to be evident as a straight line increase. As new regulations are implemented, not all systems will be able to gear up to meet health-based standards in the same time frame. In fact, a significant decrease may occur in 2006, when the arsenic rule is implemented. Many small systems with insufficient managerial, technical, and financial capacity may be out of compliance with the arsenic in drinking water standard every day in 2006. EPA, states, and major stakeholders are providing extensive technical assistance and training to drinking water systems operators on arsenic, as well as on the next suite of pathogens that will be regulated in the near future. Through this continuing effort, the gap between the ideal target and actual results should decrease, and the Agency expects to meet its 2008 goal.

Increased monitoring of recreational waters may identify more problems, potentially leading to more beach closures. While a higher number of beach closures may slow progress toward the goal, the public exposure to contaminated beach water will be reduced.

Most fish consumption advisories are attributable to mercury and/or polychlorinated biphenyls (PCBs), both of which are bioaccumulative toxins. Thus, even once the source of the mercury or PCBs has been lessened or eliminated, fish will continue to retain these contaminants in their systems for years. Consequently, EPA's actions to reduce mercury air—emissions, the primary cause of mercury in fish—may not show results for several more years.

Strategic Objective 2—Protect Water Quality

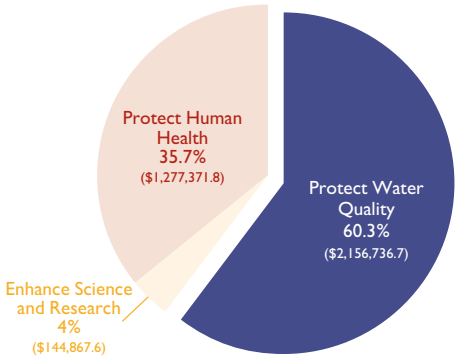
Protect the quality of rivers, lakes, and streams on a watershed basis and protect coastal and ocean waters.

OVERVIEW OF PERFORMANCE

EPA, states, and tribes continue to use a watershed approach to protect water quality, including that of coastal waters, nationwide. EPA and states made progress toward attaining water quality standards in waters previously identified as impaired. EPA's 2006 goal, as presented in its Strategic Plan, is to restore 5 percent of the waters identified by states as impaired. Current data indicate that 8 percent have been restored[8]. This figure represents substantial progress toward the 2012 goal of restoring 25 percent of impaired waterbodies.

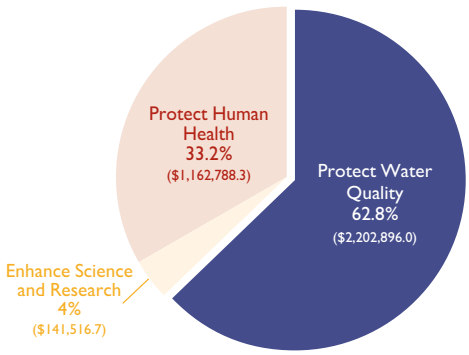
STRATEGIC OBJECTIVE 2—PROTECT WATER QUALITY		
APG #	APG Title	APG Status
2.12	Watershed Protection	✗ Not met for FY 2005
		✗ Not met for FY 2004
2.13	Watershed Protection—Waterbodies (NEW IN FY05)	✔ Met in FY 2005
2.14	State/Tribal Water Quality Standards—Monitoring (NEW IN FY05)	FY 2005 data available in FY 2006
2.15	State/Tribal Water Quality Standards—Sanitation Access (NEW IN FY05)	✔ Met in FY 2005
2.16	Coastal Aquatic Conditions—Ecological Health (NEW IN FY05)	✔ Met in FY 2005
2.17	Coastal Aquatic Conditions—Use Attainment (NEW IN FY05)	✔ Met in FY 2005

FY 2005 Obligations:
Goal 2, Strategic Objective 2
(in thousands)



Goal 2 Total = $3,578,976.0

FY 2005 Costs:
Goal 2, Strategic Objective 2
(in thousands)



Goal 2 Total = $3,507,201.0

EPA is committed to improving water quality for tribal communities and continues to expand monitoring of water quality on tribal lands. In FY 2005, EPA exceeded its goal of providing tribal communities with access to basic sanitation, reducing the cumulative number of households on tribal lands that lack access by 34 percent[9]. This figure represents EPA's FY 2002 through FY 2005 cumulative progress towards the 2015 goal of reducing the number of households lacking access to sanitation by 50%.

EPA also continues to provide nationally consistent, comparable, quality data to evaluate various indicators of estuarine condition in each U.S. coastal region and across the nation. Comparing data presented in the 1990-1996 National Costal Condition Report (NCCR) with data reported in the 1997-2001 NCCR indicates that, while water clarity declined (a result of episodic, catastrophic events and increased pollution), the overall ecological health of coastal waters has improved. These data reflect monitoring results against multiple indicators, including water clarity, dissolved oxygen, coastal wetlands loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination. Conditions in the Gulf of Mexico and Great Lakes showed the greatest improvement[10].

CHALLENGES

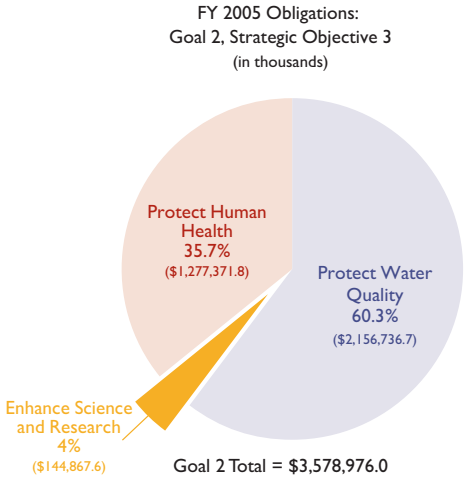
Because many years of monitoring are required, and data are often limited, documenting progress in complying with water quality standards is challenging. For example, a state might identify a stream as impaired due to elevated temperatures which prevent it from supporting its designated use as a coldwater fishery. An appropriate restoration action may be to replant the stream's banks with trees which, when mature, will provide shade and restore stream temperatures. In this case, while the correct restoration action may have been implemented, monitoring data will not demonstrate full restoration results for 10 or 20 years. Other challenges include limited resources such that, on average, over a 2-year period, states monitor and assess only about 20 percent of their stream miles and 40 percent of their lakes[11]. Thus progress made in areas not assessed during that 2-year period is not reported. Limited monitoring information also makes it difficult to aggregate data on individual stream segments into a meaningful watershed scale assessment that can be used for efficient restoration planning and targeting response actions.

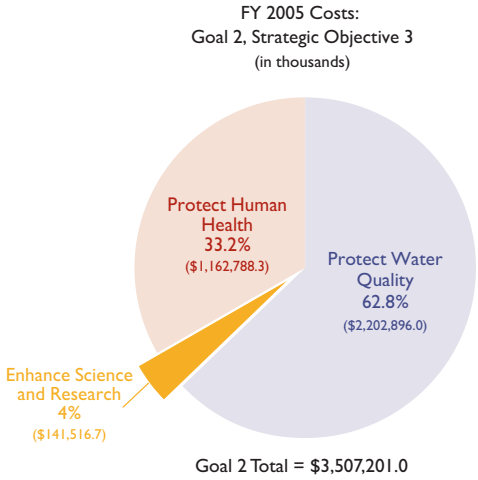
EPA is working to develop better measures for documenting environmental improvement on a watershed basis, such as measures to track incremental progress toward full restoration and document the results of the considerable effort EPA and its partners devote to maintaining water quality. EPA expects to include some improved measures in the *2006–2011 Strategic Plan* and may present plans for other potential measures that will take longer to develop.

Strategic Objective 3—Enhance Science and Research

Provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 2.

STRATEGIC OBJECTIVE 3—ENHANCE SCIENCE AND RESEARCH		
APG #	APG Title	APG Status
2.18	Water Quality Research (NEW IN FY05)	✔ Met in FY 2005





OVERVIEW OF PERFORMANCE

EPA continues to provide crucial research for developing effective water quality criteria. The demonstration of a population-based methodology for water quality criteria for aquatic and aquatic-dependent wildlife has been developed. In 2005 ORD is providing methods for developing water quality criteria so that, by 2008, approaches and methods are available to states and tribes for their use in developing and applying criteria for habitat alteration, nutrients, suspended and bedded sediments, pathogens, and toxic chemicals that will support designated uses for aquatic ecosystems and increase the scientific basis for listing and delisting impaired water bodies under Section 303(d) of the Clean Water Act.

For many of the waters listed as impaired under Section 303(d) of CWA, the impairments result from a number of stressors, including chemicals, nutrients, sediments, and loss of habitat. Maintaining healthy populations of aquatic life and aquatic dependant wildlife is the objective of the water quality criteria. APG 2.18 reports on the development of a population-based approach for a data rich case study, namely loons in the Northeast. The evaluation and adoption of such an approach will ultimately be applicable to development of criteria for a wide range of aquatic systems that may be impacted by a combination of chemical and non-chemical stressors.

EPA has conducted research and developed a methodology to assess the cumulative impact of a number of stressors (e.g. loss of habitat and exposure to mercury through fish consumption) on loon populations in order to develop criteria supporting designated uses of waterbodies. The method includes approaches for extrapolating mercury toxicity across wildlife species, predicting population-level responses to mercury exposure and habitat alteration, and projecting risks to loon population at spatial scales ranging from watersheds to biogeographic regions.

CHALLENGES

EPA is making progress toward meeting this strategic objective and does not foresee significant challenges.

Goal 2 Annual Performance Goals

Strategic Objective 1—Protect Human Health

Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.

PERFORMANCE

This group of APGs measures the percent of the population that receive safe drinking water from community water systems (CWSs) in compliance with health-based standards.

APG 2.1 includes all standards; APG 2.2 include older standards that went into effect before January 2002; and APG 2.3 tracks compliance with the new standards that went into effect January 2002 or later.

The FY 2005 data for these APGs will be available in January 2006. It is not possible to determine the results before January because they are based on a cumulative, annual count of water systems reporting at least one health-based violation during the year. Primacy agencies (states) historically report more than a third of all such violations in the last quarter of the calendar year (regulations allow primacy agencies 90 days for reporting data). In addition, primacy agencies are required to annually update water systems information by the end of December.

In FY 2005, the target of 75 percent for APG 2.3 was set to reflect challenges associated with compliance with newer standards,

APG 2.1 Safe Drinking Water Meeting All Standards—Population

DATA AVAILABLE FY 2006	**FY 2005:** *Percent population served by community water systems in compliance with health-based drinking water systems in compliance with health-based drinking water standards. (PART)*		
	(Performance measure is included in the annual goal above.)	*Planned* 93%	*Actual* Data avail 2006
✗ GOAL NOT MET FOR FY 2004	**FY 2004:** Population served by community water systems will receive drinking water meeting all health-based standards, up from 83% in 1994.		
	(Performance measure is included in the annual goal above.)	*Planned* 92%	*Actual* 90% ✗

APG 2.2 Safe Drinking Water Meeting Existing Standards—Population

DATA AVAILABLE FY 2006	**FY 2005:** 94% of the population served by community water systems will receive drinking water that meets health-based standards with which systems need to comply as of December 2001. (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 94%	*Actual* Data avail 2006

APG 2.3 Safe Drinking Water Meeting New Standards—Population

DATA AVAILABLE FY 2006	**FY 2005:** 75% of the population served by community water systems will receive drinking water that meets health-based standards with a compliance date of January 2002 or later. (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 75%	*Actual* Data avail 2006
✔ GOAL MET FOR FY 2004	**FY 2004:** Population served by community water systems will receive drinking water meeting health-based standards promulgated in 1998.		
	(Performance measure is included in the annual goal above.)	*Planned* 85%	*Actual* 97% ✔

Data Source(s): Primacy agency (states, tribes, and EPA regions) data supplied through the Safe Drinking Water Information System (SDWIS). Also see www.epa.gov/safewater.

Program Assessment Rating Tool (PART)

OMB assessed the Public Water System Supervision Grant program and reassessed the Drinking Water State Revolving Fund program related to these APGs in the 2004 PART process. Both programs received adequate ratings.

Program Evaluations

Inspector General report: "Progress Report on Drinking Water Protection Efforts" (Report No. 2005-P-00021). Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-7.

Government Accountability Office report: "District of Columbia's Drinking Water: Agencies Have Improved Coordination, but Key Challenges Remain in Protecting the Public from Elevated Lead Levels." (GAO-05-344)

Grants Supporting the Achievement of This APG

Drinking Water State Revolving Fund and Public Water System Supervision Grant Program.

though EPA anticipates a higher compliance level. Even though newer standards are a sub-set of all standards captured in APG 2.1, the target for APG 2.1 was not adjusted as low as the target for APG 2.3. The target for APG 2.1 was kept at a level consistent with previous years to encourage states and regions to strive for better compliance.

In FY 2004, APG 2.1 was not met. Although the vast majority of the nation's community water systems supplied drinking water that met all health-based standards, some very large systems serving a large number of people (e.g., Los Angeles and Phoenix) reported short-term non-compliance violations during the year. The Agency is pursuing ways to account for these short-term non-compliance events to more comprehensively and accurately reflect the public health benefits over the entire year.

In FY 2004, APG 2.3 was significantly exceeded with 97 percent of the population served by community water systems receiving drinking water that met health-based standards with a compliance date of 1998 or later. The APG was changed for 2005 to track with newer standards (e.g., "Crytosporidium Rule"), with compliance dates of January 2002 or later.

APG 2.1 is based on a baseline of 94 percent of the population in FY 2002 received drinking water from CWSs in compliance with all applicable health-based standards. APG 2.2's baseline is the same except compliance is based on standards issued before January 2002.

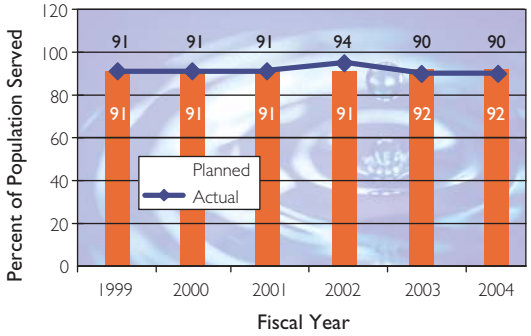
Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-17–C-19.

CHALLENGES

Data for APGs 2.1 and 2.2 can fluctuate significantly year-to-year if a single large population system has even a short-term violation. Violation frequency, duration, and other exposure and risk factors (e.g., extent of distribution system affected, acute versus chronic contaminants, exceedence levels) are not reflected in this measure. Despite the limitations, these are widely recognized measures that reflect program progress.

Newer standards are generally based on tailored approaches that allow for different circumstances among localities rather than "one-size-fits-all." It takes time at the outset to determine the needs of each particular system to be in compliance with the rule. In addition, new standards are very complex to implement and are a challenging workload for states and systems.

Population Served by Community Water Systems Will Receive Drinking Water Meeting All Health-Based Standards, Up from 83% in 1994



Source: US EPA Safe Drinking Water Information System (SDWIS)

PERFORMANCE

APG 2.4 and 2.5, water system-based goals, provide an important counter-balance to the population-based measures, which are highly sensitive to changes in compliance for large population centers, but are less reflective of small communities. For FY 2007, the Agency will be reporting on a measure which combines the current APGs 2.4 and 2.5. It measures the percent of community water systems in compliance with all drinking water standards. This measure arose from the Drinking Water State Revolving Fund PART.

These APGs are weighted more towards small communities. Although most of the U.S. population lives in large cities, most CWSs serve fewer than 10,000 people. Measuring only the percent of the population served by CWSs that meet all applicable health standards does not give a full picture of public health protection through safe drinking water. Approximately 8,000 medium and large systems (those serving no fewer than 3,301 people up to more than 100,000) provide drinking water to more than 246 million people, and the remaining 44,800 small systems (those serving 3,300 or less people) supply drinking water to about 27 million people.

APG 2.4 measures the percent of CWSs that are providing drinking water that meets health-based standards with a compliance date before January 2002. APG 2.5 tracks the percent of CWSs that are providing drinking water that meets newer health-based standards with a compliance date of January 2002 or later. APG 2.6 covers all health-based standards for tribal communities.

APG 2.4 Safe Drinking Water Meeting Existing Standards—Systems

DATA AVAILABLE FY 2006	**FY 2005:** *94% of community water systems will provide drinking water that meets health-based standards with which systems need to comply as of December 2001. (PART)* (NEW IN FY05)	
(Performance measure is included in the annual goal above.)	*Planned* 94%	*Actual* Data avail 2006

APG 2.5 Safe Drinking Water Meeting New Standards—Systems

DATA AVAILABLE FY 2006	**FY 2005:** 75% of community water systems will provide drinking water that meets health-based standards with a compliance date of January 2002 or later. (NEW IN FY05)	
(Performance measure is included in the annual goal above.)	*Planned* 75%	*Actual* Data avail 2006

APG 2.6 Safe Drinking Water—Tribal Communities

DATA AVAILABLE FY 2006	**FY 2005:** 90% of the population served by community water systems in Indian country will receive drinking water that meets all applicable health-based drinking water standards. (NEW IN FY05)	
(Performance measure is included in the annual goal above.)	*Planned* 90%	*Actual* Data avail 2006

Data Source(s): Primacy agency (tribes and EPA regions) data supplied through the Safe Drinking Water Information System (SDWIS). Also see www.epa.gov/safewater.

The FY 2005 data for these APGs will be available in January 2006. It is not possible to calculate it before then because it is based on a cumulative, annual count of water systems reporting at least one health-based violation during the year. Primacy agencies historically report more than a third of all such violations between October and the end of December 2005 (regulations allow primacy agencies 90 days for reporting data). In addition, primacy agencies are required to update water systems information annually, by the end of December.

APG 2.4 is based on a baseline of 92 percent of the community water systems in FY 2002 that supplied drinking water in compliance with all applicable health-based standards issued before January 2002.

APG 2.6 is based on a baseline of 91 percent of the population in Indian country in FY 2002 that received drinking water from CWSs in compliance with all applicable health-based standards.

Program Assessment Rating Tool (PART)

OMB assessed the Public Water System Supervision Grant program and reassessed the Drinking Water State Revolving Fund program related to these APGs in the 2004 PART process. Both programs received adequate ratings.

Program Evaluations

Inspector General report: "Progress Report on Drinking Water Protection Efforts" (Report No. 2005-P-00021). Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-7.

Government Accountability Office report: "District of Columbia's Drinking Water: Agencies Have Improved Coordination, but Key Challenges Remain in Protecting the Public from Elevated Lead Levels." (GAO-05-344)

Grants Supporting the Achievement of This APG

Public Water System Supervision Grant Program and Drinking Water State Revolving Fund.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-17–C-19.

CHALLENGES

Small drinking water systems, including those supplying drinking water to Indian tribes, often do not have the resources to obtain needed infrastructure improvement and capacity to meet existing standards and they face an even larger obstacle in meeting the new standards. Specific challenges include the following:

- Smaller customer base means fewer opportunities for scale economies.
- Competing priorities, such as historic under-pricing versus affordable service, which means establishing rates at an appropriate level to allow systems to fully recover their total cost. The total cost of business for water utilities includes not only ongoing operations and management expenses and debt service but also estimates of future infrastructure needs and investment.
- Rising costs of drinking water infrastructure.
- Difficulty in gaining outside access to capital.

To strengthen and enhance technical, managerial, and financial capacities of small water systems, EPA and the states are implementing the capacity development program, which provides a wide range of tools to help owners and operators of small water systems to understand Safe Drinking Water Act (SDWA) regulatory requirements. States and water systems played major roles in shaping this program, widely recognized as a model for cooperative and collaborative efforts under SDWA.

APG 2.7 Safe Drinking Water—Source Water Protection

PERFORMANCE

APG 2.7 tracks the percentage of community water systems that have implemented source water protection plans. The SDWA source water protection program focuses federal, state, and local resources on protecting CWSs by encouraging the substantial implementation of source water protection plans. Each of the 52,800 CWSs has completed an initial assessment consisting of delineating the water supply, inventorying actual and potential sources of contamination, determining susceptibility, and informing the public. EPA is working with states, water systems, associations, and nonprofit organizations to improve these protection strategies for drinking water sources through supporting development and implementation of source water protection plans.

DATA AVAILABLE FY 2006	**FY 2005:** *20% of source water for community water systems will achieve minimized risk to public health. (PART)* (NEW IN FY05)	
	Planned	*Actual*
(Performance measure is included in the annual goal above.)	20%	Data avail 2006

Data Source(s): State data supplied from EPA regions through the Underground Injection Control (UIC) Well Inventory Reporting System. Also see www.epa.gov/safewater.

Program Assessment Rating Tool (PART)

OMB reassessed the UIC Grant program related to this APG in the 2004 PART process. The program received an adequate rating.

Program Evaluations

Inspector General report: "Source Water Assessment and Protection Programs Show Initial Promise, But Obstacles Remain" (Report No. 2005-P-00013). Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-8.

Grants Supporting the Achievement of This APG

Underground Injection Control (UIC) Grant Program and Drinking Water State Revolving Fund.

The goal of a protection plan is to prevent contamination of sources of drinking water and to achieve minimized risk to public health.

A critical component of safeguarding the health of the American public is protecting drinking water resources. Preventing contaminants from getting into surface and ground waters that are used, or could be used, as drinking water supplies requires a broad, integrated prevention approach that relies on participation at the federal, state, and local levels. When implemented, this approach minimizes the risk of exposure to contaminants in drinking water. An additional benefit of a contamination prevention approach is that provides opportunities to lower the cost of drinking water treatment at the local level.

The SDWA also established the Underground Injection Control (UIC) Program to protect current and future ground water-based drinking water resources from unsafe injection practices. This regulatory program is designed to ensure that none of the more than 800,000 injection wells impact these drinking water resources. The UIC Program has identified source water areas as a critical focus of implementation efforts, particularly for shallow injection wells. Source water areas are targeted for identifying, inspecting, permitting, and closing of injection wells. Protection of drinking water resources requires a comprehensive, coordinated effort across numerous EPA and other federal programs. EPA's drinking water program is working actively to integrate with other federal programs to enhance source water protection at the local level.

APG 2.7 is based on a baseline of 5 percent of source water for community water systems in FY 2002 achieving minimized risk to public health.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-20.

CHALLENGES

Since protection activities are voluntary, and consistent funding at the state and local level is uncertain, states have expressed concern that meeting the national goal of 20 percent will be particularly challenging.

The UIC Program is also facing challenges. Deep well injection technology is being expanded to new uses such as disposal of drinking water treatment residuals and geologic sequestration of carbon dioxide to mitigate the effects of climate change. These new needs for injection wells are putting intense pressure on state programs that already safely manage more than 800,000 injection wells. In addition, states are also increasing their inventories of shallow injection wells through inspection and compliance assistance efforts. Increases in the number of deep injection wells and newly identified shallow wells will require UIC Programs to issue more permits, conduct additional well testing, and ensure compliance with the requirements to protect underground sources of drinking water. These actions have significant new costs; however, funding for the program has not increased in more than 15 years.

APG 2.8 Improve Water Quality to Support Increased Fish Consumption

PERFORMANCE

✗ GOAL NOT MET	**FY 2005:** At least 1% of the water miles/acres identified by states or tribes as having a fish consumption advisory in 2002 will have improved water and sediment quality so that increased consumption of fish and shellfish is allowed. (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 1%	*Actual* 0% ✗

Data Source(s): 2004 National Listing of Fish Advisories, September 2005. Also see www.epa.gov/waterscience/fish.

This measure tracks changes in fish consumption advisories in the universe of waters that had such advisories in 2002. Improvements in water quality are expected to reduce the levels of contaminants in fish, leading to higher safe fish consumption levels. Data are collected on a calendar year (CY) basis and reported on in the next fiscal year. For example, CY 2004 data are reported in FY 2005.

In CY 2002, 32.9 percent of lake-acres (13,413,763 lake-acres/94,715 individual lakes), and 15.3 percent of river-miles (544,036 river-miles) were under fish advisories. This is the baseline against which progress for this APG is being measured. In CY 2004, there was no significant change at the national level in the percentage of waters under fish consumption advisories.

Goal Not Met: This is a new APG, and the Agency misjudged its ability to meet the target. Many variables are involved in evaluating mercury deposition in fish, such as the sources of mercury and the bioaccumulative nature of mercury, which impacts the time that it takes for fish to rid mercury from their bodies. These factors resulted in the Agency overestimating its ability to meet the target. EPA is assessing the information received to date to determine a more realistic future target.

In FY 2005, the Agency improved the database to account for changes in recommended meal frequencies in state and tribal advisories. This system documents instances where advisories are modified to allow increased fish consumption. Recording modifications to advisories, as opposed to only the initial advisories, may lead to an increase in fish consumption, which should demonstrate progress. This is the first year EPA has collected this information, and it will provide a baseline for measuring changes in future years.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-21.

CHALLENGES

Improving water and sediment quality to allow for increased fish consumption has been difficult to achieve. Most fish consumption advisories are attributable to mercury and/or polychlorinated biphenyls (PCBs), both of which are bioaccumulative toxins. This situation means that even after the source of the mercury or PCBs has been lessened or eliminated, the fish continue to retain the contaminants in their systems for years. Consequently, even though EPA has taken actions to reduce mercury air emissions—the primary cause of mercury in fish—it will take several more years before the results of these actions will be seen.

APG 2.9 Improved Water Quality to Support Increased Shellfish Consumption

PERFORMANCE

DATA UNAVAILABLE	**FY 2005:** 80% of the shellfish growing acres monitored by states are approved or conditionally approved for use. (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 80%	*Actual* Data Unavailable

Data Source(s): Analysis of Classified Shellfish Waters 1985-2003; June 2004; Interstate Shellfish Sanitation Conference. Also see www.epa.gov/waterscience/shellfish.

Data to support this APG comes from past surveys of states that are members of the Interstate Shellfish Sanitation Conference (ISSC). Surveys are conducted at 5-year intervals with periodic

updates requested from the ISSC. The most recent survey containing 2003 data was released in 2004. However, the ISSC recently decided to stop conducting 5-year surveys because the agency is in the process of developing a centralized database system, called the Shellfish Information Management System (SIMS). This will allow shellfish-producing states to directly enter their shellfish data into the system. Thirteen of the 22 shellfish-producing states have entered or begun entering their shellfish information into the system.

The data for APG 2.9 are unavailable due to the cessation of the ISSC surveys. Consequently, EPA cannot determine if the target was achieved due to a lack of data. It is uncertain whether the surveys will be resumed and whether a determination will be able to be made as to the achievement status of the APG. The Agency is reviewing the APG to determine the appropriateness of retaining, changing, or deleting it.

APG 2.9 is tracked with baseline data from the ISSC surveys. According to the ISSC report, there were a total of 15,273 estuarine shellfish-growing acres, of which 11,268 acres (73.8 percent) were approved or conditionally approved for use in 1995. Data indicate that the percentage of monitored waters open for use increased to 91 percent in 2003.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-22.

CHALLENGES

Because a high percentage (91 percent) of shellfish-growing acres are currently approved or conditionally approved for use, it will be difficult to show progress in future years. In addition, states' participation in SIMS is voluntary, and due to state fiscal constraints, some states may delay or decide not to enter data into SIMS. If this occurs, the Agency will not have a complete picture of shellfish conditions.

APG 2.10 Improve Water Quality to Allow Increased Safe Swimming

PERFORMANCE

APG 2.10 tracks the percentage of improvement in waters used for swimming via the Assessment Data Base (ADB), which incorporates water quality data reported by states every 2 years. In 2002, EPA summarized data submitted for individual water bodies to compile national statistics that could be tied back to the individual waters.

The 2002 water body-specific state data have been posted at www.epa.gov/waters/305b/index.html.

DATA AVAILABLE FY 2006	**FY 2005:** Restore water quality to allow swimming in not less than 2% of the stream-miles and lake-acres identified by states in 2000 as having water quality unsafe for swimming. (NEW IN FY05)	
	Planned	*Actual*
(Performance measure is included in the annual goal above.)	2%	Data avail 2006

Data Source(s): Section 305b Report/Assessment Data Base (ADB). Also see www.epa.gov/waters/305b/index.html.

A national summary of that data, the National Water Quality Inventory 2002 Report to Congress, will be available in early 2006. The summary of the 2004 state assessments will be available in late 2006 at the earliest.

The 2005 target of 2 percent restoration is based on state data from 2000, which showed that 90,000 stream-miles and 2.6 million lake-acres had water quality unsafe for swimming.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-23–C-24.

CHALLENGES

State assessments of water quality conditions are due to EPA every 2 years. Because some states are late in submitting their assessment findings, there can be a significant gap between the time water monitoring occurs and when states report on water quality.

Grants Supporting the Achievement of This APG

Clean Water Act Section 106 state program grants.

APG 2.11 Increase Beach Safety

PERFORMANCE

APG 2.11 tracks the percentage of days during the beach season that coastal and Great Lake beaches are open and safe for swimming. As water quality improves, beaches will be closed fewer days. Data are collected on a calendar year basis and reported on in the next fiscal year. For example, CY 2004 data are reported in FY 2005.

Data trends are difficult to establish due to the new reporting requirements that began in 2003. From 1997 to 2002, beach monitoring data were collected and submitted to EPA on a voluntary basis and included coastal, Great Lakes, and some inland waters. Beginning in 2003, reporting became mandatory, and inland waters were no longer part of the data set. As a result, the 2003 and 2004 data cannot easily be compared to data compiled from 1997 to 2002.

✔ GOAL MET	**FY 2005:** Coastal and Great Lakes beaches monitored by state beach safety programs will be open and safe for swimming in over 94% of the days of the beach season. (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 94%	*Actual* 96% ✔

Data Source(s): U.S. EPA. Office of Water. "EPA's Beach Program: 2004 Swimming Season Update." EPA-823-F-05-006. Washington, DC, July 2005. Available at www.epa.gov/waterscience/beaches/2004fs.html. Also see www.epa.gov/waterscience/beaches.

Baseline information for APG 2.11 indicates that monitored beaches were opened 94 percent of the days during the beach season in 2001 and 95 percent in 2002. Data for the 2003 beach season are under quality review and are not currently available.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-23–C-24.

CHALLENGES

Past experience with other programs has shown that improved monitoring usually results in the identification of more problems. Consequently, the Agency expects that more comprehensive monitoring of recreational waters could result in more beach closures, which will make it difficult to show progress for this measure. The risk of exposure to disease-causing bacteria at recreational beaches will be reduced, however.

In addition, states use different monitoring methods, making comparisons and tracking difficult. EPA will encourage more consistent monitoring by working with its national network of state partners.

Grants Supporting the Achievement of This APG

Over the past 5 years, EPA has provided a total of almost $42 million in grants to 35 coastal and Great Lakes states and territories. These funds support state and local government beach monitoring and notification programs that provide the public with information on whether the water is safe to swim in. In CY 2004, 3,574 beaches were monitored.

Strategic Objective 2—Protect Water Quality

Protect the quality of rivers, lakes, and streams on a watershed basis, and protect coastal and ocean waters.

APG 2.12 Watershed Protection

PERFORMANCE

EPA works with states to implement pollution prevention and restoration approaches to increase the number of watersheds where water quality standards are met in at least 80 percent of the assessed water segments. Achievement of this goal is largely dependent on the efforts of states to implement "core" CWA programs, including development of water quality standards, monitoring, development of total maximum daily loads (TMDLs), issuance of permits for discharges, and implementation of nonpoint source control programs. EPA is working on detailed strategies to target and implement core programs with local watershed protection efforts that will result in increased and more efficient restoration of waters.

✗ GOAL NOT MET	**FY2005:** 462 of the nation's watersheds have water quality standards met in at least 80% of the assessed water segments.		
(Performance measure is included in the annual goal above.)	*Planned* 462	*Actual* 450	✗
✗ GOAL NOT MET FOR FY 2004	**FY 2004:** By 2005, water quality will improve on a watershed basis such that 500 of the nation's 2,262 watersheds will have greater than 80% of assessed waters meeting all water quality standards.		
(Performance measure is included in the annual goal above.)	*Planned* 500	*Actual* 450	✗

Data Source(s): Watershed Assessment, Tracking, and Environmental Results (WATERS) and Assessment Data Base (ADB). Also see National Program Guidance for the Office of Water www.epa.gov/ow/waterplan/documents/FY06NPGNarrative.pdf (pages 20-35 are particularly relevant to this APG).

Goal Not Met: In FY 2005, the cumulative goal of meeting standards in 462 watersheds was not met. Although several EPA regions did increase their watershed numbers, many other regions showed either zero or negative change in water quality, resulting in an FY 2005 national total of only 450 watersheds meeting water quality standards. This regression and zero change can be attributed to new data that more accurately reflect watershed condition, including adjustments for fish consumption advisories and increased environmental stresses on watersheds that not only impair waters that were once clean, but also further degrade waters already impaired.

In 2002 state reports, 453 watersheds met the criteria that greater than 80 percent of assessed waters met all water quality standards. For a watershed to be counted toward this goal, at least 25 percent of the segments in the watershed must be assessed within the past 4 years consistent with assessment guidelines developed pursuant to section 305(b) of the

Program Assessment Rating Tool (PART)

OMB is assessing the Surface Water Protection and State Pollution Control Grants (106) programs related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Grants Supporting the Achievement of This APG

APG 2.12 is supported by Clear Water Act (CWA) Section 106 grants, which fund the full gamut of state water quality programs. CWA Section 319 grants also support APG 2.12 by reserving $100 million for developing and implementing comprehensive watershed plans that function to restore impaired waters on a watershed basis while protecting healthy waters. Additionally, the Targeted Watershed Grants (TWG) Program encourages collaborative, community-driven approaches to meet clean water goals.

Clean Water Act. The projection for 2005 was lowered from 500 to 462 watersheds following work with states to develop realistic 2005 targets based on actual work-plans. This more detailed analysis resulted in the estimate that an additional nine watersheds would attain the "80 percent" goal.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-24–C-27.

CHALLENGES

Showing progress toward attainment of the environmental improvements described above is challenging because it often requires many years before implementation of specific program activities (e.g. re-issuing permits, approving TMDLs) can reduce pollutant discharges, leading to improved water quality. Further, there is a lag in reporting data that can show progress in meeting this goal.

APG 2.13 Watershed Protection—Waterbodies

PERFORMANCE

In 2000, states identified some 21,632 total waterbodies in the United States as impaired (i.e., not attaining state water quality standards). APG 2.13 intends to track the percentage of those waterbodies that are restored (i.e., meet state water quality standards) at the close of FY 2005. Nationally, EPA has adopted a strategic target of restoring 25 percent of those 21,632 waterbodies by 2012. APG 2.13 is the single most revealing indicator of the fundamental goal of the Office of Water's CWA implementation, including ensuring waters are fishable, swimmable, and drinkable. Interim goals include restoration of 5 percent of these waters (i.e., 1,082 waterbodies) by the end of FY 2006 and 2 percent (i.e., 432 waterbodies) by the end of FY 2005.

In FY 2005, we significantly exceeded our 2 percent national goal by restoring 8 percent of impaired waterbodies. This success is partly due to our efforts in improving water quality assessments. We anticipate that in future years this success rate may not be as high as reported in FY 2005.

✔ GOAL MET	**FY 2005:** *Water Quality standards are fully attained in over 25% of miles/acres of waters by 2012, with an interim milestone of restoring 2% of these waters—identified in 2000 as not attaining standards by 2005. (PART)* (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 2%	*Actual* 8% ✔

Data Source(s): National TMDL Tracking System (NTTS) and Assessment Data Base (ADB) within Watershed Assessment, Tracking and Environmental Results (WATERS). Also see National Program Guidance for the Office of Water www.epa.gov/ow/waterplan/documents/FY06NPGNarrative.pdf (pages 20-35 are particularly relevant to this APG).

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-27–C-28.

CHALLENGES

Although 2005 data indicate that the waterbodies listed in 2000 are being quickly removed from the list of impaired waters, we expect waterbodies that are more easily restored to be removed from the list first. Also, as part of the process of developing a TMDL, regions and states examine the conditions of waters more closely than at the time of initial assessment and listing. In some cases regions and states find, upon reviewing more complete data, that waters listed as impaired based on the best data available in 2000 are in fact meeting standards and can be removed from the list of impaired waters without lengthy cleanup actions. We

Program Assessment Rating Tool (PART)

OMB is assessing the Surface Water Protection and State Pollution Control Grant (106) programs related to this APG under the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Grants Supporting the Achievement of This APG

This goal is supported by CWA Section 106 grants, which fund the full range of state water quality programs. CWA Section 319 Program also support APG 2.13 by reserving $100 million for developing and implementing comprehensive watershed plans that function to restore impaired waters on a watershed basis while protecting healthy waters. Additionally the TWG Program encourages collaborative, community-driven approaches to meet clean water goals.

anticipate that delistings due to the availability of better quality data will soon decline, as will delistings of waters with problems that are relatively easy to address.

As regions and states work to restore the large subset of waters with significant water quality problems, we anticipate that progress towards the long-term goal will become much more difficult to achieve. Many of these waterbodies are subject to increasing stress as a result of population growth and changing land use.

APG 2.14 State/Tribal Water Quality Standards—Monitoring

PERFORMANCE

All of the monitoring stations originally included in the baseline for APG 2.14 (900) are U.S. Geological Survey (USGS) stations with USGS station identification numbers. Since the 900 sites were originally identified, additional monitoring stations on tribal lands have been located. The water quality monitoring results for the additional stations on tribal lands are recorded in the USGS National Water Information System (NWIS) and EPA's Storage and Retrieval database (STORET). Through STORET and NWIS, EPA and USGS have established standardized formats for reporting water quality data and information.

DATA AVAILABLE FY 2006	**FY 2005:** Water quality in Indian country will be improved at not less than 35 monitoring stations in tribal waters for which baseline data are available (i.e. show at least a 10% improvement for each of four key parameters: total nitrogen, total phosphorus, dissolved oxygen, and fecal coliforms). (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 35 Stations	*Actual* Data avail 2006

Data Source(s): USGS National Water Information System (NWIS). Also see www.epa.gov/indian

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-28–C-29.

CHALLENGES

Monitoring activities at the sampling stations included in APG 2.14 are not conducted or reported by tribes. Sampling is performed at these monitoring stations by a variety of entities, for a variety of purposes and with differing frequencies. The proximity of these stations to watersheds undergoing restoration/protection activities may not be included as part of the information included in the STORET database or NWIS. The use of these monitoring stations for APG 2.14 is opportunistic, and thus sampling results may not necessarily reflect the impacts of restoration activities performed as part of the implementation of CWA programs by tribes.

Grants Supporting the Achievement of This APG

CWA Section 106, Tribal General Assistance Program (GAP) Grants.

APG 2.15 State/Tribal Water Quality Standards—Sanitation Access

PERFORMANCE

In August, 2002, at the World Summit on Sustainable Development in Johannesburg, South Africa, the United States was a signatory to the plan of implementation. This plan established a goal of reducing by half the proportion of people in developing countries who lack access to safe drinking water and basic sanitation. The target date for achieving this goal is 2015.

✔ GOAL MET	**FY 2005:** In coordination with other federal partners reduce, by 11%, households on tribal lands lacking access to basic sanitation between 2002 and 2005. (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 11%	*Actual* 34% ✔

Data Source(s): Sanitation Deficiency System (Indian Health Service); Program records for Clean Water Indian Set-Aside Program. Also see www.epa.gov/owm/mab/indian/index.htm.

Access to water and wastewater services is one of the strongest barometers of public

health and environmental conditions, and represents one of the most fundamental needs for populations at risk. In the United States, the Native American population lacks access to water and wastewater services at a rate seven times higher than the population as a whole (7 percent of the tribal population vs. 1 percent of the U.S. population).[12] For this reason, EPA adopted in its *2003-2008 Strategic Plan* the goal of meeting the Johannesburg commitment for the tribal segment of the U.S. population.

APG 2.15 tracks the reduction in the number of households on tribal lands that lack access to basic sanitation. The baseline of 71,000 households was established in 2002 and is based upon 2000 data. The long-term goal, with other federal partners, is to reduce the number of households on tribal lands that lack access to basic sanitation by 50 percent by 2015. The 34 percent represents EPA's cumulative accomplishments in FY 2002 through FY 2005 against the 50 percent goal.

The Agency has significantly exceeded its target because this is a new measure and the Agency did not know how many households would qualify for assistance when it established the initial target for 2005, it proved to be a low estimate. Based on this year's results, the target will be adjusted accordingly.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-29–C-30.

Program Assessment Rating Tool (PART)

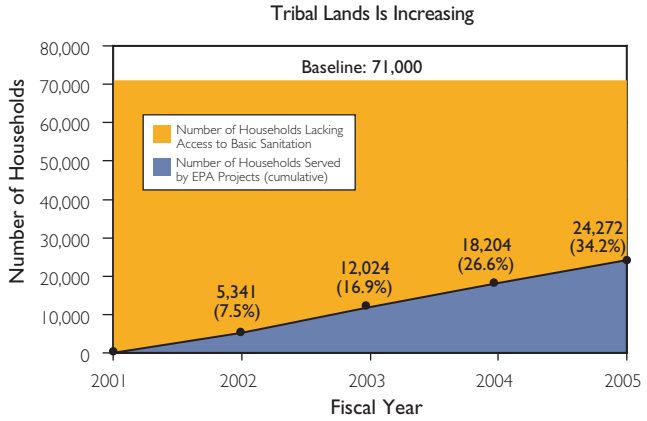
OMB assessed the Alaska Native Village program related to this APG in the 2004 PART process. The program received a rating of ineffective due to the systemic management of deficiencies.

Program Evaluations

The Office of Inspector General report: "Region 10's Grant for Alaska Village Safe Water Program Did Not Meet EPA Guidelines" (Report No. 2005-P-00015). Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-10.

Grants Supporting the Achievement of This APG

- Northern Arizona University—Tribal Wastewater Professional Training Center (builds capacity for tribes to effectively operate and maintain wastewater facilities).
- Clean Water Indian Set Aside Grant Program (1.5 percent set-aside from the CWSRF, for the purpose of planning, design and construction of wastewater facilities for tribal populations).
- Alaska Native Village and Rural Community Infrastructure Grant Program (this matching grant program supports the Alaska Village Safe Water Program, which provides grants to rural and Native villages in Alaska to plan, design and construct both drinking water and wastewater facilities).



Note: The baseline, established in 2000, is 71,000 and represents the number of households on tribal lands that lack access to basic sanitation.

Source: US EPA Program Records for Clean Water Indian Set-Aside Program

CHALLENGES

Deficiencies in the administration and implementation of the Alaska Native Village and Rural Community Infrastructure Program were identified in an audit conducted by the Office of Inspector General last year ("EPA Oversight for the Alaska Village Safe Water Program Needs Improvement," Report No. 2004-P-00029, September 21, 2004). These deficiencies are being addressed by EPA through the implementation of a series of steps under the plan of action, which was cooperatively developed by EPA's Office of Wastewater Management and Region 10. Region 10 also anticipates executing a memorandum of understanding with Alaska in November 2005, to formalize program requirements that address the weaknesses.

APG 2.16 Coastal Aquatic Conditions —Ecological Health

✔ GOAL MET

FY 2005: Scores for overall aquatic system health of coastal waters nationally, and in each coastal region, is improved on the good/fair/poor scale of the National Coastal Condition Report by at least 0.1 point. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*	
• Score for overall aquatic system health of coastal waters nationally, and in each coastal region, is improved (cumulative).	2.5 Scale score	2.7	✔
• Maintain water clarity and dissolved oxygen in coastal waters at the national levels reported in the 2002 National Coastal Condition Report.	4.3/4.5 Scale score	2.6/ 4.6	✗ ✔

Data Source(s): National Coastal Condition Report 2, EPA Office of Water/Office of Research and Development, December 2004. Also see www.epa.gov/owow/oceans/nccr2.

APG 2.17 Coastal Aquatic Conditions —Use Attainment

✔ GOAL MET

FY 2005: Improve ratings reported on the national good/fair/poor scale of the National Coastal Condition Report for: coastal wetlands loss by at least 0.1 point; contamination of sediments in coastal waters by at least 0.1 point; benthic quality by at least 0.1 point; and eutrophic condition by at least 0.1 point. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*	
• Improve ratings reported on the national "good/fair/poor" scale for the National Coastal Condition Report for coastal wetlands loss.	1.5 Scale score	1.7	✔
• Improve ratings reported on the national "good/fair/poor" scale for the National Coastal Condition Report for contamination of sediments in coastal waters.	1.4 Scale score	2.1	✔
• Improve ratings reported on the national "good/fair/poor" scale for the National Coastal Condition Report for benthic quality.	1.5 Scale score	2.0	✔
• Improve ratings reported on the national "good/fair/poor" scale for the National Coastal Condition Report for eutrophic condition.	1.8 Scale score	3.0	✔

Data Source(s): National Coastal Condition Report 2, EPA Office of Water/Office of Research and Development, December 2004. Also see www.epa.gov/owow/oceans/nccr2.

PERFORMANCE

The National Coastal Condition Report (NCCR) provides a comprehensive, national assessment of ecological condition of 100 percent of U.S. coastal waters, exclusive of Alaska and Hawaii. NCCR I was published in 2001; NCCR II was published in 2005 and is based on data collected from 1997 through 2000. The NCCR ratings are based on comprehensive, comparable, and nationally consistent data used to evaluate various indicators of estuarine condition in each U.S. coastal region. The national rating of "fair/poor" is based on a 5-point system where 1 is poor and 5 is good. The scores are weighted to take into account the relative number of estuaries in a region and the portion of the regions to the nation using the NCCR indicators of water clarity, dissolved oxygen, coastal wetlands loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination. The baseline values from the NCCR I are: 4.3 for water clarity; 4.5 for dissolved oxygen; 1.4 for coastal wetlands loss; 1.4 for contamination of sediments in coastal waters; 1.4 for benthic quality; and, 1.7 for eutrophic condition.

APG 2.16 measures the overall ecological health of U.S. coastal waters and two indicators of water quality condition, dissolved oxygen and water clarity. APG 2.17 measures the ecological health of our coastal waters for the various aquatic life that spend all or part of their life cycles in these waters. The four indicators (wetlands loss, sediment quality, benthic quality, and eutrophic condition) are used to assess aquatic life use attainment.

There was a significant decline in water clarity between the publication of the NCCR I and the NCCR II. Instead of maintaining the 4.3 rating, water clarity declined to 2.6. The causes for this decline could be episodic (e.g., floods, landslides) or catastrophic (e.g., hurricanes, tropical storms) events, or it could reflect increased pollution during the index period (1997-2000).

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-30–C-32.

CHALLENGES

The NCCR is a valuable tool providing the general public with understandable, scientifically based, quantified information about the health of our coastal and ocean waters. The broad baseline overview of coastal condition contained in the NCCR does not relate to particular federal and state ocean/coastal and broader water quality programs and their effect on the indicators measured by the NCCR, however.

In addition, the nature of the NCCR's rating scale (1 – 5, where 1 is poor and 5 is good) does not provide much opportunity for incremental progress. This also contributes to the challenge of setting annual targets for the various NCCR indicators.

As stated above, episodic (e.g., floods, landslides) or catastrophic (e.g., hurricanes, tropical storms) events or increased pollution during the index period (1997-2000) may have contributed to the decline in water clarity. Future monitoring and trend analyses will enable us to determine if this is a trend or a temporary aberration.

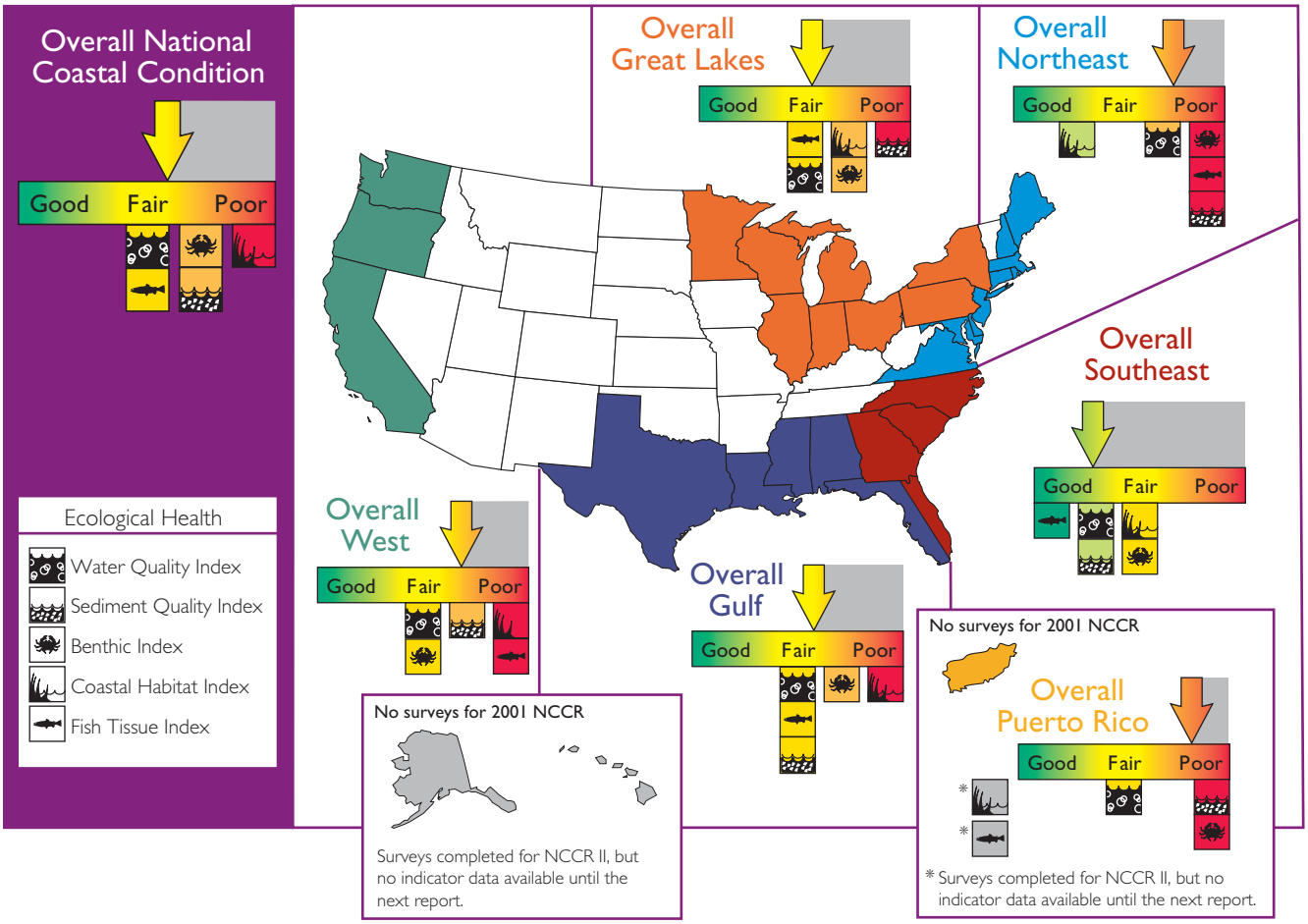
Program Assessment Rating Tool (PART)

OMB and EPA are currently assessing the Oceans and Coastal Protection program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Grants Supporting the Achievement of This APG

The National Estuary Grant Program (CFDA 66.456).

Overall National Coastal Condition



Source: US EPA National Coastal Condition Report II, December 2004. More information available at http://www.epa.gov/owow/oceas/nccr2

Strategic Objective 3—Enhance Science and Research

Provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 2.

APG 2.18 Water Quality Research

PERFORMANCE

For many of the waters listed as impaired under Section 303(d) of CWA, the impairments result from a number of stressors, including chemicals, nutrients, sediments and loss of habitat. Maintaining healthy populations of aquatic life and aquatic-dependent wildlife is the objective of water quality criteria. APG 2.18 reports on the development of a population-based approach for a data rich case study, namely loons in the Northeast. The evaluation and adoption of such an approach will ultimately be applicable to development of criteria for a wide range of aquatic systems that may be impacted by a combination of chemical and non-chemical stressors.

EPA has conducted research and developed a methodology to assess the cumulative impact of a number of stressors (e.g. loss of habitat and exposure to mercury through fish consumption) on loon populations in order to develop criteria supporting designated uses of waterbodies. The method includes approaches for extrapolating mercury toxicity across wildlife species, predicting population-level responses to mercury exposure and habitat alteration, and projecting risks to loon populations at spatial scales ranging from watersheds to biogeographic regions.

✔ GOAL MET	**FY 2005:** By 2005 provide methods for developing water quality criteria so that, by 2008, approaches and methods are available to states and tribes for their use in developing and applying criteria for habitat alteration, nutrients, suspended and bedded sediments, pathogens, and toxic chemicals that will support designated uses for aquatic ecosystems and increase the scientific basis for listing and delisting impaired water bodies under Section 303(d) of the Clean Water Act. (NEW IN FY05)		
	(Performance measure is included in the annual goal above.)	*Planned* 9/30/05	*Actual* 9/30/05 ✔

Data Source: Aquatic Stressors Research. www.epa.gov/nheerl/research/aquatic_stressors. Office of Water Habitat Framework: Outlines the needs for and applications of research relating habitat loss to Clean Water Act objectives for fishable waters. ORD Aquatic Stressors Framework. EPA 600/R-02/074. September 2002. 64.233.161.104/search?q=cache:gPBNqLVd1_JJ: www.epa.gov/nheerl/publications/files/aqstrsfinal_121302.pdf+ORD+Aquatic+Stressors+Framework&hl=en. USEPA. 2004. Draft Document. Use of Biological Information to Tier Designated Aquatic Life Uses in State and Tribal Water Quality Standards.

In FY 2005, EPA made progress toward developing water quality criteria by 2008. This work is on track to deliver a methodology in support of water quality criteria for aquatic life and aquatic-dependent wildlife. The described methodology was an element of the review of Aquatic Life Criteria Guidelines by the Science Advisory Board (September 21, 2005: www.epa.gov/fedrgstr/EPA-SAB/ 2005/August/Day-30/sab17198.htm). The results will inform Office of Water's first revision of the Aquatic Life Guidelines since 1985.

This work contributes to the long-term objectives of protecting the quality of rivers, lakes, and streams on a watershed basis and protects coastal and ocean waters.

Grants Supporting the Achievement of This APG

In 2001, EPA's Science to Achieve Results (STAR) Program funded a proposal for the Wisconsin Department of Natural Resources to conduct research to improve predictions of loon population dynamics in regions impacted by multiple stressors, including habitat loss, mercury exposures, and human disturbance in the upper midwest United States (EPA Grant Number: R829085). The STAR grant was converted to a cooperative agreement to continue work on mercury and loons in New England. This work constituted databases and models for loon populations across the northern United States, ultimately strengthening the development of robust water quality criteria protective of wildlife under a range of ecological and habitat conditions. The project validated a loon mercury exposure model to calculate a dose for mercury that will be protective of loon populations subject to a range of stressors. An interim report is available at: cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/1916/report/0. A final report will be posted in 2005.

Goal 2—PART Measures Without Corresponding FY 2005 Goals

EPA and OMB established the annual and efficiency measures included on this table through PART Assessments. Although data are available to report progress toward the targets for these PART measures, the measures were not included in the FY2005 budget documents that guide the content for the performance section of the PAR. These measures have been incorporated into the FY 2007 budget documents and will be fully integrated into the performance section beginning in the FY 2007 PAR.

PART Program	PART Measure	FY 2005 Target	FY 2005 Result
Clean Water State Revolving Fund	Fund utilization rate for the CWSRF.	90%	95%
	CWSRF Long-Term Revolving Level ($billion/yr).	$3.4 Billion	$3.4 Billion
Drinking Water State Revolving Fund	Fund utilization rate for the DWSRF.	81.9%	84.4%*
	DWSRF long-term revolving level ($ billion per year).	$1.2 billion	$1.2 billion*
	Number of additional projects initiating operations.	415 projects	439 projects*
	Average funding (millions of dollars) per project nitiating operations.	$1.69 million	$1.71 million*

*As of early November 2005, FY 2005 Drinking Water SRF data include data from 50 DWSRF Programs, with partial data from the State of New York.

Goal 2—PART Measures With Data Available Beyond FY 2005

EPA and OMB established the annual and efficiency measures included on this table through PART Assessments. These measures will be incorporated into EPA's budget and GPRA documents, including the PAR, as data becomes available. The column titled "Data Available" provides the most current estimate for the date EPA expects to report on each measure.

PART Program	PART Measure	Status	Data Available
Alaska Native Villages	Percent of Alaska rural and Native households with drinking water and wastewater systems.	Under Development	4th quarter, FY 2006
	Number of households served with wastewater and drinking water systems per million dollars (EPA and State).	Under Development	4th quarter, FY 2006
Clean Water State Revolving Fund	Number of waterbodies protected per million dollars of CWSRF assistance provided.	Under Development	4th quarter, FY 2007
	Number of waterbodies restored or improved per million dollars of CWSRF assistance provided.	Under Development	4th quarter, FY 2007

PART Program	PART Measure	Status	Data Available
Clean Water State Revolving Fund *(continued)*	Number of waterborne disease outbreaks attributable to swimming in, or other recreational contact with, the ocean, rivers, lakes, or streams measured as a five year average.	Under Development	TBD
	Percentage of all major publicly-owned treatment works (POTWs) that comply with their permitted wastewater discharge standards.	Under Development	4th Quarter, FY 2007
Drinking Water State Revolving Fund	Percent community water systems in compliance with drinking water standards.	Collecting Data	01/2006
Drinking Water State Revolving Fund & Public Water Supply System Grants	People receiving drinking water in compliance with health-based drinking water standards per million of dollars (Federal and State).	Collecting Data	01/2006
	Dollars per community water system in compliance with health-based drinking water standards.	Collecting Data	01/2006
Nonpoint Source Grants	Additional pounds (in millions) of reduction to total phosphorus loadings.	Collecting Data	01/2006
	Additional pounds (in millions) of reduction to total nitrogen loadings.	Collecting Data	01/2006
	Additional tons of reduction to total sediment loadings.	Collecting Data	01/2006
	Section 319 funds ($million) expended per partially or fully restored waterbody.	Collecting Data	FY 2006
Public Water Supply System Grants	Percent of States conducting sanitary surveys at community water systems once every three years.	Collecting Data	01/2006
Underground Injection Control Grants	Dollars per well to move Class V wells back into compliance.	Targets are under development	12/2005
	Percentage of identified Class V motor vehicle waste disposal wells closed or permitted.	Collecting Data	12/2005
	Percentage of prohibited Class IV and high-priority, identified, potentially endangering Class V wells closed or permitted in ground water-based source water areas.	Collecting Data	12/2005
	Percentage of Class I, II, and III wells that maintain mechanical integrity without a failure that releases contaminants to underground sources of drinking water.	Collecting Data	12/2005

NOTES

1 U.S. Environmental Protection Agency. List of Contaminants and Their MCLs. Available at www.epa.gov/safewater/mcl.html#mcls.

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

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

4 U.S. EPA. "EPA's Beach Program: 2004 Swimming Season Update." EPA-823-F-05-006. Washington, DC, July 2005. Available at www.epa.gov/waterscience/beaches/2004fs.html.

5 U.S. Environmental Protection Agency. "The Safe Drinking Water Information System (SDWIS). Available at www.epa.gov/safewater/data/getdata.html.

6 U.S. Environmental Protection Agency. "Hurricane Response 2005: Week 2." U.S. Environmental Protection Agency Website. Available at www.epa.gov/katrina/activities/week2.html.

7 U.S. Environmental Protection Agency. "Hurricane Response 2005: Current Activities (October 26, 2005)." U.S. Environmental Protection Agency Website. Available at www.epa.gov/katrina/activities.html#oct26.

8 U.S. Environmental Protection Agency. National TMDL [total maximum daily load] Tracking System (NTTS) and Assessment Data Base (ADB) within Watershed Assessment, Tracking and Environmental Results (WATERS).

9 Indian Health Service Sanitation Deficiency System. U.S. Environmental Protection Agency program records for Clean Water Indian Set-Aside Program.

10 U.S. Environmental Protection Agency. National Coastal Condition Report II, December 2004. More information available at www.epa.gov/owow/oceans/nccr2.

11 U.S. Environmental Protection Agency. 2000 National Water Quality Inventory Report, August 2002. More information available at www.epa.gov/305b/2000report/toc.pdf

12 U.S. Environmental Protection Agency, Office of American Indian Environmental Office. "Measures of Access to Drinking Water and Sanitation Facilities for American Indians and Alaska Natives." 2003.

Strategic Goal 3:

Land Preservation *and* Restoration

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

Overview of Goal 3

Under this goal, EPA works to ensure proper management of hazardous and solid wastes; promote recycling, waste minimization, and energy recovery; assess and clean up contaminated sites; revitalize contaminated land and restore it to beneficial use; and bolster homeland security. The Agency works closely with its state, tribal, and local government partners, as well as with many stakeholders—nongovernmental organizations, industry associations, Federal Advisory Committee Act groups, and others—to implement and oversee these efforts.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) and the Resource Conservation and Recovery Act (RCRA) provide the legal authority for most of this work. The Agency and its partners use Superfund authority to clean up uncontrolled or abandoned hazardous waste sites and return the land to productive use. Under RCRA, EPA works with states and tribes to address risks associated with leaking underground storage tanks and with the hazardous and non-hazardous wastes generated or managed at industrial facilities. EPA also uses authorities provided under the Clean Air Act, Clean Water Act, and Oil Pollution Act of 1990 to protect against spills and releases of hazardous materials.[1]

Contributing Programs

- RCRA Waste Management
- RCRA Corrective Action
- RCRA Waste Minimization
- Superfund Emergency Preparedness
- Superfund Remedial
- Superfund Enforcement
- Superfund Removal
- Federal Facilities
- Oil Spills
- Leaking Underground Storage Tanks
- Underground Storage Tank Compliance
- Land Science and Research Program
- Homeland Security

Working with its partners and stakeholders, EPA made progress toward meeting its hazardous waste cleanup and prevention goals for FY 2005. The Agency's waste management and emergency response programs are restoring contaminated land to make it economically productive or available as green space. Like the Brownfields program discussed under Goal 4, these revitalization efforts complement traditional cleanup programs and enable affected communities to reuse contaminated lands in beneficial ways. EPA continues to review how revitalization efforts are measured across its cleanup programs and exploring opportunities for new or improved ways to capture these accomplishments.[2]

EPA's waste management programs work to reduce the amount of waste generated and increase recycling. The Agency and its partners are focusing their efforts on large waste streams that offer the greatest opportunities for increased recycling—such as paper, organics, and packaging and containers. EPA's Resource Conservation Challenge (RCC) is a voluntary program that increases regulatory flexibility, promotes opportunities for converting waste to economically viable products, and encourages resource conservation through efficient materials management.[3] The RCC encourages participants to reduce more waste, reuse and recycle more products, buy more recycled and recyclable products, and reduce toxic chemicals in waste.

Under Goal 3, EPA also strives to prevent releases of hazardous wastes that could harm the land and to clean up accidental and intentional releases when they do occur. To help prevent releases at hazardous waste management facilities, the Agency and its partners issue RCRA hazardous waste permits that mandate appropriate controls for each site. EPA met its FY 2005 goal to increase to 80 percent the number of RCRA hazardous waste management facilities with permits or other approved controls in place, and the Agency expects to bring 95 percent of its facilities' baseline under approved controls by FY 2008. To help detect and prevent releases from underground storage tanks (USTs) containing gasoline and other petroleum or chemical products, EPA is working to increase tank owners' and operators' compliance with UST leak prevention and detection requirements. Additionally, EPA's Leaking Underground Storage Tank (LUST) program completed 6,181 cleanups through the end of March 2005,[4] and end-of-year data that are currently undergoing quality assurance/quality control indicate that EPA's state partners completed 14,583 UST cleanups, thus meeting the target of 14,500[5].

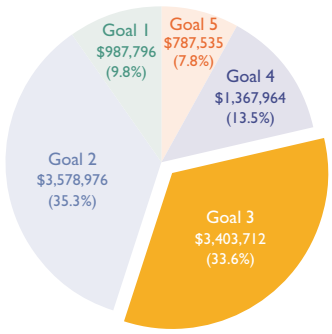
By the end of FY 2005, cleanups have also been completed at 966 Superfund sites on the National Priority List (NPL). EPA expects to continue completing construction at NPL sites at the current rate of 40 sites per year. In addition, the Agency conducts

Goal 3 At a Glance

FY 2005 Annual Performance Goals (APGs)

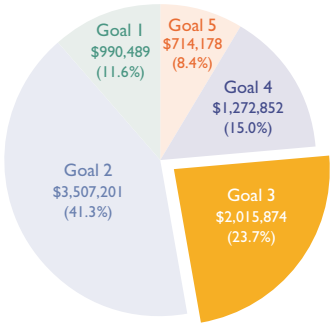
Met = 2 Not Met = 3
Data Available After November 15, 2005 = 2
(Total APGs = 7)

FY 2005 Obligations
(in thousands)



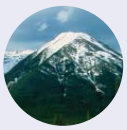
EPA Total = $10,125,983

FY 2005 Costs
(in thousands)



EPA Total = $8,500,594

FY 2005 "Report Card"

STRATEGIC OBJECTIVE	APG STATUS
 **OBJECTIVE 1–PRESERVE LAND** By 2008, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper management of waste and petroleum products and facilities in ways that prevent releases.	0 Met 0 Not Met 2 TBD
OBJECTIVE 2–RESTORE LAND By 2008, control the risks to human health and the environment by mitigating the impact of accidental or intentional releases and by cleaning up and restoring contaminated sites or properties to appropriate levels.	1 Met 3 Not Met 0 TBD
OBJECTIVE 3–ENHANCE SCIENCE AND RESEARCH Provide and apply sound science for protecting and restoring land by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 3.	1 Met 0 Not Met 0 TBD

and/or supports removal assessments and emergency responses and completes approximately 195 Superfund-led removal actions every year.

EPA is improving its emergency preparedness and response capabilities, particularly in terms of homeland security. During FY 2005, for example, EPA supported the Department of Homeland Security in implementing the National Response Plan, the National Information Management System, and the National Approach to Response. The Agency has also enhanced the nation's decontamination capabilities by establishing a National Decontamination Team and developing and implementing a National Decontamination Strategy. Finally, EPA's research in support of this goal helps to accelerate development of scientifically defensible, cost-effective waste management and remediation methods.

Response to Hurricane Katrina

In an ongoing response to the disaster caused by Hurricane Katrina, hundreds of EPA's emergency response personnel have been working virtually nonstop along the Gulf Coast as an integral part of the federal team implementing the National Response Plan. Many others have been providing the on-scene responders with 24-hour-a-day support from the Emergency Operations Center located at EPA Headquarters in Washington, D.C.

EPA teamed with the U.S. Coast Guard to respond to reported spills and releases of oil and chemicals. By the end of FY 2005, EPA had responded to more than 150 reported spills.

EPA took hundreds of floodwater samples to determine the kinds and extent of possible contamination, both biological and chemical. In late September 2005, EPA's ocean water testing vessel, the Bold, began taking samples of water quality, benthos, and fish tissues in the Gulf of Mexico in the plume of the Mississippi River.

Along with the U.S. Army Corps of Engineers, EPA worked on disposing of the enormous amounts of hazardous waste and other debris left behind by Hurricane Katrina, establishing several sites for debris collection. During September 2005, the EPA team collected more than 50,000 unsecured or abandoned containers of potentially hazardous wastes.

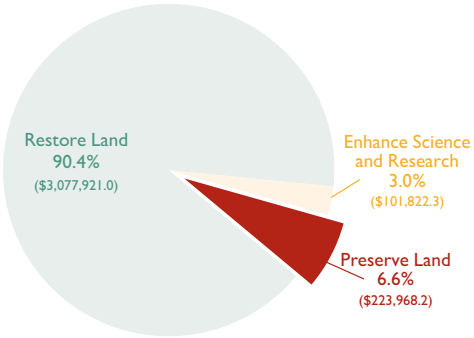
Goal 3 Strategic Objectives

Strategic Objective 1—Preserve Land

By 2008, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper management of waste and petroleum products and facilities in ways that prevent releases.

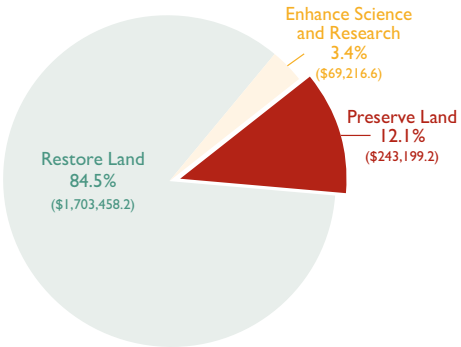
STRATEGIC OBJECTIVE 1—PRESERVE LAND		
APG #	APG Title	APG Status
3.1	Municipal Solid Waste Source Reduction	FY 2005 data available in FY 2007 and FY 2009
		✗ Not met in FY 2003
		✗ Not met in FY 2002
3.2	Manage Hazardous Waste and Petroleum Products Properly	FY 2005 data available in FY 2006
		✗ Not met in FY 2004

FY 2005 Obligations:
Goal 3, Strategic Objective 1
(in thousands)



Goal 3 Total = $3,403,711.5

FY 2005 Costs:
Goal 3, Strategic Objective 1
(in thousands)



Goal 3 Total = $2,015,874.0

OVERVIEW OF PERFORMANCE

While recycling in the United States has generally increased, recycling of specific materials has grown even more: 42 percent of all paper, 40 percent of all plastic soft drink bottles, 55 percent of all aluminum beverage cans, 57 percent of all steel packaging, and 52 percent of all major appliances are now recycled. To achieve national recycling goals, the Agency has developed alliances with manufacturers, communities, and governments to foster a new recycling infrastructure to reclaim valuable materials. As a result, EPA expects that these collaborative efforts will encourage higher recycling rates in future years. EPA's waste management programs are focusing on the largest waste streams offering the greatest opportunities to increase recycling: paper, organics, and packaging and containers. The Agency expects that the nation will meet the 2008 challenge of recycling 35 percent of municipal solid waste and generating a level of no more than 4.5 pounds of waste per capita daily.

EPA's primary strategy for preventing hazardous waste releases is issuing hazardous waste permits, which mandate appropriate controls for each site. EPA exceeded its long-term 2005 goal of bringing 80 percent of Resource Conservation and Recovery Act (RCRA)-regulated hazardous waste facilities under approved controls.

EPA expects to meet its FY 2005 goal for increasing the combined compliance rate by 1 percent from 64 to 65 percent for significant operational compliance with leak prevention and leak detection requirements for underground storage tanks, and was on track to meet this goal at mid-year.

CHALLENGES

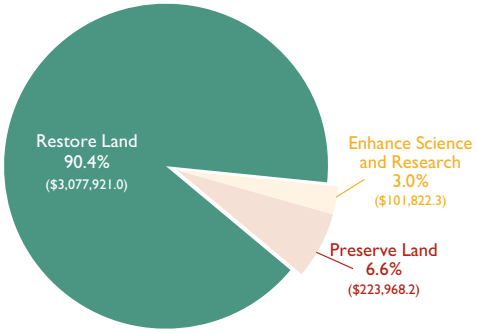
EPA is developing partnerships with manufacturers, communities, and governments to address the increasing variety and volume of obsolete electronic products entering the waste stream and increase recycling. Also, EPA will initiate a challenge to major industries to encourage the "early retirement" of devices containing mercury.

Strategic Objective 2—Restore Land

By 2008, control the risks to human health and the environment by mitigating the impact of accidental or intentional releases and by cleaning up and restoring contaminated sites or properties to appropriate levels.

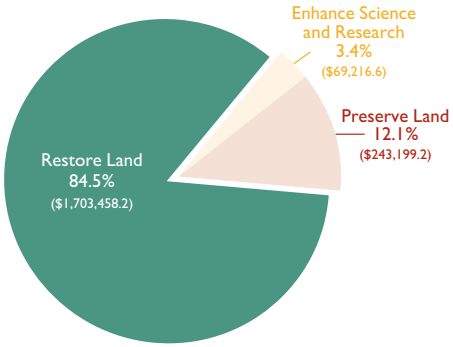
STRATEGIC OBJECTIVE 2—RESTORE LAND		
APG #	APG Title	APG Status
3.3	Assess and Clean Up Contaminated Land	✗ Not met in FY 2005
		✔ Assessment goal met in FY 2004
		✗ Cleanup goal not met in FY 2004
3.4	Superfund Potentially Responsible Party Participation	✔ Met in FY 2005
		✔ Met FY 2004 goals
3.5	Superfund Cost Recovery	✗ Not met in FY 2005
		✔ Met FY 2004 goals
3.6	Prepare For and Respond to Accidental and Intentional Releases	✗ Not met in FY 2005
		✔ Met FY 2004 goals

FY 2005 Obligations:
Goal 3, Strategic Objective 2
(in thousands)



Goal 3 Total = $3,403,711.5

FY 2005 Costs:
Goal 3, Strategic Objective 2
(in thousands)



Goal 3 Total = $2,015,874.0

OVERVIEW OF PERFORMANCE

The Superfund Remedial Program and Federal Facilities Response Program manage the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, making land available for reuse. The Superfund program has met or exceeded its FY 2005 goals for which data are available.

Under the RCRA corrective action program, final remedies are the long-term objective. These will be tracked beginning in FY 2006. Currently the program uses two indicators to assess the quality of the environment in relation to current human exposures to contamination and the migration of contaminated ground water. For FY 2005, the program achieved its annual target for the human exposure indicator, but did not meet the target for the groundwater migration indicator. However, through the efforts of EPA's state partners, the program achieved both of its long-term cumulative goals.

The Superfund Enforcement Program's "Enforcement First" strategy allows EPA to focus limited trust fund resources on sites where potentially responsible parties do not exist or lack the funds or capabilities needed to conduct the cleanup. The "Smart Enforcement" strategy focuses resources on the most significant problems and uses the most appropriate enforcement or compliance tools to achieve the best outcomes. Based on current data, EPA expects to meet both Superfund enforcement goals for FY 2005.

Oil and chemical accidents can devastate communities and the environment. EPA continues to improve the capacity of our national responders to plan for and respond to both accidental and intentional releases.

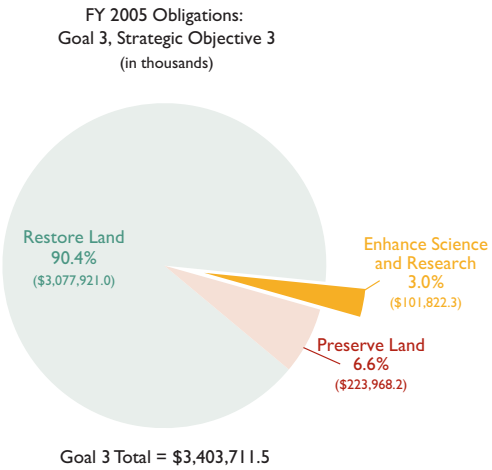
CHALLENGES

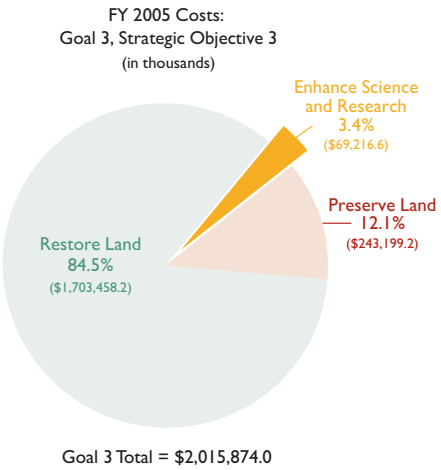
EPA faces challenges in balancing limited resources between beginning construction at an increasing number of projects and maintaining an optimal pace of remedial action at several ongoing, large, and complex sites. In addition, as the Superfund program has matured, the Agency has needed to devote more resources toward post-construction activities, including long-term remedial actions and 5-year reviews.

Strategic Objective 3—Enhance Science and Research

Provide and apply sound science for protecting and restoring land by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 3.

STRATEGIC OBJECTIVE 3—ENHANCE SCIENCE AND RESEARCH		
APG #	APG Title	APG Status
3.7	Scientifically Defensible Decisions for the Site Cleanup	✔ Goal met in FY 2005
		✔ Met FY 2004 goals





OVERVIEW OF PERFORMANCE

EPA conducts sound, leading-edge scientific research to provide a foundation for preserving land quality and remediating contaminated land. The research program focuses the important issues of contaminated sediments, ground water contaminated transport and remediation, and site characterization. In addition, the research program provides site-specific technical support. Research on waste management, resource conservation, and multimedia modeling supports the Agency's regulatory activities in areas such as waste-derived products, modeling to support risk assessment activities, landfill issues, and the Resource Conservation Challenge.

Superfund Innovative Technology Evaluation (SITE) demonstrations are performed to independently document innovative remediation technology or monitoring and measurement approaches so that project managers can more confidently select new technologies.

Through June 2005, EPA has completed 137 remediation technology demonstrations and 40 measuring and monitoring demonstrations (www.epa.gov/ORD/SITE/quarterly/022005/stats.htm). Demonstration reports are posted on the SITE Web site (www.epa.gov/ORD/SITE/), and results from the projects are incorporated into REACH IT (www.epareachit.org/), a Web-accessible technology selection tool that provides project managers with information on characterization and remediation technologies by contaminant type and site type.

CHALLENGES

As the Superfund program has matured, innovative approaches evaluated through the SITE program have become standard tools for remediation. As a result, the program will conclude demonstrations of innovative remediation, monitoring, and measurement approaches in FY 2006. The research program will continue to conduct problem-driven research to produce methods and models to meet the target for developing or evaluating 40 scientific tools in the FY 2010 long-term goal, established in FY 2003.

Goal 3 Annual Performance Goals

Strategic Objective 1—Preserve Land

By 2008, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper management of waste and petroleum products and facilities in ways that prevent releases.

APG 3.1 Municipal Solid Waste Source Reduction

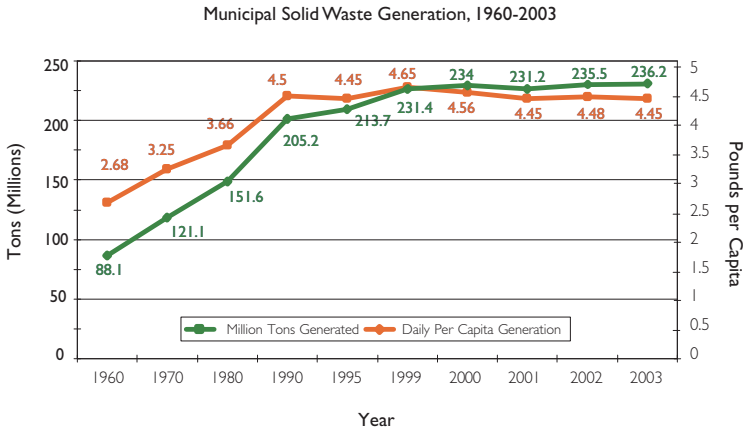
PERFORMANCE

APG 3.1 focuses on increasing the nation's recycling efforts to conserve resources, reduce energy consumption, and reduce greenhouse gases associated with materials that are disposed of, rather than recycled.

Data reported in FY 2005 show that EPA did not meet its FY 2003 target of 74 million tons of municipal solid waste (MSW) diverted. EPA exceeded its goal of maintaining the amount of waste generated to 4.5 pounds per person per day. Recycling, including composting, diverted 72 million tons of material away from disposal in 2003, up from 15 million tons in 1980, when the recycling rate was just 10 percent and 90 percent of MSW was being disposed. Furthermore, U.S. residents, businesses, and institutions produced more than 236 million tons of MSW in 2003, which is approximately 4.4 pounds of waste per person per day. In response, EPA is directing its efforts toward large quantity waste streams that present opportunities to increase recycling—paper, organics (yard trimmings

DATA AVAILABLE FY 2007 AND FY 2009	**FY 2005:** Divert an additional 1% (for a cumulative total of 35% or 82.7 million tons) of municipal solid waste from landfilling and combustion, and maintain per capita generation of RCRA municipal solid wastes at 4.5 pounds per day.	
Performance Measures *(Performance measure is included in the annual goal above.)* • Millions of tons of municipal solid waste diverted. • Daily per capita generation of municipal solid waste. (PART)	*Planned* 82.7M 81M 4.5 lbs	*Actual* Data avail 2009 Data avail 2007
DATA AVAILABLE FY 2006	**FY 2004:** Same goal, different targets.	
(Performance measures are included in the annual goal above.)	*Planned* 79 M 4.5 lbs	*Actual* Data avail 2006
✗ GOAL NOT MET FOR FY 2003	**FY 2003:** Same goal, different targets.	
(Performance measures are included in the annual goal above.)	*Planned* 74M 4.5 lbs	*Actual* 72.3 ✗ 4.4 lbs ✔
✔ GOAL MET FOR FY 2002	**FY 2002:** Same goal, different targets.	
(Performance measures are included in the annual goal above.)	*Planned* 69M 4.5 lbs	*Actual* 70M ✔ 4.5 lbs. ✔

Data Source(s): Data are provided via a methodology that utilizes materials production and consumption data from various industries. This information is collected by the Department of Commerce. Additional facts and figures about municipal solid waste (MSW) generation and recycling in the United States can be found in the following Web sites. Also, information about specific EPA programs such as WasteWise and environmentally beneficial landscapes (Greenscapes) is available as follows: www.epa.gov/msw, www.epa.gov/epr, www.epa.gov/wastewise, www.epa.gov/greenscapes, http://yosemite.epa.gov/oar/globalwarming.nsf/content/ActionsWaste.html, www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm, www.epa.gov/epaoswer/osw/conserve/action-plan/act-p1.htm.



and food scraps), and packaging and containers.[6] Furthermore, U.S. residents, businesses and institutions produced more than 236 million tons of MSW in 2003, which is approximately 4.4 pounds of waster per person per day.

To implement this strategy, the Agency is: (1) establishing and expanding partnerships with businesses, industries, states, communities, and consumers; (2) stimulating infrastructure development, new technologies, and environmentally responsible behavior by product manufacturers, users, and disposers; and (3) providing education, outreach, and technical assistance to businesses, government, institutions, and consumers. For example, EPA is working with communities, industry, and government to make paper recycling a routine business practice. To address the increasing variety and volume of obsolete electronic products entering the waste stream and increase recycling, EPA is allied with manufacturers, communities, and governments to foster a new recycling infrastructure that will reclaim valuable materials. As a result of these efforts, EPA anticipates meeting the 2008 challenge of recycling 35 percent of MSW and generating a level of no more than 4.5 pounds of waste per capita daily.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-33–C-34.

CHALLENGES

A number of factors influence the national recycling rate, including the economy, the increase in convenience packaging, and the increase in waste generated away from the home. EPA achieved a 30.6 percent recycling rate for 2003, an increase of 0.7 percent over the 2002 recycling rate of 29.9 percent. If the Agency can maintain a 0.7 percent increase each year, it should reach a 32 percent recycling rate in 2005. However, to reach the goal of 35 percent recycling by 2008, the rate would need to increase by 1 percent per year.

As recycling increases each year, achieving additional incremental increases becomes more difficult. EPA continues to foster progress through non-regulatory activities that leverage and mobilize public and private organizations across the United States.

Program Assessment Rating Tool (PART)

OMB assessed the RCRA Base Permits and Grants program related to this APG in the 2004 PART process. The program received an adequate rating.

Program Evaluations

EPA report: "Evaluation of Three RCRA Regulations Designed to Foster Increased Recycling." Additional information on this report is available in the Program Evaluation Section, Appendix B. Office of Policy, Economics, and Innovation report: "Evaluation of the Interagency Open Dump Cleanup Program for Tribes." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-14.

APG 3.2 Manage Hazardous Waste and Petroleum Products Properly

PERFORMANCE

EPA's primary approach to preventing releases of hazardous waste is issuing facility permits that mandate appropriate controls for each site. EPA exceeded its long-term 2005 strategic target of bringing 80 percent of facilities approved controls, primarily due to focused state efforts to permit backlogged facilities. As appropriate, many of these facilities were able to "have approved controls to prevent dangerous releases" by means other than permits. EPA assisted states in identifying solutions for unusual situations (such as applying the post-closure rule in lieu of a permit) and resolved many data issues while assessing facilities to bring them under approved controls. The cumulative status at the end of FY 2005 was 90 percent. During FY 2005 alone, 3.1 percent (or 84) of 2,751 regulated facilities were brought under approved controls.

EPA is currently on target to have 95 percent of these facilities under approved controls by the end of 2008. The baseline for this measure has been updated for the FY 2006-2008 cycle, eliminating double-counting of about 300 facilities that had both operating units and post-closure units, including facilities that came on the permitting track after October 1, 1997, and removing facilities that do not fit the criteria. In the future, most modifications to the baseline will be made at the unit level; however, a few changes at the facility level are likely due to facilities splitting, data corrections, or other unforeseen activities.

DATA AVAILABLE FY 2006	**FY 2005:** Reduce releases to the environment by managing hazardous wastes and petroleum products properly.		
	Performance Measures	*Planned*	*Actual*
	• *Percent increase of RCRA hazardous waste management facilities with permits or other approved controls. (PART)*	2.8%	3.1% ✔
	• Number of confirmed UST releases nationally.	<10,000	Data avail FY 2006
	• Percent increase of UST facilities that are in significant operational compliance with both release detection and release prevention (spill, overfill, and corrosion protection requirements).	+1% from baseline of 64%	

✗ GOAL NOT MET FOR FY 2004	**FY 2004:** Reduce releases to the environment by managing hazardous wastes and petroleum products properly.		
	Performance Measures	*Planned*	*Actual*
	• *RCRA hazardous waste management facilities with permits or other approved controls. (PART)*	2.4%	3.7% ✔
	• Confirmed UST releases nationally.	<10,000	7,848 ✔
	• Increase in UST facilities in significant operational compliance with leak detection requirements.	4%	-4% ✗
	• Increase in UST facilities in significant operational compliance with spill, 4% overfill and corrosion protection regulations.	4%	-6% ✗

Data Source(s): RCRA Info; UST/LUST FY 2004 End-of-Year Activity Report, November 24, 2004 (updated semiannually). Also see www.epa.gov/oust/cat/ca_043_4.pdf.

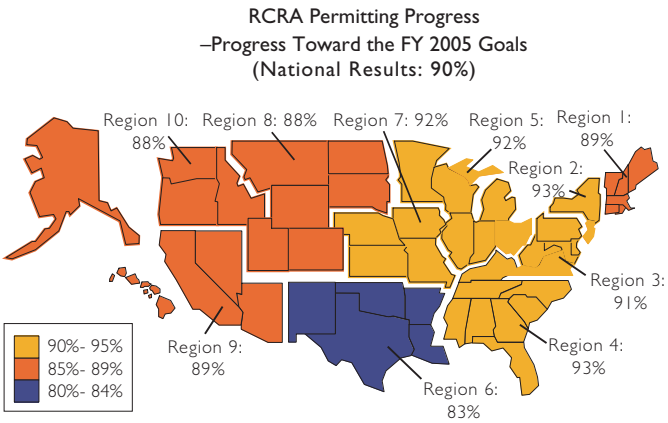
Program Assessment Rating Tool (PART)

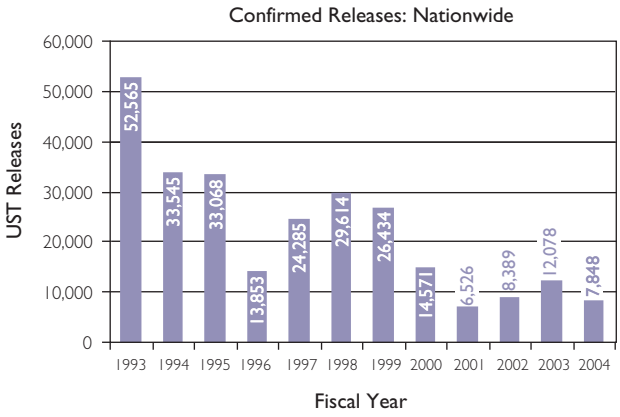
OMB assessed the RCRA Base Program, Permits and Grants program related to this APG in the 2004 PART process. The program received an adequate rating.

Grants Supporting the Achievement of This APG

3011 State and Tribal Grants (STAG)—RCRA authorizes EPA to assist states through the Hazardous Waste Financial Assistance Grants program, which provides for implementing an authorized hazardous waste management program. These programs authorize permits to industrial facilities that generate, transport, treat, store, and dispose of hazardous wastes, and include corrective action to control and clean up releases at facilities that manage hazardous waste. STAG funding also supports tribes, where appropriate, in conducting hazardous waste work on tribal lands.

To prevent releases from underground storage tanks (USTs), EPA and its partners ensure that UST systems are in significant operational compliance with required release detection and release prevention equipment and that the equipment is used, functioning, and properly maintained. In FY 2004, the two performance measures for UST facility compliance were not met;





therefore, the APG was not met. Nationally, the compliance rate of UST facilities was 77 percent for release prevention (or 6 percent below the target rate of 83 percent), and 72 percent for leak detection (or 4 percent below the target rate of 76 percent). Because these rates represent a snapshot in time such that some UST facilities that are compliant 1 year may be out of compliance the following year, reporting of a new combined significant operational compliance measure began in FY 2004. The new measure was developed jointly by EPA and the states, setting a target of increasing the combined leak prevention and leak detection measure for USTs nationwide by 1 percent each year through FY 2008, using the baseline compliance rate of 64 percent for that year. End-of-year performance data for the UST compliance program will be available in December 2005; however, as of midyear, EPA was on track to meet the target compliance rate. Additionally, as of March 2005, there were only 1,574 confirmed releases, indicating the continuing decline in releases nationwide.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-33–C-35.

CHALLENGES

Hazardous waste facilities that remain to be brought under control often present complex management issues. For example, a relatively large percentage of boilers and industrial furnaces (BIFs) need to be brought under control, and many have been waiting for the Hazardous Waste Combustion Maximum Achievable Control Technology (MACT) rule to be finalized before they complete permitting. Furthermore, because BIFs are complex and controversial facilities, more time is required to evaluate technical information, address risks, and deal with public concerns. Large federal facilities, particularly those with nontraditional treatment units, also prove difficult to bring under approved controls. EPA is working with states to develop strategies for addressing these types of facilities.

Strategic Objective 2—Restore Land

By 2008, control the risks to human health and the environment by mitigating the impact of accidental or intentional releases and by cleaning up and restoring contaminated sites or properties to appropriate levels.

APG 3.3 Assess and Clean Up Contaminated Land

PERFORMANCE

Goal Not Met: In FY 2005, the Superfund program met most of its performance measures. The graph below shows the number of construction completions annually and final deleted NPL sites by the program since its inception. In FY 2005, 40 construction completions were achieved.

The efficiency measure (percentage of Superfund spending obligated site-specifically) was not met. During FY 2003, when the measure and targets were

developed, the Agency relied on preliminary, internally generated data that did not use formally accepted data extraction or calculation methods. As a result, the FY 2003 site-specific percentage of 55 percent was used as a starting point for future year targets. Since then, the methodology for determining the Agency site-specific percentage was finalized and applied to FYs 2004 and 2005 data. Results indicate that EPA increased its Agency-wide site-specific obligations from 53.6 percent in FY 2004 to 54.3 percent in FY 2005, but did not meet the target of 56 percent. However, formal data extraction methods were not developed until FY 2005 and could not be applied to prior year (neither FY 2003 nor FY 2004) data. Consequently, EPA recommends establishing a new baseline of 54.3 percent and is working with OMB to establish new out-year targets.

EPA also conducted a comprehensive reassessment of the data used to determine the number of Superfund sites with human exposures controlled in order to improve how actual conditions are accounted for at these sites. Because the reassessment process continued through November 2005, no end of year result for this measure is available. The program expects to revise the definition of the performance measure to include achieving more permanent, long-term control and protection at these sites, and set a new baseline by the end of calendar year 2005.

The RCRA Corrective Action Program uses two indicators to assess the quality of the

✗ GOAL NOT MET

FY 2005: Control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse.

Performance Measures	*Planned*	*Actual*	
• *Number of Superfund final site assessment decisions. (PART)*	500	551	✔
• *Number of Superfund construction completions. (PART)*	40	40	✔
• *Number of Superfund hazardous waste sites with human exposures controlled. (PART)*	10	see text below	
• *Number of Superfund hazardous waste sites with ground water migration controlled. (PART)*	10	23	✔
• *Percentage of Superfund spending obligated site-specifically. (PART)*	56%	54.3%	✗
• Number of final remedies (cleanup targets) selected at Superfund sites.	20	39	✔
• *Number of high priority RCRA facilities with human exposures to toxins controlled. (PART)*	190	209	✔
• *Number of high priority RCRA facilities with toxic releases to ground water controlled. (PART)*	203	142	✗
• *Reduce the number of LUST cleanups that exceed state risk-based standards for human exposure and ground water migration. (Tracked as: Number of leaking underground storage tank cleanups completed.) (PART)*	14,500	14,583	✔
• *Reduce the number of LUST cleanups that exceed risk-based standards for human exposure and ground water migration in Indian country. (Tracked as: Number of leaking underground storage tank cleanups completed in Indian country.) (PART)*	30	50	✔

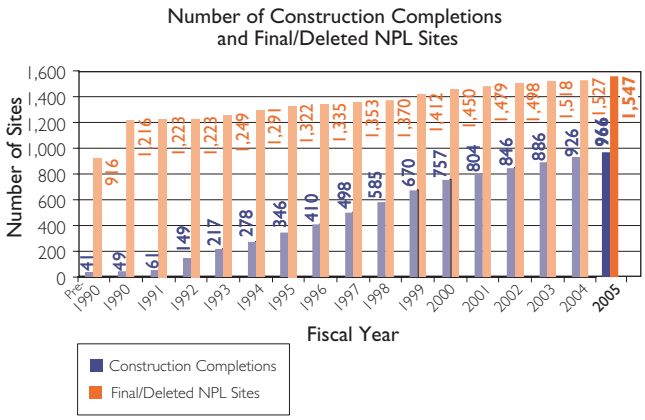
✗ GOAL NOT MET FOR FY 2004

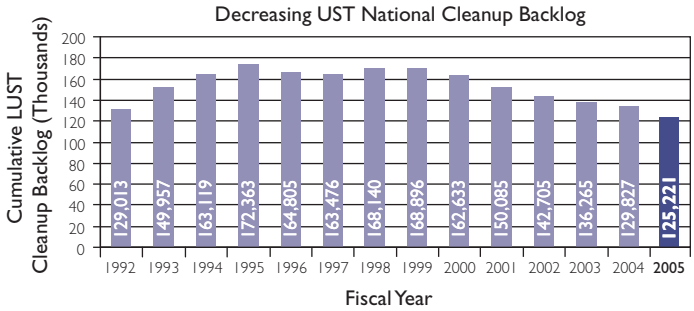
FY 2004: Control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse.

Performance Measures	*Planned*	*Actual*	
• *Superfund final site assessment decisions. (PART)*	500	548	✔
• *Superfund construction completions. (PART)*	40	40	✔
• *Superfund hazardous waste sites with human exposures controlled. (PART)*	10	15	✔
• *Superfund hazardous waste sites with ground water migration controlled. (PART)*	10	18	✔
• Final remedies (cleanup targets) selected at Superfund sites.	20	31	✔
• *High priority RCRA facilities with human exposures to toxins controlled. (PART)*	166	195	✔
• *High priority RCRA facilities with toxic releases to ground water controlled. (PART)*	129	150	✔
• LUST cleanups completed.	21,000	14,285	✗

Data Source(s): Superfund CERCLIS; LUST FY 2004 End-of-Year Activity Report, November 24, 2004 (updated semiannually). Additional information about the Superfund Remedial Program may be found at www.epa.gov/superfund. Additional information on the RCRA Corrective Action Program can be found at www.epa.gov/correctiveaction. Additional information about the Superfund Federal Facilities Response Program can be found at www.epa.gov/fedfac.

Additional information on the LUST program can be found at www.epa.gov/ swerust1/20cleanup.htm and www.epa.gov/OUST/ltffacts.htm.





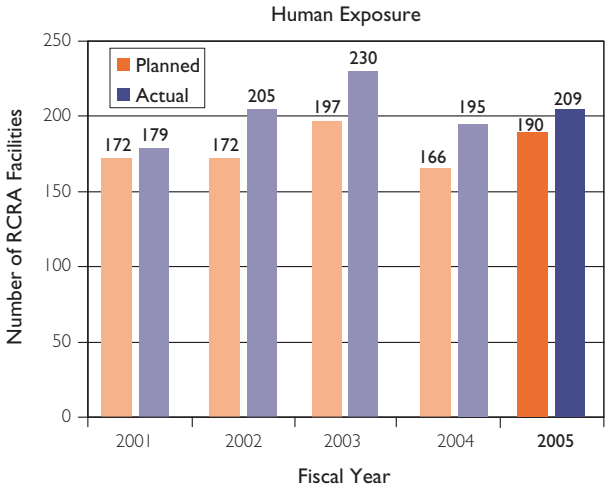
environment in relation to current human exposures to contamination and the migration of contaminated ground water. In FY 1998, the program set long-term cumulative goals for these two indicators to be achieved by the end of FY 2005. These goals are to control human exposures at 95 percent of the 1,714 highest priority facilities and to control the migration of contaminated ground water at 70 percent of these facilities. For FY 2005, the program achieved its annual target for the human exposure indicator, but did not meet the target for the ground water migration indicator. However, through the efforts of our state partners, the program achieved both of its long-term cumulative goals.

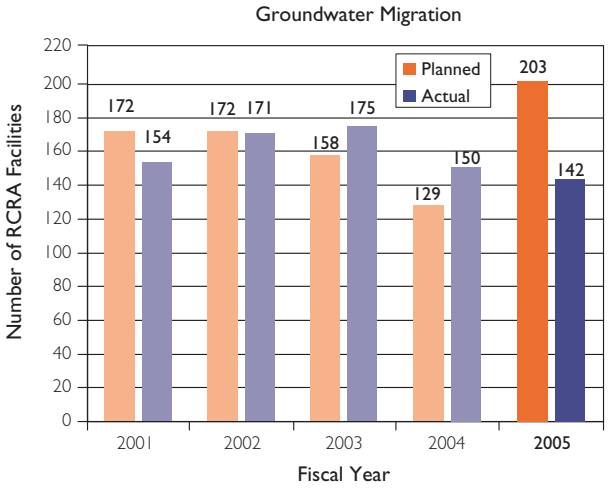
In FY 2006, the program will expand its focus to stabilizing only the highest priority facilities (as measured by the two environmental indicators) to putting final remedies in place. The program's goals for FY 2008 are to have final remedies selected at 30 percent of the 1,968 highest priority facilities (represents new baseline) and final remedies constructed at 20 percent of these facilities.

For FY 2005, data currently undergoing quality assurance/quality control indicate that EPA's state partners completed 14,583 UST cleanups, thus meeting the target of 14,500.[7] The Agency has been working with state partners to evaluate cleanup targets for future years in light of new pressures that have slowed the pace of cleanups in recent years, including a backlog of more complex sites, the more frequent discovery of methyl tertiary butyl ether (MTBE) contamination, and increased administrative and legal burdens associated with site cleanup. In FY 2004, EPA's state partners completed 14,285 of the targeted 21,000 UST cleanups; therefore the APG was not met. Through March 2005, 6,181 UST cleanups had been completed, thereby decreasing the UST national cleanup backlog to 125,221.[8]

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-36–C-39.

RCRA Environmental Indicators





Program Assessment Rating Tool (PART)

OMB assessed the Superfund Remedial program related to this APG in the 2004 PART process. The program received an adequate rating. OMB is assessing the Superfund Federal Facilities program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget. OMB assessed the RCRA Corrective Action program related to this APG in the 2003 PART process. The program received an adequate rating. OMB reassessed the LUST program related to this APG most recently in the 2004 PART process. The program received an adequate rating.

Program Evaluations

Details on the following evaluations completed during FY 2005 are available in Appendix B—Program Evaluations, pages B-12–B-15.

- The Office of the Inspector General (OIG) report: "EPA Can Better Manage Superfund Resources."
- OIG report: "Response Action Contracts: Structure and Administration Needs Improvement."
- OIG report: "EPA Practices for Identifying and Inventorying Hazardous Sites Could Assist in Similar Department of the Interior Efforts."
- GAO evaluation: "Improved Effectiveness of Controls at Sites Could Better Protect the Public."
- Office of Superfund Remediation and Technology Innovation evaluation: "An Internal Review of Procedures for Community Involvement in Superfund Risk Assessments."

Additional program evaluation information:

- Superfund's Federal Facilities Response Program completed an evaluation entitled "Measuring EPA's Value-Added to the Department of Defense (DoD) Base Realignment and Closure (BRAC) Program."
- EPA's Office of Superfund Remediation and Technology Innovation conducted an evaluation entitled "Superfund Community Involvement Impact Assessment of the Woolfolk Chemical Works Site in Fort Valley, Georgia."
- The Superfund program initiated evaluations on site-specific payroll charging practices and processes, long-term ground water monitoring plans using newly developed optimization tools, and community involvement in risk assessment.
- OIG report: "The Role of Superfund NPL: State Cleanup Program."

Grants Supporting the Achievement of This APG

EPA awards six types of Superfund cooperative agreements to states, political subdivisions of states, federally recognized Indian tribes, and U.S. territories. These intergovernmental partners help EPA achieve its strategic goals by sharing the responsibilities for cleaning up sites on the NPL.

Technical Assistance Grants (TAGs) are an important tool for involving the local community meaningfully in the cleanup process. By providing independent technical expertise to local communities, TAGs help community members better understand the technical issues affecting site cleanups, the risks associated with site contamination, and options for effective and safe site remediation.

The Technical Outreach Services for Communities (TOSC) Program provides free, independent, university-based technical assistance to communities facing hazardous waste contamination issues that do not qualify for TAGs. Created in 1994, TOSC has provided more than 200 communities with an independent understanding of technical issues related to hazardous substance contamination, enabling them to participate substantively in the decision-making process.

STAG grants support the RCRA Corrective Action Program and help to control human exposure to toxins and toxic releases to ground water at high priority RCRA facilities.

Under LUST Cooperative Agreements, EPA awarded funds to 50 states, the District of Columbia, Puerto Rico, four U.S. territories, and 10 tribes. Funding to tribes helped to address a contaminated LUST site on the Onondaga Indian Nation, provide equipment for tribal inspectors, build LUST program capacity, and oversee LUST program implementation.

Categorical Grant: Underground Storage Tank. EPA provides funding to states, Tribes, and/or Intertribal Consortia through these grants to encourage owners and operators to properly operate and maintain their USTs. Major activities focus on ensuring that owners/ operators routinely and correctly monitor all regulated tanks and piping in accordance with UST regulations as well as developing state programs with sufficient authority and enforcement capabilities to operate in lieu of the Federal program.

CHALLENGES

While the Superfund program met most of its FY 2005 performance targets, it faced significant challenges. EPA must address a large and increasing number of projects ready to begin construction while maintaining the pace of ongoing cleanups at several large, complex sites. In addition, as the program has matured, it has been required to increase post-construction activities, including long-term remedial actions and 5-year reviews. To meet these challenges, the Agency has proposed to focus additional resources toward construction beginning in FY 2007 by redirecting resources from other response and response-support activities in earlier phases of the Superfund cleanup process into construction. (Relates to management challenges discussed in Section III, page 184.)

The RCRA Corrective Action Program also faced complexities in addressing remaining facilities. During FY 2005, many of the facilities posed difficult challenges to controlling human exposures such as addressing wide-spread contamination, intrusion of toxic vapors, ingestion of contaminated fish, and bankrupt or nonexistent owners. As a result, EPA and authorized states shifted their resources from controlling migration of contaminated ground water to ensuring that humans were not exposed to contamination at as many facilities as possible.

APG 3.4 Superfund Potentially Responsible Party Participation

PERFORMANCE

EPA met this goal for FY 2005. EPA is committed to identifying liable Potential Responsible Parties (PRPs) at contaminated sites and to taking enforcement actions at 90 percent of those sites before remedial action begins. By securing private party commitments to clean up hazardous waste sites, EPA ensures that trust fund money is used only when absolutely necessary. Settlements or enforcement actions included Consent Decrees, Administrative Orders on Consent, Consent Agreements, Unilateral Administrative Orders, voluntary cost recovery actions, or litigation referral.

✔ GOAL MET

FY 2005: Reach a settlement or take an enforcement action by the start of Remedial Action (RA) at 90 percent of non-federal Superfund sites that have viable, liable parties.

Performance Measure	*Planned*	*Actual*
• Percentage of Superfund sites at which settlement or enforcement action is taken before the start of an RA.	90%	100% ✔

Data Source: CERCLIS is the automated database used by the Agency to track, store, and report Superfund site information. EPA's headquarters and regional offices enter data into CERCLIS on a rolling basis. Each performance measure is a specific variable within CERCLIS. Also see www.epa.gov/enforcement/cleanup.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-40.

Program Assessment Rating Tool (PART)

OMB reassessed the Civil Enforcement program, which includes Superfund Enforcement, most recently in 2004. The program received an adequate rating.

APG 3.5 Superfund Cost Recovery

PERFORMANCE

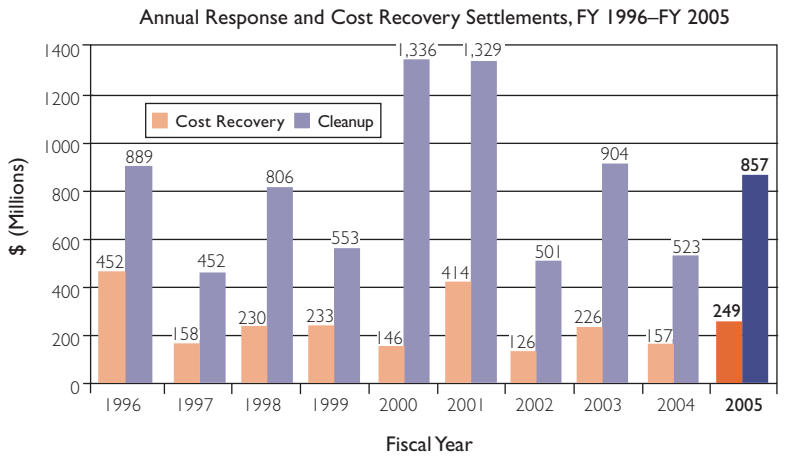
Goal Not Met: Through enforcement, settlement, or compromise/write-off, cost recovery was addressed at 195 NPL and non-NPL sites, of which 94 of the 95 cost recovery cases had outstanding unaddressed past costs greater than $200,000 and pending statute of limitations (SOL)

✗ GOAL NOT MET

FY 2005: Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations on total past costs equal to or greater than $200,000.

Performance Measure	*Planned*	*Actual*
• Refer to Department of Justice, settle, or write off 100% of Statute of Limitations cases for Superfund sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered.	100%	99% ✗

Data Source: CERCLIS is the automated database used by the Agency to track, store, and report Superfund site information. EPA's headquarters and regional offices enter data into CERCLIS on a rolling basis. Each performance measure is a specific variable within CERCLIS. Also see www.epa.gov/enforcement/cleanup.



concerns. Decision documents for the remaining case were signed soon after the end of the fiscal year, and costs associated with it were written-off because the attorneys concluded that there were no viable, liable parties at the site. In FY 2005, EPA secured private party commitments for cleanup and cost recovery that exceeded $1.1 billion.

EPA continues to pursue the "Enforcement First" strategy to focus limited trust fund resources on sites where PRPs do not exist or lack the funds or capabilities needed to conduct the cleanup. By taking enforcement actions at sites where viable, liable parties exist, EPA will continue to leverage private-party dollars to clean up hazardous waste sites so that trust fund money is used only when absolutely necessary.

EPA relies on "Smart Enforcement" to focus program resources on the most significant problems and to use the most appropriate enforcement and compliance tools to achieve the best outcomes.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-40.

Program Assessment Rating Tool (PART)

OMB reassessed the Civil Enforcement program, which includes Superfund Enforcement, most recently in 2004. The program received an adequate rating.

APG 3.6 Prepare for and Respond to Accidental and Intentional Releases

PERFORMANCE

Goal Not Met: Although this annual performance goal was not met, it includes several new performance measures that better track environmental progress for the Superfund removal and oil spill programs as a result of PART reviews. Among the existing measures, the Agency missed the target for responding to or monitoring 300 oil spills, however, the program participated actively in the 260 that occurred within EPA's jurisdiction. Given that the number of oil spills that require EPA's participation fluctuates from year to year, the Agency cannot accurately predict a target for this measure. However, EPA ensured

✗ GOAL NOT MET

FY 2005: Reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our nation's capability to prepare for and respond more effectively to these emergencies.

Performance Measures	*Planned*	*Actual*	
• Oil spills responded to or monitored by EPA.	300	260	✗
• Number of inspections and exercises conducted at oil storage facilities that are required to have Facility Response Plans (FRP).	360	335	✗
• *Number of Superfund lead removal response actions completed. (PART)*	195	172	✗
• *Voluntary removal actions, overseen by EPA, completed. (PART)*	110	137	✔
• *Superfund removal actions completed annually per million dollars. (PART)*	0.9	1.54	✔
• *Compliance rate of inspected facilities subject to Spill Prevention, Control, and Countermeasures (SPCC) regulations. (PART)*	100%	100%	✔
• *Compliance rate of inspected facilities subject to FRP regulations. (PART)*	100%	77%	✗
• Percentage of emergency response readiness improvement. 2003 Baseline: 82%	10%	10%	✔

Data Source(s): Data for the Superfund Removal program will be provided by CERCLIS. Data on the Oil Program will be provided by the EPA regional offices. Also see www.epa.gov/oem.

that all oil spills within its jurisdiction were properly evaluated and addressed.

With respect to the newly external measure that tracks FRP facility inspections, the target to inspect 6 percent of these facilities nationwide was set in FY 2003 using an inaccurate estimate of the universe of facilities. Recent data assessment efforts with EPA's regional offices have indicated that there are approximately 5,000 facilities subject to FRP regulations rather than 6,000; thus the target should have been set at 300 rather than 360. The actual number of facilities inspected was 335.

The Agency also missed the target for completing 195 Superfund-lead removal actions. EPA completed 23 less than expected due to the difficulty of predicting accurately the number of time-critical and emergency response actions that are identified and referred to EPA by the states or other agencies; an increase in the scope of response needed at several actions following the initiation of field work; and greater than anticipated participation by Agency staff in support of emergency preparedness activities and response to Hurricanes Katrina and Rita.

The compliance rate of facilities subject to FRP regulations was 77 percent primarily because the determination of compliance is not consistent among EPA regional offices. The program will issue national guidance next year to provide a consistent definition for compliance at these facilities.

EPA continues to improve the capacity of our national responders to plan for and respond to accidental and intentional releases. The Agency is identifying and monitoring the key elements and standards of an emergency response and homeland security program, inspecting and conducting response plan exercises at higher risk oil storage facilities, and tracking the number of chemical and oil incidents to which EPA responds or monitors.

Program Assessment Rating Tool (PART)

OMB is reassessing the Superfund Removal program and assessing the Oil Spill program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-35.

CHALLENGES

EPA will strive to maintain an effective and efficient emergency planning and response program while addressing any new homeland security issues that arise.

Strategic Objective 3—Enhance Science and Research

Provide and apply sound science for protecting and restoring land by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 3.

APG 3.7 Scientifically Defensible Decisions for the Site Cleanup

PERFORMANCE

EPA conducts sound, leading-edge scientific research to provide a foundation for preserving land quality and remediating contaminated land. The research program focuses on the important issues of contaminated sediments, ground water contaminant transport and remediation, and site characterization. In addition, the research

✔ GOAL MET	**FY 2005:** Complete at least four SITE demonstrations, with emphasis on Non-Aqueous Phase Liquids (NAPLs) and sediments, in order to, by 2010, develop or evaluate 40 scientific tools, technologies, methods, and models, and provide technical support that enables practitioners to: 1) characterize the nature and extent of multimedia contamination; 2) assess, predict, and communicate risks to human health and the environment; 3) employ improved remediation options; and 4) respond to oil spills effectively.		
	(Performance measure is included in the annual goal above.)	*Planned* 4	*Actual* 6 ✔

Data Source(s): EPA Quarterly Reports and EPA Project manager files. The SITE program home page provides access to program statistics, project status, publications and recent quarterly reports, www.epa.gov/ORD/SITE/. Information from SITE demonstrations and other sources are combined in a searchable characterization and remediation technology selection tool, www.epareachit.org/.

The Contaminated Sites Multi-Year Plan, which includes the SITE program, www.epa.gov/osp/myp/csites.pdf.

program provides site-specific technical support. Research on waste management, resource conservation, and multimedia modeling supports OSW regulatory activities in areas such as waste-derived products, modeling to support risk assessment activities, landfill issues, and the Resource Conservation Challenge.

SITE demonstrations are performed to independently document innovative remediation technology or monitoring and measurement approaches so that project managers can more confidently select new technologies.

EPA completed six demonstration projects in FY 2005, including two sediment technologies and three NAPL technologies to document the performance of new or improved technologies in field situations. A dioxin demonstration involving six regions has already significantly influenced decisions in choosing a screening method: the tested methods cost about 40 percent of the conventional method. Regional offices now have the documented results they need to justify selecting one of these methods. This will realize significant savings in time and cost, since each region requires many hundred dioxin analyses every year.

Waste Management of Kentucky won a 2005 Gold Award from the Solid Waste Association of North America for the Outer Loop Landfill. The award was made in large part for the ongoing landfill bioreactor research being carried out at the site by Waste Management of Kentucky and EPA under a cooperative research and development agreement. An article in MSW Management described the research as "unique and significant" and noted the potential for "significant environmental and economic benefits in the years to come". (MSW Management, September/October 2005, pp. 52-55; www.mswmanagement.com)

Products and activities for the land research program in FY 2005 included the completion, peer-review, and implementation of a customer-focused research plan to address the ecological effects of contaminated sediments. Among the first products of this plan is a model for extrapolating predictions about bioaccumulation of toxic chemicals across species, time and/or ecosystems. When fully validated, this model will greatly simplify the task and improve the scientific certainty of ecological risk assessments performed at contaminated sediment sites.

Also, the Science Advisory Board (SAB) review of the Multimedia, Multipathway, and Multireceptor Risk Assessment (3MRA) modeling system concluded that 3MRA provided a scientifically defensible framework that gives reproducible results for determining national exit levels for RCRA-listed hazardous wastes. The research program on 3MRA is responding to SAB recommendations.

A report on vapor intrusion modeling titled "Uncertainties in Vapor Intrusion Calculation," was also produced in FY 2005. The results of this work indicated that the uncertainties that exist in input parameters result in expected uncertainties in the model outputs and that synergies between these parameters can amplify the uncertainties. Sensitivity analysis identified the input parameters that were the most important to reduce uncertainty.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-40.

CHALLENGES

As the Superfund program has matured, innovative approaches evaluated through the SITE program have become standard tools for remediation, and as a result,

Program Evaluations

EPA Science Advisory Board panel report: "Advisory on the Office of Research and Development's Contaminated Sites and RCRA Multi-Year Plans." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-16.

the program will conclude demonstrations of innovative remediation, monitoring, and measurement approaches in FY 2006. The entire research program will continue to conduct problem-driven research to produce methods and models to meet the target for developing or evaluating 40 scientific tools in the FY 2010 long-term goal, established in FY 2003.

Goal 3—PART Measures With Data Availability Beyond FY 2005

EPA and OMB established the annual and efficiency measures included on this table through PART Assessments. These measures will be incorporated into EPA's budget and GPRA documents, including the PAR, as data becomes available. The column titled "Data Available" provides the most current estimate for the date EPA expects to report on each measure.

PART Program	PART Measure	Status	Data Available
Leaking Underground Storage Tanks	Comparison of LUST cleanups completed over a three year rolling average with public and private sector cleanup costs.	Collecting Data	FY 2008
RCRA Base Program, Permits and Grants	Facilities under control (permitted) per total permitting costs.	Collecting Data	FY 2008
RCRA Corrective Action	Percentage of high priority RCRA facilities with human exposures to toxins controlled using 2005 baseline.	Establishing Baseline	FY 2006
	Percentage of high priority RCRA facilities with toxic releases to groundwater controlled using 2005 baseline.	Establishing Baseline	FY 2006
	Number of final remedy components constructed at RCRA Corrective Action facilities per federal, state, and private sector cost.	Collecting Data	FY 2007

NOTES

1 Statutory authorities can be found in the FY 2005 Annual Performance Plan and Congressional Justification, www.epa.gov/ocfopage/budget/2005/2005ap/goal3.pdf.

2 General information for the revitalization program is found at www.epa.gov/oswer/landrevitalization/index.htm.

3 General information for the Resource Conservation Challenge is found at www.epa.gov/epaoswer/osw/conserve/index.htm.

4 Memorandum from Cliff Rothenstein, Director, EPA Office of Underground Storage Tanks to Underground Storage Tanks/Leaking Underground Storage Tanks Division Directors in EPA Regions 1-10, June 2, 2005, "FY 2005 Semi Annual Mid-Year Activity Report."

5 Preliminary end-of-year data provided by EPA's Office of Underground Storage Tanks, November 9, 2005.

6 General information for EPA's municipal solid waste program is found at http://www.epa.gov/epaoswer/non-hw/muncpl/facts.htm.

7 Preliminary end-of-year data provided by EPA's Office of Underground Storage Tanks, November 9, 2005.

8 Memorandum from Cliff Rothenstein, Director, EPA Office of Underground Storage Tanks to Underground Storage Tanks/Leaking Underground Storage Tanks Division Directors in EPA Regions 1-10, June 2, 2005, "FY 2005 Semi Annual Mid-Year Activity Report."

Strategic Goal 4: Healthy Communities *and* Ecosystems

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

Overview of Goal 4

EPA's work to achieve healthy communities and ecosystems relies on both regulatory and collaborative approaches. To accomplish its objectives under Goal 4, EPA reviews pesticides according to the latest health and safety standards and registers them for use. The Agency also screens and manages new and existing chemicals. The Agency leads a wide range of community, geographical, and international initiatives, from restoring and redeveloping contaminated properties and communities; to working collaboratively with local organizations, states, tribes, and other federal agencies to make America's most significant water bodies safe for swimming and fishing; to reducing risks to health and the environment for people living along U.S. border areas. EPA also conducts research to bring the best scientific expertise to bear on the nation's environmental challenges.

CHEMICALS AND PESTICIDES

EPA is committed to ensuring that chemicals and pesticides entering the home, the work environment, and agricultural or recreational settings are safe. Under its Pesticides Program, the Agency identifies and assesses potential risks posed by pesticides, sets priorities for addressing these risks, develops strategies for reducing them, and promotes innovative and alternative methods of pest control. Gradually,

Contributing Programs

- Brownfields
- Chesapeake Bay
- Commission for Environmental Cooperation
- OPPTS' Community Assistance Program
- Consumer Labeling Initiative
- Computational Toxicology Research Program
- Ecosystems Protection Research Program
- Environmental Monitoring for Public Access and Community Tracking (EMPACT)
- Endocrine Disruptors Research Program
- Energy Star Programs
- Envirofacts
- Environment and Trade
- Environment Information Exchange Network Grant Program
- Environmental Justice Initiative
- Fellowships
- Global Change Research
- Great Lakes
- Gulf of Mexico
- Homeland Security Research
- Human Health Research Program
- Human Health Risk Assessment Research Program
- International Capacity Building
- Lead Programs
- Mercury Research Program
- National Environmental Monitoring Initiative
- National Estuary Program
- National Library Network Program
- Pesticides and Toxics Research Program
- US-Mexico Border
- Wetlands

old pesticides are being replaced by newer pesticides that EPA has reviewed to ensure that they do not pose unreasonable risks.

EPA continues to develop and improve programs to review and address risks posed by new and existing chemicals. The Agency has targeted particular effort toward assessing potential risks of new substitutes for existing chemicals; as a result, new industrial chemicals are making consumer products and industry processes safer. EPA has screened approximately 80 percent of the 612 pesticide cases eligible for reregistration and more than 23 percent of the more than 82,378 commercial and/or industrial chemicals in the U.S. inventory.[1] The Agency reviews approximately 1,700 industrial chemicals each year.

One of EPA's key strategies for identifying and addressing risks posed by chemicals already in commerce is its High Production Volume (HPV) Challenge Program. Under this program, "sponsor" companies provide the public with critical health and environmental data for 2,800 HPV chemicals—chemicals manufactured in quantities of a million or more pounds per year and routinely encountered in workplaces, homes, and schools. More than 360 chemical companies and 100 industry consortia voluntarily provide EPA with data on 1,397 of these HPV chemicals, and the Agency expects to make these complete data available to the public by the end of 2005.[2]

In recent years, EPA has been collaborating with industry to move new, safe chemical products to the marketplace more quickly and efficiently. The Agency has made its advanced risk screening tools available and provided training to help companies assess chemical risks in the earliest stages of product design and development. As a result, manufacturers can screen out chemicals that would require regulated management or extended review by EPA. Similarly, the Agency has worked with the pesticide industry to establish a more efficient registration process and allow safer pesticide products to reach the market quickly.

Goal 4 At a Glance

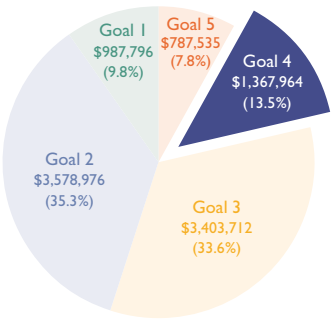
FY 2005 Annual Performance Goals (APGs)

Met = 13 Not Met = 7

Data Available After November 15, 2005 = 6

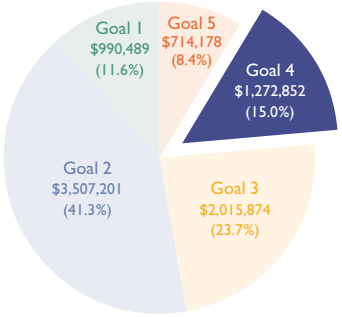
(Total APGs = 26)

FY 2005 Obligations (in thousands)



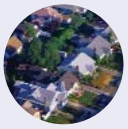
EPA Total = $10,125,983

FY 2005 Costs (in thousands)



EPA Total = $8,500,594

FY 2005 "Report Card"

Strategic Objective	APG Status
Objective 1–Chemical, Organism, and Pesticide Risks Prevent and reduce pesticide, chemical, and genetically engineered biological organism risks to humans, communities, and ecosystems.	2 Met 4 Not Met 4 TBD
 **Objective 2–Communities** Sustain, clean up, and restore communities and the ecological systems that support them.	1 Met 1 Not Met 1 TBD
Objective 3–Ecosystems Protect, sustain, and restore the health of natural habitats and ecosystems.	3 Met 2 Not Met 1 TBD
Objective 4–Enhance Science and Research Through 2008, provide a sound scientific foundation for EPA's goal of protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing better understanding and characterization of environmental outcomes under Goal 4.	7 Met 0 Not Met 0 TBD

Great Lakes Legacy Act

With the signing of a project agreement in September 2004 and initiation of dredging in October, EPA began implementing the Great Lakes Legacy Act. The Act represents an important step in addressing some of the 75 million cubic yards of contaminated sediments within the 31 US geographic areas designated as Areas of Concern. These are severely degraded geographic areas within the Great Lakes Basin with impairments to one or more of 14 beneficial uses; for example, these areas may have restrictions on fish and wildlife consumption, dredging activities, or drinking water consumption. Under the Act, EPA and its partners are working to remove beneficial use impairments and delist Areas of Concern.

Through the first Great Lakes Legacy Act sediment remediation project, Black Lagoon (Detroit River, Michigan), EPA has remediated approximately 116,000 cubic yards of sediment contaminated with polychlorinated biphenyls (PCBs), mercury, oil, and grease.[5] In FY 2005, EPA signed agreements with the Wisconsin Department of Natural Resources for the remediation of Newton Creek/Hog Island Inlet in Superior, Wisconsin, and with the Michigan Department of Environmental Quality for assessment and remediation of Ruddiman Creek in Muskegon, Michigan.

Protecting children's health is another key focus of Goal 4. Certain hazardous pesticides have been virtually eliminated from residences, schools, and parks where children might be exposed. In 2005, the Centers for Disease Control released data demonstrating major reductions in the incidence of childhood lead poisoning—from approximately 900,000 children with elevated blood lead levels in the early 1990s to 310,000 children in its 1999–2002 survey.[3] To support the nation's goal of eliminating childhood lead poisoning by 2010, EPA is focusing its outreach and education efforts on remaining "hot spots," often disadvantaged urban areas where the incidence of childhood lead poisoning remains high. EPA is also reassessing pesticide tolerance levels established years ago, emphasizing foods most frequently consumed by children.

HURRICANE KATRINA RESPONSE

EPA co-leads the Gulf State Partnership, which has developed a five-state strategy to better address coastal hazards and coordinate federal and state monitoring and assessment in the aftermath of Hurricane Katrina. EPA is coordinating with the National Oceanographic and Atmospheric Administration, U.S. Food and Drug Administration, and the U.S. Geological Survey to develop an environmental impact assessment of Hurricane Katrina's effect on coastal waters of Louisiana, Mississippi, and Alabama. The Agency is supporting local, state, and national efforts to assess aquatic resources, identify stressors that harm or cause deterioration of these resources, document changes over time, restore ecological conditions, and protect human health.

COMMUNITY AND GEOGRAPHICAL INITIATIVES

EPA also collaborates with state, tribal, and local governments; community, industry, and other stakeholder groups; and other nations to address larger geographical issues. For example, the Agency is coordinating the federal effort to improve water quality for the more than 30 million people living in the Great Lakes basin.[4] EPA leads efforts to improve habitat and ecosystems in the Chesapeake Bay and Gulf of Mexico.

Wetlands are among the nation's most critical and productive natural resources, providing a variety of benefits and serving as the primary habitat for many species. The President has called for restoring, improving, and protecting 3 million acres of wetlands

over 5 years. EPA believes that the way to achieve "net gain" is through partnerships and by building state, tribal, and local governments' capacity to protect and manage their wetlands. Toward this end, EPA has awarded $15 million in Wetland Program Development Grants to support states and tribes in restoring, improving, and protecting wetlands. Wetlands data provided in the April 2005 Council on Environmental Quality report, Preserving America's Wetlands, Implementing the President's Goal, indicate that since April 2004, 832,000 acres of wetlands have been restored, created, improved, or protected.[6]

RESTORING COMMUNITIES

In addition to preventing potential new risks to the environment, EPA is working to protect and restore communities affected by past contamination. The Agency provides states, tribes, local governments, and stakeholders with the tools and financial assistance they need to assess, clean up, and redevelop brownfields properties. Brownfields are an economic issue across the country; reusing these properties increases local tax bases, facilitates job growth, uses existing infrastructure, takes development pressure off undeveloped land, and improves and protects the environment.

INTERNATIONAL AFFAIRS

EPA continues to make significant progress toward reducing risks to human health and the environment internationally by investing in efforts to reduce lead, reduce emissions, and provide safe clean water. For example, the Agency collaborated with Russia, Ukraine, and Kazakhstan to reduce and avoid emissions of approximately 260,000 tons of air pollutants, 7.9 millions metric tons of greenhouse gases, and 20 pounds of mercury from coal-fired power plants.[7]

As a result of EPA's leadership through the World Summit on Sustainable Development, all 49 sub-Saharan countries will have phased out leaded gasoline by the end of 2005, 2 years earlier than anticipated, affecting the health of 733 million people. In addition, EPA forged an agreement with the United Nations Environment Programme to address global mercury and announced a U.S government focus on five partnership areas: chloralkali facilities, mercury in products, coal combustions, artisanal gold mining, and research.

Along the US-Mexico border, residents have suffered disproportionately from Hepatitis A and other water-borne diseases due to inadequate potable water and sewage treatment infrastructure. EPA is reducing health risks to border residents by increasing the number of homes connected to safe drinking water systems and with access to basic sanitation. EPA grant funds, together with local, state, and Mexican government contributions, are providing and improving drinking water and wastewater infrastructure for more than 6 million residents of the US-Mexico border area.[8]

Long Island Sound

The Long Island Sound Program has reduced point source nitrogen load to Long Island Sound by approximately 6,000 pounds per day from 2003 levels, significantly improving water quality. As of December 2004, the program has reduced point source nitrogen loads to the Sound by 59,000 pounds per day, or 26.7 percent from baseline levels. This represents 47.3 percent of the total maximum daily load (TMDL) goal to reduce nitrogen pollution to the sound by 58.5 percent by 2014.

No More Pesticide Dumping

EPA helped Russia prevent the release of 1,500 metric tons of obsolete pesticides to the arctic environment. Work included inventorying stocks of obsolete pesticides, analyzing the stocks for heavy metals and chlorinated compounds, and moving them to safe storage. As a result of this EPA investment, Russian authorities now prohibit dumping of these toxic pesticides in trenches, and they are collaborating with the United States and other arctic nations to implement environmentally sound options for destroying the pesticides.

SCIENCE AND RESEARCH

To achieve healthy communities and ecosystems, EPA continues to make significant scientific and technological progress in monitoring ecological condition, homeland security, and nanotechnology.

Programs such as the Environmental Monitoring and Assessment Program develop indicators to monitor the condition of ecological resources, assess the success of programs and policies, and advance the science of ecological monitoring and risk assessment. In 2005, EPA released the first report of its kind describing the condition of streams in the western United States. This report establishes a baseline against which future ecological changes and trends in stream condition can be measured.

Federal, state, and local emergency personnel rely on EPA for tools that will assist in decision-making in the event of a terrorist attack. In 2005, EPA research scientists developed a Web-based system to identify hazards quickly, assess human exposure, and characterize risks during an emergency response. The Emergency Consequence Assessment Tool (ECAT) integrates hazard and exposure information for specific situations. ECAT is being expanded to cover a wider range of scenarios and contaminants, and it will eventually be used to provide information to the public and scientific community.

Through its own research and by participating in the National Nanotechnology Initiative, EPA has taken a leadership role in directing research on the environmental applications and implications of nanotechnology. The Agency is conducting 38 research grants to develop nanotechnology applications to protect the environment and 26 research projects to study the possible harmful effects of manufactured nanomaterials. EPA's Small Business Innovation Research Program has let contracts to more than 25 small companies for developing and commercializing clean technologies, some of which use nanomaterials.

Goal 4 Strategic Objectives

Strategic Objective 1—Chemical, Organism, and Pesticide Risks

Prevent and reduce pesticide, chemical, and genetically engineered biological organism risks to humans, communities, and ecosystems.

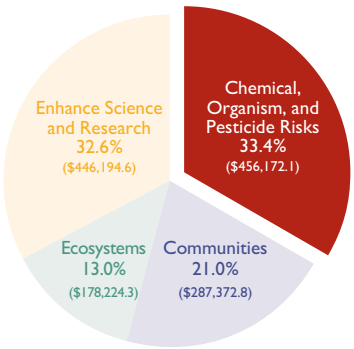
OVERVIEW OF PERFORMANCE

Although EPA did not meet all of its annual performance commitments for pesticide reregistration and tolerance reassessments, the Agency is confident that it will meet future year commitments for ensuring that appropriate tolerance levels are established and safer pesticides are introduced. Much of the Agency's effort to finish hundreds (772) of tolerance reassessment has been completed. The only task remaining is the cumulative risk assessment for these tolerances. The Agency must also finalize 23 Interim Registration Eligibility Decisions, which EPA expects to complete early in FY 2006.

EPA is on target for preventing or reducing chemical and genetically engineered biological organism risks to humans, communities, and ecosystems through mix of targeted regulatory and voluntary programs. EPA did not meet its FY 2005 goal for standardizing and validating screening assays, but believes that it will meet the future target.

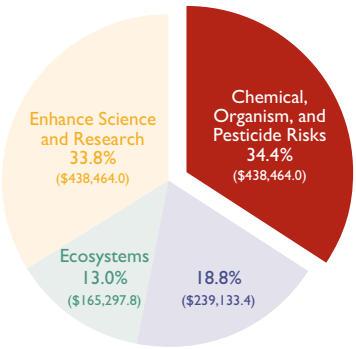
STRATEGIC OBJECTIVE 1—CHEMICAL, ORGANISM, AND PESTICIDE RISKS		
APG #	APG Title	APG Status
4.1	Reassess Pesticide Tolerances	✗ Not met in FY 2005
4.2	Decrease Risk from Agricultural Pesticides	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
4.3	Exposure to Industrial/Commercial Chemicals	FY 2005 data available in FY 2007
		✔ Met FY 2000 goals in FY 2005
		✗ Not met FY 1999 goals in FY 2005
4.4	Process and Disseminate Toxics Release Inventory (TRI) Information	✔ Met in FY 2005
4.5	Risks from Industrial/Commercial Chemicals	FY 2005 data available in 2007
4.6	Chemical, Organism, and Pesticide Risks	✗ Not met in FY 2005
4.7	Chemical, Organism, and Pesticide Risks (NEW IN FY05)	FY 2005 data available late in FY 2006
4.8	Chemical, Organism, and Pesticide Risks	✔ Met in FY 2005
		✔ Met FY 2004 goals in FY 2005
4.9	Chemical, Organism, and Pesticide Risks	✗ Not met in FY 2005
4.10	Chemical, Organism, and Pesticide Risks (NEW IN FY05)	✗ Not met in FY 2005

FY 2005 Obligations:
Goal 4, Strategic Objective 1
(in thousands)



Goal 4 Total = $1,367,963.8

FY 2005 Costs:
Goal 4, Strategic Objective 1
(in thousands)



Goal 4 Total = $1,272,852.0

The Agency has made considerable progress in preventing or reducing chemical risks. EPA has now screened more than 23 percent of the 82,000 commercial and/or industrial chemicals in the U.S. inventory, and it reviews an average of 1,700 new chemicals each year.[9] EPA exceeded 2005 targets for closing the gap in providing the public with risk screening data for more than 2,200 of the chemicals that have been in the marketplace prior to 1978.[10] EPA also made progress in assessing risks of perfluoroctanoic acid, completing a draft risk assessment, negotiation enforceable consent orders, and memoranda of understanding with industry. With respect to children, the incidence of childhood lead poisoning decreased from approximately 900,000 cases in the early 1990s to 310,000 cases in the 1999–2002 Centers for Disease Control survey.[11]

Communities need information on toxic chemical releases to make informed decisions about protecting their environment. In March 2005, the Agency released the Toxics Release Inventory (TRI) annual Public Data Release (PDR) report containing information on toxic chemical releases and other waste management activities by certain industries, as well as by federal facilities. EPA is continuing to focus resources on modernizing TRI data collection, processing, and dissemination processes with the goal of releasing more reliable information sooner to all communities.

CHALLENGES

Emerging issues, such as using human study data, registering new biopesticides, managing resistance, and protecting endangered species may affect pesticides program priorities.

While the updated Centers for Disease data that show continued declines in the incidence of childhood lead poisoning are encouraging, the data also reveal that the reduction trend is tapering off, jeopardizing achievement of the national goal to virtually eliminate this disease by 2010. Accordingly, EPA is revamping strategies and using a variety of regulatory and voluntary tools to address the remaining population of at-risk children.

Nanotechnology poses unique challenges for assessing the risk of materials manufactured at the nano scale. EPA has been coordinating with other federal agencies and is considering developing a voluntary notification pilot program for nano-scale materials under TSCA.

Strategic Objective 2—Communities

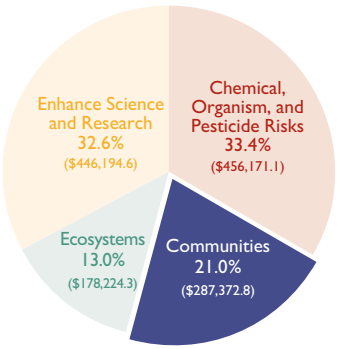
Sustain, clean up, and restore communities and the ecological systems that support them.

STRATEGIC OBJECTIVE 2—COMMUNITIES		
APG #	APG Title	APG Status
4.11	Assess and Cleanup Brownfields	FY 2005 data available in FY 2006
		✔ Met FY 2004 goals in FY 2005
4.12	US-Mexico Border Water/Wastewater Infrastructure	✗ Not met in FY 2005
4.13	Sustain Community Health (NEW IN FY05)	✔ Met in FY 2005

OVERVIEW OF PERFORMANCE

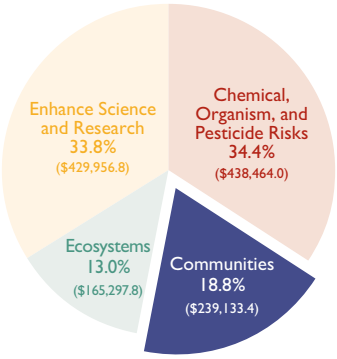
In addition to preventing potential new risks to the environment, EPA is working to protect and restore communities affected by past contamination. The Agency provides states, tribes, local governments, and stakeholders with the tools and financial assistance to assess, clean up, and redevelop brownfields properties. In 2005, EPA announced $76.7 million in brownfields grant funding to recipients in 45 states. The grants included 176 Assessment Grants, 13 Revolving Loan Fund Grants, 11 Job Training Grants, and 106 Cleanup Grants. In 2005, EPA also distributed $49.7 million to 49 states, two territories, and 49

FY 2005 Obligations:
Goal 4, Strategic Objective 2
(in thousands)



Goal 4 Total = $1,367,963.8

FY 2005 Costs:
Goal 4, Strategic Objective 2
(in thousands)



Goal 4 Total = $1,272,852.0

tribes to enhance their response capabilities. From 1995 through FY 2004, EPA grantees assessed 5,021 brownfields properties, leveraging $6.7 billion in cleanup and redevelopment funding and 31,337 jobs. Additionally, EPA has conducted 1,369 targeted brownfields assessments.

EPA, states, and partners from both sides of the US-Mexico border are making significant progress in providing safe drinking water and sanitation services to border residents. To ensure that the most critical public health and environmental problems are addressed first, EPA delayed new project funding in FY 2005 while it developed a process for establishing project priorities. As a result, progress towards achieving the FY 2005 goal was delayed. Work on high-priority projects resumed after the prioritization process was implemented in summer 2005. US-Mexico Border Program achievements will be reflected under a new measure being developed in FY 2006.

In FY 2005, EPA assisted three Free Trade Area of the Americas countries—Colombia, Ecuador, and Peru—in conducting environmental reviews of trade liberalization. EPA supported a workshop in El Salvador to allow representatives from Central American countries to share experiences and lessons learned in conducting environmental reviews of trade agreements. The Agency also made a presentation on the benefits of environmental reviews at a May 2005 Organization of American States workshop on the effects of trade on sustainability.

CHALLENGES

Fluctuations in real estate marketplaces, general economic conditions, and local issues significantly affect the Brownfield Program's ability to demonstrate its effectiveness, particularly with regard to leveraged jobs and investments measures. EPA is evaluating the feasibility of using additional environmental measures to demonstrate program effectiveness.

Patagonia's New Wastewater Treatment Plant

In October 2004, the town of Patagonia, Arizona, on the US-Mexico border completed a new wastewater treatment plant, which is now serving a community of 900 residents. EPA grants of $1.3 million leveraged an additional $1.2 million in other state and federal funds for the project. The 110,000-gallon wastewater treatment plant and improved collection lines will help prevent discharge of raw sewage to ground and surface waters on the border.

USEPA: the Border Environment Infrastructure Fund Deal Sheet—"Wastewater Treatment Facility Replacement and Sewer Collection System Improvements Project" Patagonia, Arizona (February 13, 2003)

Strategic Objective 3—Ecosystems

Protect, sustain, and restore the health of natural habitats and ecosystems.

OVERVIEW OF PERFORMANCE

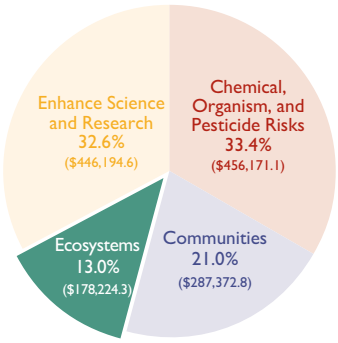
EPA's ecosystem protection programs encompass a wide range of approaches, targeting specific geographic areas as well as broad categories of threatened ecosystems, such as estuaries and wetlands. Pollution, generated locally or transported by rivers and streams and through air deposition, collects in these closed and semi-closed ecosystems and degrades them over time.

Community interest and involvement, as well as EPA's and its partners' increased capability for collecting and reporting data depicting protection and restoration achievements, enabled EPA to make significant progress towards restoring and protecting habitats in estuaries. Since 2001, more than 400,000 acres have been protected or restored; of these, 103,959 acres of estuarine habitat within the 28 estuaries of the National Estuary Program (NEP) were protected and/or restored in FY 2005.[12]

In partnership with the U.S. Army Corps of Engineers and states, EPA is working to increase wetlands acreage and maintain and restore its biological and functional integrity. Wetlands data from 1987 to the 1990s will be available at the end of 2005 to indicate whether there has been a net gain in wetlands. EPA's regulatory programs help to ensure that there is no overall net loss in wetlands, and a regulatory program report on gains and losses of wetland acreage will be available at the end of 2007.

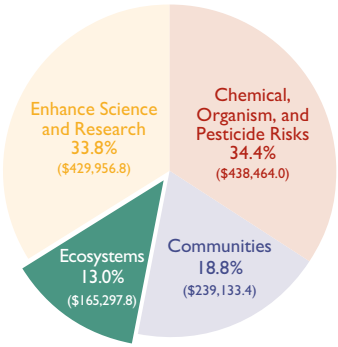
STRATEGIC OBJECTIVE 3—ECOSYSTEMS		
APG #	APG Title	APG Status
4.14	Protecting and Enhancing Estuaries	✔ Met in FY 2005
4.15	Increase Wetlands (NEW IN FY05)	FY 2005 data available in FY 2008
4.16	Great Lakes: Ecosystem Assessment	✔ Met in FY 2005
		✗ Not met for FY 2004
		✗ Not met for FY 2003
4.17	Chesapeake Bay Habitat	✗ Not met in FY 2005
4.18	Chesapeake Bay Habitat (NEW IN FY05)	✗ Not met in FY 2005
4.19	Gulf of Mexico	✔ Met in FY 2005

FY 2005 Obligations:
Goal 4, Strategic Objective 3
(in thousands)



Goal 4 Total = $1,367,963.8

FY 2005 Costs:
Goal 4, Strategic Objective 3
(in thousands)



Goal 4 Total = $1,272,852.0

EPA continues to make progress in improving and protecting the health of ecosystems in the Great Lakes. Based on the most current data, the Great Lakes Index, indicating overall ecosystem condition in the Great Lakes, improved in FY 2005.[13] Long-term concentrations of PCBs in predator fish and trends of toxic chemicals in the air are meeting targeted goals, although cleanup efforts are still necessary to address PCB concentrations which substantially exceed human health and wildlife protection values. Cumulatively, 3.7 million cubic yards of contaminated sediments have been remediated, including 345,000 cubic yards in 2004.[14] Phosphorus concentrations in the Lake Erie Basin are still too high to avoid algal blooms and the related "dead zone".[15] Although EPA has not met the target of delisting three Areas of Concerns (AOC), significant progress has been made towards delisting of two AOCs.[16]

EPA has not met its goals for the Chesapeake Bay. Although the Chesapeake Bay Program is making progress towards protecting acres of submerged aquatic

vegetation, current pollutant loads continue to exceed the level needed to meet water quality standards adopted by states. The FY 2005 nutrient (phosphorus and nitrogen) and sediment pollution load reduction goals were not met; current pollutant loads exceed levels needed to meet WQS in many areas.[17]

In the Gulf of Mexico, the size of the hypoxic zone was reduced in FY 2005.[18] EPA will evaluate the impact of Hurricane Katrina on the size of the hypoxic zone in FY 2006 as part of the more comprehensive impact assessment on public health and water quality.

CHALLENGES

Future restoration and protection of estuaries present challenges as EPA faces more difficult projects, requiring longer lead time, as well as remaining smaller study areas. The United States also faces daunting challenges in conserving coastal wetlands. Recognizing that collaboration is critical, EPA continues to work with partners on new strategies for protecting and restoring these areas.

Although EPA is making progress, challenges remain for the Great Lakes, Chesapeake Bay, and the Gulf of Mexico programs. Growing human and animal populations in the Chesapeake Bay area continue to challenge efforts to reduce pollutant loads. Damage from Hurricane Katrina will affect improvements made in the health of the Gulf of Mexico. Most immediately, states and EPA must assess the impact of the hurricane and plan for recovery.

National Estuary Program Success

In 2005, the six National Estuary Programs (NEPs) in EPA's Region 4, working with their federal, state, and local partners, restored and/or protected approximately 80,000 acres of habitat, including critical estuarine, riparian, and coastal wetlands. The NEPs used Clean Water Act Section 320 and matching dollars to leverage additional funding for this effort. These restored and protected natural habitats and ecosystems will contribute to improving the quality of coastal waters in the region.

Strategic Objective 4—Enhance Science and Research

Through 2008, provide a sound scientific foundation for EPA's goal of protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing better understanding and characterization of environmental outcomes under Goal 4.

OVERVIEW OF PERFORMANCE

The Agency is making considerable progress toward its 2008 objective of providing a sound scientific foundation to support its work under Goal 4.

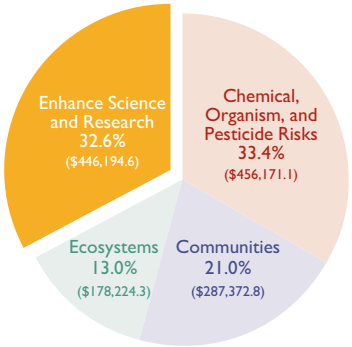
STRATEGIC OBJECTIVE 4—ENHANCE SCIENCE AND RESEARCH		
APG #	APG Title	APG Status
4.20	Conduct Relevant Research to Support the Food Quality Protection Act (NEW IN FY05)	✔ Met in FY 2005
4.21	Conduct Relevant Research: Mercury (NEW IN FY05)	✔ Met in FY 2005
4.22	Conduct Relevant Research: Exposures and Environmental Effects (NEW IN FY05)	✔ Met in FY 2005
4.23	Conduct Relevant Research: Riparian Zone Restoration (NEW IN FY05)	✔ Met in FY 2005
4.24	Risk Assessment Research	✔ Met in FY 2005
4.25	Conduct Relevant Research: Homeland Security (NEW IN FY05)	✔ Met in FY 2005
4.26	Conduct Relevant Research: Regional Scale Ecosystem Assessment Methods (NEW IN FY05)	✔ Met in FY 2005

In 2005, EPA provided methods and models to enable risk assessors and risk managers to measure and evaluate exposure to, and effects of, environmental stressors in children. The objective of this research is to reduce children's exposure to harmful agents and reduce the cost of treating environment-related diseases.

EPA demonstrated its commitment to restoring the health of ecosystems by providing clear and concise information on the utility and effectiveness of vegetative riparian buffers to reduce nitrogen loadings to streams. Decision-makers will use this information to design vegetative buffers that will most effectively reduce nitrogen impacts on streams.

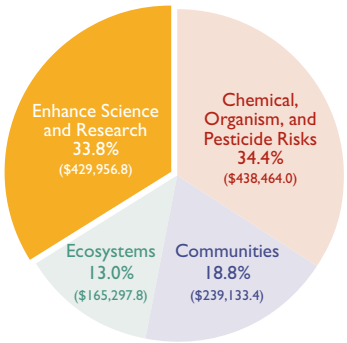
On March 15, 2005, EPA issued the Clean Air Mercury Rule (CAMR) to permanently cap and reduce mercury emissions from coal-fired power plants for the first time. This rule, combined with EPA's Clean Air Interstate Rule, will significantly reduce emissions from the nation's largest remaining source of human-caused mercury emissions. The mercury research program supported CAMR by producing essential scientific information about the status and costs of mercury control technologies for coal-fired utility boilers. This work contributed to a larger effort that considered emissions, control technologies, health effects, and the impacts on our electrical system and economic competitiveness.

FY 2005 Obligations:
Goal 4, Strategic Objective 4
(in thousands)



Goal 4 Total = $1,367,963.8

FY 2005 Costs:
Goal 4, Strategic Objective 4
(in thousands)



Goal 4 Total = $1,272,852.0

CHALLENGES

EPA is working to identify meaningful outcome and efficiency measures for its research programs.

Nanotechnology has the potential to improve the assessment, management, and prevention of environmental risks. As products made from nanoparticles become more numerous and nanoparticles become more prevalent in the environment, EPA is considering how nanotechnology will affect its environmental programs, policies, research needs, and approaches to decisionmaking.

Goal 4 Annual Performance Goals

Strategic Objective 1—Chemical, Organism, and Pesticide Risks

Prevent and reduce pesticide, chemical, and genetically engineered biological organism risks to humans, communities, and ecosystems.

APG 4.1 Reassess Pesticide Tolerances

PERFORMANCE

To ensure that food remains safe, EPA reviews and reassesses tolerance levels. In cases where tolerance levels do not meet current safety standards, the Agency pursues approaches to achieve safe pesticide levels as required by the Food Quality Protection Act (FQPA). In much the same way, EPA's reregistration program assures that currently registered pesticide products are used in ways that protect people, communities, and ecosystems. These reviews are conducted through a public process that promotes transparency and builds partnerships with stakeholders inside and outside the federal government.

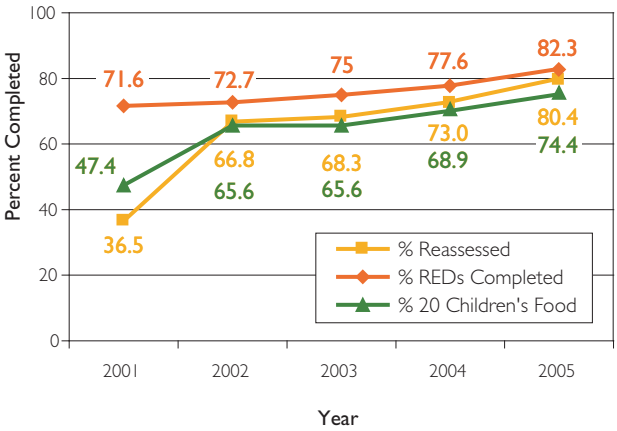
✗ GOAL NOT MET

FY 2005: Ensure that through on-going data reviews, pesticide active ingredients and the products that contain them are reviewed to assure adequate protection for human health and the environment, taking into consideration exposure scenarios such as subsistence lifestyles of Native Americans.

Performance Measures	*Planned*	*Actual*	
• Tolerance Reassessment.	87.7%	80.4%	✗
• Reregistration Eligibility Decision (REDs).	88.2%	82.3%	✗
• Product Reregistration.	400	501	✔
• Tolerance reassessments for top 20 foods eaten by children.	93%	74.4%	✗
• Number of inert ingredients tolerances reassessed.	100	168	✔
• Reduce decision time for REDs.	7%	75%	✔

Data Source(s): The Office of Pesticide Programs Information Network (OPPIN), and EPA's pesticides program staff and managers. Also see www.epa.gov/pesticides.

Performance Measure: % Tolerance Reassessment and Tolerance Reassessments for Top 20 Foods Eaten by Children Completed (Cumulative) and % Registration Eligibility Decisions Completed (Cumulative)



Goal Not Met. Although EPA did not meet all of its annual performance commitments for pesticides reregistration and tolerance reassessments, it remains on target for achieving its long-term goal. During FY 2005, the Agency completed reassessing 80 percent of the 9,721 tolerances that FQPA requires be reassessed, including tolerances on foods most commonly eaten by children.[19] In addition to those fully reassessed in FY 2005, the Agency evaluated approximately 782 additional tolerances; these are not counted as reassessed because cumulative risk assessment has not yet been accomplished. These evaluations, combined with the 2005 completions, place the Agency over its FY 2005 target.

EPA expects to complete the cumulative risk assessment early in 2006; therefore, the Agency feels confident that it is on target to meet the statutory deadline of reassessing all of the 9,721 tolerances by August 2006. The deadline for completing REDs is

Program Assessment Rating Tool (PART)

OMB reassessed the Pesticide Registration program most recently in the 2003 PART process and the Pesticide Reregistration program most recently in the 2004 PART process. Both programs received adequate ratings.

Grants Supporting the Achievement of This APG

Pesticides programs are supported by the Categorical Grant: Pesticide Implementation Program. Responsibility for regulating pesticide use is in large part delegated to states and tribes. These grant resources assist states and tribes in pesticide certification and training/worker protection programs, endangered species activities, and environmental stewardship.

also on target for 2008; in FY 2005 the Agency completed more than 82 percent and an additional 23 Interim REDs, nearly 86 percent of the 612 required. EPA greatly exceeded its FY 2005 target for RED decision time, reducing the time for decisions from a baseline of 40 months to 10 months in FY 2005. Times vary according to the chemicals being evaluated. The program is currently reviewing data to isolate anomalies that resulted in this dramatic reduction of time. Of importance is that this is an anomaly, and does not represent a future commitment to either maintain or further reduce the time involved.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-41.

CHALLENGES

Completing cumulative risk continued to be a challenge during FY 2005, delaying issuance of final reregistration eligibility decisions (REDs). However, the Agency anticipates meeting its mandatory deadlines for this program.

APG 4.2 Decrease Risk from Agricultural Pesticides

PERFORMANCE

Through its registration program EPA makes reduced risk pesticides available for use as alternatives to riskier existing pesticides. Reregistration ensures that older pesticides which remain in the marketplace continue to be safe and meet the latest safety standards. As necessary, the Agency's regulatory programs continued to impose mitigation conditions during registration and reregistration to provide for proper/safe use of pesticides and further reduce risk. Continued outreach, education, and training for the general public and agricultural community ensure that pesticides will be appropriately and safely used, reducing pesticide exposure and risk.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-44.

DATA AVAILABLE FY 2006

FY 2005: Percentage of acre treatments that will use applications of reduced-risk pesticides.

Performance Measures (all are MMTCE)	*Planned*	*Actual*
• Percentage of acre-treatments with reduced risk pesticides	8.7%	Data avail FY 2006

✔ GOAL MET FOR FY 2004

FY 2004: Decrease adverse risk from agricultural uses from 1995 levels.

Performance Measures	*Planned*	*Actual*	
• Register safer chemicals and biopesticides (cumulative).*	131	143	✔
• New Chemicals (cumulative).*	74	79	✔
• New Uses (cumulative).*	3,079	3,142	✔
• Percentage of acre-treatments with reduced risk pesticides.	8.5%	13%	✔
• Occurrences of residues on a core set of 19 foods eaten by children relative to occurrence levels for those foods reported in 1994-1996.**	25%	34%	✔

Data Source(s): Primary source is Doane Marketing Research, Inc. (a private sector research database). The database contains pesticide usage information by pesticide, year, crop use, acreage and sector. Also see www.epa.gov/pesticides and www.epa.gov/epahome/pestoxpgram.htm.

* These performance measures are reported in FY 2005 under APGs 4.10.
** This performance measure is reported in FY 2005 under APG 4.7.

Program Assessment Rating Tool (PART)

OMB reassessed the Pesticide Registration program most recently in the 2003 PART process and the Pesticide Reregistration program most recently in the 2004 PART process. Both programs received adequate ratings.

Grants Supporting the Achievement of This APG

Pesticides programs are supported by the Categorical Grant: Pesticide Implementation Program. Responsibility for regulating pesticide use is in large part delegated to states and tribes. These grant resources assist states and tribes in pesticide certification and training/worker protection programs, endangered species activities, and environmental stewardship.

APG 4.3 Exposure to Industrial/Commercial Chemicals

PERFORMANCE

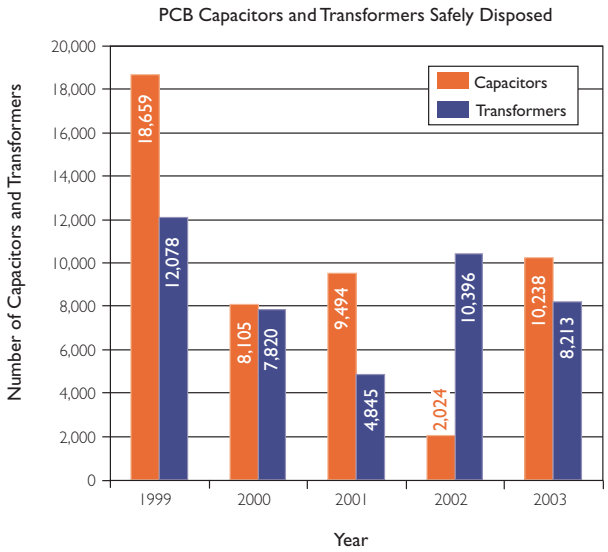
These quantitative performance measures for APG 4.3 track EPA's progress in managing risks associated with the high profile chemicals Polychlorinated Biphenyls (PCBs) and lead. EPA's historic annual performance targets for PCB disposal were established using uncertain and outdated information. EPA expects to meet its targets for FY 2004, FY 2005 and FY 2006, which are based on concerted efforts to improve baseline data through campaigns to persuade companies to retire PCB-containing equipment ahead of schedule.

In FY 2005 EPA initiated a new effort to reach vulnerable populations of children most at-risk of exposure to lead-based paint. The Agency also developed new long-term goals for eliminating demographic disparities in blood levels, in addition to eliminating childhood lead poisoning. EPA also began work to develop rules establishing lead-safe work practice standards for renovation and remodeling projects.

The most recent NHANES data estimated 310,000 children with elevated blood lead levels in

DATA AVAILABLE FY 2007 AND FY 2008	**FY 2005:** Reduce exposure to and health effects from priority industrial/commercial chemicals.	
Performance Measures (all are MMTCE)	*Planned*	*Actual*
• Annual number of transformers safely disposed.	5,000	Data avail 09/2007
• Annual number of large capacitors safely disposed.	9,000	
• Number of children aged 1-5 years with elevated blood levels (>10 ug/dl).	9,000	Data avail 06/2008

DATA AVAILABLE FY 2007	**FY 2004:** Reduce exposure to and health effects from priority industrial/commercial chemicals.	
Performance Measures	*Planned*	*Actual*
• Number of individuals certified nationally through federal administered programs to perform lead-based paint abatements.	18,000	24,000 ✔
• Number of participants in Hospitals for a Healthy Environment (cumulative).	2,000	2,930 ✔
• Children aged 1-5 years with elevated blood lead levels (>10ug/dl).	261,000	Data avail FY 2007
• Safe disposal of transformers.	8,000	
• Safe disposal of capacitors.	6,000	



Program Assessment Rating Tool (PART)

OMB is assessing the Lead program related to this APG in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Grants Supporting the Achievement of This APG

This program is supported by the Categorical Grant: Lead. These resources assist states and tribes in developing and maintaining authorized programs for training individuals engaged in lead-based paint remediation, accrediting training programs for those individuals, and certifying contractors engaged in lead-based paint remediation.

✔ GOAL MET FOR FY 2000	**FY 2000:** Administer federal programs and oversee state implementation of programs for lead-based paint abatement certification and training in 50 states, to reduce exposure year is to lead-based paint and ensure significant decreases in children's blood levels by 2005.		
(Performance measure is included in the annual goal above.)		*Planned* 50	*Actual* 50 ✔
✗ GOAL NOT MET FOR FY 1999	**FY 1999:** Complete the building of a lead-based paint abatement certification and training in 50 target states, to ensure significant decreases in children's blood lead levels by 2005 through year is reduced exposure to lead-based paint.		
(Performance measure is included in the annual goal above.)		*Planned* 35	*Actual* 30 ✗

Data Source(s): Annual Reports from commercial storers and disposers of PCB Waste, and the Centers for Disease Control and Prevention's (CDC) National Health and Nutrition Examination Survey (NHANES).[20] Also see Lead Program: www.epa.gov/oppt/lead/index.html and PCB Capacitors and Transformers: www.epa.gov/oppt/pcb/.

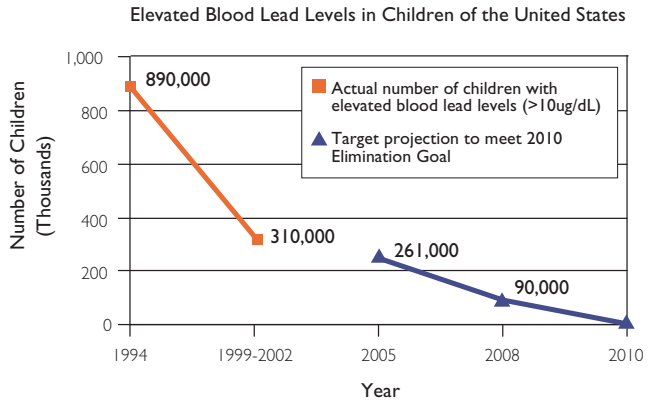
1999-2002, a steep reduction of the more than 900,000 cases estimated in the early 1990's[3]. This information demonstrates significant progress in meeting EPA's 2008 goal of reducing elevated blood lead level incidences to 90,000 cases and the national goal to virtually eliminate childhood lead poisoning by 2010.

The 1999 APG was missed; however, it counted only state lead-based paint abatement certification and training programs. This does not mean that there was a lack of protection because EPA implements the program in the absence of a state program. The 2000 measure captures both state and federal programs, demonstrating that there is either a federal or state program in place in all 50 States.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-42–C-43.

CHALLENGES

Recently released NHANES data reveal that the rate of reducing childhood blood lead poisoning is slowing, and that there is a higher than average incidence of elevated blood lead levels among low-income children[3]. To counter this trend, EPA has employed targeted outreach and educational strategies to reach these vulnerable communities.



APG 4.4 Process and Disseminate Toxics Release Inventory (TRI) Information

PERFORMANCE

EPA believes that electronic reporting is easier and less time consuming for facilities required to submit these reports and should improve their compliance. Additionally, electronic reporting improves the quality and timeliness of the data in TRI. TRI-ME provides reporting facilities with electronic forms that help detect some types of errors and eliminate the need for EPA to enter the data from paper submissions.

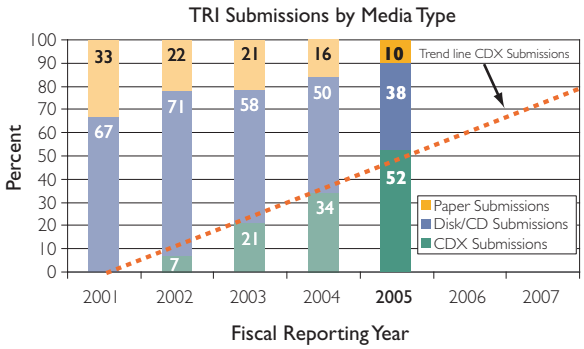
In FY 2004, 38 percent of all reports on chemical releases and other waste management data were submitted to EPA via the internet and EPA's Central Data Exchange (CDX), a 73 percent increase over FY 2003. EPA is aggressively trying to increase CDX submissions through such efforts as targeted training and outreach to the reporting community. EPA set a goal of increasing the percentage of electronic submissions by 10 percent per year, beginning in FY 2005. The Agency met that goal in FY 2005: 42.9 percent were submitted electronically, a 12.9 percent increase over FY 2004. To achieve the FY 2006 goal, more than 47 percent of the reports must be submitted electronically.

✔ GOAL MET

FY 2005: The increased use of the TRI-Made Easy (TRI-ME) will result in a total burden reduction of 5% for FY 2005 from FY 2004 levels.

Performance Measures	*Planned*	*Actual*
• Percentage increase of TRI chemical forms submitted over the Internet using TRI-ME and the CDX.	10%	12.9% ✔

Data Source(s): TRI Data Center Operations Statistical Reports. Also see www.epa.gov/triinter/index.htm.



Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-49.

APG 4.5 Risks from Industrial/Commercial Chemicals

PERFORMANCE

Under this goal, EPA tracks its progress in identifying risks presented by new and existing chemicals and addressing them quickly and effectively. Annual targets for the RSEI measure are based on the Agency's long-term strategic target of reducing relative risks to chronic human health associated with environmental releases of industrial chemicals in commerce by 21 percent from 2001 levels, equating to a 3 percent annual reduction over a 7 year period. The FY 2002 results showed that the Agency exceeded its target of a 2 percent reduction in the RSEI risk value from the 2001baseline, achieving a 5.7 percent actual reduction.

DATA AVAILABLE FY 2007

FY 2005: Identify, restrict, and reduce risks associated with industrial/commercial chemicals.

Performance Measures	*Planned*	*Actual*
• Reduction in the current year production-adjusted risk screening environmental indicators (RSEI) risk-based score of releases and transfers of toxic chemicals.*	2% annual	Data avail 2007
• Percentage of chemicals identified as highest priority by the Acute Exposure Guidelines Levels (AEGLs) Program with short-term exposure limits established.*	52%	70% ✔

AEGLs are short-term exposure limits applicable to a wide range of extremely hazardous substances. First responders use AEGL values

in dealing with chemical emergencies, increasing EPA's ability to deal with threats of chemical terrorism and assist with homeland security. EPA exceeded its FY 2005 goal for developing Proposed AEGL values for additional chemicals, in part because the program was able to address several chemicals as a category. Category opportunities can not be predicted in advance.

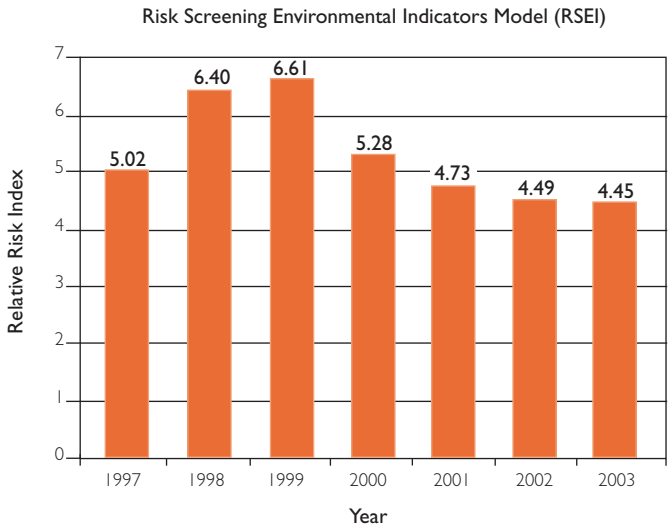
Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-45–C-46.

Program Assessment Rating Tool (PART)

OMB assessed the Existing Chemicals program related to this APG in the 2002 PART process. The program received an adequate rating.

DATA AVAILABLE FY 2006	**FY 2004:** Same Goal.	
Performance Measures	*Planned*	*Actual*
• Reduction in the current year production-adjusted risk screening environmental indicators (RSEI) risk-based score of releases and transfers of toxic chemicals.*	2%	Data avail 2006

Data Source(s): The Risk Screening Environmental Indicators (RSEI) Model, and Federal Advisory Committee Act (FACA) committee that reviews short term exposure values for extremely hazardous chemicals. Also see www.epa.gov/opptintr/rsei/whats_rsei.html.
*These are interim measures to be finalized in the PART Assessment process.



This measure tracks EPA's progress in reducing existing chemical risks under TSCA and is based on the RSEI model, which calculates a risk index based on releases of TRI chemicals.

APG 4.6 Chemical, Organism, and Pesticide Risks

PERFORMANCE

The endocrine disruptors screening program (EDSP) is required to test all pesticides and determine if they may have an endocrine disrupting effect in humans. EDSP will accomplish this goal by developing appropriate testing techniques, establishing the approach for selecting chemicals for testing, and developing procedures on how the Agency will require testing.

✗ GOAL NOT MET	**FY 2005:** Standardization and validation of screening assays.	
Performance Measures	*Planned*	*Actual*
• Screening assays completed.	11	Not measured in FY 2005 ✗

Data Source(s): Data are generated to support all stages of validation of endocrine test methods through contracts, grants and interagency agreements, and the cooperative support of the Organization of Economic Cooperation and Development (OECD), and EPA's Office of Research and Development (ORD). The scope of the effort includes the conduct of laboratory studies and associated analyses to validate the assays proposed for the Endocrine Disruptor Screening Program (EDSP). Also see www.epa.gov/scipoly/oscpendo/.

Goal Not Met. This APG was not achieved in FY 2005 due to the numerous steps required to complete an assay screening. The Agency's goal of completing assay screenings within 1 year's time was too ambitious, and intends to complete all 11 assay screenings by the end of FY 2006. Nonetheless, in FY 2005 the Agency can point to incremental progress in each of the 11 cases. The Agency uses five internal performance measures to track progress toward overall programmatic goals. To highlight a few, EPA completed 15 detailed review papers, 42 prevalidation studies, and 42 validations by multiple laboratories in FY 2005. These are necessary steps prior to peer-review and completion of assays ready for use.

Program Assessment Rating Tool (PART)

OMB assessed the Endocrine Disruptors program, which is comprised of components from the Office of Prevention, Pesticides and Toxic Substances and the Office of Research and Development in the 2004 PART process. The program received an adequate rating.

Grants Supporting the Achievement of This APG

Results achieved in FY 2005 are due in part to the following Interagency Agreements and Grants with the following entities: U.S. Army Center of Environmental Research (IAG), Smithsonian (IAG); National Research Council (Cooperative Agreement), National Older Workers Career Center (Grant), National Caucus and Center on Black Aged, Inc. (Grant), and Senior Service America, Inc. (Grant).

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-43.

CHALLENGES

Each phase of assay development may uncover new issues to be resolved before an assay is ready for use. For example, EPA may plan on 4 studies to address prevalidation issues. An additional study will be required if it's determined that an ambiguity exists. The need for additional study will then require additional time before the assay is complete and ready for use.

APG 4.7 Chemical, Organism, and Pesticide Risks

PERFORMANCE

Children's health will be protected from pesticide risk through the reduction of pesticide residues in the foods eaten by children.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-47.

CHALLENGES

PDP does not survey the same foods every year, nor do they analyze the same pesticides every year.

DATA AVAILABLE FY 2006	**FY 2005:** Decrease occurrence of residues of carcinogenic and cholinesterase-inhibiting neurotic pesticides on foods eaten by children from their average 1994-1996 levels. (NEW IN FY05)	
Performance Measures	*Planned*	*Actual*
• Reduce occurrence of residues on a core set of 19 foods eaten by children relative to detection levels for those foods reported in 1994–1996.	27%	Data avail 2006

Data Source(s): The United States Department of Agriculture (USDA) Pesticide Data Program (PDP). Also see www.ams.usda.gov/science/pdp/.

Program Assessment Rating Tool (PART)

OMB reassessed the Pesticide Reregistration program related to this APG most recently in the 2004 PART process. The program received an adequate rating.

Grants Supporting the Achievement of This APG

This program is supported through an interagency agreement with USDA which funds state grants.

APG 4.8 Chemical, Organism, and Pesticide Risks

PERFORMANCE

This goal tracks EPA's efforts to prevent the release of chemicals from hazardous facilities. Monitoring of high risk chemical facility through risk management plan (RMP) audits is an important step to ensuring these facilities have the best prevention technologies and procedures in place to prevent a chemical accident. Conducting RMP audits allow EPA to determine the completeness and accuracy of the RMP, understand the various processes used in chemical facilities, review the policies, procedures, and processes in place to prevent chemical accidents, and learn from accidents and follow-up actions at RMP facilities. These audits also help EPA disseminate accident prevention techniques and technologies currently used in a limited number of chemical facilities to facilities nationwide.

The number of RMP audits and inspections completed in FY 2004 was 730. In FY 2004, the number was 885. Actual performance significantly exceeded the target number of 400 in both years. While all of our regions slightly exceeded their specific target for RMP audits and inspections, one of our regions exceeded its target by nearly 400 audits and inspections, due to one of its states with which they have a contract conducting those audits and inspections on behalf of the region. The numbers for FY 2004 and FY 2005 would have been 530 and 496, respectively, without these additional audits and inspections, which are closer to our target. Based on estimates from our regions, we should complete 400 to 500 audits and inspections in FY 2006.

EPA is working to identify improved measures for audits to gain a more complete understanding of improvements in chemical safety resulting from the RMP program. This information along with an analysis of the new information submitted by facilities to the EPA on their RMP programs should provide a better understanding of the prevention activities taking place nationally as well as the state of chemical safety in the country.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-49.

✔ GOAL MET	**FY 2005:** Protect human health, communities, and ecosystems from chemical risks and releases through facility risk reduction efforts and building community infrastructures.		
	Performance Measures	*Planned*	*Actual*
	• Number of risk management plan audits completed.	400	885 ✔
✔ GOAL MET FOR FY 2004	**FY 2004:** Same goal, same measure.		
	(Performance measure is included in the annual goal above.)	*Planned* 400	*Actual* 730 ✔

Data Source(s): Survey of Regional offices. Also see www.epa.gov/oem.

APG 4.9 Chemical, Organism, and Pesticide Risks

PERFORMANCE

Goal Not Met. The availability and proper use of less toxic pesticides will result in the reduction of incidents and mortalities to wildlife. Decreased wildlife mortality rates also indicate that the regulatory programs are contributing to achievement of our long

✗ GOAL NOT MET	**FY 2005:** Standardization and validation of screening assays.		
	Percent reduction in number of incidents and mortalities to terrestrial and aquatic wildlife caused by the 15 pesticides responsible for the greatest mortality to such wildlife. (PART)	*Planned* 11% reduction	*Actual* Insufficient data for analysis ✗

Data Source(s): Data are extracted from written reports of fish and wildlife incidents submitted to the Agency by pesticide registrants under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), Section 6(a)(2), as well as incident reports voluntarily submitted by state and Federal agencies involved in investigating such incidents.

term goal of protecting human health and the environment.

Outreach, education and training provided to the general public and targeted audiences offer assurance that pesticides will be appropriately and safely used resulting in a reduction in incidents and mortalities to wildlife.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-47–C-48.

Program Assessment Rating Tool (PART)

OMB reassessed the Pesticide Registration program most recently in the 2003 PART process and the Pesticide Reregistration program most recently in the 2004 PART process. Both programs received adequate ratings.

Grants Supporting the Achievement of This APG

The pesticide programs are supported by the Categorical Grant: Pesticide Program Implementation. Responsibility for regulating pesticide use is in large part delegated to states and tribes. These resources provide assistance to states and Tribes in the areas of pesticides certification and training/worker protection, endangered species activities, and environmental stewardship.

CHALLENGES

The basis of available information provided is insufficient to determine the actual risk reduction. Consequently, the data to report on the measure may not be available in the future. EPA awarded a cooperative agreement to the American Bird Conservancy (ABC) to collect information on avian mortalities. EPA's laboratory at Fort Meade, Maryland, is performing tissue analyses of pesticides for bird carcasses collected under the agreement with ABC. The Agency expect to complete a final report in 2006.

APG 4.10 Chemical, Organism, and Pesticide Risks

PERFORMANCE

These performance measures track regulatory actions that identify risks and set mitigation requirements prior to registration of an approved pesticide. They demonstrate EPA's progress in assuring that registered pesticides meet appropriate standards to protect human health and the environment.

Additionally, new pesticide products may substitute for older, more toxic pesticides. Through use of the newer, less toxic products, the Agency continues to ensure that risk from pesticides is minimized. Through expeditious review of the newer, reduced risk pesticides, EPA seeks to maintain the availability of potential substitutes for the older, more toxic pesticides such as organophosphates.

✗ GOAL NOT MET

FY 2005: Ensure new pesticide registration actions (including new active ingredients, new uses) meet new health standards and are environmentally safe. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*	
• Register safer chemicals and biopesticides (cumulative).	135	154	✔
• *New chemicals (active ingredients) (cumulative). (PART)*	84	79	✗
• New uses (cumulative).	3,479	3,332	✗
• Maintain timeliness of S18 decisions.	45 days	45 days	✔
• *Reduce registration decision times for new conventional chemicals. (PART)*	7%	7%	✔
• *Reduce registration decision times for reduced risk chemicals. (PART)*	3%	3%	✔

Data Source(s): The Office of Pesticide Programs Information Network (OPPIN). Also see www.epa.gov/pesticides/regulating/registering/index.htm and www.epa.gov/epahome/pestoxpgram.htm.

Goal Not Met. In FY 2005, the Agency exceeded its target for registering reduced risk pesticides and met the targets for reducing decision times on new conventional pesticides and reduced risk pesticides, providing additional alternatives for higher risk pesticides faster.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-41.

CHALLENGES

During 2005, the ethical acceptability of using human studies for regulatory purposes presented a challenge to the program. EPA is drafting a rule to provide guidance in this area.

Protecting the health of susceptible populations such as children and Native Americans continues to be a challenging endeavor, particularly in the areas of developmental neurotoxicity, non-dietary pesticide exposure and subsistence lifestyles.

Program Assessment Rating Tool (PART)

OMB reassessed the Pesticide Registration program related to this APG most recently in the 2003 PART process. The program received an adequate rating.

Grants Supporting the Achievement of This APG

The registration program is supported with implementation activities through the Categorical Grant: Pesticides Program Implementation. Responsibility for regulating pesticide use is in large part delegated to states and tribes. These resources provide assistance to states and Tribes in the areas of pesticides certification and training/worker protection, endangered species activities, and environmental stewardship.

Strategic Objective 2—Communities

Sustain, clean up, and restore communities and the ecological systems that support them.

APG 4.11 Assess and Cleanup Brownfields

PERFORMANCE

EPA's Brownfields Program empowers states, tribes, local governments, and other stakeholders in economic redevelopment to work together to prevent, assess, safely clean up, and reuse brownfields sustainably. Reinvesting in brownfields increases local tax bases, facilitates job growth, and takes development pressures off of undeveloped land.

To date, Brownfields grantees have assessed 5,752 properties, leveraging $7.2 billion in cleanup and redevelopment funding, and 33,599 jobs. Additionally, EPA has conducted 1,406 targeted

DATA AVAILABLE FY 2006	**FY 2005:** Leverage or generate funds through revitalization efforts.	
Performance Measures (all are MMTCE)	*Planned*	*Actual*
• *Number of Brownfields properties assessed. (PART)*	1,000	Data avail 2006
• Number of Brownfields cleanup grants awarded.	25	
• Number of properties cleaned up using Brownfields funding.	60	
• Number of acres of Brownfields property available for reuse.	No target	
• Number of jobs leveraged from Brownfields activities.	5,000	
• Percentage of Brownfields jobs training trainees placed.	65%	
• Amount of cleanup and redevelopment funds leveraged at Brownfields sites.	$0.9B	

brownfields assessments. EPA will not be able to provide FY 2005 performance due to grantee reporting delays.

Since FY 2001, the Brownfields Program has exceeded its target for leveraged investment in brownfields properties. In FY 2004, the Brownfields Program did not achieve its target of leveraging $0.9 billion in cleanup and redevelopment funding, however, grantees continue to succeed in efforts to cleanup and redevelop brownfields properties. Program grantees did not report the anticipated leveraged figures, because brownfields cleanup and redevelopment projects are ongoing and will be completed in future years. Additionally, the Brownfields Program did not achieve the FY 2004 target of 65 percent job training participants who are trained and find employment. The program did not meet its target for job placement due to prevailing national economic conditions beyond the program's control.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-50.

CHALLENGES

The Brownfields Program is still collecting information on grantee activities but anticipates reaching its FY 2005 goal.

✔ GOAL MET FOR FY 2004

FY 2004: Assess, cleanup, and promote the reuse of Brownfields properties, leveraging cleanup and redevelopment funding and jobs.

Performance Measures	*Planned*	*Actual*	
• Brownfields cleanup grants awarded.	25	75	✔
• Brownfield properties assessed.	1,000	1,076	✔
• Properties cleaned up using Brownfields funding.	No target	17	✔
• Brownfield property acres available for reuse or continued use.	No target	129	✔
• Jobs generated from Brownfields activities (annual).	2,000	2,250	✔
• Percentage of Brownfields job training trainees placed.	65%	61%	✗
• Amount of cleanup and redevelopment funds leveraged at Brownfield sites.	$0.9B	$0.7B	✗

Data Source(s): EPA collects data from grantee Property Profile Forms and Quarterly Progress Reports in the Brownfields Management System (BMS). Also see www.epa.gov/brownfields/.

Program Assessment Rating Tool (PART)

OMB assessed the Brownfields program related to this APG in the 2003 PART process. The program received an adequate rating.

Program Evaluations

- Office of Inspector General: "EPA Can Better Manage Brownfields Administrative Resources." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-17.
- Government Accountability Office report: "Brownfield Redevelopment: Stakeholders Report That EPA's Program Helps to Redevelop Sites, but Additional Measures Could Complement Agency Efforts." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-17.

Grants Supporting the Achievement of This APG

The Brownfields Program has awarded more than 1,000 Assessment, Cleanup, Revolving Loan Fund, Job Training, and State and Tribal Voluntary Response Program Grants. The Brownfields Program reports on the number of properties assessed, cleaned up, the number of acres made ready for reuse, as well as the amount of cleanup and redevelopment jobs and dollars leveraged by these grantees thus far.

APG 4.12 US-Mexico Border Water/Wastewater Infrastructure

PERFORMANCE

The purpose of the APG is to track the number of people without adequate water service on the border that have been and will be supported by the planning, design and construction of drinking water and wastewater infrastructure construction with capital funding. The funding helps reduce raw sewage and provide safe drinking water to residents on the U.S.-Mexico Border.

To date, drinking water and sanitation service have been provided for 1,163,000 people who previously had no service. This effort requires considerable coordination among six Mexican and four U.S. states, municipalities with varying capacity, and two international organizations that certify the projects and issue subgrants for individual projects.

Goal Not Met. In FY 2005, EPA stopped the certification process to develop and implement a prioritization system to streamline the planning and development process and better target EPA resources to EPA objectives. Planned accomplishments were not achieved in FY 2005 because funding for new projects was delayed until the prioritization system was put in place. The first certifications from the prioritized project list are anticipated in the second quarter of FY 2006.

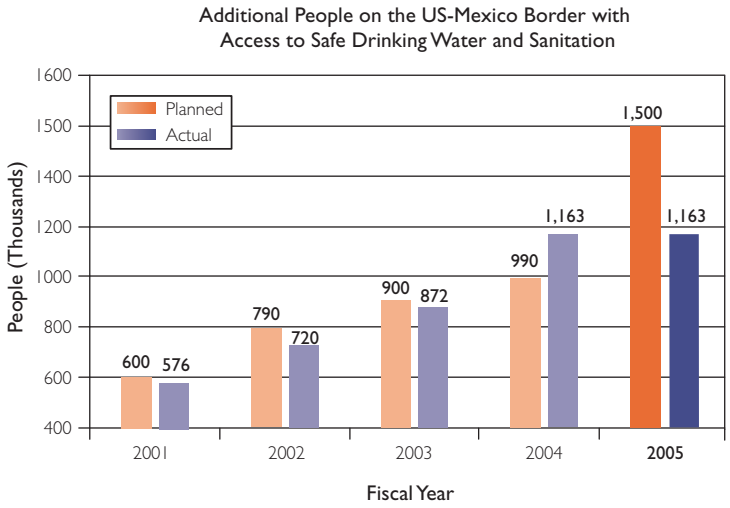
Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-51.

✗ GOAL NOT MET

FY 2005: In the US-Mexico Border Region, sustain and restore community health, and preserve the ecological systems that support them.

Performance Measures	*Planned*	*Actual*
• *Protect the health of 1.5 M people in the Mexico border area by providing adequate water and wastewater sanitation systems funded through the Border Environment Infrastructure Fund. (cumulative) (PART)*	1.5M	1.163M ✗

Data Source(s): North American Development Bank. Also see www.epa.gov/r6border/index.htm.



Source: North American Development Bank Project Information for the Border Environment Infrastructure Fund

Program Assessment Rating Tool (PART)

OMB assessed the US-Mexico Border Water Infrastructure program related to this APG in the 2004 PART process. The program received an adequate rating.

Program Evaluations

Board of Directors of the North American Development Bank report: "North American Development Bank Border Environment Cooperation Commission Business Process Review." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-18.

Grants Supporting the Achievement of This APG

This APG is supported by grants provided to the Border Environment Cooperation Commission and the North American Development Bank for water infrastructure. In FY 2005, the funding for the U.S-Mexico Border water infrastructure grants was $49.6 million. Although no new projects were certified in FY 2005 due to the development of the prioritization system, progress on existing projects continued to provide safe drinking water and sanitation to citizens on the border.

CHALLENGES

The Brownfields Program is still collecting information on grantee activities but anticipates reaching its FY 2005 goal.

The need to better prioritize projects to ensure alignment with the Agency's Strategic Plan required the Agency to develop and implement a new prioritization system for funding projects in FY 2005. The new prioritization process will streamline the planning and development process and better target EPA resources to EPA objectives starting in FY 2006.

APG 4.13 Sustain Community Health

PERFORMANCE

This measure seeks to increase the degree to which other countries assess and understand possible environmental implications of economic growth resulting from trade liberalization. Such understanding should lead to development and implementation of capacity building measures to better address likely environmental impacts, as well as increased commitment on the part of trade partner countries to enforce their existing environmental laws and regulations.

In FY 2005 EPA concluded most of the required work on a new training course on conducting environmental reviews. By delivering this training course in developing countries and continuing our efforts to facilitate such reviews, EPA expects to see more developing countries—both in the western hemisphere and more broadly—improve their capacity to anticipate and address major potential environmental impacts associated with trade liberalization.

✔ GOAL MET	**FY 2005:** Assist trade partner countries in completing environmental reviews. (NEW IN FY05)		
	Performance Measures	*Planned*	*Actual*
	• Number of environmental reviews initiated by FTAA countries following the enactment of the 2002 Trade Promotion Act.	3 countries	3 ✔

Data Source(s): Organization for American States (OAS) FIDA website www.oas.org/usde/fida.

Our baseline (2002) is for zero reviews conducted by the thirty one countries with market economies in Latin America and the Caribbean that—combined with the US, Canada and Mexico—make up the negotiating parties for the FTAA.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-51.

CHALLENGES

The primary challenge we face is uncertainty felt by many developing countries of conducting such reviews. Many countries view environmental considerations or measures in a trade context, even an environmental review of trade liberalization, as a hidden barrier employed by developed countries to limit imports from developing countries. Finally, many such countries have neither the knowledge of procedures nor the data required for generating a meaningful environmental review of trade liberalization.

Strategic Objective 3—Ecosystems

Protect, sustain, and restore the health of natural habitats and ecosystems.

APG 4.14 Protecting and Enhancing Estuaries

PERFORMANCE

The health of the nation's estuaries depends in part on the maintenance of high-quality habitat. This APG tracks the acreage of habitat protected or restored through the National Estuary Program (NEP). Such acreage contributes to the ability of the 28 NEP estuaries to support healthy populations of wildlife and marine organisms, including many commercially valuable fisheries, and to perform the economic, environmental, and aesthetic functions on which coastal populations depend for their livelihood. In FY 2005, the NEPs, working with their partners, protected and restored 103,959 acres of habitat, significantly exceeding the goal of 25,000 acres. This success is partly due to substantial local bond measures that passed, allowing several of the NEPs to significantly exceed their goals. Also, an improved peer process has been established where successes and lessons learned are more readily transferred among the NEPs.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-52.

✔ GOAL MET

FY 2005: Working with NEP partners, protect or restore an additional 25,000 acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program.

Performance Measures	*Planned*	*Actual*
• Acres of habitat restored and protected nationwide as part of the National Estuary Program. (incremental)	25,000	103,959 ✔

Data Source(s): NEP GPRA Habitat Report. Also see www.epa.gov/owow/estuaries.

CHALLENGES

Based on the fact that most of the NEPs have been implementing protection and restoration projects for 15 years now, it appears that most of the "easier" projects have been tackled. Remaining projects are expected to be more difficult—at a minimum, require more lead time. In addition, in some of the NEPs with smaller study areas, there is less and less land available for and/or in need of protection or restoration.

We continue to work with our partners to ensure that everyone is using consistent definitions to identify the appropriate acreage for tracking under this APG.

Program Assessment Rating Tool (PART)

OMB is assessing the Oceans/Coastal program related to this APG in the 2005 PART process. Results of this assessment will be included in the FY 2007 President's Budget.

Grants Supporting the Achievement of This APG

Section 320 of the Clean Water Act provides for annual grants to NEPs. NEPs have been very effective at leveraging this "base" grant funding by building relationships with diverse private, local, state, and federal partners. Base funding for FY 2005 totaled approximately $17 million. Estimates indicate that approximately $160 million was leveraged in FY 2005.

APG 4.15 Increase Wetlands

PERFORMANCE

Wetlands are among our Nation's most critical and productive natural resources. They provide a variety of benefits, such as water quality improvements, flood protection, shoreline erosion control, and ground water exchange. Wetlands are the primary habitat for fish, waterfowl, and wildlife, and as such, provide numerous opportunities for education, recreation, and research.

EPA recognizes that the challenges the Nation faces to conserve our wetland heritage are daunting and that many partners must work together for this effort to succeed. This APG acknowledges the joint nature of the task to not only increase acreage of wetlands but maintain and restore their biological and functional integrity.

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The "net gain" element of the wetland goal will be primarily accomplished by other Federal programs (Farm Bill agriculture incentive programs and wetlands acquisition and restoration programs, including those administered by Fish and Wildlife Service) and non-Federal

DATA AVAILABLE FY 2006 AND FY 2008	**FY 2005:** Working with partners, achieve no net loss of wetlands. (NEW IN FY05)	
Performance Measures	*Planned*	*Actual*
• Working with partners, achieve an increase of wetlands with additional focus on biological and functional measures.	100,000 acres/yr	Data avail 2006
• Annually, in partnership with the Corps of Engineers and states, achieve no net loss of wetlands in the CWA Section 404 regulatory program.	No net loss	Data avail 2008

Data Source(s): Organization for American States (OAS) FIDA website www.oas.org/usde/fida.

programs. The U.S. Fish and Wildlife Service's Status and Trends Report provides the data necessary to measure achievement of this APG.

EPA contributes to achieving no overall net loss in wetlands through EPA's regulatory programs, including Clean Water Act Section 404/401 permit review, compliance and enforcement, and other programs, such as Sections 402 and 311. EPA will continue to work with the COE to ensure application of the 404(b)(1) guidelines, which require that discharges into waters of the U.S. be avoided and minimized to the extent practicable.

Additionally, in FY 2005 EPA continued to work with states to build their capability to monitor trends in wetland condition using biological metrics and assessments and has the goal of at least 14 states using these methods by 2008. Five grants were awarded in FY 2004 to promote the development of methods to be used to monitor trends in wetland condition in five states. Work was continued under those five grants in FY 2005, as well as technical support provided to these and other states in fulfillment of this annual goal.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-53–C-55.

CHALLENGES

In April 2004, the President announced a performance-based goal to restore, enhance, and protect at least 3 million wetland acres over the next 5 years. The link between this new goal and the existing APG is described in EPA's FY 2006 National Water Program Guidance.

The U.S. Fish and Wildlife Service's Status and Trends Report provides the data necessary to measure achievement of this APG and typically is only produced every 10 years. The most recent report was in January 2001 and was not due to be produced again until 2010. Additional funding was provided to produce a report at the end of 2005.

Delays in reporting on "no net loss" in the CWA Section 404 regulatory program are due to budget constraints at the U.S. Army Corps of Engineers. While EPA and other federal agencies have provided extra funds to the COE, implementation of the Corps' new permit tracking database has been delayed until end of 2006 which will postpone obtaining data and information to report on acreage gains and losses in the regulatory program until end of 2007.

Grants Supporting the Achievement of This APG

Wetland Program Development Grants (WPDG) are critical for building State/Tribal and local government's capacity to protect and manage their wetlands. Established in 1990, the WPDG program provides $15 million in funds to states, Tribes, and local governments to develop programs that increase their participation in wetland restoration, improvement, and protection activities. In FY 2005, EPA initiated a grant pilot under the WPDGs to demonstrate the environmental outcomes of implementing comprehensive State and Tribal wetland programs. Funds used in these demonstration projects are designed to determine the extent to which wetland program implementation achieves no net loss, net gain, and protection of vulnerable wetlands.

APG 4.16 Great Lakes: Ecosystem Assessment

PERFORMANCE

Measures under this APG assess the overall progress U.S. environmental programs are making in protecting and restoring the chemical, physical, and biological integrity of the Great Lakes ecosystem. Improvements in the index and measure for this APG' would indicate that fewer toxics are entering the food chain, ecosystem and human health is better protected, fish is safer to eat, water is safer to drink, and beaches are safer for swimming.

The Great Lakes Index shows overall progress in Great Lakes ecosystem condition. Improvements in coastal wetlands, drinking water quality, and air toxics deposition are reflected in increased annual index scores. In FY 2005, EPA reported an index score of 21.9 out of a possible 40, more than the one-point increase over the baseline score of 20. Of this increase, 0.5 points resulted from additional information that was not available at the time the baseline was calculated, and thus, may not reflect actual environmental improvement. The overall increase in index score for FY 2005 might have been even greater, were it not for high phosphorus concentrations in Lake Erie. Thus, while two performance

✔ GOAL MET

FY 2005: Prevent water pollution and protect aquatic systems so that overall ecosystem health of the Great Lakes is improved by at least 1 point.

Performance Measures	*Planned*	*Actual*	
(Performance measure is included in the annual goal above.)	21	21.9	✔
• Total phosphorus concentrations (long-term) in the Lake Erie Central Basin.	10 µg/l	11	✔
• Average concentrations of PCBs in whole lake trout and walleye samples will decline.	5%	6.2%	✔
• Average concentrations of toxic chemicals in the air in the Great Lakes basin will decline.	7%	7.1%	✔
• Restore and delist Areas of Concern (AOC) within the Great Lakes basin.	3 AOC	0 AOC	
• Cubic yards (in millions) of contaminated sediment remediated in the Great Lakes. (cumulative from 1997)	2.9M	3.7M	

✗ GOAL NOT MET FOR FY 2004

FY 2004: Great Lakes ecosystem component will improve, including progress on the fish contaminants, beach closures, air toxics, and trophic status.

Performance Measures	*Planned*	*Actual*	
• Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish	5%	5.8%	✔
• Long-term concentration trends of toxic chemicals in the air.	7%	8.4%	✔
• Total phosphorus concentrations (long-term, µg/l) in the Lake Erie Central Basin.	10	21.2	✗

measures under this APG were not met for FY 2005, the more comprehensive measure based on the Great Lakes Index indicates that EPA met its goal for FY 2005.

Phosphorus is the limiting nutrient in the Great Lakes that controls algae growth. Lake Erie exceeded phosphorus guideline levels in recent years, particularly its central basin which is most representative of the Lake's anoxia problems. Elevated phosphorus concentrations in Lake Erie are linked to the increased "dead zone," or zone of limited dissolved oxygen. FY 2005 data indicate that the targeted concentration level was not met. Further exploration of this problem, identified by GLNPO, is being augmented by work with NOAA and Environment Canada.

Analysis in 2005 indicate that on average, total PCB concentrations in whole Great Lakes top predator fish have declined 6.2 percent annually between 1990 and 2003; meeting the target for declines in concentration trends. Cleanup efforts, such as the remediation of contaminated sediments and the reduction of PCB loadings to the Great Lakes, need to be continued and enhanced to continue the declining trend. Based on Lake Michigan data, current concentrations in lake trout are approximately 8 times the wildlife protection value (0.16ppm) and current concentrations in game fish fillets are approximately ten times the unlimited consumption level for protection of human health (.05ppm).

Atmospheric deposition has been shown to be a significant source of pollutants to the Great Lakes. From 1992 to 2003, U.S. concentrations of PCBs in the air measured at stations on Lakes Superior, Michigan, and Erie decreased an average of 7.1 percent annually, meeting the targeted commitment[1].

The 31 U.S. or binational Areas of Concerns (AOC) are the most polluted geographic areas in the Great Lakes. EPA is working with the states to restore their impaired beneficial uses (such as restrictions on fish consumption due to high contaminant levels) in order to "delist" ten AOCs by 2010 and all AOCs by 2025. While EPA has not met the target of delisting three AOCs in FY 2005, significant progress has been made toward delisting of two AOCs in FY 2006.

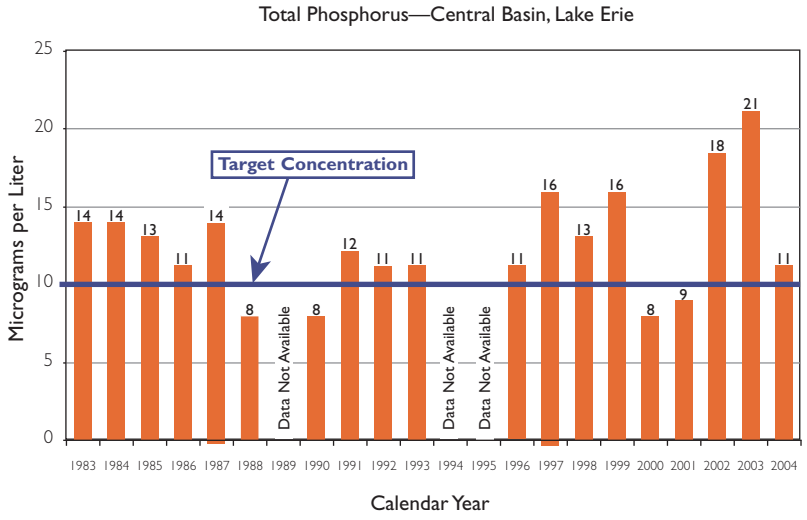
In FY 2005, EPA reported that the commitment to remediate 300,000 cubic yards of contaminated sediments in calendar year 2004 had been met through the combined efforts of EPA, states, and other partners, including the first Great Lakes Legacy Act project. EPA and its partners have already substantially exceeded the 2008 goal of remediating 3.3 million cubic yards of contaminated sediments.

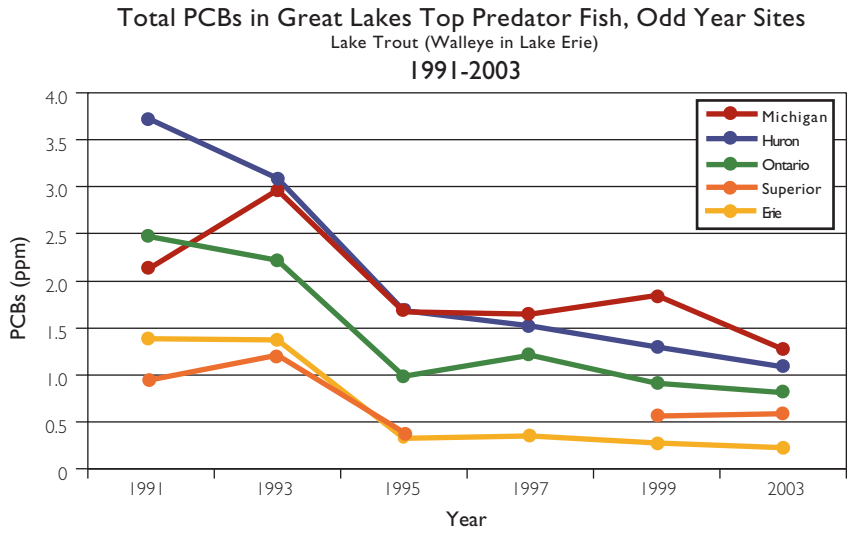
✗ GOAL NOT MET FOR FY 2003

FY 2003: Same goal as FY 2004.

Performance Measures	*Planned*	*Actual*	
• Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish.	5%	Data avail 11/2005	
• Long-term concentration trends of toxic chemicals in the air.	7%	8.3%	✗
• Total phosphorus concentrations (long-term, µg/l) in the Lake Erie Central Basin.	10	18.4	✗

Data Source(s): EPA Great Lakes National Program Office: Phosphorus Monitoring Program; Fish Monitoring Program; Integrated Atmospheric Deposition Network Program. AOC delisting: GLNPO Internal tracking and communications with Great Lakes States, the US Department of State and the International Joint Commission (IJC). Contaminated sediment remediation: GLNPO collection of sediment remediation data. Also see www.epa.gov/grtlakes/.





Note: Values are for composite samples (five whole fish) of whole fish lake trout in the 600-700 mm size for Lakes Michigan, Ontario, Superior, and Huron. Lake trout in the 400-500 mm size range in Lake Erie.

Source: Great Lakes National Program Office - Great Lakes Fish Monitoring Program, Great Lakes Environmental Database. Wildlife Protection Value reference - Great Lakes Water Quality Initiative technical support document for the procedure to determine bioaccumulation factors, EPA-820-B-95-005. Protocol for a Uniform Great Lakes Sport Fish Consumption Advisory - Great Lakes Sport Fish Advisory Task Force. September 1993. http://www.pspblce.state.pa.us/PA_Exec/Fish_Boat/fishtech.pdf

Program Evaluations

EPA Report: "Great Lakes Fish Monitoring Program (GLFMP) Review." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-18.

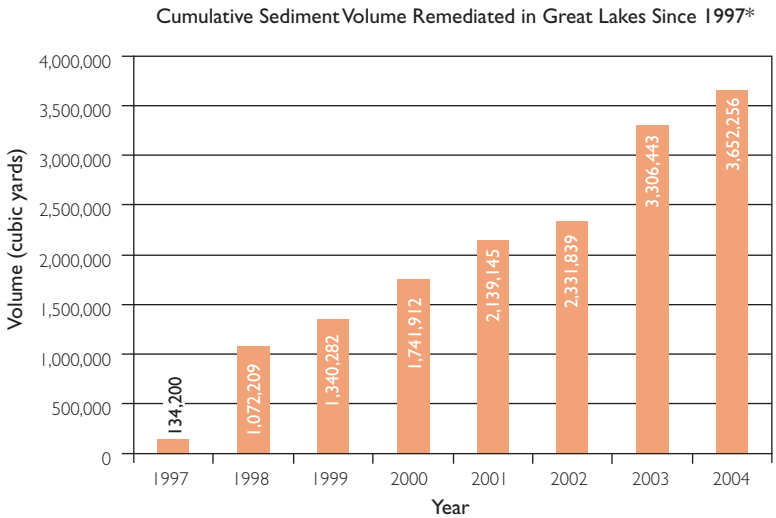
Grants Supporting the Achievement of This APG

Great Lakes National Program Office programs; state grants for Lakewide Management Plans and Remedial Action Plans; competitive grants addressing Contaminated Sediments, Pollution Prevention and Reduction, Habitat (Ecological) Protection and Restoration, Invasive Species, and Strategic or Emerging Issues; and, competitive monitoring grants regarding Atmospheric Deposition, Fish Contaminants, and Biology.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-55–C-62.

CHALLENGES

Great Lakes restoration and protection, including delisting of Areas of Concern, is dependent upon core EPA programs and organizations outside of EPA's control, such as (i) Departments of State, Interior, Agriculture, Commerce, Housing and Urban Development, Transportation, the Army, and Homeland Security; (ii) Great Lakes states and Tribes; and (iii) municipalities. The President's Executive Order and the Regional Collaboration are improving coordination and collaboration, but EPA does not have the authority to direct the activities that would result in achieving this APG.



* Information in the bar graph is based on quantitative estimates reported by project managers. Data collection and report efforts are described in the "Greal Lakes Sediment Remediation Project Summary Support" Quality Assurance Action Plan (GLNPO, January 2005). Detailed project information may be availabe upon request from project managers.

APG 4.17 Chesapeake Bay Habitat

PERFORMANCE

Submerged aquatic vegetation (SAV) is one of the most important biological communities in the Bay, producing oxygen, nourishing a variety of animals, providing shelter and nursery areas for fish and shellfish, reducing wave action and shoreline erosion, absorbing nutrients such as phosphorus and nitrogen, and trapping sediments. Trends in the distribution and abundance of SAV over time are useful in understanding trends in water quality.

Beginning in FY 2005, achievement of SAV targets will be based on the "single best year" of acreage as observed through the most recent 3 years of data from the aerial survey. This new method for reporting performance more accurately captures the natural fluctuations in acreage due to annual changes caused by weather. Baywide, the single best year in the CY 2002-2004 period was 89,659 acres in 2002.[24]

✗ GOAL NOT MET	**FY 2005:** Prevent water pollution and protect aquatic systems so that the overall aquatic system health of the Chesapeake Bay is improved enough so that there are 90,000 acres of submerged aquatic vegetation (cumulative).		
	Performance Measures	*Planned*	*Actual*
	• Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay (cumulative).	90,000	89,659 ✗

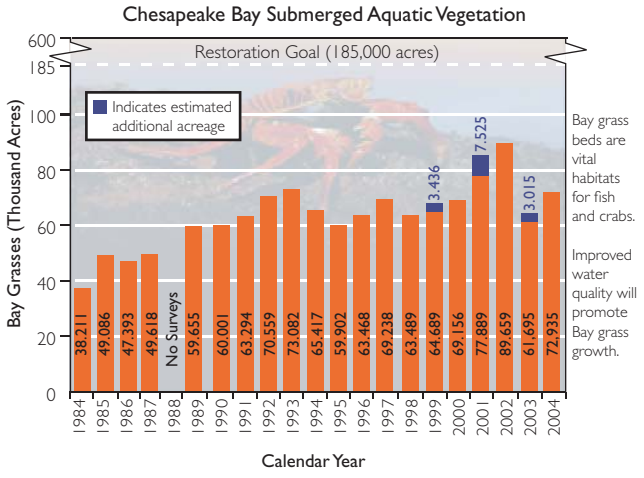
Data Source(s): Virginia Institute of Marine Sciences provides the data (via an EPA Chesapeake Bay Program (CBP) grant to Virginia Institute of Marine Sciences). Also see Submerged aquatic vegetation (SAV) www.chesapeakebay.net/status.cfm?sid=88. Chesapeake Bay SAV www.vims.edu/bio/sav/savreports.html. Chesapeake Bay Program www.chesapeakebay.net.

Grants Supporting the Achievement of This APG

This goal is supported by CWA Section 117(e) grants, which fund the full range of state water quality nutrient reduction programs. In FY 2005, EPA awarded a total of $7,628,000 in Chesapeake Bay Program State Implementation Grants to Maryland, Virginia, Pennsylvania and the District of Columbia. The funds are used to reduce nutrients and sediments entering the Bay for a variety of land uses. The grants have a particular emphasis on state tributary strategy implementation to improve water quality and help meet the goals of the Chesapeake 2000 agreement.

In FY 2005, EPA awarded $1,984,000 to National Fish and Wildlife Foundation to administer the Chesapeake Bay Small Watershed Grants. This funding goes to local governments and watershed organizations to restore wetlands, create riparian buffers, protect undeveloped lands, and improve citizen awareness. All of these outcomes will reduce nutrients and sediments that will help improve water clarity, which will improve SAV habitat.

Goal Not Met. The FY 2005 goal of restoring the acres of SAV to 90,000 was not met, in part because pollution reduction strategies for reducing nutrient and sediment pollution loads were not implemented to levels envisioned by the partners in tributary strategies. Challenges to achieving nutrient and sediment pollution loads are discussed under APG 4.18. In addition, population growth in the Chesapeake Bay watershed continues to make restoration of the SAV difficult. While the program plans to begin a full re-evaluation in 2007, it continues to pursue strategies to accelerate nutrient-sediment reduction: the reduction of nutrient (phosphorus and nitrogen) and sediment pollution loads plays a crucial role in restoring SAV.



Source: US EPA Chesapeake Bay Program data from Virginia Institute of Marine Sciences.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-62–C-63.

CHALLENGES

Meeting the SAV performance goal is dependent on the reducing phosphorus, nitrogen, and sediments loadings to the Bay and its tributaries. Challenges to accomplishing these reductions are described in APG fact sheet 4.18.

APG 4.18 Chesapeake Bay Habitat

PERFORMANCE

Indicators used to measure environmental improvement in the Bay are reductions in the pounds of nitrogen, phosphorus, and sediment entering the Bay. Implementation of best management practices has reduced these pollutants, offsetting significant load increases that would have resulted from population growth.

The current pollutant-loading rate continues to exceed the level needed to meet the Bay water quality standards adopted by the states in 2005.

The targets in EPA's Strategic Plan for nutrient and sediment reductions are scientifically based and reflect a multi-state consensus. Bay Program partners have committed to meet target load allocations by the end of calendar year 2010.

In FY 2005, states adopted enforceable Bay-specific water quality standards and implemented an innovative basin-wide NPDES permitting strategy for nitrogen and phosphorus. The Chesapeake Executive Council also adopted measures to reduce nutrient pollution from animal manure. With animal manure and poultry litter accounting for a significant amount of the non-point nutrient pollution flowing into the Bay, the Executive Council took action to minimize manure nutrients reaching local waters.

✗ GOAL NOT MET

FY 2005: Reduce nitrogen loads by 74 million pounds per year; phosphorus loads by 8.7 million pounds per year, and sediment loads by 1.06 million tons per year from entering the Chesapeake Bay, from 1985 levels. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*	
• Reduce nitrogen loads by 74 million pounds per year.	74	67	✗
• Reduce phosphorus loads by 8.7 million pounds per year.	8.7	8.4	✗
• Reduce sediment loads by 1.06 million tons per year.	1.06	0.92	✗

Data Source(s): State/district data are provided to the Chesapeake Bay Program Office for input into the Chesapeake Bay Program Watershed Model. Also see www.chesapeakebay.net.

Goal Not Met. The FY 2005 nutrient (phosphorus and nitrogen) and sediment pollution load reduction goals were not met because the goals are ambitious and the level of effort and expenditure needed to meet them far exceed initial estimates made by federal and state partners. The annual targets were aligned to reflect the goal of restoring water quality standards by 2010.

While the program plans to conduct a full re-evaluation beginning in 2007, it continues to

Grants Supporting the Achievement of This APG

This goal is supported by CWA Section 117(e) grants, which fund the full range of state water quality nutrient reduction programs. In FY 2005, EPA awarded a total of $7,628,000 in Chesapeake Bay Program State Implementation Grants to Maryland, Virginia, Pennsylvania and the District of Columbia. The funds are used to reduce nutrients and sediments entering the Bay for a variety of land uses. The grants have a particular emphasis on state tributary strategy implementation to improve water quality and help meet the goals of the Chesapeake 2000 agreement.

In FY 2005, EPA awarded $1,984,000 to National Fish and Wildlife Foundation to administer the Chesapeake Bay Small Watershed Grants. This funding goes to local governments and watershed organizations to restore wetlands, create riparian buffers, protect undeveloped lands, and improve citizen awareness. All of these outcomes will reduce nutrients and sediments that will help improve water clarity, which will improve SAV habitat.

pursue strategies to accelerate nutrient-sediment reduction. Strategies include: (1) state adoption of enforceable Bay-specific water quality standards by the end of summer 2005; (2) implementation of an innovative basin-wide NPDES permitting strategy for nitrogen and phosphorus; and (3) the development of a strategy to address excess animal manure and poultry litter for Chesapeake Executive Council endorsement in 2005.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-63–C-64.

CHALLENGES

Maintaining the existing nitrogen, phosphorus and sediment loading levels will be a challenge due to the continued expected growth in human and farm animal population in the region. In addition, the current pollutant-loading rate continues to exceed the level needed to meet the bay water quality standards adopted by the states in 2005. In order to achieve the necessary nitrogen, phosphorus and sediment load reductions, states will need to fully implement their pollution reduction strategies.

APG 4.19 Gulf of Mexico

PERFORMANCE

Efforts to improve the overall health of the entire Gulf of Mexico must include a focused effort to reduce the size of the zone of hypoxic conditions (i.e. low oxygen in the water) in the northern Gulf. The hypoxic zone results in the failure to capture fish, shrimp, and crabs in bottom-dragging trawls when the oxygen falls below the critical level of 2 ppm. The seasonal formation and persistence of hypoxia are influenced by discharges and nutrient loads of the Mississippi and Atchafalaya Rivers. The fresher water forms a layer above the saltier Gulf waters. Nitrogen and phosphorus in the river water stimulate the growth of microscopic plants or phytoplankton. These algae are either transferred into the food web or end up as organic debris on the sea floor. Their decomposition by bacteria depletes oxygen in the lower waters until they no longer sustain the life of most marine animals.

✔ GOAL MET

FY 2005: Prevent water pollution and protect aquatic species in order to improve the health of the Gulf of Mexico.

Performance Measures	*Planned*	*Actual*
• Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico, as measured by the 5-year running average.	14,128 km sq	12,700 km sq ✔

Data Source(s): Louisiana Universities Marine Consortium (LUMCON) and the National Oceanic and Atmospheric Administration (NOAA). Also see www.epa.gov/gmpo.

The coast wide extent of the hypoxic zone mapped in 2005 was 11,840 square kilometers or 4,564 square miles. The low oxygen waters extended from near the Mississippi River to the Louisiana/Texas border. The long-term average since mapping

Grants Supporting the Achievement of This APG

- Targeted Watershed Initiative grants support nitrogen reduction in the Mississippi River Basin, with a special emphasis on support for innovative programs allowing trading of nutrient reductions. Although there were no Targeted Watershed Initiative grants in the Mississippi River Basin in FY 2005, funding of $943,000 supported a point source inventory, ship-time and monitoring support, modeling, wetlands and water quality trading, sub-basin team support, and nutrient science workshop.
- Grants supporting Gulf States in their efforts to develop nutrient standards for estuaries and near coastal waters. In FY 2005, grants for $375,000 supported Gulf States in their efforts to develop nutrient standards for estuaries and near coastal waters, included the development of a nutrient TMDL model, provided real-time monitors near the mouth of the Mississippi River in the Gulf of Mexico to better understand the dynamics of the hypoxic zone that forms each year in this area.

began in 1985 is 12,700 km (or 4,800 square miles).

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-65.

CHALLENGES

The smaller than predicted size was expected because of a tropical storm and hurricane that affected the area between the Mississippi and the Atchafalaya rivers earlier in July. The effects of Hurricane Katrina on the hypoxic zone will not be determined until research cruises are conducted in FY 2006.

Strategic Objective 4—Enhance Science and Research

Through 2008, provide a sound scientific foundation for EPA's goal of protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing better understanding and characterization of environmental outcomes under Goal 4.

APG 4.20 Conduct Relevant Research to Support the Food Quality Protection Act

PERFORMANCE:

This research provided protocols, data and models that EPA's Office of Pesticide Programs (OPP) can use to conduct exposure assessments for pesticides. The products will be used as OPP conducts risk assessments for pesticides for the first time or as pesticides that have previously been evaluated are reassessed as required under the Food Quality Protection Act (FQPA). Under FQPA, OPP is required to take into consideration multiple pathways of exposure to pesticides and the cumulative risks they may pose. FQPA also mandates ensuring the protection of sensitive subpopulations such as children. By having tools to be able to understand children's residential exposures to pesticides, OPP will have the sound scientific underpinnings to incorporate this information in setting allowable levels of pesticide residues on crops (tolerances) through its assessments and reassessments.

✔ GOAL MET

FY 2005: Provide high quality exposure, effects and assessment research results that support the August 2006 reassessment of current-use pesticide tolerances to EPA so that, by 2008, EPA will be able to characterize key factors influencing children's and other subpopulations' risks from pesticide exposure. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*
• Children's exposure data and tools for assessing aggregate exposure to residential-use pesticides	9/30/05	9/30/05 ✔

Data Source(s): Research developed under this project. Also see www.epa.gov/heds/index.htm, www.epa.gov/chadnet1/index.htm, and www.epa.gov/heasd/erdem/erdem.htm.

Before this research was conducted, the data available in the scientific literature characterizing children's exposures to residential-use pesticides were extremely limited and of unknown or varying quality. Validated protocols for collecting the data to assess children's aggregate exposures to pesticides through all routes and pathways did not exist. The models that were available for characterizing children's exposures only examined one route or path-

Program Assessment Rating Tool (PART)

OMB is assessing the Human Health Research program related to this APG in the 2005 PART process. Results of this assessment will be included in the FY 2007 President's Budget.

Program Evaluations

Office of Research and Development, Board of Scientific Counselors report: "Review of the Computational Toxicology Research Program Directions." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-19.

way at a time, based on single point estimates. There were no probabilistic models for describing distributions of exposure and addressing uncertainty and variability.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-66.

APG 4.21 Conduct Relevant Research: Mercury

PERFORMANCE

On March 15, 2005, EPA issued the Clean Air Mercury Rule (CAMR) to permanently cap and reduce mercury emissions from coal-fired power plants for the first time ever. This rule, combined with EPA's Clean Air Interstate Rule (CAIR), will significantly reduce emissions from the nation's largest remaining source of human-caused mercury emissions. The work performed to fulfill this APG supported the development of the CAMR. The results of the work also will be used in the future to support effective implementation of the CAMR by EPA's Office of Air and Radiation, EPA's Office of Water, and the States, and to evaluate the rule's effectiveness.

The work conducted under this APG culminated in the production of a white paper (February 18, 2005) that summarizes the status of mercury control technologies for coal-fired utility boilers was produced to support development of the new Clean Air Mercury Rule (CAMR). The paper documented the current status of mercury controls and directly informed the regulatory proposals contained in the CAMR. The paper was placed in the regulatory docket to support the CAMR.

✔ GOAL MET

FY 2005: Provide information on managing mercury and other co-pollutants from utility boilers so that, by 2010, there is an extensive set of data and tools available to help industry and federal, state, and local environmental management officials make decisions on the most cost-effective ways to reduce or prevent mercury releases into the environment. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*
• Information on managing mercury and other co-pollutants from utility boilers	1 report	1 ✔

Data Source(s): (1) EPA's Mercury Information Collection Request. (2) Papers presented at the Joint EPRI DOE EPA Combined Utility Air Pollution Control Symposium, The Mega Symposium, Washington, D.C., August 30-September 2, 2004. (3) DOE/NETL Mercury Control Technology R&D Program Review, Pittsburgh, PA, July 14-15, 2004. Also see www.epa.gov/mercury/control_emissions/technology.htm.

Program Evaluations

Office of Research and Development, Board of Scientific Counselors report: "Review of the Mercury Multi-Year Research Plan." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-21.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-66.

CHALLENGES

No major challenges were encountered in FY 2005 that adversely affected performance under this APG. An earlier white paper on the status of mercury control technologies for electric utility boilers was released in February 2004 by EPA's Office of Research and Development. Subsequently, much new information became available on these technologies. Despite the limited time available to revise the white paper to reflect the best-available scientific information, the revised white paper was finalized on February 18th and placed in the regulatory docket. This revised paper successfully documented the most current status of mercury controls and helped inform the regulatory process.

APG 4.22 Conduct Relevant Research: Exposure and Environmental Effects

PERFORMANCE

The intent of this APG is to provide methods and models so that risk assessors and risk managers will be able to measure and evaluate exposure to and effects of environmental stressors in children. The objective of this research is to reduce children's exposure to harmful agents. The public will benefit from the reduced cost of treating environmental-related diseases and by having a safer environment for children.

Research included evaluating new, less invasive approaches for assessing children's exposures and developing models for assessing aggregate exposure to environmental stressors in a residential setting. Research also demonstrated approaches to reduce the exposure of children with respiratory problems to indoor contaminants. These findings are essential to the long-term goal of this work: to provide methods and models so that risk assessors and risk managers can characterize and provide adequate protection for susceptible subpopulations, including children. Guidance on conducting risk assessments for children as a sensitive subpopulation was also provided. This work is part of a larger program of research that focuses on characterizing how sensitivity or vulnerability to environmental stressors varies as a function of age. This research contributes to understanding how behavior and environments specific to home

✔ GOAL MET

FY 2005: Provide risk assessors and managers with methods and tools for measuring exposure and effects in children, and characterizing and reducing risks to children from environmental agents in schools so that, by 2014, EPA will be able to demonstrate why some groups of people, defined by life stage, genetic factors, and health status, are more vulnerable than others to adverse effects from exposure to environmental agents. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*
• Methods and tools for measuring exposure and effects in children, and characterizing and reducing risks to children from environmental agents in school	9/30/05	9/30/05 ✔

Data Source(s): Peer-reviewed publications and internal review of draft guidance document on risk assessment for children. Also see Human Health Multi-Year Plan (2003) at www.epa.gov/osp/myp.htm, and the National Center for Environmental Research Website at cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/research.display/rpt/abs/rfa_id/373.

Program Assessment Rating Tool (PART)

OMB is assessing the Human Health Research program related to this APG in the 2005 PART process. Results of this assessment will be included in the FY 2007 President's Budget.

Program Evaluations

Office of Research and Development, Board of Scientific Counselors report: "Human Health Research Program Review." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-22.

Grants Supporting the Achievement of This APG

- Chloroatrazine protein binding: Biomarkers of exposure and susceptibility (EPA grant R828610). The purpose of this research is to develop a non-invasive method for measuring environmental stressors to be used as biomarker of exposure of children.
- Methods development for exposure-related behaviors (EPA grant R831540). The purpose of this research is to provide information for EPA's Consolidated Human Activity Database, which can be used to assess exposure to environmental stressors in children.
- A longitudinal assessment study of human exposure to pesticides due to variations of dietary consumption patterns (EPA grant R832244). This research focuses on dietary consumptions patterns, dietary exposures and body burdens to environmental stressors for a database to predict exposure among individuals on a national level.
- Data collection platforms for integrated longitudinal surveys of human exposure (EPA grant 831541). The purpose of this research is to develop and test methods to facilitate the collection and processing of longitudinal data for exposure models to environmental stressors.

and school may make children differentially vulnerable to the effects of common environmental stressors.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-66.

APG 4.23 Conduct Relevant Research: Riparian Zone Restoration

PERFORMANCE

In-stream and near-stream restoration actions are being actively pursued by local, state, and non-governmental organizations by utilizing a range of expertise. This expertise is tapped from contractors, consultants, local and state personnel, land owners, as well as many volunteers to design, construct, and implement restoration plans and strategies. To date, very little scientifically sound information has been established as to actual effectiveness of the in-stream and near-stream restoration actions in meeting the goals and objectives for these restoration plans.

The purpose of the APG is to provide clear and concise information on the utility and effectiveness of vegetative riparian buffers to reduce nitrogen loadings to streams. This knowledge, provided in the form of a technical guidance, will be utilized by decision makers in the design and implementation of vegetative buffers that stand a greater probability than past practices of being effective at reducing nitrogen impacts on streams.

The performance measure produces quantifiable results demonstrated by a number of studies as to the influence of vegetative buffers on nitrogen loading.

✔ GOAL MET

FY 2005: Provide technical guidance for implementing and evaluating projects to restore riparian zones, which are critical landscape components for the restoration of aquatic ecosystems and water quality, so that, by 2010, watershed managers have state-of-the-science field-evaluated tools, technical guidance, and decision-support systems for selecting, implementing, and evaluating cost-effective and environmentally-sound approaches to restore ecosystem services as part of watershed management. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*
• Technical guidance for implementing and evaluating projects to restore riparian zones.	1 tech guidance	1 ✔

Data Source: See www.epa.gov/ordntrmt/ORD/NRMRL/ and www.epa.gov/ada/topics/er_nm.html.

This information provides a significant step toward a more comprehensive guideline for watershed management, which is a future PM for the Ecological Research Program.

The performance measure supporting this APG incorporates scientifically derived and published research data regarding the effectiveness of vegetative buffers to reduce the impact of a number of stressors. The collection of this information in a concise manner makes the information more useful, while providing the client with sufficient information to apply the knowledge, as well as explore new methods for buffer design and construction.

Data Quality: A description of the data used to measure EPA's

Program Assessment Rating Tool (PART)

In-stream and riparian zone restoration research is a component of ORD's Ecological Research Program. OMB reassessed this program most recently in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Program Evaluations

Office of Research and Development, Board of Scientific Counselors report: "Ecological Research Program Review." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-20.

Grants Supporting the Achievement of This APG

A Watershed Classification System for Improved Monitoring and Restoration: Landscape Indicators of Watershed Impairment. EPA STAR Program Grant to Stephen D. Prince, University of Maryland. (This grant was related to the general research area.)

performance can be found in Appendix C, page C-66.

CHALLENGES

It was anticipated that this technical guidance document would have been more inclusive and would have been developed as material for future training workshops and seminars, and related technology transfer actions. To be able to meet this need, the document was to have included additional guidelines for in-stream and riparian restoration. However, this was not possible for several reasons, including the inability to extend the deadlines for the product.

APG 4.24 Risk Assessment Research: Human Health Risk Assessment Research

PERFORMANCE

The Integrated Risk Information System (IRIS) is EPA's primary electronic database containing agency consensus hazard identification and dose-response assessments of the human health effects that might result from exposure to various substances found in the environment. The toxicity information and values in this database are used by EPA Program Offices, Regional Offices, States and Tribes to support risk-based decisions, such as clean-up at Superfund sites and as an input toward regulatory decision-making on environmental pollutants. The APG relates to the progress of IRIS in preparing and submitting assessments for peer review under Agency guidelines, and to process these to internet dissemination at www.epa.gov/iris.

✔ GOAL MET

FY 2005: Through FY 2005, initiate or submit to external review 28 human health assessments and complete 12 human health assessments through the Integrated Risk Information System (IRIS). This information will improve EPA's and other decision-makers' ability to protect the public from harmful chemical exposure.

Performance Measures	*Planned*	*Actual*	
• Complete 8 human health assessments and publish their results on the IRIS website.	8	8	✔
• Initiate or submit to external peer review human health assessments of 8 high priority chemicals.	8	8	✔

Data Source(s): IRIS Track: IRIS information and assessments www.epa.gov/iris. Status of individual IRIS assessments cfpub.epa.gov/iristrac/index.cfm.

In 2005, EPA completed eight human health assessments and published results on the IRIS website cfpub.epa.gov/iristrac/index.cfm. EPA also initiated or submitted to external peer review human assessments of 8 high priority chemicals.

Results achieved in FY 2004–2005 represent the result of increased IRIS resources and efforts to deliver assessments, coupled with additional peer review requirements and quality assurance.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-66.

APG 4.25 Conduct Relevant Research: Homeland Security

PERFORMANCE

First responders have been, and will continue to be, called upon to deal with situations involving the introduction of hazardous chemical or biological materials into the environment. Since 9/11, there has been recognition of the need to develop tools and technologies to enhance security and to mitigate the effects of such incidents. These completed products are the first in a series offered to first responders, decision-makers, water utilities, and communities. They will be expanded and improved to include new developments in this arena.

✔ GOAL MET

FY 2005: By FY 2005, provide tools, case studies, and technical guidance so that, by FY 2006, first responders and decision-makers will have the methods, guidance documents, and technologies to enhance safety and to mitigate adverse effects of the purposeful introduction of hazardous chemical or biological materials into the environment. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*	
• Risk assessment toolbox to predict and reduce the consequences of chemical/biological attacks in U.S. cities.	1 toolbox 9/30/05	1	✔
• Technical guidance for water system owners and operators on methods/strategies for minimizing damage from intentional introduction of biological/chemical contaminants.	3 guidance documents 9/30/05	3	✔
• Water system-related case studies that provide a spectrum of contingency planning situations and responses, including one specifically focused on the National Capital area.	1 set of case studies 9/30/05	1	✔

Data Source: National Homeland Security Research Center www.epa.gov/nhsrc. Technical guidance documents www.asce.org/static/1/wise.cfm.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-66.

APG 4.26 Conduct Relevant Research: Regional Scale Ecosystem Assessment Methods

PERFORMANCE

EPA's Environmental Monitoring and Assessment Program (EMAP) develops statistically rigorous, scientifically defensible monitoring designs and responsive biological indicators to determine the condition of the nation's aquatic resources. The purpose of this APG was to: (1) demonstrate the feasibility of the EMAP approach for use nationally by working with the states and regions (EPA Regions 8, 9, and 10) of the Western US to establish the ecological condition of their wadeable streams; (2) establish a baseline against which future ecological changes and trends in stream condition in the west could be measured; and, (3) transfer the technology to our state partners.

✔ GOAL MET

FY 2005: By FY 2005, the baseline ecological condition of Western streams will be determined so that, by 2008, a monitoring framework is available for streams and small rivers in the Western U.S. that can be used from the local to the national level for statistical assessments of condition and change to determine the status and trends of ecological resources. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*	
• Baseline ecological condition of Western streams determined	1 report	1	✔

Data Source(s): Environmental Monitoring and Assessment Program (EMAP) database. See www.epa.gov/emap/ and www.epa.gov/owow/monitoring/.

In 2005, EPA completed a report on the statistical baseline for ecological condition of Western Streams. The ecological research program is in the process of working with the EPA Regions and Western states to help them analyze data for assessments of the condition of streams (CWA 305(b)) within their jurisdiction.

Because of the ecological research program's success in the Western US, EPA's Office of Water requested that EMAP design and assist in the development and implementation of a National Wadeable Streams Assessment. The purpose of this

assessment would be to establish the first estimate of national wadeable stream condition. It would integrate EPA's Western EMAP work with a stream condition assessment for the remainder of the lower 48 states. The sampling was completed in 2004 for this, and the ecological research program is currently working with the Office of Water to produce a report on the overall condition of wadeable streams in the United States.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-66.

Program Assessment Rating Tool (PART)

Western EMAP streams research is a component of ORD's Ecological Research program. OMB reassessed this program most recently in the 2005 PART process. Results will be included in the FY 2007 President's Budget.

Program Evaluations

Office of Research and Development, Board of Scientific Counselors report: "Ecological Research Program Review." Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-20.

Grants Supporting the Achievement of This APG

- Space-Time Aquatic Resources Modeling and Analysis Program (STARMAP).
- EPA STAR Program Grant to N. Scott Urquhart, Colorado State University.
- An Empirical Evaluation of the Performance of Different Approaches to Classifying Reference Conditions in Streams EPA STAR Program Grant to Charles Hawkins, Utah State University.

Goal 4—PART Measures with Data Availability Beyond FY 2005

EPA and OMB established the annual and efficiency measures included on this table through PART Assessments. These measures will be incorporated into EPA's budget and GPRA documents, including the PAR, as data becomes available. The column titled "Data Available" provides the most current estimate for the date EPA expects to report on each measure.

PART Program	PART Measure	Status	Data Available
Endocrine Disruptors	Detailed Review Papers Completed.	Under Development	FY 2006
	Validation Studies Completed.	Under Development	FY 2006
	Peer Reviews.	Under Development	FY 2006
	Prevalidation Studies Completed.	Under Development	FY 2006
	Reduction in uncertainty regarding the effects, exposure, assessment, and management of endocrine disruptors so that EPA has a sound scientific foundation for environmental decision-making.	Under Development	FY 2009
	Determination of the extent of the impact of endocrine disruptors on humans, wildlife, and the environment to better inform the federal and scientific communities.	Under Development	FY 2009
	Provide OPPTS with screening and testing assays using rats, fish, amphibians, and invertebrates.	Under Development	TBD
Pesticide Field Program	Cumulative percent reduction in poisoning incidents	Under Development	TBD
	Cumulative reduction in the number of occupational poisoning incidents associated with exposure from pesticides as reported and confirmed since 1998.	Under Development	FY 2007
	Cumulative reduction in the number of systemic poisoning incidents associated with exposure from organophosphate pesticides as reported to Poison Control Centers since 1996.	Under Development	FY 2007
	Annual number of TSCA Section 5 PMNs received that are self audited using complete battery of P2 Framework/PBT Profiler Screening Tools.	Under Development	TBD
	Percentage of pesticides managed to reduce leaching/persistence.	Under Development	TBD
U.S.-Mexico Border	Percentage of homes connected to potable water supply and wastewater collection and treatment systems.	Under Development	4th Quarter/FY 2006
	Additional people served per million dollars (US and Mexico federal expenditures).	Under Development	4th Quarter/FY 2006
	Percentage of water quality standards met in shared and transboundary surface waters.	Under Development	4th Quarter/FY 2006

NOTES

1 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. "TSCA New Chemicals Program" Internal monthly report by Chemical Abstract Services.

2 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. "High Production Volume Challenge Program, HPV Commitment Tracking System." Available at www.epa.gov/chemrtk/hpvchmlt.htm.

3 Centers for Disease Control, National Center for Health Statistics. National Health and Nutrition Examination Survey: 1999-2002: May 2005. More information is available at www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm.

4 U.S. EPA, Great Lakes National Program Office and Government of Canada. The Great Lakes Atlas. 1995. EPA 905-B-95-001. Online at www.epa.gov/glnpo/atlas/index.html.

5 U.S. EPA Great Lakes National Program Office. Volume of Sediment Remediated in the Great Lakes Legacy Act Program. Available from GLNPO Sediment Files.

6 U.S. fish and Wildlife Service Status and Trends Report, Corps of Engineers ORM Database.

7 See www.npaf.ru for results from an environmental finance project, www.vti.ru for results from an electrostatic precipitator performance project, and www.cenef.ru for results from an energy-efficient building codes project.

8 North American Development Bank project files for the Border Environment Infrastructure Fund.

9 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. "TSCA New Chemicals Program." Internal monthly report by Chemical Abstract Services.

10 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. "High Production Volume Challenge Program, HPV Commitment Tracking System." Available at www.epa.gov/chemrtk/hpvchmlt.htm.

11 Centers for Disease Control, National Center for Health Statistics. National Health and Nutrition Examination Survey: 1999-2002: May 2005. More information is available at www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm.

12 U.S. Environmental Protection Agency, National Estuary Program GPRA Habitat Report. More information available at www.epa.gov/owow/estuaries.

13 U.S. Environmental Protection Agency. Great Lakes National Program Office analysis of select Great Lakes State of the Lakes Ecosystem indicators (i.e., coastal wetlands, phosphorus concentrations, AOC sediment contamination, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition) and internal files.

14 U.S. Environmental Protection Agency. Great Lakes National Program Office. Volume of Sediment Remediated in the Great Lakes Legacy Act Program, August, 2005. Available from Great Lakes National Program Office Sediment Files and from: www.epa.gov/glnpo/glindicators/sediments/remediatea.html.

15 U.S. Environmental Protection Agency. Great Lakes National Program Office: Phosphorus Monitoring Program. More information available at www.epa.gov/glnpo/glindicators/water/phosphorusa.html.

16 U.S. Environmental Protection Agency. Great Lakes National Program Office internal tracking and communications with Great Lakes States, the US Department of State and the International Joint Commission (IJC).

17 State/district data provided to the U.S. EPA Chesapeake Bay Program Office.

18 Data from the Louisiana Universities Marine Consortium (LUMCON) and the National Oceanic and Atmospheric Administration (NOAA).

19 For additional information on EPA authorities for conducting work under the Food Quality Protection Act go to www.epa.gov/pesticides/regulating/tolerances.htm.

20 U.S Environmental Protection Agency, Office of Pollution Prevention and Toxics, National Program Chemicals Program, Internal PCB Annual Report for Storage and Disposal of PCB Waste. Centers for Disease Control, National Center for Health Statistics. National Health and Nutrition Examination Survey: 1999-2002: May 2005. More information is available at www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm.

21 May 27, 2005 issue of Morbidity and Mortality Weekly Report.

22 Source: Great Lakes National Program Office—Great Lakes Fish Monitoring Program, Great Lakes Environmental Database Wildlife Protection Value reference—Great Lakes Water Quality Initiative technical support document for the procedure to determine bioaccumulation factors, EPA-820-B-95-005. Protocol for a Uniform Great Lakes Sport Fish Consumption Advisory—Great Lakes Sport Fish Advisory Task Force. September 1993.

23 Source: Great Lakes National Program Office—Integrated Atmospheric Deposition Network. Before the end of calendar year 2005, Environment Canada is expected to provide concentration information from stations on Lakes Huron and Ontario in order that the complete performance measure can be evaluated.

24 USEPA. April 2003. Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries (EPA 903-R-03-002). Washington, DC: US Environmental Protection Agency Region III, Chesapeake Bay Program Office and Water Protection Division, and Office of Water/Office of Science and Technology. Available on the Internet: www.epa.gov/region03/chesapeake/baycriteria.htm.

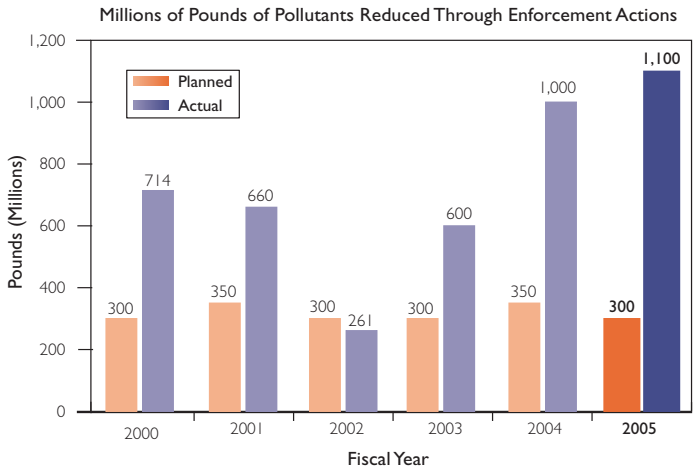
Strategic Goal 5: Compliance *and* Environmental Stewardship

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

Overview of Goal 5

Under Goal 5, EPA continues to improve national environmental performance by ensuring compliance with environmental laws and promoting environmental stewardship to conserve natural resources, prevent pollution, and reduce waste. The Agency uses a wide spectrum of regulatory and nonregulatory strategies, including compliance assistance, incentives, monitoring, data analysis, pollution prevention, and civil and criminal enforcement to achieve performance goals. EPA helps businesses, particularly small businesses, achieve and maintain compliance[1] and provides incentives[2] for facilities to conduct voluntary audits, correct problems, and return to compliance. EPA also conducts research to identify innovative approaches to environmental protection and encourages states, tribes, and regulated entities to develop new approaches, ideas, and techniques.

EPA's compliance programs work to ensure that regulated entities understand and comply with requirements set forth in environmental laws. The Agency reduced, treated, or eliminated 3.5 billion pounds of pollution over the last 4 fiscal years. From FY 2001 to 2005 more than 6,000 facilities took advantage of EPA's incentive policies to voluntarily disclose and correct environmental problems in a timely manner. Seventy-eight percent of the Compliance Assistance Centers' survey respondents from the regulated community improved environmental management practices as a result of



Contributing Programs

- Office of Compliance
- Office of Criminal Enforcement
- Forensics and Training
- Office of Civil Enforcement
- Federal Facilities Enforcement
- Office of Federal Activities
- Pollution Prevention Program
- State and Tribal Pollution Prevention grants
- National Center for Environmental Innovation
- American Indian Environmental Office
- Tribal General Assistance Program
- Environmental Technology Verification Program
- Resource Conservation Challenge
- National Partnership for Environmental Priorities

Goal 5 At a Glance

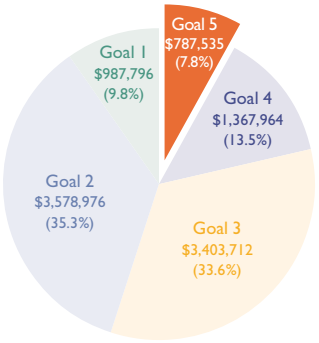
FY 2005 Annual Performance Goals (APGs)

Met = 2 Not Met = 4

Data Available After November 15, 2005 = 1

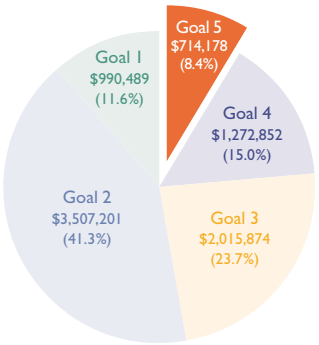
(Total APGs = 7)

FY 2005 Obligations (in thousands)



EPA Total = $10,125,983

FY 2005 Costs (in thousands)



EPA Total = $8,500,594

FY 2005 "Report Card"

	STRATEGIC OBJECTIVE	APG STATUS
	OBJECTIVE 1–IMPROVE COMPLIANCE By 2008, maximize compliance to protect human health and environment through compliance assistance, compliance incentives, and enforcement by achieving a 5% increase in the pounds of pollution reduced, treated, or eliminated, and achieving a 5% increase in the number of regulated entities making improvements in environmental management practices.	1 Met 2 Not Met 0 TBD
	OBJECTIVE 2–IMPROVE ENVIRONMENTAL PERFORMANCE THROUGH P2 AND INNOVATION By 2008, improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption of results-based, innovative, and multimedia approaches.	0 Met 1 Not Met 1 TBD
	OBJECTIVE 3–TRIBAL CAPACITY Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.	0 Met 1 Not Met 0 TBD
	OBJECTIVE 4–ENHANCE SCIENCE AND RESEARCH Through 2008, strengthen the scientific evidence and research supporting environmental polices and decisions on compliance, pollution prevention, and environmental stewardship.	1 Met 0 Not Met 0 TBD

information provided by the compliance assistance centers.[3]

EPA uses enforcement actions to correct and deter violations.[4] In FY 2005, 72.5 percent of enforcement actions resulted in implementation of improved environmental management practices; 28.8 percent of enforcement actions required that pollutants be reduced, treated, or eliminated and populations and ecosystems be protected.[5] In settling civil cases, the Agency often negotiates supplemental environmental projects that improve health and the environment in affected communities.[6] The use of compliance assistance, incentive programs, and monitoring and enforcement activities all contribute to improved environmental conditions, management practices, and performance.

To promote environmental stewardship under Goal 5, EPA and its partners used a variety of collaborative, non-regulatory approaches to prevent pollution at the source, conserve natural resources, and save businesses money through more efficient practices. To achieve these results, the Agency's pollution prevention (P2) programs employ such strategies as:

- Collaborating with companies to develop and commercialize cleaner and safer products.
- Leveraging the market influence of large manufacturers to improve the environmental performance at numerous, widely distributed suppliers.
- Expanding state and tribal program capacity to help small

and medium-sized businesses apply P2 technologies.

- Promoting environmentally preferable purchasing, green building construction standards, and facility management.
- Reducing the impact of EPA government facility operations.

Each year, these P2 strategies reduce hundreds of millions of pounds of pollution, save billions of gallons of water and BTUs of energy, and save tens of millions of dollars in business costs. EPA is working collaboratively with states to improve capabilities to measure P2 results and to focus future intervention efforts on high priority environmental concerns, such as developing safer flame retardant products.

Under Goal 5, EPA works with 572 federally recognized Indian tribes and Alaska Native villages or consortia to assess environmental conditions, build tribal capacity, and, in limited cases, implement programs to protect health and the environment in Indian country. The number of tribes developing their own environmental programs has steadily increased, and EPA has increased its presence in Indian country by directly implementing environmental programs and developing EPA-tribal environmental agreements. In FY 2005, the Agency implemented a new reporting system that enables better performance tracking. In addition, the Agency's Tribal Program Enterprise Architecture is improving data quality, closing data gaps, and integrating data systems to better reflect environmental conditions in Indian country.[8]

EPA works with its partners to encourage innovative approaches to environmental protection and to evaluate these and other efforts. Through its State Innovation Grant Competition, for example, EPA supported 22 state innovation projects over the last 3 years. In FY 2005, the Agency awarded $1.5 million in grants to fund seven state projects on innovative approaches to environmental permitting. The Agency continues to promote testing of such innovative efforts as the National Environmental Performance Track Program, use of Environmental Management Systems, Environmental Results Programs for small businesses, watershed-based permitting, and others. EPA also works with states and other federal agencies to conduct program evaluations designed to verify environmental outcomes and provide information that can help improve results.

Chevron Phillips Chemical

The Chevron Phillips Chemical Settlement Team negotiated a settlement that included a $1.8 million penalty and a benchmark Supplemental Environmental Project (SEP). The agreement will directly benefit Houston-Galveston citizens in this non-attainment area by reducing the production of NO_x by at least 20 tons per year, as well as reducing production of ozone and particulate matter. As part of its SEP, Chevron Phillips Chemical agreed to procure and install a fuel cell to provide electricity for Moody Gardens, one of the largest publicly owned tourist attractions in the Houston/Galveston area. Moody Gardens will use the fuel cell as part of a pollution prevention/reduction system that employs an anaerobic digester as the feedstock for biogas power to reduce solid waste that would otherwise be sent to a landfill. Biogas from the digester will power the fuel cell, and heat from the fuel cell will make the digester operate more efficiently. By using electricity generated by the fuel cell, Moody Gardens will reduce its reliance on an existing boiler, thereby reducing air emissions. Moody Gardens uses treated wastewater to irrigate its rain forest exhibit, and organic matter from the irrigation will also be used in the digester. Moody Gardens will experience some emission offsets e.g., NO_x from its boilers, because some of the fuel cell heat will offset steam production from the boiler. The fuel cell provided under this SEP will be an important component of a multimedia project that relies on the principles of alternative energy, reuse, and recycling to reduce pollution.[7]

EPA also works directly with the regulated community, recognizing and encouraging outstanding environmental leadership and performance through innovative programs. The Performance Track Program is building a culture of corporate environmental responsibility and superior performance by recognizing and rewarding high-performing environmental leaders

Performance Track Highlights Corporate Environmental Progress

U.S. Steel Clairton Works of Clairton, Pennsylvania, was the first U.S. "smokestack" facility certified as meeting ISO 14001, an international standard for environmental management systems. The largest metallurgical coke plant in the country, Clairton Works produces blast furnace coke, coke oven gas, light oil, anhydrous ammonia, elemental sulfur, and crude coal tar. When Clairton Works joined Performance Track in 2001, it committed to reduce energy use by 12,000 million British Thermal Units (MMBTUs) per year over its 3 year membership period. Clairton reduced its use of steam each year, and, in 2003, showed a particularly impressive reduction of 64,432 MMBTUs-a level far above the facility's initial commitment. By identifying opportunities to reduce steam use and conducting various energy conservation projects, such as repairing steam leaks, Clairton saved energy and reduced the adverse effects on air quality associated with combustion emissions. (More information about Performance Track is available at https://yosemite.epa.gov/opei/ptrack.nsf.)

that go well beyond complying with environmental law. Through its Sectors Strategy Program, EPA works with business to identify cost-effective methods for reducing energy use and protecting the environment.

The need for innovative design and production techniques increases as EPA increasingly turns to pollution prevention to address high-risk human health and environmental problems. Research that EPA conducts to support compliance and environmental stewardship informs government officials, industry, academia, citizen groups, and other stakeholders about P2, new technology opportunities, and approaches that employ environmental sustainability. EPA is currently restructuring its P2 research program to introduce sustainability concepts and approaches. This research will enable the Agency, as well as state, community and other decisionmakers, to include risk reduction and pollution prevention as quantifiable, measurable, and scientifically defensible components of a holistic approach to risk management.

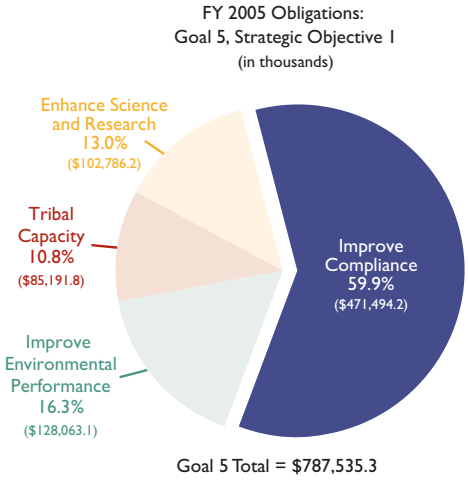
One of the challenges for this goal is accurately predicting future levels of performance based on past performance trends because the Agency does not set enforcement targets and cannot compel individuals, businesses, or units of government to participate in voluntary activities, such as pollution prevention or Performance Track.

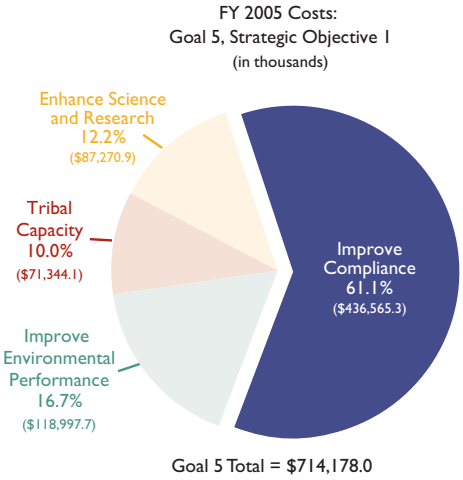
Goal 5 Strategic Objectives

Strategic Objective 1—Improve Compliance

By 2008, maximize compliance to protect human health and environment through compliance assistance, compliance incentives, and enforcement by achieving a 5% increase in the pounds of pollution reduced, treated, or eliminated, and achieving a 5% increase in the number of regulated entities making improvements in environmental management practices.

STRATEGIC OBJECTIVE 1—IMPROVE COMPLIANCE		
APG #	APG Title	APG Status
5.1	Compliance Assistance (NEW IN FY05)	✗ Not met in FY 2005
5.2	Compliance Incentives (NEW IN FY05)	✔ Met in FY 2005
5.3	Compliance Monitoring and Enforcement (NEW IN FY05)	✗ Not met in FY 2005





OVERVIEW OF PERFORMANCE

EPA activities under the compliance objective contribute to the strategic goal of improved environmental performance by reducing, treated, or eliminating an estimated 1.1 billion pounds of pollution in FY 2005. Seventy-two and a half percent of the FY2005 concluded enforcement cases required implementation of improved environmental management practices.[9]

Compliance assistance activities also contribute to the strategic targets. Seventy-one percent of facilities receiving direct compliance assistance improved environmental management practices.[10]

Compliance incentives prompted 90 percent of facilities using audits to improve environmental management practices. Incentives programs, such as the Agency's FY 2005 initiative with health care facilities in Region 2, can reach an entire industry sector or multi-facility company, increasing understanding, improving EMPs and, in some cases, reducing, treating or eliminating the release of pollutants.

CHALLENGES

EPA is working on several fronts to address its Agency-level Permit Compliance System (PCS) weakness as specified under Federal Managers Financial Integrity Act. (See discussion of management challenges in "Management's Discussion and Analysis.") This system tracks Clean Water Act National Pollutant Discharge Elimination System (NPDES) results. Through system modernization, the Agency will ultimately improve information on pollutant loading, stormwater sources, and the health of individual watersheds and increase public access to this information. The target date for PCS modernization has been extended by three months to the end of the second quarter of 2006.[11]

Pounds of pollutants reduced, treated or eliminated vary from year to year, because a few cases with extremely large pollutant reduction can have a significant impact on annual results.

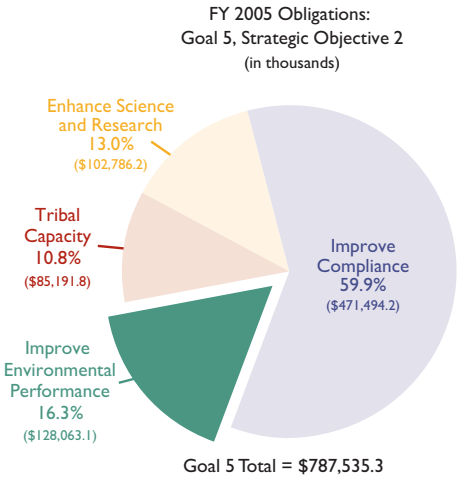
Accurately predicting the number and type of cases that will be settled in a given year is difficult, making it challenging to gauge the magnitude of pollutant reductions that will be achieved from one year to the next.

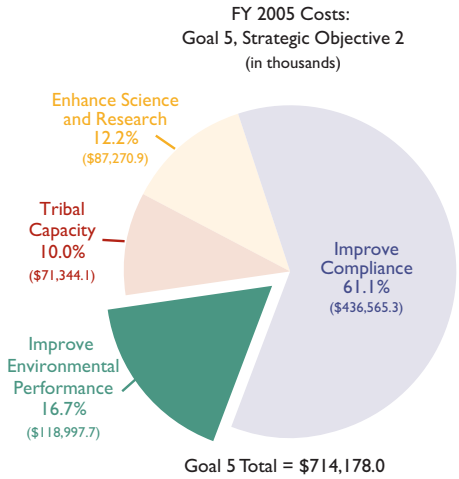
EPA also faces challenges in expanding the outcomes of compliance monitoring and enforcement activities for hazard and risk (e.g., human health and monetary impacts) in response to PART findings.

Strategic Objective 2—Improve Environmental Performance Through P2 and Innovation

By 2008, improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption of results-based, innovative, and multimedia approaches.

STRATEGIC OBJECTIVE 2—IMPROVE ENVIRONMENTAL PERFORMANCE		
APG #	APG Title	APG Status
5.4	Improve Environmental Performance Through Pollution Prevention and Innovation (Performance Track) (NEW IN FY05)	✗ Not met in FY 2005
5.5	Improve Environmental Performance Through Pollution Prevention and Innovation	FY 2005 data available in FY 2006 and FY 2007
		✔ Met FY 2003 goals in FY 2005





OVERVIEW OF PERFORMANCE

Through EPA's P2 programs, the Agency and its state and tribal partners use a variety of innovative, non-regulatory approaches to reduce pollution, conserve water and energy, and save business costs. For example, under EPA's Performance Track program, member facilities commit to making improvements that exceed the environmental law requirements in one or more of six areas.

In 2005, EPA implemented a comprehensive national results measurement system to track, collect, and aggregate P2 environmental results achieved through federal, state, and tribal programs. The system will allow the Agency to demonstrate core environmental outcomes and its ability to assess strategies and make adjustments to improve performance and efficiency.

Initial results suggest that P2 programs are on track for this objective. While complete data will not be available until 2007, data already in hand for 2005 indicate that the Green Chemistry Challenge and Design for the Environment programs eliminated more than 30 million pounds of hazardous chemicals and conserved 500 million gallons of water.

CHALLENGES

Aggregate numbers are highly sensitive to the results achieved by a few large facilities. Even when most facilities show improvements in preventing pollution or conserving natural resources, negative results for one large facility in a small voluntary program can mask all the positive results achieved by others.

Results data do not reflect changes in eco-efficiency. In many cases, companies achieving the environmental results under this objective institute practices and

technologies that also reduce waste or resources used per unit produced. When production increases, however, the overall waste and resource use may increase as well, albeit at a much slower rate. Actual results show only the increase in environmental footprint, not improvements in efficiency.

Performance Track Facilities voluntarily make their own environmental commitments and, as a result, the number of results contributing to any given indicator can vary widely over the years.

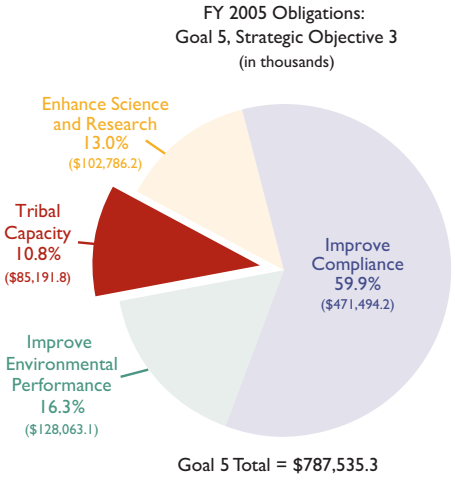
Performance Track: Andersen Corporation

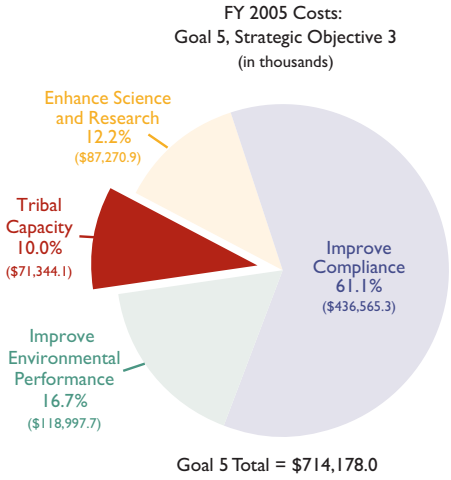
Andersen Corporation of Bayport, Minnesota, manufactures windows and patio doors. During its first three years as a Performance Track member, Andersen reduced its emissions of volatile organic compounds (which contribute to ground-level ozone air pollution and can cause serious health problems) from 1,775 to 1,391 tons. Andersen achieved this significant reduction by improving the efficiency of its wood treating processes and incorporating a slower evaporating solvent into its window paint line pretreatment process. Over the next three years (2004 through 2006). Anderson plans to further reduce its emissions by at least 200 tons through process improvements to solvent-borne preservative and coating operations. Andersen continues to improve its processes to promote the principles of lean manufacturing, for example, by increasing transfer efficiencies in its paint line coating processes and reducing solvent-based wood preservation treatment. (More information about Performance Track is available at https://yosemite.epa.gov/opei/ptrack.nsf.)

Strategic Objective 3—Tribal Capacity

Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.

STRATEGIC OBJECTIVE 3—TRIBAL CAPACITY		
APG #	APG Title	APG Status
5.6	Build Tribal Capacity (NEW IN FY05)	✗ Not met in FY 2005





OVERVIEW OF PERFORMANCE

EPA is working to develop core tribal environmental protection programs and establish the infrastructure needed to assess environmental conditions in Indian country.

Working with the tribes, the Agency met or exceeded nine of the 10 tribal capacity building performance measures. These results reflect significant progress in developing and integrating data systems, eliminating data gaps, improving environmental monitoring and assessment activities, implementing programs, and expanding the holistic multimedia approach to programs that reflects traditional use of natural resources in Indian country.

CHALLENGES

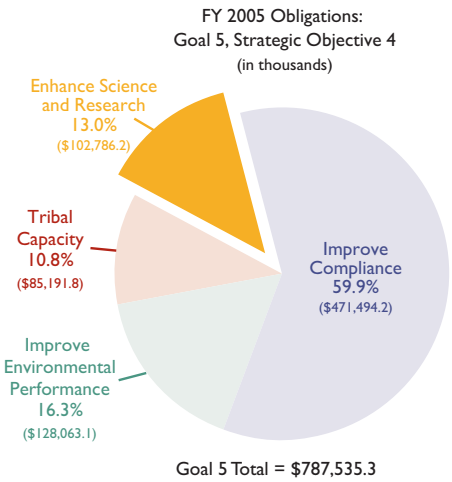
Compared to states, tribes have been in the business of developing capacity for a relatively short period. Measuring tribal capacity in terms of environmental, health, and behavioral outcomes is a challenge.

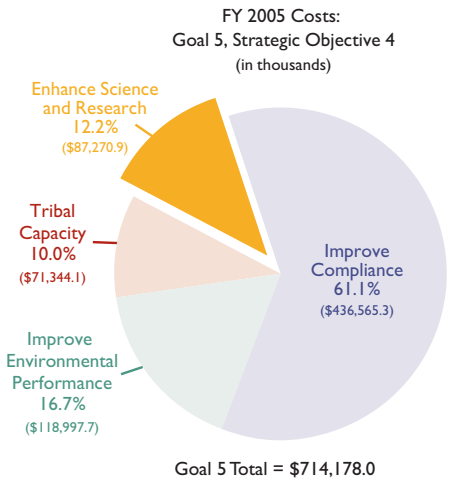
EPA is making significant progress toward overcoming this challenge by improving data quality through EPA approved quality assurance plans, providing training in environmental monitoring and assessment techniques, closing data gaps, and integrating data systems through the Tribal Program Enterprise Architecture to better reflect environmental conditions in Indian country.

Strategic Objective 4—Enhance Science and Research

Through 2008, strengthen the scientific evidence and research supporting environmental polices and decisions on compliance, pollution prevention, and environmental stewardship.

STRATEGIC OBJECTIVE 4—ENHANCE SCIENCE AND RESEARCH		
APG #	APG Title	APG Status
5.7	Enhance Science and Research	✔ Met in FY 2005





OVERVIEW OF PERFORMANCE

By providing objective, quality-assured, credible performance data on commercial-ready technologies, the Agency can aid permitting and purchasing decisions on new, innovative technology.

In FY 2005, EPA completed 25 verifications and two testing protocols for new environmental technologies. These technologies apply to treatment of arsenic in drinking water, stormwater treatment, stormwater modeling, fuel efficiency for transportation, distributed energy generation, dust suppressants, diesel retrofits, nutrient monitors, pollution reduction, and improvements in detection of pollutants.

CHALLENGES

EPA is working to institutionalize approaches for identifying future environmental problems and opportunities. These anticipatory approaches will enhance the Agency's ability to respond appropriately and potentially influence tomorrow's events and conditions in a positive way. Nanotechnology, computational toxicology, biotechnology, genomics, and information technology are just a few of the areas that EPA is exploring for their potential benefits and consequences.

Goal 5 Annual Performance Goals

Strategic Objective 1—Improved Compliance

By 2008, maximize compliance to protect human health and environment through compliance assistance, compliance incentives, and enforcement by achieving a 5% increase in the pounds of pollution reduced, treated, or eliminated, and achieving a 5% increase in the number of regulated entities making improvements in environmental management practices.

APG 5.1 Compliance Assistance

PERFORMANCE

EPA provides assistance to help members of the regulated community understand environmental regulations, improve their environmental management practices (EMPs), and reduce the amount of pollution they produce or discharge. The Agency offers compliance assistance both directly through, for example, onsite visits, workshops and training, and through its Compliance Assistance centers. EPA conducts assistance activities in partnership with state, local, and tribal environmental compliance programs and collaborates with industry and trade associations to provide information and materials.

Goal Not Met: This is the first year EPA has collected the three GPRA measures for direct compliance assistance, and the Agency had no trend data to help establish the initial targets.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-69–C-70.

✗ GOAL NOT MET

FY 2005: Through compliance assistance, EPA will increase the understanding of regulated entities, improve environmental management practices (EMPs), and reduce pollutants. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*	
• Percentage of regulated entities seeking assistance from EPA-sponsored compliance assistance (CA) centers and clearinghouse reporting that they improved EMPs as a result of their use of the centers or the clearinghouse.	60%	78%	✔
• Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved EMPs as a result of EPA assistance.	50%	72%	✔
• Percentage of regulated entities seeking assistance from EPA-sponsored CA centers and clearinghouse reporting that they reduced, treated, or eliminated pollution as a result of that resource.	25%	46%	✔
• Percentage of regulated entities seeking assistance from EPA-sponsored CA centers and clearinghouse reporting that they increased their understanding of environmental requirements as a result of their use of the resources.	75%	84%	✔
• Percentage of regulated entities receiving direct CA from EPA reporting that they increased their understanding of environmental requirements as a result of EPA assistance.	65%	91%	✔
• Percent of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or eliminated pollution, as a result of EPA assistance.	25%	13%	✗

Data Source(s): Integrated Compliance Information System (ICIS); Compliance Assistance Center Results: www.epa.gov/compliance/assistance/centers/index.html. Also see www.epa.gov/clearinghouse and www.assistancecenters.net/

Program Assessment Rating Tool (PART)

The initial PART rating for Civil Enforcement was not adequate. An adequate rating was received in FY 2004 based on preparation of a Measure Implementation Plan.

Grants Supporting the Achievement of This APG

Categorical Grant: Sector Program.

APG 5.2 Compliance Incentives

PERFORMANCE

EPA encourages facilities to identify, disclose, and correct violations for reduced or eliminated penalties. Incentives increase compliance and establish improved environmental management practices that can reduce the chance of future non-compliance or unpermitted discharges. In some cases correcting the violations directly reduces pollutant discharges.

In 2005, 1.9 million pounds of pollutants were estimated to be reduced treated or eliminated by facilities using compliance incentives policies. Ninety percent of audits resulted in improved EMPs, while 6% resulted in reduction of pollutants. Since 2001, more than 6,000 facilities have disclosed and corrected violations.

✔ GOAL MET

FY 2005: Through self-disclosure policies, EPA will increase the percentage of audits or other actions reducing pollutants or improving environmental management practices. (NEW IN FY 2005)

Performance Measures	*Planned*	*Actual*	
• Percentage of audits or other actions that result in the reduction, treatment, or elimination of pollutants and the protection of populations or ecosystems.	5%	6%	✔
• Percentage of audits or other actions that result in improvements in environmental management practices.[12]	10%	90%	✔
• *Pounds of pollutants reduced, treated, or eliminated, as a result of audits or other actions. (PART)*	0.25 M lbs	1.9 M lbs	✔
• Dollars invested in improved environmental performance or improved environmental management practices as a result of audits or other actions.	$2 M	$3.4 M	✔

Data Source(s): Integrated Compliance Information System (ICIS). Also see www.epa.gov/compliance/incentives/programs/index.html.

Program Assessment Rating Tool (PART)

OMB reassessed the Civil Enforcement program related to this APG most recently in the 2004 PART process. The program received an adequate rating.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-66–C-67.

APG 5.3 Compliance Monitoring and Enforcement

PERFORMANCE

Goal Not Met: EPA fell slightly short of the target for the percentage of cases that require pollutant reductions. In FY 2005, EPA added a new category of compliance actions called "preventative actions." These are actions that do result in pollutant reductions by preventing pollution from occurring. Many complying actions that previously were counted as part of the 30 percent target are now counted as preventative complying actions. In FY 2005, 17 percent of EPA's cases had a preventative benefit, which is reflective of this change. A contributing reason for missing the

✗ GOAL NOT MET

FY 2005: Through monitoring and enforcement actions, EPA will increase complying compliance actions, pollutant reduction or treatment, and improve environmental management practices. (NEW IN FY 2005)

Performance Measures	*Planned*	*Actual*	
• *Pounds of pollution estimated to be reduced, treated, and eliminated as a result of concluded enforcement actions.*[13] *(PART)*	300 M lb	1.1 billion lbs	✔
• Percentage of concluded enforcement cases requiring that pollutants be reduced, treated, or eliminated and protection of populations or ecosystems.	30%	28.8%	✗
• *Percentage of concluded enforcement cases requiring implementation of improved environmental management practices. (PART)*	60%	72.5%	✔
• Number of inspections, civil investigations, and criminal investigations conducted.	18,500	22,000	✔
• Dollars invested in improved environmental performance or improved EMPs as a result of concluded enforcement actions (i.e., injunctive relief and supplemental environmental projects (SEPs).[14]	$4 billion	$10 billion	✔
• Percentage of regulated entities taking complying actions as a result of onsite compliance inspections and evaluations.	10%	19%	✔

Data Source(s): Integrated Compliance Information System (ICIS); CRIMDOC (comprises the "grey literature" from the field of Criminology); manual reporting. Also see www.epa.gov/compliance/civil/index.html, and www.epa.gov/compliance/criminal/index.html.

target is that the number of cases with the potential to require pollutants to be reduced varies depending on the mix of cases in a given year. EPA was still able to achieve significant pollutant reductions from case settlements, which is a more meaningful outcome with regard to protection of human health and the environment. In fact, EPA far exceeded its pollution reduction FY 2005 goal of 300 million by achieving 1.1 billion pounds of pollutants estimated to be reduced, treated, or eliminated.

EPA uses inspections, investigations, and enforcement actions to identify egregious violations and return violators to compliance as quickly as possible. EPA targets these activities to achieve the greatest reduction in pollution and impacts on sensitive populations.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-66–C-68.

Program Assessment Rating Tool (PART)

Initial PART ratings for Civil Enforcement and Criminal Enforcement were not adequate. An adequate rating was received in FY 2004 based on preparation of Measure Implementation Plans. The Pesticide Enforcement Grants program received an ineffective rating.

Program Evaluations

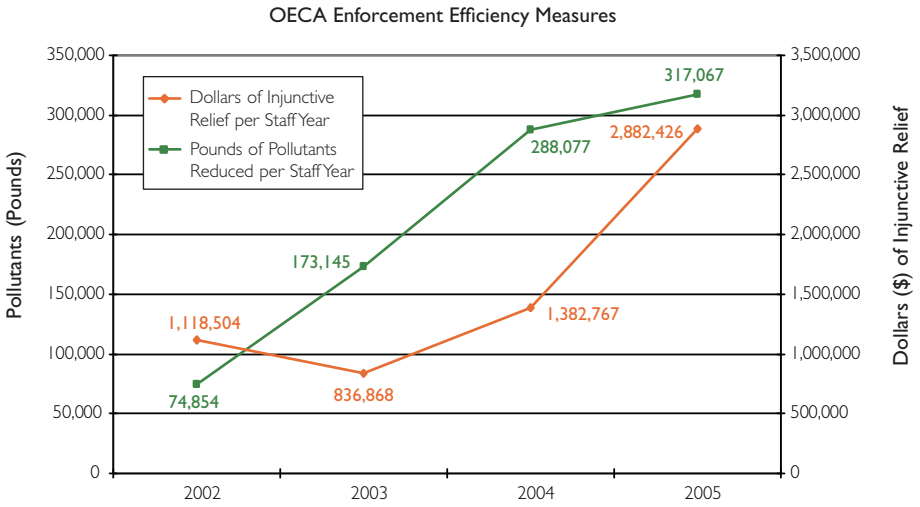
Industrial Economics Corporation conducted an Evaluation of the Office of Enforcement and Compliance Assurance/Environmental Council of the States State Review Framework in Pilot States. Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-23.

Grants Supporting the Achievement of This APG

Categorical Grant: Pesticides Enforcement; Categorical Grant: Toxics Substances Compliance.

CHALLENGES

The February 2005, 2nd Circuit Court decision in *Waterkeeper Alliance v. EPA* vacated two key provisions in the 2003 Concentrated Animal Feeding Operations (CAFO) rule that no longer require all CAFOs to apply for National Pollutant Discharge Elimination System (NPDES) surface water permits. The CAFO sector is one of the national priorities for the enforcement and compliance assurance program.[15] The Agency must now clarify to states and the regulated community which CAFOs must apply for a permit and when applications are due. As a result of this court finding, the Agency anticipates that more compliance and enforcement activities will need to be directed at finding CAFOs and taking appropriate follow up action at facilities that are discharging, but have failed to apply for a permit.



"Injunctive relief" is the term used to describe the steps a defendant must carry out, as part of a settlement agreement, to return to compliance such as improving or replacing pollution control equipment.

Strategic Objective 2—Improve Environmental Performance Through Pollution Prevention and Innovation

By 2008, improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption of results-based, innovative, and multimedia approaches.

APG 5.4 Improve Environmental Performance Through Pollution Prevention and Innovation (Performance Track)

PERFORMANCE

The Performance Track results shown above reflect changes in Performance Track facilities' environmental footprint in terms of pollution and consumption of natural resources (materials, energy, and water). Performance data reflect the quantitative results of Performance Track members that commit to making improvements in one or more of the six listed environmental areas. All improvements exceed environmental legal requirements.

Goal Not Met: In FY 2005, Performance Track members collectively reduced water use by 528 million gallons, increased energy use by 22 million MMBTUs, increased solid waste by 22,000 tons, reduced air releases by 7700 tons, reduced water discharges by 7700 tons, and increased materials use by 125,000 tons.

✗ GOAL NOT MET	**FY 2005:** In FY 2005 Performance Track members collectively will achieve an annual reduction of 600 million gallons of water use; 2.5 MMBTUs of energy use; 15,000 tons of solid waste; 6,000 tons of air releases; 10,000 tons of water discharges; and 15,000 tons of materials use. (NEW IN FY05)		
Performance Measures		*Planned*	*Actual*
• Specific annual reductions in six media/resource areas: water use, energy use, solid waste, air releases, water discharges, and materials use. 2001 Baseline: 475 million gallon reduction in water use; 240,000 MMBTU reduction in energy use; 150,000 ton reduction in solid waste generated; a 2,154-ton increase in materials use; a 1,113-ton reduction in air releases; and a 6,870 ton reduction in water discharges water discharges. [16]		6 media reductions	1 media reduction ✗

Data Source(s): PTrack Online at www.epa.gov/performancetrack.

Indicator-specific activities at the regional level are anticipated to help the program accomplish its goals. For example, the Energy Challenge that EPA New England (Region 1) instituted in 2004 led New England Performance Track members to increase their focus on reducing greenhouse gases. Of the 33 current members, 17 have commitments to reduce greenhouse gases, and seven more have committed to reducing their total energy use.[17]

In terms of environmental impact per unit of product produced, Performance Track members improved their performance for all six of the reported environmental categories in FY2005. Performance Track members tend to be innovative, growing facilities. Consequently, in those cases where the aggregate environmental footprint increased (as shown in the table above), the primary cause was increased production. When changes in production between FY2004 and FY2005 are taken into account,

Program Evaluations

The Office of Inspector General report: "Ongoing Management Improvements and Further Evaluation Vital to EPA Stewardship and Voluntary Programs" (Report Number: 2005-P-00007). Additional information on this report is available in the Program Evaluation Section, Appendix B, page B-23.

the data show that in FY2005 members' efforts resulted in an avoidance of 4.3 billion gallons of water use; 19 million MMBTUs of energy use; 451,000 tons of solid waste generation; 77,000 tons of air emissions; 14,000 tons of water discharges, and 3800 tons of materials use.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-74–C-76.

CHALLENGES

Aggregate numbers are highly sensitive to the results of a few large facilities. Even when most Performance Track facilities show improvements in a given environmental area, negative results for one large facility member in that same area can mask all the positive results achieved by others. Performance Track's solid waste results are a good example. 180 different facilities contributed results to the aggregate result shown in the table. If the results of just one large facility are removed from the total, the results would change from an increase of 22,000 tons to a *reduction* of 221,000 tons.

These results show only changes in actual results ("footprint") and do not reflect changes in eco-efficiency. In many cases, Performance Track members institute practices and technologies that reduce waste or resources used per unit produced. When production increases, however, the overall waste and resource use may increase as well, albeit at a much slower rate. Actual results show only the increase in footprint, not the improvement in efficiency.

Performance Track developed its strategic and annual performance targets after its first year of operations. At that time, the program did not have normalized data on which to base the targets. Additionally, over the next few years, the program adjusted its measurement and reporting requirements in order to ensure better accuracy of data and transparency in reporting. Performance Track will be developing new targets that will take into account changes in facilities' production and the stricter measurement requirements. This process should lead to more meaningful data by which to evaluate program progress.

Facilities make their own selection as to environmental commitments and, as a result, the number of results contributing to any given indicator can vary widely over the years.

APG 5.5 Improve Environmental Performance Through Pollution Prevention and Innovation

PERFORMANCE

The TRI federal facility measure examines reductions in total onsite and offsite disposals or other releases from federal facilities. TRI 2003 results available in 2005 show that total onsite and offsite disposal or other releases from federal facilities decreased by 8 percent from 2002 to 2003, indicating that the Agency is on track to meet future annual targets and the associated long-term strategic target to reduce federal facility releases by 40 percent by 2006.[18]

DATA AVAILABLE FY 2006 AND FY 2007	**FY 2005:** Prevent, reduce and recycle hazardous industrial/commercial chemicals and improve environmental stewardship practices.	
Performance Measures	*Planned*	*Actual*
• Percent reduction in Toxics Release Inventory (TRI)—reported toxic chemical releases at federal facilities. *2001 Baseline:* 0% releases (cumulative)	32% Releases	Data avail 2007
• Percent reduction in both TRI chemical releases to the environment from the business sector per unit of production ("Clean Index"). *2001 Baseline:* 0% releases (cumulative)	20% Releases	
• Percent reduction in TRI chemicals in production-related wastes generated by the business sector per unit of production ("Green Index"). *2001 Baseline:* 0% waste (cumulative)	10% Waste	

The TRI Clean Index tracks the total quantity of TRI-reported toxic chemicals released to the environment across all environmental media (air, water, and land), adjusted to account for changes in production. TRI 2003 results made available in 2005 show an 8.1 percent decrease in the production-normalized pounds of toxics released, suggesting that the Agency is on track to achieve the associated long-term strategic target, which calls for a 40 percent reduction from 2001 levels by 2008.[19]

The TRI Green Index measures the total quantity of TRI-reported toxic chemicals in production-related wastes, adjusted to account for changes in production. TRI 2003 results made available in 2005 reveal a 7.5 percent decrease in the production-normalized pounds of toxic chemicals in production-related wastes. The significant improvements in 2003 results suggest the Agency will be on track to achieve the associated long-term strategic target, which calls for a 20 percent reduction from 2001 levels by 2008.[20]

Performance measures for overall pounds of pollution prevented and energy and water conservation are new in 2005, and because key contributing results are subject to up to two-year data lags, comprehensive results for 2005 and prior years are not yet available. Partial results for these measures are:

- 167 billion pounds of pollution reduced from state pollution prevention programs during the 1990s.
- 830 million pounds of hazardous chemicals (cumulative).
- 500 million gallons of water saved.[21]

DATA AVAILABLE FY 2006 AND FY 2007	**FY 2005:** Prevent, reduce and recycle hazardous industrial/commercial chemicals and improve environmental stewardship practices.	
Performance Measures (continued)	*Planned*	*Actual*
• *Reduction in overall pounds of pollution. (PART)* *2001 Baseline: 0 pounds (cumulative)*	24.6 Billion lbs	Data avail 2006
• Millions of dollars saved through reductions in pollution. *2001 Baseline:* $0.00	$97 M	
• *Annual cumulative quantity of water conserved. (PART)* *2001 Baseline: 0 gallons*	1.1 Billion gals	
• *Billions of BTUs of energy conserved. (PART)* *2001 Baseline: 0 BTUs*	104 Billion BTUs	
• *Annual number of pre-screened new chemical alternatives generated through industries participation during the earliest stages of research and development (PART)*		

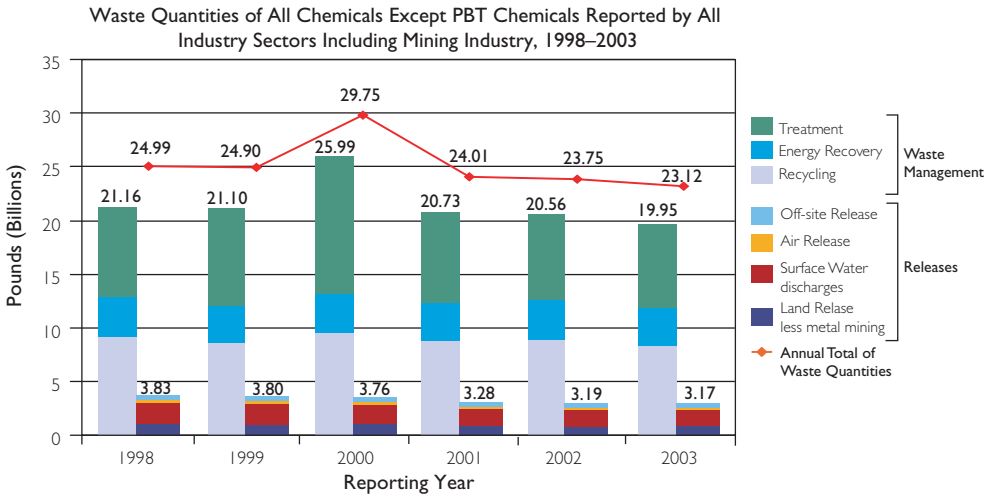
✔ GOAL MET FOR FY 2003	**FY 2003:** Prevent, reduce, and recycle hazardous industrial/commercial chemicals and improve environmental stewardship practices.	
Performance Measures	*Planned*	*Actual*
• The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2002 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2002.	-200M	-622M ✔

Data Source(s): US EPA. *TRI Explorer.* Last Updated: June 8, 2005. Internet. Available at: www.epa.gov/triexplorer. US EPA, Pollution Prevention Database. Internal database. Last Updated: August 2005. Also see www.epa.gov/p2.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-71–C-74.

CHALLENGES

The most significant challenge faced by the pollution prevention program under this APG in 2005



was the establishment of the four new common outcome measures tracking their results and negotiation of acceptance of those measures by the state pollution prevention programs that generate substantial portions of those results. Success was achieved by balancing information requirements against the costs of developing and reporting the necessary data.

Grants Supporting the Achievement of This APG

Categorical Grant: Pollution Prevention (P2)—The P2 Grant Program provides grant funds to states, state entities (e.g., colleges and universities), and federally recognized tribes and intertribal consortia to help small and medium-sized businesses and industries identify improved environmental strategies and solutions for reducing waste at the source. The program effectively demonstrates that source reduction can be a cost-effective way of meeting or exceeding federal and state regulatory requirements.

Strategic Objective 3—Tribal Capacity

Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.

APG 5.6 Build Tribal Capacity

PERFORMANCE

The purpose of this APG is to develop tribal environmental program capacity critical to protecting human health and the environment in Indian country as required by the Indian Environmental General Assistance Program (GAP) and the EPA Indian Policy. Tribal capacity-building performance measures under Goal 5 track EPA's progress toward building the capacity of Indian tribal governments and intertribal consortia to administer environmental management activities and implement multimedia programs that address environmental issues in Indian country. In addition, the Agency works to establish the internal infrastructure needed to assess

✗ GOAL NOT MET

FY 2005: Assist federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues. (NEW IN FY05)

Performance Measures	*Planned*	*Actual*	
• *Percent of tribes with delegated and non-delegated programs (cumulative). (PART)*	44%	47%	✔
• *Percent of tribes with EPA-reviewed monitoring and assessment occurring (cumulative). (PART)*	25%	29%	✔
• *Percent of tribes with EPA-approved multimedia workplans (cumulative). (PART)*	39%	33%	✗
• Increase tribes' ability to develop environmental program capacity by ensuring that federally recognized tribes have access to an environmental presence. *2002 Baseline:* 82% *Universe:* 100% (572 tribes)	90%	96%	✔
• Develop or integrate EPA and interagency data systems to facilitate the use of EPA's Tribal Program Enterprise Architecture (TPEA) information in setting environmental priorities and informing policy decisions. *2002 Baseline:* 2 systems *Universe:* 15 systems	5 Systems	6 Systems	✔

environmental conditions and improve environmental stewardship in Indian country.

EPA met or greatly exceeded the majority of tribal capacity-building measures, demonstrating significant progress toward developing and integrating high-quality environmental data and data systems, and in building the capacity to implement environmental programs. The Agency will continue to focus on methods to increase the percent of EPA-approved multimedia workplans to be able to meet this performance measure in future years.

Goal Not Met: Several factors contributed to not meeting the 39 percent target for EPA-approved multimedia workplans.[22] The new Objective 5.3 Reporting System improved baseline data and revealed that some EPA-approved multimedia workplans are with intertribal consortia representing multiple tribes; however, these count only once in the reporting system. In addition, many tribes are in the initial stages of program development and do not yet have the capacity to manage multimedia workplans. The Agency's Indian Environmental GAP is continuing to expand the number of tribes with the capacity to manage multimedia workplans by providing access to an environmental presence and anticipates reaching the 39 percent target by March 2006 and 42 percent by October 2006.

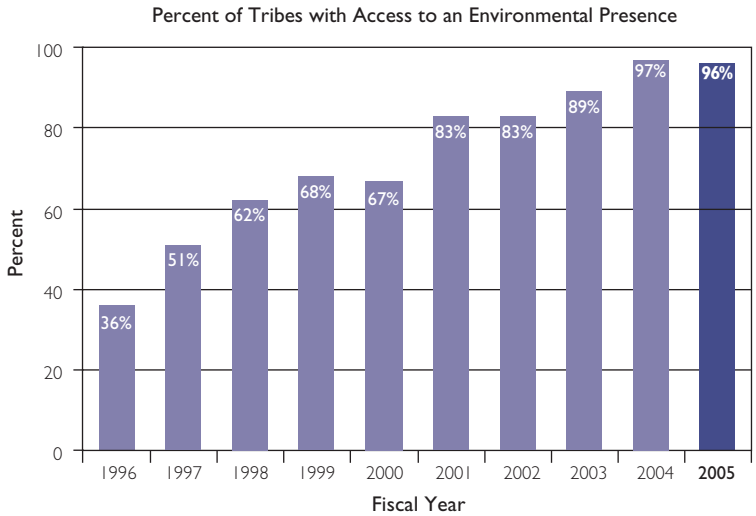
In FY 2005, 47 percent of tribes (269 tribes) have delegated and non-delegated programs. These tribes operate 233 environmental programs such as "treatment in a manner similar to a state" designations under the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, and other statutes and more than 100 solid and hazardous waste program implementation activities.

✗ GOAL NOT MET

FY 2005 (continued): Assist federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.

Performance Measures (continued)	*Planned*	*Actual*
• Eliminate data gaps for environmental conditions for major water, land, and air programs as determined through the availability of information in the EPA Tribal Program Enterprise Architecture. *2002 Baseline:* 0% data gaps *Universe:* 100% data gaps	5% Data Gaps	5% Data Gaps ✔
• Increase implementation of environmental programs in Indian country as determined by program delegations, approvals, or primacies issued to tribes and direct implementation activities by EPA. *2002 Baseline:* 149 programs	159 Programs	233 Programs ✔
• *Increase the number of EPA-approved quality assurance plans for tribal environmental monitoring and assessment activities.* *2002 Baseline:* 243 plans	271 Plans	321 Plans ✔
• *Increase the percent of EPA agreements with tribes that reflect holistic (multimedia) program integration and traditional use of natural resources.* *2002 Baseline:* 45 agreements	5%	102% ✔
• *Number of environmental programs implemented in Indian country per million dollars. (PART)* *2005 Baseline:* 12.3 programs	11.1 Programs	12.3 Programs ✔

Data Source(s): US EPA. Objective 5.3 Reporting System. Updated quarterly by regional Indian program contacts. This is the first year EPA has used this comprehensive data system, which provides for much greater accountability. American Indian Environmental Office (AIEO): epa.gov/indian. Applicable Laws, Regulations and Guidance (includes information on DITCAs, GAP grants, and PPGs): epa.gov/indian/laws3.htm.



Source: US EPA, American Indian Environmental Office. "Target 1 Program Performance Report." Goal 5, Objective 5.3 Reporting System, Available: https://oasint.rtpnc.epa.gov/TATS/tats_prv/entry_page.

Program Assessment Rating Tool (PART)

OMB reassessed the Tribal General Assistance program related to this APG most recently in the 2003 PART process. The program received an adequate rating.

Grants Supporting the Achievement of This APG

Categorical Grant: Tribal General Assistance Program.

Twenty-nine percent of tribes (169 tribes, cumulative) have EPA-reviewed monitoring and assessment activities occurring under Quality Assurance Project Plans (QAPPs) in FY 2005. By the end of FY 2005, EPA approved a cumulative 321 QAPPs, ensuring the highest standards of environmental monitoring and assessment. This program measure reflects improved tribal capacity in environmental data collection and interpretation, and provides the Agency with better information about environmental conditions in Indian country.

Three performance measures under this APG were significantly exceeded during FY 2005 due to several factors:

- A rapid increase in the number of tribes using GAP funding to conduct solid and hazardous waste program implementation activities (a consequence of declining resources from other parts of EPA and other federal agencies).
- Increasing tribal environmental capacity.
- Variations in how some EPA regional offices calculate QAPP results—cumulatively versus non-cumulatively.
- Development and implementation of the Objective 5.3 Reporting System, which allows the Agency to count significantly more multimedia agreements. The Agency greatly exceeded the measure for the increase in the percent of EPA agreements with tribes that reflect holistic (multimedia) program integration and traditional use of natural resources because the Objective 5.3 Reporting System incorporates new information not available in 2003 on the number of multimedia, holistic agreements reached through other categories of agreements, such as Tier I Tribal Environmental Agreements, Tier II Tribal Environmental Agreements, Memoranda of Understanding, and Memoranda of Agreement. Initially the 2003 baseline only incorporated information on Tier III Tribal Environmental Agreements and Performance Partnership Grants. In the future, the Agency will reassess and raise its baseline to include all six categories of agreements, which include Tier I, II, and III Tribal Environmental Agreements, Performance Partnership Grants, Memoranda of Understanding, and Memoranda of Agreement.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-76–C-78.

CHALLENGES

Calculating the number of QAPPs is difficult due to differences in how EPA regional offices approve and manage their records. Some regions report cumulative numbers (all QAPPs approved, even those that have expired) while other regions report non-cumulative numbers. The Agency's 2002 baseline for this measure did not take into account these differences.

To compensate for differences in QAPP results measurement, the Agency will establish a new baseline number based only on current, active QAPPs rather than a running cumulative total. This new approach to reporting QAPPs will provide a more accurate picture of EPA-approved environmental monitoring and assessment activities taking place throughout Indian country.

Strategic Objective 4—Enhance Science and Research

Through 2008, strengthen the scientific evidence and research supporting environmental polices and decisions on compliance, pollution prevention, and environmental stewardship.

APG 5.7 Enhance Science and Research

PERFORMANCE

Verifying commercial-ready innovative technology assists the American public by providing objective, quality-assured, credible performance data on which to base permitting and purchasing decisions. Use of better monitoring and treatment technologies can improve detection and reduction of pollutants, reducing exposure and improving human health and the environment.

In FY 2005, EPA verified 25 environmental technologies to support the long term goal to provide tools and technologies that advance environmental management systems designed to prevent and control pollution and reduce human health and ecological risks

Verifications were completed in the following categories: arsenic drinking water treatment, stormwater treatment, stormwater modeling, fuel efficiency for transportation, distributed energy generation, dust suppressants, diesel retrofits, nutrient monitors, hydrogen sulfide monitors, and, protocols were completed for hydrogen sulfide monitors testing and for distributed generation/ combined heat and power testing.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-78.

✔ GOAL MET

FY 2005: By FY 2005, complete 15 verifications and two testing protocols for a program cumulative total of 280 verifications and 83 testing protocols for new environmental technologies so that, by 2009, appropriate and credible performance information about new, commercial-ready environmental technology is available that influences users to purchase effective environmental technology in the United States and abroad.

Performance Measures	*Planned*	*Actual*
• Verifications completed.	15 verifications	25 verifications ✔
• Testing protocols completed.	2 protocols	2 protocols ✔

Data Source(s): Technology performance data are generated during the verification process by the technology provider(s) and are incorporated into subsequent verification statements, reports, and test protocols, which can be located on the Environmental Technology Verification (ETV) Web site www.epa.gov/etv.

CHALLENGES

PA increasingly seeks to share technology verification and testing costs with vendors and other verification program collaborators. These are often the eventual users of the information, which allows them to have immediate access to results.

PRIOR YEAR ANNUAL PERFORMANCE GOALS WITHOUT CORRESPONDING FY 2005 GOALS (ACTUAL PERFORMANCE DATA AVAILABLE IN FY 2004 AND BEYOND):

FY 2003—Reduce waste minimization priority list chemicals in hazardous waste streams by 43 percent to 86 million pounds by expanding the use of state and industry partnerships and regional pilots.

FY 2004 ANNUAL PERFORMANCE GOALS (No Longer Reported for FY 2005):

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

Program Assessment Rating Tool (PART)

OMB reassessed the Pollution Prevention Research program related to the ETV program most recently in the 2003 PART process. The program received a results not demonstrated rating.

- Identify noncompliance and focus enforcement and compliance assurance on human health and environmental problems, by maintaining and improving quality and accuracy of data.
- Improve capacity of states, localities, and tribes to conduct enforcement and compliance assurance programs. EPA will provide training as well as assistance with state and tribal inspections to build capacity
- Reduce waste minimization priority list chemicals in hazardous waste streams an additional 3 percent from 1991 levels (for a cumulative total of 46 percent or 81 million pounds) by expanding the use of state and industry partnerships and regional pilots.
- Percent of tribes will have an environmental presence (e.g., one or more persons to assist in building tribal capacity to develop and implement environmental programs.)
- Verify 35 air, water, greenhouse gas, and monitoring technologies (through the ETV program) so that states, technology purchasers, and the public will have highly credible data and performance analyses from which to make technology selection decisions.

Goal 5—PART Measures with Data Availability Beyond FY 2005

EPA and OMB established the annual and efficiency measures included on this table through PART Assessments. These measures will be incorporated into EPA's budget and GPRA documents, including the PAR, as data becomes available. The column titled "Data Available" provides the most current estimate for the date EPA expects to report on each measure.

PART Program	PART Measure	Status	Data Available
Civil Enforcement	Pounds of pollutants reduced, treated, or eliminated per FTE.	TBD	10/2007
Criminal Enforcement	Pounds of pollution reduced, treated, or eliminated.	Baseline will be established Dec '05 (based on 3-yr average, data collected FY 03-05)	10/2006
	Reduction in recidivism.	Baseline will be established Jul '06 (based on 3-yr average, merge of existing OECA data FY 03-05)	10/2006
	Percentage of concluded enforcement cases requiring implementation of improved management practices.	Baseline will be established Dec '06 (based on 3-yr average, merge of existing OECA data FY 04-06)	10/2007
	Pollutant Impact.	Baseline will be established Dec '07 (based on 3-yr average, data collected FY 05-07)	10/2008
	Pounds of pollutants reduced, treated, or eliminated per FTE.	Baseline will be established Dec '05 (based on 3-yr average, data collected FY 03-05)	10/2006
Environmental Education	Number of NNEMS fellows who pursue environmental careers	Baseline will be established 2007 (based on 3-yr average, data collection FY 05-07)	2007
	Ratio of number of students/ teachers that have improved environmental knowledge per total dollars expended.	The Office of Environmental Education is currently soliciting stakeholder input on the draft measure. Data collection should start in 2007.	2008

PART Program	PART Measure	Status	Data Available
Environmental Education *(continued)*	Number of states adopting learning curricula and standards.	The Office of Environmental Education is currently soliciting stakeholder input on the draft measure. Data collection should start in 2007.	2008
	Percentage of all students and teachers targeted demonstrate increased environmental knowledge.	The Office of Environmental Education is currently soliciting stakeholder input on the draft measure. We anticipate initiating data collection in 2007 and reporting results in 2008.	2008
Pesticide Enforcement Grants	Percent of complying actions taken as a result of grantee compliance monitoring and enforcement.	In FY 2005, finalized measures and negotiated with states to collect data. Data collection will begin in 2006. Baseline will be based on a three year rolling average.	1/2007
	Percent of recipients of enforcement actions receiving subsequent enforcement actions.	In FY 2005, finalized measures and negotiated with states to collect data. Data collection will begin in 2006. Baseline will be based on a three year rolling average.	1/2007
	Number of enforcement actions taken (federal and state) per million dollars of cost (federal and state).	In FY 2005, finalized measures and negotiated with states to collect data. Data collection will begin in 2006. Baseline will be based on a three year rolling average.	1/2007
RCRA Base program, Permits and Grants	Pounds of priority chemicals reduced in waste streams per federal and private sector costs.	TRI data collection to support this efficiency measure began 1/2005. Preliminary private sector cost data will be available 6/2006	11/2007
Tribal GAP	Percent decrease in the number of households in Indian Country with inadequate wastewater sanitation systems.	Data Collection will begin January 1, 2006. The Indian Health Service Sanitation Facilities Construction Program Annual Report to Congress is the data source.	11/2007
	Percent decrease in the number of households on tribal lands lacking access to safe drinking water	Data Collection will begin January 1, 2006. The Indian Health Service Sanitation Facilities Construction Program Annual Report to Congress is the data source.	11/2007
	Show at least a 10% improvement in for each of four parameters—total nitrogen, total phosphorus, dissolved oxygen, and fecal coliforms—at not fewer than 90 monitoring stations in Tribal waters.	Data collection will begin January 1, 2006. U.S. Geological Survey's National Water Information System and EPA's STORET water quality databases are the data sources.	11/2007

NOTES

1 More information on compliance assistance programs is available at www.epa.gov/compliance/assistance/index.html.

2 More information on compliance incentives programs and the self-audit policy is available at www.epa.gov/compliance/incentives/index.html.

3 More information on the EPA's Compliance Assistance Centers available at www.epa.gov/compliance/assistance/centers/index.html.

4 More information on compliance monitoring and civil enforcement is available at www.epa.gov/compliance.

5 More information on settled cases and the environmental benefits achieved, including pounds of pollutants reduced, is available at cfpub.epa.gov/compliance/cases/index.cfm and at epa.gov/compliance/data/index.html.

6 More information on supplemental environmental projects is available at www.epa.gov/compliance/civil/seps/index.html

7 More information on settled cases and the environmental benefits achieved available at cfpub.epa.gov/compliance/cases/index.cfm.

8 More information on EPA's tribal program is available at www.epa.gov/indian.

9 More information on compliance monitoring and civil enforcement is available at www.epa.gov/compliance , www.epa.gov/compliance/basics/enforcement.html , and epa.gov/compliance/data/index.html.

10 More information on compliance assistance is available at www.epa.gov/compliance/assistance/index.html.

11 More information on PCS is available at epa.gov/compliance/data/systems/water/pcssys.html.

12 This is the first year EPA has a GPRA measure for audits resulting in improvements in environmental management practices. EPA will use the FY 2005 result as the baseline from which to set future targets.

13 Pounds of pollutants reduced, treated or eliminated vary from year to year, because a few cases with extremely large pollutant reductions can have a significant impact on annual results. Accurately predicting the number and type of cases that will be settled in a given year is difficult, making it challenging to gauge the magnitude of pollutant reductions that will be achieved from one year to the next.

14 Dollars invested in improved environmental performance can vary from year to year, because a few cases with high injunctive relief amounts can have a significant impact on annual results. Accurately predicting the number and type of cases that will be settled in a given year is difficult, making it challenging to gauge the dollar amount of injunctive relief and SEPs achieved from one year to the next.

15 For additional information on OECA's National Priorities, visit epa.gov/compliance/data/planning/priorities/index.html.

16 US EPA. *Performance Track Progress Report: Top Performers, Solid Results*. EPA Report: EPA-100-R-03-004. Washington, DC: US EPA, 2003.

17 US EPA. "PTrack Online." Internal Database. Updated: September 12, 2005. The New England.

18 U.S. Environmental Protection Agency, Toxics Releases Inventory Database.

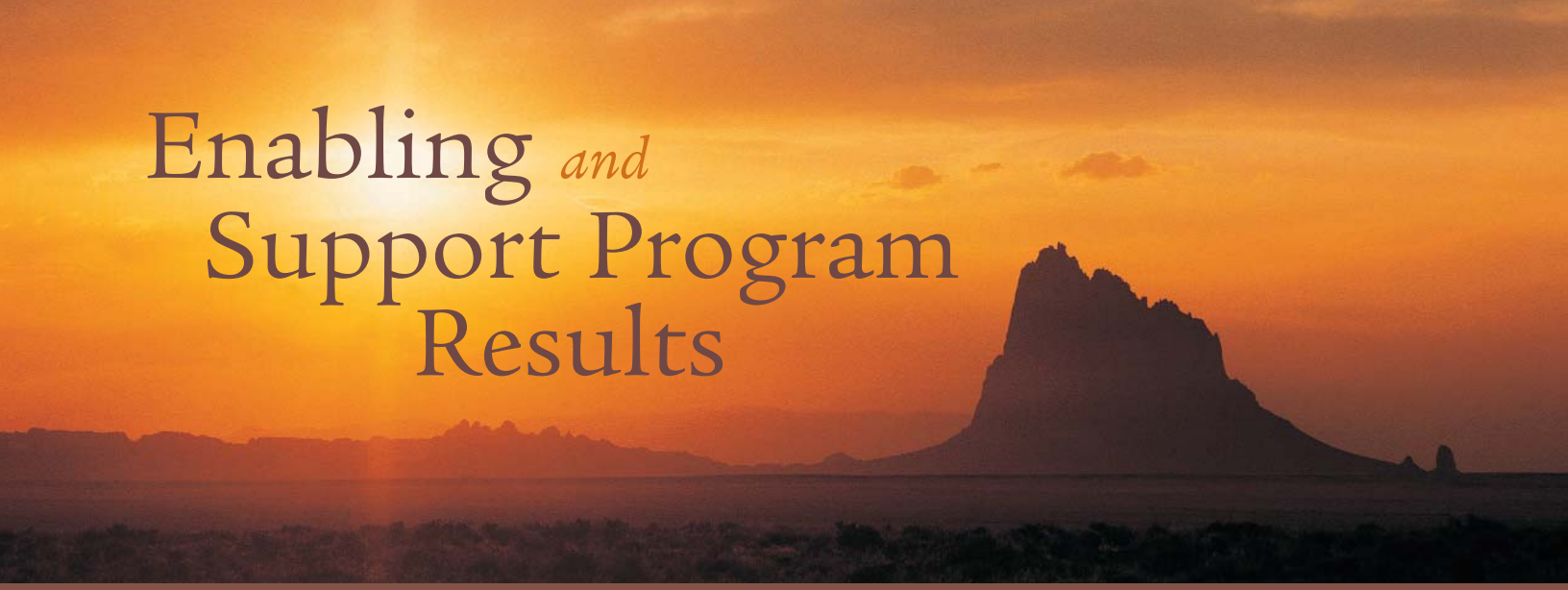
19 U.S. Environmental Protection Agency, Toxics Releases Inventory Database.

20 U.S. Environmental Protection Agency, Toxics Releases Inventory Database.

21 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. Green Chemistry Challenge and Design for Environment internal databases. Continually updated. National Pollution Prevention Roundtable: A Decade of Results: 167 Billion Pounds of Prevention. 2002.

22 Multimedia workplans include Tier III Environmental Agreements, Performance Partnership Grants, and other agreements.

Enabling *and* Support Program Results



Many of EPA's efforts—improving the quality and availability of environmental and health information, strengthening management practices, implementing human capital strategies—contribute to the Agency's results across all of its goals and objectives. The following FY 2005 results for EPA's enabling and support programs reflect progress achieved by such organizations as EPA's Office of Administration and Resource Management, Office of Environmental Information, Office of the Inspector General (OIG), and Office of the Chief Financial Officer. Sample highlights of FY 2005 performance include:

STRENGTHENING FINANCIAL AND PROGRAM MANAGEMENT

EPA consistently met accelerated financial reporting goals, maintaining "green" status and progress scores on the President's Management Agenda (PMA) scorecard. The Agency attained an unqualified opinion for FY 2004 financial statements, and did so by November 15, 2004, an accelerated reporting goal established by the Office of Management and Budget. EPA also satisfied Government-wide Financial Reporting System requirements by the accelerated November 18, 2004, deadline. During FY 2005, EPA continued its support of the consolidated government-wide reporting effort by issuing its interim financial statements within 21 days after each quarter.

The Agency identified opportunities and strategies for enhancing financial information provided to decisionmakers across the Agency. Efforts are underway in partnership with the Office of Grants and Debarment to address key grants management risk areas and challenges integrating grants and financial management data, create single point data entry, and have better information to assess the capabilities of nonprofit grantees. See *Improving Grants Management*.

EPA continued to enhance the Annual Commitment System (ACS) it launched last year to assist national programs and regional managers in negotiating and agreeing on annual regional performance commitments. In FY 2005, the Agency developed and implemented a new ACS performance tracking feature to support the entry and tracking of actual performance data against annual regional performance commitments.

An investigation conducted jointly by EPA's OIG and a number of other federal organizations resulted in a contractor (PricewaterhouseCoopers) repaying the government $42 million to settle allegations that it made false claims for travel reimbursement.

IMPROVING GRANTS MANAGEMENT

To ensure that grant funds are being used properly, EPA began implementing a new policy for assessing the financial management capabilities of nonprofit recipients. Under the policy, every nonprofit grantee receiving an award greater than $200,000 must complete a questionnaire on its capability to administer the grant. Should EPA determine that a grantee lacks this capability, the grantee must take action to address its weaknesses before the grant can be awarded.

EPA revised its Order 5700.5 (now Order 5700.5A1, effective January 15, 2005) to further increase competition for assistance agreements. The revised order clarifies requirements for noncompetitive justifications, provides guidance for identifying possible conflicts of interest, requires statements from

reviewers that they do not have any unresolved conflicts of interest, and reinforces grant management officers' responsibilities.

MANAGING HUMAN CAPITAL

EPA's Human Capital Strategy has increased personal accountability and linked job requirements to the Agency's mission and goals. The strategy provides the framework to fill mission-critical positions, ensure that planning and budgeting anticipate and address workforce needs, and train its diverse workforce.

EPA implemented a new five-level performance management system for general service/general manager employees. By linking job performance standards to the Agency's strategic goals and objectives, the Performance Appraisal and Recognition System (PARS) promotes increased accountability and productivity among all employees. PARS provides a framework within which EPA employees will be able to demonstrate excellence in delivering effective and efficient government services.

ADDRESSING INFORMATION CHALLENGES

EPA conducted an Agency-wide planning process to rank key data gaps (identified in the Agency's *2003 Draft Report on the Environment*[1] and through input provided by the Agency's partners and stakeholders) and establish priorities for filling them. EPA is integrating results from this data gaps analysis into its process for developing its *2006-2011 Strategic Plan* and expects that many of the data gaps will be addressed in its next draft *Report on the Environment*, scheduled for 2006.

Managed by EPA, the E-Rulemaking Initiative is overcoming barriers to public participation in the federal regulatory process by improving the public's ability to access, understand, and comment on federal regulatory actions. In its September 2005 report, *Electronic Rulemaking, Progress Made in Developing Centralized E-Rulemaking System*, the Government Accountability Office cited EPA for successfully integrating the needs of its federal partners. EPA's effective collaboration was critical to the successful launching of the Federal Docket Management System.[2]

Performance Targets and Current Results Under EPA's Grants Management Plan

Performance Measure	Target	Progress in FY 2005
Percentage of grants managed by certified project officers	100%	97.7%
Percentage of new grants subject to the competition order that are competed	85%	92.7%
Percentage of new grants to non-profit recipients subject to the competition order that are competed	75%	87.5%
* Percentage of active recipients who receive advanced monitoring	10%	9.4%
Percentage of regional grant packages submitted electronically	100%	99.3%
Percentage of eligible grants closed out	99% in 2003 90% in 2004	97.7% in 2003 76.6% in 2004
**Percentage of grant workplans that include a discussion of environmental	80%	Evaluation in progress

* These performance measures are tracked on a calendar year basis.

** EPA is currently conducting an evalution, expected to be completed in January 2006. This evaluation is of the Agency's progress under EPA Order 5700.7, "Environmental Results Under EPA Assistance Agreements".

ADVANCING COLLABORATION

EPA continues to work collaboratively with its partners—states, tribes, and other federal agencies, to ensure a national focus on the most important environmental problems and the most efficient and effective use of limited resources. In FY 2005, EPA and the Environmental Council of the States (ECOS) established a Partnership and Performance Workgroup to provide a forum for collaboration. The workgroup explored ways to support state strategic planning and improve dialogue around planning and priority setting.

EPA continued to work with tribes on a government-to-government basis to protect the land, air, and water in Indian country. In June, the Grand Traverse Band of Chippewa Indians hosted the Sixth Annual National Tribal Environmental Conference for Environmental Management. During this conference, more than 750 tribal, federal, and state officials shared solutions on ongoing environmental and public health problems in Indian country.

ESP Annual Performance Goals

APG ESP-1 Information Exchange Network

PERFORMANCE

Under this APG, EPA provides a centralized approach to receiving and distributing information and improves access to timely and reliable environmental information. EPA believes that these efforts will allow for the exchange of secure, accurate, and timely information that supports environment and health decisions.

In FY 2005, EPA added features to the Central Data Exchange (CDX), including user registration and increased security. The Agency continues to work on easing reporting burden by bringing more states on line and adding more systems to the CDX. Shared services are allowing external groups to leverage the CDX's capabilities more efficiently and have increased the number of CDX users to 45,000.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages C-79–C-80.

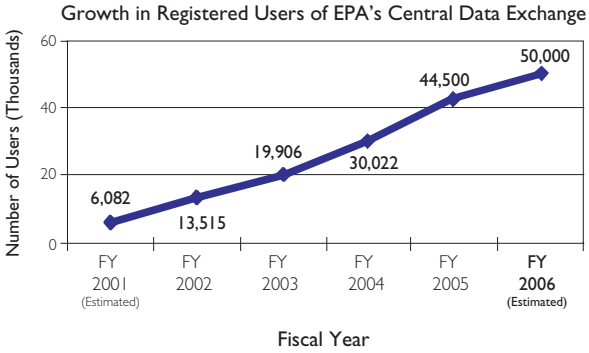
✔ GOAL MET

FY 2005: Improve the quality, comparability, and availability of environmental data for sound environmental decision-making through the Central Data Exchange (CDX).

Baseline: The CDX program began in FY 2001.

Performance Measures	*Planned*	*Actual*
• CDX will fully support electronic data exchange requirements for major EPA environmental systems, enabling faster receipt, processing, and quality checking of data.	12 Systems	22 Systems ✔
• States will be able to exchange data with CDX through state nodes in real time, using new Web-based data standards that allow for automated data-quality checking.	40 States	40 States ✔
• States, tribes, laboratories, and others will choose to use CDX to report environmental data electronically to EPA, taking advantage of automated data quality checks and on-line customer support.	20,000 Users	45,000 Users ✔
• Customer help desk calls are resolved in a timely manner.	96%	96% ✔

Data Source(s): Data are provided by state, private sector, local, and tribal government CDX users. Also see www.epa.gov/cdx.



APG ESP-2 Data Quality and Accessibility

PERFORMANCE

EPA monitors progress in providing environmental data to a variety of users in forms that are accessible and available. In 2005, EPA updated the list of proposed indicators for the 2007 Report on the Environment (ROE) Technical Document based on comments from the July 2005 public peer review. The additional

✔ GOAL MET

FY 2005: EPA will improve the quality and scope of information available to the public for environmental decisionmaking.

Baseline: An effort to develop a State-of-the-Environment report based on environmental indicators was initiated in FY 2002.

Performance Measures	*Planned*	*Actual*
• Establish an improved suite of environmental indicators for use by EPA's programs and partners in the Agency's strategic planning and performance measurement process.	1 Report	1 Report[3] ✔

proposed indicators were announced in the Federal Register. In addition, EPA is updating its Strategic Plan (2006-2011 update) and has included consideration of the proposed 2007 indicators and data and information needs identified during development of the 2003 Draft Report on the Environment in its deliberations.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-80.

✔ GOAL MET	**FY 2005:** EPA will improve the quality and scope of information available to the public for environmental decisionmaking.		
	Baseline: An effort to develop a State-of-the-Environment report based on environmental indicators was initiated in FY 2002. *Performance Measures (continued)* • Responders to the baseline questionnaire on customer satisfaction on the EPA Web site report overall satisfaction with their visit to EPA.GOV.	*Planned* 60%	*Actual* 63% ✔

Data Source(s): Initial collection of indicators compiled during the drafting of EPA's Report on the Environment, supplemented by indicators currently used in the Agency's strategic planning and performance measurement process will comprise an Agency baseline of indicators. Customer satisfaction data are provided by customers completing the questionnaire. Also see www.epa.gov/indicators.

APG ESP-3 Information Security

PERFORMANCE

Under this APG, EPA tracks its compliance with Office of Management and Budget (OMB) security criteria. EPA believes that constant system and network monitoring is necessary to detect and identify any potential weaknesses or vulnerabilities that compromise its information assets. These proactive efforts will allow the Agency to develop cost effective solutions that support EPA's long-term goal of building and analytical capacity. EPA's Security Program has continuously implemented security measures to comply with OMB requirements. The Agency has exceeded this target for the past several fiscal years, and it has adjusted the target for FY2 006 to better align with performance.

✔ GOAL MET	**FY 2005:** OMB reports that all EPA information systems meet/exceed established standards for security.		
	Baseline: In FY 2002, the Agency started planning an effort to expand and strengthen its information security infrastructure. *Performance Measures* • Percent compliance with criteria used by OMB to assess Agency security programs reported annually to OMB under Federal Information Security Management Act/Government. Information Security Reform Act.	*Planned* 75%	*Actual* 90% ✔

Data Source(s): Information technology system owners in Agency program and regional offices.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-80.

APG ESP-4 Fraud Detection and Deterrence

PERFORMANCE

The OIG has begun including the non-monetary results of "Single Audits" and audits performed for OIG in its targets and results by acknowledging the increasing number and significance of actionable recommendations in these audits to improve the management of assistance agreements. Therefore, OIG adjusted its original targets submitted to OMB to account for the large increase in the expected and actual number of improved business practices and systems and the number of business recommendations, risks, and best practices identified. OIG is constantly seeking ways of improving how it plans and measures the value of its work, and will continue to refine its targets and actions with data and experience in recognizing these opportunities. OIG work is, by its nature, responsive to com-

peting priorities of risks and stakeholder need; therefore, OIG results may be variable or time-lagged by measure in relation to annual targets. For example, the number of criminal, civil and administrative actions has increased, reflecting a greater number of debarments and suspensions of contractors, and the number of cases involving laboratories, which are time-lag results of prior years' performance. The 285 percent return on the dollar investment in OIG represents $143.8 million in questioned costs, recommended efficiencies and fines, recoveries, and penalties.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-81.

CHALLENGES

OIG is attempting to balance current and emerging priorities, especially those from an increasing number of Congressional requests, expanding management and financial quality control requirements, and exigent responses to EPA's emergency hurricane actions.

✔ GOAL MET

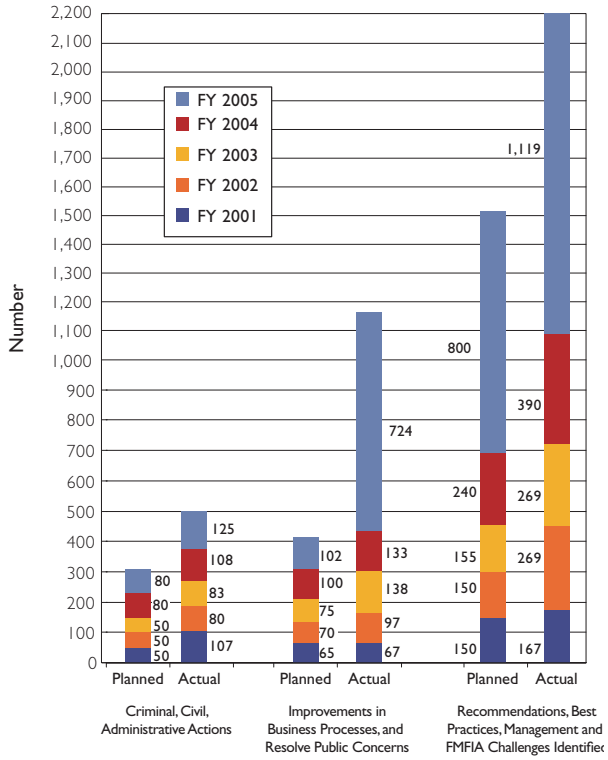
FY 2005: OIG will improve Agency business and operations by identifying 240 recommendations; potential savings and recoveries equal to 150% of the annual investment in the OIG; 102 actions for better business operations; and 80 criminal, civil, or administrative actions reducing risk or loss of integrity.

Baseline: In FY 2002, OIG established a baseline of 150 business recommendations; 70 improved business practices; 50 criminal, civil, and administrative actions for improving Agency management; and a 100% potential dollar return on the investment in the OIG from savings and recoveries.

Performance Measures	*Planned*	*Actual*	
• Number of improved business practices and systems.	220[4] Improvements	724	✔
• Number of criminal, civil, and administrative actions.	80 Actions	125	✔
• Number of business recommendations, risks, and best practices identified.	800[5] Recommendations	1,119	✔
• Return on the annual dollar investment in OIG.	150%	285%	✔

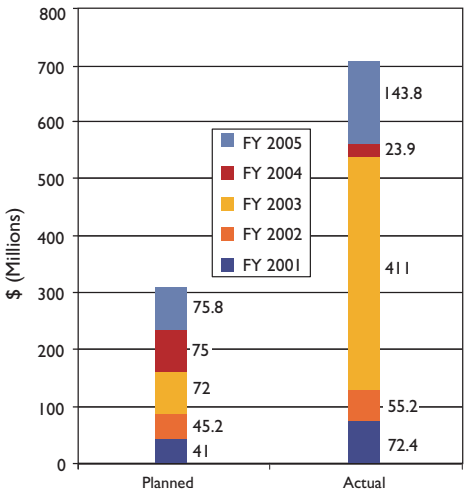
Data Source(s): Data are from OIG performance evaluations, audits, research, court records and from EPA documents, data systems and reports that track environmental and management actions or improvements made, risks reduced or avoided. OIG also collects independent data from EPA's partners and stakeholders. Also see www.epa.gov/oig/index.htm.

EPA's OIG Helps Improve Agency Management, Accountability, and Program Operations



Data obtained from OIG information systems, IGOR and PMRS.

EPA's OIG's Questioned Costs, Efficiencies, Savings, Fines, Recoveries



Data obtained from OIG information systems, IGOR and PMRS.

APG ESP-5 Audit and Advisory Services

PERFORMANCE

Goal Not Met: These performance results generally represent complex environmental actions to be taken subsequently to OIG recommendations, risks, and best practices identified. While the results for Environmental Actions and Improvements indicate the measure was not met, the system used to track this information currently does not capture actions taken by

EPA program managers prior to the issuance of the Inspector General's final report, which means the number of actions taken (35) is probably artificially low from errors of omission. Further, there are a considerable number of primary and secondary actions and improvements that are time lagged, occurring beyond the immediate scope of recognition as reportable results because of their complexity and expanded residual effect, thereby making them difficult to track. Therefore, the reported results for this measure are conservative and do not fully reflect the scope or number of actions taken and improvements made. The OIG is working to provide greater follow-up to ensure better accountability and recognition of agreed to actions by the Agency and its partners on OIG recommendations, and is also developing measures that capture actions and results accruing prior to report issuance. As mentioned in ESP APG 4, there are competing priorities for OIG resources based largely on external factors. Due to the responsive nature of OIG work and the time-lag nature of its results, performance evaluated over several fiscal years, better demonstrates the OIG's significant strategic achievements in relation to its APGs.

✗ GOAL NOT MET

FY 2005: OIG will contribute to improved environmental quality and human health by identifying 95 environmental recommendations, best practices, risks, or opportunities for improvement; contributing to the reduction or elimination of 23 environmental or infrastructure security risks; and 45 actions influencing environmental improvements or program changes.

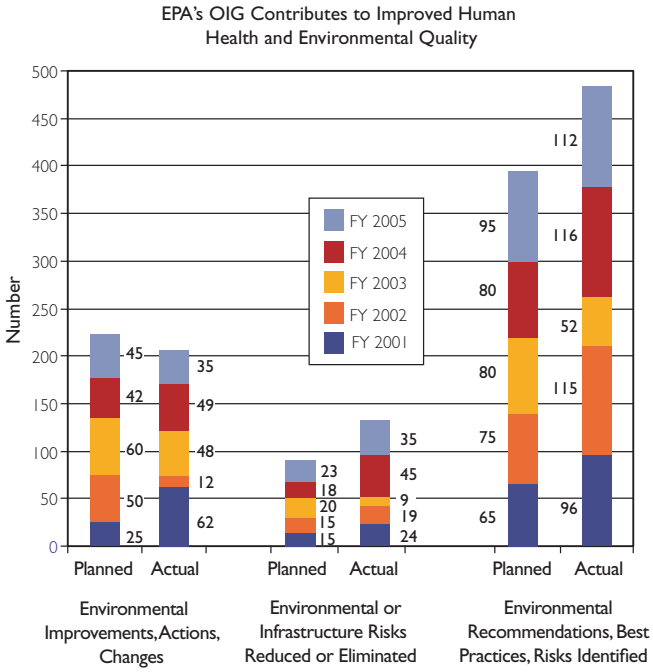
Baseline: In FY 2002, OIG established a baseline of 75 recommendations, best practices and risks identified contributing to improved Agency environmental goals; established 15 environmental actions; and reduced 15 environmental risks.

Performance Measures	*Planned*	*Actual*	
• Number of environmental risks reduced.	23 Risks	35	✔
• Number of environmental actions.	45 Improvements	35	✗
• Number of environmental recommendations, risks, and best practices identified.	95 Recommendations	112	✔

Data Source(s): Data are from OIG performance evaluations, audits, research, court records and EPA documents, data systems and reports that track environmental and management actions or improvements made and risks reduced or avoided. OIG also collects independent data from EPA's partners and stakeholders. Also see www.epa.gov/oig/index.htm.

CHALLENGES

OIG is attempting to balance current and emerging priorities, especially those from an increasing number of Congressional requests and exigent responses to EPA's emergency hurricane actions. Additionally, obtaining the needed staff skill mix to perform complex program evaluations is a continuing challenge.



APG ESP-6 Strengthen EPA's Management

PERFORMANCE

EPA prepared timely accurate financial statements which earned an unqualified (clean) opinion. The auditors identified nine reportable conditions, one non-compliance issue and no material weaknesses.

✔ GOAL MET

FY 2005: Strengthen EPA's management services in support of the Agency's mission while addressing the challenges included in the President's Management Agenda.

Baseline: Financial statements will be submitted on time to OMB and receive an unqualified opinion.

Performance Measures	*Planned*	*Actual*	
• Agency audited financial statements are timely, and receive an unqualified opinion.	1	1	✔

Data Source(s): Integrated Financial Management System (IFMS). Also see www.epa.gov/ocfo.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, page C-82.

APG ESP-7 Energy Consumption and Reduction

PERFORMANCE

EPA complied with Executive Order 13123 "Greening the Government through Efficient Energy Management" that requires the Agency to reduce its reportable energy use by 20 percent in FY 2005 from an FY 1990 baseline. Reduced energy consumption reduces greenhouse gas production and other environmental impacts associated with conventional energy sources. It is also important that EPA lead by example to reduce energy/operating costs by demonstrating energy efficient mechanical systems and operations to the public.

EPA relied heavily on green power purchases to meet this goal. EPA is currently implementing several building commissioning and mechanical system upgrades that will significantly reduce actual energy consumption. The data from onsite consumption logs are compared to invoices to verify that reported consumption and cost data are correct. EPA's Sustainable Facilities Practices Branch compares reported energy use at each facility against previous billing data to see if there are any significant and unexplainable increases or decreases in energy quantities and costs.

EPA exceeded this goal. Based on the data available (through the third quarter of FY 2005), EPA should show a reduction of reportable energy to the Department of Energy and OMB of 25 percent for FY 2005. The fourth quarter information will not be available until December 2005.

Data Quality: A description of the data used to measure EPA's performance can be found in Appendix C, pages XXX-XXX.

✔ GOAL MET	**FY 2005:** EPA will achieve a 20% energy consumption reduction from 1990 in its 29 laboratories, which is in line to meet the 2005 requirement of a 20% reduction from the 1990 base contained in EO 13123. This includes green power purchases.		
Baseline: In FY 1990, energy consumption is 357,864 BTUs per square foot.			
Performance Measures		*Planned*	*Actual*
• Cumulative percentage reduction in energy consumption (from FY 1990).		20%	25% ✔
• FY 2004: Cumulative percentage reduction in energy consumption (from FY 1990). The data lag was due to the reported billing cycle.		16%	17% ✔

Data Source(s): The Agency's contractor collects quarterly energy data from each of EPA's laboratories. The data are based on metered readings from the laboratory's utility bills (e.g., natural gas, electricity). Also see www.epa.gov/greeningepa/.

CHALLENGES

While EPA's new main laboratory facility at Research Triangle Park, North Carolina, continues to improve, its operations have not yet fully stabilized.

NOTES

1 See www.epa.gov/indicators.

2 See www.gao.gov/.

3 This document is only an interim status update, not a full report on approved indicators.

4 OIG revised its target from 102 to 220 by including non-monetary results of Single Audits, which will also be included in FYs 2006 and 2007.

5 OIG revised its target from 240 to 800 by including non-monetary results of Single Audits, which will also be included in FYs 2006 and 2007.

Section III.

Management Accomplishments *and* Challenges

CONTENTS

Introduction to Management Section 180

OIG's 2005 Key Management Challenges and EPA's Response 181

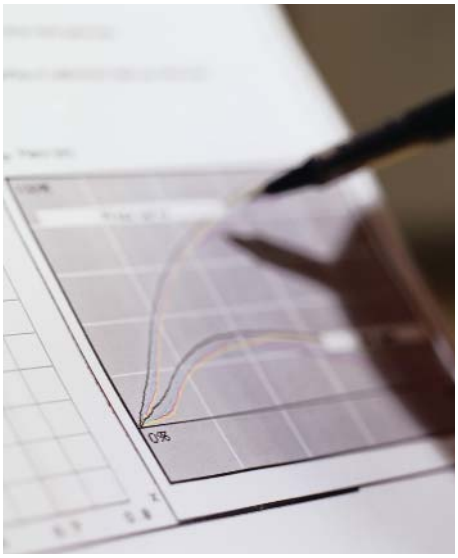
GAO's 2005 Key Management Challenge 192

Management Accomplishments *and* Challenges

Introduction

The Reports Consolidation Act of 2000 requires the Inspector General to identify, briefly assess, and report annually the most serious management and performance challenges facing the Agency. Management challenges represent vulnerabilities in program operations and their susceptibility to fraud, waste, abuse and mismanagement. This section includes a discussion of areas that the Office of Inspector General (OIG) and the Government Accountability Office (GAO) identified as EPA's 2005 management challenges. It also includes a discussion of the Agency's response to the challenges and progress in addressing the issues.

In FY 2005, OIG and GAO identified nine areas they consider EPA's most pressing management challenges. While OIG identified the majority of these areas, GAO raised a number of the same issues, such as human capital and assistance agreements. Notably, neither OIG nor GAO suggested elevating any of the issues to the level of a material weaknesses—a reportable condition that could adversely impact the integrity of Agency programs and activities. Most of the challenges identified are recurring issues that take time to resolve. EPA has been working to address these long-standing issues for the past several years and has made good progress during FY 2005.



EPA's senior managers are committed to resolving current issues and identifying and addressing emerging issues before they become serious problems. To sustain management attention to issues raised by OIG, GAO, and other external evaluators, EPA maintains a system of internal controls to ensure that program activities are carried out effectively and in accordance with applicable laws and sound management policy. Currently, EPA has elevated three of the nine management challenges to the level of an Agency weakness under FMFIA. EPA leaders meet periodically to review and discuss the progress the Agency is making to address the issues, and each year the Agency reports on the status of its efforts in its Performance and Accountability Report and Budget Submission.

The material that follows includes a table of the management challenges identified by OIG and their relationship to EPA's *Strategic Plan* and the President's Management Agenda. This section also includes OIG's description of these issues and EPA's summary of actions it has taken to address them.

Office of Inspector General 2005 Key Management Challenges

(Prepared by the Agency's Office of Inspector General)

The table below includes issues identified by OIG as the 2005 key management challenges facing EPA and the relationship of the issues to the Agency's *Strategic Plan* and the President's Management Agenda. Following the table is a brief discussion of the challenges. A more detailed discussion of each challenge can be found in OIG's memorandum to EPA's Administrator, *EPA's Key Management Challenges 2005*, dated April 25, 2005.

EPA's Top Management Challenges Reported by the Office of Inspector General	FY 2003	FY 2004	FY 2005	Link to EPA Strategic Goal	Link to President's Management Agenda
Linking Mission and Management*: Development of more outcome-based strategic and annual targets in collaboration with partners.	●	●	●	Cross-Goal	Integrating Performance & Budget
Agency Efforts in Support of Homeland Security: Implementing a strategy to effectively coordinate and address threats.	●	●	●	Cross-Goal	
Superfund Evaluation and Policy Identification: Improving the usefulness of internal evaluations, and implementing program policy decisions.			●	Goal 3	
Information Resources Management and Data Quality: Improving the quality of data used to make decisions and monitor progress.	●	●	●	Cross-Goal	E-Gov
EPA's Use of Assistance Agreements to Accomplish Its Mission: Improving the management of the billions of dollars of grants awarded by EPA.	●	●	●	Cross-Goal	Financial Performance
Challenges in Addressing Air Toxics Program: Reducing air toxic emissions by improving measurement of risk assessment and progress.	●	●	●	Goal 1	
Human Capital Management: Implementing a strategy that will result in a competent, well-trained, and motivated workforce.	●	●	●	Cross-Goal	Human Capital
Information Security: Protecting information systems by preventing intrusion and abuse of systems, and protecting integrity of data.	●	●	●	Cross-Goal	E-Gov

*In FY 2004 and 2005 Working Relationships with the States was consolidated in "Linking Mission and Management"

OIG's FY 2005 Key Management Challenges for EPA

LINKING MISSION AND MANAGEMENT

EPA faces a continuing challenge in demonstrating accomplishment of its environmental mission through programs with clear objectives, measurable results, and accurate cost information. We have considered Linking Mission and Management as a top management challenge since 2001. While the Agency is making progress, we continue to observe weaknesses across various activities, programs, and offices.

EPA's *2003-2008 Strategic Plan* is superior to preceding plans; however, it does not contain sufficient substantive strategies or resource and schedule commitments leading to the attainment of its stated goals. In a series of reviews of various Agency activities, we have observed a systematic disconnect between program goals, performance objectives developed in response to the Government Performance and Results Act (GPRA), and measures of effectiveness.

As noted in prior years, developing outcome based performance measures linked to Agency activities is a challenging undertaking. EPA's Fiscal Year (FY) 2006 Program Assessment Rating Tool (PART) Assessments continue to cite a need for improved measures in a number of programs. Past Office of Management and Budget PART assessments have noted that the absence of valid outcome performance data has hindered EPA in evaluating the impacts of its programs on the environment and public health.

As EPA works to develop more outcome-oriented performance measures, it must continue improvements to track the cost of achieving environmental results. A March 2005 policy change will allow EPA to more closely link costs by familiar program or project names instead of broader, more abstract categories. It is important for EPA to collect and integrate data for tracking the cost of organizational performance. A recent OIG report on Superfund expenditures re-enforces this need through findings that all costs

EPA's Response (Prepared by the Agency)

EPA has made significant progress over the past years in linking program performance with resource decisions; developing outcome-oriented goals and measures; and providing managers with timely, reliable, and consistent cost information.

Highlights from Prior Years:

- Issued EPA's *2003-2008 Strategic Plan*, which moved the Agency from ten to five strategic goals centered on environmental and human health results.
- Increased the use of performance information and trend data in developing the FY 2005 budget.
- Developed more outcome-oriented annual performance goals and measures as well as efficiency measures.
- Developed a new accounting framework to track resources across the five goals.
- Released a *Draft Report on the Environment*, which is intended to help assess the current state of the environment and to provide a baseline against which future performance can be measured.

Highlights of FY 2005 Progress:

- Developed and implemented a new performance tracking feature in the Agency's Annual Commitment System that supports the entry and tracking of annual performance data against annual regional performance commitments.
- Continued to improve PART scores by developing efficiency measures for environmental programs. (As of July 2005, 6 of the 32 EPA programs assessed show results not demonstrated.)
- Enhanced the Office of the Chief Financial Officer's Reporting and Business Intelligence Tool (ORBIT) functionality by expanding the programmatic and performance reporting capability and adding additional data sources (Administrative Data Mart).
- Began to develop the Agency's *2006-2011 Strategic Plan*, including outreach to partners and stakeholders and consultation with state and tribal partners.

incurred by the Superfund program cannot be identified or isolated.

Once accurate and current cost information is available, EPA managers need to consider it when making operational and strategic decisions. With the right information at hand, they can analyze organizational and programmatic performance. EPA's success in implementing cost accounting will rely, to a great extent, on how well the Office of the Chief Financial Officer works with program offices. An essential aspect of this challenge will be persuading EPA managers to incorporate use of cost accounting data into the normal course of managing their programs. In addition, EPA continues to work with its Federal, State, and Tribal partners to develop appropriate outcome measures and accounting systems that track environmental and human health results across the Agency's revised goal structure. This information must then become an integral part of the Agency's decision-making process.

AGENCY EFFORTS IN SUPPORT OF HOMELAND SECURITY

While the Department of Homeland Security (DHS) maintains the lead for the unified national response to terrorist threats, many other Federal, State, and local agencies, including EPA, play a vital role in implementing homeland security efforts. EPA has developed chemical, biological, and radiological, technical and scientific expertise that enhances the ability of DHS to address potential terrorist threats. EPA also possesses emergency response capabilities that complement the efforts of other Federal agencies. The Public Health Security and Bioterrorism Preparedness and Response Act (Public Law 107-188) specifically tasked EPA with funding and overseeing water system vulnerability assessments and resulting emergency response plans. In addition, several Homeland Security Presidential Directives direct EPA to support and develop the preparedness of state, local, and tribal governments, and private industry, to respond to, recover from, and continue operations after a terrorist attack.

Over the past year, OIG analyzed several of EPA's actions to address its homeland security responsibilities. We found that the Agency has showed continued improvement on several fronts such as establishing the EPA Homeland Security Collaborative Network and updating its Homeland Security Strategy. The agency must continue to work with stakeholders to develop performance measures for water security and to identify impediments that are preventing water systems from successfully reducing or mitigating vulnerabilities in computer systems used to control water equipment (Supervisory

EPA's Response (Prepared by the Agency)

EPA plays an important role in protecting the environment from potential threats such as chemical, biological, and radiological contamination and must be prepared to respond to these threats effectively and efficiently. In FY 2005, EPA declared Homeland Security an Agency weakness.

Highlights from Prior Years:

- Established the Office of Homeland Security (OHS) within the Administrator's Office.
- Established the Homeland Security Collaborative Network to coordinate and directly address high-priority, cross-Agency technical and policy issues related to homeland security programs.
- Supported federal law enforcement agencies at Nationally Significant Events (e.g., U.S. Secret Service and Federal Bureau of Investigations during the G-8 Nations Summit).

Highlights of FY 2005 Progress:

- Updated EPA's *Homeland Security Strategic Plan* to identify the range of EPA's homeland security activities, taking into consideration the evolving role of the DHS.
- Assisted drinking water systems in protecting their infrastructure from terrorist attacks by completing vulnerability assessments.
- Drafted a policy that promotes consistency across the regions in implementing *BioWatch* consequence management activities, while accommodating region-specific needs.

Control and Data Acquisition, SCADA systems). The Agency must also take steps to ensure that it is performing all BioWatch designated responsibilities and develop a better process for identifying, obtaining, maintaining, and tracking response equipment necessary for Nationally Significant Incidents.

EPA has undertaken a number of efforts to work with Federal, State and local counterparts to enhance critical infrastructure protection. As new threats to the Nation continue to evolve, EPA's success will require simultaneous attention to questions of risk, capabilities and deficiencies, preparedness, management and oversight, as well as effective coordination with EPA's partners at all levels of government and industry.

SUPERFUND EVALUATION AND POLICY IDENTIFICATION

The Agency can be credited with reducing risks at hazardous waste sites across the Nation, identifying and implementing needed reforms, instituting program infrastructure, and making progress in cleaning up the nation's most contaminated sites. However, troubling obstacles have been identified to the Agency's ability to effectively meet the Nation's current and future needs for hazardous waste cleanup. Despite having its own processes for evaluating and reforming the Superfund program, EPA has failed to proactively identify, or communicate, the current fiscal and other program management challenges that are causing great pressure and attention on the program. EPA has had mixed success in implementing reforms.

The EPA should continue its important internal evaluation and reform activities that have characterized the Superfund program since 1989. However, changes or modifications in its evaluation and policy identification process are needed to respond to new challenges. In the future, the Agency will need to identify and provide solutions for major program challenges and policy decisions, including (1) lack of Trust Fund appropriations and decreasing general appropriations; (2) the inability to fund all sites that require funding, including increasing expectations to identify and implement program efficiencies, account for and explain costs, and establish site prioritization processes; (3) determining potential future financial and environmental liability from sites that have not yet formally entered the Superfund program; (4) lack of viable, or fully cooperative, responsible parties, inadequate financial assurance for site

EPA's Response (Prepared by the Agency)

EPA's Response: The Superfund program is complex, dealing with cleanup requirements that have been changing since its inception over 20 years ago. However, despite the program's complexity and unique administrative structure, it has made and continues to make significant progress in cleaning up Superfund sites and reducing risks to human health and the environment.

Highlights from Prior Years:

- Initiated an internal review of the Superfund program (120-Day Study) to identify opportunities for program efficiencies that would enable the Agency to begin and ultimately complete remedial actions with current resources.
- Completed data collection and analysis on hazardous sites impacting Indian country.
- Established the EPA tribal forum to work collaboratively on issues involving tribes.
- Worked to increase oversight of the Tribal Association on Solid Waste and Emergency Response (TASWER) cooperative agreement, in accordance with commitments to OIG.

Highlights of FY 2005 Progress:

- Published *Superfund: Building on the Past, Looking to the Future*, an internal review of the Superfund program that contains recommendations for program improvements.
- Developed a 120-Day Study Action Plan which outlines how EPA will carry out the recommendations.
- Completed the Superfund Tribal Strategy and implementation plan.

(Relates to APG 3.3 in Section 2, Page 101.)

cleanup, and the inability to consistently rely on other programs to support Superfund needs; and (5) use of credible measures of the ecological benefits that result from Superfund cleanups.

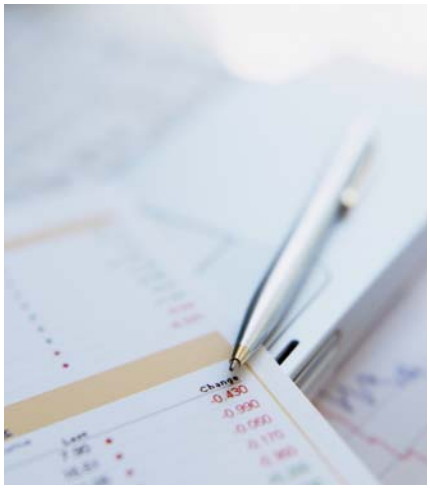
Recognizing that tribes are important partners in implementing the Agency's environmental programs, the Agency has undertaken three major initiatives since 1998. These initiatives have produced some positive results and lessons have been incorporated into the Agency's current strategy for managing the role of the tribes in the Superfund program. The Agency's tribal strategy has faltered because it does not have a detailed implementation plan with milestones, priorities, resource needs, and corresponding measures to track progress and effects of the strategy. In addition, the strategy cannot be effectively implemented without critical information, including an inventory of hazardous waste sites on Indian lands. A strong working relationship between EPA and the States and Tribes is necessary if environmental goals are to be achieved.

If the Agency is to maintain the public's trust and confidence in its ability to effectively manage the Superfund program and protect human health and the environment at the Nation's most contaminated waste sites, it needs to demonstrate the ability to proactively identify and address the program's most serious challenges. This is particularly important when the Agency has processes in place to accomplish this. In addition, effective and credible program planning, budgeting, and resource allocation are accomplished when the Agency is informed of what the program's current and future challenges and needs are.

INFORMATION RESOURCES MANAGEMENT (IRM) AND DATA QUALITY*

EPA acknowledges IRM data management practices as an Agency-level weakness under the Federal Managers' Financial Integrity Act and has specifically targeted various components for improvement. The Agency faces a number of challenges with the data it uses to make decisions and monitor progress against environmental goals. These challenges cover a broad range of interrelated activities including: using enterprise and data architecture strategies to guide the integration and management of data and to make investment decisions; implementing data standards to facilitate data sharing; and establishing quality assurance practices to improve the reliability, accuracy, and scientific basis of environmental data, including data derived from laboratories. EPA and most States often apply different data definitions, and sometimes collect and input different data, resulting in inconsistent, incomplete, or obsolete, consolidated national data.

While EPA has developed several core registry systems and metadata registries, it has yet to



implement a 1998, agreed-upon, OIG recommendation to formally revise its policies and procedures supporting an Agency standards program. EPA has developed and formally approved ten data standards, and continues to partner with the Environmental Data Standards Council to develop additional standards for environmental information collection and exchange. However, the true challenge lies in the implementation of the approved standards, because many parties must follow through for EPA and others to realize the benefits.

Some of the approved standards will not be fully implemented until Fiscal Year 2006, and some have been implemented only in a targeted set of national EPA systems. If EPA's exchange network infrastructure is to work effectively, timely implementation should be required for all applicable systems. Moreover, the use of data standards should be a required condition for receiving money under the Exchange Network Grant Program. In addition, while EPA is focusing its efforts on standards for data shared with external partners, additional attention is needed for

*This challenge was also identified by GAO.

internal data. Standards for internal data are necessary to facilitate the efficient and effective development and implementation of truly integrated systems within EPA. These data standards would help to reduce reliance on interfaces and data warehouses to allow for the sharing and integration of internal data.

Data reliability is another major aspect of data management needing continued attention. The Government Accountability Office noted that although EPA has made some progress in addressing critical data gaps in the agency's environmental information, the Agency still has further to go in obtaining the data it needs to manage for environmental results. EPA should establish clear lines of responsibility and accountability among the agency's various organizational components, and identify specific requirements for developing and using environmental indicators.

Data quality concerns extend to questionable analyses by laboratories. The number of ongoing lab fraud investigations increased by more than 150% between Fiscal Years 2001 and 2003 due to complaints received. The method of fraud employed by all but two of the involved laboratories dealt with some form of altered or fraudulent test results. The Agency has taken significant action to address the quality of laboratory data and decided that Laboratory Quality System Practices was corrected as a Federal Managers' Financial Integrity Act in FY 2004. Follow-up activities will determine if weaknesses in Agency laboratory practices have been corrected.

EPA's ability to manage its business processes, enforce environmental laws, evaluate the impact of its programs in terms of environmental improvement, and accurately inform the public about the status of the environment may continue to be limited by gaps and inconsistencies in the quality of its data. EPA needs to continue its efforts to identify what data is necessary to manage its programs, and work, both internally and with its partners, to ensure that such information is captured and reported in a timely, accurate, and consistent manner.

EPA's Response (Prepared by the Agency)

In FY 2001, EPA acknowledged both laboratory quality system practices and data management practices as Agency weaknesses. In FY 2004, the Agency corrected its laboratory quality system practices as a FMFIA weakness.

Highlights from Prior Years:

- Provided tools, technical evaluations, and training to help environmental laboratory managers ensure that their operations produce data of documented quality.
- Developed a policy directive focused on ensuring and documenting the competency of Agency laboratories.
- Conducted discussions with Agency and outside representatives on how to assure the quality of laboratory data. EPA incorporated the results of these discussions into training courses and recommendations for best practices for laboratory quality systems.
- Validated the effectiveness of corrective actions by summarizing audit reports, documenting guidance for detecting and deterring misconduct, and documenting the review process for the modified Quality Assurance Annual Reports and Work Plans.

EPA has made significant progress in addressing data management. Specifically, EPA developed an effective data standard program and promulgated six Reinventing Environmental Information data standards for the Agency. In FY 2005, the Agency completed the final corrective actions for the data management practices weakness.

Highlights of FY 2005 Progress:

- Developed a process for ensuring data management policies and procedures are planned, maintained, and revised as appropriate (e.g., changed the structure and operating procedures for the Quality Information Council to better fulfill its role as the information policy-making body for the Agency).
- Developed an Agency-approved planning process to identify key data gaps by building on data-gap information included in EPA's *Draft Report on the Environment*.
- Proposed a new Agency weakness, Implementation of Data Standards, to ensure that new standards adopted by the Agency are fully implemented in a cost effective and timely manner.

EPA'S USE OF ASSISTANCE AGREEMENTS TO ACCOMPLISH ITS MISSION*

Assistance agreements are a primary means EPA uses to carry out its mission of protecting human health and the environment. More than half of EPA's fiscal 2004 budget, approximately $4.4 billion, was awarded to organizations through assistance agreements. Because the amount is large, and because the work involved is critically important to fulfilling EPA's mission, it is imperative that the Agency use good management practices in awarding and overseeing these agreements to ensure they cost-effectively contribute to attaining environmental goals.

Since 1996, EPA has reported Management of Assistance Agreements as a material or agency weakness under the Federal Managers' Financial Integrity Act. Recent OIG reports show that grant management challenges continue to exist. In March 2005, we reported on the implementation of EPA's new grant competition order and concluded that EPA needs to compete more assistance agreements. The order was ineffective because it included too many exemptions and, therefore, only applied to $161 million of more than $835 million of discretionary grants awarded in 2003.

We also continue to identify pre-award and monitoring weaknesses that waste money and weaken program effectiveness. While EPA issued a Grants Management Plan in April 2003, EPA has not completed all of the proposed actions in its Plan. To address many of our recommendations, EPA has issued several Orders since January 2005 containing new requirements for 1) identifying environmental results under assistance agreements, 2) competing grants, and 3) assessing capabilities of non-profit applicants for managing such agreements. Because these significant policies are so new, EPA has no data to show that the problems that precipitated the issuance of these policies have been corrected.

EPA's Response (Prepared by the Agency)

Over the past several years, OIG and GAO continued to raise concerns about the Agency's grant management practices. EPA acknowledges Assistance Agreements as an Agency weakness and has a strategy in place to address concerns. EPA established a long-term Grants Management Plan which serves as a roadmap of the Agency's approach for improving grants management.

Highlights from Prior Years:

- Issued a long-term Grants Management Training Plan that outlines the Agency's strategy for ensuring that employees and grant applicants are understand their grant management obligations.
- Modified the Agency's Compliance Monitoring Policy to require that EPA offices use a standard format to collect and itemize information on problem areas.
- Instituted three types of internal reviews that provide EPA an early warning system to detect emerging grant weaknesses.
- Revised employees' performance standards to reflect grants management responsibilities.
- Deployed the Integrated Grants Management System in all 10 regions.
- Issued an interim policy requiring program offices to document how grant proposals further EPA's *Strategic Plan* goals.

Highlights of FY 2005 Progress:

- Issued a new policy on the internal review of discretionary grants that requires senior managers to certify that noncompetitive discretionary grants and competitive announcements have appropriate environmental outcomes and support of program goals.
- Issued policy on roles and responsibilities that strengthens accountability for effective grants management.
- Issued a pre-award policy to help ensure that grants are not awarded to nonprofit organizations with weaknesses in their administrative capability to manage grant funds or programmatic capability to carry out a project.
- Issued a revised competition policy to increase the number and improve the quality of competitions.
- Issued an EPA *Order on Environmental Results* to ensure that assistance agreement solicitations, work plans, and decision memoranda discuss anticipated environmental results and their linkage to EPA's *Strategic Plan*.

*This challenge was also identified by GAO.

CHALLENGES IN ADDRESSING AIR TOXICS PROGRAM GOALS

EPA's goal is to reduce emissions and implement area-specific approaches to reduce the risk to public health and the environment from air toxics by 2010. To achieve its goal, the Agency has increased its efforts to address air toxics in recent years as evidenced by a nearly 41 percent increase in funding from $90.7 million in FY 1999 to $127.7 million for FY 2004. The Agency has also completed its Clean Air Act requirement to issue technology-based standards, Maximum Achievable Control Technology (MACT) standards, for categories of major stationary sources. This area remains a management challenge, among other reasons, because of the difficulties and uncertainties associated with developing Phase II risk-based standards for major stationary sources; EPA is years behind statutory deadlines for developing standards for area sources; and identifying risk-based strategies and measuring progress is difficult because of the uncertainties associated with characterizing air toxics emissions, ambient concentrations, human exposure, and health risks from exposure.

Persistent bio-accumulative toxics, such as mercury, present challenges because of their ability to be transported over great distances before they are deposited into water bodies. For example, atmospheric deposition of mercury has contributed to impaired listings of numerous waters and widespread fish consumption advisories. At least 44 states have issued fish consumption advisories related to the accumulation of mercury in fish tissue. In some States, a substantial proportion of the atmospheric deposition of mercury derives from sources located outside the State's boundary, and State-specific efforts to reduce mercury in water may have limited success in reducing mercury fish-tissue concentrations to safe levels. In these cases, water bodies may attain water quality standards only with additional reductions of mercury air emissions from other states, regions, and countries. Addressing this problem will require EPA to work nationally and internationally across traditional program boundaries of water and air.

Finally, hundreds of new chemicals are introduced into the environment every year, yet no new air toxics have been added to the original list of 188 since it was established in 1990. Some of these recently introduced chemicals could be more harmful than those currently regulated through the air toxics program. We will continue to monitor the progress EPA makes in addressing these important issues.

EPA's Response (Prepared by the Agency)

The Air Toxics Program faces significant challenges because much remains to be done to address requirements of the Clean Air Act (CAA) Amendments (e.g., issuance of final standards for 70 stationary area source categories). However, the Agency has made great progress in reducing air toxic emissions. In FY 2004, EPA closed Air Toxics Program as an Agency weakness because it had developed a strategy for achieving toxic risk reductions.

Highlights from Prior Years:

- Promulgated all remaining Maximum Achievable Control Technology (MACT) standards, as of February 2004.
- Completed 15 area source standards.
- Developed a comprehensive, integrated air toxics program that better meets long-term goals by addressing risks from all sources of toxics.
- Worked with partners to design a national toxics monitoring network and completed the data analysis phase of the initial assessment work.
- Initiated work on an efficiency measure on the cause-and-effect relationships between the air toxics program and environmental conditions or cancer incidence, as part of the effort to address concerns about data gaps for toxicity and data collection and analysis.
- As of March 2004, toxic emissions from large industrial facilities have decreased by 1.7 million tons per year, a 35 percent reduction since 1990.

Highlights of FY 2005 Progress:

- Completed the first residual risk standard for coke ovens in March 2005.
- Promulgated the Clean Air Interstate Rule and Clean Air Mercury Rule, two rules that will reduce mercury emissions from power plants, the largest remaining uncontrolled sources of mercury in the U.S.
- Working to develop standards for an additional 25 area source categories (5 of which are under court-ordered deadlines).

(Relates to APG 1.5 in Section 2, Page 50.)

HUMAN CAPITAL MANAGEMENT*

EPA continues to face challenges in developing and sustaining a highly skilled, diverse, results-oriented workforce with the right mix of technical expertise, experience, and leadership capabilities. EPA also faces challenges in more thoroughly integrating human capital management activities and measures into its core business processes. Such integration will help strengthen accountability and ensure alignment of strategic human capital goals with environmental and human health goals as well as achievement of all these goals. Additionally, the Office of Personnel Management (OPM) and Office of Management and Budget (OMB) are concerned about EPA's efforts to achieve "Green Status" under the President's Management Agenda (PMA) human capital initiative. Specifically, OPM and OMB are concerned about EPA's ability to address skill gaps for mission critical occupations and its ability to achieve a green status by July 2005 based on its current Proud to Be (P2B) milestones. OPM and OMB have indicated that they will work with the Agency to help resolve their concerns.

The Agency remains committed to ensuring that it addresses these challenges through its various human capital initiatives. In the past year, EPA made substantial progress in addressing human capital concerns by implementing many of the initiatives presented in its human capital strategic plan, Investing in Our People II, EPA's Strategy for Human Capital: 2004 and Beyond. During the year, EPA also linked employee performance standards to the Agency's five strategic goals; developed a comprehensive strategic workforce strategy and deployment plan; provided restructuring options to all EPA senior managers; and monitored and reported diversity statistics to address under representation.

Although EPA has made progress, it still needs to do more to ensure successful Agency-wide implementation of strategic human capital management activities. In a recent report, the OIG concluded that while EPA's headquarters and regional offices are prepared to implement strategic human capital management activities, the offices have not aligned their human capital activities to the Agency's Strategy for Human Capital. The report emphasized that senior executives vary in their recognition of the importance of human capital management and have not fully integrated human capital manage-

EPA's Response (Prepared by the Agency)

EPA is committed to addressing its human capital challenges. Currently, EPA acknowledges Human Capital as an Agency weakness and will continue to implement its corrective action plan to ensure that deficiencies identified do not impair the Agency's ability to accomplish its mission.

Highlights from Prior Years:

- Established a senior Human Capital Official.
- Aligned human capital planning activities with strategic planning and budgeting processes.
- Completed the Strategic Workforce Planning Pilot with nine EPA organizations.
- Continued to implement and enhance training programs for all levels of EPA staff and maintain SES development and rotation programs.

Highlights of FY 2005 Progress:

- Established a human capital accountability system to monitor and report on the Agency's progress and to develop vulnerability assessments.
- Revised its approach to Agency-wide strategic workforce planning and presented a workforce plan to the Administrator.
- Developed a comprehensive National Recruitment and Outreach Strategy that coordinates outreach activities for a variety of positions and Agency programs.
- Integrated human capital with the Agency's planning and budgeting process during the FY 2007 budget formulation cycle by making the issue a critical factor in resource discussions.
- Developed "local" human capital plans at the national program and regional office level to identify workforce needs and skill gaps in greater detail.

*This challenge was also identified by GAO.

ment activities into the Agency's core management processes. These variations hamper the Agency's ability to measure Agency-wide progress on strategic human capital management activities.

In another report, the OIG emphasized the need for the Office of Acquisition Management (OAM) to identify skill and full-time equivalent gaps within its workforce. The OIG recommended that OAM complete its workload analysis and then perform a workforce analysis. These analyses will allow OAM to identify needed skills so that any skill gaps or surpluses can be addressed. OAM indicated that it had previously attempted to conduct a workload analysis partly to compare full-time equivalents usage against workload processes. However, OAM was unable to complete the analysis because of the poor quality of data in their information systems and the application of subjective weighting to the data.

In summary, while EPA is steadily progressing in its efforts to address human capital management, it continues to be a challenge and should remain as an Agency-level weakness under the Federal Managers' Financial Integrity Act.

EPA'S INFORMATION SYSTEMS SECURITY

EPA must implement adequate security measures to help ensure the smooth functioning of information systems and protect the Agency from loss or embarrassment caused by security failures. Under the leadership of the Office of Environmental Information (OEI), EPA's goal is to make information on its computer systems available, while protecting the confidentiality and integrity of the information. As indicated in its FY 2004 Annual Report, EPA continues to enhance its security program by strengthening management controls to improve implementation of the Agency's security program. For example, EPA implemented a testing and evaluation program to measure the effectiveness of implemented controls. In addition, EPA continues to enhance its program through risk assessments, penetration testing, and monitoring of the Agency's firewall. The dynamic nature of security, however, requires continued emphasis and vigilance.

We believe EPA needs to take the following additional actions to protect its information and systems:

- Implement processes to ensure system Certification and Accreditation (C&A) are complete and up to date. OEI needs to do more to ensure EPA program officials assess the risks to operations and assets under their control and determine the level of security appropriate to protect such assets and operations. Without regular, effective, oversight processes, EPA will continue to place unsubstantiated trust in the many components involved in implementing, practicing, and documenting security requirements.

- Develop and ensure implementation of a training program to provide information security training to EPA employees with significant information security responsibilities. This includes OEI's plans to implement a system to aid in the tracking of such training.
- Establish a process to complete timely background investigations on contractor personnel who, by the nature of their work, have access to sensitive and/or confidential files. At this time, EPA has contract employees with such access who have not received any clearance. EPA has not established a target date for correcting security weaknesses in the Fiscal 1999 Remediation Plan regarding security screening for contractor personnel. Until the Agency addresses this issue, it will be vulnerable to information leaks, theft, tampering, and destruction.

- Develop and implement oversight processes to increase security surrounding remote access servers. EPA needs to establish processes to independently verify and validate that remote access servers comply with published policies and standards. Without an effectively implemented process for securing remote access servers, the confidentiality and integrity of EPA's data, as well as the availability of the network, is at risk.

We recognize that EPA has made significant strides to secure its data resources. Last year, the Agency decided to consider this weakness under the Federal Managers' Financial Integrity Act as corrected. While progress has been made, we still consider information security to be a weakness given the evolving nature of technology, the magnitude of system development activities, and new technology implementation efforts.

EPA's Response (Prepared by the Agency)

EPA continues to improve the management and oversight of the Agency information security program and has successfully demonstrated a high level of security for its information resources and environmental data. In FY 2004, EPA closed Information Security as an Agency weakness.

Highlights from Prior Years:

- Finalized an interim System Life Cycle Policy and Interim Procedures document.
- Enhanced security programs through risk assessments, penetration testing, and monitoring of firewalls and intrusion detection systems.
- Implemented a comprehensive strategy to address security-related deficiencies systematically.
- Validated the effectiveness of management controls developed to address security-related deficiencies.

Highlights of FY 2005 Progress:

- Established a robust training program that requires all EPA employees with significant security responsibilities to complete at least two role-based security training courses.
- Developed a draft EPA Certification & Accreditation (C&A) Guide, a tool designed to help assist EPA staff in conducting a C&A for EPA information systems.
- Completed all corrective action plans for previously identified security-related Automated Security Self Evaluation and Remediation Tool (ASSERT) weaknesses.

GAO's FY 2005 Key Management Challenges for EPA

INCONSISTENCY AMONG EPA'S REGIONAL OFFICES

For each of its program activities, EPA attempts to achieve some level of consistency to ensure that: (1) the public is afforded equal protection under environmental laws, and (2) regulated parties, taxpayers, and ratepayers are not subjected to widely varying costs of environmental compliance. Nonetheless, EPA has long maintained that some variation is to be expected—and even encouraged—in the way its ten regional offices oversee their respective states, take direct enforcement action, provide technical assistance, and carry out a host of other responsibilities. Such variation is often necessary to reflect the wide diversity among very different parts of the country—diversity in ecology, economic development, and immediate attention, and how they can be most effectively implemented. A recurring finding among many of our reviews, however, have been that the inconsistencies in program delivery among EPA's regional offices have often gone beyond the level that should be expected to take into account geographical diversity. For example, during the past few years, we have reported on inconsistencies among regional offices in their approaches toward approving or disapproving proposals by states to change their water quality standards and wide variations in regional offices' enforcement programs because of differences in their philosophical approaches, differences in the resources devoted to enforcement, and a lack of adequate enforcement data that hampered the Agency's ability to accurately characterize the extent of variation.

EPA's Response (Prepared by the Agency)

While EPA has mechanisms in place to ensure basic consistency in environmental programs, the Agency expects and encourages some variation in regional-state interaction. States and regions have differing ecological, economic, and other factors that influence which environmental laws and regulations require the most immediate attention and how they can be most effectively managed. EPA has s significant effort underway with the states to improve alignment of the budget and planning process and to better define performance expectations.

Highlights from Prior Years:

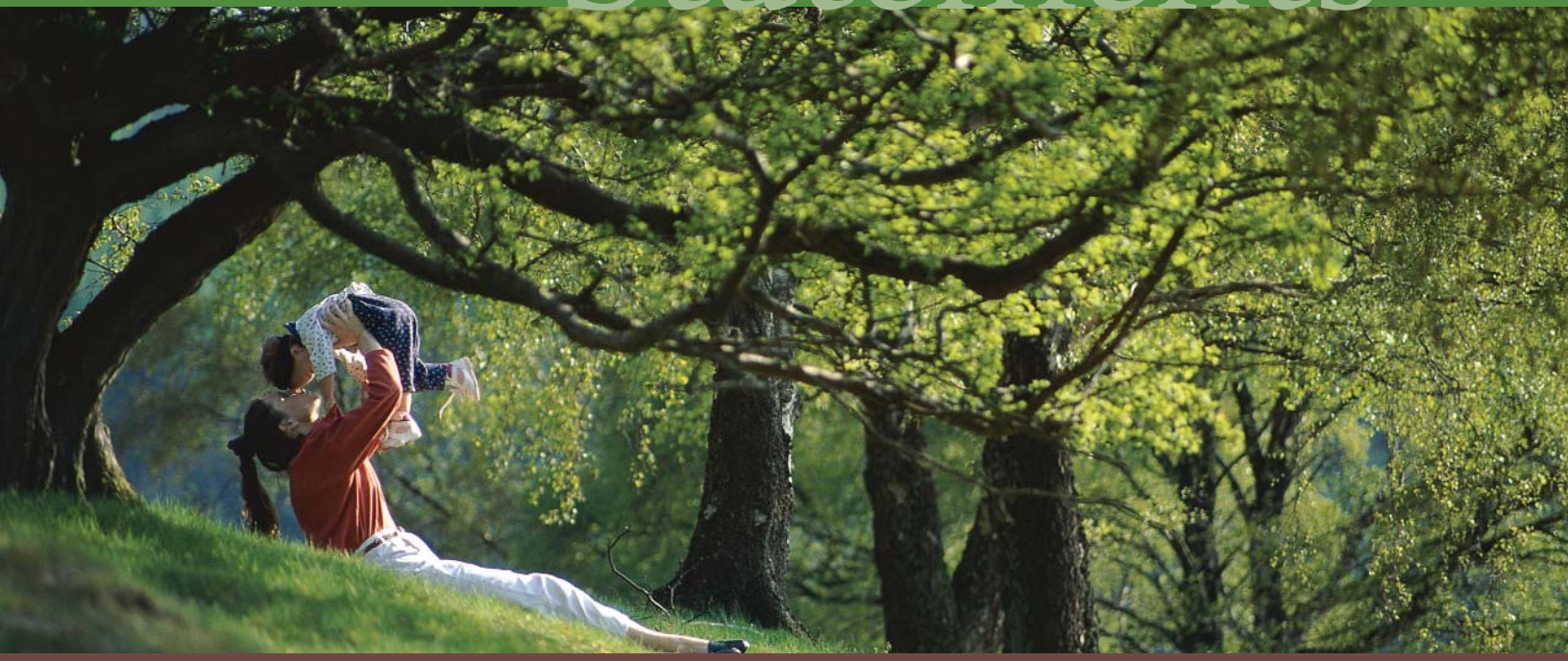
- Improved alignment of EPA and state planning and budgeting process to better define performance expectations.
- Developed the State Enforcement Program Review Framework to achieve greater consistency among state and regional enforcement program.
- Established various internal and external working groups to improve program consistency, communication and coordination on water quality standards issues across regions and states.

Highlights of FY 2005 Progress:

- Continued to convene monthly meetings of the WQS Managers Association, Regional WQS Coordinators, and Regional Endangered Species Act Coordinators to discuss issues of national significance and ensure an appropriate level of consistency.

Section IV.

Annual Financial Statements



CONTENTS

Introduction 194

Chief Financial Officer's Analysis 196

Principal Financial Statements 198

Required Supplementary Information (Unaudited) 234

Required Supplementary Stewardship Information (Unaudited) 240

Supplemental Information and Other Reporting Requirements (Unaudited) 242

Inspector General's Report on EPA's Fiscal 2005 and 2004 Financial Statements 260

Introduction

EPA earned a clean opinion on the financial statements. The auditors identified nine reportable conditions, one non-compliance issue and no material weaknesses. The Chief Financial Officer's Analysis provides comments on the audit results.

This section of the Performance and Accountability Report contains the Agency's financial statements, required supplementary information and related Independent Auditor's Report, as well as other information on the Agency's financial management. Information presented here satisfies the reporting requirements of OMB Circulars A-11 (Section 52.4a) and A-136, *Financial Reporting Requirements*, as well as the following legislation:

- Chief Financial Officers Act of 1990
- Government Management Reform Act of 1994
- Improper Payments Information Act of 2002

The first portion of this section contains the Principal Financial Statements. The statements provide a comparison of FY 2005 and 2004 data. EPA prepares the following required statements:

- Balance Sheet — presents, as of a specific time, amounts of future economic benefits owned or managed by the reporting entity exclusive of items subject to stewardship reporting (assets), amounts owed by the entity (liabilities), and amounts which comprise the difference (net position).
- Statement of Net Cost — presents the gross cost incurred by the reporting entity less any exchange revenue earned from its activities. EPA also prepares a Statement of Net Cost by Goal to provide cost information at the strategic goal level.
- Statement of Changes in Net Position — reports the change in net position during the reporting period. Net position is affected by changes to its two components: Cumulative Results of Operations and Unexpended Appropriations.
- Statement of Budgetary Resources — provides information about how budgetary resources were made available as well as their status at the end of the period.
- Statement of Financing — serves as a bridge between an entity's budgetary and financial (i.e., proprietary) accounting. The statement articulates the relationship between net obligations derived from an entity's budgetary accounts and net cost of operations derived from the entity's proprietary accounts by identifying and explaining key differences between the two numbers.
- Statement of Custodial Activity — reports collection of nonexchange revenue for the General Fund of the Treasury, trust funds, or other recipient entities. EPA, as the collecting entity, does not recognize these collections as revenue. Rather, the Agency accounts for sources and disposition of the collections as custodial activities on this statement.

The accompanying *Notes to Financial Statements* provide a description of significant accounting policies as well as detailed information on select statement lines. These Notes and the principal statements are audited by EPA's Inspector General.

The *Required Supplementary Information* portion of this section provides the following unaudited information:

- Deferred Maintenance — reports maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period.
- Intragovernmental Amounts — reports assets, liabilities, and revenues and costs related to transactions between Federal entities.
- Supplemental Statement of Budgetary Resources — provides information by Agency fund group about how the budgetary resources were made available as well as their status at the end of the period.
- Working Capital Fund Condensed Statements — provides Balance Sheet and Statement of Cost for EPA's Working Capital Fund.

The *Required Supplementary Stewardship Information* portion provides information on substantial investments made by the Federal Government for the benefit of the nation—physical assets not owned by the Government. EPA reports on Stewardship Land (land and easement acquisitions/withdrawal) as well as Stewardship Investments for Non-Federal Physical Property (clean water and drinking water facilities), Human Capital (awareness training and fellowships), and Research and Development.

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- Superfund Financial Statements and Related Notes — provides information on the Superfund Trust Fund.
- Financial Management Plans and Reports (OMB Circular A-11, Section 52.4a) — reports on the Agency's financial management goals and strategies, performance, and systems framework.
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The Inspector General's Report on EPA's Fiscal 2005 and 2004 Financial Statements provides the following information:

- auditor's opinion on the financial statements,
- audit findings and/or recommendations,
- evaluation of internal controls,
- test of compliance with laws and regulations, and
- Agency comments on the audit findings and the Inspector General's evaluation.

Statement of Limitations Regarding the Principal Financial Statements

The principal financial statements have been prepared to report the financial position and results of operations of the entity, pursuant to the requirements of 31 U.S.C. 3515 (b).

While the statements have been prepared from the books and records of the entity in accordance with U.S. generally accepted accounting principles (GAAP) for Federal entities and the formats prescribed by OMB, the statements are in addition to the financial reports used to monitor and control budgetary resources which are prepared from the same books and records.

The statements should be read with the realization that they are for a component of the U.S. Government, a sovereign entity.

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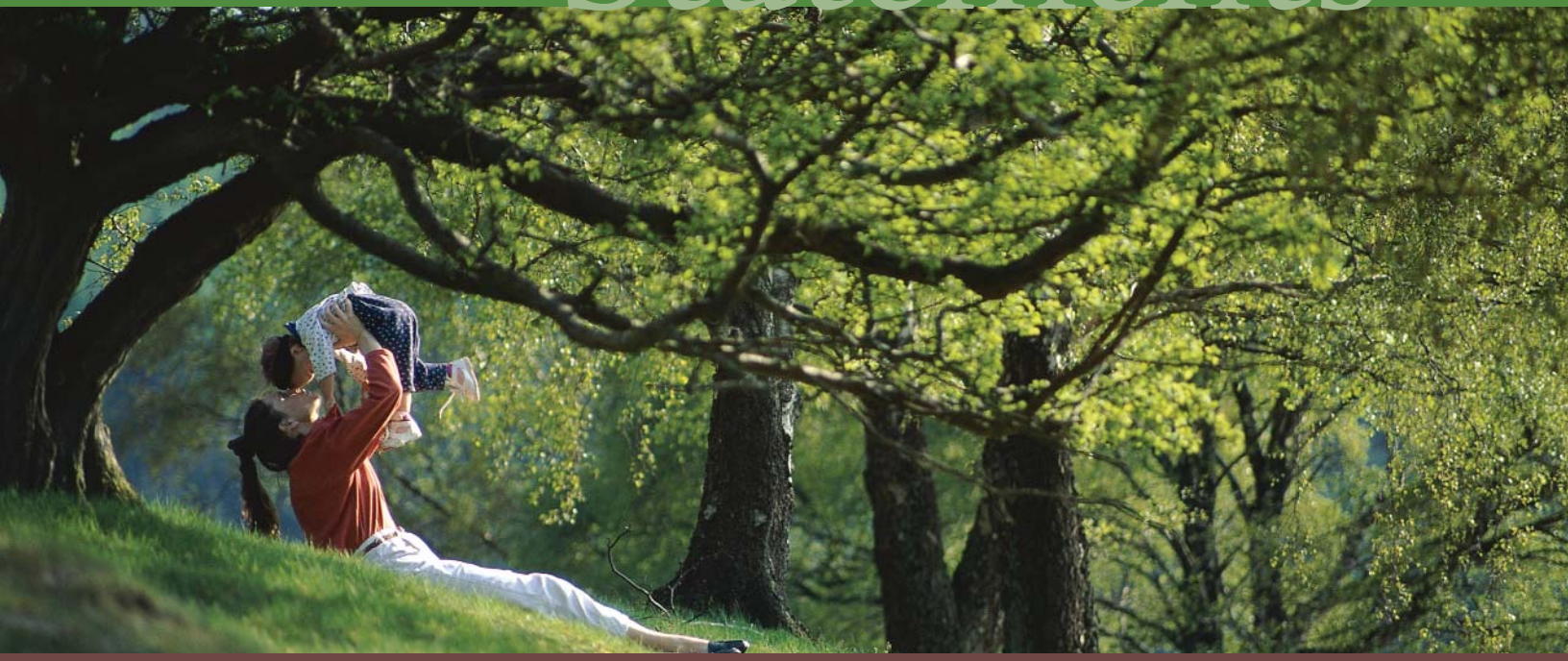

CONTENTS

Introduction 194

Chief Financial Officer's Analysis 196

Principal Financial Statements 198

Required Supplementary Information (Unaudited) 234

Required Supplementary Stewardship Information (Unaudited) 240

Supplemental Information and Other Reporting Requirements (Unaudited) 242

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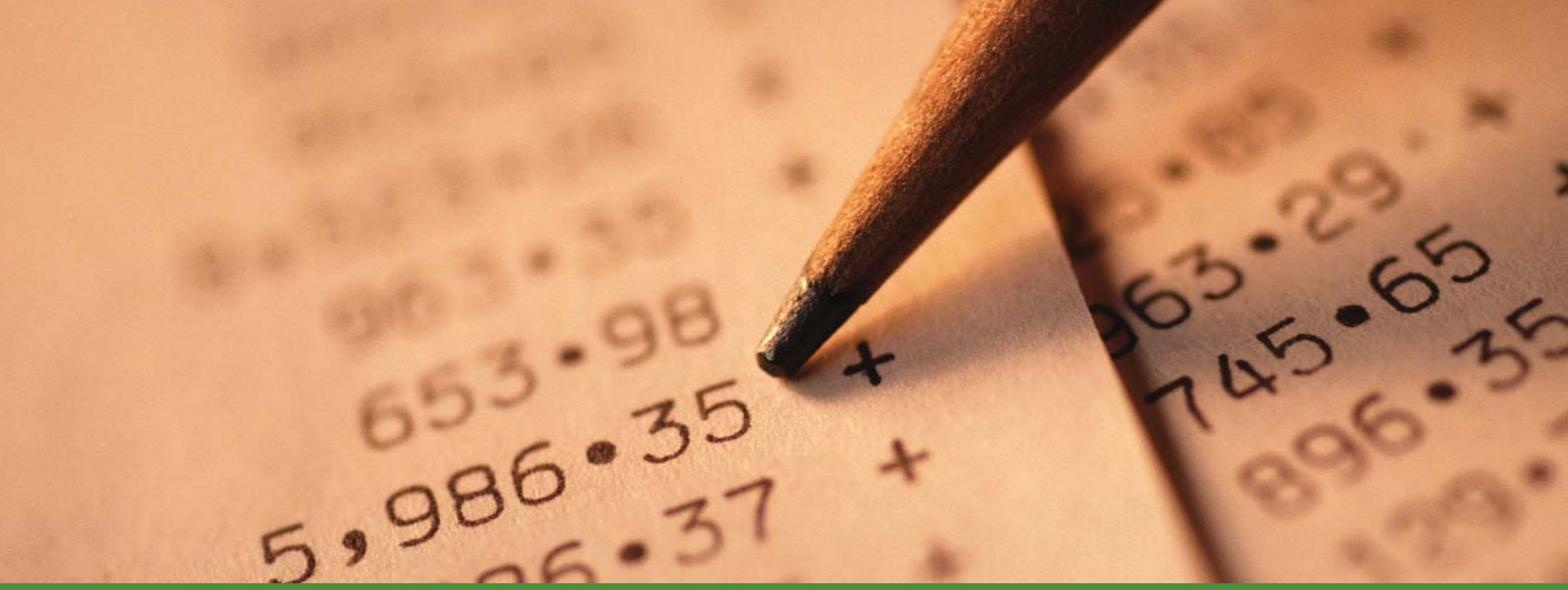

Chief Financial Officer's Analysis of EPA's Fiscal Year 2005 and 2004 Financial Statements

Below is the Chief Financial Officer's analysis of EPA's Fiscal Year (FY) 2005 and 2004 Financial Statements reportable conditions, and noncompliance issues. During the audit, OIG observed and noted nine reportable conditions and one noncompliance issue, none of which are material.

Reportable Conditions

1. Payroll Internal Controls

OIG found that EPA made payroll payments to separated employees. OIG recommends that OCFO work with EPA's Administration and Resources Management office to ensure proper processing of personnel actions, modify automated controls, and reinforce existing controls.

At the beginning of FY 2005, OCFO implemented a new time and attendance system. OCFO made significant strides to assure system transparency to the Agency and compliance with established payroll policies and procedures. In FY 2006, OCFO will continue to validate payroll system internal controls, enforce existing procedures, and take further corrective actions as necessary.

2. Excess Salary Payments

OIG found the OCFO's payroll system made excess salary payments to employees totaling $14,891 of a $54 million bi-weekly payroll, which equates to 0.04% of total payroll.

OCFO has automated internal controls in place for the majority of potential causes for salary overpayments and manual controls in place for many others. OCFO is initiating enhancements to broaden the scope of automated controls to replace existing manual controls. We will continue to evaluate the results as part of our bi-weekly payroll review process.

3. Superfund State Contract (SSC) and Superfund Unbilled Oversight Accruals

The OIG noted areas where increased oversight would improve the management of SSC and Superfund unbilled oversight accruals.

In the past year, OCFO made considerable progress towards assuring consistency with SSC and Superfund unbilled oversight accrual calculations. As OCFO continues its efforts to consolidate accounting operations, we will explore options for centralizing these accrual processes.

4. General Ledger Account Adjustments for Receivables Transferred to Cincinnati Finance Center

OIG identified regional offices' accounts receivable and allowance for doubtful accounts that needed adjustment during an OCFO functional consolidation process.

As part of the process to consolidate EPA's financial operations into four finance centers, the Agency

successfully transferred five of the ten regions' accounts receivable functions to one finance center. An account analysis identified accounting point balances that required adjustments that are reflected in the financial statements. As the Agency progresses in transferring the accounts receivable functions from the remaining five regions, OCFO will continue to monitor appropriate general ledger accounts and assist the Financial Management Officers in resolving account balance issues.

5. Quality Assurance (QA) Reviews

The OIG recommends increased oversight of the QA program activity to ensure comprehensive reviews and adequate documentation.

In FY 2005, OCFO made significant progress with the QA program. OCFO updated and published the QA Guide on the EPA intranet. It reflects current policies, procedures, and approaches to evaluating accounting functions. In addition, OCFO conducted a specialized session on QA reviews and their relationship to the revised OMB Circular A-123 requirements. To continue the QA program's success, OCFO is conducting a training class in December 2005 for Agency finance personnel.

6. Distribution of the Budget Clearing Accounts

OIG identified interagency transactions that were inappropriately distributed.

In this instance, EPA billed other agencies and two transactions were returned two days prior to the close of the fiscal year. EPA reissued the bills in October 2005 and the FY 2005 financial statements reflect the appropriate accounting adjustments.

7. Documentation of Adjustments to the Integrated Financial Management System (IFMS) Entries

The OIG noted instances of adjusting entries made without proper or adequate documentation.

OCFO's Policy Announcement 93-02, dated November 13, 1992, requires adequate source documentation to support all financial transactions. OCFO will insist that Financial Management Officers ensure that all adjusting transactions entered into the Agency's accounting system be adequately documented and easily accessible in accordance with the Policy Announcement.

8. Correcting Rejected Transactions

OIG observed instances of rejected data transfers between PeoplePlus (PPL) and IFMS that were not resolved in a timely manner.

OCFO took action to identify and correct the rejected data for 16 employees. The Office of Human Resources implemented a control that should prevent a reoccurrence.

9. Contingency Plans for Financial Applications

OIG noted instances where contingency plans for financial systems did not fully comply with Federal or EPA continuity guidelines.

OCFO remains firmly committed to securing its system and data in a cost effective manner and in compliance with Federal guidance, EPA policy, and best practices. In FY 2006, OCFO will revise current contingency plans to clearly state the critical operations, supporting resources, and alternate processing procedures for the financial systems identified by the OIG.

Federal Financial Management Improvement Act (FFMIA) Noncompliance Issues

10. Intragovernmental Transactions

As OIG acknowledged, OCFO greatly improved reconciliations of its intragovernmental transactions during FY 2005. However, at year end, EPA was unable to reconcile a large difference with one Federal agency.

EPA believes this is a result of differing accounting methodologies between agencies. EPA will continue efforts to reconcile the Agency's intragovernmental transactions to comply with Federal financial reporting requirements.

Principal Financial Statements

Financial Statements

1. Consolidated Balance Sheet
2. Consolidated Statement of Net Cost
3. Consolidated Statement of Net Cost by Goal
4. Consolidating Statement of Changes in Net Position
5. Combined Statement of Budgetary Resources
6. Consolidated Statement of Financing
7. Statement of Custodial Activity

Notes to Financial Statements

Note 1. Summary of Significant Accounting Policies
Note 2. Fund Balances with Treasury
Note 3. Cash
Note 4. Investments
Note 5. Accounts Receivable
Note 6. Other Assets
Note 7. Loans Receivable, Net—Non-Federal
Note 8. Accounts Payable and Accrued Liabilities
Note 9. General Plant, Property and Equipment
Note 10. Debt
Note 11. Custodial Liability
Note 12. Other Liabilities
Note 13. Leases
Note 14. Pensions and Other Actuarial Liabilities
Note 15. Cashout Advances
Note 16. Unexpended Appropriations
Note 17. Amounts Held by Treasury
Note 18. Commitments and Contingencies
Note 19. Exchange Revenues, Statement of Net Cost
Note 20. Environmental Cleanup Costs
Note 21. State Credits
Note 22. Preauthorized Mixed Funding Agreements
Note 23. Custodial Revenues and Accounts Receivable
Note 24. Statement of Budgetary Resources
Note 25. Recoveries and Resources Not Available, Statement of Budgetary Resources
Note 26. Unobligated Balances Available
Note 27. Offsetting Receipts
Note 28. Statement of Financing
Note 29. Costs Not Assigned to Goals
Note 30. Transfers-In and Out, Statement of Changes in Net Position
Note 31. Imputed Financing
Note 32. Payroll and Benefits Payable
Note 33. Other Adjustments, Statement of Changes in Net Position
Note 34. Nonexchange Revenue, Statement of Changes in Net Position
Note 35. Other, Statement of Financing

Required Supplementary Information (Unaudited)

1. Deferred Maintenance (Unaudited)
2. Intragovernmental Assets (Unaudited)
3. Intragovernmental Liabilities (Unaudited)
4. Intragovernmental Revenues and Costs (Unaudited)
5. Supplemental Statement of Budgetary Resources (Unaudited)
6. Working Capital Fund Condensed Statements (Unaudited)

Required Supplementary Stewardship Information (Unaudited)

Supplemental Information (Unaudited)

1. Superfund Financial Statements and Related Notes
2. Financial Management Plans and Reports (OMB Circular A-11, Section 52.4a)
3. Improper Payments Information Act of 2002 (IPIA) Report

1.

Environmental Protection Agency

Consolidating Balance Sheet

For the Periods Ending September 30, 2005 and 2004

(Dollars in Thousands)

	FY 2005	FY 2004
ASSETS		
Intragovernmental		
Fund Balance With Treasury (Note 2)	$ 12,139,207	$ 12,065,145
Investments (Notes 4 and 17)	4,811,065	4,534,498
Accounts Receivable, Net (Note 5)	66,060	42,770
Other (Note 6)	2,335	1,320
Total Intragovernmental	$ 17,018,667	$ 16,643,733
Cash and Other Monetary Assets (Note 3)	10	10
Accounts Receivable, Net (Note 5)	374,668	414,495
Loans Receivable, Net—Non-Federal (Note 7)	39,347	48,927
Property, Plant and Equipment, Net (Note 9)	708,716	673,363
Other (Note 6)	2,789	1,508
Total Assets	**$ 18,144,197**	**$ 17,782,036**
LIABILITIES		
Intragovernmental		
Accounts Payable and Accrued Liabilities (Note 8)	$ 119,836	$ 104,664
Debt Due to Treasury (Note 10)	21,744	24,101
Custodial Liability (Note 11)	142,347	52,216
Other (Note 12)	106,530	78,121
Total Intragovernmental	$ 390,457	$ 259,102
Accounts Payable and Accrued Liabilities (Note 8)	730,278	881,851
Pensions and Other Actuarial Liabilities (Note 14)	39,380	40,281
Environmental Cleanup Costs (Note 20)	6,989	8,407
Cashout Advances, Superfund (Note 15)	270,811	259,361
Commitments and Contingencies (Note 18)	1,950	1,625
Payroll and Benefits Payable (Note 33)	190,394	180,746
Other (Notes 12 and 13)	98,064	103,916
Total Liabilities	**$ 1,728,323**	**$ 1,735,289**
NET POSITION		
Unexpended Appropriations (Note 16)	$ 11,007,589	$ 10,860,136
Cumulative Results of Operations	5,408,285	5,186,611
Total Net Position	16,415,874	16,046,747
Total Liabilities and Net Position	**$ 18,144,197**	**$ 17,782,036**

The accompanying notes are an integral part of these statements.

2.

Environmental Protection Agency

Consolidating Statement of Net Cost

For the Periods Ending September 30, 2005 and 2004

(Dollars in Thousands)

	FY 2005	FY 2004
COSTS		
Intragovernmental	$ 1,238,395	$ 1,205,696
With the Public	7,259,027	7,649,867
Total Costs	$ 8,497,422	$ 8,855,563
Less:		
Earned Revenues, Federal (Note 19)	$ 105,653	$ 66,262
Earned Revenues, Non-Federal (Note 19)	357,824	280,099
Total Earned Revenues	463,477	346,361
NET COST OF OPERATIONS	$ 8,033,945	$ 8,509,202

The accompanying notes are an integral part of these statements.

3.

Environmental Protection Agency

Consolidated Statement of Net Cost by Goal

For the Period Ending September 30, 2005

(Dollars in Thousands)

	Clean Air	Clean and Safe Water	Land Preservation & Restoration	Healthy Communities & Ecosystems	Compliance & Environmental Stewardship
COSTS					
Intragovernmental	$ 186,667	$ 209,631	$ 376,717	$ 280,492	$ 174,321
With the Public	803,822	3,297,570	1,639,157	992,360	539,857
Total Costs	$ 990,489	$ 3,507,201	$ 2,015,874	$ 1,272,852	$ 714,178
Less:					
Earned Revenue, Federal	20,295	$ 15,444	$ 42,567	$ 15,638	$ 12,000
Earned Revenue, Non-Federal	2,205	2,570	312,487	32,509	1,353
Total Earned Revenue	$ 22,500	$ 18,014	$ 355,054	$ 48,147	$ 13,353
NET COST OF OPERATIONS	$ 967,989	$ 3,489,187	$ 1,660,820	$ 1,224,705	$ 700,825

3. *(continued)*

Environmental Protection Agency

Consolidated Statement of Net Cost by Goal

For the Period Ending September 30, 2005

(Dollars in Thousands)

	Not Assigned to Goals	Consolidated Total
COSTS		
Intragovernmental	$ 10,567	$ 1,238,395
With the Public	(13,739)	7,259,027
Total Costs	$ (3,172)	$ 8,497,422
Less:		
Earned Revenue, Federal	$ (291)	$ 105,653
Earned Revenue, Non-Federal	6,700	357,824
Total Earned Revenue	$ 6,409	$ 463,477
NET COST OF OPERATIONS	$ (9,581)	$ 8,033,945

The accompanying notes are an integral part of these statements.

3. *(continued)*

Environmental Protection Agency

Consolidated Statement of Net Cost by Goal

For the Period Ending September 30, 2004

(Dollars in Thousands)

	Clean Air	Clean and Safe Water	Land Preservation & Restoration	Healthy Communities & Ecosystems	Compliance & Environmental Stewardship
COSTS					
Intragovernmental	$ 168,684	$ 177,573	$ 411,593	$ 257,208	$ 159,492
With the Public	774,151	3,835,046	1,610,080	885,982	557,567
Total Costs	$ 942,835	$ 4,012,619	$ 2,021,673	$ 1,143,190	$ 717,059
Less:					
Earned Revenue, Federal	21,092	$ 6,320	$ 19,877	$ 7,117	$ 13,857
Earned Revenue, Non-Federal	970	1,996	227,936	33,556	1,498
Total Earned Revenue	$ 22,062	$ 8,316	$ 247,813	$ 40,673	$ 15,355
NET COST OF OPERATIONS	$ 920,773	$ 4,004,303	$ 1,773,860	$ 1,102,517	$ 701,704

3. *(continued)*

Environmental Protection Agency

Consolidated Statement of Net Cost by Goal

For the Period Ending September 30, 2004

(Dollars in Thousands)

	Not Assigned to Goals	Consolidated Total
COSTS		
Intragovernmental	$ 31,146	$ 1,205,696
With the Public	(12,959)	7,649,867
Total Costs	$ 18,187	$ 8,855,563
Less:		
Earned Revenue, Federal	$ (2,001)	$ 66,262
Earned Revenue, Non-Federal	14,143	280,099
Total Earned Revenue	$ 12,142	$ 346,361
NET COST OF OPERATIONS	$ 6,045	$ 8,509,202

The accompanying notes are an integral part of these statements.

4.

Environmental Protection Agency

Consolidating Statement of Changes in Net Position

For the Periods Ending September 30, 2005 and 2004

(Dollars in Thousands)

	Cumulative Results of Operations FY 2005	Cumulative Results of Operations FY 2004	Unexpected Appropriations FY 2005	Unexpected Appropriations FY 2004	Consolidated Totals FY 2004	Consolidated Totals FY 2005
Net Position—Beginning of Period	$ 5,186,611	$ 5,124,926	$ 10,860,136	$ 10,768,236	$ 16,046,747	$ 15,893,162
Prior Period Adjustments						
Beginning Balances, as Adjusted	$ 5,186,611	$ 5,124,926	$ 10,860,136	$ 10,768,236	$ 16,046,747	$ 15,893,162
Budgetary Financing Sources:						
Appropriations Received	$ -	$ -	$ 8,005,446	$ 8,322,860	$ 8,005,446	$ 8,322,860
Appropriations Transferred In/Out (Note 30)	-	-	4,702	152	4,702	152
Other Adjustments (Note 33)	-	-	(75,450)	(68,568)	(75,450)	(68,568)
Appropriations Used	7,787,245	8,162,544	(7,787,245)	(8,162,544)	-	-
Nonexchange Revenue (Note 34)	318,662	299,725	-	-	318,662	299,725
Transfers In/Out (Note 30)	11,136	(19,807)	-	-	11,136	(19,807)
Trust Fund Appropriations						
Total Budgetary Financing Sources	$ 8,117,043	$ 8,442,462	$ 147,453	$ 91,900	$ 8,264,496	$ 8,534,362
Other Financing Sources:						
Transfers In/Out (Note 30)	436	$ (436)	$ -	$ -	$ 436	$ (436)
Imputed Financing Sources (Note 31)	138,140	128,861	-	-	138,140	128,861
Total Other Financing Sources	$ 138,576	$ 128,425	$ -	$ -	$ 138,576	$ 128,425
Net Cost of Operations	(8,033,945)	(8,509,202)	-	-	(8,033,945)	(8,509,202)
Net Change	221,674	61,685	147,453	91,900	369,127	153,585
Net Position—End of Period	**$ 5,408,285**	**$ 5,186,611**	**$ 11,007,589**	**$ 10,860,136**	**$ 16,415,874**	**$ 16,046,747**

The accompanying notes are an integral part of these statements.

5.

Environmental Protection Agency

Combined Statement of Budgetary Resources

For the Periods Ending September 30, 2005 and 2004

(Dollars in Thousands)

	FY 2005	FY 2004
BUDGETARY RESOURCES		
Budgetary Authority:		
Appropriations Received	$ 8,032,620	$ 8,353,924
Borrowing Authority	436	5,554
Net Transfers	1,348,725	1,336,786
Unobligated Balances:		
Beginning of Period	2,996,708	2,865,677
Net Transfers, Actual	-	(1,538)
Spending Authority from Offsetting Collections:		
Earned and Collected	$ 557,692	$ 471,777
Receivable from Federal Sources	5,311	(23,156)
Change in Unfilled Customer Orders:		
Advance Received	37,615	(31,207)
Without Advance from Federal Sources	118,144	7,288
Transfers from Trust Funds Collected	69,572	67,959
Transfers from Trust Funds, Anticipated	(20,890)	(16,293)
Total Spending Authority from Collections	$ 767,444	$ 476,368
Recoveries of Prior Year Obligations (Note 25)	174,641	194,775
Temporarily Not Available Pursuant to Public Law (Note 25)	(11,141)	(8,254)
Permanently Not Available (Note 25)	(78,244)	(71,203)
Total Budgetary Resources (Note 24)	**$ 13,231,189**	**$ 13,152,089**
STATUS OF BUDGETARY RESOURCES		
Obligations Incurred:		
Direct	$ 9,573,696	$ 9,745,606
Reimbursable	550,737	409,775
Total Obligations Incurred (Note 24)	$ 10,124,433	$ 10,155,381
Unobligated Balances:		
Apportioned (Note 26)	3,018,689	2,903,849
Unobligated Balances Not Available (Note 26)	88,067	92,859
Total Status of Budgetary Resources	**$ 13,231,189**	**$ 13,152,089**
RELATIONSHIP OF OBLIGATIONS TO OUTLAYS		
Obligations Incurred, Net	$ 9,182,350	$ 9,484,238
Obligated Balances, Net—Beginning of Period	11,207,776	11,420,719
Accounts Receivable	64,972	80,554
Unfilled Customer Orders from Federal Sources	422,012	303,869
Undelivered Orders, Unpaid	(10,636,009)	(10,467,637)
Accounts Payable	(987,090)	(1,124,560)
Total Outlays (Note 24)	**$ 9,254,011**	**$ 9,697,183**
Disbursements	$ 9,918,889	$ 10,205,713
Collections	(664,878)	(508,530)
Less: Offsetting Receipts (Note 27)	(1,334,508)	(1,350,841)
Net Outlays	**$ 7,919,503**	**$ 8,346,342**

The accompanying notes are an integral part of these statements.

6.

Environmental Protection Agency

Consolidating Statement of Financing

For the Periods Ending September 30, 2005 and 2004

(Dollars in Thousands)

	FY 2005	FY 2004
RESOURCES USED TO FINANCE ACTIVITIES:		
Budgetary Resources Obligated		
Obligations Incurred	$ 10,124,433	$ 10,155,381
Less: Spending Authority from Offsetting Collections and Recoveries	(942,084)	(671,143)
Obligations, Net of Offsetting Collections	$ 9,182,349	$ 9,484,238
Less: Offsetting Receipts (Note 27)	(1,334,508)	(1,350,841)
Net Obligations	$ 7,847,841	$ 8,133,397
Other Resources:		
Imputed Financing Sources (Note 31)	138,140	128,861
Net Other Resources Used to Finance Activities	$ 138,140	$ 128,861
Total Resources Used To Finance Activities	$ 7,985,981	$ 8,262,258
RESOURCES USED TO FINANCE ITEMS NOT PART OF NET COST OF OPERATIONS		
Change in Budgetary Resources Obligated	$ (33,501)	$ 192,871
Resources that Fund Prior Period Expenses (Note 28)	(1,120)	(13,855)
Budgetary Offsetting Collections and Receipts that Do Not Affect Net Cost of Operations:		
Liabilities for Guarantees of Subsidy Allowances	4,337	4,142
Offsetting Receipts Not Affecting Net Cost	87,031	93,304
Resources that Finance Asset Acquisition	(137,277)	(106,185)
Total Resources Used to Finance Items Not Part of the Net Cost of Operations	$ (80,530)	$ 170,277
Total Resources Used to Finance the Net Cost of Operations	$ 7,905,451	$ 8,432,535

The accompanying notes are an integral part of these statements.

6. *(continued)*

Environmental Protection Agency

Consolidating Statement of Financing

For the Periods Ending September 30, 2005 and 2004

(Dollars in Thousands)

	FY 2005	FY 2004
WILL NOT REQUIRE OR GENERATE RESOURCES IN THE CURRENT PERIOD		
Components Requiring or Generating Resources in Future Periods:		
Increase in Annual Leave Liability (Note 28)	$ 3,889	$ -
Increase in Environmental and Disposal Liability (Note 28)	99	1,244
Increase in Unfunded Contingencies (Note 28)	1,525	22,425
Up/Downward Reestimates of Subsidy Expense (Note 28)	3	-
Increase in Public Exchange Revenue Receivable	(101,645)	(59,937)
Other (Note 35)	1,969	-
Total Components of Net Cost of Operations that Requires or Generates Resources in the Future	$ (94,160)	$ (36,268)
Components Not Requiring/Generating Resources:		
Depreciation and Amortization	39,760	47,791
Expenses Not Requiring Budgetary Resources	182,894	65,144
Total Components of Net Cost of Operations that Will Not Require or Generate Resources	$ 222,654	$ 112,935
Total Components of Net Cost of Operations that Will Not Require or Generate Resources in the Current Period	$ 128,494	$ 76,667
Net Cost of Operations	**$ 8,033,945**	**$ 8,509,202**

The accompanying notes are an integral part of these statements.

7.

Environmental Protection Agency

Statement of Custodial Activity

For the Periods Ending September 30, 2005 and 2004

(Dollars in Thousands)

	FY 2005	FY 2004
Revenue Activity:		
Sources of Collections		
Fines and Penalties	$ 141,087	$ 162,948
Other	(53,836)	24,463
Total Cash Collections	$ 87,251	$ 187,411
Accrual Adjustment	63,565	(24,865)
Total Custodial Revenue (Note 23)	$ 150,816	$ 162,546
Disposition of Collections:		
Transferred to Others (General Fund)	$ 87,334	$ 187,194
Increases/Decreases in Amounts to be Transferred	63,482	(24,648)
Total Disposition of Collections	$ 150,816	$ 162,546
Net Custodial Revenue Activity (Note 23)	$ -	$ -

The accompanying notes are an integral part of these statements.

Environmental Protection Agency Notes to Financial Statements (Dollars in Thousands)

Note 1. Summary of Significant Accounting Policies

A. Basis of Presentation

These consolidated financial statements have been prepared to report the financial position and results of operations of the U. S. Environmental Protection Agency (EPA or Agency) as required by the Chief Financial Officers Act of 1990 and the Government Management Reform Act of 1994. The reports have been prepared from the financial system and records of the Agency in accordance with *Financial Reporting Requirements*, OMB Circular A-136, and the EPA's accounting policies which are summarized in this note. In addition to the reports required by OMB Circular A-136, the Statement of Net Cost has been prepared by the Agency's strategic goals.

B. Reporting Entities

The EPA was created in 1970 by executive reorganization from various components of other federal 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.

For FY 2005, the accompanying financial statements are grouped and presented in a consolidated manner. The accompanying financial statements include the accounts of all funds described in this note by their respective Treasury fund group.

General Fund Appropriations (Treasury Fund Groups 0000 – 3999)

a. State and Tribal Assistance Grants (STAG) Appropriation: The STAG appropriation, Treasury fund group 0103, provides funds for environmental programs and infrastructure assistance including capitalization grants for State revolving funds and performance partnership grants. Environmental programs and infrastructure supported are: Clean and Safe Water; Capitalization grants for the Drinking Water State Revolving Funds; Clean Air; Direct grants for Water and Wastewater Infrastructure needs, Partnership grants to meet Health Standards, Protect Watersheds, Decrease Wetland Loss, and Address Agricultural and Urban Runoff and Storm Water; Better Waste Management; Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems; and Reduction of Global and Cross Border Environmental Risks.

b. Science and Technology (S&T) Appropriation: The S&T appropriation, Treasury fund group 0107, finances salaries, travel, science, technology, research and development activities including laboratory and center supplies, certain operating expenses, grants, contracts, intergovernmental agreements, and purchases of scientific equipment. These activities provide the scientific basis for the Agency's regulatory actions. In FY 2005, Superfund research costs were appropriated in Superfund and transferred to S&T to allow for proper accounting of the costs. Environmental scientific and technological activities and programs include Clean Air; Clean and Safe Water; Americans Right to Know About Their Environment; Better Waste Management; Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces, and Ecosystems; and Safe Food.

c. Environmental Programs and Management (EPM) Appropriation: The EPM appropriation, Treasury fund group 0108, includes funds for salaries, travel, contracts, grants, and cooperative agreements for pollution abatement, control, and compliance activities and administrative activities of the Agency's operating programs. Areas supported from this appropriation include: Clean Air, Clean and Safe Water, Land Preservation and Restoration, Healthy Communities and Ecosystems, and Compliance and Environmental Stewardship.

d. Buildings and Facilities Appropriation (B&F): The B&F appropriation, Treasury fund group 0110, provides for the construction, repair, improvement, extension, alteration, and purchase of fixed equipment or facilities that are owned or used by the EPA.

e. Office of Inspector General (OIG) Appropriation: The OIG appropriation, Treasury fund group 0112, provides funds for audit and investigative functions to identify and recommend corrective actions on management and administrative deficiencies that create the conditions for existing or potential instances of fraud, waste and mismanagement. Additional funds for audit and investigative activities associated with the Superfund and the LUST Trust Funds are appropriated under those Trust Fund accounts and transferred to the Office of Inspector General account. The audit function provides contract, internal controls and performance, and financial and grant audit services. The appropriation includes expenses incurred and reimbursed from the appropriated trust funds accounted for under Treasury fund group 8145 and 8153.

f. Payments to the Hazardous Substance Superfund Appropriation: The Payment to the Hazardous Substance Superfund appropriation Treasury fund group 0250, authorizes appropriations from the General Fund of the Treasury to finance activities conducted through the Hazardous Substance Superfund Program.

g. Asbestos Loan Program: The Asbestos Loan Program is accounted for under Treasury fund group 0118 for the subsidy and administrative support; under Treasury fund group 4322 for loan disbursements, loans receivable and loan collections on post FY 1991 loans; and under Treasury fund group 2917 for pre FY 1992 loans receivable and loan collections.

The Asbestos Loan Program was authorized by the Asbestos School Hazard Abatement Act of 1986 to finance control of asbestos building materials in schools. Funds have not been appropriated for this Program since FY 1993. For FY 1993 and FY1992, the program was funded by a subsidy appropriated from the General Fund for the actual cost of financing the loans, and by borrowing from Treasury for the unsubsidized portion of the loan. The Program Fund disburses the subsidy to the Financing Fund for increases in the subsidy. The Financing Fund receives the subsidy payment, borrows from Treasury and collects the asbestos loans.

h. Allocations and Appropriations transferred to the Agency: Allocations and appropriations transferred to the Agency from other federal agencies include funds from the Appalachian Regional Commission, which provides economic assistance to state and local developmental activities, and the Agency for International Development, which provides assistance on environmental matters at international levels. The transfer allocations are accounted for under Treasury fund group 0200 and the appropriation transfers are accounted for under 0108.

i. Treasury Clearing Accounts: The EPA Department of the Treasury Clearing Accounts include: (1) the Budgetary Suspense Account, (2) the Unavailable Check Cancellations and Overpayments Account, and (3) the Undistributed Intra-agency Payments and Collections (IPAC) Account. These are accounted for under Treasury fund groups 3875, 3880 and 3885, respectively.

j. General Fund Receipt Accounts: General Fund Receipt Accounts include: Hazardous Waste Permits; Miscellaneous Fines, Penalties and Forfeitures; General Fund Interest; Interest from Credit Reform Financing Accounts; Downward Reestimates of Subsidies; Fees and Other Charges for Administrative and Professional Services; and Miscellaneous Recoveries and Refunds. These accounts are accounted for under Treasury fund groups 0895, 1099, 1435, 1499, 2753.3, 3200 and 3220, respectively.

Revolving Funds (Treasury Fund Group 4000 – 4999)

a. Federal Insecticide, Fungicide and Rodenticide Act (FIFRA): The FIFRA Revolving Fund, Treasury fund group 4310, was authorized by the FIFRA Act of 1972, as amended in 1988 and as amended by the Food Quality Protection Act of 1996. Pesticide Maintenance fees are paid by industry to offset the costs of pesticide reregistration and reassessment of tolerances for pesticides used in or on food and animal feed, as required by law.

b. Tolerance Revolving Fund: The Tolerance Revolving Fund, Treasury fund group 4311, was authorized in 1963 for the deposit of tolerance fees. Fees are paid by industry for federal services to set pesticide chemical residue limits in or on food and animal feed. The fees collected prior to January 2, 1997 were accounted for under this fund. Presently these fees are being deposited in the FIFRA fund (see above).

c. Asbestos Loan Program: The Asbestos Loan Program is accounted for under Treasury fund group 4322 for loan disbursements, loans receivable and loan collections on post FY 1991 loans. Refer to General Fund Appropriations paragraph g. for details.

d. Working Capital Fund (WCF): The WCF, Treasury fund group, 4565, includes two activities: computer support services and postage. The WCF derives revenue from these activities based upon a fee for services. WCF's customers currently consist primarily of Agency program offices and a small portion from other federal agencies. Accordingly, those revenues generated by the WCF from services provided to Agency program offices and expenses recorded by the program offices for use of such services along with the related advances/liabilities, are eliminated on consolidation.

Special Funds (Treasury Fund Group 5000 – 5999)

a. Environmental Services Receipt Account: The Environmental Services Receipt account, Treasury fund group 5295, was established for the deposit of fee receipts associated with environmental programs, including radon measurement proficiency ratings and training, motor vehicle engine certifications, and water pollution permits. Receipts in this special fund will be appropriated to the S&T and the EPM appropriations to meet the expenses of the programs that generate the receipts.

b. Exxon Valdez Settlement Fund: The Exxon Valdez Settlement Fund, Treasury fund group 5297, has funds available to carry out authorized environmental restoration activities. Funding is derived from the collection of reimbursements under the Exxon Valdez settlement as a result of an oil spill.

c. Pesticide Registration Fund: The Pesticide Registration Fund, Treasury fund group 5374, was authorized in 2004 for the expedited processing of certain registration petitions and associated establishment of tolerances for pesticides to be used in or on food and animal feed. Fees covering these activities, as authorized under the FIFRA Act of 1988, are to be paid by industry and deposited into this fund group.

Deposit funds (Treasury Fund Group 6000 – 6999)

Deposit funds include: Fees for Ocean Dumping; Nonconformance Penalties; Clean Air Allowance Auction and Sale; Advances without Orders; and Suspense and payroll deposits for Savings Bonds, and State and City Income Taxes Withheld. These funds are accounted for under Treasury fund groups 6050, 6264, 6265, 6266, 6275 and 6500.

Trust Funds (Treasury Fund Group 8000 – 8999)

a. Superfund Trust Fund: In 1980, the Superfund Trust Fund, Treasury fund group 8145, was established by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) to provide resources needed to respond to and clean up hazardous substance emergencies and abandoned, uncontrolled hazardous waste sites. The Superfund Trust Fund financing is shared by federal and state governments as well as industry. The EPA allocates funds from its appropriation to other federal agencies to carry out CERCLA. Risks to public health and the environment at uncontrolled hazardous waste sites qualifying for the Agency's National Priorities List (NPL) are reduced and addressed through a process involving site assessment and analysis and the design and implementation of cleanup remedies. NPL cleanups and removals are conducted and financed by the EPA, private parties, or other federal agencies. The Superfund Trust Fund includes Treasury's collections and investment activity.

b. Leaking Underground Storage Tank (LUST) Trust Fund: The LUST Trust Fund, Treasury fund group 8153, was authorized by the Superfund Amendments and Reauthorization Act of 1986 (SARA) as amended by the Omnibus Budget Reconciliation Act of 1990. The LUST appropriation provides funding to respond to releases from leaking underground petroleum tanks. The Agency oversees cleanup and enforcement programs which are implemented by the states. Funds are allocated to the states through cooperative agreements to clean up those sites posing the greatest threat to human health and the environment. Funds are used for grants to non-state entities including Indian tribes under Section 8001 of the Resource Conservation and Recovery Act. The program is financed by a one cent a gallon tax on motor fuels which will expire in 2011.

c. Oil Spill Response Trust Fund: The Oil Spill Response Trust Fund, Treasury fund group 8221, was authorized by the Oil Pollution Act of 1990 (OPA). Monies were appropriated to the Oil Spill Response Trust Fund in 1993. The Agency is responsible for directing, monitoring and providing technical assistance for major inland oil spill response activities. This involves setting oil prevention and response standards, initiating enforcement actions for compliance with OPA and Spill Prevention Control and Countermeasure requirements, and directing response actions when appropriate. The Agency carries out research to improve response actions to oil spills including research on the use of remediation techniques such as dispersants and bioremediation. Funding for oil spill cleanup actions is provided through the Department of Transportation under the Oil Spill Liability Trust Fund and reimbursable funding from other federal agencies.

d. Miscellaneous Contributed Funds Trust Fund: The Miscellaneous Contributed Funds Trust Fund, Treasury fund group 8741, includes gifts for pollution control programs that are usually designated for a specific use by donors and/or deposits from pesticide registrants to cover the costs of petition hearings when such hearings result in unfavorable decisions to the petitioner.

C. Budgets and Budgetary Accounting

General Funds

Congress adopts an annual appropriation for STAG, B&F, and for Payments to the Hazardous Substance Superfund to be available until expended, as well as annual appropriations for S&T, EPM and for the OIG to be available for 2 fiscal years. When the appropriations for the General Funds are enacted, Treasury issues a warrant to the respective appropriations. As the Agency disburses obligated amounts, the balance of funds available to the appropriation is reduced at Treasury.

The Asbestos Loan Program is a commercial activity financed from a combination of two sources, one for the long term costs of the loans and another for the remaining non-subsidized portion of the loans. Congress adopted a 1 year appropriation, available for obligation in the fiscal year for which it was appropriated, to cover the estimated long term cost of the Asbestos loans. The long term costs are defined as the net present value of

the estimated cash flows associated with the loans. The portion of each loan disbursement that did not represent long term cost is financed under permanent indefinite borrowing authority established with the Treasury. A permanent indefinite appropriation is available to finance the costs of subsidy re-estimates that occur after the year in which the loan was disbursed.

Funds transferred from other federal agencies are funded by a nonexpenditure transfer of funds from the other federal agencies. As the Agency disburses the obligated amounts, the balance of funding available to the appropriation is reduced at Treasury.

Clearing accounts and receipt accounts receive no appropriated funds. Amounts are recorded to the clearing accounts pending further disposition. Amounts recorded to the receipt accounts capture amounts collected for or payable to the Treasury General Fund.

Revolving Funds

Funding of the FIFRA and Pesticide Registration Funds is provided by fees collected from industry to offset costs incurred by the Agency in carrying out these programs. Each year the Agency submits an apportionment request to OMB based on the anticipated collections of industry fees.

Funding of the WCF is provided by fees collected from other Agency appropriations and other federal agencies to offset costs incurred for providing Agency administrative support for computer support and postage.

Special Funds

The Environmental Services Receipt Account obtains fees associated with environmental programs that will be appropriated to the S&T and EPM appropriations.

Exxon Valdez uses funding collected from reimbursement from the Exxon Valdez settlement.

Deposit Funds

Deposit accounts receive no appropriated funds. Amounts are recorded to the deposit accounts pending further disposition.

Trust Funds

Congress adopts an annual appropriation amount for the Superfund, LUST and the Oil Spill Response Trust Funds to remain available until expended. A transfer account for the Superfund and LUST Trust Fund has been established for purposes of carrying out the program activities. As the Agency disburses obligated amounts from the transfer account, the Agency draws down monies from the Superfund and LUST Trust Fund at Treasury to cover the amounts being disbursed. The Agency draws down all the appropriated monies from the Treasury's Oil Spill Liability Trust Fund to the Oil Spill Response Trust Fund when Congress adopts the appropriation amount.

D. Basis of Accounting

Transactions are recorded on an accrual accounting basis and on a budgetary basis (where budgets are issued). Under the accrual method, revenues are recognized when earned and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. Budgetary accounting facilitates compliance with legal constraints and controls over the use of federal funds. Material interfund balances and transactions are eliminated.

E. Revenues and Other Financing Sources.

The following EPA policies and procedures to account for inflow of revenue and other financing sources are in accordance with Statement of Federal Financial Accounting Standards (SFFAS) No. 7, "Accounting for Revenues and Other Financing Sources."

The Superfund program receives most of its funding through appropriations that may be used, within specific statutory limits, for operating and capital expenditures (primarily equipment). Additional financing for the Superfund program is obtained through: reimbursements from other federal agencies, state cost share payments under Superfund State Contracts (SSCs), and settlement proceeds from Potentially Responsible Parties (PRPs), under CERCLA Section 122(b)(3), placed in special accounts. Special accounts were previously limited to settlement amounts for future costs. However, beginning in FY 2001, cost recovery amounts received under CERCLA Section +122 (b)(3) settlements could be placed in special accounts. Cost recovery settlements that are not placed in special accounts continue to be deposited in the Trust Fund.

The majority of all other funds receive funding needed to support programs through appropriations, which may be used, within statutory limits, for operating and capital expenditures. However, under Credit Reform provisions, the Asbestos Loan Program received funding to support the subsidy cost of loans through appropriations which may be used with statutory limits. The Asbestos Direct Loan Financing fund, an off-budget fund, receives additional funding to support the outstanding loans through collections from the Program fund for the subsidized portion of the loan. The last year Congress provided appropriations to make new loans was 1993.

The FIFRA and Pesticide Registration funds receive funding through fees collected for services provided and interest on invested funds. The WCF receives revenue through fees collected for services provided to Agency program offices. Such revenue is eliminated with related Agency program expenses upon consolidation of the Agency's financial statements. The Exxon Valdez Settlement Fund receives funding through reimbursements.

Appropriated funds are recognized as Other Financing Sources expended when goods and services have been rendered without regard to payment of cash. Other revenues are recognized when earned, i.e., when services have been rendered.

F. Funds with the Treasury

The Agency does not maintain cash in commercial bank accounts. Cash receipts and disbursements are handled by Treasury. The major funds maintained with Treasury are Appropriated Funds, Revolving Funds, Trust Funds, Special Funds, Deposit Funds, and Clearing Accounts. These funds have balances available to pay current liabilities and finance authorized obligations, as applicable.

G. Investments in U.S. Government Securities

Investments in U.S. Government securities are maintained by Treasury and are reported at amortized cost net of unamortized discounts. Discounts are amortized over the term of the investments and reported as interest income. No provision is made for unrealized gains or losses on these securities because, in the majority of cases, they are held to maturity (see Note 4).

H. Notes Receivable

The Agency records notes receivable at their face value and any accrued interest as of the date of receipt.

I. Marketable Securities

The Agency records marketable securities at cost as of the date of receipt. Marketable securities are held by Treasury and reported at their cost value in the financial statements until sold (see Note 6).

J. Accounts Receivable and Interest Receivable

The majority of receivables for non-Superfund funds represent penalties and interest receivable for general fund receipt accounts, unbilled intragovernmental reimbursements receivable, allocations receivable from Superfund (eliminated in consolidated totals), and refunds receivable for the STAG appropriation.

Superfund accounts receivable represent recovery of costs from PRPs as provided under CERCLA as amended by SARA. However, cost recovery expenditures are expensed when incurred since there is no assurance that these funds will be recovered (see Note 5).

The Agency records accounts receivable from PRPs for Superfund site response costs when a consent decree, judgment, administrative order, or settlement is entered. These agreements are generally negotiated after site response costs have been incurred. It is the Agency's position that until a consent decree or other form of settlement is obtained, the amount recoverable should not be recorded.

The Agency also records accounts receivable from states for a percentage of Superfund site remedial action costs incurred by the Agency within those states. As agreed to under SSCs, cost sharing arrangements may vary according to whether a site was privately or publicly operated at the time of hazardous substance disposal and whether the Agency response action was removal or remedial. SSC agreements are usually for 10 percent or 50 percent of site remedial action costs. States may pay the full amount of their share in advance, or incrementally throughout the remedial action process. Allowances for uncollectible state cost share receivables have not been recorded, because the Agency has not had collection problems with these agreements.

K. Advances and Prepayments

Advances and prepayments represent funds advanced or prepaid to other entities both internal and external to the Agency for which a budgetary expenditure has not yet occurred.

L. Loans Receivable

Loans are accounted for as receivables after funds have been disbursed. Loans receivable resulting from obligations on or before September 30, 1991, are reduced by the allowance for uncollectible loans. Loans receivable resulting from loans obligated on or after October 1, 1991, are reduced by an allowance equal to the present value of the subsidy costs associated with these loans. The subsidy cost is calculated based on the interest rate differential between the loans and Treasury borrowing, the estimated delinquencies and defaults net of recoveries offset by fees collected and

other estimated cash flows associated with these loans.

M. Appropriated Amounts Held by Treasury

For the Superfund and LUST Trust Funds and for amounts appropriated from the Superfund Trust Fund to the OIG, cash available to the Agency that is not needed immediately for current disbursements remains in the respective Trust Funds managed by Treasury.

N. Property, Plant, and Equipment

EPA accounts for its personal and real property accounting records in accordance with SFFAS No. 6, "Accounting for Property, Plant and Equipment." For EPA-held property, the Fixed Assets Subsystem (FAS) automatically generates depreciation entries monthly based on acquisition dates.

A purchase of EPA-held or contractor-held personal property is capitalized if it is valued at $25 thousand or more and has an estimated useful life of at least 2 years. Prior to implementing FAS, depreciation was taken on a modified straight-line basis over a period of 6 years depreciating 10 percent the first and sixth year, and 20 percent in years 2 through 5. This modified straight-line method is still used for contractor-held property; detailed records are maintained and accounted for in contractor systems, not in FAS. All EPA-held personal property purchased before the implementation of FAS was assumed to have an estimated useful life of 5 years. New acquisitions of EPA-held personal property are depreciated using the straight-line method over the specific asset's useful life, ranging from 2 to 15 years.

Superfund contractor-held property used as part of the remedy for site-specific response actions is capitalized in accordance with the Agency's capitalization threshold. This property is part of the remedy at the site and eventually becomes part of the site itself. Once the response action has been completed and the remedy implemented, EPA will retain control of the property, e.g., pump and treat facility, for 10 years or less, and will transfer its interest in the facility to the respective state for mandatory operation and maintenance—usually 20 years or more. Consistent with EPA's 10 year retention period, depreciation for this property will be based on a 10 year life. However, if any property is transferred to a state in a year or less, this property will be charged to expense. If any property is sold prior to EPA relinquishing interest, the proceeds from the sale of that property shall be applied against contract payments or refunded as required by the Federal Acquisition Regulations.

Real property consists of land, buildings, and capital and leasehold improvements. Real property, other than land, is capitalized when the value is $75 thousand or more. Land is capitalized regardless of cost. Buildings were valued at an estimated original cost basis, and land was valued at fair market value if purchased prior to FY 1997. Real property purchased during and after FY 1997 is valued at actual cost. Depreciation for real property is calculated using the straight-line method over the specific asset's useful life, ranging from 10 to 102 years. Leasehold improvements are amortized over the lesser of their useful life or the unexpired lease term. Additions to property and improvements not meeting the capitalization criteria, expenditures for minor alterations, and repairs and maintenance are expensed as incurred.

Software for Working Capital Fund, a revenue generating activity, is capitalized if the purchase price was $100 thousand or more with an estimated useful life of 2 years or more. All other funds capitalize software whose acquisition value is $500 thousand or more in accordance with the provisions of SFFAS No. 10, "Accounting for Internal Use Software." Software is depreciated using the straight-line method over the specific asset's useful life ranging from 2 to 10 years.

O. Liabilities

Liabilities represent the amount of monies or other resources that are likely to be paid by the Agency as the result of a transaction or event that has already occurred. However, no liability can be paid by the Agency without an appropriation or other collections. Liabilities for which an appropriation has not been enacted are classified as unfunded liabilities and there is no certainty that the appropriations will be enacted. Liabilities of the Agency arising from other than contracts can be abrogated by the Government acting in its sovereign capacity.

P. Borrowing Payable to the Treasury

Borrowing payable to Treasury results from loans from Treasury to fund the Asbestos direct loans described in part B and C of this note. Periodic principal payments are made to Treasury based on the collections of loans receivable.

Q. Interest Payable to Treasury

The Asbestos Loan Program makes periodic interest payments to Treasury based on its debt to Treasury. At the end of FY 2004 and FY 2005, there

was no outstanding interest payable to Treasury since payment was made through September 30.

R. Accrued Unfunded Annual Leave

Annual, sick and other leave is expensed as taken during the fiscal year. Sick leave earned but not taken is not accrued as a liability. Annual leave earned but not taken as of the end of the fiscal year is accrued as an unfunded liability. Accrued unfunded annual leave is included in the Statement of Financial Position as a component of "Payroll and Benefits Payable."

S. Retirement Plan

There are two primary retirement systems for federal employees. Employees hired prior to January 1, 1984, may participate in the Civil Service Retirement System (CSRS). On January 1, 1984, the Federal Employees Retirement System (FERS) went into effect pursuant to Public Law 99-335. Most employees hired after December 31, 1983, are automatically covered by FERS and Social Security. Employees hired prior to January 1, 1984, elected to either join FERS and Social Security or remain in CSRS. A primary feature of FERS is that it offers a savings plan to which the Agency automatically contributes one percent of pay and matches any employee contributions up to an additional four percent of pay. The Agency also contributes the employer's matching share for Social Security.

With the issuance of SFFAS No. 5, "Accounting for Liabilities of the Federal Government," accounting and reporting standards were established for liabilities relating to the federal employee benefit programs (Retirement, Health Benefits and Life Insurance). SFFAS No. 5 requires that the employing agencies recognize the cost of pensions and other retirement benefits during their employees' active years of service. SFFAS No. 5 requires that the Office of Personnel Management (OPM), as administrator of the Civil Service Retirement and Federal Employees Retirement Systems, the Federal Employees Health Benefits Program, and the Federal Employees Group Life Insurance Program, provide federal agencies with the actuarial cost factors to compute the liability for each program.

T. Prior Period Adjustments

Prior period adjustments will be made in accordance with SFFAS No. 21, "Reporting Corrections of Errors and Changes in Accounting Principles." Specifically, prior period adjustments will only be made for material prior period errors to: (1) the current period financial statements, and (2) the prior period financial statements presented for comparison. Adjustments related to changes in accounting principles will only be made to the current period financial statements, but not to prior period financial statements presented for comparison.

Note 2. Fund Balances with Treasury

Fund Balances with Treasury as of September 30, 2005 and 2004, consist of the following:

	FY 2005			FY 2004		
	Entity Assets	Non-Entity Assets	Total	Entity Assets	Non-Entity Assets	Total
Trust Funds:						
Superfund	$ 213,797	$ -	$ 213,797	$ 199,406	$ -	$ 199,406
LUST	17,613	-	17,613	14,825	-	14,825
Oil Spill & Misc.	9,169	-	9,169	10,222	-	10,222
Revolving Funds:						
FIFRA/Tolerance	7,970	-	7,970	4,913	-	4,913
Working Capital	69,401	-	69,401	53,560	-	53,560
Cr. Reform Finan.	489	-	489	492	-	492
Appropriated	11,655,287	-	11,655,287	11,639,189	-	11,639,189
Other Fund Types	157,303	8,178	165,481	136,646	5,892	142,538
Total	$ 12,131,029	$ 8,178	$ 12,139,207	$ 12,059,253	$ 5,892	$ 12,065,145

Entity fund balances, except for special fund receipt accounts, are available to pay current liabilities and to finance authorized purchase commitments (see Status of Fund Balances below). Entity Assets for Other Fund Types consist of special purpose funds and special fund receipt accounts, such as the Pesticide Registration funds and the Environmental Services receipt account. The Non-Entity Assets for Other Fund Types consist of clearing accounts and deposit funds, which are either awaiting documentation for the determination of proper disposition or being held by EPA for other entities.

Status of Fund Balances:	FY 2005	FY 2004
Unobligated Amounts in Fund Balances:		
Available for Obligation	$ 3,018,690	$ 2,903,849
Unavailable for Obligation	88,066	92,861
Net Receivables from Invested Balances	(2,278,343)	(2,471,574)
Balances in Treasury Trust Fund (Note 17)	19,965	201,438
Obligated Balance not yet Disbursed	11,136,112	11,207,766
Non-Budgetary FBWT	154,717	130,805
Totals	**$ 12,139,207**	**$ 12,065,145**

The funds available for obligation may be apportioned by the OMB for new obligations at the beginning of the following fiscal year. Funds unavailable for obligation are mostly balances in expired funds, which are available only for adjustments of existing obligations. For FY 2005 and FY 2004 no differences existed between Treasury's accounts and EPA's statements for fund balances with Treasury.

Note 3. Cash

As of September 30, 2005 and 2004, cash consists of an imprest fund of $10 thousand.

Note 4. Investments

As of September 30, 2005 and 2004 investments consist of the following:

Intragovernmental Securities:		Cost	Unamortized (Premium) Discount	Interest Receivable	Investments, Net	Market Value
Non-Marketable	FY 2005	**$** 4,762,154	$ (16,261)	$ 32,650	$ 4,811,065	$ 4,811,065
Non-Marketable	FY 2004	**$** 4,459,647	$ (47,536)	$ 27,315	$ 4,534,498	$ 4,534,498

CERCLA, as amended by SARA, authorizes EPA to recover monies to clean up Superfund sites from responsible parties (RP). Some RPs file for bankruptcy under Title 11 of the U.S. Code. In bankruptcy settlements, EPA is an unsecured creditor and is entitled to receive a percentage of the assets remaining after secured creditors have been satisfied. Some RPs satisfy their debts by issuing securities of the reorganized company. The Agency does not intend to exercise ownership rights to these securities, and instead will convert them to cash as soon as practicable. (See Note 6.)

Note 5. Accounts Receivable

The Accounts Receivable for September 30, 2005 and 2004, consist of the following:

	FY 2005	FY 2004
Intragovernmental Assets:		
Accounts & Interest Receivable	$ 66,060	$ 42,770
Non-Federal Assets:		
Unbilled Accounts Receivable	$ 89,818	$ 93,440
Accounts & Interest Receivable	1,092,376	1,015,721
Less: Allowance for Uncollectibles	(807,526)	(694,666)
Total	$ 374,668	$ 414,495

The Allowance for Uncollectible Accounts is determined both on a specific identification basis, as a result of a case-by-case review of receivables, and on a percentage basis for receivables not specifically identified.

Note 6. Other Assets

	FY 2005	FY 2004
Intragovernmental Assets:		
Advances to Federal Agencies	$ 1,102	$ 767
Advances to WCF	827	-
Advances for Postage	406	553
Total Intragovernmental Assets	$ 2,335	$ 1,320
Non-Federal Assets:		
Travel Advances	$ (898)	$ (1,008)
Letter of Credit Advances	9	271
Grant Advances	1,710	1,164
Other Advances	946	830
Operating Materials and Supplies	183	200
Inventory for Sale	204	51
Securities Received in Settlement of Debt	635	-
Total Non-Federal Assets	$ 2,789	$ 1,508

Other Assets for September 30, 2005 and 2004, consist of the following:

Note 7. Loans Receivable, Net—Non-Federal

Asbestos Loan Program loans disbursed from obligations made prior to FY 1992 are net of allowances for estimated uncollectible loans, if an allowance was considered necessary. Loans disbursed from obligations made after FY 1991 are governed by

	FY 2005			FY 2004		
	Loans Receivable, Gross	Allowance*	Value of Assets Related to Direct Loans	Loans Receivable, Gross	Allowance*	Value of Assets Related to Direct Loans
Direct Loans Obligated Prior to FY 1992	$ 18,118	$ -	$ 18,118	$ 25,243	$ -	$ 25,243
Direct Loans Obligated After FY 1991	26,427	(5,198)	21,229	30,466	(6,782)	23,684
Total	**$ 44,545**	**$ (5,198)**	**$ 39,347**	**$ 55,709**	**$ (6,782)**	**$ 48,927**

* Allowance for Pre-Credit Reform loans (prior to FY 1992) is the Allowance for Estimated Uncollectible Loans, and the Allowance for Post Credit Reform Loans (after FY 1991) is the Allowance for Subsidy Cost (present value).

the Federal Credit Reform Act, which mandates that the present value of the subsidy costs (i.e., interest rate differentials, inter-

	Interest Rate Re-estimate	Technical Re-estimate	Total
Downward Subsidy Reestimate—FY 2005	$ (233)	$ (203)	$ (436)
Upward Subsidy Reestimate—FY 2005	129	128	257
FY 2005 Totals	**$ (104)**	**(75)**	**(179)**
Downward Subsidy Reestimate—FY 2004	$ (2,660)	$ (2,894)	$ (5,554)
FY 2004 Totals	**$ (2,600)**	**$ (2,894)**	**$ (5,554)**

est subsidies, anticipated delinquencies, and defaults) associated with direct loans be recognized as an expense in the year the loan is made. The net loan present value is the gross loan receivable less the subsidy present value. The amounts as of September 30, 2005 and 2004, are as follows:

Subsidy Expenses for Credit Reform Loans (reported on a cash basis):

	FY 2005	FY 2004
Intragovernmental:		
Accounts Payable to other Federal Agencies	$ 774	$ 1,808
Liability for Allocation Transfers	19,878	31,286
Accrued Liabilities, Federal	99,184	71,570
Total Intragovernmental	**$ 119,836**	**$ 104,664**
Non-Federal:		
Accounts Payable, Non-Federal	$ 105,027	$ 93,262
Advances Payable, Non-Federal	24	19
Interest Payable	7	41
Grant Liabilities	449,206	594,124
Other Accrued Liabilities, Non-Federal	176,014	194,405
Total Non-Federal	**$ 730,278**	**$ 881,851**

Note 8. Accounts Payable and Accrued Liabilities

The Accounts Payable and Accrued Liabilities are current liabilities and consist of the following amounts as of September 30, 2005 and 2004.

	FY 2005			FY 2004		
	Acquisition Value	Accumulated Depreciation	Net Book Value	Acquisition Value	Accumulated Depreciation	Net Book Value
EPA-Held Equipment	$ 194,410	$ (109,683)	$ 84,727	$ 188,844	$ (112,793)	$ 76,051
Software	146,132	(19,777)	126,355	105,634	(14,881)	90,753
Contractor Held Equip.	56,746	(22,706)	34,040	61,571	(19,385)	42,186
Land and Buildings	558,689	(122,012)	436,677	547,876	(114,184)	433,692
Capital Leases	50,111	(23,194)	26,917	49,956	(19,275)	30,681
Total	$ 1,006,088	$ (297,372)	$ 708,716	$ 953,881	$ (280,518)	$ 673,363

Note 9. General Plant, Property and Equipment

Plant, property and equipment consist of software; real, EPA-Held and Contractor-Held personal, and capital lease property.

	FY 2005			FY 2004		
All Others Funds	Beginning Balance	Net Borrowing	Ending Balance	Beginning Balance	Net Borrowing	Ending Balance
Intragovernmental:						
Debt to Treasury	$ 24,101	$ (2,357)	$ 21,744	$ 21,189	$ 2,912	$ 24,101

As of September 30, 2005 and 2004, Plant, Property and Equipment consist of the following:

Note 10. Debt

The debt due to Treasury consists of the following as of September 30, 2005 and 2004:

Note 11. Custodial Liability

Custodial Liability represents the amount of net accounts receivable that, when collected, will be deposited to the Treasury

	Covered by Budgetary Resources	Not Covered by Budgetary Resources	Total
Other Liabilities—Intragovernmental			
Current			
Employer Contributions & Payroll Taxes	$ 12,731	$ -	$ 12,731
WCF Advances	17,392	-	17,392
Other Advances	4,737	-	4,737
Advances, HRSTF Cashout	41,207	-	41,207
Deferred HRSTF Cashout	60	-	60
Liability for Deposit Funds	(82)	-	(82)
Resources Payable to Treasury	1	-	1
Non-Current			
Unfunded FECA Liability	-	8,484	8,484
Payable to Treasury Judgment Fund	-	22,000	22,000
Total Intragovernmental	$ 76,046	$ 30,484	$ 106,530
Other Liabilities—Non-Federal			
Current			
Unearned Advances, Non-Federal	$ 59,388	$ -	$ 59,388
Liability for Deposit Funds, Non-Federal	(70)	-	(70)
Non-Current			
Other Liabilities	-	30	30
Capital Lease Liability	-	38,716	38,716
Total Non-Federal	$ 59,318	$ 38,746	$ 98,064

General Fund. Included in the custodial liability are amounts for fines and penalties, interest assessments, repayments of loans, and miscellaneous other accounts receivable.

Note 12. Other Liabilities

Other Liabilities consist of the following as of September 30, 2005:

Other Liabilities consist of the following as of September 30, 2004:

	Covered by Budgetary Resources	Not Covered by Budgetary Resources	Total
Other Liabilities—Intragovernmental			
Current			
Employer Contributions & Payroll Taxes	$ 10,760	$ -	$ 10,760
Other Advances	3,522	-	3,522
Advances, HRSTF Cashout	32,724	-	32,724
Deferred HRSTF Cashout	3	-	3
Liability for Deposit Funds	(30)	-	(30)
Resources Payable to Treasury	1	-	1
Subsidy Payable to Treasury	437	-	437
Non-Current			
Unfunded FECA Liability	-	8,704	8,704
Payable to Treasury Judgment Fund*	-	22,000	22,000
Total Intragovernmental	$ 47,417	$ 30,704	$ 78,121
Other Liabilities—Non-Federal			
Current			
Unearned Advances, Non-Federal	$ 56,824	$ -	$ 56,824
Liability for Deposit Funds, Non-Federal	5,601	-	5,601
Non-Current			
Capital Lease Liability	-	41,491	41,491
Total Non-Federal	$ 62,425	$ 41,491	$ 103,916

Note 13. Leases

Capital Leases:

The Capital Leases:

Summary of Assets Under Capital Lease:	FY 2005	FY 2004
Real Property	$ 40,913	$ 40,913
Personal Property	2,761	2,606
Software License	6,437	6,437
Total	$ 50,111	$ 49,956
Accumulated Amortization	$ 23,194	$ 19,275

EPA has three capital leases for land and buildings housing scientific laboratories and/or computer facilities. All of these leases include a base rental charge and escalator clauses based upon either rising operating costs and/or real estate taxes. The base operating costs are adjusted annually according to escalators in the Consumer Price Indices published by the Bureau of Labor Statistics, U.S. Department of Labor. The real property leases terminate in FYs 2010, 2013, and 2025. These charges are expended out of the EPM appropriation.

EPA also has capital leases terminating in FY 2007 for seven shuttle buses. These leases are expended out of the EPM appropriation.

EPA has two capital leases expended out of the Working Capital Fund. The capital leases are for an IBM Supercomputer and MicroSoft Office software. These leases terminate in 2006 and 2009, respectively.

During FY 2005, EPA entered into a capital lease for a Storage Area Network. The lease terminates in FY 2007 and payments are expended from the EPM appropriation. The total future minimum capital lease payments are listed below.

Future Payments Due:	Capital Leases
Fiscal Year	
2006	$ 8,888
2007	8,147
2008	7,866
2009	6,295
2010	6,101
After 5 Years	64,912
Total Future Minimum Lease Payments	$ 102,209
Less: Imputed Interest	(63,493)
Net Capital Lease Liability	**$ 38,716**
Liabilities not Covered by Budgetary Resources (See Note 12)	**$ 38,716**

Operating Leases:

The GSA provides leased real property (land and buildings) as office space for EPA employees. GSA charges a Standard Level User Charge that approximates the commercial rental rates for similar properties.

EPA has three direct operating leases for land and buildings housing scientific laboratories and/or computer facilities. Most of these leases include a base rental charge and escalator clauses based upon either rising operating costs and/or real estate taxes. The base operating costs are adjusted annually according to escalators in the Consumer Price Indices published by the Bureau of Labor Statistics. Two of these leases expire in FYs 2017 and 2020. A third lease, originally expired in FY 2001, was extended until FY 2007. These charges are expended from the EPM appropriation. The total minimum future operating lease costs are listed below.

Fiscal Year	Operating Leases, Land & Buildings
2006	$ 87
2007	81
2008	74
2009	74
2010	74
Beyond 2010	624
Total Future Minimum Lease Payments	**$ 1,014**

Note 14. Pension and Other Actuarial Liabilities

The Federal Employees' Compensation Act (FECA) provides income and medical cost protection to covered federal civilian employees injured on the job, employees who have incurred a work-related occupational disease, and beneficiaries of employees whose death is attributable to a job-related injury or occupational disease. Annually, EPA is allocated the portion of the

long term FECA actuarial liability attributable to the entity. The liability is calculated to estimate the expected liability for death, disability, medical and miscellaneous costs for approved compensation cases. The liability amounts and the calculation methodologies are provided by the Department of Labor.

The FECA Actuarial Liability at September 30, 2005 and 2004, consists of the following:

	FY 2005	FY 2004
FECA Actuarial Liability	$ 39,380	$ 40,281

The FY 2005 present value of these estimated outflows are calculated using a discount rate of 4.528 percent in the first year, and 5.02 percent in the years thereafter. The estimated future costs are recorded as an unfunded liability.

Note 15. Cashout Advances

Cashouts are funds received by EPA, a state, or another PRP under the terms of a settlement agreement (e.g., consent decree) to finance response action costs at a specified Superfund site. Under CERCLA +Section 122(b)(3), cashout funds received by EPA are placed in site-specific, interest bearing accounts known as special accounts and are used in accordance with the terms of the settlement agreement. Funds placed in special accounts may be used without further appropriation by Congress.

Note 16. Unexpended Appropriations

As of September 30, 2005 and 2004, the Unexpended Appropriations consist of the following:

Unexpended Appropriations:	FY 2005	FY 2004
Unobligated		
Available	$ 1,887,884	$ 1,911,797
Unavailable	40,328	39,591
Undelivered Orders	9,079,377	8,908,748
Total	$ 11,007,589	$ 10,860,136

Note 17. Amounts Held by Treasury

Amounts Held by Treasury for Future Appropriations consist of amounts held in trusteeship by Treasury in the Superfund Trust Fund and the LUST Trust Fund.

Superfund (Unaudited)

Superfund is supported primarily by general revenues, cost recoveries of funds spent to clean up hazardous waste sites, interest income, and fines and penalties. Prior to December 31, 1995, the fund was also supported by other taxes on crude oil and petroleum and on the sale or use of certain chemicals. The authority to assess those taxes and the environmental tax on corporations also expired on December 31, 1995, and has not been renewed by Congress. It is not known if or when such taxes will be reassessed in the future.

The following reflects the Superfund Trust Fund maintained by Treasury as of September 30, 2005 and 2004. The amounts contained in these notes have been provided by Treasury and are audited. As indicated, a portion of the outlays represents amounts received by EPA's Superfund Trust Fund; such funds are eliminated on consolidation with the Superfund Trust Fund maintained by Treasury.

SUPERFUND FY 2005	EPA	Treasury	Combined
Undistributed Balances			
Uninvested Fund Balance	$ -	$ 7,212	$ 7,212
Total Undisbursed Balance	-	7,212	7,212
Interest Receivable	-	4,180	4,180
Investments, Net	2,204,850	88,163	2,293,013
Total Assets	**$ 2,204,850**	**$ 99,555**	**$ 2,304,405**
Liabilities & Equity			
Equity	$ 2,204,850	$ 99,555	$ 2,304,405
Total Liabilities and Equity	**$ 2,204,850**	**$ 99,555**	**$ 2,304,405**
Receipts			
Corporate Environmental	$ -	$ 3,663	$ 3,663
Cost Recoveries	-	62,978	62,978
Fines & Penalties	-	2,428	2,428
Total Revenue	-	69,069	69,069
Appropriations Received	-	1,247,477	1,247,477
Interest Income	-	52,540	52,540
Total Receipts	**$ -**	**$ 1,369,086**	**$ 1,369,086**
Outlays			
Transfers to/from EPA, Net	$ 1,261,913	$ (1,261,913)	$ -
Total Outlays	1,261,913	(1,261,913)	-
Net Income	**$ 1,261,913**	**$ 107,173**	**$ 1,369,086**

In FY 2005, the EPA received an appropriation for Superfund of $1,260.6 million. Treasury's Bureau of Public Debt (BPD), the manager of the Superfund Trust Fund assets, records a liability to EPA for the amount of the appropriation. BPD does this to indicate those trust fund assets that have been assigned for use and, therefore, are not available for appropriation. As of September 30, 2005 and 2004, the Treasury Trust Fund has a liability to EPA for previously appropriated funds of $2,204.9 million and $2,402.1 million, respectively.

SUPERFUND FY 2004	EPA	Treasury	Combined
Undistributed Balances			
Uninvested Fund Balance	$ -	$ 188,182	$ 188,182
Total Undisbursed Balance	-	188,182	188,182
Interest Receivable	-	38	38
Investments, Net	2,402,074	(184,778)	2,217,296
Total Assets	**$ 2,402,074**	**$ 3,442**	**$ 2,405,516**
Liabilities & Equity			
Liability for Allocation to CDC	-	11,061	11,061
Equity	$ 2,402,074	$ (7,619)	$ 2,394,455
Total Liabilities and Equity	**$ 2,402,074**	**$ 3,442**	**$ 2,405,516**
Receipts			
Corporate Environmental	$ -	$ 867	$ 867
Cost Recoveries	-	74,063	74,063
Fines & Penalties	-	2,818	2,818
Total Revenue	-	77,748	77,748
Appropriations Received	-	1,257,536	1,257,536
Interest Income	-	27,380	27,380
Total Receipts	**$ -**	**$ 1,362,664**	**$ 1,362,664**
Outlays			
Transfers to EPA	$ 1,256,790	$ (1,256,790)	$ -
Transfers to CDC	-	(30,763)	(30,763)
Total Outlays	1,256,790	(1,287,553)	(30,763)
Net Income	**$ 1,256,790**	**$ 75,111**	**$ 1,331,901**

During FY 2004, the Superfund Trust Fund revenue from cost recoveries and investment interest was less than anticipated. In addition, in FY 2003 the Internal Revenue Service issued approximately $99.4 million in corporate net tax refunds that were previously deposited in the Trust Fund. Due to these circumstances, the amount appropriated to EPA for Superfund activities exceeded the assets available for appropriation in the Trust Fund by $7.6 million at the end of FY 2004.

LUST (Unaudited)

LUST is supported primarily by a sales tax on motor fuels to clean up LUST waste sites. In FYs 2005 and 2004 there were no fund receipts from cost recoveries. The following represents the LUST Trust Fund as maintained by Treasury. The amounts contained in these notes have been provided by Treasury and are audited. Outlays represent appropriations received by EPA's LUST Trust Fund; such funds are eliminated on consolidation with the LUST Trust Fund maintained by Treasury.

LUST FY 2005	EPA	Treasury	Combined
Undistributed Balances			
Uninvested Fund Balance	$ -	$ 12,754	$ 12,754
Total Undisbursed Balance	-	12,754	12,754
Interest Receivable	-	28,470	28,470
Investments, Net	86,584	2,398,823	2,485,407
Total Assets	$ 86,584	$ 2,440,047	$ 2,526,631
Liabilities & Equity			
Equity	$ 86,584	$ 2,440,047	$ 2,526,631
Total Liabilities and Equity	$ 86,584	$ 2,440,047	$ 2,526,631
Receipts			
Highway TF Tax	$ -	$ 182,953	$ 182,953
Airport TF Tax	-	11,034	11,034
Inland TF Tax	-	456	456
Refund Gasoline Tax	-	(1,760)	(1,760)
Refund Diesel Tax	-	(2,643)	(2,643)
Refund Aviation Fuel	-	(342)	(342)
Refund Aviation Tax	-	(30)	(30)
Cost Recoveries	-	1,455	1,455
Total Revenue	-	191,123	191,123
Interest Income	-	77,666	77,666
Total Receipts	$ -	$ 268,789	$ 268,789
Outlays			
Transfers to/from EPA, Net	$ 69,440	$ (69,440)	$ -
Total Outlays	69,440	(69,440)	-
Net Income	$ 69,440	$ 199,349	$ 268,789

LUST FY 2004	EPA	Treasury	Combined
Undistributed Balances			
Uninvested Fund Balance	$ -	$ 13,256	$ 13,256
Total Undisbursed Balance	-	13,256	13,256
Interest Receivable	-	27,277	27,277
Investments, Net	89,725	2,200,165	2,289,890
Total Assets	**$ 89,725**	**$ 2,240,698**	**$ 2,330,423**
Liabilities & Equity			
Equity	$ 89,725	$ 2,240,698	$ 2,330,423
Total Liabilities and Equity	**$ 89,725**	**$ 2,240,698**	**$ 2,330,423**
Receipts			
Highway TF Tax	$ -	$ 180,763	$ 180,763
Airport TF Tax	-	11,678	11,678
Inland TF Tax	-	454	454
Refund Gasoline Tax	-	(1,535)	(1,535)
Refund Diesel Tax	-	(2,136)	(2,136)
Refund Aviation Tax	-	(227)	(227)
Total Revenue	-	188,997	188,997
Interest Income	-	66,762	66,762
Total Receipts	**$ -**	**$ 255,759**	**$ 255,759**
Outlays			
Transfers to/from EPA, Net	$ 75,552	$ (75,552)	$ -
Total Outlays	75,552	(75,552)	-
Net Income	**$ 75,552**	**$ 180,207**	**$ 255,759**

Note 18. Commitments and Contingencies

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

- 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.

Superfund:

Under CERCLA Section 106(a), EPA issues administrative orders that require parties to clean up contaminated sites. CERCLA Section 106(b) allows a party that has complied with such an order to petition EPA for reimbursement from the fund of its reasonable costs of responding to the order, plus interest. To be eligible for reimbursement, the party must demonstrate either that it was not a liable party under CERCLA Section 107(a) for the response action ordered, or that the Agency's selection of the response action was arbitrary and capricious or otherwise not in accordance with law.

As of September 30, 2005, there are currently four CERCLA Section 106(b) administrative claims and one contract claim. If the claimants are successful, the total losses on the administrative and judicial claims could amount to approximately $38.2 million. The Environmental Appeals Board has not yet issued final decisions on any of the administrative claims; therefore, a definite estimate of the amount of the contingent loss cannot be made. The claimants' chance of success overall is characterized as reasonably possible.

All Other Funds:

As of September 30, 2005, there are five claims which may be considered threatened litigation involving all other appropriated funds of the Agency. If the claimants are successful, the total losses of the claims are estimated to range from $5.9 to $15.9 million. The largest claim (estimated range from $2 to $12 million, deemed reasonably possible) is a Fifth Amendment taking claim arising out of a Clean Water Act enforcement action.

Judgment Fund:

In cases that are paid by the U.S. Treasury Judgment Fund, the Agency must recognize the full cost of a claim regardless of who is actually paying the claim. Until these claims are settled or a court judgment is assessed and the Judgment Fund is determined to be the appropriate source for the payment, claims that are probable and estimable must be recognized as an expense and liability of the Agency. For these cases, at the time of settlement or judgment, the liability will be reduced and an imputed financing source recognized. See Interpretation of Federal Financial Accounting Standards No. 2, "Accounting for Treasury Judgment Fund Transactions."

As of September 30, 2005, there are no material claims pending in the Treasury Judgment Fund. However, EPA has a $22 million liability to the Treasury Judgment Fund for a payment made by the Fund to settle a contract dispute claim.

Note 19. Exchange Revenues, Statement of Net Cost

Exchange revenues on the Statement of Net Cost include income from services provided, interest revenue (with the exception of interest earned on trust fund investments), and miscellaneous earned revenue.

Note 20. Environmental Cleanup Costs

As of September 30, 2005, EPA has two sites that require clean up stemming from its activities. Costs amounting to $18 thousand may be paid out of the Treasury Judgment Fund. (The $18 thousand represents the lower end of a range estimate, of which the maximum of the range will total $30 thousand.) Both claimants' chance of success is characterized as reasonably possible. Additionally EPA has one site ($80 thousand) characterized as remote chance of success. EPA also holds title to a site in Edison, New Jersey which was formerly an Army Depot. While EPA did not cause the contamination, the Agency could potentially be liable for a portion of the cleanup costs. However, it is expected that the Department of Defense and General Services Administration will bear all or most of the cost of remediation. In addition, EPA has one site that has an unfunded environmental liability of $30 thousand.

Accrued Cleanup Cost:

The EPA has 13 sites that will require future clean up associated with permanent closure. The estimated costs will be approximately $7 million. Since the cleanup costs associated with permanent closure are not primarily recovered through user fees, EPA has elected to recognize the estimated total cleanup cost as a liability and record changes to the estimate in subsequent years.

The FY 2005 estimate for unfunded cleanup costs decreased by $1.4 million from the FY 2004 estimate. This decrease is due in large part to completion of cleanup at one facility. EPA could also be potentially liable for cleanup costs, at a GSA-leased site; however, the amounts are not known.

Note 21. State Credits

Authorizing statutory language for Superfund and related federal regulations require states to enter into SSCs when EPA assumes the lead for a remedial action in their state. The SSC defines the state's role in the remedial action and obtains the state's assurance that they will share in the cost of the remedial action. Under Superfund's authorizing statutory language, states will provide EPA with a 10 percent cost share for remedial action costs incurred at privately owned or operated sites, and at least 50 percent of all response activities (i.e., removal, remedial planning, remedial action, and enforcement) at publicly operated sites. In some cases, states may use EPA approved credits to reduce all or part of their cost share requirement that would otherwise be borne by the states. Credit is limited to state site-specific expenses EPA has determined to be reasonable, documented, direct out-of-pocket expenditures of non-federal funds for remedial action.

Once EPA has reviewed and approved a state's claim for credit, the state must first apply the credit at the site where it was earned. The state may apply any excess/remaining credit to another site when approved by EPA. As of September 30, 2005, the total remaining state credits have been estimated at $10.1 million. The estimated ending credit balance on September 30, 2004 was $5.4 million.

Note 22. Preauthorized Mixed Funding Agreements

Under Superfund preauthorized mixed funding agreements, PRPs agree to perform response actions at their sites with the understanding that EPA will reimburse the PRPs a certain percentage of their total response action costs. EPA's authority to enter into mixed funding agreements is provided under +CERCLA Section 111(a)(2). Under +CERCLA Section 122(b)(1), as amended by SARA, PRPs may assert a claim against the Superfund Trust Fund for a portion of the costs they incurred while conducting a preauthorized response action agreed to under a mixed funding agreement. As of September 30, 2005, EPA had 15 outstanding preauthorized mixed funding agreements with obligations totaling $31 million. A liability is not recognized for these amounts until all work has been performed by the PRP and has been approved by EPA for payment. Further, EPA will not disburse any funds under these agreements until the PRP's application, claim, and claims adjustment processes have been reviewed and approved by EPA.

Note 23. Custodial Revenues and Accounts Receivable

EPA uses the accrual basis of accounting for the collection of fines, penalties and miscellaneous receipts. Collectibility by EPA of the fines and penalties is based on the RPs' willingness and ability to pay.

	FY 2005	FY 2004
Fines, Penalties and Other Miscellaneous Receipts	$ 150,816	$ 162,546
Accounts Receivable for Fines, Penalties and Other Miscellaneous Receipts		
Accounts Receivable	$ 167,533	$ 103,847
Less: Allowance for Doubtful Accounts	(51,954)	(51,630)
Total	$ 115,579	$ 52,217

Note 24. Statement of Budgetary Resources

Budgetary resources, obligations incurred, and outlays, as presented in the audited FY 2005 Statement of Budgetary Resources, will be reconciled to the amounts included in the FY 2006 Budget of the United States Government when they become available. The Budget of the United States Government with actual numbers for FY 2005 has not yet been published. We expect it will be published by March 2006, and it will be available on the OMB website at www.whitehouse.gov/omb/budget/fy2006. The actual amounts published for the year ended September 30, 2004 are included in EPA's FY 2005 financial statement disclosures.

FY 2004	Budgetary Resources	Obligations	Outlays
Statement of Budgetary Resources	$ 13,152,089	$ 10,155,381	$ 9,697,183
Funds Reported by Other Federal Entities	622	(6,727)	-
Adjustments to Unliquidated Obligations, Unfilled Customer Orders and Other	19,899	6,322	6,108
Expired and Immaterial Funds*	(86,572)	8,644	(7)
Superfund payment received from BPD recorded in 68X2050	(1,257,536)	-	-
Rounding Differences**	498	1,380	(284)
Reported for Budget of the U. S. Government	$ 11,829,000	$ 10,165,000	$ 9,703,000

* Expired funds are not included in Budgetary Resources Available for Obligation and Total New Obligations in the Budget Appendix (lines 23.90 and 10.00). Also, minor funds are not included in the Budget Appendix.

** Balances are rounded to millions in the Budget Appendix.

Note 25. Recoveries and Resources Not Available, Statement of Budgetary Resources

Recoveries of Prior Year Obligations, Temporarily Not Available, and Permanently Not Available on the Statement of Budgetary Resources consist of the following amounts:

	FY 2005	FY 2004
Recoveries of Prior Year Obligations-downward adjustments of prior years' obligations	$ 174,641	$ 194,775
Temporarily Not Available-rescinded authority	(11,141)	(8,254)
Permanently Not Available:		
Payments to Treasury	(2,793)	(2,641)
Rescinded Authority	(64,018)	(49,099)
Canceled Authority	(11,433)	(19,463)
Total Permanently Not Available	$ (78,244)	$ (71,203)

Note 26. Unobligated Balances Available

The availability of unobligated balances consists of the following as of September 30, 2005 and 2004. Unexpired unobligated balances are available to be apportioned by the OMB for new obligations at the beginning of the following fiscal year. The expired unobligated balances are only available for upward adjustments of existing obligations.

	FY 2005	FY 2004
Unexpired Unobligated Balance	$ 3,011,341	$ 2,903,849
Expired Unobligated Balance	95,415	92,859
Total	$ 3,106,756	$ 2,996,708

Note 27. Offsetting Receipts

Distributed offsetting receipts credited to the general fund, special fund, or trust fund receipt accounts offset gross outlays. For FYs 2005 and 2004, the following receipts were generated from these activities:

	FY 2005	FY 2004
Trust Fund Recoveries	$ 66,419	$ 74,063
Special Fund Environmental Service	$ 20,176	13,688
Downward Re-estimates of Subsidies	436	5,554
Trust Fund Appropriation	1,247,477	1,257,536
Total	**$ 1,334,508**	**$ 1,350,841**

Note 28. Statement of Financing

Specific components requiring or generating resources in future periods and resources that fund expenses recognized in prior periods are related to changes in liabilities not covered by budgetary resources. For FYs 2005 and 2004, the following line items are reconciled to the increases or decreases in those liabilities.

	FY 2005	FY 2004
Statement of Financing lines:		
Resources that fund prior period expenses	(1,120)	(13,855)
Components requiring or generating resources in future periods:		
Increases in environmental liabilities	99	1,244
Increase in contingencies	1,525	22,425
Increase in annual leave liabilities	3,889	-
Up/downward re-estimates of subsidy exp.	3	-
Total	**$ 4,396**	**$ 9,814**
Increases (Decreases) in Liabilities Not Covered by Budgetary Resources and Reconciling Items		
Unfunded Annual Leave Liability	$ 4,092	$ (7,029)
Unfunded Contingent Liability	325	1,607
Unfunded Judgment Fund Liability	-	22,000
Unfunded Workers Compensation Liability	(220)	664
Actuarial Workers Compensation Liability	(901)	(3,815)
Unfunded Clean-up Costs Liability	1,269	61
Unfunded Environmental Liability	30	-
Allowance for Subsidy	-	(3,097)
Subsidy re-estimates	(199)	(577)
Total	**$ 4,396**	**$ 9,814**

Note 29. Costs Not Assigned to Goals

FY 2005's Statement of Net Cost by Goal has $3 million in gross costs not assigned to goals. This amount is comprised of decreases of $0.2 million in overhead costs, $22 million in operating expenses, $0.7 million in unfunded expenses; offset by increases of $16 million in undistributed payroll costs, $0.3 in depreciation expenses, $0.6 million in other expenses, and $3 million in loss on disposition of assets.

FY 2004's Statement of Net Cost by Goal has $18.2 million in gross costs not assigned to goals. This amount is comprised of decreases of $5.7 million in unfunded cleanup costs, $5.6 million in overhead costs, $27.0 million in other unfunded expenses and $2.9 in subsidy expense; offset by increases of $13.8 million in undistributed federal payroll costs, $3.7 million in depreciation expense, $40.1 million in operating expenses, and $1.8 million change in actuarial liability.

Note 30. Transfers-In and Out, Statement of Changes in Net Position

Appropriation Transfers, In/Out:

For FYs 2005 and 2004, the Appropriation Transfers under Budgetary Financing Sources on the Statement of Changes in Net Position are comprised of nonexpenditure transfers that affect Unexpended Appropriations for non-invested appropriations. These amounts are included in the Budget Authority, Net Transfers and Prior Year Unobligated Balance, Net Transfers lines on the Statement of Budgetary Resources. Detail of the Appropriation Transfers on the Statement of Changes in Net Position and a reconciliation with the Statement of Budgetary Resources follow:

Fund/Type of Account	FY 2005	FY 2004
GSA Building Fund	-	(1,538)
Appalachian Regional Commission	-	60
S & T	(992)	-
EPM	$ 5,694	$ 1,630
Total Appropriation Transfers	$ 4,702	$ 152
Net Transfers from Invested Funds	1,328,667	1,332,342
Transfers to Other Agencies	4,736	(5,157)
Allocations Rescinded	10,620	7,911
Total of Net Transfers on Statement of Budgetary Resources	**$ 1,348,725**	**$ 1,335,248**

Transfers In/Out Without Reimbursement, Budgetary:

For FYs 2005 and 2004 Transfers In/Out under Budgetary Financing Sources on the Statement of Changes in Net Position consist of transfers to or from other federal agencies and between EPA funds. These transfers affect Cumulative Results of

Type of Transfer/Funds	FY 2005	FY 2004
Transfers-out, nonexpenditure to other federal agencies	$ (4,736)	$ (5,157)
Transfers-out, nonexpenditure, from Treasury trust fund to CDC	-	(30,763)
Transfers-in, nonexpenditure, Oil Spill	15,872	16,113
Total Transfers in (out) without Reimbursement, Budgetary	**$ 11,136**	**$ (19,807)**

Operations. Detail of the transfers-in and transfers-out, expenditure and nonexpenditure, follows:

Transfers In/Out without Reimbursement, Other Financing Sources:

For FYs 2005 and 2004 Transfers In/Out without Reimbursement under Other Financing Sources on the Statement of

Type of Transfer/Funds	FY 2005	FY 2004
Transfers of negative subsidy, transfer-in paid and funded in year following transfer-(out)	$ -	$ (436)
Transfers-out of prior year negative subsidy to be paid following year	436	-
Total Transfers in (out) without Reimbursement, Budgetary	$ 436	$ (436)

Changes in Net Position are comprised of negative subsidy to a special receipt fund for the credit reform funds. The amounts reported on the Statement of Changes in Net Position are as follows:

Note 31. Imputed Financing

In accordance with SFFAS No. 5, "Liabilities of the Federal Government," federal agencies must recognize the portion of employees' pensions and other retirement benefits to be paid by the OPM trust funds. These amounts are recorded as imputed costs and imputed financing for each agency. Each year the OPM provides federal agencies with cost factors to calculate these imputed costs and financing that apply to the current year. These cost factors are multiplied by the current year's salaries or number of employees, as applicable, to provide an estimate of the imputed financing that the OPM trust funds will provide for each agency. The estimates for FY 2005 were $129.7 million. For FY 2004, the estimates were $126 million.

In addition to the pension and retirement benefits described above, EPA also records imputed costs and financing for Treasury Judgment Fund payments on behalf of the agency. Entries are made in accordance with the Interpretation of Federal Financial Accounting Standards No. 2, "Accounting for Treasury Judgment Fund Transactions." For FY 2005 entries for Judgment Fund payments totaled $8.4 million. For FY 2004, entries for Judgment Fund payments totaled $2.8 million.

	Covered by Budgetary Resources	Not Covered by Budgetary Resources	Total
FY 2005 Payroll and Benefits Payables			
Accrued Funded Payroll and Benefits	$ 30,881	$ -	$ 30,881
Withholdings Payable	26,977	-	26,977
Employer Contributions Payable—TSP	1,896	-	1,896
Other Post-employment Benefits Payable	36	-	36
Accrued Unfunded Leave, WCF	320	-	320
Accrued Unfunded Annual Leave	-	130,284	130,284
Total—Current	$ 60,110	$ 130,284	$ 190,394
FY 2004 Payroll & Benefits Payable			
Accrued Funded Payroll and Benefits	$ 29,845	$ -	$ 29,845
Withholdings Payable	22,771	-	22,771
Employer Contributions Payable—TSP	1,583	-	1,583
Other Post-employment Benefits Payable	36	-	36
Accrued Funded Leave, WCF	320	-	320
Accrued Unfunded Annual Leave	-	126,191	126,191
Total—Current	$ 54,555	$ 126,191	$ 180,746

Note 32. Payroll and Benefits Payable

Payroll and benefits payable to EPA employees for the years ending September 30, 2005 and 2004, consist of the following:

	FY 2005	FY 2004
Rescissions to General Appropriations	$ 64,017	$ 49,105
Canceled General Authority	11,433	19,463
Total Other Adjustments	**$ 75,450**	**$ 68,568**

Note 33. Other Adjustments, Statement of Changes in Net Position

The Other Adjustments under Budgetary Financing Sources on the Statement of Changes in Net Position consist of rescissions to appropriated funds and cancellations of funds that expired five years earlier. These amounts affect Unexpended

	FY 2005	FY 2004
Interest on Trust Fund Investments	$ 130,206	$ 94,142
Tax Revenue, Net of Refunds	194,786	189,864
Fines and Penalties Revenue	(26,506)	1,973
Special Receipt Fund Revenue	20,176	13,746
Total Nonexchange Revenue	**$ 318,662**	**$ 299,725**

Appropriations.

Note 34. Nonexchange Revenue, Statement of Changes in Net Position

The Nonexchange Revenue, Budgetary Financing Sources, on the Statement of Changes in Net Position for FYs 2005 and 2004 consists of the following items:

Note 35. Other, Statement of Financing

The Other balance of $1.9 million in the Statement of Financing represents a portion of the 1993 Cost Recovery received from the Uniroyal bankruptcy judgment that was transferred from the Treasury Managed Receipt Account 20X8145.4 to the Superfund Trust Account 68-20X8145 in FY 2005. The transfer was necessary in order to execute an expenditure that was ordered from a February 2005 consent decree.

Environmental Protection Agency

Required Supplemental Information

As of September 30, 2005

(Dollars in Thousands)

(Unaudited)

1. Deferred Maintenance

The EPA classifies tangible property, plant, and equipment as follows: (1) EPA-Held Equipment, (2) Contractor-Held Equipment, (3) Land and Buildings, and, (4) Capital Leases. The condition assessment survey method of measuring deferred maintenance is utilized. The Agency adopts requirements or standards for acceptable operating condition in conformance with industry practices. No deferred maintenance was reported for any of the four categories.

2. Intragovernmental Assets

Intragovernmental amounts represent transactions between all federal departments and agencies and are reported by trading partner (entities that EPA did business with during FY 2005).

Trading Partner Code	Agency	Investments	Accounts Receivable	Other Assets
4	Government Printing Office	-	-	957
11	Executive Office of the President	-	752	-
12	Department of Agriculture	-	194	-
13	Department of Commerce	-	945	134
14	Department of Interior	-	13,707	-
15	Department of Justice	-	392	-
16	Department of Labor	-	5	-
17	Department of the Navy	-	135	-
18	U. S. Postal Service	-	169	406
19	Department of State	-	(326)	-
20	Department of the Treasury	4,811,065	1,828	-
21	Department of the Army	-	9,950	-
29	Federal Trade Commission	-	5	-
31	Nuclear Regulatory Commission	-	375	-
36	Department of Veteran Affairs	-	11	-
45	Equal Employment Opportunity Commission	-	(101)	-
47	General Services Administration	-	301	-
49	National Science Foundation	-	36	-
57	Department of the Air Force	-	222	-
61	Consumer Product Safety Commission	-	8	-
64	Tennessee Valley Authority	-	(5)	-
69	Department of Transportation	-	3,704	-
70	Department of Homeland Security	-	23,670	-
71	Overseas Private Investment Corporation	-	(13)	-
72	Agency for International Development	-	(581)	-
75	Department of Health and Human Services	-	8,256	-
80	National Aeronautics and Space Administration	-	175	-
86	Department of Housing and Urban Development	-	67	-
89	Department of Energy	-	3,026	-
91	Department of Education	-	144	-
95	Independent Agencies	-	726	-
96	US Army Corps of Engineers	-	(7,687)	-
97	US Department of Defense	-	3,581	-
99	Treasury General Fund	-	210	-
00	Unassigned	-	2,179	838
	Total	$ 4,811,065	66,060	2,335

3. Intragovernmental Liabilities

Trading Partner Code	Agency	Accounts Payable	Accrued Liabilities	Other Liabilities
3	Library of Congress	-	107	98
4	Government Printing Office	-	1,040	1,957
10	The Judiciary	-	-	(18)
11	Executive Office of the President	-	41	16
12	Department of Agriculture	-	785	1,851
13	Department of Commerce	888	4,704	4,468
14	Department of Interior	901	5,612	4,894
15	Department of Justice	617	5,858	9,865
16	Department of Labor	2,258	1,220	8,506
17	Department of the Navy	-	836	2,641
18	United States Postal Service	-	164	97
19	Department of State	-	22	-
20	Department of the Treasury	-	155	36,425
21	Department of the Army	-	-	2,992
24	Office of Personnel Management	-	625	10,170
31	US Nuclear Regulatory Commission	-	13	17
33	Smithsonian Institution	-	28	125
36	Department of Veterans Affairs	-	506	147
45	EEOC	-	22	-
47	General Services Administration	-	42,299	28,323
49	National Science Foundation	-	539	50
50	Securities and Exchange	-	-	(11,377)
57	Department of the Air Force	-	-	9,936
59	Nat'l Foundation on Arts and Humanities	-	33	-
63	Labor Relations Board	-	-	3
64	Tennessee Valley Authority	-	54	375
69	Department of Transportation	-	4,077	11,441
70	Department of Homeland Security	15,178	2,303	(44,126)
72	Agency for International Development	-	-	183
73	Small Business Administration	-	121	100
75	Department of Health and Human Services	16	8,773	10,684
80	National Aeronautics and Space Administration	-	336	153
86	Department of Housing and Urban Development	-	3	615
89	Department of Energy	-	5,149	2,530
93	Federal Mediation Service	-	9	-
95	Independent Agencies	-	6	16,632
96	US Army Corps of Engineers	782	11,531	(177)
97	Office of the Secretary of Defense	-	2,323	(734)
99	Treasury General Fund	-	-	3,318
00	Unassigned	12	(110)	(5,650)
	Total	**$ 20,652**	**99,184**	**106,530**

For remaining intragovernmental liabilities $21,744 thousand in Debt is assigned to the Department of the Treasury (trading partner Code 20), and $142,347 thousand in Custodial Liability is assigned to the Treasury General Fund (trading partner Code 99).

EPA has confirmed the year-end intragovernmental fiduciary assets, liabilities, revenue, and expenses with the BPD, DOL, and OPM. EPA has also contacted several other federal agencies to confirm nonfiduciary intragovernmental balances for year-end as required.

4.
Intragovernmental Revenues and Costs

EPA's intragovernmental earned revenues are not reported by trading partners because they are below OMB's threshold of $500 million.

Intragovernmental Earned Revenue	$ 105,653
Associated Costs to generate above Revenue (Budget Functional Classification 304)	$ 105,653

5.
Environmental Protection Agency
Required Supplemental Information
Supplemental Statement of Budgetary Resources (Unaudited)
As of September 30, 2005
(Dollars in Thousands)

	STAG	EPM	S&T	FIFRA	LUST	OTHER	TOTAL
BUDGETARY RESOURCES							
Budgetary Authority:							
Appropriations Received	$ 3,604,182	$ 2,313,409	$ 750,350	$ -	$ -	$ 1,364,679	$ 8,032,620
Borrowing Authority	-	-	-	-	-	436	436
Net Transfers	-	5,694	(992)	-	70,000	1,274,023	1,348,725
Unobligated Balances:							
Beginning of Period	1,452,575	331,925	285,394	2,533	6,287	917,994	2,996,708
Spending Authority—Offsetting Collections							
Earned and Collected	$ 7,801	$ 63,476	$ 8,758	$ 23,857	$ 17	$ 453,783	$ 557,692
Receivable from Federal Sources	-	5,651	(155)	-	-	(185)	5,311
Change in Unfilled Customer Orders							
Advance Received	-	2,107	(334)	4,159	-	31,683	37,615
Without Advance from Federal Sources	-	132,679	(2,300)	-	-	(12,235)	118,144
Transfers from Trust Funds Collected	-	-	55,942	-	-	13,630	69,572
Transfers from Trust Funds, Anticipated	-	-	(20,134)	-	-	(756)	(20,890)
Total Spending Authority from Collections	$ 7,801	$ 203,913	$ 41,777	$ 28,016	$ 17	$ 485,920	$ 767,444
Recoveries of Prior Year Obligations	42,734	14,880	4,994	101	376	111,556	174,641
Temporarily Not Available Pursuant to Public Law	-	-	(289)	-	(560)	(10,292)	(11,141)
Permanently Not Available	(28,833)	(24,892)	(10,636)	-	-	(13,883)	(78,244)
Total Budgetary Resources	$ 5,078,459	$ 2,844,929	$ 1,070,598	$ 30,650	$ 76,120	$ 4,130,433	$ 13,231,189

5. *(continued)*
Environmental Protection Agency
Required Supplemental Information

Supplemental Statement of Budgetary Resources (Unaudited)

As of September 30, 2005
(Dollars in Thousands)

	STAG	EPM	S&T	FIFRA	LUST	OTHER	TOTAL
STATUS OF BUDGETARY RESOURCES							
Obligations Incurred:							
Direct	$ 3,608,484	$ 2,315,355	$ 825,674	$ -	$ 70,660	$ 2,753,523	$ 9,573,696
Reimbursable	26	157,961	6,726	25,663	-	360,361	550,737
Total Obligations Incurred	$ 3,608,510	$ 2,473,316	$ 832,400	$ 25,663	$ 70,660	$ 3,113,884	$ 10,124,433
Unobligated Balances:							
Apportioned	1,469,949	297,045	220,896	4,987	5,460	1,020,352	3,018,689
Unobligated Balances Not Available	-	74,568	17,302	-	-	(3,803)	88,067
Total Status of Budgetary Resources	$ 5,078,459	$ 2,844,929	$ 1,070,598	$ 30,650	$ 76,120	$ 4,130,433	$ 13,231,189
RELATIONSHIP OF OBLIGATIONS TO OUTLAYS							
Obligations Incurred, Net	$ 3,557,975	$ 2,254,523	$ 785,629	$ (2,454)	$ 70,267	$ 2,516,410	$ 9,182,350
Obligated Balances, Net — Beginning of Pd	8,272,160	690,182	535,704	2,348	85,008	1,622,374	11,207,776
Accounts Receivable	-	17,670	48,106	-	-	(804)	64,972
Unfilled Customer Orders from Federal Sources	-	257,791	6,720	-	-	157,501	422,012
Undelivered Orders, Unpaid	(7,855,707)	(746,822)	(530,333)	(1,413)	(76,486)	(1,425,248)	(10,636,009)
Accounts Payable	(395,439)	(198,864)	(97,460)	(1,536)	(8,042)	(285,749)	(987,090)
Total Outlays	$ 3,578,989	$ 2,274,480	$ 748,366	$ (3,055)	$ 70,747	$ 2,584,484	$ 9,254,011
Disbursements	$ 3,586,790	$ 2,340,064	$ 812,732	$ 24,961	$ 70,763	$ 3,083,579	$ 9,918,889
Collections	(7,801)	(65,584)	(64,366)	(28,016)	(16)	(499,095)	(664,878)
Less: Offsetting Receipts	-	-	-	-	-	(1,334,508)	(1,334,508)
Net Outlays	$ 3,578,989	$ 2,274,480	$ 748,366	$ (3,055)	$ 70,747	$ 1,249,976	$ 7,919,503

6.
Environmental Protection Agency
Required Supplemental Information

Working Capital Fund Condensed Statements

For the Year Ending September 30, 2005 and 2004
(Dollars in Thousands)

Balance Sheet	(Unaudited) FY 2005	(Audited) FY 2004
ASSETS		
Intragovernmental		
Fund Balance With Treasury	$ 69,401	$ 53,559
Accounts Receivable, Net	55,100	27,874
Other	509	555
Total Intragovernmental	$ 125,010	$ 81,988
Accounts Receivable, Net	4	-
Property, Plant and Equipment, Net	14,159	20,426
Other	205	53
Total Assets	**$ 139,378**	**$ 102,467**
LIABILITIES		
Intragovernmental		
Accounts Payable & Accrued Liabilities	$ 28,071	$ 29,788
Other	67,191	30,413
Total Intragovernmental	$ 95,262	$ 60,201
Accounts Payable & Accrued Liabilities	14,226	11,108
Payroll and Benefits Payable	1,556	1,451
Other	4,986	6,726
Total Liabilities	**$ 116,030**	**$ 79,486**
NET POSITION		
Cumulative Results of Operations	$ 23,348	$ 22,981
Total Net Position	**$ 139,378**	**$ 102,467**

6.
Environmental Protection Agency
Required Supplemental Information

Working Capital Fund Condensed Statements

For the Periods Ending September 30, 2005 and 2004
(Dollars in Thousands)

Statement of Cost

	Cost of Goods and Services Provided	Related Exchange Revenue	Excess of Costs Over/(Under) Exchange Revenue
FY 2005 (Unaudited) Product or Business Line			
Data Processing	$ 182,720	$ 183,105	$ (385)
Postage	2,171	2,154	17
(Profit)/Loss from Operations	$ 184,891	$ 185,259	$ (368)
Imputed Costs			779
Net (Profit)/Loss			$ 411
FY 2004 (Audited) Product or Business Line			
Data Processing	$ 150,829	$ 141,445	$ 9,384
Postage	2,586	2,581	5
(Profit)/Loss from Operations	$ 153,415	$ 144,026	$ 9,389
Imputed Costs			804
Net (Profit)/Loss			$ 10,193

Environmental Protection Agency

Required Supplementary Stewardship Information (Unaudited)

For the Year Ended September 30, 2005

(Dollars in Thousands)

Investment in the Nation's Research and Development:

Public and private sector institutions have long been significant contributors to our nation's environment and human health research agenda. EPA's Office of Research and Development, however, is unique among scientific institutions in this country in combining research, analysis, and the integration of scientific information across the full spectrum of health and ecological issues and across the risk assessment and risk management paradigm. Research enables us to identify the most important sources of risk to human health and the environment, and by so doing, informs our priority-setting, ensures credibility for our policies, and guides our deployment of resources. It gives us the understanding and technologies we need to detect, abate, and avoid environmental problems. Research also provides the crucial underpinning(s) for EPA decisions and challenges us to apply the best available science and technical analysis to our environmental problems and to practice more integrated, efficient and effective approaches to reducing environmental risks.

Among the Agency's highest priorities are research programs that address the environmental effects on children's health; the development of alternative techniques for prioritizing chemicals for further testing through computational toxicology; the provision of near-term, appropriate, affordable, reliable, tested, and effective technologies and guidance for potential threats to homeland security; the potential risks of unregulated contaminants in drinking water; the health effects of air pollutants such as particulate matter; and the protection of the nation's ecosystems. For FY 2005, the full cost of the Agency's Research and Development activities totaled over $741 million. Below is a breakout of the expenses (dollars in thousands):

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Programmatic Expenses	555,794	559,218	593,295	581,323	628,467
Allocated Expenses	90,039	123,307	106,971	91,675	112,558

See Section II of the PAR for more detailed information on the results of the Agency's investment in research and development. Each of EPA's strategic goals has a Science and Research Objective.

Investment in the Nation's Infrastructure:

The Agency makes significant investments in the nation's drinking water and clean water infrastructure. The investments are the result of three programs: the Construction Grants Program which is being phased out and two State Revolving Fund (SRF) programs.

Construction Grants Program: During the 1970s and 1980s, the Construction Grants Program was a source of Federal funds, providing more than $60 billion of direct grants for the construction of public wastewater treatment projects. These projects, which constituted a significant contribution to the nation's water infrastructure, included sewage treatment plants, pumping stations, and collection and intercept sewers, rehabilitation of sewer systems, and the control of combined sewer overflows. The construction grants led to the improvement of water quality in thousands of municipalities nationwide.

Congress set 1990 as the last year that funds would be appropriated for Construction Grants. Projects funded in 1990 and prior will continue until completion. After 1990, EPA shifted the focus of municipal financial assistance from grants to loans that are provided by State Revolving Funds.

State Revolving Funds: EPA provides capital, in the form of capitalization grants, to state revolving funds which state governments use to make loans to individuals, businesses, and governmental entities for the construction of wastewater and drinking water treatment infrastructure. When the loans are repaid to the state revolving fund, the collections are used to finance new loans for new construction projects. The capital is reused by the states and is not returned to the Federal Government.

The Agency also is appropriated funds to finance the construction of infrastructure outside the Revolving Funds. These are reported below as Other Infrastructure Grants.

The Agency's expenses related to investments in the nation's Water Infrastructure are outlined below (dollars in thousands):

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Construction Grants	63,344	149,841	15,845	48,948	21,148
Clean Water SRF	1,548,270	1,389,048	1,295,394	1,407,345	1,127,883
Safe Drinking Water SRF	728,921	708,528	842,936	802,629	715,060
Other Infrastructure Grants	282,914	367,259	582,091	341,767	385,226
Allocated Expenses	424,999	576,536	493,349	410,129	402,853

See the Goal 2—Clean and Safe Water portion in Section II of the PAR for more detailed information on the results of the Agency's investment in infrastructure.

Stewardship Land

The Agency acquires title to certain land and land rights under the authorities provided in Section 104 (J) CERCLA related to remedial clean-up sites. The land rights are in the form of easements to allow access to clean-up sites or to restrict usage of remediated sites. In some instances, the Agency takes title to the land during remediation and returns it to private ownership upon the completion of clean-up. A site with "land acquired" may have more than one acquisition property. Sites are not counted as a withdrawal until all acquired properties have been transferred.

As of September 30, 2005, the Agency possesses the following land and land rights:

Superfund Sites with Easements

Beginning Balance	32
Additions	1
Withdrawals	-
Ending Balance	**33**

Superfund Sites with Land Acquired

Beginning Balance	25
Additions	4
Withdrawals	-
Ending Balance	**29**

Human Capital

Agencies are required to report expenses incurred to train the public with the intent of increasing or maintaining the nation's economic productive capacity. Training, public awareness, and research fellowships are components of many of the Agency's programs and are effective in achieving the Agency's mission of protecting public health and the environment, but the focus is on enhancing the nation's environmental, not economic, capacity.

The Agency's expenses related to investments in the Human Capital are outlined below (dollars in thousands):

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Training and Awareness Grants	48,697	49,444	47,827	48,416	46,750
Fellowships	11,451	8,728	6,572	7,553	10,195
Allocated Expenses	9,744	12,827	9,808	8,826	10,199

1.
Environmental Protection Agency
Supplemental Information (Unaudited)
Balance Sheet For Superfund Trust Fund
For the Periods Ending September 30, 2005 and 2004
(Dollars in Thousands)

	FY 2005	FY 2004
ASSETS		
Fund Balance With Treasury (Note S1)	$ 213,797	$ 199,406
Investments	2,297,193	2,217,334
Accounts Receivable, Net	28,160	27,212
Other	9,859	6,781
Total Intragovernmental	$ 2,549,009	$ 2,450,733
Cash and Other Monetary Assets		
Accounts Receivable, Net	260,736	369,148
Property, Plant & Equipment, Net	49,530	47,821
Other	1,533	699
Total Assets	$ 2,860,808	$ 2,868,401
LIABILITIES		
Intragovernmental		
Accounts Payable & Accrued Liabilities	$ 105,386	$ 140,781
Custodial Liability	26,763	-
Other	46,809	37,752
Total Intragovernmental	$ 178,958	$ 178,533
Accounts Payable & Accrued Liabilities	126,898	145,369
Pensions & Other Actuarial Liabilities	7,037	7,263
Cashout Advances, Superfund (Note S2)	270,811	259,361
Payroll & Benefits Payable	35,597	31,695
Other	43,392	46,211
Total Liabilities	$ 662,693	$ 668,432
NET POSITION		
Cumulative Results of Operations	2,200,115	2,199,969
Total Net Position	2,200,115	2,199,969
Total Liabilities and Net Position	$ 2,862,808	$ 2,868,401

Environmental Protection Agency
Supplemental Information (Unaudited)

Statement of Net Cost for Superfund Trust Fund

For the Periods Ending September 30, 2005 and 2004
(Dollars in Thousands)

	FY 2005	FY 2004
COSTS		
Intragovernmental	$ 330,839	$ 368,045
With the Public	1,250,009	1,262,540
Expenses from Other Appropriations (Note S5)	90,167	82,776
Total Costs	$ 1,671,015	$ 1,713,361
Less:		
Earned Revenues, Federal	$ 24,827	$ 27,450
Earned Revenues, Non-Federal	312,052	233,171
Total Earned Revenues	$ 336,879	$ 260,621
Net Cost of Operations	$ 1,334,136	$ 1,452,740

Environmental Protection Agency
Supplemental Information (Unaudited)

Statement of Changes in Net Position for Superfund Trust Fund

For the Periods Ending September 30, 2005 and 2004
(Dollars in Thousands)

	Cumulative Results of Operations FY 2005	Cumulative Results of Operations FY 2004
Net Position—Beginning of Period	$ 2,199,969	$ 2,350,037
Beginning Balances, as Adjusted	$ 2,199,969	$ 2,350,037
Budgetary Financing Sources:		
Nonexchange Revenue	$ 29,697	$ 30,239
Transfers In/Out	(53,418)	(87,586)
Trust Fund Appropriations	1,247,477	1,257,537
Income from Other Appropriations (Note S5)	90,167	82,776
Total Budgetary Financing Sources	$ 1,313,923	$ 1,282,966
Other Financing Sources:		
Transfers In/Out	$ -	$ (1)
Imputed Financing Sources	20,359	19,707
Total Other Financing Sources	$ 20,359	$ 19,706
Net Cost of Operations	(1,334,136)	(1,452,740)
Net Change	146	(150,068)
Net Position—End of Period	**$ 2,200,115**	**$ 2,199,969**

Environmental Protection Agency
Supplemental Information (Unaudited)

Statement of Budgetary Resources for Superfund Trust Fund

For the Periods Ending September 30, 2005 and 2004
(Dollars in Thousands)

	FY 2005	FY 2004
BUDGETARY RESOURCES		
Budgetary Authority:		
Net Transfers	$ 1,274,023	$ 1,259,096
Unobligated Balances:		
Beginning of Period	823,713	766,805
Spending Authority from Offsetting Collections:		
Earned and Collected	$ 250,487	$ 229,658
Receivable from Federal Sources	648	(7,853)
Change in Unfilled Customer Orders:		
Advance Received	25,798	(44,218)
Without Advance from Federal Sources	5,789	5,978
Total Spending Authority from Collections	$ 282,722	$ 183,565
Recoveries of Prior Year Obligations	104,852	98,848
Temporarily Not Available Pursuant to Public Law	(10,060)	(7,464)
Total Budgetary Resources (Note S6)	$ 2,475,250	$ 2,300,850
STATUS OF BUDGETARY RESOURCES		
Obligations Incurred:		
Direct	$ 1,369,647	$ 1,328,864
Reimbursable	175,211	148,273
Total Obligations Incurred	$ 1,544,858	$ 1,477,137
Unobligated Balances:		
Apportioned	930,373	823,694
Unobligated Balances Not Available	19	19
Total Status of Budgetary Resources	$ 2,475,250	$ 2,300,850
RELATIONSHIP OF OBLIGATIONS TO OUTLAYS		
Obligations Incurred, Net	$ 1,157,284	$ 1,194,724
Obligated Balances, Net—Beginning of Period	1,569,360	1,838,503
Accounts Receivable	(5,240)	(5,886)
Unfilled Customer Orders from Federal Sources	83,474	77,685
Undelivered Orders, Unpaid	(1,320,488)	(1,374,232)
Accounts Payable	(225,698)	(266,926)
Total Outlays	$ 1,258,692	$ 1,463,868
Disbursements	$ 1,534,977	$ 1,649,308
Collections	(276,285)	(185,440)
Less: Offsetting Receipts	(64,964)	(74,063)
Net Outlays (Note S6)	$ 1,193,728	$ 1,389,805

Environmental Protection Agency
Supplemental Information (Unaudited)

Statement of Financing for Superfund Trust Fund

For the Periods Ending September 30, 2005 and 2004
(Dollars in Thousands)

	FY 2005	FY 2004
RESOURCES USED TO FINANCE ACTIVITIES:		
Budgetary Resources Obligated		
Obligations Incurred	$ 1,544,858	$ 1,477,137
Less: Spending Authority from Offsetting		
Collections and Recoveries	(387,574)	(282,413)
Obligations, Net of Offsetting Collections	$ 1,157,284	$ 1,194,724
Less: Offsetting Receipts	(64,964)	(74,063)
Net Obligations	$ 1,092,320	$ 1,120,661
Other Resources		
Transfers In/Out without Reimbursement,		
Property	$ -	$ (1)
Imputed Financing Sources	20,359	19,707
Income from Other Appropriations (Note S5)	90,167	82,776
Net Other Resources Used to Finance Activities	$ 110,526	$ 102,482
Total Resources Used To Finance Activities	$ 1,202,846	$ 1,223,143
RESOURCES USED TO FINANCE ITEMS NOT PART OF NET COST OF OPERATIONS		
Change in Budgetary Resources Obligated	$ 82,049	$ 199,979
Resources that Fund Prior Period Expenses	(278)	(2,243)
Budgetary Offsetting Collections and Receipts that Do Not Affect Net Cost of Operations:	64,964	74,063
Offsetting Receipts Not Affecting Net Cost	(17,588)	(16,104)
Resources that Finance Asset Acquisition that Do Not Affect Net Cost	(48,682)	(51,666)
Total Resources Used to Finance Items Not Part of the Net Cost of Operations	$ 80,465	$ 204,029
Total Resources Used to Finance the Net Cost of Operations	$ 1,283,311	$ 1,427,172

Environmental Protection Agency
Supplemental Information (Unaudited)

Statement of Financing for Superfund Trust Fund

For the Periods Ending September 30, 2005 and 2004
(Dollars in Thousands)

	FY 2005	FY 2004
COMPONENTS OF NET COST OF OPERATIONS THAT WILL NOT REQUIRE OR GENERATE RESOURCES IN THE CURRENT PERIOD		
Components Requiring or Generating Resources in Future Periods:		
Increase in Annual Leave Liability	$ 990	$ -
Increase in Public Exchange Revenue Receivable	(87,714)	(41,446)
Other (Note S8)	1,969	-
Total Components of Net Cost of Operations that Requires or Generates Resources in the Future	$ (84,755)	$ (41,446)
Components Not Requiring/Generating Resources:		
Depreciation and Amortization	7,849	7,939
Expenses Not Requiring Budgetary Resources	127,730	59,075
Total Components of Net Cost of Operations that Will Not Require or Generate Resources	$ 135,579	$ 67,014
Total Components of Net Cost of Operations That Will Not Require or Generate Resources in the Current Period	$ 50,824	$ 25,568
Net Cost of Operations	**$ 1,334,136**	**$ 1,452,740**

Environmental Protection Agency
Supplemental Information (Unaudited)

Related Notes to Superfund Trust Financial Statements

Note S1. Fund Balance with Treasury for Superfund Trust

Fund Balances with Treasury as of September 30, 2005 and 2004 consist of the following:

	FY 2005	FY 2005
Fund Balance	$ 213,797	$ 199,406

Fund balances are available to pay current liabilities and to finance authorized purchase commitments (see Status of Fund Balances below).

Status of Fund Balances:	FY 2005	FY 2004
Unobligated Amounts in Fund Balances:		
Available for Obligation	$ 930,373	$ 823,694
Unavailable for Obligations	19	19
Net Receivables from Invested Balances	(2,191,759)	(2,381,849)
Balances in Treasury Trust Fund	7,212	188,182
Obligated Balance not yet Disbursed	1,467,952	1,569,360
Totals	$ 213,797	$ 199,406

The funds available for obligation may be apportioned by the OMB for new obligations at the beginning of the following fiscal year. Funds unavailable for obligation are mostly balances in expired funds, which are available only for adjustments of existing obligations.

Note S2. Cashout Advances, Superfund

Cashouts are funds received by EPA, a state, or another PRP under the terms of a settlement agreement (e.g., consent decree) to finance response action costs at a specified Superfund site. Under CERCLA +Section 122(b)(3), cashout funds received by EPA are placed in site-specific, interest bearing accounts known as special accounts and are used in accordance with the terms of the settlement agreement. Funds placed in special accounts may be used without further appropriation by Congress.

Note S3. Superfund State Credits

Authorizing statutory language for Superfund and related federal regulations require states to enter into SSCs when EPA assumes the lead for a remedial action in their state. The SSC defines the state's role in the remedial action and obtains the state's assurance that they will share in the cost of the remedial action. Under Superfund's authorizing statutory language, states will provide EPA with a 10 percent cost share for remedial action costs incurred at privately owned or operated sites, and at least 50 percent of all response activities (i.e., removal, remedial planning, remedial action, and enforcement) at publicly operated sites. In some cases, states may use EPA approved credits to reduce all or part of their cost share requirement that would otherwise be borne by the states. Credit is limited to state site-specific expenses EPA has determined to be reasonable, documented, direct out-of-pocket expenditures of non-federal funds for remedial action.

Once EPA has reviewed and approved a state's claim for credit, the state must first apply the credit at the site where it was earned. The state may apply any excess/remaining credit to another site when approved by EPA. As of September 30, 2005, the total remaining state credits have been estimated at $10.1 million. The estimated ending credit balance on September 30, 2004 was $5.4 million.

Note S4. Superfund Preauthorized Mixed Funding Agreements

Under Superfund preauthorized mixed funding agreements, PRPs agree to perform response actions at their sites with the understanding that EPA will reimburse the PRPs a certain percentage of their total response action costs. EPA's authority to enter into mixed funding agreements is provided under +CERCLA Section 111(a)(2). Under +CERCLA Section 122(b)(1), as amended by SARA, PRPs may assert a claim against the Superfund Trust Fund for a portion of the costs they incurred while conducting a preauthorized response action agreed to under a mixed funding agreement. As of September 30, 2005, EPA had 15 outstanding preauthorized mixed funding agreements with obligations totaling $31 million. A liability is not recognized for these amounts until all work has been performed by the PRP and has been approved by EPA for payment. Further, EPA will

not disburse any funds under these agreements until the PRP's application, claim, and claims adjustment processes have been reviewed and approved by EPA.

Note S5. Income and Expenses from other Appropriations; General Support Services Charged to Superfund

The Statement of Net Cost reports costs that represent the full costs of the program outputs. These costs consist of the direct costs and all other costs that can be directly traced, assigned on a cause and effect basis, or reasonably allocated to program outputs.

During FYs 2005 and 2004, the EPM appropriation funded a variety of programmatic and non-programmatic activities across the Agency, subject to statutory requirements. This appropriation was created to fund personnel compensation and benefits, travel, procurement, and contract activities.

This distribution is calculated using a combination of specific identification of expenses to Reporting Entities, and a weighted average that distributes expenses proportionately to total programmatic expenses. As illustrated below, this estimate does not impact the consolidated totals of the Statement of Net Cost or the Statement of Changes in Net Position.

	FY 2005			FY 2004		
	Income From Other Appropriations	Expenses From Other Appropriations	Net Effect	Income From Other Appropriations	Expenses From Other Appropriations	Net Effect
Superfund	$ 90,167	(90,167)	-	$ 82,776	(82,776)	-
All Others	(90,167)	90,167	-	(82,776)	82,776	-
Total	$ -	-	-	$ -	-	-

In addition, the related general support services costs allocated to the Superfund Trust Fund from the S&T and EPM funds are $6.9 million for FY 2005 and $14.1 million for FY 2004.

Note S6. Statement of Budgetary Resources, Superfund

Budgetary resources, obligations incurred, and outlays, as presented in the audited FY 2005 Statement of Budgetary Resources, will be reconciled to the amounts included in the FY 2006 Budget of the United States Government when they become available. The Budget of the United States Government with actual numbers for FY 2005 has not yet been published. We expect it will be published by March 2006, and it will be available on the OMB website at www.whitehouse.gov/omb/budget/fy2006. The actual amounts published for the year ended September 30, 2004 are included in EPA's FY 2005 financial statement disclosures.

FY 2004	Budgetary Resources	Obligations	Outlays
Statement of Budgetary Resources	$ 2,300,850	$ 1,477,137	$ 1,463,868
Funds Reported by Other Federal Entities	18,714	5,137	6,108
Expired Funds*	5,885	5,904	-
Rounding Differences**	(449)	(178)	24
Reported for Budget of the U.S. Government	$ 2,325,000	$ 1,488,000	$ 1,470,000

* Expired funds are not included in Budgetary Resources Available for Obligation and Total New Obligations in the Budget Appendix (lines 23.90 and 10.00).

** Balances are rounded to millions in the Budget Appendix.

Note S7. Superfund Eliminations

The Superfund Trust Fund has intra-agency activities with other EPA funds which are eliminated on the consolidated Balance Sheet and the Statement of Net Cost. These are listed below:

Status of Fund Balances:	FY 2005	FY 2004
Advances	$ 9,256	$ 6,749
Expenditure Transfers Payable	$ 48,903	$ 69,793
Accrued Liabilities	$ 6,398	$ 3,916
Expenses	$ 29,674	$ 22,663
Transfers	$ 49,097	$ 52,008

Note S8. Other, Statement of Financing

The Other balance of $1.9 million in the Statement of Financing represents a portion of the 1993 Cost Recovery received from the Uniroyal bankruptcy judgment that was transferred from the Treasury Managed Receipt Account 20X8145.4 to the Superfund Trust Account 68-20X8145 in FY 2005. The transfer was necessary in order to execute an expenditure that was ordered from a February 2005 consent decree.

2.
Environmental Protection Agency
Supplemental Information (Unaudited)

Financial Management Plans and Reports (OMB Circular A-11, Section 52.4a)

For the Year Ended September 30, 2005

The information contained in this section addresses the U.S. Environmental Protection Agency's (EPA's) compliance with the Office of Management and Budget (OMB) Circular A-11, Section 52.4(a). These issues, including financial management goals and strategies, financial management performance, and financial management systems framework, are discussed below.

Financial Management Goals and Strategies

EPA has assembled a talented cadre of financial managers whose strategic vision and tactical planning have expanded the financial management frontier within EPA. Based on their vision, the Agency embarked on an ambitious program of improvements in financial management processes, information quality and accessibility, and the financial management system. In addition, EPA successfully planned and implemented financial management initiatives in response to new legislation and new or revised requirements from central guidance agencies. With such a future-and results-oriented culture already established, it was easy for EPA to embrace the principle of continuous improvement embodied in the President's Management Agenda (PMA).

EPA constantly reassesses its financial management goals and its progress in achieving them. Externally, our success is measured by:

- our continued ability to meet the evolving PMA standards for a "Green" status score for the initiative on Improved Financial Performance,
- our continued progress toward a "Green" status score for the initiative on Budget and Performance Integration, and
- our upgrade from a "Red" to "Yellow" status score for the initiative on Eliminating Improper Payments.

In addition, EPA has met major financial management milestones that support the maintenance of a "Green" status score for the initiative on E-Government and a "Green" progress score for the initiatives on Human Capital and Competitive Sourcing. Although EPA is proud of its record of success, it recognizes that it must continue to "push the envelope" in order to help the Agency achieve its environmental objectives in a cost effective manner.

In the near term, the enhanced internal control requirements in OMB Circular A-123 will strengthen our existing management integrity efforts and provide a platform to broaden our scope and expand our focus on programmatic efficiency and effectiveness. This activity will complement efforts planned or underway to achieve economies of scale and develop and enhance financial information tools to meet the decision making needs of EPA managers.

EPA's financial management strategy focuses on running environmental programs in a fiscally responsible manner, so that government's resources are used wisely and effectively to protect human health and the environment. Implementation of the strategy requires effective stewardship of the Agency's resources by:

- carefully overseeing, capturing, and recording the full costs of transactions,
- maintaining strong internal controls and proper accounting practices,
- maintaining clean audit opinions,
- producing timely, accurate financial information,
- making timely and appropriate payments, and
- ensuring that resources are appropriately expended and linked to results.

Year after year, EPA has set ambitious milestones and sought innovative and efficient techniques to continually improve and achieve strong performance. The Agency's vision for improving its financial management performance consists of continuing improvement efforts in the areas described below.

- **Streamline Financial Management Processes**—EPA is implementing more responsive financial management processes to utilize the Agency's resources more effectively and meet the needs of financial managers. A consolidation of financial functions is currently underway, and a modern financial management system framework is in the development phase.
- **Develop Useful Information for Decision Making**—EPA managers make decisions every day that directly and indirectly affect the Agency's ability to protect human health and the environment. EPA's challenge under the PMA is to ensure that decision makers have access to the financial information necessary for informed decisions. To accomplish this, EPA established a strategic approach to enhance the decision making in grants management; redefined the Agency's accounting output to better capture cost information; worked to integrate budget and performance data; and provided a Web-based reporting tool (ORBIT) to more managers.
- **Improve Financial Operations and Increase Accountability**—Continuous improvement is central to all financial management activities in EPA: internal control programs, financial management operations and practices, and customer service. In FY 2006, EPA will add the Integrated Financial Management System (IFMS) as a new business line in the Working Capital Fund on a pilot basis, and will establish base-line performance measures and build on internal controls to enhance business operations. This change will allow regional and Headquarters offices to receive better information on the financial management costs associated with their programs.
- **Provide Support to Other PMA Initiatives**—As an Agency that strives for continuous improvement, EPA supports financial efficiencies for other PMA initiatives such as competition, technical innovation, and a knowledgeable and competent workforce. To foster competition and to encourage continual evaluation of the Agency's problem solving capabilities, competitive sourcing initiatives are incorporated into financial management proposals to foster the highest quality of cost-effective services. E-gov initiatives, like competitive sourcing initiatives, look beyond EPA's current capabilities and consider how to meet future needs. EPA's initiatives are reliant upon an effective workforce that proactively examines environmental challenges and offers versatile solutions.
- **Develop the Competencies and Leadership to Meet Future Financial Management Requirements**—The ability to establish and achieve ambitious targets and goals is crucial to continuous improvement, and the key to achieving the Agency's financial management goals is our employees. To ensure that EPA continues to have the skills, the vision, and the leadership it needs to meet current and future financial management requirements, the Office of the Chief Financial Officer (OCFO) has developed and implemented a human capital strategy. During FY 2005, OCFO focused on hiring strategies that take into account both current and long-term skill needs. Training and development of existing staff in core competency and leadership areas continues to be a high priority.

EPA has laid the foundation to develop many of the tools that will support the Agency in the coming years. For instance, a high-level vision has been established to replace legacy system that integrate how the Agency captures and conveys financial and performance information. In addition, EPA will ensure that the Agency's internal controls are effective in achieving the Agency's strategic goals. Building upon this foundation, EPA expects to continue demonstrating that its financial management operations, programs, and staff are flexible and adaptable enough to meet current and future financial management needs.

Financial Management Performance

This section summarizes EPA's progress in improving financial management performance and describes EPA's approach for ensuring continuing favorable audit opinions and plans for developing and maintaining relevant and timely financial reporting practices.

Streamline Financial Management Processes

Consolidation of Financial Functions. To take the Agency to the next level of performance, EPA is re-aligning financial functions from regional offices into Finance Centers of Excellence to focus on major accounting functions and customer service responsibilities. By consolidating these functions from 14 locations to the four finance centers, EPA will improve efficiency by streamlining operations; increasing uniformity and consistency in the interpretation and application of policies, rules, and regulations; eliminating communication problems; and saving tax-payers dollars. During FY 2005, three regions transferred some or all of their finance operations for grants, travel, and accounts receivable to the Centers of Excellence. In addition, major union issues were resolved. The remaining accounting functions will be transferred to the four Centers of Excellence by the end of CY 2006.

Financial System Modernization. EPA plans to implement a state of the art financial system in 2008 to replace IFMS, the core accounting system. The new system environment will support the Financial Management Line of Business by providing that the system be operated by a Center of Excellence outside EPA. During FY 2005, a Financial System Modernization Team was staffed, focus groups were created to develop requirements for the new system, and an acquisition strategy and Concept of Operations (CONOPS) were developed. The CONOPS and other documents are available at the EPA Internet at http://www.epa.gov/ocfopage/.

Develop Useful Information for Decision-Making

Budget and Performance Integration. Budget and performance integration (BPI) is a key component of EPA's quest for better performance, increased accountability, better informed decision making, and more transparent, comprehensive reporting of environmental results to the public. This initiative aligns the management of EPA's financial and human resources with the effective delivery of environmental results.

A comprehensive Agency-wide performance measurement improvement strategy was developed to promote improved measures through consideration of environmental indicators, assessment of program management requirements, and establishment of measurement implementation plans. This strategy has supported the efforts of the program offices to establish more outcome-oriented annual performance goals and measures as well as efficiency measures. EPA is in the process of revising its Strategic Plan under the Government Performance and Results Act (GPRA) covering the timeframe from 2006-2011. The Strategic Plan will be the basis for EPA's FY 2008 President's Request and for the FY 2007 execution and performance reporting under GPRA. Our goals for this revision include strengthening the linkage between and integration of budget and cost information, enhancing the availability and use of this information in setting priorities and making resource allocation decisions, and in promoting accountability for results within the Agency.

The Performance Accountability Report (PAR), which consolidates Agency-wide programmatic performance information, is one of the primary methods for sharing EPA's progress on environmental protection with citizens and EPA employees, and therefore must describe a clear, comprehensive picture of EPA's major achievements. EPA is redesigning the PAR as part of a larger effort to merge information systems housing performance data with those containing budget data. This effort will enhance public access to highly technical information, make that information more meaningful to EPA employees, and increase the public's understanding of the costs and expected results from EPA's programs.

The most recent PMA Scorecard (September 30, 2005) rated EPA "Yellow" for status and "Green" for progress made in reaching BPI milestones and goals during the Fourth Quarter. EPA continues its efforts to improve performance measurement

and integrate budget and performance information to manage and deliver the Agency's environmental protection results. The Program Assessment Rating Tool (PART) administered by the Office of Management and Budget (OMB), is a core element of the BPI initiative and a systematic method of assessing the performance of program activities across the federal government. As a diagnostic tool, the PART is used to evaluate program performance and identify areas for program improvement. Programs subject to a PART assessment are required to have OMB-approved annual, long-term efficiency measures. The PART assessments process has heightened the Agency's attention, adoption, and utilization of new performance and efficiency measures to strengthen resource and program management and deliver environmental results.

Since many of these efficiency measures are new—adopted as recently as the FY 2006 budget formulation process—the Agency does not, in all cases, have data to support these measures. Currently, the Agency has completed PART assessments of 32 programs (including 12 new programs in the FY 2006 annual planning and budgeting process), covering more than 60 percent of the Agency's budget. The Agency has OMB-approved efficiency measures for 28 of the 32 programs that were assessed by the PART during the FY 2004, FY 2005, and FY 2006 budget formulation processes. For those measures currently without data, the Agency is working hard to collect the necessary data and establish performance baselines and ambitious targets.

The Agency made significant progress in developing outcome-oriented performance and efficiency measures and in demonstrating the ability to calculate the marginal cost of changing performance goals. As a result of the PART exercise, organizations across the Agency have an increased awareness and dedication to program performance by using performance data to inform management of their environmental programs. Through these initiatives and other actions to tie Agency resources to performance and results, EPA can point to significant accomplishments against the PMA's standards of success.

Data Integration. In a complementary PMA effort to produce useful information, EPA has undertaken a multi-office data integration effort highlighting the use of financial information to improve program efficiency and ensure sound financial management. The development and application of the Agency's strategic plan for Data Integration is an iterative process.

Given the magnitude and complexity of EPA's mission, the Agency has committed to focusing on one business process at a time. Grants management was chosen as the first area for review. EPA is focused on reviewing and understanding the integration of financial and grants management information. The Agency's focus on linking grants management and financial data will produce better information to ensure that projects funded by grants achieve EPA's environmental objectives and grant recipients are technically competent to carry out the work.

EPA has developed baselines, targets, and milestones to measure its success. The collective implementation and completion of these milestones will help to ensure the integration of IFMS (or its replacement) and Integrated Grants Management System (IGMS) data, ultimately resulting in the elimination of duplicate data entry and maximum availability of Pre-Award and Post-Award data.

In FY 2006, the Agency will focus on finalizing the Dun and Bradstreet Data Universal Numbering System Number Integration task under the Vendor Table Integration milestone; defining the requirements of an Integrated Reporting Platform; and configuring the Websphere application integration interface under the IGMS/IFMS Interface milestone. In addition, the Agency will refine its baseline estimate of unliquidated obligations for closed (or expired) grants by reconciling the remaining (99) unmatched records between IGMS and IFMS. EPA also will continue its efforts to finalize the identification of FY 2004 erroneous payments to non-profit recipients.

In future efforts, the Agency anticipates undertaking similar analyses of other key risk areas, including debt management, contracts management, and relevant areas captured by the CFO metrics.

Chief Financial Officers (CFO) Council Government-wide Metrics. The CFO Council Metric Tracking System (MTS) has been tracking government-wide results with nine metrics in six financial management categories for all CFO Act Agencies since FY 2003. During the fourth quarter of FY 2005, MTS tracked Agency performance, and EPA has achieved a "Green" status for four of the CFO Council Government-wide Metrics tracked by MTS. We have corrective action plans are in place for the remaining metrics.

OCFO Reporting and Business Intelligence Tool (ORBIT). ORBIT assimilates EPA's financial, administrative, and program performance information and provides an enterprise-wide, Web-based interface to assist Agency managers in making more informed decisions about their programs and operations. In FY 2005, EPA established program and regional office information centers and developed core budgeting and financial standard reports for ORBIT. This initiative provided the Agency business consistency and a common platform to build the same reports using the same data parameters from the same data source. EPA also worked to develop ORBIT's Commitment Tracking Module, which will make program performance data more readily available across the Agency and establish the foundation to emphasize the linkage of cost and performance information. Finally, EPA implemented a new version of ORBIT, which added a new data source for budget and financial reports, enhanced functionality.

For FY 2006, Phase III development will focus on business intelligence analytics, program cost accounting reporting, resources management, customization of program and regional "information centers," and will begin to provide available Commitment System performance data and PART assessment information. An outreach campaign will help the Agency executives, managers, and staff to integrate ORBIT into daily management and decision processes.

Improve Financial Operations and Increase Accountability

Eliminating Improper Payments. The PMA initiative on Eliminating Improper Payments is focused on identifying, preventing, and eliminating erroneous payments. An improper payment occurs when federal funds are paid to the wrong person or entity, the recipient is paid an incorrect amount, or the recipient uses the funds improperly. This initiative is important because taxpayers need to know that the government is using their tax dollars for their intended purpose. Although the magnitude of improper payments government-wide is unknown, 17 agencies reported over $45 billion of improper payments in 41 programs in FY 2004.

The Improper Payments Information Act of 2002 (IPIA) and subsequent guidance from OMB required federal agencies to analyze the risk of improper payments for their highest risk programs and prepare corrective action plans for those programs with significant risk. Significant risk is defined as improper payments to either primary recipients or their sub-recipients in excess of 2.5 percent of total program dollars and $10 million.

To comply with IPIA requirements, EPA assessed its rate of improper payments in FY 2003 by performing risk assessments on grants, contracts, payroll, and travel cards/purchase cards. All four areas were determined to be "low risk" for improper payments based on the legal guidelines. Across all programs, EPA's error rate for primary recipients was less than 1 percent. In addition, the findings confirmed strong business management practices throughout the Agency.

Even though EPA's improper payments were minimal, EPA espouses the notion of continuous improvement. Because the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF) are former Section 57 programs, EPA is required to submit an IPIA corrective action plan for them. The Agency's corrective action proposed to reduce the error rate of improper payments in the CWSRF and DWSRF from 0.51% to 0.35% over a three-year period.

EPA's challenge for the CWSRF and DWSRF improper payments initiative is to broaden the scope of payment reviews. Through FY 2004, the Agency reviewed only direct payments and found an error rate of 0.00 percent. For FY 2005, EPA is including a judgmental sample of sub-recipient payments in the review process. In FY 2006, EPA will conduct statistically valid samples of grants payments to sub-recipients in New Hampshire and South Carolina and assess the results of a Single Audit in Texas.

Consistent with IPIA requirements, EPA implemented a recovery audit program. Although the final report is not due until the end of October, preliminary results indicate that the error rate was less than 0.01 percent. (For more information on this initiative see the IPIA Report on page 86.)

Clean Audit Opinions. Because a clean audit opinion is a top management priority, all financial statements have been submitted timely and with clean opinions for the last five years. EPA's approach to guarantee that the Agency obtains clean audit opinions in the future is as follows:

- **Strengthen the Quality Assurance Program.** EPA's Quality Assurance Program focuses on management's responsibility for internal control through effective quality assurance processes and reviews. In FY 2005, EPA revised its Quality Assurance Guide (QA Guide) to reflect new or revised government-wide requirements and EPA policies and procedures. The QA Guide is available at the OCFO website. To continue the QA program's success, OCFO is conducting a training class in December 2005 for Agency finance personnel.
- **Automate the Statement Preparation Process.** The Agency is in the process of developing an automated procedure for identifying abnormal general ledger balances. Implementing the new procedure will ensure the reliability of the underlying data and allow EPA to shift resources from the mechanics of report preparation to detailed transaction analysis and explanation of results.
- **Resolve Audit Issues Quickly and Completely.** The Office of Inspector General (OIG) made 32 audit recommendations subsumed under ten reportable conditions, none of which is material, and four noncompliance issues in its audit report on the FY 2004 financial statements. EPA submitted corrective action plans for all reportable conditions and compliance issues within ten months of OIG's FY 2004 Financial Statements Audit. EPA will continue to emphasize quick resolution of audit issues and implementation of corrective actions that avoid recurrences.

- **Implement OMB Circular A-123 Aggressively.** EPA is evaluating its existing internal control programs to comply with the standards defined in OMB Circular A-123, Management's Responsibility for Internal Control. EPA has developed and submitted to OMB an implementation plan that ultimately will provide reasonable assurance that internal controls for financial reporting are adequate to carry out the Agency's mission effectively and efficiently. EPA's approach to implementing OMB Circular A-123 involves the following four steps: (1) Incorporate new requirements into the Agency's existing management integrity process and communicate changes to Agency managers and staff; (2) Conduct a high-level assessment and identify areas of risk and concern in the Agency's management integrity process by applying the fine control standard outlined in OMB Circular A-123; (3) Develop test plans and evaluate results in key risk areas and areas of concern agreed to by the Senior Management Council; and (4) Take necessary action to establish the ability to provide reports of reasonable assurance. In the future EPA will use its Quality Assurance Program in conjunction with the implementation of OMB Circular A-123 to ensure that internal controls are in place and adequate to ensure that the Agency's strategic goals are achieved.

Relevant and Timely Financial Reporting Practices. EPA has successfully managed its financial statement acceleration effort, which is critical to achieving a clean audit opinion. If this information is to be optimally useful to Agency managers, Congress, and others, data must be produced as quickly as possible after the reporting period ends. The Agency adopted government-wide "best practices," such as ensuring senior management commitment, tracking progress, using estimates and accruals to facilitate reporting, and holding bi-weekly audit status meetings with the Chief Financial Officer and the Inspector General. In FY 2005, EPA produced accurate and timely accelerated interim quarterly financial statements, completed Quality Assurance Reviews to ensure the accuracy of Agency financial data, and automated preparation of the Statement of Net Costs by Goal.

EPA will continue to produce accelerated audited statements, timely, accurate, and useful interim statements, and timely financial data to assess program costs and aid the annual budget formulation process. To make financial data more readily available for reconciliation purposes, EPA will utilize ORBIT, EPA's business intelligence reporting tool. EPA's Closing Package, needed for the preparation of the Financial Report (FR) of the U. S. government will continue to be submitted to an Internet-based application used to aid in the preparation of the FR in accordance with Government-wide Financial Reporting System (GFRS) requirements. Furthermore, EPA is working towards automating preparation of the Statement of Budgetary Resources and Intra-governmental (Trading Partner) report data. By consistently meeting the accelerated due dates for the Annual Report and completing interim financial statements (first quarterly, subsequently monthly), EPA provides timely and reliable information to the public.

Provide Support to Other PMA Activities

Competitive Sourcing. EPA utilizes competitive sourcing to ensure effective use of the federal workforce and the highest quality of services. In FY 2005, as part of the first Agency standard competition, 26 employees providing vendor payment services were placed in head-to-head competition against private sector businesses. EPA's finance center at Research Triangle Park (RTP) convincingly demonstrated that its process for handling the Agency's vendor payments is the most cost-effective for EPA. As a result, the Agency will consolidate all vendor payment services, currently done in eight locations, into RTP. This streamlined, consolidated approach to the work is expected to save EPA approximately $3.5 million over a five-year period.

E-Gov. EPA made great strides this year to advance finance related e-government and line of business initiatives based on the PMA.[1] EPA's Financial Management System Framework leverages today's technology to support efficiencies across government. A general theme is gaining economies of scale by reducing the number of financial systems operated by individual agencies. Instead, agencies will purchase hosting and other services from external providers. E-gov initiatives are discussed below in the Financial Management Systems section.

Human Capital Management. All financial managers linked their performance standards to the five goals in the Agency's Strategic Plan. In addition, we adopted the new Performance Appraisal Management System for managers and employees.

Develop Leadership and Provide Staff with Adequate Tools

OCFO Human Capital Strategy. OCFO continues to implement its Human Capital Strategy. During FY 2005, OCFO established a workforce team to assist in developing the action plan to enhance communication of Human Capital initiatives throughout OCFO. OCFO completed a comprehensive review of its workforce requirements, identified skills and competencies needed for success, and established training programs to address skill gaps. For example, OCFO initiated a series of project

[1] See "Expanding E Government: Partnering for a Results Oriented Government" issued by the White House December 2004 http://www.whitehouse.gov/omb/budintegration/expanding_egov12-2004.pdf

management courses leading to a Project Management Certificate. As a result, several participants in this training have assumed leadership roles in high-visibility projects or management activities within OCFO. In addition, OCFO focused on aligning its hiring strategies with its strategic workforce plan. Offices within OCFO were challenged to develop hiring plans that address both current and long-term skill needs. OCFO expanded its use of alternative means to fill vacancies through details, term positions, and telework arrangements. In addition, OCFO continues to target a diverse student population for internships and other part-time positions and take advantage of the Agency's entry-level programs. Consequently, OCFO benefits from their contributions.

Financial Management Systems Framework

Nowhere is EPA's commitment to continuous improvement more apparent than in the Agency's financial management system. The system architecture contributed to EPA's winning of the 2003 Presidential Quality Award for Improved Financial Performance. EPA is in the process of developing a modern financial system infrastructure to help EPA better manage the resources that support our environmental mission, more accurately measure the true costs of environmental programs, and better inform the public. EPA's new system architecture will be based on commercial off-the-shelf software that complies with today's standards for usability, functionality, security, and internal controls. Our long term vision for financial systems is laid out in detail at http://www.epa.gov/ocfo/modernization/index.htm. Readers are referred in particular to the Concept of Operations (CONOPS) for the Financial System Modernization Project posted on this website.

Financial Management Line of Business. The Financial Management Line of Business, sometimes termed e-finance, seeks to achieve process improvements and cost savings in acquisition, development, implementation, operation of the financial management systems through shared services, joint procurements, consolidation, and other means; standardize business processes and data elements; promote seamless data exchange among federal agencies; and strengthen internal controls through real-time interoperability of core financial systems. To achieve these goals, federal agencies will purchase financial system hosting services from a Center of Excellence (external host) in either the public or private sector. EPA's financial management systems vision and strategy follow this approach.

Financial System Modernization. EPA plans to implement a state of the art financial system in FY 2008. IFMS is EPA's current core financial system. It dates back to the late 1980s. Over the years it has been enhanced to meet various growing needs. At the same time, government-wide requirements have become far more stringent. For example, today's greater emphasis on financial accountability, internal controls, and security coupled with the accelerated deadlines for agency financial statements place increasing stress on the legacy system. Today's market offers a range of modern products that have been certified as acceptable for use by federal agencies.[2]

EPA's objectives for the new core financial system include aligning with the government-wide Financial Management Line of Business; improving agency financial performance through streamlining and automation; improving financial service to internal and external customers; facilitating compliance with today's information security standards; improving financial accountability; and improving integration of budget and performance.

In FY 2005, EPA developed an acquisition strategy to obtain hosting services from a Center of Excellence, financial system software, and a contractor to implement the new core financial system. To support the acquisition and guide system development, a Financial System Modernization Team was staffed, focus groups were created to develop requirements for the new system, and a Concept of Operations (CONOPS) was developed. The CONOPS and other documents are available on the EPA Internet. Vendor selection is scheduled for spring 2006, and full implementation of the new system is scheduled for 2008.

E-Payroll. E-Payroll seeks to gain economies of scale by reducing the number of civilian agencies that process their own payroll. In FY 2005, EPA implemented a fully integrated, Web-based payroll-human resource system. The new system uses commercial software to streamline and automate business processes and provides the technical foundation for EPA's participation in e-payroll. EPA made technical preparations to migrate the payroll processing portion of the payroll-human resources system to the Defense Financial and Accounting Service (DFAS), scheduled for completion in FY 2006. In addition, EPA began preparations for migrating certain human resource processing functions to a central service center pursuant to the Human Resources Line of Business.

E-Travel. E-Travel seeks to reduce the costs of processing employee travel by using centralized electronic travel service providers to automate the entire process from making reservations to reimbursing travelers. In FY 2005, EPA selected a service provider and began implementing the service provider's reservations process. Full implementation is scheduled for the end of CY 2006.

[2] See <http://www.jfmip.gov/jfmip/>.

Data Warehousing and Reporting Tools. Data Warehousing and Reporting Tools bring data from different applications to user desktops to guide management resource decisions and to link cost with performance. In FY 2005, EPA rolled out a flexible Administrative Data Mart (ADAM) to serve as a source for ORBIT and added new reports to the ORBIT menu. FY 2006 and FY 2007 efforts will focus on business intelligence analytics and improved reports.

Budget and Planning. One of the major financial tools used by the Agency for improving financial performance and budget management is the Budget Automation System (BAS). BAS accomplishes "horizontal fusion" of budget and performance data throughout the 10 EPA regions and headquarters program offices, totaling 2,507 users. By using cutting-edge database technology, BAS provides Agency-wide, real-time access to budget planning, formulation, and analysis tools. BAS links budget dollars directly to the achievement of the Agency's strategic goals and objectives, which directly supports EPA's Government Performance Results Act (GPRA) compliance efforts.

Cost Recovery and Imaging. The existing application summarizes spending on Superfund cleanup sites and supports the recovery of the costs. EPA is exploring options for replacing this system with a more modern commercial product.

Application Integration. Application integration middleware is the switchboard mechanism that allows applications to communicate with each other without costly system specific interfaces. In FY 2005, EPA implemented an application integration tool as part of the deployment of our Web-based integrated payroll-human resource system and ADAM and developed a strategy for linking other information.

In conclusion, EPA expects to remain in the forefront of federal financial management. Further, the Agency will maximize the benefits from its PMA initiatives to ultimately protect the environment and save taxpayers' dollars.

3.
Environmental Protection Agency
Supplemental Information (Unaudited)
Improper Payments Information Act of 2002 (IPIA) Report
For the Year Ended September 30, 2005

I. RISK ASSESSMENTS: After reviewing and sampling disbursements made in the highest risk susceptible inventories, EPA determined that its programs do not have "significant erroneous payments," defined by the IPIA as payments exceeding $10 million and 2.5% of program payments. Because the Clean Water and the Drinking Water State Revolving Funds (SRFs) are former Section 57 programs, EPA is required to submit an IPIA corrective action plan for them. The Agency's corrective action proposed to reduce the error rate of improper payments in the SRFs from 0.51 percent to 0.35 percent over a three-year period. EPA surpassed the FY 2005 target of 0.45 percent. The error rates for these two programs were as follows:

Program: Clean Water and Drinking Water SRFs

Fiscal Year	Outlays	Erroneous Payments	Error Rate
2004	$2.1 billion	$10.3 million	0.47 percent
2005	$1.9 billion (est.)	$3.1 million	0.16 percent

II. STATISTICAL SAMPLING PROCESS: In FY 2005, EPA revised its corrective action plan for the two SRFs. Based on the FY 2005 Measurement Plan approved by OMB, EPA pulled a statistical random sample of 252 direct payments from a population of 8,538 direct grant payments (126 transactions for each SRF). The error rate for the direct payment sample was 0.00 percent. Additionally, the Agency committed to reviewing a judgmental sample of at least 100 sub-recipient level payment transactions for each SRF during FY 2005. Only $3.1 million of the $555.1 million sub-recipient SRF payments reviewed were erroneous (0.23 percent). In FY 2006, EPA will provide OMB with a statistical methodology for sampling sub-recipient payments. The Agency plans to review a statistical sample of sub-recipient payments for each SRF in South Carolina and New Hampshire as well as a statistical sample of direct grant payments.

III. CORRECTIVE ACTION PLANS: In order to meet OMB's objectives, EPA initially conducted additional risk assessments by forming four subgroups with expertise in grants, contracts, payroll, and travel/purchase credit cards to review internal controls, identify and measure high risk areas, and develop corrective action plans for each subject area. Updated planned actions in each of the areas are as follows:

A. **Grants:** As described in section II, EPA will continue reviewing direct and sub-recipient SRF payments. In the FY 2005 corrective action plan for the Clean Water and Drinking Water SRFs, EPA also committed to:

- Continue to review and enhance internal controls, as needed, in the Agency's overall payment processes,
- As part of the post award process, continue to monitor payments made to sub-recipients,
- Comply with reporting requirements for improper payments, and
- Implement and operate the Agency's audit recovery program.

In FY 2005, the Office of Grants and Debarments (OGD) identified modifications needed to enable tracking erroneous payments by grant recipient in the Grantee Compliance Database. These modifications will allow tracking and maintaining data on the dollar value of erroneous payments by grant recipient.

During FY 2005, OGD performed an erroneous payments review for calendar year (CY) 2004 using judgmental risk-based sampling to select 267 grant recipients for administrative reviews including 111 non-profit grantees. Only 19 of these non-profit grantees had potential erroneous payments. All identified erroneous payments have been recovered

Preliminary results of the review of CY 2004 non-profit recipient reports provided the following results:

Review/Audit Results	Dollars
All potential erroneous payments cited	$650,799
Questioned costs determined allowable	$1,789
Actual erroneous payments (unallowable costs)	$4,575
Costs that have been recovered	$4,575
Costs still in recipient appeal process (no final determination—may not to be erroneous)	$644,435

In FY 2006 the OGD will complete the final identification of CY 2004 non-profit recipient erroneous payments still in the appeal process. They will implement modifications to the Grantee Compliance Database to enable capturing questioned costs and confirmed erroneous payments by grant recipient. OGD will introduce a new statistical sampling approach for the review of CY 2005 non-profit grantee monitoring/audit reports for erroneous payments and will identify reduction targets based on the results of this review. Those results also will be used to develop a performance monitoring metric that will serve as the baseline against which future results can be measured. EPA also reports on these OGD initiatives for the Improved Financial Management Initiative of the President's Management Agenda.

B. **Contracts:** EPA continues to take appropriate action as needed to reduce or eliminate improper payments. The appropriate Contracting Officer Representatives or On Scene Coordinators are notified of all improper payments discovered. In January 2003, EPA implemented a monthly Improper Payment Report. The report categorizes the number of improper payments per month and provides information on each improper payment including the reason. In FY 2005, EPA identified 21 improper payments (0.01 percent error rate) due to keypunch errors or invoice error. Billing numbers received on contracts are now verified prior to entering information in Contract Payment System. Staff review identified keying errors and efforts are made to prevent or detect these types of errors in the future.

Fiscal Year	Number of Erroneous Payments	Erroneous Payments (Dollars in Thousands)	Error Rate for Dollars
2003 *	25 (of 24,056)	$206.1	0.02 percent
2004	21 (of 24,886)	$748.5	0.08 percent
2005	21 (of 26,305)	$121.5	0.01 percent

* FY 2003 only included data from January through September.

Other actions include the addition of an improper payment review element for the Quality Assurance Review for invoices and the initiation of the Recovery Audit process which was completed in October 2005. The Audit Recovery contractor reviewed 86,217 contract payments totaling $51.6 million and found 11 erroneous payments ($12 thousand)—less than a 0.02 percent error rate.

The continued proactive process of reviewing and implementing changes as needed when an improper payment occurs should continue to reduce the number of improper payments. The Contracting Officer Representatives, On-Scene Coordinators or Contracting Officers will continue to be notified of all improper payments that involve their contract. Suggested actions will be provided and if the problem continues, actions will be elevated. Previously documented keying errors are being noted by the staff at EPA to assist in the detection by the initial data entry personnel as well as the sample reviewer and the certifying officer.

C. **Commodity Payments:** Since no high risk areas have been identified, no corrective action is required. EPA continues to take appropriate action as needed to reduce or eliminate any improper payments. The Recovery Audit contractor reviewed 249,879 invoices paid totaling $124.0 million and found 41 improper payments ($129 thousand)—less than a 0.10 percent error rate. These improper payments have been attributed to duplicate payments, returns not deducted, overpayments, and cash discounts not taken. The payment and certifying staff have been alerted to this fact and are making an effort to double check all vendor codes to prevent this in the future. All invoices marked past due are being reviewed to determine if they are duplicate invoices.

EPA put a tracking mechanism in place in January 2004 to gather improper payment data in anticipation that purchase order payments would be included in the erroneous payment process. The tracking system provides the data for a monthly Improper Payment Report. In FY 2005, 40 (of 42,698) commodity payments were erroneous. The improper payments represent $416 thousand of the $239 million payments processed (error rate of 0.17 percent).

D. **Payroll:** A payroll workgroup completed the following tasks:

1. Reviewed Payroll internal control documentation.
2. Reviewed personnel interviews to verify/test whether internal controls are understood and being utilized.
3. Summarized the results of the review of the internal controls.

EPA continues to provide training to its managers and staff in this area.

E. **Travel Card/Purchase Card:** The Agency will continue to monitor the charge card transactions and employee accounts using the tools described above to ensure that the cards are used in accordance with the Agency policies and procedures.

The Agency will continue to monitor the issuance of purchase cards to ensure that spending limits and span of control are kept to a minimum. The Office of Acquisition Management is in the process of implementing a monitoring program that is to be performed by each of the Senior Resource Officials in the Agency. This program will mandate that each office perform yearly reviews of the purchases made within their program offices. These reviews will ensure the integrity of the purchase card program.

IV. IMPROPER PAYMENT (IP) REDUCTION OUTLOOK FY 2004—FY 2008

(Dollars in millions)

Program	FY 2004 Outlays	FY 2004 IP %	FY 2004 IP $	FY 2005 Outlays	FY 2005 IP %	FY 2005 IP $	FY 2006 Outlays	FY 2006 IP %	FY 2006 IP $	FY 2007 Outlays	FY 2007 IP %	FY 2007 IP $	FY 2008 Outlays	FY 2008 IP %	FY 2008 IP $
Clean Water and Drinking Water SRFs	$2,182 (actual)	0.47	$10.3	$1,928 (est.)	0.45 target 0.16 actual	$3.1	$1,580 (est.)	0.40	$6.3 (est.)	$1,543 (est.)	0.35	$5.4 (est.)	$1,565 (est.)	0.30	$4.7 (est.)

Approximately $10 million of the FY 2004 improper payments were due to states drawing funds too soon. The states have taken appropriate action to improve their internal controls so fund draws are properly timed.

V. RECOVERY AUDIT PROGRAMS: The Agency hired a contractor, Business Strategy, Inc (BSI), to conduct the recovery audit. BSI completed its preliminary interviews as part of the discovery phase of its work. This phase involved discussions with key individuals in the contract obligation and payment process and individuals knowledgeable about EPA's financial system.

BSI analyzed data received from the Integrated Financial Management System and in September 2005 completed its field work to identify and collect contract overpayments. BSI completed its final Recovery Audit report at the end of October 2005. As reported above in the Contracts and Commodities sections, BSI did not uncover any material erroneous payments (only $130 thousand identified).

(Dollars in millions)

Agency Component	Amount Subject to Review for FY 2005 Reporting	Actual Amount Reviewed and Reported	Amounts Identified for Recovery	Amounts Identified / Actual Amount Reviewed	Amounts Recovered FY 2005	Amounts Recovered Prior Years
Contracts	$4,284.8	$51.6	$0.01	0.02 percent	$0.01	N/A
Commodities	$2,175.2	$124.0	$0.12	0.10 percent	$0.129	N/A

In the first quarter of FY 2006, EPA will work with BSI to further strengthen payment processes and internal controls to prevent erroneous payments. The Agency will suggest to OMB that future Recovery Audit reviews be performed at three to five year intervals.

VI. ENSURING MANAGEMENT ACCOUNTABILITY: As previously outlined in the corrective action plans, the Agency continues to strengthen already strong internal controls in key payment processes. Information on erroneous payments from reviews and audits for the two SRFs, our largest grant programs, is reported quarterly to management in both the Office of Water and the Office of the Chief Financial Officer. In all cases, action is taken with the appropriate officials to ensure improper payments are recovered and to avoid future improper payments.

VII. INFORMATION SYSTEMS AND INFRASTRUCTURE: The Agency's information system and related processes are sufficient to reduce improper payments to targeted levels.

VIII. STATUTORY AND REGULATORY BARRIERS: Currently, EPA includes in the Office of Water's SRF state review process examination of sub-recipient invoices. The Agency also reviews audit reports on sub-recipient financial operations. In FY 2006, we will determine to what extent we can gather erroneous payment information from Single Audit Act reports. EPA's challenge for the SRF improper payments initiative is to broaden the scope of payment reviews. Through FY 2004, the Agency reviewed only direct payments. For FY 2005, EPA included a judgmental sample of sub-recipient payments in the review process. In FY 2006, EPA will conduct statistically valid samples of grants payments to sub-recipients in New Hampshire and South Carolina and assess the results of a Single Audit Act report for Texas.

IX. CONCLUSIONS: EPA is exceeding its erroneous payment reduction targets. The Agency has committed to the following FY 2006 erroneous payment actions:

- Provide to OMB a detailed sampling methodology for South Carolina and New Hampshire SRF sub-recipient payments;
- Review documentation for the State of Texas Single Audit Act report as a basis for determining whether such audits can be used to identify improper payments issues;
- Provide results of South Carolina and New Hampshire reviews, and direct payment reviews;
- Provide results of reviews of payments made to non-profit grantees;
- Assess the final October 2005 results of the recovery audit and establish reduction and recovery targets, if appropriate; and
- Report on improper payments in the Performance and Accountability Report (PAR).

Inspector General's Report on EPA's Fiscal 2005 and 2004 Consolidated Financial Statements

Contents

At a Glance 261

Inspector General's Report on EPA's Fiscal 2005 and 2004 Consolidated Financial Statements

Review of EPA's Required Supplementary Stewardship Information, Required Supplementary Information, Supplemental Information, and Management's Discussion and Analysis 263

Evaluation of Internal Controls 264

Tests of Compliance with Laws and Regulations 267

Prior Audit Coverage 268

Agency Comments and OIG Evaluation 268

Attachments

1. Reportable Conditions 269
2. Compliance with Laws and Regulations 277
3. Status of Prior Audit Report Recommendations 278

Appendix

Agency's Response to Draft Report 279

U.S. Environmental Protection Agency
Office of Inspector General

2006-1-00015
November 14, 2005

At a Glance

Catalyst for Improving the Environment

Why We Did This Audit

We performed this audit in accordance with the Government Management Reform Act, which requires EPA to prepare, and the Office of Inspector General to audit, the Agency's financial statements each year. Our primary objectives were to determine whether

- EPA's consolidated financial statements were fairly presented in all material respects.
- EPA's internal controls over financial reporting were in place.
- EPA management complied with applicable laws and regulations.

Background

The requirement for audited financial statements was enacted to help bring about improvements in agencies' financial management practices, systems, and controls so that timely, reliable information is available for managing Federal programs.

For further information, contact our Office of Congressional and Public Liaison at (202) 566-2391.

To view the full report, click on the following link:

www.epa.gov/oig/reports/2006/20051114-2006-1-00015.pdf

Audit of EPA's Fiscal 2005 and 2004 Consolidated Financial Statements

EPA RECEIVES UNQUALIFIED OPINION

We rendered an unqualified, or clean, opinion on EPA's Consolidated Financial Statements for fiscal 2005 and 2004, meaning that they were fairly presented and free of material misstatement.

INTERNAL CONTROL REPORTABLE CONDITIONS NOTED

EPA converted to a new payroll system in fiscal 2005. While EPA was able to resolve many issues arising from the conversion, we noted several reportable conditions. Most significantly, EPA made inappropriate payments to separated (transferred, retired, or resigned) employees and made excess salary payments to current employees. These conditions occurred because EPA's automated controls and manual processes were not effective in identifying and preventing these overpayments, or alerting EPA officials to take corrective actions in a timely manner.

In addition to these conditions, we noted seven other reportable conditions including overstated State Superfund Contract unearned revenue and unbilled Superfund oversight costs, improperly adjusted general ledger accounts, inadequate documentation for adjustments made to entries in EPA's Integrated Financial Management System (IFMS), and uncorrected data that IFMS rejected.

NONCOMPLIANCE WITH LAWS AND REGULATIONS NOTED

The Agency still is in noncompliance with laws and regulations relating to implementing the cost accounting standard and reconciling intragovernmental transactions, though we do not consider EPA to be in substantial noncompliance.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL EVALUATION

In a memorandum received on November 10, 2005, from the Chief Financial Officer, the Agency agreed with the issues raised and stated it has begun to evaluate the best methods to address each issue to achieve a timely resolution.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

November 14, 2005

OFFICE OF
INSPECTOR GENERAL

MEMORANDUM

SUBJECT: Audit of EPA's Fiscal 2005 and 2004 Consolidated Financial Statements
Report No. 2006-1-00015

FROM: Paul C. Curtis
Director, Financial Audit (2422T)

TO: Lyons Gray
Chief Financial Officer (2710A)

CC: Luis A. Luna
Assistant Administrator for Administration and Resources Management (3101A)

Attached is our audit report on the Agency's fiscal 2005 and 2004 consolidated financial statements. Management is presenting the financial statements for fiscal 2005 and 2004 in a consolidated format which is a change from prior years' presentations where the Superfund Trust Fund was presented separately. The Agency continues to make improvements in cost accounting; however, it is still not in full compliance with the managerial cost accounting standard. In our view, the level of compliance does not meet the Office of Management and Budget's definition of substantial noncompliance. The audit report also contains other findings that describe issues the Office of Inspector General (OIG) has identified and corrective actions the OIG recommends.

This audit report represents the opinion of the OIG, and the findings contained in this report do not necessarily represent the final EPA position. EPA managers in accordance with established EPA audit resolution procedures will make final determinations on matters in this audit report. Accordingly, the findings described in this audit report are not binding upon EPA in any enforcement proceeding brought by EPA or the Department of Justice. We have no objections to the further release of this report to the public.

In accordance with EPA Manual 2750, *Audit Management Process*, the primary action official is required to provide us with a written response to the final audit report within 90 days of the final audit report date. Since this report deals primarily with financial management issues, we are requesting the Chief Financial Officer, as the primary action official, to take the lead in coordinating and providing us a written response to this report. The response should address all issues and recommendations contained in Attachments 1 and 2. For corrective actions planned but not completed by the response date, reference to specific milestone dates will assist us in deciding whether or not to close this report in our audit tracking system.

Should you or your staff have any questions about the report, please contact me at (202) 566-2523, or Melissa Heist, Assistant Inspector General, Office of Audit, at (202) 566-0899.

Attachment

cc: See Appendix III, Report Distribution List

Inspector General's Report on EPA's Fiscal 2005 and 2004 Consolidated Financial Statements

The Administrator
U.S. Environmental Protection Agency

We have audited the consolidated balance sheets of the U.S. Environmental Protection Agency (EPA, or the Agency) as of September 30, 2005 and 2004, and the related consolidated statements of net cost, net cost by goal, changes in net position, financing and custodial liability, and the combined statement of budgetary resources for the years then ended. These financial statements are the responsibility of EPA's management. Our responsibility is to express an opinion on these financial statements based upon our audit.

We conducted our audit in accordance with generally accepted auditing standards; the standards applicable to financial statements contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Office of Management and Budget (OMB) Bulletin 01-02, *Audit Requirements for Federal Financial Statements*. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

The financial statements include expenses of grantees, contractors, and other Federal agencies. Our audit work pertaining to these expenses included testing only within EPA. Audits of grants, contracts, and interagency agreements performed at a later date may disclose questioned costs of an amount undeterminable at this time. The U.S. Treasury collects and accounts for excise taxes that are deposited into the Superfund and Leaking Underground Storage Tank Trust Funds. The U.S. Treasury is also responsible for investing amounts not needed for current disbursements and transferring funds to EPA as authorized in legislation. Since the U.S. Treasury, and not EPA, is responsible for these activities, our audit work did not cover these activities.

The Office of Inspector General (OIG) is not independent with respect to amounts pertaining to OIG operations that are presented in the financial statements. The amounts included for the OIG are not material to EPA's financial statements. The OIG is organizationally independent with respect to all other aspects of the Agency's activities.

In our opinion, the consolidated financial statements present fairly, including the accompanying notes, in all material respects, the consolidated assets, liabilities, net position, net cost, net cost by goal, changes in net position, reconciliation of net cost to budgetary obligations, custodial activity, and combined budgetary resources of EPA, as of and for the years ended September 30, 2005 and 2004, in conformity with accounting principles generally accepted in the United States of America.

Review of EPA's Required Supplementary Stewardship Information, Required Supplementary Information, Supplemental Information, and Management's Discussion and Analysis

We inquired of EPA's management as to its methods for preparing Required Supplementary Stewardship Information (RSSI), Required Supplementary Information, Supplemental Information, and Management's Discussion and Analysis, and reviewed this information for consistency with the financial statements. The Supplemental Information includes the unaudited Superfund Trust Fund financial statements for fiscal 2005 and 2004, which are being presented for additional analysis and are not a required part of the basic financial statements. Management has elected to omit certain disclosures required by OMB Circular A-136, *Financial Reporting Requirements*, that accounting principles generally accepted in the United States have determined are necessary. However, our audit was not designed to express an opinion and, accordingly, we do not express an opinion on EPA's RSSI, Required Supplementary Information, Supplemental Information, and Management's Discussion and Analysis.

We did not identify any material inconsistencies between the information presented in EPA's consolidated financial statements and the information presented in EPA's RSSI, Required Supplementary Information, Supplemental Information, and Management's Discussion and Analysis. OMB Circular A-136, *Financial Reporting Requirements*, requires agencies to report, as Required Supplementary Information, their intra-governmental assets and liabilities by Federal trading partner. We found that EPA was able to reconcile its records with its trading partners, except for Health and Human Services (see Attachment 2 for additional details on this issue).

Evaluation of Internal Controls

As defined by OMB, internal control, as it relates to the financial statements, is a process, affected by the Agency's management and other personnel, designed to provide reasonable assurance that the following objectives are met:

- **Reliability of financial reporting:** Transactions are properly recorded, processed, and summarized to permit the timely and reliable preparation of the financial statements and RSSI in accordance with generally accepted accounting principles; and assets are safeguarded against loss from unauthorized acquisition, use, or disposition.
- **Reliability of performance reporting:** Transactions and other data that support reported performance measures are properly recorded, processed, and summarized to permit the preparation of performance information in accordance with criteria stated by management.
- **Compliance with applicable laws and regulations:** Transactions are executed in accordance with laws governing the use of budget authority and other laws and regulations that could have a direct and material effect on the financial statements or RSSI; and any other laws, regulations, and government-wide policies identified by OMB.

In planning and performing our audit, we considered EPA's internal controls over financial reporting by obtaining an understanding of the Agency's internal controls, determining whether internal controls had been placed in operation, assessing control risk, and performing tests of controls in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements. We limited our internal control testing to those controls necessary to achieve the objectives described in OMB Bulletin No. 01-02, *Audit Requirements for Federal Financial Statements*, as supplemented by an OMB memorandum dated January 4, 2001, *Revised Implementation Guidance for the Federal Financial Management Improvement Act*. We did not test all internal controls relevant to operating objectives as broadly defined by the Federal Managers' Financial Integrity Act of 1982, such as those controls relevant to ensuring efficient operations. The objective of our audit was not to provide assurance on internal controls and, accordingly, we do not express an opinion on internal controls.

Our consideration of the internal controls over financial reporting would not necessarily disclose all matters in the internal control over financial reporting that might be reportable conditions. Under standards issued by the American Institute of Certified Public Accountants, reportable conditions are matters coming to our attention relating to significant deficiencies in the design or operation of the internal control that, in our judgment, could adversely affect the Agency's ability to record, process, summarize, and report financial data consistent with the assertions by management in the financial statements. Material weaknesses are reportable conditions in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Because of inherent limitations in internal controls, misstatements, losses, or noncompliance may nevertheless occur and not be detected. We noted certain matters discussed below involving the internal control and its operation that we consider to be reportable conditions, although none of the reportable conditions is believed to be a material weakness.

In addition, we considered EPA's internal control over the RSSI by obtaining an understanding of the

Agency's internal controls, determined whether these internal controls had been placed in operation, assessed control risk, and performed tests of controls as required by OMB Bulletin No. 01-02. Our procedures were not designed to provide assurance on these internal controls and, accordingly, we do not express an opinion on such controls.

Finally, with respect to internal controls related to performance measures presented in *EPA's Fiscal Year 2005 Performance and Accountability Report*, we obtained an understanding of the design of significant internal controls relating to the existence and completeness assertions, as required by OMB Bulletin No. 01-02. Our procedures were not designed to provide assurance on internal control over reported performance measures and, accordingly, we do not express an opinion on such controls.

REPORTABLE CONDITIONS

Reportable conditions are internal control weaknesses coming to the auditor's attention that, in the auditor's judgment, should be communicated because they represent significant deficiencies in the design or operation of internal controls that could adversely affect the organization's ability to meet the OMB objectives for financial reporting discussed above. In evaluating the Agency's internal control structure, we identified nine reportable conditions, as follows:

Payroll Internal Controls

EPA inappropriately made payroll payments to separated (transferred, retired, or resigned) employees. EPA's controls over processing time and attendance records for separated employees were not effective in identifying and preventing overpayments because automated controls were not implemented and manual controls were not followed. In particular, PeoplePlus' automated controls do not allow timekeepers to halt all future payments or limit the number of default payroll payments to separated employees with a single transaction. Manual processes, such as processing personnel action requests and reviewing exception reports, did not effectively alert EPA officials to take corrective actions in a timely manner. As a result of the identified weaknesses, EPA made approximately $74,000 in payroll payments to separated employees for which the Agency must attempt to recover the funds.

Excess Salary Payments

EPA employees received salary payments in excess of the biweekly maximum earnings limitations prescribed in Federal regulations. Under 5 CFR §550.105, an employee may receive premium pay only to the extent that the payment does not cause the total of his or her basic pay and premium pay for any biweekly pay period to exceed the greater of: the maximum biweekly rate of basic pay for a GS-15 (including any applicable locality-based comparability payment under section 5304 or similar provision of law and any applicable special rate of pay under 5 U.S.C. 5305 or similar provision of law), or the biweekly rate payable for Level V of the Executive Schedule.

State Superfund Contract and Superfund Unbilled Oversight Accruals

We found errors on the third quarter State Superfund Contract calculation spreadsheet and/or the Superfund unbilled oversight spreadsheet in 9 of 10 regions. These errors led to overstating State Superfund Contract unearned revenue by $31 million and unbilled oversight by $14 million. Although the Office of the Chief Financial Officer (OCFO) required the regions to certify that they reviewed their accrual calculations, the certification process did not prevent or discover the errors. As a result, EPA could not ensure the accuracy of the unearned revenue and the unbilled oversight accounts.

General Ledger Account Adjustments for Receivables Transferred to Cincinnati Finance Center

EPA's general ledger accounts for accounts receivable and allowance for doubtful accounts were materially misstated because certain regional offices did not properly adjust those accounts when transferring receivables to the Cincinnati Finance Center.

Quality Assurance Reviews

While EPA made several advances to improve the financial management quality assurance (QA) program performed by the regions and finance centers, problems continue in its Quality Assurance Reviews (QARs). We found the QARs performed were limited in scope and less comprehensive than the QA Guide suggests. We also found that the

reviews did not adequately document the work performed or other methods used to evaluate internal controls and accounting events. Further, we found that QARs were not performed for all applicable accounting events. As a result, there is limited assurance that the QARs provide a sufficient basis to evaluate and certify the assessment of internal accounting and administrative controls.

Distribution of Budget Clearing Accounts

The fiscal 2005 year-end distribution of amounts recorded in a budget clearing account was overstated. The Agency treated charge backs on collections on certain Interagency Agreements as if they were distributions rather than reductions in receipts.

Documentation of Adjustments to IFMS Entries

EPA made adjustments to entries in the Integrated Financial Management System (IFMS), the Agency's accounting system, without proper and adequate documentation. During our review of collections and receivables recorded in various EPA regions, we found 33 adjustments to entries in IFMS—totaling $89,446,286—that were not supported by sufficient documentation, such as schedules of collections or IFMS screen prints. The documentation did not always identify other relevant documents, such as the consent decree, which was the basis for the adjustment. We also found three adjustments—totaling $47,540,900—where documentation supporting the change was not easily accessible. EPA staff had documentation to support the adjustment, but did not attach it to the entry or otherwise provide an audit trail to locate the support. These entries also did not contain evidence of an adequate review to ensure the adjustments were reasonable and supported.

Correcting Rejected Transactions

The OCFO did not correct PeoplePlus data that the IFMS rejected during the transfer process in a timely manner. We identified nonprocessed transactions in a suspense file that existed for several pay periods without management action. Federal requirements stipulate that agencies promptly record, classify, and account for transactions to prepare timely accounts and reliable financial reports. Without having the processes in place to reconcile and correct data that failed to transfer from PeoplePlus to IFMS, the financial statements could be misstated.

Contingency Plans for Financial Applications

A review conducted by a contracted public accounting firm noted that contingency plans did not fully comply with EPA or Federal guidelines for several OCFO applications at the Research Triangle Park campus in North Carolina. The firm identified where EPA had not documented: (1) key contingency plan elements, (2) critical hardware and software requirements, and (3) primary and secondary contacts. These weaknesses occurred because of inconsistency in training for relevant contingency planning officials. Incomplete contingency plans could present significant challenges for EPA should an unforeseen event occur, particularly since the organization may believe these systems have sufficiently documented procedures to expedite recovery. Further, without adequate planning, management may not be able to mitigate the negative effects of interrupted operations and determine how long specific operations may be suspended or postponed.

Attachment 1 describes each of the above reportable conditions in more detail, and contains our recommendations on actions that should be taken to correct these conditions. We have reported less significant matters regarding internal controls in the form of position papers during the course of the audit. We will not issue a separate management letter.

COMPARISON OF EPA'S FMFIA REPORT WITH OUR EVALUATION OF INTERNAL CONTROLS

OMB Bulletin No. 01-02, *Audit Requirements for Federal Financial Statements*, requires us to compare material weaknesses disclosed during the audit with those material weaknesses reported in the Agency's Federal Managers' Financial Integrity Act (FMFIA, or Integrity Act) report that relate to the financial statements and identify material weaknesses disclosed by audit that were not reported in the Agency's FMFIA report.

For reporting under FMFIA, material weaknesses are defined differently than they are for financial statement audit purposes. OMB Circular A-123, *Management Accountability and Control*, defines a material weakness as a deficiency that the Agency

head determines to be significant enough to be reported outside the Agency.

For financial statement audit purposes, OMB defines material weaknesses in internal control as reportable conditions in which the design or operation of the internal control does not reduce to a relatively low level the risk that errors, fraud, or noncompliance in amounts that would be material in relation to the financial statements or RSSI being audited, or material to a performance measure or aggregation of related performance measures, may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions.

The Agency did not report, and our audit did not detect, any material weaknesses for fiscal 2005.

Tests of Compliance with Laws and Regulations

EPA management is responsible for complying with laws and regulations applicable to the Agency. As part of obtaining reasonable assurance about whether the Agency's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws and regulations, noncompliance with which could have a direct and material effect on the determination of financial statement amounts, and certain other laws and regulations specified in OMB Bulletin No. 01-02, *Audit Requirements for Federal Financial Statements*, as supplemented by an OMB Memorandum dated January 4, 2001, *Revised Implementation Guidance for the Federal Financial Management Improvement Act*. The OMB guidance requires that we evaluate compliance with Federal financial management system requirements, including the requirements referred to in the Federal Financial Management Improvement Act (FFMIA) of 1996. We limited our tests of compliance to these provisions and did not test compliance with all laws and regulations applicable to EPA.

Providing an opinion on compliance with certain provisions of laws and regulations was not an objective of our audit and, accordingly, we do not express such an opinion. A number of ongoing investigations involving EPA's grantees and contractors could disclose violations of laws and regulations, but a determination about these cases has not been made. In addition, the Agency reported that the approximately 9,000 confidential financial disclosure forms filed by EPA employees by November 1, 2005, will be reviewed by the deputy ethics officials no later than January 23, 2006. Since the Agency has not had time to review such reports and disclose matters that would require further inquiry, resolution, or reporting, we did not perform any tests or additional inquiries about those reports. Had the Agency been able to review the reports and we had been able to perform tests or make additional inquires, matters may have come to our attention that would require reporting.

None of the noncompliances discussed below would result in material misstatements to the audited financial statements.

FEDERAL FINANCIAL MANAGEMENT IMPROVEMENT ACT NONCOMPLIANCE

Under FFMIA, we are required to report whether the Agency's financial management systems substantially comply with the Federal financial management systems requirements, applicable Federal accounting standards, and the United States Government Standard General Ledger at the transaction level. OMB Bulletin No. 01-02, as supplemented by an OMB memorandum dated January 4, 2001, Revised Implementation Guidance for the Federal Financial Management Improvement Act, substantially changed the guidance for determining whether an Agency substantially complied with the Federal financial management systems requirements, applicable Federal accounting standards, and the United States Government Standard General Ledger at the transaction level. The document is intended to focus Agency and auditor activities on the essential requirements of FFMIA. The document lists the specific requirements of FFMIA, as well as factors to consider in reviewing systems and for determining substantial compliance with FFMIA. It also provides guidance to Agency heads for developing corrective action plans to bring an Agency into compliance with FFMIA. To meet the FFMIA requirement, we performed tests of compliance with FFMIA section 803(a) requirements and used the OMB guidance, revised on January 4, 2001, for determining substantial noncompliance with FFMIA.

The results of our tests did not disclose any instances where the Agency's financial management

systems did not substantially comply with the applicable Federal accounting standard.

As described in Attachment 3, OCFO has redefined it cost accounting outputs and made other improvements. However, during Fiscal Year 2005, the Agency was not in compliance with Statement of Federal Financial Accounting Standards No. 4 that requires EPA to provide full costs per output to management in a timely fashion. Subsequent to completing our audit work, the Agency developed a report to show full costs of its outputs; we will evaluate that report during Fiscal Year 2006.

We identified a FFMIA noncompliance related to reconciliation of intragovernmental transactions. However, this noncompliance does not meet the definition of substantial noncompliance as described in OMB guidance. Attachment 2 provides additional details, as well as recommendations on actions that should be taken on this matter.

We have reported other less significant matters involving compliance with laws and regulations in position papers during the course of our audit. We will not be issuing a separate management letter.

Prior Audit Coverage

During previous financial or financial-related audits, weaknesses that impacted our audit objectives were reported in the following areas:

- Complying with FFMIA requirements.
- Reconciliation and reporting intragovernmental transactions, assets and liabilities by Federal trading partner.
- Complying with Statement of Federal Financial Accounting Standards No. 4, including accounting for the cost to achieve goals and identifying and allocating indirect costs.
- Interagency Agreement invoice approval process.
- Documenting EPA's IFMS.
- Complying with Federal financial management system security requirements.
- Preparation and reconciliation of Statements of Transactions.
- Documentation and approval of journal and standard vouchers.
- Reconciling Unearned Revenue for State Superfund Contracts.
- Managing Accounts Receivable.
- Recording of Marketable Securities.
- Accounting for Obligations.
- Accounting for Contractor-Held Property.
- Assessing automated application processing controls for IFMS.
- Security Screenings for Non-Federal Personnel.
- Change Control Procedures for IFMS.
- System Certification, Accreditation, and Development for Grant and Inter-Governmental Systems.
- Compliance of financial system security plans.

Attachment 3, Status of Prior Audit Report Recommendations, summarizes the current status of corrective actions taken on prior audit report recommendations with corrective actions in process.

Agency Comments and OIG Evaluation

In a memorandum dated November 10, 2005, OCFO responded to our draft report.

The rationale for our conclusions and a summary of the Agency comments are included in the appropriate sections of this report, and the Agency's complete response is included as Appendix II to this report.

This report is intended solely for the information and use of the management of EPA, OMB, and Congress, and is not intended to be and should not be used by anyone other than these specified parties.

Paul C. Curtis
Director, Financial Audit
Office of Inspector General
U.S. Environmental Protection Agency
November 9, 2005

Attachment 1: Reportable Conditions

1. EPA Should Improve Payroll Internal Controls

EPA inappropriately made payroll payments to separated (transferred, retired, or resigned) employees. Specifically, EPA's controls over processing time and attendance records for separated employees were not effective in identifying and preventing overpayments because automated controls were not implemented and manual controls were not followed. In particular, PeoplePlus' automated controls do not allow timekeepers to halt all future payments or limit the number of default payroll payments to separated employees with a single transaction. In addition, manual processes, such as processing personnel action requests (PAR) and reviewing exception reports, did not effectively alert EPA officials to take corrective actions in a timely manner. As a result of the identified weaknesses, EPA made approximately $74,000 in payroll payments to separated employees for which the Agency must attempt to recover the funds.

PEOPLEPLUS AUTOMATED CONTROLS NEED IMPROVEMENT

Automated controls in PeoplePlus do not allow timekeepers to stop all future payments to separated employees by entering the "DTNPY" code just one time. To prevent PeoplePlus from inappropriately paying separated employees, the system currently requires the timekeeper to re-enter this code every pay period until the human resources department processes the PAR, separating the employee from EPA. The DTNPY code is a time reporting code used for separated employees to tell the system not to pay them. We also found that timekeepers did not consistently enter the code into PeoplePlus each pay period, which contributed to several instances where employees received payroll payments although they separated from EPA.

This problem is compounded by the fact that EPA does not limit the number of payments it makes to separated employees. EPA's management chose to configure the PeoplePlus system to pay employees for working their standard hours (e.g., 80 hours for a full-time employee) by default, even if a timesheet was not submitted (entered and attested to by an employee, timekeeper, or manager) for multiple pay periods.

Contents

1. EPA Should Improve Payroll Internal Controls....269
2. EPA Employees Received Excess Salary Payments....271
3. Improvement Needed for State Superfund Contract and Superfund Unbilled Oversight Accruals....271
4. Regions Should Make General Ledger Account Adjustments for Receivables Transferred to Cincinnati Finance Center....272
5. EPA's Quality Assurance Reviews Need Further Improvement....273
6. EPA Could Improve the Distribution of the Budget Clearing Accounts....274
7. Documentation of Adjustments to IFMS Entries Needs Improvement....274
8. EPA Needs to Improve Correction of Rejected Transactions....275
9. EPA Needs to Improve Contingency Plans for Financial Applications....276
10. EPA Should Continue Efforts to Reconcile Intragovernmental Transactions....277

As a result of these two issues, a separated employee could receive payroll payments after leaving EPA for every pay period that the timekeeper does not enter the time reporting code into PeoplePlus until the human resources department processes the PAR.

PROCESSING OF PERSONNEL ACTION REQUESTS NEEDS IMPROVEMENT

The time required to process PARs resulted in delays in deactivating separated employees' time and attendance records. The Office of Human Resources (OHR) developed procedures to process personnel actions for term appointments and transferred employees without a PAR and informal procedures to do the same for retiring employees. The procedures allow OHR to initiate the necessary transaction to deactivate separated employees' future time and attendance records. However, the procedures were not implemented across the Agency and not consistently followed where they were implemented. As a result, the manual preparation of the PAR by the EPA office and the OHR processing, in several cases,

took from 1 to 3 months to complete. Furthermore, in almost all the cases where the Agency made overpayments to separated employees, the PAR was processed after the employee separated from EPA.

USE OF EXCEPTION REPORTS NEEDS IMPROVEMENT

EPA offices did not effectively use the PeoplePlus-generated "Missing Time & Attendance" report to identify employees without entered or certified and approved time and attendance records. EPA implemented this standard report in PeoplePlus to provide offices a tool to manage their employees' time and attendance records. However, offices did not run the reports in a timely manner nor take actions to prevent inappropriate payments. Therefore, in May 2005, the OCFO issued OFM Policy Announcement No. 05-05, *Responsibility of Supervisors to Approve Time and Attendance*, to compensate employees despite missing or unapproved biweekly time and attendance information.

Policy Announcement No. 05-05 states that "employees who fail to enter their time will be paid based upon their standard hours (default hours). Employees who have entered time that was not approved by his/her supervisor will be paid based upon the time reported (mass approval). When employees are paid based upon their default hours or the mass approval process, supervisors should ensure PeoplePlus corrections are made, and then indicate their approval by signing the Time Certification Reports. The Regional Comptroller/Program Management Officer certifies that the appropriate actions were taken by the supervisor and then sends, by fax, the appropriate signed report to the Washington Finance Center before the end of the following pay period.

We examined the Mass Approval Time and Attendance Reports and Default Hours Reports for the pay period ending July 9, 2005. We found that

- The Washington Finance Center used the mass approval process to complete the PeoplePlus pay calculation for 21 Headquarters and regional offices, but did not receive required mass approval certifications from 10 offices and an 11th submitted the certification late.
- For default hours, employees in 14 Headquarters and regional offices were paid based on their standard hours; however, the required default hours certifications were not received from 9 offices and 2 other offices submitted the certifications late.

We believe the failure of Agency managers to comply with Policy Announcement No. 05-05 is an internal control weakness that could contribute to Agency employees being improperly compensated.

Our review of Default Hours Reports identified other concerns. We found that

- Separated employees were listed on multiple Default Hours Reports.
- The OCFO also did not generate or provide Default Hours Reports for program offices for seven pay periods during fiscal 2005. Based on a preliminary review, Agency officials estimated that there were 72 instances (totaling approximately $74,000) where employees were paid after separation from EPA. This approximation is most likely understated because the Agency's preliminary review excluded seven pay periods from fiscal 2005.
- Offices certified Default Hours Reports that contained separated employees, but did not have the timekeeper correct each employee's time and attendance record to prevent payment or annotate on the report that the employee had left the Agency.

RECOMMENDATIONS

We recommend that the OCFO and the Office of Administration and Resources Management (OARM) work together to

1. Develop and implement a policy that would hold the supervisors and Regional Comptrollers/Program Management Officers accountable for ensuring that all required procedures associated with the processing of payroll and personnel actions are properly followed in a timely manner.

We recommend that the OCFO have the Director, Office of Financial Services (OFS),

2. Modify PeoplePlus and associated procedures to enable timekeepers to enter the DTNPY code into PeoplePlus one time to stop the system from making any future payments to separated employees.
3. Develop and implement procedures to facilitate identifying separated employees and implement an automated control to limit the number of default payments to these employees.

4. Complete the analysis of default payments for all fiscal 2005 pay periods to determine the number of payroll payments to separated employees and take appropriate action to collect the overpayment.

We recommend that the OARM have the Director, OHR,

5. Reinforce the use of established standard operating procedures to process PARs for separated term appointments and transferred employees, and implement the process across the entire Agency.
6. Formalize and implement the standard operating procedures for processing PARs for retiring employees and implement the process across the entire Agency.
7. Reinforce with Agency Officials that they need to (1) forward written resignation notices to OHR immediately upon receipt, and (2) prepare and forward PARs in a timely manner to prevent overpayments.

AGENCY COMMENT AND OIG EVALUATION

The OCFO and OARM generally concurred with our findings and recommendations. The Agency indicated that it would continue to validate payroll system internal controls, enforce existing procedures, and take further corrective action as needed. However, the Agency's response did not address the need for an automated control. Based on the problems described above, the current procedures have not been effective in identifying and preventing inappropriate payments to separated employees. Therefore, we believe improvement is needed in this area and that the Agency should implement automated controls to limit the potential harm caused by a breakdown in the current manual procedures.

2. EPA Employees Received Excess Salary Payments

Because the internal controls for EPA's PeoplePlus system did not effectively identify and prevent excess salary payments, Agency employees received salary payments in excess of the biweekly maximum earnings limitations prescribed in Federal regulations. Under 5 CFR §550.105, an employee may receive premium pay only to the extent that the payment does not cause the total of his or her basic pay and premium pay for any biweekly pay period to exceed the greater of:

1. The maximum biweekly rate of basic pay for a GS-15 (including any applicable locality-based comparability payment under section 5304 or similar provision of law and any applicable special rate of pay under 5 U.S.C. 5305 or similar provision of law); or
2. The biweekly rate payable for Level V of the Executive Schedule.

We examined individual employee gross salary payments for two pay periods. We found 37 employees received salary payments totaling $14,891 in excess of the biweekly maximum earning limitation for one pay period, and 24 employees received excess salary payments totaling $5,152 for the other pay period. The Agency has recently advised us that it has developed a manual process for checking for overpayments. However, due to the late receipt of this information, we have not been able to verify the process or its effectiveness.

RECOMMENDATIONS

We recommend that the OCFO

8. Develop and implement an automated control which would prevent employee salary payments in excess of maximum earnings limitations.
9. Verify that all overpayments have been researched for their cause and amount, and if due back to the Government, receivables established.

AGENCY COMMENT AND OIG EVALUATION

The OCFO agreed with the issues we raised and stated that it is initiating enhancements to broaden the scope of automated controls to replace existing manual controls. It plans to continue to evaluate the results as part of its payroll review process.

3. Improvement Needed for State Superfund Contract and Superfund Unbilled Oversight Accruals

EPA needs to improve its oversight of State Superfund Contract (SSC) and Superfund unbilled oversight accruals. We found errors on the third quarter SSC calculation spreadsheet and/or the unbilled oversight spreadsheet in 9 of 10 regions. These errors led to overstating SSC unearned revenue by $31 million and unbilled oversight by $14 million. Although the OCFO

required the regions to certify that they reviewed their accrual calculations, the certification process did not prevent or discover the errors. As a result, EPA could not ensure the accuracy of the unearned revenue and the unbilled oversight accounts.

When EPA assumes the lead for a Superfund site remedial action in a State, the SSC clarifies EPA's and the State's responsibilities to complete the remedial action. EPA records a liability (unearned revenue) when billing a State for its share of the estimated site costs, and recognizes earned revenue when costs are incurred on the site. EPA incurs oversight costs while overseeing cleanup work being performed and paid for by potentially responsible parties at Superfund sites. EPA seeks to recover its oversight costs from the potentially responsible parties in a settlement agreement and recognizes revenue when it bills oversight costs. The unbilled oversight accrual is an asset established to properly match revenues and expenses.

EPA developed a review and certification process as a result of last year's position paper entitled "EPA Needs to Further Improve State Superfund Contracts' Unearned Revenue and Superfund Unbilled Oversight Cost Accruals." However, the number of errors found during the cumulative third quarter spreadsheets indicates that EPA's oversight of the accruals was not effective. For SSC unearned revenue, we found errors in cumulative disbursements, cumulative billings, and formula changes in the SSC calculation. For the unbilled oversight accruals, in addition to missing formulas, we found errors in formulas, cost amounts, billing percentages, and untimely accrual entries. EPA could have detected these errors with an effective review process. EPA needs to reassess its oversight and develop further instruction for preparing and reviewing these accrual calculations.

RECOMMENDATIONS

We recommended that the OCFO have the Director, OFM,

10. Provide more complete instructions and clarification to the regional offices to ensure the regions have an adequate preparation and review process.

11. Supplement the regional review process for SSC and Unbilled Oversight accruals with a centralized review function.

AGENCY RESPONSE AND OIG EVALUATION

OCFO agreed with the OIG recommendations. OCFO stated that it made considerable progress towards assuring consistency with the SSC and Superfund unbilled oversight accrual issues. OCFO stated it will explore options for centralizing these accrual processes.

4. Regions Should Make General Ledger Account Adjustments for Receivables Transferred to Cincinnati Finance Center

EPA's general ledger accounts for accounts receivable and allowance for doubtful accounts were materially misstated because certain regional offices did not properly adjust those accounts when transferring receivables to the Cincinnati Finance Center (CFC).

The Agency is in the process of consolidating financial operations into four finance centers. As part of this process, 5 of 10 regions had transferred accounts receivables to CFC by September 30, 2005. During our review of CFC's allowance for doubtful accounts, we noted that a Region had an allowance for doubtful accounts balance of $130,763,195 even though it did not have a receivables balance. Another Region had erroneously reduced its receivable balance in excess of the balance available, resulting in a negative balance of $2,914,484. Because of the transfers to CFC, the accounts receivable and allowance balances at those accounting points should have been adjusted to reflect a $0 balance.

These errors resulted because the regional accounts receivable staff did not properly review the general ledger account balances or perform analytical reviews that would have exposed the discrepancies. We did note that the agency has made the appropriate adjustments to the financial statements to adjust the allowance for doubtful accounts.

The Government Accountability Office's (GAO) *Standards for Internal Controls in the Federal Government*, dated November 1999, identified "control activities" as one of the five standards of internal control. According to GAO, management reviews (analytical reviews) at the functional or activity level are commonly performed internal control activities.

GAO's Internal Control Management and Evaluation Tool, dated August 2001, identified the following analytical reviews as common control activities: 1) managers at all activity levels review performance reports, analyze trends, and measure results against targets, and 2) both financial and program managers review and compare financial, budgetary, and operational performance to planned or expected results.

RECOMMENDATIONS

We recommended that the OCFO have the Director, OFM,

12. Require quarterly general ledger analytical reviews for finance centers and/or accounting points with receivable balances or activity.
13. Ensure appropriate adjustments are made to general ledger account balances when regional activity is transferred to finance centers.

AGENCY COMMENTS AND OIG EVALUATION

The Agency agreed with the audit issues raised. The Agency stated it successfully transferred 5 of 10 regions' accounts receivable functions to one finance center. An account analysis identified several accounting point balances that required adjustments that were subsequently reflected in the financial statements. As the Agency progresses in moving the accounts receivable functions from the remaining five regions, OCFO agreed to continue to monitor appropriate general ledger accounts.

5. EPA's Quality Assurance Reviews Need Further Improvement

While EPA made several advances to improve the financial management QA program performed by the regions and finance centers, the Agency must continue to improve its QARs. The OCFO updated the QA Guide in September 2005, increased oversight of the QA program, and provided Federal Managers' Financial Integrity Act training to appropriate personnel. However, we found the QARs performed were limited in scope and less comprehensive than the QA Guide suggests. We also found that the reviews did not adequately document the work performed or other methods used to evaluate internal controls and accounting events. Further, we found that QARs were not performed for all applicable accounting events. As a result, there is limited assurance that the QARs provide a sufficient basis to evaluate and certify the assessment of internal accounting and administrative controls.

EPA's quality assurance program was designed to implement the requirements of the *Federal Managers' Financial Integrity Act of 1982* and OMB Circular No. A-123, *Management Accountability and Control*. EPA's revised QA Guide describes a structured approach to conduct quality assurance reviews and provides a model framework for evaluating and reporting on finance office compliance with internal control standards and relevant accounting principles and standards. In addition, the OCFO's Fiscal Year 2005 Quality Assurance Workplan guidance recommends the regions and finance centers ensure that the QARs test the accounting events as appropriate, and document the rationale for any accounting events not tested.

During our analysis, we found QARs performed in fiscal 2005 that were more limited in scope than what was indicated in the QA Guide. The QA Guide provides specific control objectives and test procedures for each accounting event. For example, for accounts receivable, the QA Guide identifies 8 control objectives and 19 test procedures to evaluate internal controls. However, one accounts receivable QAR addressed only one control objective and test procedure. In another QAR, for property, only 1 control objective and test procedure were addressed, while the QA guide identified 10 objectives and 21 test procedures.

In addition, the QAR work was not adequately documented. The QA Guide states that workpapers should provide written evidence of the work performed, support the validity of conclusions reached, and provide a record of the methodology used. The QAR workpapers we reviewed did not document objectives of the review, the nature and extent of work performed, conclusions reached, and appropriate cross-references to other workpapers. We also noticed that the QAR workpapers we reviewed did not document other methods used to evaluate internal controls and accounting events, such as monthly travel audits.

We found that a regional office performed QARs for only 7 of the 13 applicable accounting events dur-

ing the last 3 years. The QA Guide requires QARs to be performed for all applicable accounting events at least once every 3 years.

RECOMMENDATIONS

We recommend that the OCFO have the Director, OFM, to continue to improve the QA program by requiring field locations to

14. Perform more comprehensive QARs that define and address all the control objectives for applicable accounting events.
15. Adequately document the work performed and methods used to evaluate internal controls.
16. Perform a QAR for each applicable accounting event at least once every 3 years.

AGENCY COMMENTS AND OIG EVALUATION

The Agency agreed with the audit issues raised. OCFO believes it has made significant progress with the QA program and will conduct a training class in December 2005 for Agency finance personnel.

6. EPA Could Improve the Distribution of the Budget Clearing Accounts

The fiscal 2005 year-end distribution of amounts recorded in a budget clearing account was overstated. The Agency treated charge backs on collections on certain Interagency Agreements as if they were distributions rather than reductions in receipts.

The Cincinnati Finance Center records all Intra-Governmental Payment and Collection (IPAC) transactions in a budget clearing account pending interagency agreement Project Officer approval/disapproval. Once approved, the payment is removed from the clearing account and recorded in the appropriate account. EPA is required by the U.S. Treasury to reconcile and distribute budget clearing accounts by the end of the fiscal year. EPA has also adopted procedures to allocate costs. EPA's Year End Closing Instructions state "the amounts being recorded, at the end of the fiscal year need to be prorated among applicable appropriations in order to provide a more realistic distribution of charges via IPAC."

At year end, the Cincinnati Finance Center distributed $37,608,039 from the clearing account to expenditure accounts in various U.S. Treasury funds. Included in the distribution was $15,334,554 that should have been recorded as cash receipts, but was processed through IPAC as expenditures. As a result, the amounts recorded in expenditure and receivable accounts were overstated, and the amount recorded in the cash receipt account was understated by $15,334,554.

RECOMMENDATIONS

We recommend the OCFO have the Cincinnati Finance Center

17. Remove any receipt transactions from the year end distribution of the clearing account.

We recommend the OCFO have OFM's Reporting and Analysis Staff

18. Record an on-top adjustment to the financial statements to correct the $15,334,554 error and properly reflect expenditure, receivable, and receipt activity.

AGENCY COMMENTS AND OIG EVALUATION

The Agency agreed with the audit issues raised and made the appropriate accounting adjustments to the financial statements.

7. Documentation of Adjustments to IFMS Entries Needs Improvement

EPA made adjustments to entries in the IFMS, the Agency's accounting system, without proper and adequate documentation. During our review of collections and receivables recorded in various EPA regions, we found 33 adjustments to entries in IFMS—totaling $89,446,286—that were not supported by sufficient documentation, such as schedules of collections or IFMS screen prints. The documentation did not always identify other relevant documents, such as the consent decree, which was the basis for the adjustment. We also found three adjustments—totaling $47,540,900—where documentation supporting the change was not easily accessible. EPA staff had documentation to support the adjustment, but did not attach it to the entry or otherwise provide an audit trail to locate the support. These entries also did not contain evidence of an adequate review to ensure the adjustments were reasonable and supported.

EPA Comptroller Policy Announcement 93-02 requires "that all financial transactions recorded in the accounting system be supported by adequate source documentation, and that this documentation be easily accessible." These requirements apply to initial transactions entered into IFMS and to adjustments made to the entries. According to Policy Announcement 93-02:

> " 'Adequately documented' means an independent individual competent in accounting and possessing reasonable knowledge of EPA's operations should be able to examine the documentation and reach substantially the same conclusions as the persons who made and/or approved the entry."
>
> "'Easily accessible' means the entry should contain sufficient information to identify the supporting documentation, and the documentation should be organized and filed in a manner to facilitate its retrieval."

The GAO Standards for Internal Controls in the Federal Government state that "all transactions and other significant events are to be clearly documented, and the documentation is to be readily available for examination." The Standards also state "qualified and continuous supervision is to be provided to ensure that internal control objectives are achieved."

Lack of adequate supporting documentation may raise questions about the validity and integrity of the financial information contained in IFMS. Failure to require adequate documentation before adjusting entries are input in the Agency's accounting system increases the risk of fraud, waste, and abuse by increasing the possibility that unauthorized or inaccurate information is entered.

RECOMMENDATIONS

We recommend that the OCFO

19. Require adequate documentation to support all adjustments to entries in IFMS. This documentation should include an adjustment date and justification for the correction, be easily accessible, and reference the original entry.
20. Require all adjustments to entries in IFMS be properly reviewed to ensure the policies are followed.

AGENCY COMMENTS AND OIG EVALUATION

The Agency agreed with the audit issues raised.

8. EPA Needs to Improve Correction of Rejected Transactions

The OCFO did not correct PeoplePlus data that the IFMS rejected during the transfer process. We identified nonprocessed transactions in a suspense file that existed for several pay periods without management action. This occurred because the OCFO had not corrected and cleared PeoplePlus transactions transferred to IFMS in a timely manner. Federal requirements stipulate that agencies promptly record, classify, and account for transactions to prepare timely accounts and reliable financial reports. Without having the processes in place to reconcile and correct data that failed to transfer from PeoplePlus to IFMS, the financial statements could be misstated.

EPA accumulates nonprocessed data in a suspense file during data transfer between the two systems. Our review determined that the OCFO had not timely corrected nonprocessed data for the following group of items in the suspense file:

Non-processed payroll transactions for 16 EPA employees remained in the suspense file because the employees did not have assigned Fixed Account Numbers in PeoplePlus. Our review indicated that some of the transactions go back as far as pay period 2, which ended October 16, 2004. The total of these transactions is $177,786 and the OCFO took no action to correct/reprocess the transactions.

RECOMMENDATION

We recommend that the OCFO have the Director, OFS,

21. Establish and implement policies and procedures to ensure the identification and timely processing of non-processed/rejected payroll transactions between PeoplePlus and IFMS.

AGENCY COMMENT AND OIG EVALUATION

The Director, OFS, concurred with our recommendation and indicated that the office took action to correct the payroll records for the 16 employees with missing Fixed Account Numbers.

9. EPA Needs to Improve Contingency Plans for Financial Applications

A review conducted by a contracted public accounting firm noted that contingency plans did not fully comply with EPA or Federal guidelines for several OCFO applications at the Research Triangle Park campus in North Carolina. The firm identified where EPA had not documented: (1) key contingency plan elements, (2) critical hardware and software requirements, and (3) primary and secondary contacts. These weaknesses occurred because of inconsistency in training for relevant contingency planning officials. Incomplete contingency plans can present significant challenges for EPA should an unforeseen event occur, particularly since the organization may believe these systems have sufficiently documented procedures to expedite recovery. Further, without adequate planning, management may not be able to mitigate the negative effects of interrupted operations.

The contracted public accounting firm's review identified the following specific contingency plan weaknesses:

- The Budget Automation System is not referenced in the OCFO's Office of Budget contingency plan. Agency officials did not fully document key contingency elements, such as an emergency telephone list and a listing of vendors, suppliers, and other service providers in the OCFO *Annual Planning and Budget Division Disaster Preparedness and Recovery Guide—Budget Automation System*.
- The PeoplePlus contingency plan does not identify the primary and secondary contacts, although the information is included in the Critical Applications Disaster Recovery Plan. Neither plan specifies which of the two plans takes priority should an outage occur.
- The firm noted inconsistency as to whether an application contingency plan was prepared for applications not subscribing to the National Computer Center Disaster Recovery Service. If a contingency plan was prepared, the level of detail within the plan was not consistent. For example, the Travel Manager +, Financial Data Warehouse, and Bank Card systems do not have separate contingency plans. Although the security plans for these systems address contingency planning, these security plans do not document detailed steps to recover application hardware, software, and telecommunications, nor do the plans identify alternative processing locations for the applications.

RECOMMENDATIONS

We recommend that the OCFO

22. Have responsible office directors provide training to all application owners on the importance of developing, maintaining, and testing contingency plans in accordance with EPA and Federal guidelines and ensure the plans clearly define necessary recovery steps for each application.
23. Have the Director, Office of Budget, revise the Budget Automation System's contingency plan to contain (a) complete contact information for key personnel, and (b) alternate processing and return to normal operations procedures.
24. Have the Director, OFS, revise the PeoplePlus' contingency plan so it clearly describes whether the PeoplePlus plan or the Critical Applications Disaster Recovery Plan takes precedence during a recovery process.
25. Have the Director, OFM, revise contingency plans for all of their applications not subscribing to the National Computer Center Disaster Recovery Services (e.g., Financial Data Warehouse), in accordance with relevant Federal and EPA criteria and best practices.

AGENCY COMMENTS AND OIG EVALUATION

The OCFO concurred with our recommendations and provided details on corrective measures that would address some of the recommendations.

Attachment 2: Compliance with Laws and Regulations

10. EPA Should Continue Efforts to Reconcile Intragovernmental Transactions

While EPA improved reconciliations of its intragovernmental transactions during fiscal 2005, the Agency was unable to reconcile a material difference of $149 million with one Federal agency—the Department of Health and Human Services. Without the proper confirmations from its trading partners, EPA has limited assurance that intragovernmental balances are accurate. EPA had experienced similar occurrences in the past that prohibited it from fully complying with the applicable requirements.

Intragovernmental transactions have been classified by the Government Accountability Office as a Government-wide material weakness due to the lack of standardization in recording and processing intragovernmental activities. To resolve the issue, OMB established standard business rules (Memorandum M-03-01, October 4, 2002) to be used in intragovernmental exchange activities. OMB Circular A-136, *Financial Reporting Requirements*, which was updated August 2005, requires Federal agencies to report intragovernmental assets, liabilities, revenue, and certain reporting entities with their trading partners. This information is to be presented in the financial statements as Required Supplementary Information and should agree with line items reported on the balance sheet.

The U.S. Treasury's *Federal Intragovernmental Transactions Accounting Policies Guide* was updated in July 2005 and provides Government-wide accounting policies for Federal agencies to account for and reconcile intragovernmental transactions. The Guide provides tools (procedures and examples) to facilitate quarterly reconciliation of intragovernmental activities. EPA has taken action to reconcile its intragovernmental activity on a quarterly basis. At year-end, the Agency had one material difference of $149 million in unreconciled activity with the Department of Health and Human Services.

RECOMMENDATION

We recommend that the OCFO

26. Require OFM to continue its efforts in reconciling the Agency's intragovernmental transactions to comply with Federal financial reporting requirements.

AGENCY COMMENTS AND OIG EVALUATION

The Agency agreed with the audit issue raised and believes that the unreconciled amount was a result of differing accounting methodologies between agencies. The Agency stated that will continue efforts to reconcile the Agency's intragovernmental transactions to comply with Federal financial reporting requirements.

1 We are reporting this noncompliance issue under FFMIA as it directly relates to FFMIA reporting requirements; however, the issue does not meet the OMB criteria for substantial noncompliance under FFMIA.

Attachment 3: Status of Prior Audit Report Recommendations

EPA's position is that "audit follow-up is an integral part of good management," and "corrective action taken by management on resolved findings and recommendations is essential to improving the effectiveness and efficiency of Government operations." The Chief Financial Officer is the Agency Audit Follow-Up Official and is responsible for ensuring that corrective actions are implemented. To resolve long-standing audit recommendations, the Deputy Chief Financial Officer formed an Audit Follow-Up Council in July 2000. The Council reviews the progress on audit findings, discusses approaches to resolving audit issues, and provides coordination and support across OCFO on audit-related matters. Council membership consists of the Deputy Chief Financial Officer, the OCFO Audit Follow-Up Coordinator, and all of the OCFO Office Directors.

The Agency has continued to make substantial progress in completing corrective actions from prior years. These issue areas from prior financial statement audits, with corrective actions in process, are listed in the following table.

Audit Issue Areas with Corrective Actions in Process
Automated Application Processing Controls for IFMS: EPA has made progress towards replacing IFMS. However, until EPA implements the planned replacement automated accounting system that addresses past issues, we will continue to disclose a reportable condition concerning documentation of the current accounting system and its automated application processing controls.
EPA Needs to Strengthen Practices Regarding Security Screening for Non-Federal Personnel: An audit report issued during fiscal 2004 found that there are still some weaknesses regarding contractor access to IFMS. The Agency's 1999 Remediation Plan is still not completely implemented. The Agency expects to issue policy on security certifications for contractor and grantee personnel in October 2006.
EPA Continues Actions to Improve Cost Accounting: Since our last report, EPA has redefined its cost accounting outputs, improved the OCFO's Reporting and Business Intelligence Tool, continued to make progress in its data integration efforts, and has recently developed a report to show the full costs of its outputs. However, because the Agency did not produce reports that show the full costs of its outputs during fiscal 2005, the Agency was still not in full compliance with Statement of Federal Financial Accounting Standards No. 4, *Managerial Cost Accounting Concepts and Standards for the Federal Government*, although we do not consider the noncompliance to be substantial.
Further Improvement Needed for State Superfund Contract and Superfund Unbilled Oversight Accruals: EPA developed a review and certification process as a result of the fiscal 2005 Reportable Condition, but oversight of the accruals was still not effective. Please see Attachment 1 for additional information.
EPA Did Not Promptly Record Marketable Securities: The Agency began performing quarterly reconciliations of noncash assets in fiscal 2005 in response to our finding in fiscal 2004. However, we found an instance where marketable securities received from one company in settlement of debts for receivables at one region were not recorded promptly. We made recommendations to the Agency during this year's audit to improve its reconciliation procedures, but have not included it as a Reportable Condition in Attachment 1 because we found only one nonmaterial instance of a problem.
EPA Continues to Experience Difficulties in Reconciling Intragovernmental Transactions: EPA improved reconciliations of its intragovernmental transactions during fiscal 2005; however, the Agency was unable to reconcile a material difference with one Federal agency. Please see Attachment 2 for additional information.
Weaknesses in Change Control Procedures for Integrated Financial Management System: EPA has a Plan of Action and Milestones to correct these weaknesses. The Agency reports that a number of actions have been completed, and the remaining actions are targeted for completion by March 31, 2006.

Appendix I: Agency's Response to Draft Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF THE
CHIEF FINANCIAL OFFICER

November 10, 2005

SUBJECT: Draft Audit Report: Response to Audit of EPA's Fiscal Years 2005 and 2004 Consolidated Financial Statements

FROM: Lyons Gray
Chief Financial Officer (2710A)

TO: Paul C. Curtis
Director, Financial Audit (2422T)

My staff and I thank you for the opportunity to respond to the Draft Audit Report of the Environmental Protection Agency's Fiscal Year 2005 and 2004 Financial Statements. The Office of the Chief Financial Officer's (OCFO) perspective on the audit's observations and recommendations is provided in the attached document.

We agree with the audit issues raised. EPA has effective internal controls with strong policies and procedures in place and I believe that corrective actions will strengthen compliance with existing policies and procedures. We are evaluating the best method to address each issue that will achieve a timely resolution of audit issues.

As a result of increased vigilance in FY 2005, our internal assessments uncovered some areas that required strengthening. We worked proactively to devise and implement long-term corrective actions for these issues. We believe the issues raised by the OIG during the FY 2005 audit validated our internal "self assessments" and corrective actions. We appreciate OIG acknowledgement of our efforts and progress in this audit report.

We look forward to another productive year working with the OIG. If you have any questions, please contact Lorna McAllister, Director of the Office of Financial Management at 202-564-4905.

Attachment

Cc: Mike Ryan
Maryann Froehlich
Lorna M. McAllister
Dennis Nolan
OCFO Office Directors
OFM Staff Directors

Appendix 1, Attachment I: OCFO's Response to the FY 2005 and FY 2004 Draft Audit Report

REPORTABLE CONDITIONS

1. *Payroll Internal Controls*

OIG found that EPA made payroll payments to separated employees. OIG recommends that OCFO work with EPA's Administration and Resources Management office to ensure proper processing of personnel actions, modify automated controls, and reinforce existing controls.

At the beginning of FY 2005, OCFO implemented a new time and attendance system. OCFO made significant strides to assure system transparency to the Agency and compliance with established payroll policies and procedures. In FY 2006, OCFO will continue to validate payroll system internal controls, enforce existing procedures, and take further corrective actions as necessary.

2. *Excess Salary Payments*

OIG found the OCFO's payroll system made excess salary payments to employees totaling $14,891 of a $54 million bi-weekly payroll, which equates to .04% of total payroll.

OCFO has automated internal controls in place for the majority of potential causes for salary overpayments and manual controls in place for many others. OCFO is initiating enhancements to broaden the scope of automated controls to replace existing manual controls. We will continue to evaluate the results as part of our bi-weekly payroll review process.

3. *Superfund State Contract (SSC) and Superfund Unbilled Oversight Accruals*

The OIG noted areas where increased oversight would improve the management of SSC and Superfund unbilled oversight accruals.

In the past year, OCFO made considerable progress towards assuring consistency with SSC and Superfund unbilled oversight accrual calculations. As OCFO continues its efforts to consolidate accounting operations, we will explore options for centralizing these accrual processes.

4. *General Ledger Account Adjustments for Receivables Transferred to Cincinnati Finance Center*

OIG Identified regional offices' accounts receivable and allowance for doubtful accounts that needed adjustment during an OCFO functional and consolidation process.

As part of the process to consolidate EPA's financial operations into four finance centers, the Agency successfully transferred five of the ten regions' accounts receivable functions to one finance center. An account analysis identified accounting point balances that required adjustments that are reflected in the financial statements. As the Agency progresses in transferring the accounts receivable functions from the remaining five regions, OCFO will continue to monitor appropriate general ledger accounts and assist the Financial Management Officers in resolving account balance issues.

5. *Quality Assurance (QA) Reviews*

The OIG recommends increased oversight of the QA program activity to ensure comprehensive reviews and adequate documentation.

In FY 2005, OCFO made significant progress with the QA program. OCFO updated and published the QA Guide on the EPA intranet. It reflects current policies, procedures, and approaches to evaluating accounting functions. In addition, OCFO conducted a specialized session on QA reviews and their relationship to the revised OMB Circular A-123 requirements. To continue the QA program's success, OCFO is conducting a training class in December 2005 for Agency finance personnel.

6. *Distribution of the Budget Clearing Accounts*

OIG identified interagency transactions that were inappropriately distributed. In this instance, EPA billed other agencies and two transactions were returned two days prior to the close of the fiscal year. EPA reissued the bills in October 2005 and the FY 2005 financial statements reflect the appropriate accounting adjustments.

7. *Documentation of Adjustments to the Integrated Financial Management System (IFMS) Entries*

The OIG noted instances of adjusting entries made without proper or adequate documentation.

OCFO's Policy Announcement 93-02, dated November 13, 1992, requires adequate source documentation to support all financial transactions. OCFO will insist that Financial Management Officers ensure that all adjusting transactions entered into the Agency's accounting system be adequately documented and easily accessible in accordance with the Policy Announcement.

8. *Correcting Rejected Transactions*

OIG observed instances of rejected data transfers between PeoplePlus (PPL) and IFMS that were not resolved in a timely manner.

OCFO took action to identify and correct the rejected data for 16 employees. The Office of Human Resources implemented a control that should prevent a reoccurrence.

9. *Contingency Plans for Financial Applications*

OIG noted instances where contingency plans for financial systems did not fully comply with Federal or EPA continuity guidelines.

OCFO remains firmly committed to securing its system and data in a cost effective manner and in compliance with Federal guidance, EPA policy, and best practices. In FY 2006, OCFO will revise current contingency plans to clearly state the critical operations, supporting resources, and alternate processing procedures for the financial systems identified by the OIG.

FEDERAL FINANCIAL MANAGEMENT IMPROVEMENT ACT (FFMIA) NONCOMPLIANCE ISSUES

10. *Intragovernmental Transactions*

As OIG acknowledged, OCFO greatly improved reconciliations of its intragovernmental transactions during FY 2005. However, at year end, EPA was unable to reconcile a large difference with one Federal agency.

EPA believes this is a result of differing accounting methodologies between agencies. EPA will continue efforts to reconcile the Agency's intragovernmental transactions to comply with Federal financial reporting requirements.

Appendices

CONTENTS

Appendix A—Annual Performance Goals Results for Prior Years A-1

Appendix B—Program Evaluations Completed in FY 2005 . . . . . .B-1

Appendix C—Data Quality C-1

Appendix D—Acronyms D-1

Appendix E—Public Access E-1

Appendix A: Annual Performance Goals Results for Prior Years

INTRODUCTION

To supplement the performance trend charts and graphs presented with FY 2005 annual performance goal (APG) results, this appendix provides actual and externally reported results for FY 2001-2004. These data, along with an explanation of the results, are also reported in previous EPA annual performance reports, available at www.epa.gov/ocfo/finstatement/apr.htm. EPA continues to improve and refine its performance measures, and as a result, some annual performance goals and measures have changed over the years. To enable readers to align prior year results with current year results, APGs listed in this appendix are numbered to correspond with FY 2005 APGs.

Goal 1

APG 1.1	Reduce CO, SO_2, NO_2, Lead (Pb)	Planned	Actual
FY 2004	The number of people living in areas with monitored ambient CO, SO_2, NO_2, or Pb concentrations below the NAAQs for the standard will increase by 4% (relative to 2003) for a cumulative total of 53% (relative to 1992). Goal Not Met.		
	More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—Cumulative percent increase in the number of people who live in areas with ambient CO, SO_2, NO_2, or Pb concentrations below the level the NAAQs as compared to 1992.	53%	
	—Cumulative percent increase in the number of areas with ambient or Pb concentrations below the level of the NAAQs as compared to 1992.	87%	99%
	—Total number of people who live in areas designated to attainment of the Clean Air Standards for CO, SO_2, NO_2, or Pb.	174M	
	—Areas newly designated to attainment for CO, SO_2, NO_2, or Pb standards.	19 areas	
	—Additional people living in newly designated areas with demonstrated attainment of the CO, SO_2, NO_2, or Pb standards.	6.2 M	
	—Tons of CO reduced from mobile sources.	12.6 M	11.3
FY 2003	Maintain healthy air quality for 167.8 million people living in monitored areas attaining the CO, SO_2, NO_2, or Pb; increase by 435 thousand the number of people living in areas with healthy air quality that have newly attained the standard.		
	Performance Measures:		
	—Cumulative percent increase in the number of people who live in areas with ambient CO, SO_2, NO_2, or Pb concentrations below the level the NAAQs as compared to 1992.		47%

FY 2003 *continued*	—Cumulative percent increase in the number of areas with ambient CO, SO_2, NO_2, or Pb concentrations below the level of the NAAQs as compared to 1992.		91%
	—Total number of people who live in areas designated to attainment of the Clean Air Standards for CO, SO_2, NO_2, or Pb.		167.8 M
	—Areas newly designated to attainment for CO, SO_2, NO_2, or Pb standards.	16 areas	5 areas
	—Additional people living in newly designated areas with demonstrated attainment of the CO, SO_2, NO_2, or Pb standards.		435 K
	—Tons of CO reduced from mobile sources.	11.3	11.3
FY 2002	Maintain healthy air quality for 167 million people living in monitored areas attaining the CO, SO_2, NO_2, or Pb; increase by16 million the number of people living in areas with healthy air quality that have newly attained the standard.		
	Performance Measures:		
	—Cumulative percent increase in the number of people who live in areas with ambient CO, SO_2, NO_2, or Pb concentrations below the level the NAAQs as compared to 1992.		47%
	—Cumulative percent increase in the number of areas with ambient CO, SO_2, NO_2, or Pb concentrations below the level of the NAAQs as compared to 1992.		87%
	—Total number of people who live in areas designated to attainment of the Clean Air Standards for CO, SO_2, NO_2, or Pb.		167.4 M
	—Areas newly designated to attainment for CO, SO_2, NO_2, or Pb standards.	10 areas	12 areas
	—Additional people living in newly designated areas with demonstrated attainment of the CO, SO_2, NO_2, or Pb standards.		16.5 M
	—Tons of CO reduced from mobile sources.	11.0 M	11.0 M

APG 1.2	Reduce Exposure to Unhealthy PM Levels—PM-10	Planned	Actual
FY 2004	The number of people living in areas with monitored ambient PM concentrations below the NAAQs for the PM10 standard will increase by less than 1% (relative to 2003) for a cumulative total of 6% (relative to 1992).		
	More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—Cumulative percent increase in the number of people who live in areas with ambient PM_{10} concentrations below the level of the NAAQs as compared to 1992.	6%	6%
	—Cumulative percent increase in the number of areas with ambient PM_{10} concentrations below the level of the NAAQs as compared to 1992.	40%	54%
	—Total number of people who live in areas designated attainment of the Clean Air Standards for PM_{10}.	120 M	120.5 M
	—Additional people living in newly designated areas with demonstrated attainment of the PM_{10} standard.	380 K	

FY 2004 *continued*	—Areas newly designated to attainment.	9 areas	6 areas
	—Percent of areas with improving ambient PM_{10} concentrations.	76%	62%
	—*Tons of PM_{10} Reduced from Mobile Sources. (PART)*	18,100	18,100
	—*Tons of $PM_{2.5}$ Reduced from Mobile Sources. (PART)*	13,500	13,500
FY 2003	Maintain healthy air quality for 120 million people living in monitored areas attaining the PM_{10} standards; increase by 252 thousand the number of people living in areas with healthy air quality that have newly attained the standard.		
	Performance Measures:		
	—Cumulative percent increase in the number of people who live in areas with ambient PM_{10} concentrations below the level of the NAAQs as compared to 1992.		6%
	—Cumulative percent increase in the number of areas with ambient PM_{10} concentrations below the level of the NAAQs as compared to 1992.		50%
	—Total number of people who live in areas designated to attainment of the Clean Air 120.4 M Standards for PM_{10}.		120.4 M
	—Additional people living in newly designated areas with demonstrated attainment of the PM_{10} standard.		252 K
	—Areas newly designated to attainment.	8 areas	5 areas
	—*Tons of PM_{10} Reduced from Mobile Sources. (PART)*	25,000	25,000
	—*Tons of $PM_{2.5}$ Reduced from Mobile Sources. (PART)*	18,000	18,000
FY 2002	Maintain healthy air quality for 120 million people living in monitored areas attaining the PM_{10} standards; increase by 2.7million the number of people living in areas with healthy air quality that have newly attained the standard.		
	Performance Measures:		
	—Cumulative percent increase in the number of people who live in areas with ambient PM_{10} concentrations below the level of the NAAQs as compared to 1992.		5%
	—Cumulative percent increase in the number of areas with ambient PM_{10} concentrations below the level of the NAAQs as compared to 1992.		40%
	—Total number of people who live in areas designated to attainment of the Clean Air Standard for PM_{10}.		120 M
	—Additional people living in newly designated areas with demonstrated attainment of the PM_{10} standard.		2.7 M
	—Areas newly designated to attainment for PM_{10}.	6 areas	4 areas
	—*Tons of PM_{10} Reduced from Mobile Sources. (PART)*	23,000	23,000
	—*Tons of $PM_{2.5}$ Reduced from Mobile Sources. (PART)*	17,250	17,250

APG 1.3	Reduce Exposure to Unhealthy PM Levels—$PM_{2.5}$	Planned	Actual
FY 2004	The number of people living in areas with monitored ambient $PM_{2.5}$ concentrations below NAAQs will increase by less than 1% (relative to 2003) for a cumulative total of less than 1% (relative to 2001). Goal Met. More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—Cumulative Percent Increase in the number of people who live in ambient $PM_{2.5}$ concentrations below the level of the NAAQs as compared to 2001.	<1	20%
	—Cumulative Percent Increase in the number of areas with ambient $PM_{2.5}$ concentrations below the level of the NAAQs as compared to 2001.	<1	46%

APG 1.4	Reduce SO_2 Emissions	Planned	Actual
FY 2004	Keep annual emissions below level authorized by allowance holdings and make progress toward achievement of Year 2010 SO_2 emissions cap for utilities. Annual emissions reduction target is 6.9 million tons from the 1990 baseline. Goal Met. More information about this result can be found in Section 2 of this report.	5	7.1 M
FY 2003	Maintain or increase annual SO_2 emission reduction of approximately 5 million tons from the 1980 baseline. Keep annual emissions below level authorized by allowance holdings and make progress toward achievement of Year 2010 SO_2 emissions cap for utilities. Goal Met.	5 M	6.8 M
FY 2002	Same goal. Goal Met	5 M	7 M

APG 1.5	Reduce Air Toxic Emissions	Planned	Actual
FY 2004	Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by an additional 2% of the updated 1993 baseline of 6 million tons for a cumulative reduction of 37%. Due to a multi-year data lag there is no FY 2002 – FY 2004 information for this APG.		
	Performance Measures:		
	—Combined Stationary and Mobile Source Reductions in Air Toxics Emissions.	2%	Data Available 2012
	—Mobile Source Air Toxics Emissions Reduced.	.71 tons	
	—Stationary Source Air Toxics Emissions Reduced.	1.59 tons	
	—Area and All other Air Toxics Emissions Reduced.	+.13 tons	

FY 2003	Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by an additional 1% of the updated 1993 baseline of 6 million tons for a cumulative reduction of 35%.		
	Performance Measures:		
	—Combined Stationary and Mobile Source Reductions in Air Toxics Emissions.	1%	Data Available 2009
	—Mobile Source Air Toxics Emissions Reduced.	.68 tons	
	—Stationary Source Air Toxics Emissions Reduced.	1.57 tons	
	—Area and All other Air Toxics Emissions Reduced.	+.12 tons	
FY 2002	Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by 5% from 2001 (for a cumulative reduction of 40% from the 1993 level of 4.3 million tons per year).		
	Performance Measure:		
	—Combined Stationary and Mobile Source Reductions in Air Toxics Emissions	5%	Data Available 2006
FY 2001	Same goal, cumulative target of 35% reduction from the 1993 level. Goal Not Met.	5%	1.7%
FY 2000	Same goal, cumulative target of 30% reduction from the 1993 level. Goal Not Met.	3%	1.7%
FY 1999	Reduce air toxic emissions by 12% in FY 1999, resulting in cumulative reduction of 25% from 1993 levels. Goal Met	12%	15%

APG 1.6	Reduce Exposure to Unhealthy Ozone Levels—8 hour	Planned	Actual
FY 2004	The number of people living in areas with monitored ambient ozone concentrations below NAAQs for the 8-hour standard will increase by 4% (relative to 2003) for a cumulative total 7% (relative to 2001). Goal Met.		
	More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—Cumulative Percent Increase in the number of people who live in areas with ambient. 8-hour concentrations below the level of the NAAQs as compared to 2001.	<1	19%
	—Cumulative Percent Increase in the number of areas with ambient 8-hour concentrations below the level of the NAAQs as compared to 2001.	<1	31%

APG 1.7	Acid Rain—Reduce Sulfur Deposition	Planned	Actual
FY 2004	*Reduce total annual average sulfur deposition and ambient sulfate concentrations 25% from baseline. Reduce total annual average nitrogen deposition and ambient nitrate concentrations 5% from baseline. (PART)* Goal Met. More information about this result can be found in Section 2 of this report.	25% 5%	31% 7%

APG 1.8	Acid Rain—Reduce Nitrogen Deposition	Planned	Actual
FY 2004	*Reduce total annual average nitrogen deposition and ambient nitrate concentrations 5 % from baseline. Baseline for annual targets up through 2010 is 1990 monitored levels. (PART)* Goal Met. More information about this result can be found in Section 2 of this report.	5%	7%
FY 2003	Two million tons of NO_x from coal-fired utility sources will be reduced from levels that would have been emitted without implementation of Title IV of the CAA. Goal Met.	2 M	3.5 M

APG 1.9	Healthier Residential Indoor Air	Planned	Actual
FY 2004	834,400 additional people will be living in healthier residential indoor environments. Goal Met. More information about this result can be found in Section 2 of this report.	834,400	834,400
FY 2003	Two million tons of NO_x from coal-fired utility sources will be reduced from levels that would have been emitted without implementation of Title IV of the CAA. Goal Met.	834,400	834,400
FY 2002	834,400 additional people will be living in healthier residential indoor environments. Goal Met.	834,400	834,400

APG 1.10	Healthier Indoor Air in Schools	Planned	Actual
FY 2004	1,500,000 students, faculty and staff will experience improved indoor air quality (IAQ) in their schools. Goal Met. More information about this result can be found in Section 2 of this report.	1.5 M	1.63
FY 2003	1,050,000 students, faculty and staff will experience improved indoor air quality (IAQ) in their schools. Goal Met.	1.05 M	1.05 M
FY 2002	1,228,500 students, faculty and staff will experience improved indoor air quality in their schools. Goal Met.	1.2 M	1.2 M

APG 1.11 Healthier Indoor Air in Workplaces		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 1.12 Restrict Domestic Consumption of Class 11 HCFCs		Planned	Actual
FY 2004	Restrict domestic consumption of class II HCFCs below 9,906 ODP MTs and restrict domestic exempted production and import of newly produced class I CFCs and halons below 10,000 ODP Mts. Goal Met. More information about this result can be found in Section 2 of this report. *Performance Measures:*		
	—Domestic Consumption of Class II HCFCs.	< 9,960	5,500
	—Newly produced Domestic Exempted Production and Import of class I CFCs and halons.	< 10,000	1,225
FY 2003	Same goal, same targets. Goal Met. More information about this result can be found in Section 2 of this report. *Performance Measures:*		
	—Domestic Consumption of Class II HCFCs.	< 9,960	7,110
	—Newly produced Domestic Exempted Production and Import of class I CFCs and halons.	< 10,000	2,049
FY 2002	Restrict domestic consumption of class II HCFCs below 15,240 ODP MTs and restrict domestic exempted production and import of newly produced class I CFCs and halons below 60,000 ODP MTs. Goal Met. *Performance Measures:*		
	—Domestic Consumption of Class II HCFCs.	<15,240	13,950
	—Newly produced Domestic Exempted Production and Import of class I CFCs and halons.	<60,000	2,347

APG 1.13 Ensure WIPP Safety		Planned	Actual
FY 2004	Certify that 36,000 55-gallon drums of radioactive waste (containing approximately 108,000 curies) shipped by the Department of Energy (DOE) to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards. Goal Met.	36,000	36,500
FY 2003	Certify that 12,000 55-gallon drums of radioactive waste (containing approximately 36,000 curies) shipped by the Department of Energy (DOE) to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards. Goal Met.	12,000	36,041
FY 2002	Same goal, different targets. Goal Met.	6,000	22,800

APG 1.14 Build National Radiation Monitoring System		Planned	Actual
FY 2004	EPA will purchase 60 state of the art radiation monitoring units thereby increasing EPA radiation monitoring capacity and population coverage from 37% of the contiguous U.S. population in FY 2002 to 50% in FY 2004.	60	

APG 1.15 Homeland Security—Readiness and Response		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 1.16 Reduce Greenhouse Gas (GHG) Emissions		Planned	Actual
FY 2004	GHG emissions will be reduced from projected levels by approximately 90 mmtce per year through EPA partnerships with businesses, schools, state and local governments, and other organizations. Goal Met.		
	More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	— Annual GHG Reductions—All EPA Programs.	81.0 M	87.9
	— *GHG Reductions from EPA's Buildings Sector Programs (ENERGY STAR). (PART)*	21.4 M	26.2 M
	— *GHG Reductions from EPA's Industrial Efficiency/Waste Management Programs. (PART)*	7.3 M	9
	— *GHG Reductions from EPA's Industrial Methane Outreach Programs. (PART)*	18.1 M	19.9
	— *GHG Reductions from EPA's Industrial HFC/PFC Programs. (PART)*	29.6 M	28.2
	— *GHG Reductions from EPA's Transportation Programs. (PART)*	2.6 M	2.6 M
	— *GHG Reductions from EPA's State and Local Programs. (PART)*	2.0 M	2.0 M
FY 2003	GHG emissions will be reduced from projected levels by approximately 72.2 mmtce per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.		
	Performance Measures:		
	— Annual GHG Reductions—All EPA Programs	72.2	82.4
	— *GHG Reductions from EPA's Buildings Sector Programs (ENERGY STAR). (PART)*	19.2	23.0
	— *GHG Reductions from EPA's Industrial Efficiency/Waste Management Programs. (PART)*	6.7	7.4
	— *GHG Reductions from EPA's Industrial Methane Outreach Programs. (PART)*	17.0	17.9
	— *GHG Reductions from EPA's Industrial HFC/PFC Programs. (PART)*	24.9	29.8
	— *GHG Reductions from EPA's Transportation Programs. (PART)*	2.4	2.3
	— *GHG Reductions from EPA's State and Local Programs. (PART)*	2.0	s2.0

FY 2002	GHG emissions will be reduced from projected levels by approximately 65.8 mmtce per year through EPA partnerships with businesses, schools, state and local governments, and other organizations thereby offsetting growth in GHG above 1990 levels by about Goal Met.	

APG 1.17 Reduce Energy Consumption		Planned	Actual
FY 2004	Reduce energy consumption from projected levels by more than billion kilowatt-hours (kWh), contributing to over $7.5 billion (B) in energy savings to consumers and businesses. Goal Met. More information about this result can be found in Section 2 of this report.	110 B	145 B
FY 2003	Reduce energy consumption from projected levels by more than 95 billion kilowatt-hours (kWh), contributing to over $6.5 billion (B) in energy savings to consumers and businesses. Goal Met.	95 B	122.8 B
FY 2002	Reduce energy consumption from projected levels by more than 85 billion kilowatt-hours, contributing to over $10 billion in energy savings to consumers and businesses. Goal Met.	85 B	100 B

APG 1.18 Clean Automotive Technology		Planned	Actual
FY 2004	Transfer hybrid powertrain components, originally developed for passenger car applications, to meet size, performance, durability, and towing requirements of sport utility vehicle and urban delivery vehicle applications with an average fuel economy improvement of 25% over the baseline. Goal Met.		
	Performance Measure:		
	—Fuel Economy of typical SUV with EPA-developed hybrid technology over EPA driving cycles tested.	25.2	25.2

APG 1.19 PM Effects Research		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

PRIOR YEAR ANNUAL PERFORMANCE GOALS WITHOUT CORRESPONDING FY 2005 GOALS

		Planned	Actual
FY 2004	The number of people living in areas with monitored ambient ozone concentrations below the NAAQs for the 1-hour ozone standard will increase by 4% (relative to 2003) for a cumulative total of 47% (relative to 1992).Goal Not Met. More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	— Cumulative percent increase in the number of people who live in areas with ambient 1-hour ozone concentrations below the level of the NAAQs as compared to 1992.	47%	44%
	— Cumulative percent increase in the number of areas with ambient 1-hour ozone concentrations below the level of the NAAQs as compared to 1992.	55%	96%
	— Total number of people who live in areas designated to attainment of the Clean Air Standards for ozone.	167.3 M	165.4 M
	— Areas newly designated to attainment for the ozone standards	5 areas	3 areas
	— Additional people living in newly designated areas with demonstrated attainment of ozone standards.	5.8 M	3.9 M
	— *Millions of tons of VOCs reduced from mobile sources. (PART)*	2.0 M	2.0 M
	— *Millions of tons of NO_x reduced from mobile sources. (PART)*	1.65 M	1.65 M

Goal 2

APG 2.1	Safe Drinking Water Meeting All Standards—Population	Planned	Actual
FY 2004	Population served by community water systems will receive drinking water meeting all health-based standards, up from 83% in 1994. More information about this result can be found in Section 2 of this report.	92%	90%
FY 2003	Same goal, different targets. Goal Not Met.	92%	90%
FY 2002	Same goal, different targets. Goal Met.	91%	94%

APG 2.2	Safe Drinking Water Meeting Existing Standards—Population	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.3	Safe Drinking Water Meeting New Standards—Population	Planned	Actual
FY 2004	Population served by community water systems will receive drinking water meeting health-based standards promulgated in 1998. Goal Met. More information about this result can be found in Section 2 of this report.	85%	97%
FY 2003	Same goal. Goal Met.	85%	96%

APG 2.4	Safe Drinking Water Meeting Existing Standards—Systems	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.5	Safe Drinking Water Meeting New Standards—Systems	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.6	Safe Drinking Water—Tribal Communities	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.7	Source Water Protection	Planned	Actual
FY 2004	Advance states' efforts with community water systems to protect their surface and ground water resources that are sources of drinking water supplies. Goal Met.		
	Performance Measure:		
	— Number of community water systems and percent of population served by those CWSs that are implementing source water protection programs.	7,500 25%	13,891 42%
FY 2003	39,000 community water systems (representing 75% of the nation's service population) will have completed source water assessments and 2,600 of these (representing 10% of the nation's service population) will be implementing source water protection programs. Goal Met.	2,600 10%	6,570 25%

1 For FY 2007, the Agency will be reporting on a measure which combines the current APGs 2.4 and 2.5. It measures the percent of community water systems in compliance with all drinking water standards. This measure arose from the Drinking Water State Revolving Fund PART.

APG 2.8	Improve Water Quality to Support Increased Fish Consumption	Planned	Actual
FY 2004	Reduce consumption of contaminated fish by increasing the information available to states, tribes, local governments, citizens, and decision-makers. Goal Met.		
	Performance Measures:		
	— Lake acres assessed for the need for fish advisories and compilation of state-issued fish consumption advisory methodologies (cumulative).	35%	35%
	— River miles assessed for the need for fish consumption advisories and compilation state-issued fish consumption advisory methodologies (cumulative).	16%	24%
FY 2003	Reduce consumption of contaminated fish by increasing the information available to states, tribes, local governments, citizens, and decision-makers. Goal Met.		
	Performance Measures:		
	— Lake acres assessed for the need for fish advisories and compilation of state-issued fish consumption advisory methodologies (cumulative).	29%	33%
	— River miles assessed for the need for fish consumption advisories and compilation of state-issued fish consumption advisory methodologies (cumulative).	15%	15%

APG 2.9	Improve Water Quality to Support Increased Shellfish Consumption	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.10	Improve Water Quality to Support Increased Safe Swimming	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.11	Increase Beach Safety	Planned	Actual
FY 2003	Reduce human exposure to contaminated recreation waters by increasing the information available to the public and decision-makers. Goal Not Met.		
	Performance Measure:		
	— Beaches for which monitoring and closure data are available to the public at www.epa.gov/OST/beaches/ (cumulative).	2,550	2,823
FY 2002	Reduce human exposure to contaminated recreation waters by increasing the information available to the public and decision-makers. Goal Met.	2,345	2,445

APG 2.12	Watershed Protection	Planned	Actual
FY 2004	By 2005, water quality will improve on a watershed basis such that 500 of the nation's 2,262 watersheds will have greater than 80% of assessed waters meeting all water quality standards. More information about this result can be found in Section 2 of this report.	500	
FY 2003	By FY 2003, water quality will improve on a watershed basis such that 600 of the nation's 2,262 watersheds will have greater than 80% of assessed waters meeting all WQSs, up from 500 watersheds in 1998.	600	
FY 2002	Same goal, different targets.	600	

APG 2.13	Watershed Protection—Waterbodies	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.14	State/Tribal Water Quality—Monitoring	Planned	Actual
FY 2003	Assure that states and tribes have effective, up-to-date water quality standards programs adopted in accordance with the regulation and the WQSs program priorities. Goal Met.		
	Performance Measures:		
	—States with new or revised WQSs that EPA has reviewed and approved or disapproved and promulgated federal replacement standards.	20	27
	— Tribes with WQSs adopted and approved (cumulative).	33	
FY 2002	Same goal, different targets. Goal Met.	20 states 27 tribes	25 states

APG 2.15	State/Tribal Water Quality Standards—Sanitation Access	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.16	Coastal Aquatic Conditions—Ecological Health	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.17	Coastal Aquatic Conditions—Use Attainment	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 2.18	Water Quality Research	Planned	Actual
FY 2004	Provide final reports on the performance of arsenic treatment technologies and/or engineering approaches to the Office of Water and water supply utilities to aid in the implementation of the arsenic rule and the protection of human health. Goal Met.	9/30/04	9/30/04

Goal 3

APG 3.1	Manage Hazardous Waste and Petroleum Products Properly	Planned	Actual
FY 2004	Divert an additional 1% (for a cumulative total of 33% or 79 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.5 pounds per day. Due to a multi-year data lag the FY 2004 result is not available.		
	Performance Measures:		
	—Millions of tons of municipal solid waste diverted.	79 M	Data Available FY 2006
	—*Daily per capita generation of municipal solid waste. (PART)*	4.5 lbs	
FY 2003	Same Goal, different target. Goal Not Met.	74 M	72.3 M
	More information about this result can be found in Section 2 of this report.	4.5 lbs	4.5 M
FY 2002	Same Goal, different target. Goal Met.	69 M	70 M
	More information about this result can be found in Section 2 of this report.	4.5 lbs	4.5 M

APG 3.2	Manage Hazardous Waste and Petroleum Products Properly	Planned	Actual
FY 2004	Reduce releases to the environment by managing hazardous wastes and petroleum products properly. More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—*RCRA hazardous waste management facilities with permits or other approved controls. (PART)*	2.4 %	3.7%
	—Confirmed UST releases nationally.	<10,000	7,848
	—Increase in UST facilities in significant operational compliance with leak detection requirements.	4%	
	—Increase in UST facilities in significant operational compliance with spill overfill and corrosion protection regulations.	4%	
FY 2003	Increase the number of waste and petroleum facilities with acceptable or approved controls in place to prevent releases to the environment. Goal Not Met.		
	Performance Measures:		
	—Percent of RCRA hazardous waste management facilities with permits or other approved controls.	77.2%	83.2%
	—Increase in UST facilities in significant operational compliance with leak detection requirements.	3%	
	—Increase in UST facilities in significant operational compliance with spill, overfill and corrosion protection regulations.	3%	
FY 2002	75.8% of the hazardous waste management facilities will have approved controls in place to prevent dangerous releases to air, soil, and groundwater, representing an average increase of 39 additional facilities per year. Goal Met.	75.8%	79.0%

APG 3.3	Assess and Clean Up Contaminated Land	Planned	Actual
FY 2004	Control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse. Goal Not Met. More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—*Superfund final site assessment decisions. (PART)*	500	548
	—*Superfund construction completions. (PART)*	40	40
	—*Superfund hazardous waste sites with human exposures controlled. (PART)*	10	15
	—*Superfund hazardous waste sites with groundwater migration controlled. (PART)*	10	18
	—Final remedies (cleanup targets) selected at Superfund sites.	20	30

FY 2004 *continued*	—*High priority RCRA facilities with human exposures to toxins controlled. (PART)*	166	195
	—*High priority RCRA facilities with toxic releases to groundwater controlled. (PART)*	129	150
	—LUST cleanups completed.	21,000	
FY 2003	Assess waste sites. Goal Met.		
	Performance Measures:		
	—Number of Superfund final site assessment decisions.	475	917
	—Number of Superfund removal response actions initiated.	275	380
FY 2003	Clean up and reduce risk at waste sites. .		
	Performance Measures:		
	—Number of Superfund construction completions.	40	40
	—*Number of Superfund hazardous waste sites with human exposures (HE) controlled. (PART)*	10	28
	—*Number of Superfund hazardous waste sites with groundwater migration controlled. (PART)*	10	54
	—*Number of high priority RCRA facilities with human exposures to toxins controlled. (PART)*	197	230
	—*Number of high priority RCRA facilities with toxic releases to groundwater controlled. (PART)*	158	175
	—Number of leaking underground storage tank (LUST) cleanups completed.	21,000	
FY 2002	(Superfund Cleanup)		
	EPA and its partners will complete 40 Superfund cleanups (construction completions). Goal Met.	40	42
FY 2002	(RCRA Corrective Actions)		
	172 (for a cumulative total of 995 or 58%) of high priority RCRA facilities will have human exposure (HE) controlled and 172 (for a cumulative total of 882 or 51%) of high priority RCRA facilities will have groundwater releases (GWR) controlled. Goal Met.	172 HE 172 GWR	205 HE 171 GWR
FY 2002	(Leaking Underground Storage Tank Cleanups)		
	EPA and its partners will complete 22,000 LUST cleanups for a cumulative total of approximately 290,000 cleanups since 1987.	22,000	

APG 3.4	Superfund Potentially Responsible Party Participation	Planned	Actual
FY 2004	Reach a settlement or take an enforcement action by the start of remedial action at 90% of those Superfund sites having known non-Federal, viable, liable parties. Goal Met.	90%	98%

APG 3.5	Superfund Cost Recovery	Planned	Actual
FY 2004	Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations on total past costs equal to or greater than $200,000. Goal Met.	100%	100%
FY 2003	Same Goal. Goal Met.	100%	100%
FY 2002	Same goal. Goal Met.	100%	100%

APG 3.6	Prepare for and Respond to Accidental and Intentional Relesaes	Planned	Actual
FY 2004	Reduce and control the risks posed by accidental and intentional releases or harmful substances by improving our nation's capability to prepare for and respond more effectively to these emergencies. Goal Met.		
	Performance Measures:		
	—Superfund removal response actions initiated.	350	385
	—Oil spills responded to or monitored by EPA.	300	308
	—Percentage of emergency response readiness improvement.		
FY 2003	Improve homeland security response readiness and continue assessment of critical facility vulnerability. Goal Not Met.		
	Performance Measures:		
	—Develop baseline data for response readiness, incorporation of Homeland Security into community contingency plans, and critical facilities requiring vulnerability data (Baseline) assessments.	Baseline data	823 (Baseline)
	—Number of oil facilities in compliance with spill prevention, control and counter-measure provisions of oil pollution prevention regulations.	600	
FY 2002	Respond to or monitor 300 significant oil spills in the inland zone. Goal Met.	300	322

APG 3.7	Scientifically Defensible Decisions for Site Clean-up	Planned	Actual
FY 2004	Provide risk assessors and managers with site-specific data sets on 3 applications detailing the performance of conventional remedies for contaminated sediments to help determine the most effective techniques for remediating contaminated sites and protecting human health and the environment. Goal Met.		
	Performance Measure:		
	—Reports on performance data for conventional sediment remedies for three sites.	3 reports	3 reports
FY 2003	To ensure cost-effective and technically sound site clean-up, deliver state-of-the-science reports and methods to EPA and other stakeholders for risk management of fuel oxygenates; organic and inorganic contamination of sediments, groundwater and/or soils; and oil spills. Goal Met.		

FY 2003 *continued*	***Performance Measure:***		
	—Complete draft of the FY 2002 Annual Superfund Innovation Technology Evaluation (SITE) Report to Congress.	1	1
FY 2002	Provide at least 6 innovative approaches that reduce human health and ecosystem exposures from dense non-aqueous phase liquids and methyl-tertiary butyl ether in soils and groundwater, and from oil and persistent organics in aquatic systems. Goal Met.		
	Performance Measure:		
	—Deliver the Annual SITE Program Report to Congress detailing 4-6 innovative approaches, their cost savings and future direction; reports summarizing pilot scale evaluation of in situ remedies for solvents.	1	1

Goal 4

APG 4.1	Reassess Pesticides Tolerance	Planned	Actual
FY 2004	Ensure that through on-going data reviews, pesticide active ingredients and the products that contain them are reviewed to assure adequate protection for human health and the environment, taking into consideration exposure scenarios such as subsistence lifestyles of Native Americans.		
	Performance Measures:		
	—Product Reregistration.	400 actions	127
	—Reregistration Eligibility Decision (RED) (cumulative).	81.7%	77.6%
	—Tolerance Reassessment (cumulative).	78%	73.0%
	—Tolerance Reassessments for top 20 foods eaten by children (cumulative).	83%	68.9%
	—Number of inert ingredients tolerances reassessed.	100	28
FY 2003	Assure that pesticides' active ingredients registered prior to 1984 and the products that contain them are reviewed to assure adequate protection for human health and the environment. Also consider the unique exposure scenarios such as subsistence lifestyles of Native Americans in regulatory decisions.		
	Performance Measures:		
	—Product Reregistration.	350 actions	306 actions
	—Reregistration Eligibility Decision (RED) (cumulative).	76%	75%
	—Tolerance Reassessment.	68%	68%
	—Tolerance reassessments for top 20 foods eaten by children.	75%	65.6%
FY 2002	Same goal, different targets. Goal Not Met.		
	Performance Measures:		
	—Product Reregistration.	750	314
	—RED (cumulative).	76.4%	72.7%

FY 2002 *continued*	By the end of 2002 EPA will reassess a cumulative 66% of the 9,721 pesticide tolerances required to be reassessed more than 10 years. This includes 67% of the 893tolerances having the greatest potential impact on dietary risks to children. Goal Met.	66% 67%	66.9%

APG 4.2	Decrease Risk from Agricultural Pesticides	Planned	Actual
FY 2004	Decrease adverse risk from agricultural uses from 1995 levels. Goal Met. More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—Percentage of acre-treatments with reduced risk pesticides.	8.5%	13%
	—Occurrences of residues on a core set of 19 foods eaten by children relative to occurrence levels for those foods reported in 1994-1996.	25%	34%
FY 2003	Decrease adverse risk from agricultural uses from 1995 levels and assure that new pesticides that enter the market are safe for humans and the environment through ensuring that all registration actions are timely and comply with standards mandated by law. Goal Not Met.		
	Performance Measures:		
	—Percentage of acre treatments with reduced risk pesticides.	8.1%	
	—Occurrences of residues on a core of 19 foods eaten by children relative to occurrence levels for those foods reported in 1994-1996.	20%	
FY 2002	Same goal, different targets. Goal Met.		
	Performance Measures:		
	—Register safer chemicals and biopesticides (cumulative).	105	107
	—Detections of residues of carcinogenic and cholinesterase inhibiting neurotoxic pesticides on foods eaten by children will have decreased by 15% (cumulative) from their average 1994 to 1996 levels. Goal Met.	15%	20%
	—At least 1% of acre-treatments will use applications of reduced risk pesticides. Goal Met.	1%	7.5

APG 4.3	Exposure to Industrial/Commercial Chemicals	Planned	Actual
FY 2004	Reduce exposure to and health effects from priority industrial/commercial chemicals. More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—Certified nationally to perform lead-based paint abatement.	18,000	24,000
	—*Children aged 1-5 years with elevated blood lead levels (>10ug/dl). (PART)*	270 K	Data Available FY 2006
	—Safe disposal of transformers.	8000	

FY 2004 *continued*	—Safe disposal of capacitors	6,000	Data Avail FY 2006
	—Number of participants in Hospitals for a Healthy Environment (cumulative).	2,000	2,930
FY 2003	Reduce lead exposure in housing units and in the deleading of bridges and structures. Goal Met.		
	Performance Measure:		
	—Certified nationally (federally-administered and state-administered program).	5,000	5,561
FY 2002	Implement certification and training of lead abatement professionals. Goal Met.		
	Performance Measure:		
	—Certified nationally (federally-administered and state-administered program).	4,000	4,574

APG 4.4	Process and Disseminate Toxics Release Inventory (TRI) Information	Planned	Actual
FY 2004	The increased use of the TRI-Made Easy (TRI-ME) will result in a total burden reduction of 5% for FY 2003 from FY 2002 levels.	50%	
	Performance Measure:		
	—Percentage of TRI chemical forms submitted over the Internet using TRI-ME and the CDX.	50%	
FY 2003	Expanded information on releases and waste management of lead and lead compounds will be reported by 8,000 facilities in TRI in Reporting Year 2001 and increased usage of TRI-ME will result in total burden reduction of 25% for Reporting Year 2002. Goal Met.	8,000 25%	8,561 25%
FY 2002	EPA will reduce reporting burden, improve data quality, lower program costs, and speed data publication by increasing the amount of TRI electronic reporting from 70% to 85%. Goal Met.	85%	92%

APG 4.5	Risks from Industrial/Commercial Chemicals	Planned	Actual
FY 2004	Identify, restrict, and reduce risks associated with industrial/commercial chemicals.		
	Performance Measures:		
	—TSCA pre-manufacture notice reviews (annual).	1,700	1,377
	—Number of Notice of Commencements (NOCs) received as percentage of total number of chemicals in TSCA inventory (cumulative).	22.6%	22.8%
	—Make screening level health and environmental effects data publicly available for sponsored HPV chemicals (cumulative).	1,300	1,309
	—Annual number of TSCA Section 5 Pre-Manufacturer Notices (PMNs) received self-audited using complete battery of P2 Framework/PBT Profiler screening tools.	40	71

FY 2004 *continued*	—*Reduction in current year production-adjusted risk screening environmental indicators risk-based score of releases and transfers of toxic chemicals. (PART)*	2% 2,000	Data Available FY 2006
	Due to a multi-year data lag FY 2004 data is not available.		
	—Cumulative number of chemicals for which AEGL values proposed.	128	134
	—High Production Volume chemicals with complete Screening Information Data Sets (SIDS) submitted to OECD SIDS Initial Assessment Meeting (annual).	75	98
FY 2003	Of the approximately 1,800 applications for new chemicals and microorganisms submitted by industry, ensure those marketed are safe for humans and the environment. Increase proportion of commercial chemicals that have undergone pre-manufacture notice review to signify they are properly managed and may be potential green alternatives to existing chemicals.	1,800	
FY 2002	Same goal. Goal Met.	1,800	1,943
FY 2003	Provide information and analytical tools to the public for accessing the risk posed by toxic chemicals. Goal Met.		
	Performance Measure:		
	—Make existing screening level health and environmental effects information and plans to develop needed data publicly available for high production volume (HPV) chemicals sponsored in the US HPV Challenge.	1,200	1,235
FY 2002	Same goal. Goal Met.	10% data (280 chemicals)	843 chemicals

APG 4.6	Chemical, Organism, and Pesticides Risks	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 4.7	Chemical, Organism, and Pesticides Risks	Planned	Actual
FY 2004	Decrease occurrence of residues of carcinogenic and cholinesterase-inhibiting neurotic pesticides on foods eaten by children from their average 1994 – 1996 levels. Goal Met. More information about this result can be found in Section 2 of this report.	25%	34%
FY 2003	Same goal, different targets. Goal Met.	20%	34.3%
FY 2002	Detections of residues of carcinogenic and cholinesterase inhibiting neurotoxic pesticides on foods eaten by children will have decreased by 15% (cumulative) from their average 1994 – 1996 levels. Goal Met.	15%	20%

APG 4.8	Chemical, Organism, and Pesticides Risks	Planned	Actual
FY 2004	Protect human health, communities, and ecosystems from chemical risks and releases through facility risk reduction efforts and building community infrastructures. Goal Met. More information about this result can be found in Section 2 of this report. ***Performance Measure:*** —Risk management plan audits completed.	 400	 730

APG 4.9	Chemical, Organism, and Pesticides Risks	Planned	Actual
FY 2004	Reduce wildlife incidents and mortalities. ***Performance Measure:*** —*Number of incidents and mortalities to terrestrial and aquatic wildlife caused by the 15 pesticides responsible for the greatest mortality to such wildlife (cumulative). (PART)*	 -25%	 Insufficient data for analysis
FY 2003	Reduce public and ecosystem risk from pesticides. ***Performance Measure:*** —*Number of incidents and mortalities to terrestrial and aquatic wildlife caused by the 15 pesticides responsible for the greatest mortality to such wildlife (cumulative). (PART)*	-20%	
FY 2002	Implementation of 10-15 additional model agricultural partnership projects that demonstrate and facilitate the adoption of farm management decisions and practices that provide growers with a "reasonable transition" away from the highest risk pesticides. Goal Met.	10-15	12

APG 4.10	Chemical, Organism, and Pesticides Risks	Planned	Actual
FY 2004	Ensure new pesticide registration actions (including new active ingredients, new uses) meet new health standards and are environmentally safe. Goal Met. ***Performance Measures:*** —Register safer chemicals and biopesticides (cumulative). —*New Chemicals (cumulative). (PART)* —New Uses (cumulative).	 131 74 3,079	 143 79 3,142
FY 2003	Decrease adverse risk from agricultural uses from 1995 levels and assure that new pesticides that enter the market are safe for humans and the environment through ensuring that all registration actions are timely and comply with standards mandated by law. Goal Met.		

FY 2003 *continued*	***Performance Measures:***		
	—Register safer chemicals and biopesticides (cumulative).	118	124
	—*New Chemicals. (PART)*	67	72
	—New Uses.	3,079	3,142
FY 2002	Same goal, different targets. Goal Met.		
	Performance Measures:		
	Register safer chemicals and biopesticides (cumulative).	105	107

APG 4.11	Assess and Cleanup Brownfields	Planned	Actual
FY 2004	Assess, cleanup, and promote the reuse of Brownfields properties, leveraging cleanup and redevelopment funding and jobs. Leverage or generate funds through revitalization efforts. Goal Met.		
	More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—Brownfields cleanup grants awarded.	25	75
	—*Brownfield properties assessed. (PART)*	1,000	1,076
	—Properties cleaned up using Brownfields funding.	no target	17
	— Brownfield property acres available for reuse or continued use.	no target	129
	—Jobs generated from Brownfields activities (annual).	2,000	2,250
	—Percentage of Brownfields job training trainees placed.	65%	65%
	—Amount of cleanup and redevelopment funds leveraged at Brownfield sites.	$0.9 B	$0.9 B
FY 2003	Assess, cleanup, and promote the reuse of Brownfields properties, leveraging cleanup and redevelopment funding and jobs. Leverage or generate funds through revitalization efforts. Goal Met.		
	Performance Measures:		
	—Amount of cleanup and redevelopment funds leveraged at Brownfields sites.	$0.9	$1.49
	—*Number of Brownfield properties assessed. (PART)*	1,000	1,052
	—Jobs generated from Brownfields activities (annual).	2,000	5,023
	—Percentage of Brownfields job trainees placed.	65%	
FY 2002	EPA will provide additional site assessment funding to 38 new communities, and to existing communities, resulting in a cumulative total of 3,100 properties assessed, the generation of 19,300 jobs, and the leveraging of $4.0 B in cleanup and redevelopment funds since 1995. Goal Met.	3,100 19,300 $4.0 B	3,807 21,737 4.8 B

APG 4.12 US–Mexico Border Water/Wastewater Infrastructure		Planned	Actual
FY 2004	Increase the number of residents in the Mexico border area who are protected from health risks, beach pollution, and damaged ecosystems from nonexistent and failing water and wastewater treatment infrastructure by providing improved water and wastewater service. Goal Met.	990,000	1,163,00

APG 4.13 Sustain Community Health		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 4.14 Protecting and Enhancing Estuaries		Planned	Actual
FY 2004	Restore and protect estuaries through the implementation of Comprehensive Conservation and Management Plans (CCMPs). Goal Met.		
	Performance Measures:		
	—Acres of habitat restored and protected nationwide as part of the National Estuary Program (annual).	25,000	107,000

APG 4.15 Increase Wetlands		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 4.16 Great Lakes: Ecosystem Assessment		Planned	Actual
FY 2004	Great Lakes ecosystem components will improve, including progress on fish contaminants, beach closures, air toxics, and trophic status. More information about this result can be found in Section 2 of this report.		
	Performance Measures:		
	—Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish.	5%	5.8%
	—Long-term concentration trends of toxic chemicals in the air.	7%	8.4%
	—Total phosphorus concentrations (long-term, Ug/l) in the Lake Erie Central Basin.	10	21.2 Ug/l
FY 2004	*Performance Measures:*		
	—Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish.	5%	Data Available 2006

FY 2003 *continued*	—Long-term concentration trends of toxic chemicals in the air.	7%	8.3%
	—Total phosphorus concentrations (long-term, Ug/l) in the Lake Erie Central Basin.	10	18.4
FY 2002	Same goal, different targets.		
	Performance Measures:		
	—Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish.	declining	declining
	—Long-term concentration trends of toxic chemicals in the air.	declining	declining
	—Total phosphorus concentrations (long-term, Ug/l) in the Lake Erie Central Basin.	improving	mixed

APG 4.17 Chesapeake Bay Habitat		Planned	Actual
FY 2004	Improve habitat in the Chesapeake Bay. Goal Not Met.		
	Performance Measures:		
	Acres of submerged aquatic vegetation present in the Chesapeake Bay (cumulative).	90,000	64,709

APG 4.18 Chesapeake Bay Habitat		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 4.19 Gulf of Mexico		Planned	Actual
FY 2004	Assist the Gulf States in implementing watershed restoration actions in 71 (5-year rolling average) priority impaired coastal river and estuary segments. Goal Met.	71	71.2
FY 2003	Same goal, different target. Goal Met.	14	95

APG 4.20 Conduct Relevant Research		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 4.21 Conduct Relevant Research		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 4.22 Conduct Relevant Research		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 4.23 Human Health Risk Assessment Research		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 4.24 Risk Assessment Research		Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

PRIOR YEAR ANNUAL PERFORMANCE GOALS WITHOUT CORRESPONDING FY 2005 GOALS

		Planned	Actual
FY 2000	Administer federal programs and oversee state implementation of programs for lead-based paint abatement certification and training in 50 states, to reduce exposure to lead-based paint and ensure significant decreases in children's blood levels by 2005. Goal Met.	50	50
FY 1999	Complete the building of a lead-based paint abatement certification and training in 50 target states, to ensure significant decreases in children's blood lead levels by 2005. Goal Not Met.	50	30

Goal 5

APG 5.1	Compliance Assistance	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 5.2	Compliance Incentives	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 5.3	Compliance Monitoring and Enforcement	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 5.4	Improve Environmental Performance through Pollution Prevention and Innovation	Planned	Actual
FY 2005	This APG is new for FY 2005; no prior year data.		

APG 5.5	Improve Environmental Performance through Pollution Prevention and Innovation	Planned	Actual
FY 2004	Prevent, reduce and recycle hazardous industrial/commercial chemicals and municipal solid wastes.		
	Performance Measures:		
	—Reduction of TRI non-recycled waste (normalized).	200 M Lbs	Data Available FY 2006
	—Alternative feed stocks, processes, or safer products identified through Green Chemistry Challenge Award (cumulative).	210 prod/proc	429
	—Quantity of hazardous chemicals/solvents eliminated through the Green Chemistry Challenge Awards Program.	150 M	460 M
	—For eco-friendly detergents, track the number of laundry detergent formulations developed.	36	38
FY 2003	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2003 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2002. Goal Met.	-200 M	622 M
	More information about this result can be found in Section 2 of this report.		
FY 2002	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2002 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2001. Goal Not Met.	-200 M	+366 M

APG 5.6	Build Tribal Capacity	Planned	Actual
FY 2004	Percent of Tribes will have an environmental presence (e.g., one or more persons to assist in building Tribal capacity to develop and implement environmental programs. Goal Met.		
	Performance Measures:		
	—Tribes with delegated and non-delegated programs (cumulative).	5%	28%
	—Tribes with EPA-reviewed monitoring and assessment occurring (cumulative).	20%	44%
	—Tribes with EPA-approved multimedia work plans (cumulative).	18%	26%
FY 2003	In 2003 the American Indian Environmental Office will evaluate non-Federal sources of environmental data pertaining to conditions in Indian Country to enrich the Tribal Baseline Assessment Project. Goal Met.	20	20
FY 2002	Baseline environmental information will be collected for 38% of tribes (covering 50% of Indian Country). Goal Met.		
	Performance Measure:		
	—Environmental assessments for tribes (cumulative).	217 tribes	331 tribes

APG 5.7	Information Exchange Network	Planned	Actual
FY 2004	Verify 35 air, water, greenhouse gas, and monitoring technologies (through the Environmental Technology Verification (ETV) program) so that states, technology purchasers, and the public will have highly credible data and performance analyses on which to make technology selection decisions. Goal Met.	35	35
FY 2003	Develop 10 testing protocols and complete 40 technology verifications for a cumulative ETV program total of 230 to aid industry, states, and consumers in choosing effective technologies to protect the public and environment from high risk pollutants. Goal Met.	10 40	10 40
FY 2002	Formalize generic testing protocols for technology performance verification, and provide additional performance verifications of pollution prevention, control and monitoring technologies in all environmental media. Goal Met.		
	Performance Measure.		
	—Complete 20 stakeholder approved and peer-reviewed test protocols in all environmental technology categories under ETV, and provide them to testing organizations world-wide.	20	20

Enabling and Support Programs

APG ESP-1	Information Exchange Network	Planned	Actual
FY 2004	Improve the quality, comparability, and availability of environmental data for sound environmental decision-making through the Central Data Exchange (CDX). Goal Met.		
	Performance Measures:		
	—Number of private sector and local government entities, such as water authorities, using CDX to exchange environmental data with EPA.	2,000	7,050
	—CDX offers online data exchange for all major national systems by the end of FY 2004.	13	13
	—Number of states using CDX as the means by which they routinely exchange environmental data with two or more EPA media programs or regions.	46	49
FY 2003	Decision makers have access to the environmental data that EPA collects and manages to make sound environmental decisions while minimizing the reporting burden on data providers. Goal Not Met.		
	Performance Measures:		
	—States using the CDX to send data to EPA.	46	49
	—In preparation for increasing the exchange of information through CDX, implement data standards in 13 major systems and develop 4 additional standards in 2003.	8	7
FY 2002	The CDX, a key component of the environmental information exchange network, will become fully operational and 15 states will be using it to send data to EPA thereby improving data consistency with participating states. Goal Met.	15	45

APG ESP-2	Data Quality and Accessibility	Planned	Actual
FY 2004	EPA increasingly uses environmental indicators to inform the public and manage for results. Goal Met.		
	Performance Measures:		
	Establish the baseline for the suite of indicators that are used by EPA's programs and partners in the Agency's strategic planning and performance measurement process.	1 report	1 report

FY 2003	The public will have access to a wide range of federal, state, and local environmental conditions and features in an area of their choice. Goal Met. *Performance Measures:* Window-to-My-Environment nationally deployed and provides citizens across the country with Federal, state, and local environmental information specific to an area of their choice.	Nationally Deployed	Nationally Deployed
FY 2002	100% of the publicly available facility data from EPA's national systems accessible on the EPA Website will be part of the Integrated Error Correction Process, reducing data error. Goal Met.	100%	100%

APG ESP-3	Information Security	Planned	Actual
FY 2004	OMB reports that all EPA information systems meet/exceed established standards for security. Goal Met.		
	Performance Measures:		
	—Percent compliance with criteria used by OMB to assess Agency security programs reported annually to OMB under the Federal Information Security Management Act.	75	91
	—Percent of intrusion detection monitoring sensors installed and operational.	75%	100%
FY 2003	Same goal. Goal Met.	75 75	75 100
FY 2002	Complete risk assessments on the Agency's critical infrastructure systems, critical financial systems, and mission critical environmental systems. Goal Met.		
	Performance Measures:		
	— Critical infrastructure systems risk assessment findings will be formally documented and transmitted to systems owners and managers in a formal Risk Assessment document.	12	12
	—Critical financial systems risk assessment findings will be formally documented and transmitted to systems owners and managers in a formal Risk Assessment document.	13	13
	—Mission critical environmental systems risk assessment findings will be formally documented and transmitted to system owners and managers in a formal Risk Assessment document.	5	5

APG ESP-4	Fraud Detection and Deterrence	Planned	Actual
FY 2004	Improve Agency business and operations by identifying 240 recommendations, risks, and best practices; contributing to potential savings and recoveries equal to of the annual investment in the OIG; 100 actions for greater efficiency and effectiveness, and 80 criminal, civil, or administrative actions reducing the risk of loss or integrity. Goal Not Met.	240 150% 100 80	390 48% 133 108
FY 2003	Same goal, different targets. Goal Met.	155 150% 75 50	264 856% 138 83

APG ESP-5	Audit and Adivisory Services	Planned	Actual
FY 2004	Improve environmental quality and human health by identifying 80 recommendations, risks, or best practices; and contributing to the reduction or elimination of environmental risks, and 42 actions influencing positive environmental or health impacts. Goal Met.	80 18 42	116 45 49
FY 2003	Same goal, different targets. Goal Met.	80 20 60	312 92 185
FY 2002	Same goal, different targets. Goal Met.	50 15 15	100 18 16

APG ESP-6	Strengthen EPA's Management	Planned	Actual
FY 2004	Strengthen EPA's management services in support of the Agency's mission while addressing the challenges included in the President's Management Agenda. Goal Met.		
	Performance Measures:		
	—Offices using workforce planning model which identifies skills and competencies needed by the Agency for strategic recruitment, retention, and development.	10	10
	—Percentage of total eligible service contracting dollars obligated as performance-based in FY2004.	20%	21%
	—The number of financial and resource performance metrics where the Agency has met pre-established Agency or Government-wide performance goals. The inventory of financial performance metrics are found in the Agency's Financial Performance Measures and the Government-wide Performance Metrics. The inventory of resource performance metrics are found in the Senior Resource Official Performance Measures.	46	49
	—Agency audited financial statements are timely, and receive an unqualified opinion.	1	1

FY 2003	Strengthen EPA's management services in support of the Agency's mission while addressing the challenges included in the President's Management Agenda. Goal Not Met.		
	Performance Measures:		
	—Offices using workforce planning model which identifies skills and competencies needed by the Agency for strategic recruitment, retention, and development.	5	5
	—Percentage of total eligible service contracting dollars obligated as performance-based in FY 2003.	30	19
	—Agency audited financial statements are timely, and receive an unqualified opinion.	1	1
FY 2002	EPA strengthens goal-based decision making by developing and issuing timely planning planning and resource management products that meet customer needs. Goal Met.		
	Performance Measures:		
	—Agency's audited financial statements and Annual Report are submitted on time.	3/01/02	3/01/02
	—Agency's audited financial statements receive an unqualified opinion and provide information that is useful and relevant to the Agency and external parties.	1	1

APG ESP-7	Energy Consumption and Reduction	Planned	Actual
FY 2004	By 2004, EPA will achieve a 16% energy reduction from 1990 in its 21 laboratories which is in line to meet the 2005 requirement of a 20% reduction from the 1990 base (this includes Green Power purchases).	16%	17%

Appendix B: Program Evaluations Completed in FY 2005

INTRODUCTION

EPA relies on program evaluations and analyses to inform decisions, design effective strategies, and adjust approaches to improve results. Appendix B lists and summarizes information for each program evaluation completed in FY 2005. It includes evaluations that apply to a specific annual performance goal (APG) (which are also listed under relevant APGs in Section 2 of this report) and broader evaluations that encompass more than one APG. This appendix lists evaluations by goal and objective, and provides information on the evaluator; scope of the evaluation; relevant findings; recommendations; EPA's response; and public access to the evaluation reports.

Goal 1

Evaluation Title: EPA Needs to Fulfill Its Designated Responsibilities to Ensure Effective BioWatch Program.
Evaluator: U.S. EPA, Office of the Inspector General (OIG). Date: March 23, 2005.

Scope of Evaluation: Goal 1, Objective 1.

BioWatch is an early-warning system funded and overseen by the Department of Homeland Security. The EPA is an important partner in the BioWatch program and has a major role in sampling operations. The evaluation sought to answer the following questions:

- What are EPA's designated responsibilities in the BioWatch program?
- How well is EPA implementing its designated responsibilities in the BioWatch program?

Evaluation Findings: The report determined that EPA's responsibilities include monitor deployment, site security, oversight and assessing monitor technology. The report found that EPA needs to be involved in assessing technologies that are more reliable and timely, and reduce costs. Consequence management planning also needs to be built into the program.

Evaluation Recommendations: The OIG recommended that the Assistant Administrator for Air and Radiation should ensure that EPA fulfills all its BioWatch-designated responsibilities, including ensuring quality assurance guidance is adhered to. The OIG also recommended that OAR work with its BioWatch partners to use its air monitoring expertise to identify and test alternative technologies and ensure that EPA is prepared to assist with consequence management plans.

Planned Response: OAR agreed with the report and has begun working with EPA regions to address many of the issues identified.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050323-2005-P-00012.pdf. Report No. 2005-P-00012.

Evaluation Title: Substantial Changes Needed in Implementation and Oversight of Title V Permits if Program Goals are to be Fully Realized.
Evaluator: U.S. EPA, Office of the Inspector General (OIG). Date: March 9, 2005.

Scope of Evaluation: Goal 1, Objective 1.

In 1990 Congress enacted Federal clean air permitting requirements designed to reduce violations and improve enforcement of air pollution laws for the largest sources of air pollution. Known as Title V, this provision requires that all major stationary sources of air pollutants obtain a permit to operate. More than 17,000 sources are subject to Title V permit requirements. The OIG sought to determine

Evaluation Title: Substantial Changes Needed in Implementation and Oversight of Title V Permits if Program Goals are to be Fully Realized.

Evaluator: U.S. EPA, Office of the Inspector General (OIG). Date: March 9, 2005.

Scope of Evaluation (continued):

whether (1) selected Title V permits contained adequate provisions consistent with key Clean Air Act (CAA) requirement; (2) EPA's oversight and guidance contributed to improvements in Title V implementation, and, (3) Title V had achieved its goals of improving the implementation and enforcement of the CAA.

Evaluation Findings: The OIG's analysis identified concerns with five key aspects of Title V permits: permit clarity, statements of basis, monitoring provisions, annual compliance certifications and practical enforceability. Collectively, these problems can hamper the ability of EPA, state and local regulators, and the public to understand what requirements sources of air pollution are subject to, how they will be measured, and ultimately to hold sources accountable for meeting applicable air quality requirements. EPA's oversight and guidance of Title V activities have resulted in some improvements in Title V programs, however areas of further improvement remain. Despite implementation problems, the Title V program has resulted in some significant benefits; the inclusion of all relevant CAA requirements in on e document has enabled stakeholders to obtain the information needed to understand the applicable requirements for major emitting sources and to express their concerns.

Evaluation Recommendations: The OIG made several recommendations for EPA to reduce the factors that negatively impact permit clarity, improve national Title V guidance, actively identify monitoring deficiencies in state implementation plans, and develop a comprehensive Title V oversight strategy.

Planned Response: OAR is expanding the use of our stakeholder workgroup as a means of identifying what is working (and what is not working), to streamline the petition response process where feasible and to develop operating plans that combine oversight with permit reviews and evaluations. We are also working with the Regional Offices on improving the implementation of the Title V program when specific issues arise with a given permitting authority.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050309-2005-P-00010.pdf. Report No. 2005-P-00010.

Evaluation Title: Progress Made in Monitoring Ambient Air Toxics, But Further Improvements Can Increase Effectiveness.

Evaluator: U.S. EPA, Office of the Inspector General (OIG). Date: March 2, 2005.

Scope of Evaluation: Goal 1, Objective 1.

The Clean Air Act identifies 188 air toxics. EPA defines air toxics as "those pollutants that are known or suspected to cause cancer or other serious health effects or adverse environmental effects." EPA's goal is to reduce unacceptable health risks from air toxics for 95% of the population by 2020. Ambient monitoring is important to assess progress towards this goal. The OIG performed this review to evaluate EPA's progress in establishing a national network and determine the status of ambient air toxics monitoring nationwide. A viable ambient monitoring program to detect areas of unhealthy air toxics concentrations and to measure national and local trends in those concentrations is key to assessing progress in reducing air toxics-related health risks.

Evaluation Findings: Since 2000, EPA has significantly increased its ambient air toxics monitoring efforts to establish a national network and support State and local agencies' monitoring activities. Additional effort and improvement is needed to ensure that sufficient ambient air toxics data is available to identify areas of unhealthy ambient air toxics concentrations, identify national air toxics trends, and assess the effectiveness of air toxics reduction strategies. The OIG also highlighted inconsistencies in the sampling frequencies and quality assurance measures for the national trends sites. The OIG identified key barriers to ambient air toxics monitoring as adequacy of funding and lack of methods to monitor certain air toxics.

Evaluation Recommendations: The OIG recommended that with respect to monitoring conducted on a local scale (i.e., certain State and local network monitors and EPA's local project grant program), EPA should develop a strategy—in coordination with State, local and tribal partners—for siting monitors in locations that are estimated to present the greatest health risks from exposure to air toxics. Recommendations were also made to improve the programmatic aspects of the national trends sites, particularly with respect to quality assurance, quality control and data completeness.

Planned Response: The recommendations provided by the OIG generally align with current OAR improvement efforts. Funding remains a key barrier.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050302-2005-P-00008.pdf. Report No. 2005-P-00008.

Evaluation Title: EPA Needs to Direct More Attention, Efforts and Funding to Enhance Its Speciation Monitoring Program for Measuring Fine Particulate Matter.

Evaluator: U.S. EPA, Office of the Inspector General (OIG). **Date:** February 7, 2005.

Scope of Evaluation: Goal 1, Objective 1.

Airborne particulate matter 2.5 microns or less in size (PM2.5) is comprised of a complex mixture of particles composed of sulfate, nitrate, ammonium, organic carbon, elemental carbon, and organic and inorganic compounds. Tens of thousands of premature deaths yearly are associated with exposure to excess levels of PM2.5. By 2010, EPA estimates that compliance with PM2.5 emission control strategies will cost industry more than $37 billion annually. EPA's speciation monitoring network is a critical component in the development of thee control strategies. Determining the chemical make-up of a particle—known as speciation—is largely accomplished through data generated by this network.

The OIG performed an evaluation to determine whether EPA's PM2.5 speciation air monitoring network is sufficient to (a) adequately identify sources of fine particulate matter (PM2.5) and (b) facilitate the development of effective control strategies to reduce PM2.5 to safe levels.

Evaluation Findings: EPA has made substantial progress in establishing a speciation monitoring network to facilitate the development of PM2.5 control strategies but still faces a number of challenges in ensuring that the controls are directed at the right sources. Although the speciation network provides information for understanding the make-up and origin of PM2.5, the network does not fully assist in providing the data for EPA and States to identify or quantify the chemical make-up of PM2.5 particles, reliably trace particles back to their source, or account for chemical changes that occur after particles are released into the atmosphere. Speciation data are available to begin working on control strategies and EPA and the States are beginning the development of control strategies; however, increased monitoring efforts are needed.

Evaluation Recommendations: The OIG recommended that OAR increase its research on technologies that can more fully identify the chemical make-up of PM2.5, account for the atmospheric impacts on PM2.5, and assay the resultant changes that occur to the composition of the particle. This includes increasing opportunities for cooperation with the private sector to develop improved continuous speciation monitors.

Planned Response: EPA disagrees with the OIG's conclusions regarding the sufficiency of currently available speciation data to "fully" develop effective control strategies. Nevertheless, EPA recognizes that improvements are clearly needed in our current inventory, monitoring and modeling programs to further improve the efficiency and credibility of control strategies. We will consider the OIG final recommendations along with recommendations from the Clean Air Act Advisory Committee Air Quality Management review, and related recommendations received on an ongoing basis from the Clean Air Scientific Advisory Committee's subcommittee on ambient air monitoring and methods.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050207-2005-P-00004.pdf. Report No. 2005-P-00004.

Evaluation Title: Gasoline Markets: Special Gasoline Blends Reduce Emissions and Improve Air Quality, but Complicate Supply and Contribute to Higher Prices.

Evaluator: U.S. Government Accountability Office (GAO). **Date:** June 2005.

Scope of Evaluation: Goal 1, Objective 1.

The Clean Air Act, as amended, requires some areas with especially poor air quality to use a "special gasoline blend" designed to reduce emissions of volatile organic compounds (VOC) and nitrogen oxides (NOx) and requiring the use of an oxygenate such as ethanol. In less severely polluted areas, the Act allows states, with EPA approval, to require the use of other special blends as part of their effort meet air quality standards. GAO reviewed the following: (1) To what extent are special gasoline blends used in the United States and how, if at all, is this use expected to change in the future? (2) What effect has the use of these blends had on reducing vehicle emissions and improving overall air quality? (3) What is the effect of these blends on the gasoline supply? (4) How do these blends affect gasoline prices?

Evaluation Findings: GAO found 11 distinct special blends in use during the summer of 2004. Further, when different octane grades and other factors are considered, there were at least 45 different kinds of gasoline produced in the United States during all of 2004. To date, EPA has generally approved such applications and does not have authority to deny an application to use a specific special blend as long as that blend meets criteria established in the CAA. EPA models show that use of special gasoline blends reduces vehicle emissions by varying degrees. Regarding air quality, EPA and others have concluded that improvements are, in part, attributable to the use of special blends.

Evaluation Title: Gasoline Markets: Special Gasoline Blends Reduce Emissions and Improve Air Quality, but Complicate Supply and Contribute to Higher Prices (continued).

Evaluator: U.S. Government Accountability Office (GAO). **Date:** June 2005.

Evaluation Findings (continued):

The proliferation of special gasoline blends has put stress on the gasoline supply system and raised costs, affecting operations at refineries, pipelines, and storage terminals. There is general consensus that increased complexity, and higher costs associated with supplying special blends, contribute to higher gasoline prices either because of more frequent or severe supply disruptions or because higher costs are likely passed on at least in part to consumers.

Evaluation Recommendations: GAO recommended that EPA, with DOE and others, develop a plan to balance the environmental benefits of using special fuels with the impacts of these fuels on the gasoline supply infrastructure. GAO also recommended that EPA work with other agencies to identify what statutory or other changes are required to implement this plan and request those authorities from Congress.

Planned Response: EPA does not have any comment on these findings.

Public Access: Report available at: http://www.gao.gov/newitems/d05421.pdf. Report No. GAO-05-421.

Evaluation Title: Additional Analyses of Mercury Emissions Needed Before EPA Finalizes Rules for Coal-Fired Electric Utilities.

Evaluator: U.S. EPA, Office of the Inspector General (OIG). **Date:** February 3, 2005.

Scope of Evaluation: Goal 1, Objective 1.

On January 30, 2004, EPA proposed rules for regulating mercury emissions from coal-fired steam generating electric utility units. EPA proposed two options for controlling mercury emissions, one a control technology standard with emission limits and the other a performance based cap-and-trade approach. Members of the Senate Environment and Public Works Committee requested that we review EPA's development of its proposed rule for controlling mercury emissions from coal-fired electric utilities.

Evaluation Findings: The OIG evaluation was conducted and completed before the Agency had completed the rulemaking process. The observations and characterizations about the process reflect the status of the rulemaking process at the time we completed our review.

Evaluation Recommendations: The OIG recommended that EPA reanalyze mercury emissions data collected and conduct a revised cost-benefit analysis for the updated MACT that takes into account the impact of mercury co-benefits through the proposed CAIR. The OIG also recommended that the Agency strengthen its cap-and-trade proposal. Further, the OIG also recommended that the Agency conduct an integrated analysis with respect to whether emissions reductions under either of these proposals are the most child-protective, timely, and cost-effective.

Planned Response: EPA promulgated the mercury rule on March 15, 2005. Earlier that month, EPA promulgated the Clean Air Interstate Rule.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050203-2005-P-00003.pdf.

Evaluation Title: Clean Air Act: Observations on EPA's Cost-Benefit Analysis of its Mercury Control Options.

Evaluator: U.S. Government Accountability Office (GAO). **Date:** February 2005.

Scope of Evaluation: Goal 1, Objective 1.

On January 30, 2004, EPA proposed rules for regulating mercury emissions from coal-fired steam generating electric utility units. EPA proposed two options for controlling mercury emissions, one a control technology standard with emission limits and the other a performance based cap-and-trade approach. EPA is directed by statute and executive order to analyze the costs and benefits of proposed rules, and the Agency summarized its analysis underlying the two options in the proposal. In this context, GAO was asked to assess the usefulness of EPA's economic analysis for decision making.

Evaluation Findings: GAO identified four major shortcomings in the economic analysis underlying EPA's proposed mercury control options:

Evaluation Title: Clean Air Act: Observations on EPA's Cost-Benefit Analysis of its Mercury Control Options (continued).

Evaluator: U.S. Government Accountability Office (GAO). Date: February 2005.

Evaluation Findings (continued):

- the Agency did not consistently analyze the options or provide an estimate of the total costs and benefits of each option;
- EPA did not document some of its analysis or provide information on how changes in the proposed level of mercury control would affect the cost-and-benefit estimates for the technology-based option, as it did for the cap-and-trade option;
- EPA did not estimate the value of the health benefits directly related to decreased mercury emissions and instead estimated only some secondary benefits; and,
- EPA did not analyze some of the key uncertainties underlying its cost-and benefit estimates.

Evaluation Recommendations: GAO recommended that as the Agency revises its economic analysis prior to selecting a mercury control option, the EPA Administrator take the following actions:

- analyze and fully document the economic effects of each policy option by itself, as well as in combination with the interstate rule, over their full implementation periods;
- ensure that the Agency documents its analysis supporting the final rule and consistently analyzes the effect that different levels of mercury control would have on cost-and-benefit estimates under each policy option;
- include monetary estimates, where possible, of the human health benefits of reductions in mercury emissions from power plants or, at a minimum, provide qualitative information on how these benefits are likely to compare under the two options over a consistent time frame, reflecting full implementation of both options; and, further
- analyze uncertainties surrounding estimates of costs and benefits, as directed by OMB guidance, and evaluate how these uncertainties could affect overall estimates of the rule's impacts.

Planned Response: Prior to issuing the final mercury regulation on March 15, 2005 EPA conducted additional analyses that largely addressed the findings and recommendations identified in this report.

Public Access: Report available at: http://www.gao.gov/newitems/d05252.pdf. Report No. GAO-05-252.

Evaluation Title: Clean Air Act: Emerging Mercury Control Technologies Have Shown Promising Results, but Data on Long-Term Performance are Limited.

Evaluator: U.S. Government Accountability Office (GAO). Date: May 2005.

Scope of Evaluation: Goal 1, Objective 1.

In March 2005, EPA issued a rule that will limit emissions of mercury from coal-fired power plants, the nation's largest industrial source of mercury emissions. Under the rule, mercury emissions are to be reduced from a base of 48 tons per year to 38 tons in 2010 and to 15 tons in 2018. In the rule, EPA set the emissions target for 2010 based on the level of reductions achievable with technologies for controlling other pollutants—which also capture some mercury—because it believed emerging mercury controls had not been adequately demonstrated. EPA and the Department of Energy (DOE) coordinate research on mercury controls. In this context, GAO was asked to: describe the use, availability, and effectiveness of technologies to reduce mercury emissions at power plants; and, identify the factors that influence the cost of these technologies and report on available cost estimates. In completing the review, GAO did not independently test mercury controls.

Evaluation Findings: Mercury controls have not been permanently installed at power plants because, prior to the March 2005 mercury rule, federal law had not required this industry to control mercury emissions; however, some technologies are available for purchase and have shown promising results in field tests. Long-term test data are limited because most tests at power plants during normal operations have lasted less than three months. The cost of mercury controls depends on several site-specific factors such as the ability of existing air pollution controls to remove mercury. As a result, the available cost estimates vary widely.

Evaluation Recommendations: N/A

Planned Response: N/A

Public Access: Report available at: http://www.gao.gov/newitems/d05612.pdf. Report No. GAO-05-612.

Evaluation Title: Environmental Justice: EPA Should Devote More Attention to Environmental Justice When Developing Clean Air Rules.

Evaluator: U.S. Government Accountability Office (GAO). Date: July 2005.

Scope of Evaluation: Goal 1, Objective 1.

Executive Order 12898 made achieving "environmental justice" part of the mission of EPA and other federal agencies. According to EPA, environmental justice involves fair treatment of people of all races, cultures and incomes. EPA developed guidance for considering environmental justice in the development of rules under the Clean Air Act and other activities. GAO was asked to examine how EPA considered environmental justice during two phases of developing clean air rules: (1) drafting the rule, including activities of the workgroup that considered regulatory option the economic review of the rule's costs, and making the proposed rule available for public comment, and (2) finalizing the rule, including addressing public comments and revising the economic review. GAO reviewed: the rule to reduce sulfur in gasoline; the rule to reduce sulfur in diesel fuel; and the ozone implementation rule.

Evaluation Findings: GAO found that when drafting the three clean air rules, EPA generally devoted little attention to environmental justice. While EPA guidance on rulemaking states that workgroups should consider environmental justice early in this process, GAO found that a lack of guidance and training for workgroup members on identifying environmental justice issues may have limited their ability to identify such issues. GAO also indicated that while EPA officials stated that economic reviews of proposed rules consider potential environmental justice impacts, the gasoline and diesel rules did not provide decision makers with environmental justice analyses, and EPA has not identified all the types of data necessary to analyze such impacts. Finally in all three rules, EPA mentioned environmental justice when they were proposed but the discussion in the ozone implementation rule was contradictory.

Evaluation Recommendations: GAO recommends that EPA improve workgroups' ability to identify environmental justice issues and enhance the ability of its economic review to analyze potential environmental justice impacts.

Planned Response: EPA disagrees with the recommendations and believes it pays appropriate attention to environmental justice. The report does not accurately reflect the progress we are making in achieving environmental justice with respect to air pollution; nor does it accurately reflect the way in which the three final rules GAO reviewed, and EPA's development of them, address environmental justice issues.

Public Access: Report available at: http://www.gao.gov/cgi-bin/getrept?GAO-05-289.

Evaluation Title: Managerial and Scientific Review of the Particulate Matter (PM) / Ozone (Oz) Program.

Evaluator: U. S. EPA, Office of Research and Development, Board of Scientific Counselors (BOSC). Date: August 2005.

Scope of Evaluation: Goal 1, Objective 6.

In preparation for the OMB Program Analysis Rating Tool (PART) review of the PM/Oz Program, ORD elected to seek review of program management and science by an independent panel of experts. The ORD PM/Oz Program is valued at approximately $70M with research support to intramural and academic scientists targeting protection from the health impacts of air pollution on the US public. The research encompasses investigation of health impacts, exposure issues, atmospheric sciences, emission characterizations, as well as methods and programs to control and mitigate air pollution and health outcomes. The Program is managed by ORD. The BOSC review focused on program organization progress, and achievement of outcome objectives which includes not only internal coordination but coordination with clients in OAR, states, regions and tribes who rely on the science to design and implement regulatory programs to minimize health and ecological impacts of air pollution.

Evaluation Findings: Overall science in both the intramural and extramural research laboratories was judged to be of high quality in terms of (1) academic scholarship and scientific publications; (2) credentials of the participating scientists; (3) its integrated and outcome oriented program design; and (4) its role in building a knowledge and information database. The Program was deemed to conduct a highly integrated program across all elements and disciplines that in design and communication address stakeholder and OAR client needs. Extramural research is coordinated to meet needs not met intramurally and is conducted through a merit based process.

Evaluation Recommendations: Editorial changes were offered to refine restructured long term goals to better meet outcome targets especially in the context of source to health outcome paradigm. It was also recommended that a periodic formalized process be established for assessing primary stakeholder satisfaction and outcome perceptions. Additionally, it was recommended that a methodology (including expert panel consultation) be developed to define baseline of uncertainty and to clarify the cost-effectiveness of regulatory actions.

Planned Response: ORD is expanding the use of evaluative tools including annual expert review of program process, bibliographic analysis for product quality and utility, and stakeholder satisfaction. Expanded efforts will be initiated in intramural and extramural program communication especially with stakeholders (regions, states and tribes).

Public Access: Report available at: http://www.epa.gov/osp/bosc/subcomm-pm.htm.

Goal 2

Evaluation Title: District of Columbia's Drinking Water: Agencies Have Improved Coordination, but Key Challenges Remain in Protecting the Public from Elevated Lead Levels.

Evaluator: U.S. Government Accountability Office (GAO). Date: March 31, 2005.

Scope of Evaluation: Goal 2, Objective 1.

The purpose of the study was to evaluate how agencies in the District of Columbia are (1) implementing the Lead and Copper Rule, and (2) working to better coordinate efforts to reduce lead levels. The report also collected information on public education efforts in other communities and looked at the state of research on lead exposure and how it applies to drinking water.

Evaluation Findings: GAO found that the agencies overseeing drinking water quality in the District have improved their coordination, but that significant challenges remained. The report described methods that utilities across the nation use in carrying out activities required when they exceed the action level—including lead service line replacement and public education. The report also found that there was a limited amount of research evaluating the health effects from exposure to low levels of lead in drinking water.

Evaluation Recommendations: GAO is recommending that EPA (1) identify and publish best practices that water systems are using to educate their customers about lead in drinking water, and (2) develop a strategy for closing information gaps in the health effects of lead in drinking water.

Planned Response: In addition to distributing and promoting use of our existing Public Education guidance, EPA will work with states and water utility associations to identify best practices for public education and disseminate them to a wide audience. The Agency is also developing a health advisory that should help inform the discussion and a paper that will summarize toxicokinetic research published since the rule was issued in 1991.

Public Access: Report available at: http://www.gao.gov. Report No. GAO-05-344.

Evaluation Title: Progress Report on Drinking Water Protection Efforts.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). Date: August 22, 2005.

Scope of Evaluation: Goal 2, Objective 1.

This evaluation sought to determine the progress made by EPA and its partners to address Congress' intended goal in the 1990 Safe Drinking Water Act (SDWA) Amendments to protect drinking water from contamination.

Evaluation Findings:

- Progress has been made towards implementing SDWA provisions.
- Challenges remain regarding implementation.
- Current performance measures leave extent of progress uncertain.

Evaluation Recommendations:

- EPA needs to identify methods to improve the Consumer Confidence Report.
- EPA should continue to develop measures for individual SDWA provisions.

Planned Response: EPA's Office of Water, in its response to the draft report, agreed that Consumer Confidence Reports can improve communication with consumers. EPA is convening a working group to the NDWAC to evaluate public information requirements under the SDWA. It is expected that efforts carried out by this working group will also help the Agency develop information to improve CCRs.

Public Access: Report available at: www.epa.gov/oig/reports/2005/20050822-2005-P-00021.pdf. Report No. 2005-P-00021.

Evaluation Title: Source Water Assessment and Protection Programs Show Initial Promise, But Obstacles Remain.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** March 28, 2005.

Scope of Evaluation: Goal 2, Objective 1.

This evaluation sought to determine the progress made by EPA and its partners to address Congress' intended goal in the 1990 Safe Drinking Water Act (SDWA) Amendments to protect drinking water from contamination.

Evaluation Findings:

- States are making progress on assessments and protection, though several obstacles have been identified that hinder States' efforts to protect source water.
- Source water assessments are valuable to the public, but use and accessibility are limited.
- Substantial obstacles faced, but opportunities to overcome exist.

Evaluation Recommendations:

- Issue a public statement to re-affirm that the source water assessment and protection programs are a priority for EPA.
- Encourage States to target assessments not only to utilities, but also to local governments, councils, planners, building and zoning officials, and other stakeholders.
- Provide guidance to states on how to leverage financial and technical resources from other EPA programs, partners, and stakeholders.
- Continue to improve cooperation and coordination between states and EPA assistance contractors.
- Work with regions and states to: (1) integrate environmental programs, and (2) determine how best to disseminate locally-applicable best practices for contaminant source management and motivation.

Planned Response: EPA's Office of Water, in its response to the draft report (March 4, 2005), agreed that source water assessments have the potential to improve drinking water protection, while acknowledging that the assessment content, utility, and availability can be improved. EPA also agreed that moving from assessment to voluntary protection will require substantial effort, including state and local capacity building, environmental program integration, and inter-agency coordination.

Public Access: Report available at: www.epa.gov/oig/reports/2005/20050328-2005-P-00013.pdf. Report No. 2005-P-00013.

Evaluation Title: EPA Needs to Determine What Barriers Prevent Water Systems from Securing Known Supervisory Control and Data Acquisition (SCADA) Vulnerabilities.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** January 6, 2005

Scope of Evaluation: Goal 2, Objective 1.

Federal Directives highlighted the need to secure cyberspace, including SCADA, from terrorists and other malicious actors, and stated that securing SCADA is a national priority. We learned from stakeholder contacts that utilities may require assistance in order to secure their SCADA system vulnerabilities.

Evaluation Findings: OIG reported:

SCADA networks were developed with little attention paid to security. Some areas and examples of possible SCADA vulnerabilities include operator errors and corruption, unsecured electronic communications, hardware and software limitations, physical security weaknesses, natural disasters, poorly written software, and poor security administration.

Through preliminary research, we found several possible reasons why utilities have not successfully reduced or mitigated identified vulnerabilities: current technological limitations may impede implementing security measures; companies may not be able to afford or justify the required investment; utilities may not be able to conduct background checks on existing employees; officials may not permit SCADA penetration testing; and, technical engineers may have difficulty communicating security needs to management.

Evaluation Recommendations (if applicable): OIG recommended:

- EPA should identify impediments preventing water systems from successfully reducing or mitigating SCADA vulnerabilities and take steps to reduce those impediments.

Evaluation Title: EPA Needs to Determine What Barriers Prevent Water Systems from Securing Known Supervisory Control and Data Acquisition (SCADA) Vulnerabilities (continued).

Evaluator: U. S. EPA, Office of the Inspector General (OIG). Date: January 6, 2005

Evaluation Recommendations (continued):

- If EPA identifies a problem with no apparent solution, the Agency should communicate this problem to the Department of Homeland Security, Congress, and others as appropriate.
- EPA should develop SCADA security measures to track the effectiveness of security efforts.

Planned response: We suspended our SCADA project because EPA agreed to incorporate our concerns into an Agency SCADA project. At EPA's request, we briefed the Agency on our preliminary research and prepared this briefing report.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050106-2005-P-00002.pdf.

Evaluation Title: Efforts to Manage Backlog of Water Discharge Permits Need to be Accompanied by Greater Program Integration.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). Date: June 13, 2005

Scope of Evaluation: Goal 2, Objective 2.

The purpose of this evaluation was to determine:

- How successful EPA and States have been in eliminating the backlog.
- The potential environmental impact of the backlog.
- How well measures reflect environmental impacts.

Evaluation Findings: EPA and states have taken various actions to eliminate the NPDES permit backlog, but can do more to address continuing and anticipated challenges. Because the NPDES permit program is not the only program involved with improving surface water quality, eliminating the backlog alone may not have a significant impact on improving national water quality. EPA and states need to balance efforts to eliminate the backlog with other efforts to improve water quality. Further, EPA needs to ensure that its efforts to reduce the backlog do not result in it quickly reissuing permits that are not as effective as they should be to improve water quality. Also, EPA needs to improve its reporting of the GPRA backlog measure.

Evaluation Recommendations: EPA needs to build on the steps already initiated to reduce the NPDES permit backlog. EPA needs to take various steps to integrate the NPDES permit program with other point source programs that support the permit program. This would include creating a system for assessing the effectiveness and efficiency of its efforts related to clean water. EPA also needs to continue making improvements related to its measures, such as providing appropriate baselines. The OIG encourages EPA to continue refining the "Permitting for Environmental Results" Strategy to reduce the NPDES backlog and in general to improve the quality of the Nation's water bodies.

Planned Response: EPA is currently finalizing its response to incorporate the recommendations into the overall NPDES program.

Public Access: Report available at: http://www.epa.gov/evaluate/reports.htmf. Report No. 2005-P-00018.

Evaluation Title: Storm Water Pollution: Information Needed on the Implications of Permitting Oil and Gas Construction Activities.

Evaluator: U. S. Government Accountability Office (GAO). Date: February 2005

Scope of Evaluation: Goal 2, Objective 2.

GAO asked EPA to provide information about oil and gas construction activities—such as well drilling and pipeline construction—affected by Phase I and likely to be affected by Phase II, as well as Phase II's financial and environmental implications.

Evaluation Findings: A small fraction of total oil and gas construction activities have been permitted under Phase I of EPA's storm water program. Industry has sought to have its drilling activities permitted on few occasions because it has determined that most drilling activity involves distinct projects that disturb less than five acres each. In states reviewed, there were few reported compliance problems associated with oil and gas construction activities. The oil and gas construction activities affected by the rule may lead to increased financial costs

Evaluation Title: Storm Water Pollution: Information Needed on the Implications of Permitting Oil and Gas Construction Activities (continued).

Evaluator: U. S. Government Accountability Office (GAO). **Date:** February 2005

for the oil and gas industry and federal agencies implementing the rule. Many of the potential costs stem from meeting permit requirements to review the impact of construction activities on endangered species, although this impact would be site specific and difficult to quantify. Potentially offsetting these costs, the rule may lead to additional environmental protections that are difficult to quantify, such as decreased levels of sediment in water and benefits for endangered species and their habitat. After delaying implementation of this rule for oil and gas construction activities for 2 years to study the impact of Phase II, EPA is analyzing the impact but, as yet, has not quantified the number of activities affected or the potential financial and environmental implications.

Evaluation Recommendations: GAO recommends that EPA's Administrator complete the Agency's analysis of the Phase II program before making a final decision on its implementation.

Planned Response: In reviewing the GAO draft report, EPA agreed with the recommendation. EPA subsequently proposed an extension for the Phase II deadline for small oil and gas activities until June 2006 to allow time to complete its analysis. Subsequently, Congress passed a rider in the FY2006 energy bill exempting oil and gas construction from NPDES permitting requirements.

Public Access: Report available at: http://www.gao.gov/new.items/d05240.pdf. GAO-05-240

Evaluation Title: Audit Report: Region 10's Grant for Alaska Village Safe Water Program Did Not Meet EPA Guidelines.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** June 16, 2005

Scope of Evaluation: Goal 2, Objective 2.

The purpose of this audit was to follow up to a prior audit on the Alaska Village Safe Water Program. The OIG sought to answer "Did EPA Region 10 meet EPA guidelines before awarding the program grant of $34 million in 2004"?

Evaluation Findings:

- There is a lack of grants oversight by EPA Region 10. The Region did not follow grants guidance nor conduct adequate post-award monitoring.
- There is no ability to determine whether objectives are being met or to quantify benefits achieved. There was no development of program goals, objectives or measures.
- Original audit was conducted in September 2004.

Evaluation Recommendations:

- Establish controls to ensure that Region 10 fulfills all EPA requirements before awarding grants.
- Suspend work under Grant No. XP-970847-01 until the state prepares a complete application and Region 10 adequately completes its review process following all EPA requirements.
- Ensure that a revised or reinstated award clearly addresses ineligible projects and administrative cost issues, and directly addresses compliance with the federal cost principles in OMF Circular A-87 and the statutory limits on administrative costs.
- Place the state on a reimbursement payment basis, in accordance with 40 CFR 31.12, until EPA has verified that the State's cash management system fully complies with the requirements of 40 CFR 31.21 (b).

Planned Response:

- Costs reviews were not performed prior to the award of the FY 2004 grant. Costs reviews will be performed prior to the award for the FY 2005 grant.
- EPA does not believe that sufficient justification exists to suspend work under Grant No. XP-970847-01 at this time. The Agency believes that the application is complete as it contains environmental outcomes that directly support the EPA 2003-2008 Strategic Plan and that have been accepted by the OMB PART review process.
- The Region will revise the FY 2004 award to incorporate the results of the completed cost review and define the administrative costs for the July 1, 2004 to June 31, 2005 time frame.
- The Region will modify the grant terms to indicate that the state will meet the U.S. Treasury cash management requirements.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050616-2005-P-00015.pdf.

Goal 3

Evaluation Title: Evaluation of the Interagency Open Dump Cleanup Project for Tribes.

Evaluator: U.S. EPA, Office of Policy, Economics and Innovation. **Date:** December 2004

Scope of Evaluation: Goal 3, Objective 1.

The evaluation was designed to determine to what extent:

- The Cleanup Project has resulted in the cleanup, closure, or prevention of open dumps.
- Workgroup funds have contributed to the development of sustainable SWM programs.
- There has been a recurrence of open dumping in the Project-affected lands.
- Administrative issues affect the Workgroup's ability to achieve its goals.

Evaluation Findings:

- Tribes are making steady progress in the cleanup and closure of existing open dumps and are building solid waste management capacity.
- Building SWM capacity requires supportive tribal council, outreach, and community involvement.
- Tribes experience difficulty eliminating illegal dumping, due to distance to compliant facilities, lack of adequate roadways, individual household costs, and insufficient outreach.

Evaluation Recommendations: The Interagency Workgroup should consider:

- developing Workgroup Performance Measures that Inform Funding Priorities.
- developing Uniform Reporting Mechanisms to Record Progress.
- adopting Flexible Funding Approach in Considering Tribal Needs.
- supporting Tribal Efforts to Inventory and Map Open Dumps.
- offering More Opportunities for Tribal Networking.
- developing and Publicize Tribal Case Studies.
- developing "Smart" Funding Process to Reduce Administrative Burden.

Planned Response:

- Develop performance measures on projects.
- Conduct training session at NTCEM conference in 6/05 and RCAP meeting in 8/05.
- Publish case studies through Tribal Journal and OSW's tribal website.
- Improve the accuracy and completeness of open dump inventory.
- Incorporate remaining evaluation recommendations at Interagency Workgroup meetings.
- Increase interaction and coordination among Federal Agencies.

Public Access: Report available at: http://www.epa.gov/evaluate/tribecleanup_20050218.pdf.

Evaluation Title: An Assessment of EPA's Policies for Streamlining Federal Facility Cleanups.

Evaluator: U.S. EPA, Federal Facilities Restoration and Reuse Office. **Date:** May 2005

Scope of Evaluation: Goal 3, Objective 2.

The purpose of this evaluation was to determine how innovations found in streamlining and cleanup acceleration policies issued in the late 1990s have been implemented at federal hazardous waste sites and identify areas for improvement in the development of future policies.

Evaluation Findings: The policies evaluated contributed to improving the overall process by which stakeholders collaborate, plan, and resolve issues at federal facilities. The issuance of the policies elevated the importance of streamlining and spurred wider application of

Evaluation Title: An Assessment of EPA's Policies for Streamlining Federal Facility Cleanups (continued).

Evaluator: U.S. EPA, Federal Facilities Restoration and Reuse Office. Date: May 2005

Evaluation Findings (continued):

streamlining principles and innovative techniques. EPA's culture and openness to innovation is just as important as any current streamlining policy which helps to facilitate application of these approaches.

Evaluation Recommendations: Eight recommendations resulted from the evaluation: 1) develop measurable streamlining goals and performance metrics, 2) incorporate EPA oversight priorities in performance based contracts issued by other federal agencies, 3) consolidate EPA streamlining policies, 4) develop facility exit strategies, 5) develop applied guidance and training for EPA regional personnel, 6) amend interagency agreements to reflect evolving situations at federal facilities, 7) continue to explore the potential benefits of new presumptive remedies, and 8) identify and mitigate organizational barriers and concerns at the earliest stages.

Planned Response: The Superfund Federal Facilities Response Program is developing an action plan to address the recommendations which resulted from the evaluation.

Public Access: Report available by contacting Tracey Seymour (OSWER Federal Facilities Restoration and Reuse Office) at (703) 603-0048.

Evaluation Title: EPA Practices for Identifying and Inventorying Hazardous Sites Could Assist in Similar Department of the Interior Efforts.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). Date: August 22, 2005

Scope of Evaluation: Goal 3, Objective 2.

The purpose of this evaluation was to identify relevant promising EPA practices for the Department of Interior to consider improving its processes with respect to hazardous waste sites.

Evaluation Findings: Several EPA practices could be used by DOI to ensure DOI addresses its highest priority sites first.

Evaluation Recommendations: N/A

Planned Response: N/A

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050822-2005-P-00020.pdf.

Evaluation Title: An Internal Review of Procedures for Community Involvement in Superfund Risk Assessments.

Evaluator: U.S. EPA, Office of Superfund Remediation and Technology Innovation. Date: March 2005

Scope of Evaluation: Goal 3, Objective 2.

The purpose of this evaluation was to determine:

- Effective approaches for involving communities in the risk assessment process,
- What EPA and the community have gained from involving communities in the risk assessment process, and
- If increasing public understanding of risk assessment has impact or increases public confidence in EPA's decisions.

Evaluation Findings:

- The factors influencing community involvement include proximity to the site; impact of contamination on property values; parental concerns; and media attention to the site.
- By involving community members in the risk assessment, the EPA often receives more complete information on a site's history, exposure pathways, and contamination sources and amounts; in addition it helps build confidence in EPA.
- Access to technical support makes a significant difference in the community's ability to understand and contribute to the risk assessment process.

Evaluation Title: An Internal Review of Procedures for Community Involvement in Superfund Risk Assessments (continued).

Evaluator: U.S. EPA, Office of Superfund Remediation and Technology Innovation. Date: March 2005

Evaluation Recommendations:

- Provide training for Superfund personnel on effective community involvement as well as risk communication.
- Promote and implement existing tools to formalize community involvement in the risk assessment process.
- Encourage remedial project managers to work closely with community involvement coordinators and risk assessors earlier in the Superfund process.

Planned Response: Review findings with an internal focus group to:

- Identify realistic short-term and long term goals.
- Set priorities for training and improving tools.
- Determine if further research/review is needed.

Public Access: Report available at: http://www.epa.gov/evaluate/cira_20041013.pdf.

Evaluation Title: Improved Effectiveness of Controls at Sites Could Better Protect the Public.

Evaluator: U. S. Government Accountability Office (GAO). Date: January 2005

Scope of Evaluation: Goal 3, Objective 2.

GAO was asked by Congress to review the extent to which (1) institutional controls are used at Superfund and RCRA sites and (2) EPA ensures that these controls are implemented, monitored, and enforced. GAO also reviewed EPA's challenges in implementing control tracking systems. To address these issues, GAO examined the use, implementation, monitoring, and enforcement of controls at a sample of 268 sites.

Evaluation Findings:

- Institutional controls were applied at most of the Superfund and RCRA sites GAO examined where waste was left in place after cleanup, but documentation of remedy decisions often did not discuss key factors called for in EPA's guidance.
- EPA faces significant challenges in ensuring that institutional controls are adequately implemented, monitored, and enforced.
- Institutional controls at the Superfund sites GAO reviewed were often not implemented before the cleanup was completed.
- EPA's monitoring of Superfund sites where cleanup has been completed but residual contamination remains often does not include verification that institutional controls are in place.
- EPA may have difficulties ensuring that the terms of institutional controls can be enforced at some Superfund and RCRA sites: that is, some controls are informational in nature and do not legally limit or restrict use of the property, and, in some cases, state laws may limit the options available to enforce institutional controls.
- To improve its ability to ensure the long-term effectiveness of institutional controls, EPA has begun implementing institutional control tracking systems for its Superfund and RCRA corrective action programs. The agency, however, faces significant obstacles in implementing such systems. The institutional control tracking systems being implemented track only minimal information on the institutional controls. Moreover, as currently configured, the systems do not include information on long-term monitoring or enforcement of the controls. In addition, the tracking systems include data essentially derived from file reviews, which may or may not reflect institutional controls as actually implemented.
- While EPA has plans to improve the data quality for the Superfund tracking system--ensuring that the data accurately reflects institutional controls as implemented and adding information on monitoring and enforcement--the first step, data verification, could take 5 years to complete.

Evaluation Recommendations: To ensure the long-term effectiveness of institutional controls, GAO recommended that EPA;

- clarify its guidance on when controls should be used;
- demonstrate that, in selecting controls, sufficient consideration was given to all key factors;
- ensure that the frequency and scope of monitoring efforts are sufficient to maintain the effectiveness of controls; and

Evaluation Title: Improved Effectiveness of Controls at Sites Could Better Protect the Public (continued).

Evaluator: U. S. Government Accountability Office (GAO). **Date:** January 2005

Evaluation Recommendations (continued):

- ensure that the information on controls reported in new tracking systems accurately reflects actual conditions.

Planned Response: EPA concurs with GAO's recommendations and has undertaken a number of activities to address GAO's recommendations, including: developing several guidances, conducting trainings and outreach, identifying and developing new IC tools, conducting detailed evaluations on the implementation, monitoring and enforcement of ICs, development of a National IC Strategy for the Superfund Program and Regional work plans.

Public Access: Report available at: http://www.gao.gov/new.items/d05163.pdf.

Evaluation Title: Evaluation of Three RCRA Regulations Designed to Foster Increased Recycling.

Evaluator: Industrial Economics, Inc. for U. S. EPA, Office of Planning Analysis and Accountability, U.S. EPA Office of Policy Economics and Innovation, and U.S. EPA Office of Solid Waste. **Date:** November 2004

Scope of Evaluation: Goal 3, Objective 1.

The evaluation examined the degree to which states and regulated entities were aware of three regulatory exclusions promulgated to allow more flexibility in the management of certain hazardous wastes under the Resource Conservation and Recovery Act (RCRA). The evaluation examined the extent to which these three rules have led to changes in waste management practices including an increase in recycling rates, factors that may have contributed to any observed changes, and impacts on natural resource conservation. The three exclusions examined were the 1995 universal waste rule for Ni-Cd batteries, the 1998 oil-bearing hazardous secondary materials and recovered oil rule, and the 2000 180-day accumulation time rule for recycled electroplating sludges.

Evaluation Findings:

- Recycling increased in the case of the universal waste rule and the exclusion for oil-bearing secondary materials, but not significantly in the case of the F006 180-day rule;
- Rule changes will have the greatest impact when the infrastructure and capacity to recycle are in place prior to the regulations. For example, the universal waste rule facilitated existing recycling programs and the oil-bearing hazardous secondary materials rule encouraged transfers to facilities that were already recycling.

Evaluation Recommendations:

- EPA needs better information on state adoption and authorization activities;
- EPA needs better data to assess impacts of existing rules and predict impacts of new ones;
- It is important to consider unexpected results (e.g., air or waste water issues) from increased recycling;
- EPA should utilize opportunities where rule changes can leverage existing recycling infrastructure programs.

Planned Response:

The report and its findings are being used:

- To better understand the regulatory and non-regulatory factors that influence whether hazardous waste is recycled or disposed of;
- To inform current regulatory efforts in the area of hazardous waste recycling, including revisions to the broadly applicable Definition of Solid Waste and other more targeted recycling regulations;
- To identify opportunities for better data collection on hazardous waste recycling;
- To examine OSW's outreach and communication efforts to both co-regulators and the regulated community regarding hazardous waste recycling regulations;
- To help prioritize future efforts to increase hazardous waste recycling.

Public Access: Report available at: http://www.epa.gov/evaluate/reports.htm.

Evaluation Title: EPA Can Better Manage Superfund Resources.

Evaluator: US EPA, Office of Inspector General. **Date:** November 2005

Scope of Evaluation: Goal 3, Objective 2.

The purpose of this evaluation was to:

- Evaluate Superfund expenditures at headquarters and the regions.
- Recommend options for increasing resources directed to extramural cleanup while minimizing administrative costs.

Evaluation Findings:

- EPA faces significant challenges in managing Superfund administrative and programmatic costs towards the goal of optimizing their proper balance and alignment with program needs.
- EPA offices do not have agreed-upon definition for administrative costs or use activity-based costing to management Superfund administrative resources.
- EPA's outdated workload model and its decentralized management hinder comprehensive Superfund resource management.
- EPA does not take advantage of opportunities to benefit from research and recommendations to improve Superfund program efficiency and effectiveness because it lacks an effective system and an accountable entity to solicit, analyze, evaluate, and incorporate research and recommendations into the program.

Evaluation Recommendations:

- Evaluate OIG options for providing more funds for Superfund cleanups.
- Improve accounting for Superfund costs.
- Redirect some funds to determine health risks at sites.
- Improve accountability for achieving efficiency and effectiveness improvements in the program.

Planned Response: EPA is currently working on an implementation plan to take action on OIG recommendations.

Public Access: Report available at: http://www.epa.gov/oig/publications.htm.

Evaluation Title: Response Action Contracts: Structure and Administration Needs Improvement.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** December 2004.

Scope of Evaluation: Goal 3, Objective 3.

The purpose of this evaluation was to help achieve the overarching contract audit goal of assessing how effectively contracts contribute to accomplishing program goals. The project objectives were to examine EPA procedures for:

- Acquisition Planning: How are RACS structured and funded?
- Source Selection: How does EPA decide with whom to contract? Is past performance considered?
- Contract Administration: Are there good measures for assessing contractor performance?
- Contract Information Systems: Do contract managers have the information needed to evaluate results and make decisions?

Evaluation Findings:

- EPA can improve the structure of RACs to better protect the Government's interests. Current RACs, which are Cost Plus Award Fee Level of Effort contracts, assign to EPA a disproportionate share of the risk of cost overruns; expose EPA to the risk of loss of funds through litigation; limit competition; and forego potential cost savings associated with other approaches to contacting, such as Performance-Based Service Acquisition.
- EPA regions do not consistently document the rationale used to decide what procurement option to utilize for Superfund cleanup activities as required by established policy. Further, EPA does not have a process to measure and disseminate information on the U. S. Army Corp of Engineers' past performance in support of EPA.
- The Agency has measures in place to assess contractor performance at the work assignment level. However, evaluations at the contract level were not being documented timely and consistently, as required, because they were not given the necessary priority. Not consistently documenting evaluations in a timely manner does not permit EPA and other Federal agencies to consider contractors' past performance and could be detrimental to contractors who have performed well.

Evaluation Title: Response Action Contracts: Structure and Administration Needs Improvement (continued).

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** December 2004.

Evaluation Findings (continued):

- Contract managers have, or can obtain, the information needed to evaluate results and make decisions, but the information in the national automated database is not always readily available. The Remedial Action Contract Management Information System is underutilized by regional staff, and the system does not collect national data as originally intended. As a result, EPA is expending approximately $1.5 million a year on a system that is not being fully utilized.

Evaluation Recommendations: It was recommended that the Office of Solid Waste and Emergency Response (OSWER), in coordination with the Office of Administration and Resources Management (OARM), develop and implement a plan with milestones that will increase the use of different contract types, require regional staff to document the rationale for all source selection decisions, develop a method for holding Contracting Officers accountable for conducting past performance evaluations timely and accurately, and conduct a cost benefit analysis to determine whether the Remedial Action Contract Management Information System should be retained.

Planned Response: OSWER, in coordination with OARM, has developed and implemented a plan with milestones to address the evaluation recommendations.

Public Access: Report available at: http://www.epa.gov/oig/reports/land.htm.

Evaluation Title: Advisory on the Office of Research & Development's Contaminated Sites and RCRA Multi-Year Plans.

Evaluator: U. S. EPA Science Advisory Board (SAB). **Date:** May 23, 2005.

Scope of Evaluation: Goal 3, Objective 3.

The purpose of this evaluation was to:

- Provide an external peer review of the two multi-year research plans prior to revision and merger into a single plan for Goal 3 research.

Evaluation Findings:

- The Panel determined that the plans are generally programmatically and scientifically sound, and endorsed the proposal to merge the plans.
- The Panel complimented the team on level of coordination between ORD and the program offices and on the use of judicious leveraging to stretch limited resources.

Evaluation Recommendations:

The Panel recommended that the merged plan be structured and written so that the contents, from long-term goals to work products, are clearly linked to the EPA strategic plan and transparently show that the program meets the OMB research investment criteria. The Panel recommended that some resources be reserved to address emerging (≥10 years) issues to maintain viability and relevance over the long term. Within the report, the panel made additional commentary and elaborated on these two recommendations.

Planned Response:

The National Program Director, together with ORD, program, and regional staff, is currently working to merge and revise the multi-year plan consistent with the Panel's recommendations. The draft plan will be included in a programmatic peer review, scheduled to be conducted by ORD's Board of Scientific Counselors in December 2005.

Public Access: Report available at: http://www.epa.gov/sab/pdf/contaminated_sites_rcra_sab-05-009.pdf.

Goal 4

Evaluation Title: EPA Can Better Manage Brownfields Administrative Resources.

Evaluator: U. S. EPA Office of the Inspector General (OIG). Date: July 7, 2005.

Scope of Evaluation: Goal 4, Objective 2.

This review was in response to a congressional request to evaluate the administrative and program costs being used to carry out the Brownfields Program and identify options to reduce administrative costs.

Evaluation Findings: The OIG found that EPA's ability to effectively manage Brownfields resources is challenged by policy and organizational impediments.

Evaluation Recommendations: The report included several recommendations:

- More closely align with an accountable entity effectively to distribute, manage, account for, and optimize Brownfields resources.
- Establish a system to identify and track Brownfields administrative and programmatic payroll costs.
- Provide documentation to account for FY 2003 resources.
- Revise regional staffing workload model.
- Evaluate Brownfields staff not certified as Project Officers.
- Hold Brownfields conference every 2 years.
- Develop process to evaluate which conferences and meetings Brownfields staff need to attend.

Planned Response: EPA is fully responding to all of the recommendations by either implementation strategies or work underway.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050607-2005-P-00017.pdf.

Evaluation Title: Brownfield Redevelopment: Stakeholders Report That EPA's Program Helps to Redevelop Sites, but Additional Measures Could Complement Agency Efforts.

Evaluator: U. S. Government Accountability Office (GAO). Date: April 2005.

Scope of Evaluation: Goal 4, Objective 2.

The purpose of this review was to: (1) obtain stakeholders' views on the extent to which the EPA Brownfields Program has contributed to the cleanup and redevelopment of brownfields; (2) determine whether the measures EPA uses to gauge the performance of its brownfield activities provide sufficient information to identify program accomplishments, and (3) obtain stakeholder's views on potential options for improving and complementing EPA's program. Additionally identified were other federal agencies that support brownfields cleanup and redevelopment.

Evaluation Findings: The GAO found that the US EPA Brownfields Program provides an important contribution to site cleanup and redevelopment. The measures EPA uses provide information in some but not all key program areas. The GOA found three stakeholder recommendations to improve the program related to the current grant programs and tax incentive.

Evaluation Recommendations: The report included several recommendations:

- Continue to develop additional measures to gauge the achievements of the Brownfields Program.
- Closely monitor the brownfield revolving loan fund grants to determine why they have been underutilized and what, if any, changes are needed to facilitate or encourage grant recipients' use of these funds.
- Determine the advantages and disadvantages of giving priority to coalitions or other entities with proven revolving loan fund administrative expertise when awarding grants and, if found to be beneficial, adopt this as a key criterion for selecting grant recipients.

Planned Response: EPA agrees with and is working to implement these recommendations.

Public Access: Report available at: http://www.gao.gov/new.items/d05450t.pdf.

Evaluation Title: North American Development Bank Border Environment Cooperation Commission Business Process Review.

Evaluator: Stone & Webster Management Consultants, Inc. for the North American Development Bank. The Board of Directors of the NADB commissioned the Review. **Date:** December 2004.

Scope of Evaluation: Goal 4, Objective 2.

The Review provides focused reviews and evaluations of the overall process of designing, certifying/approving, financing and implementing potable water treatment, municipal wastewater treatment, and solid waste projects in the border region. These business process review analyses of BECC and NADB activities are intended to optimize the BECC/NADB process for designing, developing, approving, financing and implementing environmental infrastructure projects in the U.S.-Mexico border region, so as to make the overall process more efficient and easier for communities and project sponsors to access, improve the efficiency of BECC and NADB and increase their value added to this process, and develop a plan for the Board of Directors to evaluate performance and measure results of BECC and NADB.

Evaluation Findings: The Review includes a series of findings and observations. The Task Four Report summarizes conclusions on the efficiency of the BECC and NADB in its processes related to the designing, certifying/approving, financing and implementing potable water treatment, municipal wastewater treatment, and solid waste projects in the border region between the U.S. and Mexico, and provides recommendations to improve performance and efficiency.

Evaluation Recommendations: Among the series of recommendations made, these have the potential to affect the BECC and NADB's administration of EPA grants:

- Revise process so that project certification and the integrated financing package are presented to the board for approval at the same time.
- When projects are to receive both an EPA-BEIF grant and a NADB loan, agreements for both should be signed at the same time.
- Assign technical staff who have been involved with project design to provide technical oversight during project implementation.
- Revise the name and objective of the initial application for certification step to more closely reflect that it is an eligibility review.
- Adopt an approach based on cooperative agreements with other agencies whereby the agency providing the greatest amount of financing assumes the primary role for project development.

Planned Response: The Board of Directors of the BECC and NADB, in which EPA is a member, is reviewing recommendations for future implementation.

Public Access: The report available at: http://www.nadb.org/english/publications/publications_frame.htm.

Evaluation Title: Great Lakes Fish Monitoring Program (GLFMP) Review.

Evaluator: EPA–GLNPO together with about 40 representatives including government and university scientists, federal and state government managers, and Tribal representatives. **Date:** June 2005.

Scope of Evaluation: Goal 4, Objective 3.

This evaluation was an objective review of the design, implementation, and scientific rigor of the GLFMP including the program's sampling and analytical procedures and the uses of program data. Reviewers specifically considered: sampling design; sample collection, prep, and analytical methods; data representativeness; target analyses; program implementation; quality assurance; data management; and other programmatic issues.

Evaluation Findings: The current status of the Great Lakes environment is different from that at inception of the GLFMP in the 1970's, and GLFMP should change to reflect that current status.

Evaluation Recommendations: The 10 specific recommendations include: data approval; maintenance of the historical sample archive; establishment of a steering committee; review and revision of the analyte list and development of protocols to add emerging contaminants to the list; enhancing consistency of analytical labs; including and maintaining routine check samples; better definition of certain goals and stakeholders; development of an approach for documenting the occurrence of new and previously unrecognized contaminants in Great Lakes fish; and statistical analysis to revise and/or develop Data Quality Objectives.

Planned Response: A proposal for incorporation of the recommendations is under development.

Public Access: Report available at: http://www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP%20Review%20Document%206.14.05.pdf.

Evaluation Title: Review of the Computational Toxicology Research Program Directions.

Evaluator: U. S. EPA, Office of Research and Development, Board of Scientific Counselors (BOSC). **Date:** July 20, 2005.

Scope of Evaluation: Goal 4, Objective 4.

The purpose of this review, held in April 2005, was to provide early feedback to the newly formed National Center for Computational Toxicology (NCCT) on its planned major research directions. The Board of Scientific Counselors (BOSC) formed a standing committee to advise the NCCT and this was the inaugural meeting. The BOSC was provided six charge questions dealing with: (1) collaborations between the NCCT and other components of ORD; (2) proposed staffing directions; (3) technological advances; (4) overall rationale for the research program; (5) identifying additional partners; and (6) the general aspect of breadth and depth of the program.

Evaluation Findings: Generally the committee was very favorable to the formation of the NCCT and the progress it had made in the first few months of its existence (the NCCT was formally established in February 2005). The committee recognized the unique role of the NCCT and the importance of establishing strong collaborations with other programs within and outside of ORD. The committee emphasized the importance of collaborations and positively commented on the number of collaborations already taking place. The BOSC also commented favorably on the Center's four focal areas of Information Technologies, Prioritization Tools, Biological Models, and Cumulative Risk. The committee highlighted the fact that the first two have the potential to address "significant issues in toxicology…." The committee felt that the NCCT has made appropriate choices for bringing together expertise from several related disciplines to fulfill its' mission.

Evaluation Recommendations: The key recommendations of the review were: create a specific implementation plan; develop management activities to foster networks of computational scientists in the agency; develop a communication plan to raise visibility of the NCCT: add staff in bioinformatics and potentially social sciences; broaden the composition and role of the CTISC (internal EPA steering committee); develop liaisons with related academic, governmental and private organization both nationally and internationally; and to broaden the focus of hazard identification beyond that currently being conducted with endocrine disrupting chemicals.

Planned Response: The most significant step, which was already underway, is the development of an implementation plan that will lay out specific milestones for each of the research projects within the program over the next 3 years. The implementation plan will emphasize the need for the NCCT to address generic issues in computational toxicology and to provide leadership to the Agency in terms of bringing these tools to use in hazard identification and risk assessment. An important component of the implementation plan is "ToxCast" which will provide a framework and a strategy for developing high throughput data on a large number of chemicals in order to help categorize and prioritize for specific screening and testing programs. The NCCT is also forming two Communities of Practice that will bring together experts in chemoinformatics and biological modeling respectively, across the Agency and enhance the networking of these experts and therefore enhance their presence and contributions to Agency problems.

Public Access: Report available at: http://www.epa.gov/osp/bosc/.

Evaluation Title: Ecological Research Program Review.

Evaluator: U. S. EPA, Office of Research and Development, Board of Scientific Counselors (BOSC). **Date:** August 16, 2005.

Scope of Evaluation: Goal 4, Objective 4.

The purposes of this review were to evaluate:

- Program relevance and quality.
- Program design and implementation.
- Progress achieved towards meeting long-term goals (LTGs).
- Stakeholder involvement and the degree to which research is consistent with needs articulated at regional and local levels.
- The degree to which research "outputs" are being used by stakeholders.

Evaluation Findings:

- Found the Ecological Research Program to be a high-quality scientific program that is providing essential technical information to the regulatory offices within EPA as well as to state, local, and tribal governments to assist these entities in addressing novel problems of environmental management.
- Found a need for improved integration among the LTGs including more emphasis on collaboration between EPA scientists and scientists outside the Agency.
- Crucial that a new Multi-Year Plan be developed that aligns with current resource constraints and that better integrates the three LTGs.
- Plans need to be developed for a long-term equilibrium that balances the research portfolio against expected resource constraints.

Evaluation Recommendations:

- The integration of Long-term Goal 1 with the other LTGs can be further improved through designing research projects specifically for cross-level integration and by reinforcing rules set by the research programs for close collaborations between EPA and outside researchers at the national, regional, and local levels.
- Research for all three LTGs would be improved by collaborations with international scientific communities.
- The effectiveness of the program could be improved by establishing timely and regular communications with a broad array of stakeholders using an established procedure.
- The time and talents of ORD's research scientists need to be focused on the research mission. At the same time, careful tracking of outcomes is essential to assure that the research conducted by the Ecological Research Program is appropriate and that it addresses customer priorities.
- Some form of extramural cooperation should be re-established to leverage resources and continue to provide flexibility in the research program.
- Institute a formal process for sharing and disseminating research results to stakeholders.
- The Ecological Research Program's heavy orientation towards aquatic ecosystems is understandable but a more balanced research portfolio requiring attention to impacts on terrestrial ecosystems, especially relative to clean water and nonpoint source pollution, is needed.

Planned Response:

- The Ecological Research Program is in the process of revising its multi-year plan to include the recommendations of the BOSC and to modify many of its research projects to address these recommendations. The revision includes a greater integration among the three Long-term Goals and directly with Long-Term Goal 1. This revision will be completed in FY06.
- Increasing collaboration within EPA and with outside federal and non-federal entities will be a goal of the Ecological Research Program in FY 2006. This collaboration is already underway with increased research planning being completed in partnership with EPA Program Offices and Regions and increased research result communications within EPA. Increased collaboration with NOAA and USGS is occurring through the Ocean Action Plan's call for a National Monitoring Network designed by the interacting agencies and LTG research in LTG1 in being accomplished in partner with NOAA and USGS.
- In FY 2006, the Ecological Research Program will re-establish a viable grants program within NCER to develop a cross-agency extramural research program addressing Ecological/Ecosystem Services.
- In FY 2006, the Ecological Research program will begin planning for "new" research projects that more completely address program office and regional needs, including interactions across media (air, water, terrestrial) to assess the success of ecological policies.

Evaluation Title: Ecological Research Program Review (continued).

Evaluator: U. S. EPA, Office of Research and Development, Board of Scientific Counselors (BOSC). Date: August 16, 2005.

Planned Response (continued):

programs, developing of modeling tools at high levels of ecological organization to assess integrated impacts, developing an ecological forensics program that assesses causality at a larger ecological scale, integrating across all ORD Eco-tools to address the broad-scale ecological issues of the Mississippi River Basin and its Gulf of Mexico receiving waters, and development of an ecological services research program (including its integration with socio-economic and other non-ecological issues).

Public Access: Report available at: http://www.epa.gov/osp/bosc/subcomm-eco.htm.

Evaluation Title: Review of the Mercury Multi-Year Research Plan.

Evaluator: Mercury Subcommittee of the Board of Scientific Counselors (BOSC). Date: July 14, 2005.

Scope of Evaluation: Goal 4, Strategic Objective 4.

A letter report was delivered to the Office of Research and Development (ORD) on July 14, 2005. The purpose of the review was to provide an independent expert review of the most recent Multi-Year Research Plan (MYP) for the Mercury Research Program. The BOSC Mercury Subcommittee reviewed the Mercury MYP and the planning process with respect to what changes should be made to ensure that: (1) the proposed scope of work is consistent with ORD's subject area Research Strategy, the current state-of-the-science, and research by others; (2) the science questions address the most important scientific gaps and uncertainties in the subject area; (3) the long-terms goals are relevant to the science needs of the Agency, and the MYP situates the annual research products on a clear path to accomplishing each of the long-term goals; (4) research products and emphases over the next 5 to 7 years are sequenced appropriately to accomplish goals and meet program and regional needs; (5) the MYP is flexible enough to adapt to future science and policy changes; (6) the MYP articulates a strategy that facilitates effective communication and utilization of research products; and (7) there is a clear path for assessing/evaluating the MYP and progress toward its goals.

Evaluation Findings: The Subcommittee concluded that "the proposed scope of the work is consistent with: (a) ORD's subject area Research Strategy, (b) the current state-of-the-science, and (c) research by others." The review also concluded that "the science questions address the most important scientific gaps and uncertainties in the subject area" and "the long-term goals (LTGs) are relevant to the science needs of the Agency." Also, the Mercury MYP is comprehensive and well thought out. It focuses on the most critical information needs in mercury fate and transport (including risk assessment), and on reduction of mercury emissions from a variety of sources, most importantly coal-fired utility boilers. It is apparent that ORD has accomplished much with the available resources and is poised to contribute significantly more to the better understanding of the global mercury problem, especially with regards to transport and fate.

Evaluation Recommendations: The Subcommittee made five overriding recommendations: (1) Because mercury is important to many agencies, the Subcommittee believes that the Mercury MYP planning process would benefit greatly from an interagency council to institutionalize and harmonize collaboration across federal agencies. (2) Prioritizing and sequencing of APMs need to be discussed more fully in the Mercury MYP. (3) The value of the MYP as a "living" document would be enhanced if it were updated annually. (4) The Mercury MYP is a communication document as well as a planning document. (5) It would be helpful if the Mercury MYP provided an assessment of outcomes related to the various annual performance goals and annual performance measures in the plan.

Planned Response: A response to the review by the Agency will be made to the BOSC Executive Committee in the near future. The response will identify several action items with timelines. The Mercury MYP will be revised accordingly.

Public Access: Report is available at: http://www.epa.gov/osp/bosc/.

Evaluation Title: Endocrine Disrupting Chemicals (EDC) Research Program Review.

Evaluator: U. S. EPA, Office of Research and Development, Board of Scientific Counselors (BOSC). **Date:** April 21, 2005.

Scope of Evaluation: Goal 4, Objective 4.

The purpose and focus areas of the evaluation were to review the relevance, quality, performance, scientific leadership and resources of the EDCs Research Program.

Evaluation Findings:

- Design—goals and scientific questions of the Research Program deemed appropriate; multi-disciplinary set of research areas for both human health and wildlife that cuts across the risk assessment/risk management paradigm.
- Relevance—of direct relevance to legislation that EPA administers and that it serves the Program Offices well.
- Progress—research has been productive and of high scientific quality; of particular note is the excellent progress under LTG 3.
- Leadership—nationally and internationally recognized; research is disseminated in top-tier scientific journals; scientists at the fore-front of EDC research in screening and testing methodologies.
- Resources—resources have been used efficiently; astute in leveraging with other federal agencies; continuation of extramural grants program is vital.

Evaluation Recommendations: (1) Clarify what research is covered by the EDC program, (2) strengthen the position of Program Director, (3) hire wildlife toxicologists, (4) collaborate with other research organizations to improve the ability to extrapolate across species, (5) integrate the use of predictive tools into the program, (6) develop risk assessment paradigms for EDCs, (7) collaborate with other research organizations on exposure issues, including the role of pharmaceuticals as sources of EDCs, and mine data from the High Production Volume Program, (8) invite the epidemiology grantees to future reviews, (9) take a leadership role in the application of 'omics technologies, (10) investigate the common ground between ecological and human health of EDCs, (11) hire or train experts in bioinformatics, (12) establish a mechanism to ensure transfer of protocols to OPPTS, and (13) in revisions of Multi-Year Plan, improve summary of research to date.

Planned Response: On September 12, 2005, the Subcommittee was sent: 1) a cover letter, 2) a narrative response to the recommendations and observations, with comments where necessary, and 3) a table that highlights each of the 13 recommendations and EPA's proposed actions and timelines for each. The response was also presented at a meeting of the BOSC Committee on September 13, 2005.

Public Access: Report available at: http://www.epa.gov/osp/bosc/pdf/edc0504rpt.pdf.

Evaluation Title: Human Health Research Program Review.

Evaluator: U. S. EPA, Office of Research and Development, Board of Scientific Counselors (BOSC). **Date:** July 27, 2005.

Scope of Evaluation: Goal 4, Objective 4.

The purpose of the review was to provide and independent expert review of the Agency's human health research program. The BOSC evaluated four Long-Term Goals of the program, including (1) Use of mechanistic information in risk assessment, (2) Aggregate/cumulative risk, (3) Susceptible subpopulations, and (4) Evaluation of public health outcomes. The review was both retrospective for research conducted since 1999 and prospective for research proposed for the next 5-10 years. The reviewers were asked to evaluate the program in the context of the R&D investment criteria, relevance, performance and quality. The BOSC also evaluated the scientific leadership of the program.

Evaluation Findings: The research of the human health research program was found to be of high quality and appropriately focused. It was multidisciplinary, displayed good stakeholder participation, informed risk assessments and achieved the goal of reducing uncertainty.

Evaluation Recommendations: Major recommendations by the BOSC include: (1) interact more with the international human health research community, (2) coordinate research with emerging national computational toxicology center, (3) promote greater interaction between intramural and extramural scientists, (4) establish a greater public benefit rationale for the program, and (5) focus of the program around an overarching conceptual framework.

Planned Response: The Agency responded to the review at the BOSC Executive Committee meeting on September 12-13, 2005. The response identifies several action items with timelines.

Public Access: Report available at: http://www.epa.gov/osp/bosc/reports.htm.

Goal 5

Evaluation Title: Evaluation of the OECA/ECOS State Review Framework in Pilot States.

Evaluator: Industrial Economics, Inc. for U. S. EPA, Office of Planning Analysis and Accountability, U.S. EPA Office of Policy Economics and Innovation, and U.S. EPA Office of Enforcement and Compliance Assistance. **Date:** July 27, 2005.

Scope of Evaluation: Goal 5, Objective 1.

The purpose of the evaluation was to evaluate the effectiveness of the implementation of the State Review Framework in pilot states. The overarching evaluation questions were:

- Sufficiency of Framework to support conclusions.
- Consistency of framework application.
- Outcomes of pilot projects.
- Areas for improvement.

Evaluation Findings: The key finding is that the Framework is effective in providing a platform for evaluating state enforcement and compliance assurance programs on a nationwide basis. Additional findings of the evaluation were:

- Improve metrics and data.
- Revision to file selection protocol.
- Improve consistency of reports among media and among states.
- Clarify benefits to states and activities to include in the element on outcome and performance-based activities.

Evaluation Recommendations (if applicable): Key recommendations are:

- Provide implementation blueprint for synthesizing data and information sources into a comprehensive enforcement picture with a roadmap for future efforts.
- Address resources consideration to provide context for program performance.
- Provide additional guidance regarding the purpose of the element on outcome and performance-based activities.
- Clarify role of negotiated commitments.
- Develop model report for state reviews.

Planned Response: OECA used the findings and recommendations from the evaluation to make improvements to the State Review Framework. Groups were established to consider the recommendations and to revise the documentation and guidance for implementing the Framework for use by Regions and States.

Public Access: Report available by contacting Howard Horowitz at (202) 564-2612.

Evaluation Title: Ongoing Management Improvements and Further Evaluation Vital to EPA Stewardship and Voluntary Programs.

Evaluator: U. S. EPA Office of the Inspector General (OIG). **Date:** February 17, 2005.

Scope of Evaluation: Goal 5, Objective 2.

The OIG initiated this evaluation to outline and characterize EPA's approach to environmental stewardship. The OIG specifically wanted to learn how stakeholders defined and approached environmental stewardship, what role EPA played in promoting and fostering stewardship activities, and how effectively stewardship programs assist EPA in achieving environmental outcomes.

Evaluation Findings: The Agency has yet to fully implement internal recommendations to strategically plan, coordinate, and manage its voluntary programs, or to develop a process for assessing these programs to determine how they will be integrated into the Agency's mission and its strategic goals and objectives.

Evaluation Recommendations: EPA needs to identify motivators and barriers to participation, and continue to incorporate stakeholder feedback into planning, designing, and implementing stewardship programs. EPA should also examine what roles it should play in promoting stewardship activities. Additional program evaluation needs to be conducted to determine (1) what motivates participation in these types of programs and what causes voluntary environmental behavior change to occur, (2) the most efficient ways to measure the outcomes and impacts of stewardship and voluntary programs, and (3) which stewardship and/or voluntary programs are most effective in encouraging voluntary behavior change and achieving environmental results.

Planned Response: Through the Innovation Action Council, EPA is developing a report to the Administrator in Fall 2005 that will further develop a strategy and implementation plan for supporting stewardship activities. The Agency is developing "Guidelines for Measuring the Performance of EPA Voluntary Programs.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050217-2005-P-00007.pdf. Report No. 2005-P-00007.

Enabling and Support Programs

Evaluation Title: Security Configuration and Monitoring of EPA's Remote Access Methods Need Improvement.

Evaluator: U. S. EPA Office of the Inspector General (OIG). Date: March 22, 2005.

Scope of Evaluation: ESP-3.

We sought to determine whether EPA's remote access methods, particularly through Web-Mail servers and Blackberry servers and devices, have adequate controls to prevent abuse or unauthorized access to the Agency's information resources.

Evaluation Findings: OIG reported:

System administrators did not configure EPA's Web-Mail and Blackberry servers to provide secure remote access to the Agency's network. The System Administrators did not configure or update 59% of the Web-Mail and Blackberry servers to mitigate vulnerabilities. The weaknesses occurred because management did not implement processes to exercise proper oversight and provide detailed configuration settings.

Several of the Agency's Blackberry devices were not adequately configured, secured, or monitored. These weaknesses occurred because management did not conduct a risk assessment or establish a process to consistently install Blackberry devices.

Evaluation Recommendations (if applicable): OIG recommended:

The Director of EPA's Office of technology Operations and Planning: establish and require all remote access systems to have security monitoring and network vulnerability scanning; develop standards that define authorized open ports and services for the Web-Mail and Blackberry servers' Operating System; and, conduct a risk assessment and establish a process to consistently configure devices.

Planned response: The Agency generally agreed with the recommendations and indicated corrective actions that, when implemented, would address the recommendations.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050322-2005-P-00011.pdf.

Evaluation Title: PeoplePlus Security Controls Need Improvement.

Evaluator: U. S. EPA Office of the Inspector General (OIG). Date: July 28, 2005.

Scope of Evaluation: ESP-3.

Our objectives were to determine whether: (1) EPA adequately configured PeoplePlus (PPL) application security and technical infrastructure to protect the confidentiality, integrity, and availability of system data; and (2) implemented controls were working as intended.

Evaluation Findings: OIG reported:

The Agency did not follow prescribed procedures for managing user access privileges, monitoring changes in employee responsibilities, and processing system access requests.

EPA did not verify or conduct the required national Agency Check with Inquiries and Credit background screening for 45% (10 of 22) of contractor personnel with PPL access.

EPA implemented PPL without adequately implementing security controls for two key processes.

Evaluation Recommendations (if applicable): OIG recommended:

The Director of EPA's Office of Financial services (OFS) and Office of Human resources (OHR): (1) reinforce the requirements to follow prescribed policies and procedures; (2) provide a training program to increase awareness and ability to perform security duties; (3) evaluate the need for system development contractors to have access to the production environment; and, (4) establish a milestone date to complete contractor background screening.

EPA evaluates all default user IDs to secure them, and assign Security Administrators' responsibilities in a manner that provides adequate separation of incompatible duties.

Planned response: EPA concurred with all or our recommendations and provided a plan of action to address concerns.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050728-2005-P-00019.pdf.

Evaluation Title: Internal Controls Assessment of EPA's Financial Operations and Financial Systems—PeoplePlus.

Evaluator: Booz Allen Hamilton for the Office of the Chief Financial Officer, Office of Financial Services (OFS). **Date:** August 2005.

Scope of Evaluation: ESP-3.

Booz Allen Hamilton performed an Internal Controls Assessment of EPA's payroll environment. Their objectives were to assess the adequacy of the internal controls for payroll and determine whether the internal control activities comply with standards as defined in OMB Circular A-123.

Evaluation Recommendations:

Evaluation recommendations included:

- Payroll training programs and documentation of the training schedule needs to be formalized.
- Documentation and standardization for a variety of People Plus policies, processes, and procedures need to be updated and/or created.
- Gaps in the general controls security access require attention.
- Information should be disseminated in a way that reaches impacted staff.
- Employee status changes should be timely to prevent employees from receiving inappropriate pay.
- Coordination and communications between the FPPS and OFS organizations for policy dissemination require improvement.

Planned Response: EPA agrees with the recommendations and is working to implement the recommended safeguards in order to improve reasonable assurance that internal controls over financial reporting are effectively preventing the potential for errors that might result in a material weakness.

Public Access: Not Available.

Evaluation Title: EPA Needs to Compete More Assistance Agreements.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** February 17, 2005.

Scope of Evaluation: ESP-7.

To evaluate EPA's progress on the Order requiring some grants to be competed, we assessed whether (1) the Order promoted competition, and (2) the competitions were fair and open.

Evaluation Findings: OIG reported:

- EPA Order 5700.5 (Order) was a positive step in promoting competition; however, it did not promote competition to the maximum extent possible. The Order applied to only $161 million of more than $835 million of discretionary grants awarded in 2003.
- The Order overemphasized exemptions and justifications for not competing assistance agreements.
- EPA did not ensure that it awarded discretionary grants to the most qualified recipients or for the most innovative projects, thus potentially diminishing the Agency's efforts to accomplish its mission.
- EPA would benefit from additional policy on conflict of interest and documentation requirements.
- In January 2005, EPA replaced the original Order with EPA Order 5700.5A1. The revised order included numerous procedural changes and incorporated many of our recommendations.

Evaluation Recommendations (if applicable): OIG recommended:

We continue to recommend that the Assistant Administrator for the Office of Administration and Resources Management increase the number of assistance agreements subject to competition by eliminating certain exemptions and a justification for not competing.

Planned response: The revised order incorporated many of our recommendations. However, the Agency disagreed with key recommendations directed at increasing the number of assistance agreements subject to competition.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050331-2005-P-00014.pdf.

Evaluation Title: Brownfields Competition for Awarding Grants Complied With Act.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** March 7, 2005.

Scope of Evaluation: ESP-7.

The objective was to determine whether the Office of Brownfields Cleanup and Redevelopment (Brownfields office) established a competition process that complied with the Brownfields Act and EPA policy and guidance.

Evaluation Findings: OIG reported:

EPA's competition process for awarding grants complied with the requirements of the Brownfields Act.

In awarding the grants, the Brownfields Office generally complied with EPA policies and procedures, with the exception of the cost review policy. Cost reviews were documented for only 4 of 24 grants we reviewed. In many cases, project officers stated that they performed cost reviews but did not document them. In those instances where no cost reviews were performed, the project officers said they thought that the grants management offices or proposal reviewers performed the cost reviews.

EPA risked the possibility of reimbursing recipients for costs that were unreasonable, unallowable, or unrelated to agreed-upon activities.

Evaluation Recommendations (if applicable): OIG recommended:

The Assistant Administrator for Solid Waste and Emergency Response remind project officers to document cost reviews, in accordance with EPA policy, prior to grant award.

Planned response: The Agency agreed with our recommendation and initiated appropriate corrective action.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050307-2005-P-00009.pdf.

Evaluation Title: Response Action Contracts: Structure and Administration Need Improvement.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** December 6, 2004.

Scope of Evaluation: ESP-7.

We conducted this audit to determine how effectively and efficiently EPA is administering Response Action Contracts (RAC). We looked at: acquisition planning, source selection, contract administration, and contract information system.

Evaluation Findings: OIG reported:

- EPA can improve the structure of RACs to better protect the Government's interests. Current RACs, which are Cost Plus Award fee level of effort contracts, assign to EPA a disproportionate share of the risk of cost overruns; expose EPA to the risk of loss of funds through litigation; limit competition; and forego potential cost savings associated with other type contracts, such as Performance-Based Service Contracts.
- EPA regions do not consistently document the rationale used to decide what procurement option to utilize for Superfund cleanup activities. EPA does not have a process to measure and disseminate information on the U.S. Army Corps of Engineers' past performance in support of EPA.
- Evaluations at the contract level were not being documented timely and consistently, which does not permit EPA and other federal agencies to consider contractor's past performance.
- Information in the national automated database is not always readily available. The Remedial Action Contract Management Information System (RACMIS) is underutilized by regional staff, and the system does not collect data as originally intended. EPA is expending $1.5 million a year on a system that is not being fully utilized.

Evaluation Recommendations (if applicable): OIG recommended:

The Office of Solid Waste and Emergency Response, in coordination with the Office of Administration and Resources Management: develop and implement a plan with milestones that will increase the use of different contract types; require regional staff to document the rationale for all source selection decisions; develop a method for holding Contracting Officers accountable for conducting past performance evaluations timely and accurately; and, conduct a cost benefit analysis to determine whether the RACMIS should be retained.

Planned response: The Agency generally agreed with our recommendations.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20041206 6-2005-P-00001.pdf.

Evaluation Title: Office of Acquisition Management Can Strengthen its Organizational Systems.
Evaluator: U. S. EPA, Office of the Inspector General (OIG). Date: February 17, 2005.

Scope of Evaluation: ESP-7.

This audit was conducted to determine whether EPA's Office of Acquisition Management (OAM) had the fundamental components of a high performing organization: leadership, strategic planning, customer focus, information and analysis, human capital, process management, and performance results.

Evaluation Findings: OIG reported:

- OAM's management systems include various components necessary for organizational success: OAM communicates its vision, values, and strategic goals to employees and customers; focuses on its customers' needs; and, emphasizes the development of its workforce.
- However, OAM leadership created its vision and goals without taking all the actions necessary to accomplish its vision.
- OAM needs to complete workload and workforce analyses to identify full-time equivalent and skill gaps.
- The information in OAM's Integrated Contracts Management System can measure the timeliness, but not the quality and cost, of its services.
- OAM does not have data to measure its progress toward achieving its vision of being the preferred business partner for all EPA contracts. Further, OAM does not obtain sufficient feedback on the extent to which contracts contributed to Agency environmental and performance goals.

Evaluation Recommendations (if applicable): OIG recommended:

The Director, OAM, develop an action plan with milestones for establishing measures and means of measuring progress against its goals, complete a workload and workforce analysis, and capture data needed to analyze short and long-term performance in achieving its vision and goals.

Planned response: The Agency generally agreed with the recommendations and indicated that certain corrective actions would have to be taken over the long term.

Access: Report available at: http://www.epa.gov/oig/reports/2005/20050217-2005-P-00006.pdf.

Evaluation Title: EPA Can Better Manage Brownfields Administrative Resources.

Evaluator: U. S. EPA, Office of the Inspector General (OIG). **Date:** June 7, 2005.

Scope of Evaluation: ESP-7.

We conducted this review in response to a congressional request to evaluate the administrative and program costs being used to carry out the Brownfields program and identify options to reduce administrative costs.

Evaluation Findings: OIG reported:

- We provided answers to congressional questions about EPA's Brownfields program: the distribution and type of staff; budget for FY 2003 and 2004; grant and contract management responsibilities and workload; the number and type of Brownfield conferences; and the workload model used to staff the program.
- EPA's ability to effectively manage Brownfields resources is challenged by policy and organizational impediments.
- The authority for Brownfields resources is dispersed and not in alignment in their efforts to define and track Brownfields costs, and staff resources cannot be accounted for and efficiently utilized.
- There are potential cost savings in the financial and personnel resources EPA expends on brownfields outreach, conferences and meetings.

Evaluation Recommendations (if applicable): OIG recommended:

The deputy Assistant Administrator for the Office of Solid Waste and Emergency response: (1) more closely align themselves in support of an accountable entity to distribute, manage, account for, and optimize Brownfields resources, consistent with program needs and goals; (2) define Brownfields administrative and programmatic payroll costs and establish a system to identify and track them; (3) provide documentation to account for all FY 2003 administrative resources; (4) revise the regional staffing model to support current workload, develop a workload model for allocation of Brownfields headquarters staff, and develop a schedule for regularly updating the workload model; (5) ensure certification of Brownfields Project officers; (6) hold the EPA-sponsored Brownfields conference every two years; (7) develop a process to evaluate conferences and meetings to determine which conferences and meetings Brownfields staff need to attend.

Planned response: The Agency's final response to our recommendations and findings is under review. The Agency agreed to review and update its regional workload model and identify non-certified project officers in the Brownfields program and develop training and other actions necessary to ensure that Brownfields program goals are being met. The Agency did not agree that offices receiving and managing Brownfields resources should be more closely aligned to better manage, distribute, and account for Brownfields resources. It also stated that it has systems in place to identify indirect and direct payroll costs and that it is currently evaluating the effectiveness of its annual Brownfields conference to determine the appropriate frequency for the future. The Agency did not provide specific documentation we requested on FY 2003 Brownfields administrative resources.

Public Access: Report available at: http://www.epa.gov/oig/reports/2005/20050607-2005-P-00017.pdf.

Appendix C: Data Quality

This appendix is EPA's record of performance data reliability for each of the Agency's 2005 annual performance measures (including PART measures). It discusses data sources, methods for calculating performance, data limitations affecting uncertainty in measurement, and efforts to improve the completeness and reliability of the data and data collection systems. This appendix also describes third-party audits, studies, or evaluations of the data and recommendations for improvements.

Goal 1, Objective 1

FY 2005 PERFORMANCE MEASURES:

- SO_2 emissions reduced (tons/yr from 1980 baseline).
  Total annual average sulfur deposition and mean ambient sulfate concentrations reduced (% from baseline).
  Total annual average nitrogen deposition and mean ambient nitrate concentrations reduced (% from baseline).

Performance results related to these measures are presented in Goal 1, pages 49, 53-54.

Performance Databases:

- Emissions Tracking System (ETS)—SO_2 and NO_x emissions
- Clean Air Status and Trends Network (CASTNET)—dry deposition
- National Atmospheric Deposition Program (NADP)—wet deposition
- Temporally Integrated Monitoring of Ecosystems program (TIME)—surface water chemistry
- Long-Term Monitoring Network program (LTM)—surface water chemistry

Data Sources:

On a quarterly basis, ETS receives and processes hourly measurements of SO_2, NO_x, volumetric flow, CO_2, and other emission-related parameters from more than 3,400 fossil fuel-fired utility units affected under the Title IV Acid Rain Program. These measurements are collected by certified continuous emission monitoring systems (CEMS) or equivalent continuous monitoring methods.

CASTNET measures particle and gas acidic deposition chemistry. Specifically, CASTNET measures sulfate and nitrate dry deposition and meteorological information at approximately 88 monitoring sites, primarily in the East. Two additional sites are planned as part of a multi-year network refurbishment and modernization project. These sites are scheduled to be in operation by 2007 and will help fill the coverage gap in the middle of country. CASTNET is a long-term dry deposition network funded, operated and maintained by EPA's Office of Air and Radiation (OAR). The National Park Service operates approximately 30 of the monitoring stations in cooperation with EPA.

NADP is a national long-term wet deposition network that measures precipitation chemistry and provides long-term geographic and temporal trends in concentration and deposition of precipitation components. Specifically, NADP provides measurements of sulfate and nitrate wet deposition at approximately 255 monitoring sites. EPA, along with several other Federal agencies, states, and private organizations, provide funding and support for NADP. The Illinois State Water Survey/University of Illinois maintains the NADP database.

The deposition monitoring networks have been in operation for over 25 years. They provide invaluable measurements on long-term trends and episodes in acid deposition; such data are essential for assessing progress toward the program's intended environmental outcomes. These networks need to be modernized to ensure the continued availability of these direct environmental measures. Maintaining a robust long-term atmospheric deposition monitoring network is critical for the accountability of the Acid Rain and Clean Air Interstate Rule (CAIR) Programs (and/or Clear Skies if new legislation is enacted).

The TIME project measures surface water chemistry and is based on the concept of a probability sample, where each site is chosen to be statistically representative of a target population. In the Northeast (New England and the Adirondacks), this target population consists of lakes likely to be responsive to changes in rates of acidic deposition (i.e., those with Gran ANC < 100 ìeq/L). In the Mid-Atlantic, the target population is upland streams with a high probability of responding to changes in acidic deposition (i.e., Northern Appalachian Plateau streams with Gran ANC < 100 ìeq/L). Each lake or stream is sampled annually (in summer for lakes, in spring for streams), and results are extrapolated to the target population. The most recent (2003) TIME trends analysis reported data from 43 Adirondack lakes, 30 New England lakes, and 31 Appalachian Plateau streams.

The TIME project goals are to determine not only how a representative sample of water bodies is changing through time, but also whether the proportion of the population that is acidic has changed. The project is operated cooperatively with numerous collaborators in state agencies,

academic institutions and other federal agencies.

The LTM project complements TIME's statistical approach to sampling lakes and streams. LTM samples a subset of sensitive lakes and streams with long-term data, most dating back to the early 1980s. These sites are sampled 3 to 15 times per year. This information is used to characterize how the most sensitive aquatic systems in each region are responding to changing deposition, as well as providing information on seasonal chemistry and episodic acidification. In most regions, a small number of higher ANC (e.g., GranANC >100 ìeq/L) sites are also sampled, and help separate temporal changes due to acidic deposition from those attributable to other disturbances such as changes in land use. The most recent (2003) LTM trends analysis reported data from 48 Adirondack lakes, 24 New England lakes, 9 Northern Appalachian Plateau streams, and 69 streams in the Blue Ridge region of Virginia and West Virginia. The project is operated cooperatively with numerous collaborators in state agencies, academic institutions and other federal agencies.

Methods, Assumption, and Suitability:

Promulgated methods are used to aggregate emissions data across all United States' utilities for each pollutant and related source operating parameters such as heat input.

QA/QC Procedures:

Promulgated QA/QC requirements dictate performing a series of quality assurance tests of CEMS performance. For these tests, emissions data are collected under highly structured, carefully designed testing conditions, which involve either high quality standard reference materials or multiple instruments performing simultaneous emission measurements. The resulting data are screened and analyzed using a battery of statistical procedures, including one that tests for systematic bias. If a CEM fails the bias test, indicating a potential for systematic underestimation of emissions, the source of the error must be identified and corrected or the data are adjusted to minimize the bias. Each affected plant is required to maintain a written QA plan documenting performance of these procedures and tests. Further information is available at: http://www.epa.gov/airmarkets/reporting/index.html.

CASTNET established a Quality Assurance Project Plan (QAPP) in November 2001; The QAPP contains data quality objectives and quality control procedures for accuracy and precision. {U.S. EPA, Office of Air Quality Planning and Standards, *Clean Air Status and Trends Network (CASTNet) Quality Assurance Project Plan* (Research Triangle Park, NC: U.S. EPA, November 2001). In addition, the program publishes annual quality assurance reports. Both the CASTNET QAPP and 2003 Annual Quality Assurance Report may be found at www.epa.gov/castnet/library.html.

NADP has established data quality objectives and quality control procedures for accuracy, precision and representation, available on the Internet: nadp.sws.uiuc.edu/QA/. The intended use of these data is to establish spatial and temporal trends in wet deposition and precipitation chemistry.

For TIME and LTM, the field protocols, laboratory methods, and quality assurance procedures are specific to each research group. QA/QC information is contained in the cited publications of each research group and compiled in Newell et al. (1987). The EMAP and TIME protocols and quality assurance methods are generally consistent with those of the LTM cooperators, and are detailed in Peck (1992) and in Table 3 of Stoddard et al (2003).

Data Quality Review:

The ETS provides instant feedback to sources on data reporting problems, format errors, and inconsistencies. The electronic data file QA checks are described at www.epa.gov/airmarkets/reporting/index.html (see *Electronic Data Report Review Process, ETS Tolerance Tables, Active ETS Error Codes/Messages and Range Format Errors*). All quarterly reports are analyzed to detect deficiencies and to identify reports that must be resubmitted to correct problems. EPA also identifies reports that were not submitted by the appropriate reporting deadline. Revised quarterly reports, with corrected deficiencies found during the data review process, must be obtained from sources by a specified deadline. All data are reviewed, and preliminary and final emissions data reports are prepared for public release and compliance determination.

CASTNET underwent formal peer review in 1997 by a panel of scientists from EPA and the National Oceanographic Atmospheric Administration (NOAA). Findings are documented in *Examination of CASTNET: Data, Results, Costs, and Implications* (United States EPA, Office of Research and Development, National Exposure Research Laboratory, February 1997).

The NADP methods of determining wet deposition values have undergone extensive peer review; this process has been managed by NADP program office at the Illinois State Water Survey/University of Illinois. Assessments of changes in NADP methods are developed primarily through the academic community and reviewed through the technical literature process.

The TIME and LTM data used in EPA trends analysis reports are screened for internal consistency among variables, including ion balance and conductance balance. Samples with unexplained variation in these variables are deleted. Sites with mean Gran ANC greater than 200 ìeq/L also are deleted. EPA trends analyses exclude sites with chloride values that are outliers in their region, because high Cl- is typically associated with human development in the watershed. The Cl- and associated Na+ would alter normal soil ion exchange relationships, thus obscuring the response to acidic deposition.

Data Limitations:

In order to improve the spatial resolution of CASTNET, additional monitoring sites are needed, particularly in the middle of the country.

New/Improved Data or Systems:

The program plans to modernize and enhance CASTNET to ensure network viability and enhance the monitoring capacity to support ongoing and future accountability needs, particularly relating to long range pollutant transport. The refurbishment of CASTNET will result in more comprehensive air quality data and information, made available faster by enabling real-time access to air quality information and promoting integration with other networks through

regional/rural monitoring strategies. Refurbishment activities to be pursued in FY 2007 include: (1) completion of a pilot phase study to evaluate options for upgrading CASTNET with new advanced measurement instrumentation; (2) selection and procurement of advanced technology monitoring equipment for up to 10 sites; (3) establishment of 2 new sites in the middle of the country to improve geographic coverage and spatial resolution; and (4) implementation of new ecological indicators of air quality and atmospheric deposition to expand the suite of environmental metrics available for measuring the performance and efficiency of EPA's clean air programs.

References:

For additional information about CASTNET, see www.epa.gov/castnet and for NADP, see http://nadp.sws.uiuc.edu/.

For a description of EPA's Acid Rain program, see www.epa.gov/airmarkets and in the electronic Code of Federal Regulations at www.epa.gov/docs/epacfr40/chapt-I.info/ (40 CFR parts 72-78.)

For TIME and LTM data quality and QA/QC procedures, see

Newell, A. D., C. F. Powers, and S. J. Christie. 1987. Analysis of Data from Long-term monitoring of Lakes. U.S. Environmental Protection Agency, Corvallis, OR.

Peck, D.V. 1992. Environmental Monitoring and Assessment Program: Integrated Quality Assurance Project Plan for the Surface Waters Resource Group. EPA/600/X-91/080, U.S. Environmental Protection Agency.

Stoddard, J. L., J. S. Kahl, F. A. Deviney, D. R. DeWalle, C. T. Driscoll, A. T. Herlihy, J. H. Kellogg, P. S. Murdoch, J. R. Webb, and K. E. Webster. 2003. Response of surface water chemistry to the Clean Air Act Amendments of 1990. EPA/620/R-03/001, U.S. Environmental Protection Agency, Corvallis, Oregon.

FY 2005 PERFORMANCE MEASURES:

Cumulative percent increase in the number of people who live in areas with ambient criteria pollutant concentrations below the level of the NAAQS.

Cumulative percent increase in the number of areas with ambient criteria pollutant concentrations below the level of the NAAQS.

Areas measuring clean air for NAAQS.

Performance results related to these measures are presented in Goal 1, pages 46-49, 52.

Performance Databases:

AQS: The Air Quality Subsystem (AQS) stores ambient air quality data used to evaluate an area's air quality levels relative to the NAAQS.

FREDS: The Findings and Required Elements Data System is used to track progress of states and Regions in reviewing and approving the required data elements of the State Implementation Plans (SIP). SIPs are clean air plans and define what actions a state will take to improve the air quality in areas that do not meet national ambient air quality standards

Data Sources:

AQS: State & local agency data from State and Local Air Monitoring Stations (SLAMS).

Population: Data from Census-Bureau/Department of Commerce FREDS: Data are provided by EPA's Regional offices.

Methods, Assumptions, and Suitability:

Air quality levels are evaluated relative to the level of the appropriate NAAQS. Next the populations in areas with air quality concentrations above the level of the NAAQS are aggregated. This analysis assumes that the populations of the areas are held constant at 2000 Census levels. Data comparisons over several years allow assessment of the air program's success.

QA/QC Procedures:

AQS: The QA/QC of the national air monitoring program has several major components: the Data Quality Objective (DQO) process, reference and equivalent methods program, EPA's National Performance Audit Program (NPAP), system audits, and network reviews. To ensure quality data, the SLAMS are required to meet the following: 1) each site must meet network design and site criteria; 2) each site must provide adequate QA assessment, control, and corrective action functions according to minimum program requirements; 3) all sampling methods and equipment must meet EPA reference or equivalent requirements; 4) acceptable data validation and record keeping procedures must be followed; and 5) data from SLAMS must be summarized and reported annually to EPA. Finally, there are system audits that regularly review the overall air quality data collection activity for any needed changes or corrections. Further information available on the Internet: www.epa.gov/cludygxb/programs/namslam.html and through United States EPA's Quality Assurance Handbook (EPA-454/R-98-004 Section 15).

Populations: No additional QA/QC beyond that done by the Census Bureau/Department of Commerce.

Data Quality Review:

AQS: No external audits have been done in the last 3 years. However, internal audits are regularly conducted.

Populations: No additional QA/QC beyond that done by the Census Bureau/Department of Commerce.

Error Estimate:

At this time it is not possible to develop an error estimate. There is still too much uncertainty in the projections and near term variations in air quality (due to meteorological conditions for example) exist.

New/Improved Data or Systems:

AQS: In January 2002, EPA completed the reengineering of AQS to make it a more

user friendly, Windows-based system. As a result, air quality data are more easily accessible via the Internet. AQS has also been enhanced to comply with the Agency's data standards (e.g., latitude/longitude, chemical nomenclature). Beginning in July 2003, agencies submitted air quality data to AQS thru the Agency's Central Data Exchange (CDX). CDX is intended to be the portal through which all environmental data coming to or leaving the Agency will pass.

References:

For additional information about criteria pollutant data, non-attainment areas, and other related information, see: www.epa.gov/airtrends/.

FY 2005 PERFORMANCE MEASURES:

Estimated Mobile Source VOC Emissions.
Estimated Mobile Source NO_x Emissions.
Estimated Mobile Source PM_{10} Emissions.
Estimated Mobile Source $PM_{2.5}$ Emissions.
Estimated Mobile Source CO Emissions.

Performance results related to these measures are presented in Goal 1, pages 46-49.

Performance Databases:

National Emissions Inventory Database. See: www.epa.gov/ttn/chief/trends/.

Data Source:

Mobile source emissions inventories and Regulatory Impact Analyses.

Estimates for on-road, off-road mobile source emissions are built from inventories fed into the relevant models, which in turn provide input to the National Emissions Inventory Database.

The MOBILE vehicle emission factor model is a software tool for predicting gram per mile emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, carbon dioxide, particulate matter, and toxics from cars, trucks, and motorcycles under various conditions. Inputs to the model include fleet composition, activity, temporal information, and control program characteristics.

The NONROAD emission inventory model is a software tool for predicting emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, particulate matter, and sulfur dioxides from small and large off road vehicles, equipment, and engines. Inputs to the model include fleet composition, activity and temporal information.

Certain mobile source information is updated annually. Inputs are updated annually only if there is a rationale and readily available source of annual data. Generally, Vehicle Miles Traveled (VMT), the mix of VMT by type of vehicle (Federal Highway Administration (FHWA)-types), temperature, gasoline properties, and the designs of Inspection/Maintenance (I/M) programs are updated each year. Emission factors for all mobile sources and activity estimates for non-road sources are changed only when the Office of Transportation and Air Quality requests that this be done and is able to provide the new information in a timely manner. The most recent models for mobile sources are Mobile 6 and Nonroad 2002. (Available on the Internet at www.epa.gov/otaq/models.htm.)

EPA regulatory packages always include detailed Regulatory Impact Analysis which estimates the costs industry is projected to accrue in meeting EPA regulations. These cost estimates will form the basis of the numbers in the EPA performance measures. Also, costs for the EPA mobile source program (including personnel costs) will be included also. Estimates will be made for various years for tons/dollar for pollutants (the total of HC, CO, NO_x, and PM) removed.

Methods, Assumptions, and Suitability:

EPA issues emissions standards that set limits on how much pollution can be emitted from a given mobile source. Mobile sources include vehicles that operate on roads and highways ("on road" or "highway" vehicles), as well as nonroad vehicles, engines, and equipment. Examples of mobile sources are cars, trucks, buses, earthmoving equipment, lawn and garden power tools, ships, railroad locomotives, and airplanes. Vehicle and equipment manufacturers have responded to many mobile source emission standards by redesigning vehicles and engines to reduce pollution.

EPA uses models to estimate mobile source emissions, for both past and future years. The estimates are used in a variety of different settings. The estimates are used for rulemaking.

The most complete and systematic process for making and recording such mobile source emissions is the "Trends" inventory process executed each year by the Office of Air Quality Planning and Standards' (OAQPS) Emissions, Monitoring, and Analysis Division (EMAD). The Assessment and Standards Division, within the Office of Transportation and Air Quality, provides EMAD information and methods for making the mobile source estimates. In addition, EMAD's contractors obtain necessary information directly from other sources; for example, weather data and the Federal Highway Administration's (FHWA) Vehicle Miles Traveled (VMT) estimates by state. EMAD creates and publishes the emission inventory estimate for the most recent historical year, detailed down to the county level and with over 30 line items representing mobile sources. At irregular intervals as required for regulatory analysis projects, EMAD creates estimates of emissions for future years. When the method for estimating emissions changes significantly, EMAD usually revises its older estimates of emissions in years prior to the most recent year, to avoid a sudden discontinuity in the apparent emissions trend. EMAD publishes the national emission estimates in hardcopy; county-level estimates are avail-

able electronically. Additional information about transportation and air quality related to estimating, testing for, and measuring emissions, as well as research being conducted on technologies for reducing emissions is available at www.epa.gov/otaq/research.htm

When major changes are made in the emission models or resulting inventories (and even the cost estimates), the performance measures will be reviewed to determine if they should be updated.

QA/QC Procedures:

The emissions inventories are continuously improved.

Data Quality Review:

The emissions inventories are reviewed by both internal and external parties, including the states, locals and industries.

Data Limitations:

The limitations of the inventory estimates for mobile sources come from limitations in the modeled emission factors (based on emission factor testing and models predicting overall fleet emission factors in g/mile) and also in the estimated vehicle miles traveled for each vehicle class (derived from Department of Transportation data).www.epa.gov/otaq/m6.htm. For nonroad emissions, the estimates come from a model using equipment populations, emission factors per hour or unit of work, and an estimate of usage. This nonroad emissions model accounts for over 200 types of nonroad equipment. Any limitations in the input data will carry over into limitations in the emission inventory estimates.

Error Estimate:

Additional information about data integrity is available at: www.epa.gov/otaq/m6.htm.

New/Improved Data or Systems:

To keep pace with new analysis needs, new modeling approaches, and new data, EPA is currently working on a new modeling system termed the Multi-scale Motor Vehicles and Equipment Emission System (MOVES). This new system will estimate emissions for on road and off road sources, cover a broad range of pollutants, and allow multiple scale analysis, from fine scale analysis to national inventory estimation. When fully implemented, MOVES will serve as the replacement for MOBILE6 and NONROAD. The new system will not necessarily be a single piece of software, but instead will encompass the necessary tools, algorithms, underlying data and guidance necessary for use in all official analyses associated with regulatory development, compliance with statutory requirements, and national/regional inventory projections. Additional information is available on the Internet: www.epa.gov/otaq/ngm.htm.

References:

Additional information about mobile source programs is available at: http://www.epa.gov/otaq/.

FY 2005 PERFORMANCE MEASURES:

Mobile Source Air Toxics Emissions Reduced.

Stationary Source Air Toxics Emissions Reduced.

All Other Air Toxics Emissions Reduced.

Performance results related to these measures are presented in Goal 1, page 50.

Performance Database:

National Emissions Inventory (NEI) for Hazardous Air Pollutants (HAPs).

Data Source:

To calculate performance measures, the data source used is the NEI for HAPs which includes emissions from large and small industrial sources inventoried as point sources, smaller stationary area and other sources, such as fires inventoried as nonpoint sources, and mobile sources.

Prior to the 1999 NEI for HAPs, there was the National Toxics Inventory (NTI). The baseline NTI (for base years 1990—1993) includes emissions information for 188 hazardous air pollutants from more than 900 stationary sources and from mobile sources. It is based on data collected during the development of Maximum Achievable Control Technology (MACT) standards, state and local data, Toxics Release Inventory (TRI) data, and emissions estimates using accepted emission inventory methodologies. The baseline NTI contains county level emissions data , not facility-specific data.

The 1996 NTI and 1999 NEI for HAPs contain estimates of facility-specific HAP emissions and their source specific parameters such as location (latitude and longitude) and facility characteristics (stack height, exit velocity, temperature, etc.)

The primary source of data in the 1996 and 1999 NTI is state and local air pollution control agencies and Tribes. These data vary in completeness, format, and quality. EPA evaluates these data and supplements them with data gathered while developing MACT and residual risk standards, industry data, and TRI data. To produce a complete national inventory, EPA estimates emissions for approximately 30 non-point source categories such as wildfires and residential heating sources not included in the state, local and Tribal data. Mobile source data are developed using data provided by state and local agencies and Tribes and the most current onroad and nonroad models developed by EPA's Office of Transportation and Air Quality. The draft 1996 NTI and 1999 NEI for HAPS underwent extensive review by state and local agencies, Tribes, industry, EPA, and the public.

For more information and references on the development of the 1996 NTI, please go to the following web site: http://www.epa.gov/ttn/chief/nti/index.html#nti. For more information and references on the development of the 1999 NEI for HAPs, please go to the following web site: www.epa.gov/ttn/chief/net/index.html#1999.

Methods, Assumptions and Suitability:

To produce a complete model-ready national inventory, EPA estimates emissions for approximately 30 non-point source categories such as wildfires and residential heating sources not included in the state, local and Tribal data. Mobile source data are developed using data provided by state and local agencies and Tribes and the most current onroad and nonroad models developed by EPA's Office of Transportation and Air Quality.

Upon development of the inventory, the EMS-HAP (Emissions Modeling System for Hazardous Air Pollutants) is used to estimate annual emissions of air toxics for the 1996 NTI and 1999 NEI for HAPS (and for all years in-between). The EMS-HAP can project future emissions, by adjusting stationary source emission data to account for growth and emission reductions resulting from emission reduction scenarios such as the implementation of the Maximum Achievable Control Technology (MACT) standards.

For more information and references on EMS-HAP, please go to: www.epa.gov/ttn/chief/emch/projection/emshap.html.

QA/QC Procedures:

The NTI and the NEI for HAPs are databases designed to house information from other primary sources. The EPA performs extensive quality assurance/quality control (QA/QC) activities, including checking data provided by other organizations, to improve the quality of the emission inventory. Some of these activities include: (1) the use of an automated format QC tool to identify potential errors of data integrity, code values, and range checks; (2) use of geographical information system (GIS) tools to verify facility locations; and (3) automated content analysis by pollutant, source category and facility to identify potential problems with emission estimates such as outliers, duplicate sites, duplicate emissions, coverage of a source category, etc. The content analysis includes a variety of comparative and statistical analyses. The comparative analyses help reviewers prioritize which source categories and pollutants to review in more detail based on comparisons using current inventory data and prior inventories. The statistical analyses help reviewers identify potential outliers by providing the minimum, maximum, average, standard deviation, and selected percentile values based on current data. The EPA is currently developing an automated QC content tool for data providers to use prior to submitting their data to EPA. After investigating errors identified using the automated QC format and GIS tools, the EPA follows specific guidance on augmenting data for missing data fields.

The NTI database contains data fields that indicate if a field has been augmented and identifies the augmentation method. After performing the content analysis, the EPA contacts data providers to reconcile potential errors. The draft NTI is posted for external review and includes a README file, with instructions on review of data and submission of revisions, state-by-state modeling files with all modeled data fields, and summary files to assist in the review of the data. One of the summary files includes a comparison of point source data submitted by different organizations. During the external review of the data, state and local agencies, Tribes, and industry provide external QA of the inventory. The EPA evaluates proposed revisions from external reviewers and prepares memos for individual reviewers documenting incorporation of revisions and explanations if revisions were not incorporated. All revisions are tracked in the database with the source of original data and sources of subsequent revision.

The external QA and the internal QC of the inventory have resulted in significant changes in the initial emission estimates, as seen by comparison of the initial draft NEI for HAPs and its final version. For more information on QA/QC of the NEI for HAPs, please refer to the following web site for a paper presented at the 2002 Emission Inventory Conference in Atlanta. "QA/QC—An Integral Step in the Development of the 1999 National Emission Inventory for HAPs," Anne Pope, et at www.epa.gov/ttn/.

EPA's Office of Environmental Information (OEI) has created uniform data standards or elements, which provide "meta" information on the standard NEI Input Format (NIF) fields. These standards were developed by teams representing states, Tribes, EPA and other Federal agencies. The use of common data standards among partners fosters consistently defined and formatted data elements and sets of data values, and provides public access to more meaningful data. The standards relevant to the NEI for HAPs are the: SIC/NAICS, Latitude/Longitude, Chemical Identification, Facility Identification, Date, Tribal and Contact Data Standards. The 1999 NEI for HAPs is compliant with all new data standards except the Facility Identification Standard because OEI has not completed its assignment of Facility IDs to the 1999 NEI for HAPs facilities.

For more information on compliance of the NEI for HAPs with new OMB Information Quality Guidelines and new EPA data standards, please refer to the following web site for a paper presented at the 2003 Emission Inventory Conference in San Diego: "The Challenge of Meeting New EPA Data Standards and Information Quality Guidelines in the Development of the 2002 NEI Point Source Data for HAPs," Anne Pope, et al. www.epa.gov/ttn/.

The 2002 NEI for HAPs will undergo scientific peer review in early 2005.

Data Quality Review:

EPA staff, state and local agencies, Tribes, industry and the public review the NTI and the NEI for HAPs. To assist in the review of the 1999 NEI for HAPs, the EPA provided a comparison of data from the three data sources (MACT/residual risk data, TRI, and state, local and Tribal inventories) for each facility. For the 1999 NEI for HAPs, two periods were available for external review—October 2001–February 2002 and October 2002–March 2003. The final 1999 NEI was completed and posted on the Agency website in the fall of 2003. Beginning in 2005, the NTI will undergo an external scientific peer review.

In 2001, EPA's Science Advisory Board (SAB) reviewed the EMS-HAP model as part of the 1996 national-scale assessment. The review was generally supportive of the assessment purpose, methods, and presentation; the committee considers this an important step toward a better understanding of air toxics.

Data Limitations:

While emissions estimating techniques have improved over the years, broad assumptions about the behavior of sources and serious data limitations still exist. The NTI

and the NEI for HAPs contain data from other primary references. Because of the different data sources, not all information in the NTI and the NEI for HAPs has been developed using identical methods. Also, for the same reason, there are likely some geographic areas with more detail and accuracy than others. Because of the lesser level of detail in the baseline NTI, it is currently not suitable for input to dispersion models. For further discussion of the data limitations and the error estimates in the 1999 NEI for HAPs, please refer to the discussion of Information Quality Guidelines in the documentation at: www.epa.gov/ttn/chief/net/index.html#haps99.

In 2004, the Office of the Inspector General (OIG) released a final evaluation report on "EPA's Method for Calculating Air Toxics Emissions for Reporting Results Needs Improvement" (report can be found at www.epa.gov/oig/). The report stated that although the methods used have improved substantially, unvalidated assumptions and other limitations underlying the NTI continue to impact its use as a GPRA performance measure. As a result of this evaluation and the OIG recommendations for improvement, EPA prepared an action plan and is looking at way to improve the accuracy and reliability of the data. EPA will meet bi-annually with OIG to report on its progress in completing the activities as outlined in the action plan.

New/Improved Data or Systems:

The 1996 NTI and 1999 NEI for HAPs are a significant improvement over the baseline 1993 NTI because of the added facility-level detail (e.g., stack heights, latitude/longitude locations), making it more useful for dispersion model input. Future inventories (2002 and later years) are expected to improve significantly because of increased interest in the NEI for HAPs by regulatory agencies, environmental interests, and industry, and the greater potential for modeling and trend analysis. During the development of the 1999 NEI for HAPs, all primary data submitters and reviewers were required to submit their data and revisions to EPA in a standardized format using the Agency's Central Data Exchange (CDX). For more information on CDX, please go the following web site: www.epa.gov/ttn/chief/nif/cdx.html.

References:

The NTI and NEI data and documentation is available at the following site:

NEON: ttnwww.rtpnc.epa.gov/Neon/

Available inventories: 1996 NTI and 1999 NEI for HAPs

Contents: Summary data files

Audience: EPA staff

Goal 1, Objective 2

FY 2005 *OVERARCHING* PERFORMANCE MEASURE:
People Living in Healthier Indoor Air.
FY 2005 PERFORMANCE MEASURE:
People Living in Radon Resistant Homes.
Performance results related to these measures are presented in Goal 1, page 54.

Performance Database:

Annual industry survey data of home builders provided by the National Association of Home Builders.

Data Source:

The survey is an annual sample of home builders in the United States most of whom are members of the National Association of Home Builders (NAHB). NAHB members construct 80% of the homes built in the United States each year. Using a survey methodology reviewed by EPA, NAHB Research Center estimates the percentage of these homes that are built radon resistant. The percentage built radon resistant from the sample is then used to estimate what percent of all homes built nationwide are radon resistant. To calculate the number of people living in radon resistant homes, EPA assumes an average of 2.67 people per household. NAHB Research Center has been conducting this annual builder practices survey for over a decade, and has developed substantial expertise in the survey's design, implementation, and analysis. The statistical estimates are typically reported with a 95 percent confidence interval.

Methods, Assumptions, and Suitability:

NAHB Research Center conducts an annual survey of home builders in the United States to assess a wide range of builder practices. NAHB Research Center voluntarily conducts this survey to maintain an awareness of industry trends in order to improve American housing and to be responsive to the needs of the home building industry. The annual survey gathers information such as types of houses built, lot sizes, foundation designs, types of lumber used, types of doors and windows used, etc. The NAHB Research Center Builder Survey also gathers information on the use of radon-resistant design features in new houses, and these questions comprise about two percent of the survey questionnaire.

In January of each year, the survey of building practices for the preceding calendar year is typically mailed out to home builders. For the most-recently completed survey, for building practices during calendar year 2003, NAHB Research Center

reported mailing the survey to about 45,000 active United States home building companies, and received about 2,300 responses, which translates to a response rate of about 5 percent. The survey responses are analyzed, with respect to State market areas and Census Divisions in the United States, to assess the percentage and number of homes built each year that incorporate radon-reducing features. The data are also used to assess the percentage and number of homes built with radon-reducing features in high radon potential areas in the United States (high risk areas). Other analyses include radon-reducing features as a function of housing type, foundation type, and different techniques for radon-resistant new home construction. The data are suitable for year-to-year comparisons.

QA/QC Procedures:

Because data are obtained from an external organization, QA/QC procedures are not entirely known. According to NAHB Research Center, QA/QC procedures have been established, which includes QA/QC by the vendor that is utilized for key entry of data.

Data Quality Review:

Because data are obtained from an external organization, Data Quality Review procedures are not entirely known. NAHB Research Center indicates that each survey is manually reviewed, a process that requires several months to complete. The review includes data quality checks to ensure that the respondents understood the survey questions and answered the questions appropriately. NAHB Research Center also applies checks for open-ended questions to verify the appropriateness of the answers. In some cases, where open-ended questions request numerical information, the data are capped between the upper and lower three percent of the values provided in the survey responses. Also, a quality review of each year's draft report from NAHB Research Center is conducted by the EPA project officer.

Data Limitations:

The majority of home builders surveyed are NAHB members. The NAHB Research Center survey also attempts to capture the activities of builders that are not members of NAHB. Home builders that are not members of NAHB are typically smaller, sporadic builders that in some cases build homes as a secondary profession. To augment the list of NAHB members in the survey sample, NAHB Research Center sends the survey to home builders identified from mailing lists of builder trade publications, such as Professional Builder magazine. There is some uncertainty as to whether the survey adequately characterizes the practices of builders who are not members of NAHB. The effects on the findings are not known.

Although an overall response rate of 5 percent could be considered low, it is the response rate for the entire survey, of which the radon-resistant new construction questions are only a very small portion. Builders responding to the survey would not be doing so principally due to their radon activities. Thus, a low response rate does not necessarily indicate a strong potential for a positive bias under the speculation that builders using radon-resistant construction would be more likely to respond to the survey. NAHB Research Center also makes efforts to reduce the potential for positive bias in the way the radon-related survey questions are presented.

References:

The results are published by the NAHB Research Center in annual reports of radon-resistant home building practices. See www.nahbrc.org/ last accessed 7/27/2005 for more information about NAHB. The most recent report, "Builder Practices Report: Radon Reducing Features in New Construction 2003," Annual Builder and Consumer Practices Surveys by the NAHB Research Center, Inc., November, 2004. Similar report titles exist for prior years.

FY 2005 PERFORMANCE MEASURE:
People Living in Radon Mitigated Homes.

Performance results related to these measures are presented in Goal 1, page 54.

Performance Database:

External

Data Source:

Radon fan manufacturers report fan sales to the Agency. EPA assumes one fan per radon mitigated home, assumes a fan life of 10 years, and then multiplies the assumed number of working fans by the assumed average of 2.67 people per household.

QA/QC Procedures:

Because data are obtained from an external organization, EPA relies on the business practices for reporting data of the radon fan manufacturers.

Data Quality Review:

Data are obtained from an external organization. EPA reviews the data to ascertain their reliability and discusses any irregularities with the relevant manufacturer.

Data Limitations:

Reporting by radon fan manufacturers is voluntary and may underestimate the number of radon fans sold. Nevertheless, these are the best available data to determine the number of homes mitigated. There are other methods to mitigate radon including: passive mitigation techniques of sealing holes and cracks in floors and foundation walls, installing sealed covers over sump pits, installing one-way drain valves in untrapped drains, and installing static venting and ground covers in areas like crawl spaces. Because there are no data on the occurrence of these methods, there is again the possibility that the number of radon mitigated homes has been underestimated.

No radon vent fan manufacturer, vent fan motor maker or distributor is required to report to EPA; they provide data/information voluntarily to EPA. There are only four (4) radon vent fan manufacturers of any significance; one of these accounts for an estimated 70% of the market. Radon vent fans are unlikely to be used for non-radon applications. However, vent fans typically

used for non-radon applications are perhaps being installed as substitutes for radon vent fans in some instances; estimated to be less than 1% of the total market. Ascertaining the actual number of radon vent fans used for other applications, and the number of non-radon fans being substituted in radon applications, would be difficult and expensive at this time relative to the benefit of having such data.

References:

See www.epa.gov/iaq/radon/pubs/index.html last accessed 7/27/2005 for National performance/progress reporting (National Radon Results: 1985 to 2003*) on radon, measurement, mitigation and radon-resistant new construction. Data through 2004 are available from the Indoor Environments Division of the Office of Air and Radiation.

FY 2005 PERFORMANCE MEASURE:

Number of people with asthma who have taken steps to reduce their exposure to indoor environmental asthma triggers.

Performance results related to these measures are presented in Goal 1, page 54.

Note:

The name of the *"National Survey on Environmental Management of Asthma"* has been changed to *"National Survey on Environmental Management of Asthma and Children's Exposure to ETS"* to more appropriately reflect its actual content. Although this is a name change from that approved by OMB under the Information Collection Request (ICR), in all other respects, the content and substance of the survey are the same.

Performance Database:

The performance database consists of quarterly Partner status reports used to document the outcomes of individual projects; a media tracking study used to assess behavior change within that sector of the public viewing the public service announcements, and a national telephone survey *(National Survey on Environmental Management of Asthma and Children's Exposure to ETS)* which seeks information about the measures taken by people with asthma, and parents of children with asthma to minimize exposure to indoor environmental asthma triggers. Additional information about asthma morbidity and mortality in the US is obtained from the Centers for Disease Control and Prevention (CDC). Annual expenditures for health and lost productivity due to asthma are obtained from the National Heart Lung and Blood Institute (NHLBI) Chartbook www.nhlbi.nih.gov/resources/docs/02_chtbk.pdf last accessed 7/27/2005.

EPA also collects data on children exposed to environmental tobacco smoke in the home. This information is used in supporting the asthma goals of the program. EPA focuses its work on ETS on children in low income and minority populations, and on children with asthma. The *National Survey on Environmental Management of Asthma and Children's Exposure to ETS*, which includes a series of questions about whether respondents allow smoking in their home, whether young children are in the home, what resident family members smoke and how often, and how much visitors contribute to exposure, is used to track progress toward reducing childhood ETS exposure. Information about ETS is obtained periodically from the Centers for Disease Control and Prevention (CDC) including the National Health Interview, the National Health and Nutrition Examination Survey (for cotinine data), and the Behavioral Risk Factor Surveillance Survey (for state tobacco/ETS exposure data).

Data Source:

Each component of the database has a unique source. Partner status reports are generated by those organizations receiving funding from EPA and are maintained by individual EPA Project Officers. An independent initiative of the Advertising Council provides media tracking of outcomes of all of their public service campaigns and this is publicly available information. The *National Survey on Environmental Management of Asthma and Children's Exposure to ETS* (OMB control number 2060-0490) source is EPA. Data on asthma morbidity and mortality is available from the National Center for Health Statistics at the CDC (www.cdc.gov/nchs last accessed 7/27/2005). Data on annual expenditures for health and lost productivity due to asthma are obtained from the NHLBI Chartbook.

Methods, Assumptions and Suitability:

End-of–year performance is a best professional estimate using all data sources. The survey provides more statistically sound results for one period of time; the next scheduled survey will provide performance results for year 2006.

National Survey on Environmental Management of Asthma and Children's Exposure to ETS (OMB control number 2060-0490): This survey is the most robust data set for this performance measure, but it is not administered annually. The first survey, administered in 2003, was designed in consultation with staff from EPA and the CDC National Center for Health Statistics (NCHS) to ensure that respondents will understand the questions asked and will provide the type of data necessary to measure the Agency's objectives. In addition, care has been taken to ensure that the survey questions target the population with asthma by using the same qualifier question that appears on other national surveys on asthma collected by the CDC.

From an initial sampling frame of 124,994 phone numbers, 14,685 households were contacted successfully and agreed to participate in the screening survey. Of the 14,685 individuals screened, approximately 18 percent, or 2,637 individuals, either have asthma or live with someone who does. Only those individuals who have asthma or live with someone who does were considered to be eligible respondents.

Respondents were asked to provide primarily yes/no responses. In some cases, respondents were given a range of responses in the form of multiple choice questions and were asked to indicate the one which best defined their response.

The survey seeks information on those environmental management measures that the Agency considers important in reducing an individual's exposure to known indoor environmental asthma triggers. By using yes/no and multiple choice questions, the Agency has substantially reduced the amount of time necessary for the respondent to complete the survey and has ensured consistency in data response and interpretation.

The information collected has been used to establish a baseline to reflect the characteristics of our nation's asthma population and future iterations of this survey will measure additional progress toward achieving performance goals. The next survey will take place in 2006.

On an annual basis, EPA requires (programmatic terms and conditions of the award) all funded organizations to provide quarterly reports identifying how many health care professionals are educated about indoor asthma triggers.

QA/QC Procedures:

It is assumed that partner organizations report data as accurately and completely as possible; site-visits are conducted by EPA project officers as warranted. The National Survey is designed in accordance with approved Agency procedures. Additional information is available on the Internet: www.epa.gov/icr/players.html last accessed 7/27/2005. The computer assisted telephone interview methodology used for this survey helps to limit errors in data collection. In addition, the QA/QC procedures associated with conducting the survey include pilot testing of interview questions, interviewer training to ensure consistent gathering of information, and random data review to reduce the possibility of data entry error.

Data Quality Review:

EPA reviews the data from all sources to ascertain reliability.

Data Limitations:

Asthma: For the National Survey, random digit dialing methodology is used to ensure that a representative sample of households has been contacted; however, the survey is subject to inherent limitations of voluntary telephone surveys of representative samples. For example, 1) survey is limited to those households with current telephone service; 2) interviewers may follow survey directions inconsistently. An interviewer might ask the questions incorrectly or inadvertently lead the interviewee to a response; or 3) the interviewer may call at an inconvenient time (i.e., the respondent might not want to be interrupted at the time of the call and may resent the intrusion of the phone call; the answers will reflect this attitude.).

ETS: Currently available cotonine (a chemical in environmental tobacco smoke) survey data do not address 50% of the age specific portion of EPA's target population. It does not include birth to 3 years old, the portion of children most susceptible to the effects of ETS.

Error Estimate:

In its first data collection with this instrument, the Agency achieved results within the following percentage points of the true value at the 95 percent confidence level (survey instrument):

Adult Asthmatics	plus or minus	2.4%
Child Asthmatics	plus or minus	3.7%
Low Income Adult Asthmatics	plus or minus	6.1%

These precision rates are sufficient to characterize the extent to which the results measured by the survey accurately reflect the characteristics of our nation's asthmatic population.

New/Improved Data or Systems:

Data from the *National Survey on Environmental Management of Asthma and Children's Exposure to ETS* (OMB control number 2060-0490) were collected from August 4-September 17, 2003 and represent the first data collection with this instrument.

References:

Asthma

National Center for Health Statistics, Centers for Disease Control and Prevention (www.cdc.gov/nchs/ last accessed 7/27/2005)

EPA Indoor Environments Division (www.epa.gov/iaq/ last accessed 7/27/2005)

EPA Indoor Environments Division (www.epa.gov/iaq/ last accessed 7/27/2005)

ETS

National Health Interview Survey and National Health and Nutrition Examination Survey are part of the National Center for Health Statistics, Centers for Disease Control and Prevention (www.cdc.gov/nchs last accessed 7/27/2005)

Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Prevention (www.cdc.gov/brfss/index.htm last accessed 7/27/2005),

National Cancer Institute's (NCI) *Tobacco Monograph Series* (cancercontrol.cancer.gov/tcrb/monographs/ last accessed 7/27/2005),

NCI funded *Tobacco Use Supplement* portion of the US Census Bureau's *Current Population Survey* (riskfactor.cancer.gov/studies/tus-cps/ last accessed 7/27/2005),

Healthy People 2010 (www.healthypeople.gov/ last accessed 7/27/2005).

FY 2005 PERFORMANCE MEASURE:

Students, faculty and staff experiencing improved indoor air quality in their schools.

Performance results related to these measures are presented in Goal 1, page 55.

Performance Database:

EPA collects national data by conducting a survey of indoor air quality management practices in schools approximately every 3 years. The first survey was administered in 2002. EPA is partnering with CDC to incorporate IAQ management practice indicators, consistent with the benchmark survey, into the School Health Policies and

Programs Study (SHPPS) to be administered in 2006. EPA will implement this IAQ module as a smaller survey in 2009, as the SHPSS survey is only conducted at 6 year intervals.

To measure annual progress, EPA estimates the number of schools who establish IAQ Tools for Schools (TfS) programs each year from reports from partner organizations and regional recruiters, supplemented by tracking the volume of guidances distributed and number of people trained by EPA and its partners. EPA also collects information on program benefits such as reduced school nurse visits, improved workplace satisfaction among staff, reduced absenteeism, and cost savings experienced by schools.

Data Source:

The sources of the data include cooperative partners, USEPA and the statistical sample of all the public and private schools in the nation during the 1999 – 2000 school year (118,000); data are from the United States Department of Education National Center for Education Statistics.

Methods, Assumptions and Suitability:

Calculations for the number of people experiencing improved IAQ are based upon an average 525 students, staff and faculty per school (data are from the United States Department of Education National Center for Education Statistics). That number, along with the number of schools that are adopting/implementing TfS, are used to estimate the performance result.

End-of–year performance is a best professional estimate using all data sources. The survey provides more statistically sound results for one period of time; the next scheduled survey will provide performance results for year 2006. EPA's 2006 survey will be included as part of CDC's 2006 School Health Policies and Programs Study, which is conducted every 6 years.

QA/QC Procedures:

It is assumed that partner organizations report data as accurately and completely as possible; site visits and regular communication with grantees are conducted by EPA projects officers.

Data Quality Review:

EPA reviews the data from all sources in the performance database to ascertain reliability and to resolve any discrepancies.

Data Limitations:

The primary limitation associated with Cooperative Agreement Partner status reporting is the error introduced as a result of self-reporting.

New/Improved Data or Systems:

Prior to the 2003 survey, EPA tracked the number of schools receiving the TfS guidance and estimated the population of the school to determine the number of students/staff experiencing improved indoor air quality. The survey was administered to establish a baseline for schools implementing IAQ management practices. EPA queried a statistically representative sample of schools to estimate the number of schools that have actually adopted and implemented good IAQ management practices consistent with the TfS guidance. EPA plans to re-administer the survey as a component of CDC's School Health Policies and Programs Study, which will show progress from the baseline.

References:

See the United States Department of Education National Center for Education Statistics, nces.ed.gov/ last accessed 7/27/2005. See also Indoor Air Quality Tools for Schools Kit (402-K-95-001) at www.epa.gov/iaq/schools last accessed 7/27/2005 and see www.cdc.gov/nccdphp/dash/shpps/ For additional information about the School Health Policies and Programs Study (SHPPS), a national survey periodically conducted to assess school health policies and programs at the state, district, school, and classroom levels.

FY 2005 PERFORMANCE MEASURE:

Office Workers **experiencing** improved indoor air quality in their workplaces.

Performance results related to these measures are presented in Goal 1, page 56.

Performance Database:

Since fiscal year 1999 and each fiscal year thereafter, the performance database consists of the annual number of requested copies of building indoor air quality guidance documents, (e.g. EPA's Building Air Quality, I-Beam, a computer software designed to be a comprehensive state-of-the-art guidance for managing IAQ in commercial buildings, Mold Remediation in Schools and Commercial Buildings) and training conducted through cooperative agreements or other government agencies (GSA) using EPA documents. In addition, EPA conducted a voluntary pilot survey of building owners and managers in 2001 to determine the use of indoor air quality (IAQ) management practices in U.S. office buildings.

Data Source:

The pilot survey was developed by EPA and distributed by the Building Owners and Managers Association (BOMA). The pilot survey's purpose and design received approval from the Office of Management and Budget. The survey is not administered on an annual basis.

Methods, Assumptions and Suitability:

The pilot survey included data regarding: the size and uses of a selected building; documentation of management practices employed in the building; how the heating, ventilating, and air-conditioning systems are managed; how pollution sources are addressed; housekeeping and pest management practices; remodeling and renovation activities; and responses to tenant complaints regarding IAQ. A sampling frame was developed based upon random sampling of the membership lists from BOMA, the International Facilities Managers Association (IFMA) and buildings managed by the General Services Administration (GSA). The final sample size, (and survey recipient list) was 3,612 and we received 591 completed surveys. The survey results identified both

strengths and weaknesses in building management practices in U.S. office buildings.

End-of–year performance is a best professional estimate using all data sources. The survey provides more statistically sound results for one period of time.

QA/QC Procedures:

Survey was designed in accordance with approved Agency procedures. Additional information is available on the Internet: www.epa.gov/icr/players.html/ last accessed 12/22/2004. The quality review was conducted by BOMA.

Data Quality Review:

BOMA had responsibility for the accuracy of data entered into the database. Quality assurance safeguards were used in the data entry. BOMA, and EPA's contractor reviewed individual survey responses for accuracy during the aggregation and analyses activities.

Data Limitations:

The primary limitation associated with basing estimates on requests for guidance documents and training is the unknown factor of how many of the requests resulted in improved indoor air quality. The survey provided a reference point on progress. The survey results are subject to the limitations inherent in survey sampling. The response rate of 14% for the survey was low due to the timing of the survey administration and subsequent events in September and October 2001.

Error Estimate:

4% precision at a 95% confidence level.

Goal 1, Objective 3

FY 2005 PERFORMANCE MEASURES:

Remaining US consumption of HCFCs, measured in tons of ozone depleting potential (ODP).

Restrict Domestic Exempted Production and Import of Newly Produced Class I CFCs and Halons.

Performance results related to these measures are presented in Goal 1, page 57.

Performance Database:

The Allowance Tracking System (ATS) database is maintained by the Stratospheric Protection Division (SPD). ATS is used to compile and analyze quarterly information on U.S. production, imports, exports, transformations, and allowance trades of ozone-depleting substances (ODS).

Data Source:

Progress on restricting domestic exempted consumption of Class II HCFCs is tracked by monitoring industry reports of compliance with EPA's phase-out regulations. Data are provided by U.S. companies producing, importing, and exporting ODS. Corporate data are typically submitted as quarterly reports. Specific requirements as outlined in the Clean Air Act are available on the Internet at: www.epa.gov/oar/caa/caa603.txt. Monthly information on domestic production, imports, and exports from the International Trade Commission is maintained in the ATS.

Methods, Assumptions and Suitability:

Data are aggregated across all U.S. companies for each individual ODS to analyze U.S. total consumption and production.

QA/QC Procedures:

Reporting and record-keeping requirements are published in 40 CFR Part 82, Subpart A, Sections 82.9 through 82.13. These sections of the Stratospheric Ozone Protection Rule specify the required data and accompanying documentation that companies must submit or maintain on-site to demonstrate their compliance with the regulation.

The ATS data are subject to a Quality Assurance Plan (Quality Assurance Plan, USEPA Office of Atmospheric Programs, July 2002). In addition, the data are subject to an annual quality assurance review, coordinated by Office of Air and Radiation (OAR) staff separate from those on the team normally responsible for data collection and maintenance. The ATS is programmed to ensure consistency of the data elements reported by companies. The tracking system flags inconsistent data for review and resolution by the tracking system manager. This information is then cross-checked with compliance data submitted by reporting companies. SPD maintains a user's manual for the ATS that specifies the standard operating procedures for data entry and data analysis. Regional inspectors perform inspections and audits on-site at the producers', importers', and exporters' facilities. These audits verify the accuracy of compliance data submitted to EPA through examination of company records.

Data Quality Reviews:

The Government Accounting Office (GAO) completed a review of U.S. participation in five international environmental agreements, and analyzed data submissions from the U.S. under the Montreal Protocol on Substances the Deplete the Ozone Layer. No deficiencies were identified in their January 2003 report.

Data Limitations:

None, since companies are required by the Clean Air Act to report data. EPA's regulations specify a quarterly reporting system.

New/Improved Data or Systems:

The Stratospheric Protection Division is developing a system to allow direct electronic reporting.

References:

See www.epa.gov/ozone/desc.html for additional information on ODSs. See www.unep.ch/ozone/montreal.shtml for additional information about the Montreal Protocol. See www.multilateralfund.org/ for more information about the Multilateral Fund. Quality Assurance Plan, USEPA Office of Atmospheric Programs, July 2002

Goal 1, Objective 4

FY 2005 PERFORMANCE MEASURE:

Purchase and Deploy State-of-Art Monitoring Units.

Performance results related to these measures are presented in Goal 1, page 59.

Performance Data:

Data from the near real-time gamma component of the RadNet, formerly known as the Environmental Radiation Ambient Monitoring System (ERAMS), will be stored in an internal EPA database at the National Air and Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama. Data from filters are housed in the Laboratory Information Management System (LIMS) which are physically located in Montgomery, Alabama.

Data Source:

RadNet

Methods, Assumptions and Suitability:

Assuming that funding is continued in future years and the project receives all necessary approvals, the existing air sampling equipment will be supplemented with state-of-the art air monitors that include near real-time gamma radiation detection capability. Addition of detectors and communication systems will provide information about significant radioactive contamination events to decision-makers within hours.

QA/QC Procedures:

Quality Assurance and Quality Control Procedures will follow the Agency guidelines and be consistent with a specific initial operational Quality Assurance Plan that will be completed. All monitoring equipment will be periodically calibrated with reliable standards and routinely checked for accuracy with onsite testing devices. Laboratory analyses of air filters and other environmental media are closely controlled in compliance with the NAREL Quality Management Plan and applicable Standard Operating Procedures.

Data Quality Reviews:

The database will screen all incoming data from the monitoring systems for abnormalities as an indicator of either a contamination event or an instrument malfunction. Data will be held in a secure portion of the database until verified by trained personnel. Copies of quality assurance and quality control testing will also be maintained to assure the quality of the data.

Data Limitations:

Data are limited in near-real-time to gamma emitting radionuclide identification and quantification. Radiation levels from gamma-emitting nuclides that will be so low as to be "undetectable" will be significantly below health concerns that require immediate action. Lower levels of radioactive materials in the samples will be measured through laboratory-based analyses and data.

Error Estimate:

The overall error in detection capability is estimated to be within 50% of the actual concentration based on previous experience with similar measurement systems. An error analysis will be performed on the prototype systems during the process of detector selection.

New/Improved Performance Data or Systems:

New air samplers will maintain steady flow rates that are measured during operation and corrected for varying environmental conditions. Addition of gamma spectrometric detectors and computer-based multi-channel analyzers to the air samplers provide near real-time analyses of radioactive content in particles captured by the filter. In addition to data collection, the onboard computer systems can communicate results of analyses back to a central database and even identify abnormal conditions that might require action. These improvements not only include higher quality data, but also will provide information regarding contamination events to decision-makers within hours instead of days. The number and location of monitoring sites will be improved to provide greater coverage of more of the nation's population.

The plan for upgrading and expanding the RadNet air monitoring network was reviewed in FY05 by an EPA Technical Evaluation Panel (TEP) and will be reviewed in FY06 by the Radiation Advisory Committee (RAC) of EPA's Science Advisory Board (SAB). The TEP review provided a number of comments that were incorporated in the RadNet plan, especially those addressing the refinement of the overall system objectives. The SAB review is expected to provide discussion and guidance from a team of national experts that will address key aspects of the science and technology of the new network, including fundamental concerns such as the appropriateness and potential effectiveness of the plan for siting near-real-time air monitors across the nation.

References:

For additional information about the continuous monitoring system, ERAMS see: *www.epa.gov/narel/radnet*. NAREL Quality Management Plan, Revision 1, March 15, 2001.

FY 2005 PERFORMANCE MEASURE:

Percentage of EPA RERT members that meet scenario-based response criteria.

Performance results related to these measures are presented in Goal 1, page 59.

Performance Data:

To determine the effectiveness of RERT performance, an output measure has been developed that scores RERT members on a scale of one (1) to 100 against criteria developed based on the RERT's responsibilities under the National Response Plan's Nuclear/Radiological Incident Annex (formerly the Federal Radiological Emergency Response Plan) and the National Oil and Hazardous Substances Pollution Contingency Plan (the NCP). A baseline evaluation was performed in FY03, based on the effectiveness of the RERT in responses to actual incidents and a major national exercise (TOPOFF2). RERT members were evaluated in their ability to: (1) provide effective field response, (2) support coordination centers, and (3) provide analytical capabilities and to support a single small-to-medium scale incident, as needed. Overall RERT effectiveness in this baseline analysis was measured at approximately 13 percent. In FY 2004, RERT members were re-evaluated, through a major exercise, in the ability factors listed above. In FY 2005, the evaluation criteria have been reevaluated and revised in response to the results of the FY 2004 exercise as well as changes necessitated by the Homeland Security Act of 2002 and DHS' issuance of the National Incident Management System (NIMS) and the National Response Plan.

Data Source:

Based on the requirements of EPA set forth in the NRP's Nuclear/Radiological Incident Annex and the NCP, EPA has developed criteria against which the capabilities of the RERT are judged. This evaluation has been performed by members of the Radiation Protection Division, including representatives both within and outside the RERT itself.

Data Limitations:

The evaluation criteria were modified between FY2003 and FY2005 to reflect the changing requirements of the RERT, based on DHS' issuance of both NIMS and the NRP during this time period. While the broad outline of the RERT's role has remained the same, additional requirements have been imposed by the issuance of these documents, which are now reflected in the RERT evaluation criteria.

References:

The Homeland Security Act of 2002, the National Incident Management System, and the National Response Plan.

FY 2005 PERFORMANCE MEASURE:

Drums of Radioactive Waste Disposed of according to EPA Standards.

Performance results related to these measures are presented in Goal 1, page 58.

Performance Data:

The Department of Energy (DOE) Waste Isolation Pilot Plant (WIPP) database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. The WIPP is a DOE facility located in southeastern New Mexico, 26 miles from Carlsbad, New Mexico. The WIPP Land Withdrawal Act was passed by Congress in October 1992 and amended in September 1996. The act transferred the land occupied by the WIPP to DOE and gave EPA, regulatory responsibility for determining whether the facility complies with radioactive waste disposal standards. Through July 2005, EPA has completed over 97 on–site inspections to evaluate waste prior to shipment to the WIPP facility.

Data Source:

Department of Energy

QA/QC Procedures:

The performance data used by EPA are collected and maintained by DOE. Under EPA's WIPP regulations (available on the Internet: www.epa.gov/radiation/wipp/background.htm (last accessed 7/18/200), all DOE WIPP-related data must be collected and maintained under a comprehensive quality assurance program meeting consensus standards developed by the American Society of Mechanical Engineers (ASME) (available on the Internet: http://www.asme.org/codes (last accessed 7/18/2005)). EPA conducts regular inspections to ensure that these quality assurance systems are in place and functioning properly; no additional QA/QC of the DOE data is conducted by EPA.

Data Limitations:

The DOE WIPP database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. Currently, there are five DOE waste generator facilities that are approved to generate and ship waste: Los Alamos National Laboratory, Rocky Flats Environmental Technology Site, Hanford Site, Idaho National Engineering and Environmental Laboratory, Savannah River Site. Before DOE waste generator facilities can ship waste to the WIPP, EPA must approve the waste characterization controls and quality assurance procedures for waste identification at these sites. EPA conducts frequent independent inspections and audits at these sites to verify continued compliance with radioactive waste disposal standards and to determine if DOE is properly tracking the waste and adhering to specific waste component limits. Once EPA gives its approval, the number of drums shipped to the WIPP facility on an annual basis is dependent on DOE priorities and funding. EPA volume estimates are based on projecting the average shipment volumes over 40 years with an initial start up.

References:

The Department of Energy National TRU Waste Management Plan Quarterly Supplement www.wipp.ws/library/caolib.htm#Controlled (last accessed 7/18/2005) contains information on the monthly volumes of waste that are received at the DOE WIPP.

Goal 1, Objective 5

FY 2005 PERFORMANCE MEASURE:

Annual Greenhouse Gas Emissions Reductions overall and by Sector.

Performance results related to these measures are presented in Goal 1, page 60.

Performance Database:

Climate Protection Partnerships Division Tracking System. The tracking system's primary purpose is to maintain a record of the annual greenhouse gas emissions reduction goals and accomplishments for the voluntary climate program using information from partners and other sources. It also measures the electricity savings and contribution towards the President's greenhouse gas intensity goal.

Data Source:

EPA develops carbon and non-CO_2 emissions baselines. A baseline is the "business-as-usual" case without the impact of EPA's voluntary climate programs. Baseline data for carbon emissions related to energy use comes from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model (IPM) of the U.S. electric power sector. These data are used for both historical and projected greenhouse gas emissions and electricity generation, independent of partners' information to compute emissions reductions from the baseline and progress toward annual goals. The projections use a "Reference Case" for assumptions about growth, the economy, and regulatory conditions. Baseline data for non-carbon dioxide (CO_2) emissions, including nitrous oxide and other high global warming potential gases, are maintained by EPA. The non-CO_2 data are compiled with input from industry and also independently from partners' information.

Data collected by EPA's voluntary programs include partner reports on facility-specific improvements (e.g. space upgraded, kilowatt-hours (kWh) reduced), national market data on shipments of efficient products, and engineering measurements of equipment power levels and usage patterns.

Baseline information is discussed at length in the U.S. Climate Action Report 2002. The report includes a complete chapter dedicated to the U.S. greenhouse gas inventory (sources, industries, emissions, volumes, changes, trends, etc.). A second chapter addresses projected greenhouse gases in the future (model assumptions, growth, sources, gases, sectors, etc.)

U.S. Department of State. 2002. "U.S. Climate Action Report—2002. Third National Communication of the United States of America under the United Nations Framework Convention on Climate Change."

Partners do contribute *actual* emissions data biannually after their facility-specific improvements but these emissions data are not used in tracking the performance measure. EPA, however, validates the estimates of greenhouse gas reductions based on the actual emissions data received.

Methods, Assumptions, and Suitability:

Most of the voluntary climate programs' focus is on energy efficiency. For these programs, EPA estimates the expected reduction in electricity consumption in kilowatt-hours (kWh). Emissions prevented are calculated as the product of the kWh of electricity saved and an annual emission factor (e.g., metric tons carbon equivalent (MMTCE) prevented per kWh). Other programs focus on directly lowering greenhouse gas emissions (e.g., Natural Gas STAR, Landfill Methane Outreach, and Coalbed Methane Outreach); for these, greenhouse gas emission reductions are estimated on a project-by-project basis. EPA maintains a "tracking system" for emissions reductions.

The Integrated Planning Model, used to develop baseline data for carbon emissions, is an important analytical tool for evaluating emission scenarios affecting the U.S. power sector. The IPM has an approved quality assurance project plan that is available from EPA's program office.

QA/QC Procedures:

EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from voluntary programs. Peer-reviewed carbon-conversion factors are used to ensure consistency with generally accepted measures of greenhouse gas (GHG) emissions, and peer-reviewed methodologies are used to calculate GHG reductions from these programs.

Partners do contribute actual emissions data biannually after their facility-specific improvements but these emissions data are not used in tracking the performance measure. EPA, however, validates the estimates of greenhouse gas reductions based on the actual emissions data received.

Data Quality Review:

The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The second such interagency evaluation, led by the White House Council on Environmental Quality, examined the status of U.S. climate change programs. The review included participants from EPA and the Departments of State, Energy, Commerce, Transportation, and Agriculture. The results were published in the *U.S. Climate Action Report-2002* as part of the United States' submission to the Framework Convention on Climate Change (FCCC). The previous evaluation was published in the U.S. Climate Action Report-1997. A 1997 audit by EPA's Office of the Inspector General concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment..."

Data Limitations:

These are indirect measures of GHG emissions (carbon conversion factors and methods to convert material-specific reductions to GHG emissions reductions). Also, the voluntary nature of the programs may affect reporting. Further research will be necessary in order to fully understand the links between GHG concentrations and

specific environmental impacts, such as impacts on health, ecosystems, crops, weather events, and so forth.

Error Estimate:

These are indirect measures of GHG emissions. Although EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from its voluntary programs, errors in the performance data could be introduced through uncertainties in carbon conversion factors, engineering analyses, and econometric analyses. The only programs at this time aimed at avoiding GHG emissions are voluntary.

New/Improved Data or Systems:

The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. EPA continues to update inventories and methodologies as new information becomes available.

References:

The U.S. Climate Action Report 2002 is available at: www.epa.gov/globalwarming/publications/car/index.html. The accomplishments of many of EPA's voluntary programs are documented in the Climate Protection Partnerships Division Annual Report. The most recent version is *Protecting the Environment Together: ENERGY STAR and other Voluntary Programs*, Climate Protection Partnerships Division 2003 Annual Report.

FY 2005 PERFORMANCE MEASURE:

Annual Energy Savings.

Performance results related to these measures are presented in Goal 1, page 61.

Performance Database:

Climate Protection Partnerships Division Tracking System

Data Source:

Data collected by EPA's voluntary programs include partner reports on facility specific improvements (e.g. space upgraded, kilowatt-hours (kWh) reduced), national market data on shipments of efficient products, and engineering measurements of equipment power levels and usage patterns.

Methods, Assumptions, and Suitability:

Most of the voluntary climate programs' focus is on energy efficiency. For these programs, EPA estimates the expected reduction in electricity consumption in kilowatt-hours (kWh). Emissions prevented are calculated as the product of the kWh of electricity saved and an annual emission factor (e.g., MMTCE prevented per kWh). Other programs focus on directly lowering greenhouse gas emissions (e.g., Natural Gas STAR, Landfill Methane Outreach, and Coalbed Methane Outreach); for these, greenhouse gas emission reductions are estimated on a project-by-project basis. EPA maintains a "tracking system" for energy reductions.

Energy bill savings are calculated as the product of the kWh of energy saved and the cost of electricity for the affected market segment (residential, commercial, or industrial) taken from the Energy Information Administration's (EIA) Annual Energy Outlook and Annual Energy Review for each year in the analysis (1993-2013). Energy bill savings also include revenue from the sale of methane and/or the sale of electricity made from captured methane. The net present value (NPV) of these savings was calculated using a 4-percent discount rate and a 2001 perspective.

QA/QC Procedures:

EPA devotes considerable effort to obtaining the best possible information on which to evaluate energy savings from its voluntary programs.

Data Quality Review:

The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The second such interagency evaluation, led by the White House Council on Environmental Quality, examined the status of U.S. climate change programs. The review included participants from EPA and the Departments of State, Energy, Commerce, Transportation, and Agriculture. The results were published in the U.S. Climate Action Report-2002 as part of the United States' submission to the Framework Convention on Climate Change (FCCC). The previous evaluation was published in the U.S. Climate Action Report-1997. A 1997 audit by EPA's Office of the Inspector General concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment..."

Data Limitations:

The voluntary nature of programs may affect reporting. In addition, errors in the performance data could be introduced through uncertainties in engineering analyses and econometric analyses.

Error Estimate:

Although EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from voluntary programs, errors in the performance data could be introduced through uncertainties in engineering analyses and econometric analyses.

New/Improved Data or Systems:

The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. EPA continues to update inventories and methodologies as new information becomes available.

References:

The U.S. Climate Action Report 2002 is available at: www.epa.gov/globalwarming/publications/car/index.html. The accomplishments of many of EPA's voluntary programs are documented in the Climate Protection Partnerships Division Annual Report. The most recent version is *Protecting the Environment Together: Energy Star and Other Voluntary Programs,* Climate Protection Partnerships Division 2003 Annual Report.

Goal 1, Objective 6

FY 2005 PERFORMANCE MEASURE:

Fuel Economy of EPA-Developed SUV Hybrid Vehicle over EPA Driving Cycles Tested.

Performance results related to these measures are presented in Goal 1, page 62.

Performance Database:

Fuel economy test data for both urban and highway test cycles under the EPA Federal Test Procedure for passenger cars. The Clean Automotive Technology program commits EPA to develop technology by the end of the decade to satisfy stringent criteria emissions requirements and up to a doubling of fuel efficiency in personal vehicles such as SUVs, pickups, and urban delivery vehicles—while simultaneously meeting the more demanding size, performance, durability, and power requirements of these vehicles.

Data Source:

EPA fuel economy tests performed at the National Vehicle and Fuel Emissions Laboratory (NVFEL), Ann Arbor, Michigan.

QA/QC Procedures:

EPA fuel economy tests are performed in accordance with the EPA Federal Test Procedure and all applicable QA/QC procedures. Available on the Internet: http://www.epa.gov/otaq/sftp.htm.

Data Quality Reviews:

EPA's NVFEL laboratory is recognized as a national and international facility for fuel economy and emissions testing. NVFEL is also the reference point for private industry.

Data Limitations:

Primarily due to EPA regulations, vehicle fuel economy testing is a well established and precise exercise with extremely low test to test variability (well less than 5%). One challenge relates to fuel economy testing of hybrid vehicles (i.e., more than one source of onboard power), which is more complex than testing of conventional vehicles. EPA has not yet published formal regulations to cover hybrid vehicles. Relevant information is available on the Internet: www.ctts.nrel.gov/analysis/hev_test/procedures.shtml.

New/Improved Data or Systems:

EPA is using solid engineering judgment and consultations with other expert organizations (including major auto companies) to develop internal procedures for testing hybrid vehicles.

References:

See www.epa.gov/otaq/testproc.htm for additional information about testing and measuring emissions at the NVFEL.

FY 2005 PERFORMANCE MEASURE:

Improved receptor models and data on chemical compounds emitted from sources.

Performance results related to these measures are presented in Goal 1, page 62.

Performance Database:

Program output; no internal tracking system

Goal 2, Objective 1

FY 2005 PERFORMANCE MEASURES:[1]

The percentage of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards.

The percentage of the population served by community water systems that receive drinking water that meets health-based standards with which systems need to comply as of December 2001.

The percentage of the population served by community water systems that receive drinking water that meets health-based standards with a compliance date of January 2002 or later (covered standards include: Stage 1 disinfection by-products/interim enhanced surface water treatment rule/long-term enhanced surface water treatment rule/arsenic).

The percentage of community water systems that provide drinking water that meets health-based standards with which systems need to comply as of December 2001.

The percentage of community water systems that provide drinking water that meets health-based standards with a compliance date of January 2002 or later.

The percentage of population served by community water systems in Indian country that receive drinking water that meets all applicable health-based drinking water standards.

Performance results related to these measures are presented in Goal 2, pages 74-77.

Performance Database:

Safe Drinking Water Information System—Federal Version (SDWIS or SDWIS-FED). SDWIS contains basic water system information, population served, and detailed records of violations of the Safe Drinking Water Act and the statute's implementing regulations. The performance measure is based on the population served by community water systems that were active during any part of the performance year and did not have any violations designated as "health based." Exceedances of a maximum contaminant level (MCL) and violations of a treatment technique are health-based violations. SDWIS has provided annual results for 9 years and reports on a fiscal year basis.

Data Source:

Data are provided by agencies with primacy (primary enforcement authority) for the Public Water System Supervision (PWSS) program. These agencies are either: States, EPA for non-delegated states or territories, and the Navajo Nation Indian tribe, the only tribe with primacy. Primacy agencies collect the data from the regulated water systems, determine compliance, and report a subset of the data to EPA (primarily inventory and summary violations).

Methods, Assumptions and Suitability:

Under the drinking water regulations, water systems must use approved analytical methods for testing for contaminants. State certified laboratories report contaminant occurrence to states that, in turn, determine exceedances of maximum contaminant levels or non-compliance with treatment techniques and report these violations to EPA. These results are subject to periodic performance audits and compared to results that states report to SDWIS. Primacy agencies' information systems and compliance determinations are audited on an average schedule of once every 3 years, according to a protocol. To measure program performance, EPA aggregates the SDWIS data into national statistics on overall compliance with health-based drinking water standards using the measures identified above.

QA/QC Procedures:

EPA conducts a number of Quality Assurance/Quality Control steps to provide high quality data for program use, including:

- SDWIS-FED edit checks built into the software to reject erroneous data.
- Quality assurance manuals for states and Regions, which provide standard operating procedures for conducting routine assessments of the quality of the data, including timely corrective action(s).
- Training to states on reporting requirements, data entry, data retrieval, and error correction.
- User and system documentation produced with each software release and maintained on EPA's web site. System, user, and reporting requirements documents can be found on the EPA web site, www.epa.gov/safewater/. System and user documents are accessed via the database link www.epa.gov/safewater/databases.html, and specific rule reporting requirements documents are accessed via the regulations, guidance, and policy documents link www.epa.gov/safewater/regs.html.
- Specific error correction and reconciliation support through a troubleshooter's guide, a system-generated summary with detailed reports documenting the results of each data submission, and an error code database for states to use when they have questions on how to enter or correct data.
- User support hotline available 5 days a week.

The SDWIS-FED equivalent of a quality assurance plan is the data reliability action plan[2] (DRAP). The DRAP contains the processes and procedures and major activities to be employed and undertaken for assuring the data in SDWIS meet required data quality standards. This plan has three major components: assurance, assessment, and control.

Data Quality Review:

SDWIS data quality was identified as an Agency weakness in 1999 and has a corrective action completion target date that extends to 2007. SDWIS' weaknesses center around five major issues: 1) completeness of the data (e.g., the inventory of public water systems, violations of maximum contaminant levels, enforcement actions) submitted by the states, 2) timeliness of the data sent by the states, i.e., if states do not report at specified times, then enforcement and oversight actions suffer, 3) difficulty receiving data from the states, 4) both cost and difficulty processing and storing data in SDWIS after it has been received, and 5) difficulty getting SDWIS data for reporting and analysis. Two (2000 and 2003) Data Reliability Action Plans focus on the first two issues, and an information strategic plan[3] (ISP) has been developed and is being implemented to address the last three issues, which deal primarily with technology (hardware and software) concerns. For instance, the ISP documents ways to improve tools and processes for creating and transferring data to EPA. The ISP incorporates newer technologies and adapts the Agency's Enterprise Architecture Plan to integrate data and allow the flow of data from reporting entities to EPA via the Agency's secure central data exchange (CDX) environment. Detailed activities and implementation schedules are included in these documents, and the Agency expects to implement these additional improvements by the end of 2005.

Routine data quality assurance and quality control (QA/QC) analyses of the Safe Drinking Water Information System (SDWIS) by the Office Water (OW) have revealed a degree of non-reporting of violations of health-based drinking water standards, and of violations of regulatory monitoring and reporting requirements (discussed further under Data Limitations). As a result of these data quality problems, the baseline statistic of national compliance with health-based drinking water standards likely is lower than previously reported. The Agency is engaged in statistical analysis and in discussions with states to more accurately quantify the impact of these data quality problems on the estimate of national compliance with health-based drinking water standards. Even as improvements are made, SDWIS serves as the best source of national information on compliance with Safe Drinking Water Act requirements for program management, the development of drinking water regulations, trends analyses, and public information.

Data Limitations:

Recent state data verification and other quality assurance analyses indicate that the most significant data quality problem is under-reporting of monitoring and health-based standards violations and inventory characteristics. The most significant under-reporting occurs in monitoring violations. Even though those are not covered in the health based violation category, which is covered by the performance measure, failures to monitor could mask treatment technique and MCL violations. Such under-reporting of violations limits EPA's ability to: 1) accurately portray the amount of people affected by health-based violations, 2) undertake geo-spatial analysis, 3) integrate and share data with other data systems, and 4) precisely quantify the population served by systems, which are meeting the health-based standards. Therefore, the estimates of population-served could be high or low. As described in the Data Quality Review section above, EPA is currently changing the protocol to enhance the results of data audits as the best near-term option to improve these estimates, while continuing to explore other approaches, including use of contaminant occurrence data.

Error Estimate:

EPA will be analyzing data, derived from the improved data audit protocol, with a robust statistical basis from which to extrapolate national results, and better aligned with requirements of the Data Quality Act. The long-term value of the improved audit process is that each year's results will be statistically representative and provide information closer in time to the needed performance reporting; for example, 2005 results, the first year of the improved audit process will be reported in 2006.

New/Improved Data or Systems:

Several approaches are underway. First, EPA will continue to work with states to implement the DRAP and ISP, which have already improved the completeness, accuracy, timeliness, and consistency of the data in SDWIS-FED through: 1) training courses for specific compliance determination and reporting requirements, 2) state-specific technical assistance, 3) increased number of data audits conducted each year, and 4) assistance to regions and states in the identification and reconciliation of missing, incomplete, or conflicting data.

Second, more states (from 30 to 40 by year-end 2005) will use SDWIS-STATE,[4] a software information system jointly designed by states and EPA, to support states as they implement the drinking water program.

Third, EPA has modified SDWIS-FED to (1) simplify the database, (2) minimize data entry options resulting in complex software, (3) enforce Agency data standards, and (4) ease the flow of data to EPA through a secure data exchange environment incorporating modern technologies, all of which will improve the accuracy of the data. In 2006, full use of SDWIS-FED for receiving state reports will be implemented. Data will be stored in a data warehouse system that is optimized for analysis, data retrieval, and data integration from other data sources. It will improve the program's ability to more efficiently use information to support decision-making and effectively manage the program.

Finally, EPA, in partnership with the states, is developing information modules on other drinking water programs: the Source Water Protection Program, the Underground Injection Control Program (UIC), and the Drinking Water State Revolving Fund. These modules will be integrated with SDWIS to provide a more comprehensive data set with which to assess the nation's drinking water supplies, a key component of the goal. In 2003, agreement was reached on the data elements for reporting source water and UIC data. Plans have now been developed for design of systems to address these data flows. Developing the systems to receive the data is scheduled for 2005.

References:

Plans[5]

SDWIS-FED does not have a Quality Assurance Project Plan—it is a legacy system which has "evolved" since the early 80s prior to the requirement for a Plan. The SDWIS-FED equivalent is the Data Reliability Action Plan

Information Strategy Plan—SDWIS-FED (see footnote 2)

Office of Water Quality Management Plan, available at www.epa.gov/water/info.html

Enterprise Architecture Plan

Reports[5]

1999 SDWIS/FED Data Reliability

2003 SDWIS/FED Data Reliability Report—contains the Data Reliability Action Plan and status report

PWSS Management Report (quarterly)

1999 Management Plan Review Report

2003 Management Plan Review Report

Guidance Manuals, and Tools

- PWSS SDWIS/FED Quality Assurance Manual
- Various SDWIS-FED User and System Guidance Manuals (includes data entry instructions, data On-line Data Element Dictionary-a database application, Error Code Data Base (ECDB)—a database application, users guide, release notes, etc.) Available on the Internet at: www.epa.gov/safewater/sdwisfed/sdwis.htm
- Regulation-Specific Reporting Requirements Guidance. Available on the Internet at www.epa.gov/safewater/regs.html
- Web site addresses
- OGWDW Internet Site www.epa.gov/safewater/databases.html and contains access to the information systems and various guidance, manuals, tools, and reports.
- Sites of particular interest are: www.epa.gov/safewater/data/getdata.html contains information for users to better analyze the data, and www.epa.gov/safewater/sdwisfed/sdwis.htm contains reporting guidance, system and user documentation and reporting tools for the SDWIS-FED system.

FY 2005 PERFORMANCE MEASURE:

Percentage of source water areas for community water systems that achieve minimized risk to public health (minimized risk achieved by substantial implementation, as determined by the state, of source water protection actions in a source water protection strategy).

Performance results related to these measures are presented in Goal 2, page 78.

Performance Database:

The source water assessment and protection programs are authorized under Sections 1453, 1428, and relevant subsections of 1452 of the Safe Drinking Water Act (SDWA).[6] EPA issued guidance to implement these programs in 1997, *State Source Water Assessment and Protection Programs Guidance.*[7] In March 2005, EPA issued supplemental reporting guidance, *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance."* Starting in FY 2005, and updated annually thereafter, states report to EPA on the results of their source water assessment programs (SWAPs) and progress in implementing source water protection (SWP) strategies, and whether such strategy implementation is affecting public health protection. *To assess the results of the SWAPs,* state reporting includes three elements: (1) the delineated source water areas around each well and intake, (2) whether the assessments are complete, and (3) most prevalent and most threatening sources of contamination. To assess *progress in implementing the SWP strategies*, state reporting includes two elements: (1) whether a prevention strategy for Community Water System source water areas has been adopted, and is being implemented and (2) whether such strategy implementation has reached a substantial level. To assess *whether the program is affecting public health protection*, states report change in the number of source water areas with substantially implemented source water protection strategies. The Agency will develop a national summary of data on the progress of states' source water protection programs using these data elements in early 2006.

In FY 2003, EPA maintained pilot state-level summary data for each of these elements in a spreadsheet format and this format will be used for reporting for FY 2005. Beginning in FY 2005, states may, at their option, make available to EPA public water system-level data for each of these elements to be maintained in a set of data tables in the drinking water warehouse (for tabular data) and in event tables in the Office of Water's Reach Address Database (RAD)[8] (GIS data). These data will be compatible with the inventory data States are currently reporting to the Safe Drinking Water Information System (SDWIS).[9] Three states piloted this approach in 2003. [Not publicly available. Contact the Drinking Water Protection Division at 202-564-3797.]

Data Source:

Up to the end of FY 2004, states reported to the EPA Regional Offices the percentage of community water systems implementing source water protection programs. EPA has developed a new source water data module to collect, store, and use public water system-level data received from states, but it may be refined as more states voluntarily use it over the next 3 years of the Strategic Plan.—See section "New/Improved Data or Systems."

Methods, Assumptions and Suitability:

For this measure, the states' reporting of progress in implementing their source water assessment and protection programs will be based on EPA's 2005 guidance, *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance."* States will only report state-level summary information directly related to specific community water systems in a state-level database. Because state reporting will be based on consistent definitions and procedures found in the *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance,"* EPA believes that the data will be reliable for use in making management decisions.

QA/QC Procedures:

QA/QC procedures are included in the 2005 *"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance."* Additionally, a series of data checks are built into the spreadsheet data collection procedures given to each Region for their work with states. States will be required to identify whether their reported summary-level data are based on a system-level database. EPA Regional offices also will work with individual states to obtain a description of their methods of collecting and verifying information.

Data Quality Reviews:

EPA Regions will conduct data quality reviews of state data using the QA/QC procedures included with the spreadsheet-based data system, and work with states to resolve data issues. As a result, EPA expects the quality of data on the results of the assessments and source water protection activities to improve over time.

Data Limitations:

Because the initial reporting provides only state-level summary information, there is no standard protocol for EPA to verify and validate the data against system-level information contained in state databases. In addition, much of the data reported by states is voluntary and based on working agreements with EPA because SDWA only requires states to complete source water assessments. The only source water information that states are required to report to EPA under SDWA is whether the assessments are completed. Although EPA's 2005 "State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance" set standard data definitions and procedures, it also provides for considerable flexibility in states' data collection protocols and analytical methods to evaluate their data. For example, some states may require each public water system to report data, while others may institute a voluntary process. Because much of the data reporting is voluntary and the individual state protocols

may vary, state data may be incomplete and inconsistent across states.

New/Improved Data or Systems:

The source water module has been developed as a joint initiative between EPA, the Association of State Drinking Water Administrators (ASDWA), and the Ground Water Protection Council (GWPC). It will give EPA the ability to access the data directly from states through a data exchange agreement using an electronic data transfer capability. A state may choose, at its option, to provide EPA more detailed data in lieu of state-level summary reporting. The new source water data module will be integrated into the drinking water data warehouse and be compatible with Safe Drinking Water Information System (SDWIS) data already reported by states. Geospatial data (i.e., the intake and well point locations and the source water area polygons) will be maintained in EPA's Office of Water's Reach Access Database (RAD). The source water assessment and protection indicator data and other attribute data will be maintained in data tables in the drinking water warehouse. The source water data module is operational for states to pilot from FY 2005 through FY 2008. Three states used the module in the first pilot year 2003. A number of other states may report using the data module for the 2005 reporting period based on EPA/ASDWA/GWPC pilot process.

References:

Guidance Manuals

U.S. EPA, Office of Water. *State Source Water Assessment and Protection Programs Guidance*. EPA 816-R-97-009 (Washington: US EPA, August 1997). Available on the Internet at www.epa.gov/safewater/swp/swappg.html *Source Water Assessment and Protection Measures: Initial Guidance, August, 2003.*

"State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance," March 2005.

Web site addresses

US EPA Office of Ground Water and Drinking Water. www.epa.gov/safewater

For more detailed information on Source Water topics, US EPA Office of Ground Water and Drinking Water, Source Water site. www.epa.gov/safewater/protect.html

US EPA Office of Water (OW) Reach Access Database (RAD). Watershed Assessment, Tracking & Environmental Results (WATERS). www.epa.gov/waters/ Safe Drinking Water Information System (SDWIS). www.epa.gov/safewater/databases.html

FY 2005 PERFORMANCE MEASURE:

Percentage of the water miles/acres identified by States or Tribes as having fish consumption advisories in 2002 where increased consumption of safe fish is allowed. (485, 205 river miles, 11,277,276 lake acres.

Performance results related to these measures are presented in Goal 2, page 79.

Performance Database:

National Listing of Fish Advisories.[1] The database includes fields identifying the waters for which fish consumption advisories have been issued. The fields also identify the date upon which the advisory was issued, thus allowing an assessment of trends. The National Hydrographic Data (NHD) are used to calculate the spatial extent of the fish advisory. This information is updated continually as states and tribes issue or revise advisories. The National Listing of Fish Advisories database includes records showing that 846,310 river miles and 14,195,187 lake acres were identified by states or tribes in calendar year 2003 as having fish with chemical contamination levels resulting in an advisory of potential human health risk from consumption. States and tribes report data on a calendar year basis. The calendar year data are then used to support the fiscal year (FY) commitments (e.g., calendar year 2005 data support the FY 2007 commitments). Metadata are also available describing methodologies used by states and tribes for establishing advisories. Fish advisory data have been collected since 1993.

Data Source:

State and Tribal Governments. These entities collect the information and enter it directly into the National Listing of Fish Advisories database. EPA reviews advisory entries, including the states' or tribes' responses to an on-line survey, which support the advisory decision.

Methods, Assumptions and Suitability:

The performance measure is calculated as the aggregate surface area covered by one or more individual advisories divided by the total waters of each state or territory. If a waterbody is covered by more than one advisory it is only counted once, and until all advisories are removed the waterbody is counted as having an advisory. The states and tribes submit the area data to the National Listing of Fish Advisories database.

QA/QC Procedures:

A standard survey, which has been approved by OMB, is available on the Internet for electronic submission. A password is issued to ensure the appropriate party is completing the survey. EPA has national guidance[2,3] for states and tribes on developing and implementing quality assurance practices for the collection of environmental information related to fish advisories. This guidance helps assure data quality of the information that states and tribes use to decide whether to issue an advisory. The Office of Water's "Quality Management Plan," approved in September 2001 and published in July 2002[4], is general guidance that applies to information collection.

Data Quality Reviews:

EPA reviews advisory entries and responses to the survey to ensure the information is complete, then follows-up with the state or local government to obtain additional information where needed. However, the Agency cannot verify the accuracy of the voluntary information that state and local governments provide. There have been no external party reviews of this information.

Data Limitations:

There are two primary data limitations. First, participation in this survey and collection of data is voluntary. While the voluntary response rate has been high, it does not capture the complete universe of advisories. Puerto Rico, the Virgin Islands, and Guam do not report in the survey. Second, states have not assessed all waters for the need for advisories, so the information reported reflects a subset of water bodies in the state.

Error Estimate:

We are unable to provide an error estimate. Submitting data to the National Listing of Fish Advisories database is voluntary and the Agency cannot be certain that the database contains information on 100% of the assessed waters in the United States. Therefore, we may be understating the total amount of waters assessed, the magnitude of which is not known.

New/Improved Data or Systems:

EPA will use small grants to encourage states to investigate additional water bodies to determine if there is a need for fish consumption advisories. This will lead to a more complete characterization of the nation's fish safety. EPA will also begin tracking recommended "meal frequencies" in the state and tribal advisories to account for the instances where advisories are modified to allow greater consumption.

References:

U.S. EPA. Office of Water. "National Listing of Fish Advisories." Washington, DC: EPA Accessed May 1, 2003. Available only on the Internet at map1.epa.gov/.

U.S. EPA. Office of Water. "Fish Sampling and Analysis." Volume 1 of "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories." 3rd ed. EPA-823-B-00-007. Washington DC: EPA, 2000. Available at www.epa.gov/waterscience/fishadvice/volume1/.

U.S. EPA. Office of Water. "Risk Assessment and Fish Consumption Limits." Volume 2 of "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories." 3rd ed." EPA-823-B-00-008. Washington DC: EPA, 2000. www.epa.gov/waterscience/fishadvice/volume2/.

U.S. EPA. Office of Water. "Quality Management Plan." EPA 821-X-02-001. Washington, DC: EPA, July 2002. Available at www.epa.gov/water/programs/qmp_july2002.pdf.

FY 2005 PERFORMANCE MEASURE:

Percentage of the shellfish-growing acres monitored by states that are approved or conditionally approved for use.

Performance results related to these measures are presented in Goal 2, page 79.

Performance Database:

There is no database currently available, although one is under development (see below). Until that database is operational, data to support this measure will come from past surveys of States that are members of the Interstate Shellfish Sanitation Conference (ISSC), conducted at 5-year intervals and periodic updates requested from the Interstate Shellfish Sanitation Conference (most recent, 2003 data released in 2004).

Data Source:

Currently, the ISSC requests the data on approved acreages from shellfish producing states and prepares reports. Survey responses are voluntary.

Methods, Assumptions and Suitability:

The methods used by the state programs to produce the current data used by the ISSC are based on the National Shellfish Sanitation Plan and Model Ordinance; the operation of those state programs is overseen by the FDA.

QA/QC Procedures:

States are responsible for the internal QA/QC of their data.

Data Quality Reviews:

The ISSC reviews the state data during report preparation to ensure completeness and accuracy, and follows up with states where necessary.

Data Limitations:

Based on NOAA's previous surveys and the voluntary nature of the information collected, potential data limitations may include incomplete coverage of shellfish growing areas.

New/Improved Data or Systems:

The ISSC initiated development of the Shellfish Information Management System (SIMS) in July 2002. The database is being developed and implemented by the National Oceanographic and Atmospheric Administration (NOAA) on behalf of the Interstate Shellfish Sanitation Conference (ISSC), a Cooperative Program chartered by the Food and Drug Administration (FDA). The database will include relevant information that is collected by State Shellfish Control Authorities. Historically, NOAA collected shellfish-growing area data in 5-year intervals, 1985, 1990, and 1995. These data were not stored in a database. Once operational, SIMS will be the first national shellfish growing area database and will include NOAA's 1995 and 2003 data. State summary information can then be used to track trends relevant to the performance measure, with the 1995 data as the baseline. The SIMS database is designed as a real time database. The ISSC plans to request data updates annually, but states may update their data any time. These data may be accessed at any time so timely status reports can be generated.

Ten states were involved in the design of the database; six states have entered acreage data in the database. Seven additional states are working toward inputting their data. No long-term database management plan is in place at this time.

FY 2005 PERFORMANCE MEASURES:

Restore water quality to allow swimming in stream miles and lake acres identified by states in 2000 as having water quality unsafe for recreation.

Percentage of days of the beach season that coastal and Great Lakes beaches monitored by State beach safety programs will be open and safe for swimming.

Performance results related to these measures are presented in Goal 2, pages 80-81.

Performance Database:

The data are stored in PRAWN (Program tracking, beach Advisories, Water quality standards, and Nutrients), a database that includes fields identifying the beaches for which monitoring and notification information are available and the date the advisory or closure was issued, thus enabling trend assessments to be made. The database also identifies those states that have received a BEACH (Beaches Environmental Assessment and Coastal Health) Act [P.L. 106-284] grant. EPA reports the information annually, on a calendar year basis, each May. The calendar year data are then used to support fiscal year commitments (e.g., 2006 calendar year data are used to report against FY 2007 commitments). As of 2004, States and Territories monitor for pathogens at 3,574 coastal and Great Lakes beaches, up from 2,823 beaches in 2002[1].

Data Source:

Since 1997 EPA has surveyed state and local governments for information on their monitoring programs and on their advisories or closures. The Agency created the PRAWN database to store this information. State and local governmental response to the survey was voluntary up through calendar year 2002. Starting in calendar year 2003, data for many beaches along the coast and Great Lakes had to be reported to EPA as a condition of grants awarded under the BEACH Act[2]. Since 2005, states have used an on-line process called eBeaches to electronically transmit beach water quality and swimming advisory information to EPA instead of using the paper survey. The latest information reported by a state or local government is accessible to the public through the BEACON (Beach Advisory Closing On-line Notification) system.

Methods, Assumptions and Suitability:

The data are an enumeration of the days of beach-specific advisories or closures issued by the reporting state or local governments during the year. Performance against the target is tracked using a simple count of the number of beaches responding to the survey and the days over which the advisory or closure actions were taken. This is compared to the total number of days that every beach could be open. Thus the data are suitable for the performance measure.

QA/QC Procedures:

Since 1997, EPA has distributed a standard survey form, approved by OMB, to coastal and Great Lake state and county environmental and public health beach program officials in hard copy by mail. The form is also available on the Internet for web-entry electronic submission. When a state or local official enters data using the web-entry format, a password is issued to ensure the appropriate party is completing the survey. Currently the Agency has procedures for information collection (see Office of Water's "Quality Management Plan," approved September 2001 and published July 2002[3]). In addition, coastal and Great Lakes states receiving BEACH Act grants are subject to the Agency's grant regulations under 40 CFR 31.45. These regulations require states and tribes to develop and implement quality assurance practices for the collection of environmental information.

Data Quality Review:

EPA reviews the survey responses to ensure the information is complete, following up with the state or local government to obtain additional information where needed. The Agency also reviews the QA/QC reports submitted by States and Territories as part of their grant reporting. There have been no external party reviews of this information.

Data Limitations:

From calendar year 1997 to calendar year 2002, participation in the survey and submission of data has been voluntary. While the voluntary response rate has been high, it has not captured the complete universe of beaches. The voluntary response rate was 92% in calendar year 2002 (240 out of 261 contacted agencies responded). The number of beaches for which information was collected increased from 1,021 in calendar year 1997 to 2,823 in calendar year 2002. Participation in the survey is now a mandatory condition for implementation grants awarded under the BEACH Act program to coastal and Great Lakes states. Except for Alaska, all coastal and Great Lakes states and territories have annually applied for implementation grants since they have been available.

Error Estimate:

As of 2004, States and Territories report that they monitor at 3,574 of the 6,099 coastal and Great Lakes beaches. This monitoring varies between States. For example, North Carolina monitors all its 228 beaches whereas South Carolina monitors 24 of 229 beaches. Where monitoring is done, there is some chance that the monitoring may miss some instances of high pathogen concentrations. EPA's 2002 National Health Protection Survey of Beaches found that 90% of the nation's beaches are monitored once a week or less[4]. Studies in southern California found that weekly sampling missed 75% of the pathogen exceedances[5], and that 70% of the exceedances lasted for only one day[6]. An EPA Office of Research and Development (ORD) beach monitoring study found a positive correlation between pathogen indicator densities one day as compared to densities the next day, but that the correlation was negligible when compared to densities after four days[7]. These studies indicate that weekly sampling most likely misses many pathogen events that can affect public health. This information is not sufficient to calculate the potential error in the reporting, but it is sufficient to indicate that the reporting may

understate the number of days that beaches should be closed or under advisory.

New/Improved Data or Systems:

Participation in the survey is now a mandatory condition for grants awarded under the BEACH Act program. As the Agency awards these implementation grants, it will require standard program procedures, sampling and assessment methods, and data elements for reporting. To the extent that state governments apply for and receive these grants, the amount, quality, and consistency of available data will improve. In FY 2007, EPA expects the 35 coastal and Great Lakes states to apply for grants to implement monitoring and notification programs.

References

- U.S. EPA. Office of Water. "EPA's Beach Program: 2004 Swimming Season Update." EPA-823-F-05-006. Washington, DC, July 2005. Available at www.epa.gov/waterscience/beaches.
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Goal 2, Objective 2

FY 2005 PERFORMANCE MEASURE:

Watersheds in which at least 80 percent of the assessed water segments meet water quality standards.

Performance results related to these measures are presented in Goal 2, page 82.

Performance Database:

The Watershed Assessment Tracking Environmental Results System (WATERS) (1) is used to summarize water quality information at the watershed level. For purposes of this national summary, watersheds are equivalent to 8-digit hydrologic unit codes (HUCs), of which there are 2,262 nationwide although data may be disaggregated to smaller watersheds should the need arise. WATERS is a geographic information system that integrates many existing databases including the STOrage and RETrieval (STORET) database (2), the National Assessment Database (NAD)(3), and the Water Quality Standards database (4). Water quality information available through WATERS includes data submitted by the states under Clean Water Act (CWA) Section 305(b) reports. Data from the NAD includes waterbody type, location, extent, and the designated uses assessed, as well as the assessment conclusion. NAD data are available for most areas as far back as the year 2000 assessment cycle. Data gaps expected include incomplete state assessments and uncertain state adoption of the data formats inconsistent with the National Assessment Database. The data are submitted to EPA every 2 years, with annual electronic updates. The U.S. EPA provides access to the states' data on its Monitoring Program website. (5)

Data Source:

State CWA Section 305(b) reports. Under the Clean Water Act, the states are given the responsibility for setting water quality standards for their waters and collecting the data and information to assess the condition of those waters. The data collected by states to assess water quality and to prepare their CWA Section 305(b) reports come from multiple sources, e.g., state monitoring networks, United States Geological Survey (USGS), local governments, volunteer monitors, academic institutions, etc. States also use predictive tools, such as landscape and water quality models, and randomized probability surveys. [Raw water quality data may be entered by states and other sources into STORET.] States use ambient monitoring data to determine if their waters are attaining the state's water quality standards. States are encouraged to use three EPA data systems to structure and transfer these data. The first of these is the Water Quality Standards Database, which records the designated uses and supporting criteria for specifically defined waterbody segments contained in the second dataset, the National Hydrography Dataset (NHD). These segments, each defined by states, are described using a structure that EPA conceived two decades ago, but now has divested to its partner, the U.S. Geological Survey; The NHD provides important address points that can define the extent (for instance, by defining the upstream and downstream boundaries of a beach) of waterbodies that have been assigned consistent standards. The NHD also allows important features such as outfalls, intakes, and dams to be located so that they can be mapped and better understood. It also allows administrative designations to be located, such as the boundaries of assessments made to determine whether the waters meet the standards assigned to a waterbody. Results of assessments are

entered into the third database, the National Assessment Database. The National Assessment Database is used to assemble performance statistics for each biennial (calendar year) reporting cycle: 2000, 2002, 2004 and (planned) 2006. Results are calculated on the basis of these biennial reports. Long delays are often encountered in state submissions, causing delays in EPA's development of summary statistics. EPA is working to establish more certain procedures to prevent future delays.

EPA provides access to WATERS on its monitoring website. However, given differences among state water quality standards and monitoring methods, the results of these assessments do not provide a reliable nationwide assessment of water quality conditions.

Methods, Assumptions and Suitability:

States employ various methods to make water quality assessment decisions, including: 1) Direct sampling of chemical, physical, and biological parameters using targeted site selection (usually, where problems are most likely or where water is heavily used); 2) Predictive models to estimate water quality; 3) Sampling at statistically valid, probability-based sites (in its early stages in a number of states) to assess broad scale water quality conditions; 4) Compilation of data from outside sources such as volunteer monitors, academic institutions, and others. EPA aggregates state assessment information by watershed (as described above) to generate the national performance measure. State assessment results describe attainment of designated uses in accordance with state water quality standards and represent a direct measure of performance. State CWA Section 305(b) data have been used to provide a summary of the ambient water quality conditions across the nation and to determine conditions in the subset of waters assessed. Geographically specific waterbody assessments are suitable for year-to-year comparisons of water quality attainment progress. As states continue to strengthen their monitoring and data management programs, more state data will be suitable for tracking changes in water quality over time. While programs are in transition, national performance data will be heavily influenced by changes in state data procedures.

QA/QC Procedures:

QA/QC of data provided by states in their individual assessments (under CWA Section 305(b)) and accessed through WATERS is dependent on individual state procedures. Numerous system level checks are built into the data sources in WATERS, based upon the business rules associated with the water quality standards database. States are given the opportunity to review the information to ensure it accurately reflects the data they submitted. Data exchange guidance and training are also provided to the states. Sufficiency threshold for inclusion in this measure requires that 20 percent of stream miles in an 8-digit HUC be assessed. The Office of Water Quality Management Plan (QMP), renewed every 5 years, was approved in July 2002 (6). It describes the quality system used by the Office of Water and applies to all environmental programs within the Office of Water and to any activity within those programs that involves the collection or use of environmental data.

Data Quality Review:

Numerous independent reports have cited that weaknesses in water quality monitoring and reporting undermine EPA's ability to depict the condition of waters nationwide, to make trend assessments, and to support scientifically sound water program decisions. The most recent reports include the 2004 GAO report on watershed management. General Accounting Office (GAO), 2004, *Watershed Management: Better coordination of data collection efforts needed to support key decisions:* Washington D.C., United States General Accounting Office, the 1998 *Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program* (7), the March 15, 2000 General Accounting Office report Water Quality: Key Decisions Limited by Inconsistent and Incomplete Data (8), the 2001 National Academy of Sciences Report, *Assessing the TMDL Approach to Water Quality Management* (9), a 2002 National Academy of Public Administration Report, *Understanding What States Need to Protect Water Quality* (10), and *EPA's Draft Report on the Environment* (11). Water quality reporting under Section 305(b) has been identified as an Agency-Level weakness under the Federal Managers Financial Integrity Act.

In response to these evaluations, EPA has been working with states and other stakeholders to improve: 1) data coverage, so that state reports reflect the condition of all waters of the state; 2) data consistency, to facilitate comparison and aggregation of state data to the national level; and 3) documentation, so that data limitations and discrepancies are fully understood by data users.

The Office of Water has limited authority to require better water quality monitoring or reporting by states. OW has recently issued several guidance documents designed to increase consistency and coverage in state monitoring, assessment and reporting. In July 2003, EPA issued its Integrated Reporting guidance (12) which calls on states to integrate the development and submission of 305(b) water quality reports and Section 303(d) lists of impaired waters. The Integrated Report will enhance the ability of water quality managers to display, access, and integrate environmental data and information from all components of the water quality program. In July 2002, EPA released the *Consolidated Assessment and Listing Methodology—a Compendium of Best Practices* (13), intended to facilitate increased consistency in monitoring program design and in the data and decision criteria used to support water quality assessments. And in March 2003, EPA issued *Elements of a State Water Monitoring and Assessment Program* (14), which describes ten elements that each state water quality monitoring program should contain and a 10-year time frame for implementing all elements. As part of each state's monitoring strategy, state data will be accompanied by quality assurance plans. Quality assurance is one of the ten required elements of these strategies.

EPA has enhanced two existing data management tools (STORET and the National Assessment Database) so that they include documentation of data quality information. EPA's WATERS tool integrates many databases including STORET, the National Assessment Database, and the Water Quality Standards Database. These integrated databases facilitate comparison and understanding of differences among state standards, monitoring activities, and assessment results. The Office of Water has recently convened and continues to use an

Assessment Data Visualization Work Group that is tracking the increased use of the three data systems and is planning to focus its orientation and training to expand the use of these data systems and to ensure regional review of the quality of states' data. Regions also will more closely review the coverage of monitoring needed to support state assessment activities. Until there is consistent, widespread use of these systems, the water quality conditions states report will be subject to procedure-induced variation that masks environmental progress.

Data Limitations:

Data do not represent an assessment of water quality conditions at the national level. EPA is working with states to provide a data structure that allows state assessments to be geographically located so that they can be clearly identified and changes can be tracked over time. EPA data systems being adopted by states implement this feature. Other disparities remain, however. Most states do not employ a monitoring design that characterizes all waters in each reporting cycle, and some states only report the results of the most recent assessments without providing the perspective of water quality from previous assessments. States, territories, and tribes collect data and information on only a portion of their water bodies because it is prohibitively expensive to monitor all water bodies. Furthermore, states do not use a consistent suite of water quality indicators to assess attainment with water quality standards. For example, indicators of aquatic life use support range from biological community condition to levels of dissolved oxygen and concentrations of toxic pollutants. State water quality standards themselves vary from state to state. State assessments of water quality may include uncertainties associated with their measured or modeled data. These variations in state practices and standards limit the use of assessment reports for describing water quality at the national level and prevent the agency from aggregating water quality assessments at the national level with known statistical confidence.

New/Improved Data or Systems:

The Office of Water is currently working with states, tribes and other Federal agencies to improve the data that support this management measure by addressing the underlying methods of monitoring water quality and assessing the data. Also, the Office of Water is working with partners to enhance monitoring networks to achieve comprehensive coverage of all waters, use a consistent suite of core water quality indicators (supplemented with additional indicators for specific water quality questions), and document key data elements, decision criteria and assessment methodologies in electronic data systems. The Office of Water is using a variety of mechanisms to implement these improvements including data management systems, guidance, stakeholder meetings, training and technical assistance, program reviews and negotiations.

EPA is working with states to enhance their monitoring and assessment programs, and promoting the use of probability surveys as a cost-effective way to obtain a snapshot of water quality conditions. These enhancements, along with improving the quality and timeliness of data for making watershed-based decisions, will improve EPA's ability to use state assessments in portraying national conditions and trends. Specific state refinements include developing biological criteria to measure the health of aquatic communities (and attainment with the aquatic life use) and designing probability-based monitoring designs to support statistically valid inferences about water quality. EPA has been instrumental in helping states design the monitoring networks and analyze the data. Initial efforts have focused on coastal/estuarine waters and wadeable streams. Lakes will be targeted next. States are implementing these changes incrementally and in conjunction with traditional targeted monitoring. At last count, 16 states have adopted probability-based monitoring designs, several more are evaluating them, and all but 10 are collaborating with EPA to undertake a national probability survey of conditions of wadeable streams at a national level.

In FY2005 EPA's budget included a $10 million increase to support states' implementation of comprehensive water quality monitoring strategies, including refinement of biological assessment methods and probability-based designs for different water resource types; landscape models and other predictive tools; remote sensing and innovative indicators of water quality to help streamline where additional monitoring is needed; and targeted monitoring to provide data to implement local management actions such as National Pollution Discharge Elimination Program (NPDES) permits and Total Maximum Daily Loads (TMDLs). The initiative also supports improvement of data management systems to ensure that water quality monitoring data are understandable and available to decision makers and the public. Included were upgrades to STORET, to improve system navigation and operation and to enhance analysis and presentation applications. Funds also supported enhancing the capability to exchange water quality data with states. EPA's FY06 budget included a request for $18 million to support state's monitoring programs.

References:

- WATERS available on-line at www.epa.gov/waters. Aggregate national maps and state and watershed specific data for this measurement are displayed numerically and graphically in the WATERS database.
- STORET available online at www.epa.gov/STORET. Links to user guide and descriptions of the database can be found here.
- National Assessment Database information available at www.epa.gov/waters/305b/
- Water Quality Standards Database information available at www.epa.gov/wqsdatabase/
- State 305(b) Report information—www.epa.gov/owow/monitoring/reporting.html
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- U.S. EPA, Office of Water, Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, TMDL, July 21, 2003. Available at www.epa.gov/owow/tmdl/policy.html.
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- U.S. EPA, Office of Water. *Elements of a State Water Monitoring and Assessment Program.* Washington, DC: March 2003. EPA 841-B-03-003. Available at: www.epa.gov/owow/monitoring
- General Accounting Office *Watershed Management: Better Coordination of Data Collection Efforts Needed to Support Key Decisions,* Washington, DC: March 15, 2000. GAO-04-382

FY 2005 PERFORMANCE MEASURE:

Water quality standards are fully attained in miles/acres of waters identified in 2000 as not attaining standards.

Performance results related to these measures are presented in Goal 2, page 83.

Performance Database:

The Watershed Assessment Tracking Environmental Results System (WATERS–found at www.epa.gov/waters/) is EPA's approach for viewing water quality information related to this measure. WATERS can be used to view "303(d) Information," compiled from, *States' Listings of Impaired Waters as Required by Clean Water Act Section 303(d)* (referred to here in brief as "303(d) lists"), which are recorded in the national TMDL Tracking System (NTTS). This information (found at www.epa.gov/owow/tmdl/status.html) is used to generate reports that identify waters that are not meeting water quality standards ("impaired waters"). This information, combined with information and comment from EPA Regions and states, yields the baseline data for this measure: number of impaired waters in 1998/2000. As Total Maximum Daily Loads (TMDL) and other watershed-related activities are developed and implemented, water bodies which were once impaired will meet water quality standards, and thus will be removed from the year 98/2000 impaired totals. Changes will be recorded in reports, scheduled every 6 years (e.g. future reporting years 2006 and 2012), as percentage improvements to water body impairment.

Data Source:

The underlying data source for this measure is State 303(d) lists of their impaired water bodies. These lists are submitted with each biennial (calendar year) reporting cycle. The baseline for this measure is the 1998 list (States were not required to submit lists in 2000; however, if states did submit a 2000 list, then that more recent list was used as the baseline). States prepare the lists using actual water quality monitoring data, probability-based monitoring information, and other existing and readily available information and knowledge the state has, in order to make comprehensive determinations addressing the total extent of the state's water body impairments. Once EPA approves a state's 303(d) list, EPA enters the information into WATERS, as described above. Delays are often encountered in state submissions and in EPA's approval of these biennial submissions. Establishing more certain procedures to keep on schedule is being considered.

Methods, Assumptions, and Suitability:

States employ various analytical methods of data collection, compilation, and reporting including: 1) Direct water samples of chemical, physical, and biological parameters; 2) Predictive models of water quality standards attainment; 3) Probabilistic models of pollutant sources; and 4) Compilation of data from volunteer groups, academic interests and others. EPA-supported models include BASINS, QUAL2E, AQUATOX, and CORMIX. Descriptions of these models and instructions for their use can be found at www.epa.gov/OST. The standard operating procedures and deviations from standard methods for data sampling and prediction processes are stored by states in the STORET database. EPA aggregates state data to generate the national performance measure. State-provided data describe attainment of designated uses in accordance with state water quality standards and thus represent a direct measure of performance. Delays are often encountered in state 303d lists and 305b submissions, and in EPA's approval of the 303(d) portion of these biennial submissions. Establishing more certain procedures to prevent these delays is being considered.

QA/QC Procedures:

QA/QC of data provided by states pursuant to individual state 303(d) lists (under CWA Section 303(d)) is dependent on individual state procedures. EPA regional staff interacts with the states during the process of approval of the lists and before the information is entered into the database to ensure the integrity of the data. The Office of Water Quality Management Plan (QMP), renewed every 5 years, was approved in July 2001. EPA requires that each organization prepare a document called a quality management plan (QMP) that: documents the organization's quality policy; describes its quality system; and identifies the environmental programs to which the quality system applies (e.g., those programs involved in the collection or use of environmental data).

Data Quality Review:

Numerous independent reports have cited that weaknesses in monitoring and reporting of monitoring data undermine EPA's ability to depict the condition of the Nation's waters and to support scientifically sound water program decisions. The most recent reports include the 1998 *Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program*[10], the March 15, 2000 General Accounting Office report *Water Quality: Key Decisions Limited by Inconsistent and Incomplete Data*[11], the 2001 National Academy of Sciences Report Assessing the TMDL *Approach to Water Quality Management*[12] and EPA's *Draft Report on the Environment.*[13]

In response to these evaluations, EPA has been working with states and other stakeholders to improve: 1) data coverage, so that state reports reflect the condition of all waters of the state; 2) data consistency to facilitate comparison and aggregation of state data to the national level; and 3) documentation so that data limitations and discrepancies are fully understood by data users.

First, EPA enhanced two existing data management tools (STORET and the National Assessment Database) so that they include documentation of data quality information.

Second, EPA has developed a GIS tool called WATERS that integrate many databases including STORET, the National Assessment database, and a new water quality standards database. These integrated databases facilitate comparison and understanding of differences among state standards, monitoring activities, and assessment results.

Third, EPA and states have developed a guidance document: Consolidated Assessment and Listing Methodology—a Compendium of Best Practices[14] intended to facilitate increased consistency in monitoring program design and the data and decision criteria used to support water quality assessments.

Fourth, the Office of Water (OW) and EPA's Regional Offices have developed the *Elements of a State Water Monitoring and Assessment Program,* (August 2002) which is currently under review by our state partners. This guidance describes ten elements that each state water quality-monitoring program should contain and proposes time-frames for implementing all ten elements.

Data Limitations:

Data may not precisely represent the extent of impaired waters because states do not employ a monitoring design that monitors all their waters. States, territories and tribes collect data and information on only a portion of their water bodies. States do not use a consistent suite of water quality indicators to assess attainment of water quality standards. For example, indicators of aquatic life use support range from biological community assessments to levels of dissolved oxygen to concentrations of toxic pollutants. These variations in state practices limit how the CWA Sections 305(b) reports and the 303(d) lists provided by states can be used to describe water quality at the national level. There are also differences among their programs, sampling techniques, and standards.

State assessments of water quality may include uncertainties associated with derived or modeled data. Differences in monitoring designs among and within states prevent the agency from aggregating water quality assessments at the national level with known statistical confidence. States, territories, and authorized tribes monitor to identify problems and typically lag times between data collection and reporting can vary by state.

New/Improved Data Systems:

The Office of Water has been working with states to improve the guidance under which 303(d) lists are prepared. EPA issued new listing Guidance July 21, 2003 entitled *Guidance for 2004 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act* (Guidance). The Agency expects to release updated Guidance for 2006 by the end of FY05. The current Guidance may be found at: www.epa.gov/owow/tmdl/tmdl0103/index.html. The Guidance addresses a number of issues that states and EPA identified during the 2002 listing cycle. Among these issues are minimum data requirements and sample size requirements in making listing determinations, use of probability-based sampling in the state's monitoring program, improved year-to-year consistency in a choice of a geo-referencing scheme, and use of a consistent method of segmenting water bodies and denoting changes to the segmentation between listing cycles.

FY 2005 PERFORMANCE MEASURE:

Number of monitoring stations in Tribal waters that show at least a 10% improvement in each of 4 key parameters: total nitrogen, total phosphorus, dissolved oxygen and fecal coliform.

Performance results related to these measures are presented in Goal 2, page 84.

Performance Database:

All of the monitoring stations originally included in the baseline for this measure (900) are United States Geological Survey (USGS) stations with USGS station identification numbers. In the time since the 900 sites were originally identified, additional monitoring stations on Tribal lands have been located. The water quality monitoring results for the additional stations on Tribal lands are recorded in the USGS National Water Information System (NWIS) and EPA's Storage and Retrieval database (STORET). Through STORET and NWIS, EPA and USGS have established standardized formats for reporting water quality data and information.

Data on total nitrogen, total phosphorus, dissolved oxygen and fecal coliform are readily available through the STORET (www.epa.gov/STORET) and the NWIS (waterdata.usgs.gov/nwis/) websites for those monitoring stations in Tribal waters where these data have been collected and loaded into the databases.

Data Source:

Monitoring activities at the sampling stations included in this measure are not conducted or reported by Tribes. Sampling is performed at these monitoring stations by a variety of entities, for a variety of purposes and with differing frequencies. The proximity of these stations to watersheds undergoing restoration/protection activities may not be included as part of the information included in the STORET database or NWIS. The use of these monitoring stations in this performance measure is opportunistic, and thus sampling results may not necessarily reflect the impacts of restoration activities performed as part of the implementation of Clean Water Act programs by Tribes.

Methods, Assumptions and Suitability:

Sampling is performed at these monitoring stations by a variety of entities, for a variety of purposes and with differing frequencies. Methods used to measure total nitrogen, total phosphorus, dissolved oxygen and fecal coliform among these sites likely differ. However, metadata for sampling results, including sampling methods, detection limits and sampling date and time, are readily available to the public through the STORET database and NWIS. Given that the measure is based on improvements in water quality at individual monitoring stations in tribal lands over time, the use of differing methods at sampling stations included in the measure is not necessarily problematic. Sampling results at these stations are likely to be suitable for tracking progress in the measure. Implicit in the measure is the assumption that improvements in water quality at these sampling stations reflect the successful implementation of CWA programs by Tribes. The monitoring stations included in the measure are used for a variety of purposes and with differing frequencies and the proximity of the monitoring stations to waters undergoing restoration/protection actions by Tribes is unknown. Given this, the suitability of sampling results at these stations for tracking successful implementation of CWA programs by Tribes is uncertain.

QA/QC Procedures:

Samples at the monitoring stations included in this measure are collected and processed by a variety of entities and for differing purposes. As a result, QA/QC procedures for these samples may differ considerably. However, QA/QC procedures for the samples are readily available to the public through the STORET website or obtained from the USGS.

Data Quality Review:

Data owners are responsible for data quality review. Information on the quality of the data in STORET is readily available to the public through the website. The USGS is responsible for data quality review of sampling results loaded in the NWIS. No audits or data quality reviews for the monitoring results included in this measure have been conducted by EPA for data in the STORET or NWIS database.

Data Limitations:

It is still early to determine the full extent of data limitations. The monitoring stations included in the universe for this measure have been selected opportunistically by EPA based on their presence on Tribal lands and reporting sampling results for total nitrogen, total phosphorus, dissolved oxygen and fecal coliform. Sampling is performed at these monitoring stations by a variety of entities and for a variety of purposes with differing frequencies. The proximity of these stations to watersheds undergoing restoration/protection activities may not be included as part of the information included on the STORET or NWIS databases. Sampling results may not necessarily reflect the impacts of restoration activities performed as part of the implementation of Clean Water Act programs by Tribes. The impact of these data limitations on progress as reported in the measure is unclear.

New/Improved Data or Systems:

EPA has significantly improved the ease of data retrieval from the STORET database with the completion of the STORET data warehouse. Sampling results are being loaded into STORET at a rate of approximately 1 million records/month, which will significantly increase the data available to track progress in the measure. EPA is currently conducting a pilot project to prototype flow of water quality data to EPA via the central data exchange. The Wind River Reservation is participating as a pilot partner. EPA's intent is to build on the results of the pilot project to provide greater flexibility for partners who submit water quality data to EPA. We anticipate that this effort will help to increase the volume of tribal data in EPA's water quality data warehouse and will provide a more robust database for this measure. EPA and USGS will continue to work together to create a common view for data included in EPA's water quality data warehouse and the USGS NWIS database. This work also will facilitate the ability to measure progress.

References:

Water quality data in STORET are publicly available at www.epa.gov/STORET. Water quality data from USGS are available at waterdata.usgs.gov/nwis/.

FY 2005 PERFORMANCE MEASURE:

Number of households on tribal lands lacking access to basic sanitation.

Performance results related to these measures are presented in Goal 2, page 84.

Performance Database:

Sanitation Tracking and Reporting System (STARS), the Indian Health Service (IHS), Office of Environmental Health and Engineering (OEHE), Division of Sanitation Facilities Construction (DSFC).

Data Sources:

The STARS includes data on sanitation deficiencies, Indian homes and construction projects. STARS is currently comprised of two sub data systems, the Sanitation Deficiency System (SDS) and the Project Data System (PDS).

The SDS is an inventory of sanitation deficiencies for existing Indian homes and communities. The IHS is required to prioritize SDS deficiencies and annually report to Congress. The identification of sanitation deficiencies can be made several ways, the most common of which follow:

- Consultation with Tribal members and other Agencies
- Field visits by engineers, sanitarians, Community Health Representatives (CHRs), nurses, or by other IHS or tribal heath staff
- Sanitary Surveys
- Community Environmental Health Profiles
- Bureau of Indian Affairs (BIA) Inventory
- Census Bureau Reports (for comparison purposes only)
- Tribal Master Plans for Development
- Telephone Surveys
- Feasibility Studies

The most reliable and preferred method is a field visit to each community to identify and obtain accurate numbers of homes with sanitation deficiencies. The number of Indian homes within the communities must be consistent among the various methods cited above. If a field visit cannot be made, it is highly recommended that more than one method be used to determine sanitation deficiencies to increase the accuracy and establish greater credibility for the data.

The PDS is a listing of funded construction projects and is used as a management and reporting tool.

QA/QC Procedures:

Quality assurance for the Indian country water quality performance measure depends on the quality of the data in the STARS. The STARS data undergoes a series of quality control reviews at various levels within the IHS DSFC. The DSFC is required to annually report deficiencies in SDS to Congress in terms of total and feasible project costs for proposed sanitation projects and sanitation deficiency levels for existing homes.

Data Quality Reviews:

The SDS data initially undergoes a series of highly organized reviews by experienced tribal, IHS field, IHS district and IHS area personnel. The data are then sent to the DSFC headquarters office for review before final results are reported. The DSFC headquarters reviews the SDS data for each of the 12 IHS area offices. The data quality review consists of performing a number of established data queries and reports which check for errors and/or inconsistencies. In addition, the top 25 SDS projects and corresponding community deficiency profiles for each area are reviewed and scrutinized thoroughly. Detailed cost estimates are highly encouraged and are usually available for review.

Data Limitations:

The data are limited by the accuracy of reported data in STARS.

Error Estimate:

The IHS DSFC requires that higher-level projects (those with the possibility of funding prior to the next update) must be developed to allow for program implementation in an organized, effective, efficient manner. Those SDS projects (top 20%) must have cost estimates within 10% of the actual costs.

New/Improved Data or Systems:

The STARS is a web based application and therefore allows data to be continuously updated by personnel at various levels and modified as program requirements are identified.

References:

- Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Criteria for the Sanitation Facilities Construction Program, June 1999, Version 1.02, 3/13/2003. www.dsfc.ihs.gov/Documents/Criteria_March_2003.cfm
- Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Sanitation
- Deficiency System (SDS), Working Draft, "Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities", May 2003. www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf

FY 2005 PERFORMANCE MEASURES:

Prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters nationally, and in each coastal region, is improved on the "good/fair/poor" scale of the National Coastal Condition Report.

Maintain water clarity and dissolved oxygen in coastal waters at the national levels reported in the 2002 National Coastal Condition Report based upon recent data reported in the 2005 National Coastal Condition Report.

Improve ratings reported on the national "good/fair/poor" scale of the National Coastal Condition Report for: coastal wetlands loss by at least 0.1 points; contamination of sediments in coastal waters by at least 0.1 points; benthic quality by at least 0.1 points; & eutrophic condition by at least 0.1 points.

Performance results related to these measures are presented in Goal 2, page 86.

Performance Database:

EMAP/NCA [Environmental Monitoring and Assessment Program/National Coastal Assessment] database (housed EPA/ORD/NHEERL/AED, Narragansett, RI)(Environmental Protection Agency/Office of Research and Development/National Health and Environmental Effects Research Laboratory/Gulf Ecology Division); pre-database information housed in ORD/NHEERL facility in Gulf Breeze, FL (Gulf Ecology Division) (pre-database refers

to a temporary storage site for data where they are examined for QA purposes, have appropriate metadata attached and undergo initial statistical analyses); data upon QA acceptance and metadata completion are transferred to EMAP/NCA database and are web available at www.epa.gov/emap/nca.

Data Source:

Probabilistic surveys of ecological condition completed throughout the Mid-Atlantic and Gulf of Mexico by EPA's Office of Research and Development (ORD) in 1991-1994, in southern Florida in 1995, in the Southeast in 1995-1997, in the Mid-Atlantic in 1997-1998, in each coastal state in 2000-2004 (except Alaska and Hawaii), in Alaska in 2002 and 2004, in Hawaii in 2002 and 2004, and in Puerto Rico in 2000 and 2004, and in other island territories (Guam, American Samoa and U.S. Virgin Islands) in 2004. Surveys collect condition information regarding water quality, sediment quality and biotic condition at 70-100 sites/region (e.g., mid-Atlantic) each year of collection prior to 1999 and at 35-150 sites in each state or territory/year (site number dependent upon state) after 1999. Additional sampling by the National Estuary Program (NEP) included all individual national estuaries; the total number of sites within NEP boundaries was 30 for the 2-year period 2000-2003.

These data are collected through a joint EPA-State cooperative agreement and the States follow a rigid sampling and collection protocol following intensive training by EPA personnel. Laboratory processing is completed at either a state laboratory or through a national EPA contract. Data collection follows a Quality Assurance Project Plan (QAPP) (either the National Coastal QAPP or a variant of it) and QA testing and auditing by EPA.

Methods, Assumptions and Suitability:

The surveys are conducted using a probabilistic survey design which allows extrapolation of results to the target population (in this case—all estuarine resources of the specific state.) The collection design maximizes the spatial spread between sites, located by specific latitude-longitude combinations. The survey utilizes an indexed sampling period (generally late summer) to increase the probability of encountering water quality, sediment quality and biotic condition problems, if they exist. Based on the QAPP and field collection manual, a site in a specific state is located by sampling vessel via Global Positioning System (GPS) and water quality is measured on board at multiple depths. Water samples are taken for chemistry; sediment samples are taken for chemistry, toxicity testing and benthic community assessment; and fish trawls are conducted to collect community fish data and provide selected fish (target species) for analysis of whole body and/or fillet contaminant concentrations. Samples are stored in accordance with field manual instructions and shipped to the processing laboratory. Laboratories follow QA plans and complete analyses and provide electronic information to the state or EPA. EPA and the state exchange data to ensure that each has a complete set. EPA analyzes the data to assess regional conditions, whereas the states analyze the data to assess conditions of state-specific waters. Results of analyses on a national and regional basis are reported as chapters in the National Coastal Condition Report (NCCR) series. The overall regional condition index is the simple mean of the five indicators' scores used in the Coastal Condition Report (in the NCCR2 a recalculation method was provided for direct comparison of the successive reports). An improvement for one of the indicators by a full category unit over the 8 year period will be necessary for the regional estimate to meet the performance measurement goal (+0.2 over an 8 year period).

Assumptions: (1) The underlying target population (estuarine resources of the United States) has been correctly identified; (2) GPS is successful; (3) QAPP and field collection manuals are followed; (4) all samples are successfully collected; (5) all analyses are completed in accordance with the QAPP; and (6) all combinations of data into indices are completed in a statistically rigorous manner.

Suitability: By design all data are suitable to be aggregated to the state and regional level to characterize water quality, sediment quality, and biotic condition. Samples represent "reasonable", site-specific point-in-time data (not primary intention of data use) and an excellent representation of the entire resource (extrapolation to entire resource supportable). The intended use of the data is the characterization of populations and subpopulations of estuarine resources through time. The data meet this expectation and the sampling, response, analysis and reporting designs have been peer reviewed successfully multiple times. The data are suitable for individual calendar year characterization of condition, comparison of condition across years, and assessment of long-term trends once sufficient data are collected (7-10 years). Data are suitable for use in National Coastal Condition calculations for the United States and its regions to provide performance measurement information. The first long-term trends analysis will appear in the 2006 NCCR representing trends between 1990-2004.

QA/QC Procedures:

The sampling collection and analysis of samples are controlled by a Quality Assurance Project Plan (QAPP) [EPA 2001] and the National Coastal Assessment Information Management Plan (IMP)[EPA 2001]. These plans are followed by all twenty-three coastal states and 5 island territories. Adherence to the plans are determined by field training (conducted by EPA ORD), field audits (conducted by EPA/ORD), round robin testing of chemistry laboratories (conducted by EPA/ORD), overall systems audits of state programs and national laboratory practices (conducted by EPA), sample splits (sent to reference laboratories), blind samples (using reference materials) and overall information systems audits (conducted by EPA/ORD). Batch sample processing for laboratory analyses requires the inclusion of QA samples in each batch. All states are subject to audits at least once every 2 years. All participants received training in year 2000 and retraining sessions are scheduled every 2 years.

Data Quality Reviews:

Data quality reviews have been completed in-house by EPA ORD at the regional and national level in 2000-2003 (National Coastal Assessment 2000-2003) and by the Office of Environmental Information (OEI) in 2003 (assessment completed in June, 2003 and written report not yet available; oral debriefing revealed no deficiencies).

No deficiencies were found in the program. A national laboratory used in the program (University of Connecticut) for nutrient chemistry, sediment chemistry and fish tissue chemistry is being evaluated by the Inspector General's Office for potential falsification of laboratory results in connection with other programs not related to NCA. The NCA has conducted its own audit assessment and only one incorrect use of a chemical digestion method for inorganic chemistry samples (metals) was found. This error was corrected and all samples "digested" incorrectly were reanalyzed at no cost.

Data Limitations:

Data limitations are few. Because the data are collected in a manner to permit calculation of uncertainty and designed to meet a specific Data Quality Objective (DQO) (<10% error in spatial calculation for each annual state estimate), the results at the regional level (appropriate for this performance measure) are within about 2–4% of true values dependent upon the specific sample type. Other limitations as follows: (a) Even though methodology errors are minimized by audits, in the first year of the NCA program (2000) some errors occurred resulting in loss of some data. These problems were corrected in 2001 and no problems have been observed since. (b) In some instances, (<5%) of sample results, QA investigation found irregularities regarding the precision of measurement (e.g., mortality toxicity testing of controls exceeded detection limit, etc.). In these cases, the data were "flagged" so that users are aware of the potential limitations. (c) Because of the sampling/ analysis design, the loss of data at a small scale (~ 10%) does not result in a significant increase in uncertainty in the estimate of condition. Wholesale data losses of multiple indicators throughout the U.S. coastal states and territories would be necessary to invalidate the performance measure. (d) The only major source of external variability is year-to-year climatic variation (drought vs. wet, major climatic event, etc.) and the only source of internal variation is modification of reporting indicators (e.g., new indices, not a change in data collected and analyzed). This internal reporting modification requires a re-analysis of earlier information to permit direct comparison. (e) There is generally a 2-3 year lag from the time of collection until reporting. Sample analysis generally takes 1 year and data analysis another. Add another year for report production and peer review. (f) Data collections are completed annually; The EPA/ORD data collection collaboration will continue through 2004. After 2004, ORD will assist OW, as requested, with expert advice, but will no longer support the program financially.

Error Estimate:

The estimate of condition (upon which the performance measure is determined) has an annual uncertainty rate of about 2-3% for national condition, about 5-7% for individual regional indicators (composite of all five states data into a regional estimate), and about 9-10% for individual state indicators. These condition estimates are determined from the survey data using cumulative distribution functions and the uncertainty estimates are calculated using the Horvitz-Thompson estimator.

New/Improved Data or Systems:

- Changes have occurred in the data underlying the performance measure based on scientific review and development. A change in some reporting indicators has occurred in order to more accurately represent the intended ecological process or function. For example, a new eutrophication index was determined for the 2000 data. In order to compare this new index to the 1991-1994 data, the earlier data results must be recomputed using the new technique. This recalculation is possible because the underlying data collection procedures have not changed.
- New national contract laboratories have been added every year based on competition. QA requirements are met by the new facilities and rigorous testing at these facilities is completed before sample analysis is initiated. QA adherence and cross-laboratory sample analysis has minimized data variability resulting from new laboratories entering the program.
- The only reason for the discontinuation of the National performance goal would be the elimination of the surveys after 2004 or any other year thereafter.

In order to continue to utilize the 2001 National Coastal Condition report as the baseline for this performance measure, the original scores reported in 2001 have been re-calculated in the 2004 report using the index modifications described above. These "new" results for the baseline (re-calculated scores) are reported in Appendix C of the 2005 report.

References:

- Environmental Monitoring and Assessment Database (1990-1998) and National Coastal Assessment Database (2000–2004) websites: www.epa.gov/emap.
- National Coastal Assessment. 2000-2003. Various internal memoranda regarding results of QA audits. (Available through John Macauley, National QA Coordinator NCA, USEPA, ORD/NHEERL/GED, 1 Sabine Island, Gulf Breeze, FL 32561)
- National Coastal Assessment. 2001. Quality Assurance Project Plan. EPA/620/R-01/002.(Available through John Macauley above)
- National Coastal Assessment. 2001. Information Management Plan. EPA/620/R-01/003 (Available through Stephen Hale, NCA IM Coordinator, ORD/NHEERL/AED, 27 Tarzwell Drive, Narragansett, RI)
- U.S. Environmental Protection Agency. 2001. National Coastal Condition Report. EPA-620/R-01/005.
- U.S. Environmental Protection Agency. 2004. National Coastal Condition Report II. In review Assigned Report Number EPA-620/R-03/002.

Goal 3, Objective 1

FY 2005 PERFORMANCE MEASURES:

Daily per capita generation.

Millions of tons municipal solid waste diverted.

Performance results related to these measures are presented in Goal 3, page 98.

Performance Database:

Data are provided by the Department of Commerce. EPA does not maintain a database for this information.

Data Source:

The baseline numbers for municipal solid waste (MSW) source reduction and recycling are developed using a materials flow methodology employing data largely from the Department of Commerce and described in the EPA report titled "Characterization of Municipal Solid Waste in the United States." The Department of Commerce collects materials production and consumption data from various industries.

Methods, Assumptions and Suitability:

Data on domestic production of materials and products are compiled using published data series. U.S. Department of Commerce sources are used, where available; but in several instances more detailed information on production of goods by end-use is available from trade associations. The goal is to obtain a consistent historical data series for each product and/or material. Data on average product lifetimes are used to adjust the data series. These estimates and calculations result in material-by-material and product-by-product estimates of MSW generation, recovery, and discards. To strategically support attainment of the 35% recycling goal, EPA has identified specific components of the MSW stream on which to focus: paper and paperboard, organics (yard and food waste), and packaging and containers. For these targeted efforts EPA will examine data on these waste components.

There are various assumptions factored into the analysis to develop estimates of MSW generation, recovery and discards. Example assumptions (from pages 141-142 of year 2000 "Characterization Report") include: Textiles used as rags are assumed to enter the waste stream the same year the textiles are discarded. Some products (e.g., newspapers and packaging) normally have short lifetimes and products are assumed to be discarded in the year they are produced.

QA/QC Procedures:

Quality assurance and quality control are provided by the Department of Commerce's internal procedures and systems. The report prepared by the Agency, "Characterization of Municipal Solid Waste in the United States," is reviewed by a number of experts for accuracy and soundness.

Data Quality Review:

The report, including the baseline numbers and annual rates of recycling and per capita municipal solid waste generation, is widely accepted among experts.

Data Limitations:

Data limitations stem from the fact that the baseline statistics and annual rates of recycling and per capita municipal solid waste generation are based on a series of models, assumptions, and extrapolations and, as such, are not an empirical accounting of municipal solid waste generated or recycled.

New/Improved Data or Systems:

Because the statistics on MSW generation and recycling are widely reported and accepted by experts, no new efforts to improve the data or the methodology have been identified or are necessary.

References:

Municipal Solid Waste in the United States: 2003 Facts and Figures, EPA, April 2005 (EPA530-F-05-003), www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm

FY 2005 PERFORMANCE MEASURE:

Percent increase of RCRA hazardous waste management facilities with permits or other approved controls in place.

Performance results related to these measures are presented in Goal 3, page 100.

Performance Database:

The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program.

Data Source:

Data are entered by the states. Supporting documentation and reference materials are maintained in Regional and state files. EPA's Regional offices and authorized states enter data on a rolling basis.

Methods, Assumptions and Suitability:

The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. RCRAInfo has several different modules, including status of RCRA facilities in the RCRA permitting universe.

QA/QC Procedures:

States and EPA's Regional offices generate the data and manage data quality related to timeliness and accuracy. Within RCRAInfo, the application software contains structural controls that promote the correct entry of the high-priority national components. RCRAInfo documentation, which is available to all users on-line at www.epa.gov/rcrainfo/, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of system changes and user needs. Even with the increasing emphasis on data quality, with roughly 10,000 units in the baseline (e.g., a facility can have more than one unit), we hear of data problems with some facilities every year, particularly with the older inactive facilities. When we hear of these issues, we work with the EPA Regional offices to see that they get resolved. It may be necessary to make a few adjustments to the permitting baseline as data issues are identified. Determination of whether or not the GPRA annual goal #1 (listed above) is met is based on the legal and operating status codes for each unit. Each year since 1999, in discussions with Regional offices and states, EPA has highlighted the need to keep the data that support the GPRA permitting goal current. RCRAInfo is the sole repository for this information and is a focal point for planning from the local to national level. Accomplishments for goal # 2 (listed above) are based on the permit expiration date code. This is a new code for the new goal and we have made changes to the database to make this code a high priority code. We have discussed the need for correct entry with the Regions. Since tracking this information is new, we anticipate that we will have to work out some reporting bugs, review the accuracy of tracking when it begins in October 1, 2005, and make adjustments if necessary.

Note:

Access to RCRAInfo is open only to EPA Headquarters, Regional, and authorized state personnel. It is not available to the general public because the system contains enforcement sensitive data. The general public is referred to EPA's Envirofacts Data Warehouse to obtain filtered information on RCRA-regulated hazardous waste sites.

Data Quality Review:

The 1995 GAO report *Hazardous Waste: Benefits of EPA's Information System Are Limited* (AIMD-95-167, August 22, 1995, www.gao.gov/archive/1995/ai95167.pdf) on EPA's Hazardous Waste Information System reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs. Recommendations coincide with ongoing internal efforts to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states. RCRAInfo, the current national database has evolved in part as a response to this report.

Data Limitations:

The authorized states have ownership of their data and EPA has to rely on them to make changes. The data that determine if a facility has met its permit requirements are prioritized in update efforts. Basic site identification data may become out-of-date because RCRA does not mandate annual or other periodic notification by the regulated entity when site name, ownership and contact information changes. Nevertheless, EPA tracks the facilities by their IDs and those should not change even during ownership changes. The baselines are composed of facilities that can have multiple units. These units may consolidate, split or undergo other activities that cause the number of units to change. We aim to have static baselines, but there may be occasions where we would need to make minor baseline modifications. The baseline of facilities that are currently tracked for goal #2 are "due for permit renewals," but we anticipate that there will be some facilities that cease to be "due for permit renewals" due to a change in facility status.

New/Improved Data or Systems:

EPA has successfully implemented new tools in RCRAInfo for managing environmental information to support Federal and state programs, particularly for permit renewals. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste by large quantity generators and on waste management practices from treatment, storage, and disposal facilities. RCRAInfo is web accessible, providing a convenient user interface for Federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

References:

RCRAInfo documentation and data (www.epa.gov/rcrainfo/). The 1995 GAO report *Hazardous Waste: Benefits of EPA's Information System Are Limited* (AIMD-95-167, August 22, 1995, www.gao.gov/archive/1995/ai95167.pdf).

FY 2005 PERFORMANCE MEASURES:

Number of confirmed releases at UST facilities nationally.

Percent increase of UST facilities that are in significant operational compliance with both release detection and release prevention (Spill, overfill, and corrosion protection requirements).

Performance results related to these measures are presented in Goal 3, page 100.

Performance Database:

The Office of Underground Storage Tanks (OUST) does not maintain a national database. States individually maintain records for reporting state program accomplishments.

Data Source:

Designated State agencies submit semi-annual progress reports to the EPA regional offices.

QA/QC Procedures:

EPA's regional offices verify and then forward the data in a word processing table to OUST. OUST staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in a word processing table on a region-by-region basis, which is a way regional staff can check their data.

Data Limitations:

Percentages reported are sometimes based on estimates and extrapolations from sample data. Data quality depends on the accuracy and completeness of state records.

References:

FY 2005 Semi-Annual Mid-Year Activity Report, June 2, 2005 (updated semi-annually). www.epa.gov/OUST/cat/ca_05_12.pdf.

Goal 3, Objective 2

FY 2005 PERFORMANCE MEASURES:

Number of inspections and exercises conducted at oil storage facilities required to have Facility Response Plans.

Oil spills responded to or monitored by EPA.

Performance results related to these measures are presented in Goal 3, page 106.

Performance Database:

The Office of Emergency Management has recently gone through a reorganization bringing together the chemical and oil emergency prevention, preparedness, and response programs of the Agency. Additionally, the Oil Program is currently undergoing a PART review, therefore, a new reporting system is under development to take into account the recent reorganization as well as the resulting annual and long-term measures develop through the PART review. This system will store oil spill prevention, emergency preparedness and response information (e.g., compliance and oil spill information).

Methods, Assumptions and Suitability:

Pending new database.

References:

For additional information on the Oil program, see www.epa.gov/oilspill

FY 2005 PERFORMANCE MEASURE:

Percentage of emergency response and homeland security readiness improvement.

Performance results related to these measures are presented in Goal 3, page 106.

Performance Database:

No specific database has been developed. Data from evaluations from each of the 10 Regions are tabulated and stored using standard software (WordPerfect, spreadsheets, etc.).

Data Source:

Data are collected through detailed surveys of all Regional programs, and interviews with personnel and managers in each program office. The score represents a composite based upon data from each unique Regional and headquarters organization. Annual increments represent annual improvements. The survey instrument was developed based upon Core Emergency Response (ER) elements, and has been approved by EPA Headquarters and Regional managers. Core ER elements cover all aspects of the Core ER program, including Regional Response Centers, transportation, coordination with backup Regions, health and safety, delegation and warrant authorities, response readiness, response equipment, identification clothing, training and exercises, and outreach.

While EPA is currently prepared to respond to chemical, biological, and radiological incidents, improvement in the emergency response and homeland security readiness measure will demonstrate an increased ability to respond quickly and effectively to national-scale events. The FY 2007 Core ER target is to improve emergency response and homeland security readiness by 10% from the FY 2006 baseline performance.

Methods, Assumptions and Suitability:

The Core ER elements were developed over the last several years by the EPA Removal Program to identify and clarify what is needed to ensure an excellent emergency response program. The elements, definitions, and rationales were developed by staff and managers and have been presented to the Administrator and other high level Agency managers. Based on the Core ER standards, evaluation forms and criteria were established for EPA's Regional programs, the Environmental Response Team (ERT), and Headquarters. These evaluation criteria identify what data need to be collected, and how that data translate into an appropriate score for each Core ER element. The elements and evaluation criteria will be reviewed each year for relevance to ensure that the programs have the highest standards of excellence and that the measurement clearly reflects the level of readiness. The data are collected from each Regional office, ERT, and Headquarters using a systematic, objective process. Each evaluation team consists of managers and staff, from Headquarters and from another EPA Regional office, with some portion of the team involved in all reviews for consistency and some portion varying to ensure independence and objectivity. For instance, a team evaluating Region A might include

some or all of the following: a staff person from Headquarters who is participating in all reviews, a staff person from Headquarters who is very familiar with Region A activities, a manager from Headquarters, and a staff person and/or manager from Region B. One staff or group will be responsible for gathering and analyzing all the data to determine the overall score for each Regional office, ERT, and Headquarters, and for determining an overall National score.

QA/QC Procedures:

See "Methods, Assumptions and Suitability".

Data Quality Review:

The evaluation team will review the data (see Methods, Assumptions and Suitability) during the data collection and analysis process. Additional data review will be conducted after the data has been analyzed to ensure that the scores are consistent with the data and program information. There currently is no specific database that has been developed to collect, store, and manage the data.

Data Limitations:

One key limitation of the data is the lack of a dedicated database system to collect and manage the data. Standard software packages (word processing, spreadsheets) are used to develop the evaluation criteria, collect the data, and develop the accompanying readiness scores. There is also the possibility of subjective interpretation of data.

Error Estimate:

It is likely that the error estimate for this measure will be small for the following reasons: the standards and evaluation criteria have been developed and reviewed extensively by Headquarters and EPA's Regional managers and staff; the data will be collected by a combination of managers and staff to provide consistency across all reviews plus an important element of objectivity in each review; the scores will be developed by a team looking across all ten Regions, ERT, and Headquarters; and only twelve sets of data will be collected, allowing for easier cross-checking and ensuring better consistency of data analysis and identification of data quality gaps.

New/Improved Data or Systems:

There are no current plans to develop a dedicated system to manage the data.

References:

FY 2004/2005 Superfund Program Implementation Manual (SPIM), www.epa.gov/superfund/.

FY 2005 PERFORMANCE MEASURES:

- Number of final Superfund site assessment decisions.
- Number of Superfund hazardous waste sites with human exposures controlled.
- Number of Superfund hazardous waste sites with groundwater migration controlled.
- Number of final remedies (cleanup targets) selected at Superfund sites.
- Number of Superfund construction completions.
- Percentage of Superfund spending obligated site-specifically.
- Voluntary removal actions overseen by EPA and completed annually.
- Superfund-lead removal actions completed annually.
- Superfund-lead removal actions completed annually per million dollars.

Performance results related to these measures are presented in Goal 3, page 102.

Performance Database:

The Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS) is the database used by the Agency to track, store, and report Superfund site information.

Data Source:

CERCLIS is an automated EPA system; headquarters and EPA's Regional offices enter data into CERCLIS on a rolling basis.

Methods, Assumptions and Suitability:

Each performance measure is a specific variable within CERCLIS.

QA/QC Procedures:

To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as Regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) Regional CERCLIS Data Entry Internal Control Plan, which includes: (a) regional policies and procedures for entering data into CERCLIS; (b) a review process to ensure that all Superfund accomplishments are supported by source documentation; (c) delegation of authorities for approval of data input into CERCLIS; and (d) procedures to ensure that reported accomplishments meet accomplishment definitions; and (6) a historical lockout feature has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report. Specific direction for these controls is contained in the Superfund Program Implementation Manual (SPIM) Fiscal Year 2004/2005 (www.epa.gov/superfund/action/process/spim04.htm) and the Fiscal

Year 2006/2007 SPIM (www.epa.gov/superfund/action/process/spim06.htm).

CERCLIS operation and further development is taking place under the following administrative control quality assurance procedures: 1) Office of Environmental Information Interim Agency Life Cycle Management Policy Agency Directive 2100.4 (cfint1.rtpnc.epa.gov/ntsdweb/); 2) the Office of Superfund Remediation and Technology Innovation Quality Management Plan (www.epa.gov/swerffrr/pdf/oswer_qmp.pdf) 3) Agency platform, software and hardware standards (basin.rtpnc.epa.gov/ntsd/itroadmap.nsf); 4) Quality Assurance Requirements in all contract vehicles under which CERCLIS is being developed and maintained (www.epa.gov/quality/informationguidelines); and 5) Agency security procedures (basin.rtpnc.epa.gov/ntsd/ITRoadMap.nsf/Security?OpenView). In addition, specific controls are in place for system design, data conversion and data capture, and CERCLIS outputs.

Data Quality Reviews:

Two audits, one by the Office Inspector General (OIG) and the other by Government Accountability Office (GAO), were conducted to assess the validity of the data in CERCLIS. The OIG audit report, *Superfund Construction Completion Reporting* (No. E1SGF7_05_0102_ 8100030), dated December 30, 1997, was prepared to verify the accuracy of the information that the Agency was providing to Congress and the public. The OIG report concluded that the Agency "has good management controls to ensure accuracy of the information that is reported," and "Congress and the public can rely upon the information EPA provides regarding construction completions." Further information on this report are available at www.epa.gov/oigearth/. The GAO's report, *Superfund: Information on the Status of Sites* (GAO/RCED-98-241), dated August 28, 1998, was prepared to verify the accuracy of the information in CERCLIS on sites' cleanup progress. The report estimates that the cleanup status of National Priority List (NPL) sites reported by CERCLIS as of September 30, 1997, is accurate for 95 percent of the sites. Additional information on the *Status of Sites* may be obtained at www.gao.gov/archive/1998/rc98241.pdf. Another OIG audit, *Information Technology—Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002, evaluated the accuracy, completeness, timeliness, and consistency of the data entered into CERCLIS. The report provided 11 recommendations to improve controls for CERCLIS data quality. EPA concurs with the recommendations contained in the audit, and many of the identified problems have been corrected or long-term actions that would address these recommendations continue to be underway. Additional information about this report is available at www.epa.gov/oigearth.

The IG reviews annually the end-of-year Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) data, in an informal process, to verify the data supporting the performance measures. Typically, there are no published results.

The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (OSWER) was signed in August 2003 (www.epa.gov/swerffrr/pdf/oswer_qmp.pdf).

Data Limitations:

Weaknesses were identified in the OIG audit, *Information Technology—Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002. The Agency disagrees with the study design and report conclusions; however, the report provided 11 recommendations with which EPA concurs. Many of the identified problems have been corrected or long-term actions that would address these recommendations continue to be underway, e.g., 1) FY 02/03 SPIM Chapter 2 update was made to better define the Headquarters' and Regional roles and responsibilities for maintaining planning and accomplishment data in CERCLIS; 2) FY 04/05 SPIM Appendix A, Section A.A.5 'Site Status Indicators' added language to clarify the use of the non-NPL status code of "SX"; 3) FY 04/05 SPIM Appendix A, Section A.A.6 'Data Quality' added a section on data quality which includes a list of relevant reports; 4) FY 04/05 SPIM Appendix E, Section E.A.5 "Data Owners/Sponsorship' was revised to reflect what data quality checks (focus data studies) will be done by designated Regional and headquarters staff; 5) A data quality objectives supplement for GPRA measures was added in Change 6 to this SPIM. For changes regarding this OIG audit, see the Change Log for this SPIM at www.epa.gov/superfund/) Draft guidance from OCA (Other Cleanup Activity) subgroup, which outlines the conditions under which sites are taken back from states when states have the lead but are not performing; and 7) Pre-CERCLIS Screening: A Data Entry Guide, which provides guidance to the regions for preventing entry of duplicate sites in CERCLIS. The development and implementation of a quality assurance process for CERCLIS data has begun. This process includes delineating quality assurance responsibilities in the program office and periodically selecting random samples of CERCLIS data points to check against source documents in site files.

Error Estimate:

The GAO's report, *Superfund: Information on the Status of Sites* (GAO/RECD-98-241), dated August 28, 1998, estimates that the cleanup status of National Priority List sites reported by CERCLIS is accurate for 95 percent of the sites. The OIG report, *Information Technology—Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002, states that over 40 percent of CERCLIS data on site actions reviewed was inaccurate or not adequately supported. Although the 11 recommendations were helpful and will improve controls over CERCLIS data, the Agency disagrees and strongly objects to the study design and report conclusions, stating they do not focus on the program's data quality hierarchy and the importance it places on NPL sites.

New/Improved Data or Systems:

A CERCLIS modernization effort, initiated in 2002, has been completed. As a result of the modernization effort, CERCLIS now has standards for data quality. Each EPA Region's CERCLIS Data Entry Control Plan, which identifies policies and procedures for data entry, is reviewed annually. Data quality audit fields have been added to CERCLIS.

EPA Headquarters has begun to create and share with the Regions data quality audit reports. These reports document data quality for timeliness, completeness, and accuracy as determined by the Superfund data sponsors to encourage and ensure high data quality. The modernization effort has increased the availability of CERCLIS data via Superfund eFacts, a Superfund data mart which serves program managers in Headquarters and the Regions. In FY 2007, the program will continue its effort to improve its management of the program through the increased availability of timely and accurate technical information to Superfund's managers. In 2007, the Agency will work to increase utilization of CERCLIS data by incorporating additional remedy selection, risk, removal response, and community involvement data into CERCLIS.

The Business Process Reevaluation task in the modernization project has provided CERCLIS managers with a first step in an implementation evaluation. The document, which resulted from the evaluation, is being used as a valuable resource for scoping the future redesign of CERCLIS as well as the realignment of the database that will remove unnecessary data and add the new data fields that are necessary to manage the Superfund program today. The redesign is mandated to bring CERCLIS into the Agency's Enterprise Architecture. As part of OSRTI's effort to bring CERCLIS into the Agency's Enterprise Architecture all Regional databases have been moved to the National Computing Center in RTP. This is the first step in folding the Headquarters and Regional databases into one database. This move of the databases to RTP is being done without changing the application, by using a commercial off the shelf (COTS) software program to enable the Regional data entry staff to input data over the Agency's Wide Area Network. The initial step of moving the databases to RTP and moving all users to the COTS software has been completed. The move to a single database will be completed during FY 2006 and implemented in FY 2007. The Superfund Document Management System (SDMS) will be linked to CERCLIS. This linkage will enable users to easily transition between the programmatic accomplishments reporting to the actual document that defines and describes the accomplishment reported in CERCLIS. The effort to link SDMS and CERCLIS and to consolidate the systems will lead to common reporting (same events and data) in CERCLIS and SDMS. This will be done by electronically extracting data from the documents in SDMS to fill the data fields in CERCLIS—eliminating the manual data entry/human error impacts.

References:

OIG audit *Superfund Construction Completion Reporting,* (No. E1SGF7_05_0102_ 8100030) and *Information Technology—Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality*, (No. 2002-P-00016, www.epa.gov/oigearth); and the GAO report, *Superfund Information on the Status of Sites* (GAO/RCED-98-241, www.gao.gov/archive/1998/rc98241.pdf). The Superfund Program Implementation Manuals for the fiscal years 1987 to the current manual (www.epa.gov/superfund/action/guidance/index.htm). The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (August 2003, www.epa.gov/swerffrr/pdf/oswer_qmp.pdf). The Office of Superfund Remediation and Technology Innovation Quality Management Plan (www.epa.gov/swerffrr/pdf/oswer_qmp.pdf). EPA platform, software and hardware standards (basin.rtpnc.epa.gov/ntsd/itroadmap.nsf). Quality Assurance Requirements in all contract vehicles under which CERCLIS are being developed and maintained (www.epa.gov/quality/informationguidelines). EPA security procedures (basin.rtpnc.epa.gov/ntsd/ITRoadMap.nsf/Security?OpenView).

FY 2005 PERFORMANCE MEASURES:

High priority RCRA facilities with human exposures to toxins controlled.

High priority RCRA facilities with toxic releases to groundwater controlled.

Performance results related to these measures are presented in Goal 3, page 101.

Performance Database:

The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database that supports EPA's RCRA program.

Data Source:

The states and Regions enter data. A "High", "Medium", or "Low" entry is made in the database with respect to final-assessment decision. A "yes" or "no" entry is made in the database with respect to meeting the human exposures to toxins controlled and releases to groundwater controlled indicators. An entry will be made in the database to indicate the date when a remedy is selected and the complete construction of a remedy is made. Supporting documentation and reference materials are maintained in the Regional and state files. EPA's Regional offices and authorized states enter data on a continual basis.

Methods, Assumptions and Suitability:

RCRAInfo has several different modules, including a Corrective Action Module that tracks the status of facilities that require, or may require, corrective actions. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste (HW) generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. All five measures are used to summarize and report on the facility-wide environmental conditions at the RCRA Corrective Action Program's highest priority facilities. The environmental indicators are used to track the RCRA program's progress in getting highest priority contaminated facilities under control. Known and suspected facility-wide condi-

tions are evaluated using a series of simple questions and flow-chart logic to arrive at a reasonable, defensible determination. These questions were issued as a memorandum titled: *Interim Final Guidance for RCRA Corrective Action Environmental Indicators,* Office of Solid Waste, February 5, 1999). Lead regulators for the facility (authorized state or EPA) make the environmental indicator determination; however, facilities or their consultants may assist EPA in the evaluation by providing information on the current environmental conditions. Remedies selected and complete constructions of remedies are used to track the RCRA program's progress in getting highest priority contaminated facilities moving towards final cleanup. The lead regulators for the facility make the remedies selection and construction completion of remedies determinations.

QA/QC Procedures:

States and Regions generate the data and manage data quality related to timeliness and accuracy (i.e., the environmental conditions and determinations are correctly reflected by the data). Within RCRAInfo, the application software enforces structural controls that ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of systems changes and user needs.

Note:

Access to RCRAInfo is open only to EPA Headquarters, Regional, and authorized state personnel. It is not available to the general public because the system contains enforcement sensitive data. The general public is referred to EPA's Envirofacts Data Warehouse to obtain filtered information on RCRA-regulated hazardous waste facilities.

Data Quality Review:

GAO's 1995 Report on EPAs Hazardous Waste Information System (http://www.access.gpo.gov/su_docs/fdlp/pubs/study/studyhtm.html) reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states. EPA's Quality Staff of Office of Environmental Information conducted a quality systems audit in December 2003. The audit found the corrective action program satisfactory.

Data Limitations:

No data limitations have been identified. As discussed above, the performance measure determinations are made by the authorized states and EPA Regions based on a series of standard questions and entered directly into RCRAInfo. EPA has provided guidance and training to states and Regions to help ensure consistency in those determinations. High priority facilities are monitored on a facility-by-facility basis and the QA/QC procedures identified above are in place to help ensure data validity.

New/Improved Data or Systems:

EPA has successfully implemented new tools for managing environmental information to support federal and state programs, replacing the old data systems (the Resource Conservation and Recovery Information System and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste from large quantity generators and on waste management practices by treatment, storage, and disposal facilities. RCRAInfo is web-accessible, providing a convenient user interface for federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

References:

GAO's 1995 Report on EPA's Hazardous Waste Information System reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs. This historical document is available on the Government Printing Office Website (www.access.gpo.gov/su_docs/fdlp/pubs/study/studyhtm.html).

FY 2005 PERFORMANCE MEASURES:

Reduce the number of LUST cleanups that exceed state risk-based standards for human exposure and groundwater migration. (Tracked as: Number of leaking underground storage tank cleanups completed.)

Reduce the number of LUST cleanups that exceed risk-based standards for human exposure and groundwater migration in Indian Country. (Tracked as: Number of leaking underground storage tank cleanups completed in Indian Country.)

Performance results related to these measures are presented in Goal 3, page 101.

Performance Database:

The Office of Underground Storage Tanks (OUST) does not maintain a national database. States individually maintain records for reporting state program accomplishments.

Data Source:

Designated State agencies submit semi-annual progress reports to the EPA regional offices. The data for the comparison of leaking underground storage tank cleanups will be developed in FY 2005 for a planned reporting date of FY 2006.

QA/QC Procedures:

EPA's regional offices verify and then forward the data in a word processing table

to OUST. OUST staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in a word processing table on a region-by-region basis, which is a way regional staff can check their data.

Data Limitations:

Percentages reported are sometimes based on estimates and extrapolations from sample data. Data quality depends on the accuracy and completeness of state records.

References:

FY 2005 Semi-Annual Mid-Year Activity Report, June 2, 2005 (updated semi-annually). www.epa.gov/OUST/cat/ca_05_12.pdf

FY 2005 PERFORMANCE MEASURES:

Refer to DOJ, settle, or writeoff 100% of Statute of Limitations (SOLs) cases for Superfund sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered.

Percentage of Superfund sites at which settlement or enforcement action is taken before the start of a remedial action.

Performance results related to these measures are presented in Goal 3, page 105.

Performance Database:

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database contains information on hazardous waste sites, potentially hazardous waste sites and remedial activities across the nation. The database includes sites that are on the National Priorities List (NPL) or being considered for the NPL.

Data Source:

Automated EPA system; Headquarters and EPA's Regional Offices enter data into CERCLIS.

Methods, Assumptions and Suitability:

There are no analytical or statistical methods used to collect the information. The performance data collected on a fiscal year basis only. Enforcement reports are run at the end of the fiscal year, and the data that support this measure are extracted from the report.

QA/QC Procedures:

Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001. To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund/Oil Implementation Manual (SPIM), a program management manual that details what data must be reported; 2) Report specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) QA Third Party Testing, an extensive test made by an independent QA tester to ensure that the report produces data in conformance with the report specifications; 6) Regional CERCLIS Data Entry Internal Control Plan, which includes: a) regional policies and procedures for entering data into CERCLIS, b) a review process to ensure that all Superfund accomplishments are supported by source documentation, c) delegation of authorities for approval of data input into CERCLIS, and, d) procedures to ensure that reported accomplishments meet accomplishment definitions; and 7) a historical lockout feature that has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report.

Data Quality Review:

The IG annually reviews the end-of-year CERCLIS data, in an informal process, to verify the data supporting the performance measure. Typically, there are no published results.

References:

Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001.

Goal 3, Objective 3

FY 2005 PERFORMANCE MEASURE:

SITE demonstrations completed.

Performance results related to these measures are presented in Goal 3, page 108.

Performance Database:

Program output; no internal tracking system

Goal 4, Objective 1

FY 2005 PERFORMANCE MEASURES:

Number of registrations of reduced risk pesticides registered (Register safer chemicals and biopesticides) (cumulative).

Number of new (active ingredients) conventional pesticides registered (New Chemicals)(Cumulative).

Number of conventional new uses registered (New Uses) (Cumulative).

Maintain timeliness of Section 18 Emergency Exemption Decisions.

Reduce registration decision times for new conventional chemicals.

Reduce registration decision times for reduced risk chemicals.

Performance results related to these measures are presented in Goal 4, pages 121, 129.

Performance Database:

The OPPIN (Office of Pesticide Programs Information Network) consolidates various pesticides program databases. It is maintained by the EPA and tracks regulatory data submissions and studies, organized by scientific discipline, which are submitted by the registrant in support of a pesticide's registration. In addition to tracking decisions in OPPIN, manual counts are also maintained by the office on the registrations of reduced risk pesticides. Results for reduced risk pesticides, new active conventional ingredients, and new uses have been reported since 1996. The results are calculated on a fiscal year (FY) basis. For antimicrobial new uses, results have been reported since FY 2004 on a FY basis. Both S18 timeliness and reduced risk decision times are being reported on a FY basis for the first time in FY 2005.

Data Source:

Pesticide program reviewers update the status of the submissions and studies as they are received and as work is completed by the reviewers. The status indicates whether the application is ready for review, the application is in the process of review, or the review has been completed.

Methods, Assumptions and Suitability:

The measures are program outputs which when finalized, represent the program's statutory requirements to ensure that pesticides entering the marketplace are safe for human health and the environment, and when used in accordance with the packaging label present a reasonable certainty of no harm. While program outputs are not the best measures of risk reduction, registration outputs do provide a means for reducing risk by ensuring that pesticides entering the marketplace meet the latest health standards, thus when used according to the label are safe.

QA/QC Procedures:

A reduced risk pesticide must meet the criteria set forth in Pesticide Registration Notice 97-3, September 4, 1997. Reduced risk pesticides include those which reduce the risks to human health; reduce the risks to non-target organisms; reduce the potential for contamination of groundwater, surface water or other valued environmental resources; and/or broaden the adoption of integrated pest management strategies, or make such strategies more available or more effective. In addition, biopesticides are generally considered safer (and thus reduced risk). All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. The office adheres to its Quality Management Plan (May 2000) in ensuring data quality and that procedures are properly applied.

Data Quality Review:

These are program outputs. EPA staff and management review the program outputs in accordance with established policy for the registration of reduced-risk pesticides as set forth in Pesticide Regulation Notice 97-3, September 4, 1997.

Data Limitations:

None. All required data must be submitted for the risk assessments before the pesticide is registered. If data are not submitted, the pesticide is not registered. As stated above, a reduced risk pesticide must meet the criteria set forth in PRN 97-3 and all registrations must meet FQPA safety requirements. If a pesticide does not meet these criteria, it is not registered. If an application for a reduced risk pesticide does not meet the reduced risk criteria, it is reviewed as a conventional active ingredient.

New/Improved Data or Systems:

The OPPIN (Office of Pesticide Programs Information Network), which consolidates various pesticides program databases, will reduce the processing time for registration actions.

References:

FIFRA Sec 3(c)(5); FFDCA Sec 408(a)(2); EPA Pesticide Registration Notice 97-3, September 4, 1997; Food Quality Protection Act (FQPA) 1996; OPP Quality Management Plan, May 2000); Endangered Species Act.

FY 2005 PERFORMANCE MEASURES:

Number of Reregistration Eligibility Decisions (REDs) issued (cumulative).
Number of Product Reregistration decisions issued.
Number of inert ingredients tolerances reassessed.
Reduce decision times for REDs.
Tolerance reassessments for top 20 foods eaten by children.
Tolerance Reassessment.

Performance results related to these measures are presented in Goal 4, page 121.

Performance Database:

The OPPIN (Office of Pesticide Programs Information Network) consolidates various EPA program databases. It is maintained by the EPA and tracks regulatory data submissions and studies, organized by scientific discipline, which are submitted by the registrant in support of a pesticide's reregistration. In addition to tracking decisions in OPPIN, manual counts are also maintained by the office on the reregistrations decisions. Decisions are logged in as the action is completed, both for final decisions and interim decisions. REDs and product reregistration decisions have been reported on a FY basis since FY 1996. Reduction in decision times for REDs will be reported on an FY basis in FY 2005.

Data Source:

EPA's Pesticides Program staff and managers.

Methods, Assumptions and Suitability:

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

QA/QC Procedures:

All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. The office adheres to the procedures for quality management of data as outlined in its QMP approved May 2000.

Data Quality Review:

Management reviews the program counts and signs off on the decision document.

New/Improved Data or Systems:

The OPPIN, which consolidates various pesticides program databases, will contribute to reducing the processing time for reregistration actions.

References:

EPA Website http://www.epa.gov/pesticides EPA Annual Report 2002 EPA Number 735-R-03-001; 2003 Annual Performance Plan OPP Quality Management Plan, May 2000; Endangered Species Act.

FY 2005 PERFORMANCE MEASURES:

Annual number of large transformers safely disposed.
Annual number of large capacitors safely disposed.

Performance results related to these measures are presented in Goal 4, page 123.

Performance Database:

PCB Annual Report Database. The results are calculated on a calendar year (CY) basis. Two-year data lag and results for CY 05 will not be available until 2007.

Data Source:

Annual Reports from commercial storers and disposers of PCB Waste.

Methods, Assumptions, and Suitability:

Data provide a baseline for the amount of safe disposal of PCB waste annually. By ensuring safe disposal of PCBs in equipment such as transformers and capacitors coming out of service, and contaminated media such as soil, and structures from remediation activities, the Agency is reducing the exposure risk of PCBs that are either already in the environment or may be released to the environment through spills or leaks.

QA/QC Procedures:

The Agency reviews, transcribes, and assembles data into the Annual Report Database.

Data Quality Reviews:

The Agency contacts data reporters, when needed, for clarification of data submitted.

Data Limitations:

Data limitations include missing submissions from commercial storers and disposers, and inaccurate submissions. PCB-Contaminated Transformers, of PCB concentrations 50 to 499 parts per million (ppm), and those that are 500 ppm PCBs or greater are not distinguished in the data. Similarly, large and small capacitors of PCB waste may not be differentiated. Data are collected for the previous calendar year on July 1 of the next year creating a lag of approximately 1 year. Despite these limitations, the data do provide the only estimate of the amount of PCB waste disposed annually.

References:

U.S EPA, Office of Pollution Prevention and Toxics, National Program Chemicals Program, PCB Annual Report for Storage and Disposal of PCB Waste.

FY 2005 PERFORMANCE MEASURE:

Screening assays completed.

Performance results related to these measures are presented in Goal 4, page 126.

Performance Database:

Program output; Data are generated to support all stages of the validation of endocrine test methods through contracts, grants and interagency agreements, and the cooperative support of the Organization of Economic Cooperation and Development (OECD), and EPA's Office of Research and Development (ORD). The scope of the effort includes the conduct of laboratory studies and associated analyses to validate the assays proposed for the Endocrine Disruptor Screening Program (EDSP). This measure, however, tracks only the end product. EPA's contractor maintains a Data Coordination Center which manages information/data generated under the EDSP.

FY 2005 PERFORMANCE MEASURE:

Number of children aged 1-5 years with elevated blood lead levels (> or = 10 ug/dL).

Performance results related to these measures are presented in Goal 4, page 123.

Performance Database:

Data from the Centers for Disease Control and Prevention's (CDC) National Health and Nutrition Examination Survey (NHANES) is recognized as the primary database in the United States for national blood lead statistics. NHANES is a probability sample of the non-institutionalized population of the United States. Data are collected on a calendar year basis, and is currently released to the public in 2 year sets. The most current release was the data set for 2001-2002, released in early 2005. Blood lead levels are measured for participants who are at least 1 year old. The survey collects information on the age of the participant at the time of the survey.

Data Source:

The National Health and Nutrition Examination Survey is a survey designed to assess the health and nutritional status of adults and children in the U.S. The survey program began in the early 1960s as a periodic study, and continues as an annual survey. The survey examines a nationally representative sample of approximately 5,000 men, women, and children each year located across the U.S. CDC's National Center for Health Statistics (NCHS) is responsible for the conduct of the survey and the release of the data to the public. NCHS and other CDC centers publish results from the survey, generally in CDC's Morbidity and Mortality Weekly Report (MMWR), but also in scientific journals. In recent years, CDC has published a National Exposure report based on the data from the NHANES. The most current National Exposure report was released on July 21, 2005, and is available at the web site www.cdc.gov/exposurereport/

Methods, Assumptions, and Suitability:

Detailed interview questions cover areas related to demographic, socio-economic, dietary, and health-related questions. The survey also includes an extensive medical and dental examination of participants, physiological measurements, and laboratory tests. Specific laboratory measurements of environmental interest include: metals (e.g. lead, cadmium, and mercury), VOCs, phthalates, organophosphates (OPs), pesticides and their metabolites, dioxins/furans, and polyaromatic hydrocarbons (PAHs). NHANES is unique in that it links laboratory-derived biological markers (e.g. blood, urine etc.) to questionnaire responses and results of physical exams. For this performance measure, NHANES has been recognized as the definitive source. Estimates of the number of children 1-5 years with an elevated blood lead level based on NHANES have been published by CDC, most recently in May, 2005. (See www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm). Analytical guidelines issued by NCHS generally recommend analyzing the data in 4 year periods. Analyses of data for 2 year periods are capable of reasonably valid inferences in certain cases. Historically, CDC has published estimates for this measure based on 4 year periods, with an exception for 1999-2000.

QA/QC Procedures:

Quality assurance plans are available from the CDC as outlined on the web site www.cdc.gov/nchs/nhanes.htm under the NHANES section. The analytical guidelines are available at the web site www.cdc.gov/nchs/data/nhanes/nhanes_general_guidelines_june_04.pdf).

Data Quality Reviews:

CDC follows standardized survey instrument procedures to collect data to promote data quality, and data are subjected to rigorous QA/QC review. CDC/NCHS has an elaborate data quality checking procedure outlined on the web site www.cdc.gov/nchs/nhanes.htm under the NHANES section.

Data Limitations:

NHANES is a voluntary survey and selected persons may refuse to participate. In addition, the NHANES survey uses two steps, a questionnaire and a physical exam. There are sometimes different numbers of subjects in the interview and examinations because some participants only complete one step of the survey. Participants may answer the questionnaire but not provide the more invasive blood sample. Special weighting techniques are used to adjust for non-response. Seasonal changes in blood lead levels cannot be assessed under the current NHANES design. Because NHANES is a sample survey, there may be no children with elevated blood lead levels in the sample, but still some children with elevated blood lead levels in the population.

Error Estimate:

Because NHANES is based on a complex multi-stage sample design, appropriate sampling weights should be used in analyses to produce estimates and associated measures of variation. Recommended methodologies and appropriate weights are provided at the NHANES web site www.cdc.gov/nchs/nhanes.htm. Measurement error for the blood lead levels is anticipated.

New/Improved Data or Systems:

The CDC has moved to a continuous schedule for NHANES sampling, data release, and release of National Exposure reports.

References:

1) the NHANES web site, www.cdc.gov/nchs/nhanes.htm; 2) the National Exposure report web site, www.cdc.gov/exposurereport/; 3) MMWR article with the most recent estimate of the number of children with elevated blood lead levels, www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm; 4) summary information on children's blood lead levels from past NHANES, www.cdc.gov/nceh/lead/research/kidsBLL.htm#National%20surveys.

FY 2005 PERFORMANCE MEASURE:

Percentage of Acre Treatments with Reduced Risk Pesticides.

Performance results related to these measures are presented in Goal 4, page 122.

Performance Database:

EPA uses an external database, Doane Marketing Research data, for this measure. The data have been reported for trend data since FY 2001 on an FY basis.

Data Source:

Primary source is Doane Marketing Research, Inc. (a private sector research database). The database contains pesticide usage information by pesticide, year, crop use, acreage and sector.

Methods, Assumptions and Suitability:

A reduced-risk pesticide must meet the criteria set forth in Pesticide Registration Notice 97-3, September 4, 1997. Reduced-risk pesticides include those which reduce the risks to human health; reduce the risks to non-target organisms; reduce the potential for contamination of groundwater, surface water, or other valued environmental resources; and/or broaden the adoption of integrated pest management strategies or make such strategies more available or more effective. In addition, biopesticides are generally considered safer (and thus reduced-risk). EPA's statistical and economics staff review data from Doane. Information is also compared to prior years for variations and trends as well as to determine the reasons for the variability.

Doane sampling plans and QA/QC procedures are available to the public at their website. More specific information about the data is proprietary and a subscription fee is required. Data are weighted and a multiple regression procedure is used to adjust for known disproportionalities (known disproportionality refers to a non proportional sample, which means individual respondents have different weights) and ensure consistency with USDA and state acreage estimates.

QA/QC Procedures:

All registration actions must employ sound science and meet the Food Quality Protection Act (FQPA) new safety standard. All risk assessments are subject to public and scientific peer review. Doane data are subject to extensive QA/QC procedures, documented at their websites. In ensuring the quality of the data, EPA's pesticide program adheres to its Quality Management Plan (QMP), approved May 2000.

The main customers for Doane pesticide usage data are the pesticide registrants. Since those registrants know about sales of their own products, they have an easy way to judge the quality of Doane provided data. If they considered the quality of the data to be poor, they would not continue to purchase the data.

Data Quality Review:

Doane data are subject to extensive internal quality review, documented at the website. EPA's statistical and economics staff review data from Doane. Information is also compared to prior years for variations and trends as well as to determine the reasons for the variability. For some crops and states, comparisons are also made with a more limited pesticide usage database from the National Agricultural Statistics of USDA.

Data Limitations:

Doane data are proprietary; thus in order to release any detailed information, the Agency must obtain approval. There is a data lag of approximately 12-18 months, due to the collection of data on a calendar year (CY) basis, time required for Doane to process data, lead time for EPA to purchase and obtain data, plus the time it takes to review and analyze the data within the office's workload.

Error Estimate:

Error estimates differ according to the data/database and year of sampling. This measure is compiled by aggregating information for many crops and pesticides. While considerable uncertainty may exist for a single pesticide on a single crop, pesticide use data at such a highly aggregated level are considered quite accurate. Doane sampling plans and QA/QC procedures are available to the public at their website. More specific information about the data is proprietary and a subscription fee is required. Data are weighted and multiple regression procedure is used to adjust for known disproportionalities and ensure consistency with USDA and state acreage estimates.

References:

EPA Website; EPA Annual Report; Annual Performance Plan and Annual Performance Report, www.ams.usda.gov/science/pdp/download.htm; Doane Marketing Research, Inc.: www.doanemr.com ; www.usda.gov/ and www.usda.gov/ ; FFDCA Sec 408(a)(2); EPA Pesticide Registration Notice 97-3, September 4, 1997; Endangered Species Act.

FY 2005 PERFORMANCE MEASURE:

Reduction in the current year production-adjusted risk screening environmental indicators (RSEI) risk-based score of releases and transfers of toxic chemicals.

Performance results related to these measures are presented in Goal 4, page 125.

Performance Database:

The RSEI Model uses annual reporting from individual industrial facilities along with a variety of other information to evaluate chemical emissions and other waste management activities. RSEI incorporates detailed data from EPA's Toxics Release Inventory (TRI) and Integrated Risk Information System, the U.S. Census, and many other sources. Due to a 2 year TRI data lag, performance data will be available for the FY 2007 Annual Performance Report. The data are based on calendar year.

Data Source:

The RSEI model incorporates data on chemical emissions and transfers and facility locations from EPA's Toxics Release Inventory; chemical toxicity data from EPA's Integrated Risk Information System; stack data from EPA's AIRS Facility Subsystem and National Emissions Trends Database and the Electric Power Research Institute; meteorological data from the National Climatic Data Center; stream reach data from EPA's Reach File 1 Database; data on drinking water systems from EPA's Safe Drinking Water Information System; fishing activity data from U.S. Fish and Wildlife; exposure factors from EPA's Exposure Factor Handbook; and population data from the U.S. Census Bureau.

Methods, Assumptions and Suitability:

The RSEI Model generates unique numerical values known as "Indicator Elements" using the factors pertaining to surrogate dose, toxicity and exposed population. Indicator Elements are unitless (like an index number, they can be compared to one-another but do not reflect *actual* risk), but proportional to the modeled relative risk of each release (incrementally higher numbers reflect greater estimated risk). Indicator Elements are risk-related measures generated for every possible combination of reporting facility, chemical, release medium, and exposure pathway (inhalation or ingestion). Each Indicator Element represents a unique release-exposure event and together these form the building blocks to describe exposure scenarios of interest. These Indicator Elements are summed in various ways to represent the risk-related results for releases users are interested in assessing. RSEI results are for comparative purposes and only meaningful when compared to other scores produced by RSEI. The measure is appropriate for year-to-year comparisons of performance. Depending on how the user wishes to aggregate, RSEI can address trends nationally, regionally, by state or smaller geographic areas.

QA/QC Procedures:

TRI facilities self-report release data and occasionally make errors. TRI has QC functions and an error-correction mechanism for reporting such mistakes. EPA updates off-site facility locations on an annual basis using geocoding techniques.

Data Quality Reviews:

RSEI depends upon a broad array of data resources, each of which has gone through a quality review process tailored to the specific data and managed by the providers of the data sources. RSEI includes data from the Toxics Release Inventory (TRI), Integrated Risk Information System (IRIS), U.S. Census, etc. All were collected for regulatory or programmatic purposes and are of sufficient quality to be used by EPA, other Federal agencies, and state regulatory agencies. Over the course of its development, RSEI has been the subject of three reviews by EPA's Science Advisory Board (U.S. EPA Office of Pollution Prevention and Toxics, Risk Screening Environmental Indicators Model, Peer Reviews. Described at www.epa.gov/opptintr/rsei/faqs.html. The RSEI model has undergone continuous upgrading since the 1997 SAB Review. Toxicity weighting methodology was completely revised and subject to a second positive review by SAB (in collaboration with EPA's Civil Rights program); air methodology was revised and groundtruthed using New York data to demonstrate high confidence; water methodology has been revised in collaboration with EPA's Water program. When the land methodology has been reviewed and revised, EPA will have completed its formal, written response to the 1997 SAB Review.

Data Limitations:

RSEI relies on data from a variety of EPA and other sources. TRI data may have errors that are not corrected in the standard TRI QC process. In the past, RSEI has identified some of these errors and corrections have been made by reporting companies. Drinking water intake locations are not available for all intakes nationwide. In coastal areas, Publicly Owned Treatment Works (POTW) water releases may go directly to the ocean, rather than nearby streams. EPA is in the process of systematically correcting potential errors regarding POTW water releases. These examples are illustrative of the data quality checks and methodological improvements that are part of the RSEI development effort. RSEI values are recalculated on an annual basis, and, resources permitting, all data sources are updated annually.

Error Estimate:

In developing the RSEI methodology, both sensitivity analyses and groundtruthing studies have been used to address model accuracy (documentation is provided on the RSEI Home Page—www.epa.gov/opptintr/rsei/). For example, groundtruthing of the air modeling performed by RSEI compared to site-specific regulatory modeling done by the state of New York showed virtually identical results in both rank order and magnitude. However, the complexity of modeling performed in RSEI, coupled with un-quantified data limitations, limits a precise estimation of errors that may either over- or under-estimate risk-related results.

New/Improved Data or Systems:

The program regularly tracks improvements in other Agency databases (e.g.,

SDWIS and Reach File databases) and incorporates newer data into the RSEI databases. Such improvements can also lead to methodological modifications in the model. Corrections in TRI reporting data for all previous years are captured by the annual updates of the RSEI model.

References:

The methodologies used in RSEI were first documented for the 1997 review by the EPA Science Advisory Board. The Agency has provided this and other updated technical documentation on the RSEI Home Page. (RSEI Home Page—www.epa.gov/opptintr/rsei/)

U.S. EPA Office of Pollution Prevention and Toxics, Risk Screening Environmental Indicators Model, Peer Reviews. Described at www.epa.gov/opptintr/rsei/faqs.html

RSEI Methodology Document (describes data and methods used in RSEI Modeling)

www.epa.gov/opptintr/rsei/docs/method2004.pdf RSEI User's Manual (PDF, 1.5 MB) explains all of the functions of the model, the data used, and contains tutorials to walk the new user through common RSEI tasks (www.epa.gov/opptintr/rsei/docs/users_manual.pdf).

A more general overview of the model can be found in the RSEI Fact Sheet (PDF, 23 KB) (www.epa.gov/opptintr/rsei/docs/factsheet_v2-1.pdf).

There are also seven Technical Appendices that accompany these two documents and provide additional information on the data used in the model. The Appendices are as follows: Technical Appendix A (PDF, 121 KB)—Listing of All Toxicity Weights for TRI Chemicals and Chemical Categories Technical Appendix B (PDF, 290 KB)—Physicochemical Properties for TRI Chemicals and Chemical Categories

Technical Appendix C (PDF, 40 KB)—Derivation of Model Exposure Parameters

Technical Appendix D (PDF, 71 KB)—Locational Data for TRI Reporting Facilities and Off-site Facilities Technical Appendix E (PDF, 44 KB)—Derivation of Stack Parameter Data Technical Appendix F (PDF, 84KB)—Summary of Differences between RSEI Data and TRI Public Data Release

FY 2005 PERFORMANCE MEASURE:

Establish short-term exposure limits for 52 percent of chemicals identified as highest priority by the Acute Exposure Guideline Levels (AEGL) Program.

Performance results related to these measures are presented in Goal 4, page 125.

Performance Database:

There is no database. Performance is measured by the cumulative number of chemicals with "Proposed", "Interim", and/or "Final" AEGL values as published by the National Academy of Sciences (NAS). The results are calculated on a fiscal year basis.

Data Source:

EPA manages a Federal Advisory Committee Act (FACA) committee that reviews short term exposure values for extremely hazardous chemicals. The supporting data, from both published and unpublished sources and from which the AEGL values are derived, are collected, evaluated, and summarized by FACA Chemical Managers and Oak Ridge National Laboratory's scientists. Proposed AEGL values are published for public comment in the Federal Register. After reviewing public comment, interim values are presented to the AEGL Subcommittee of the National Academy of Sciences (NAS) for review and comment. After review and comment resolution, the National Research Council under the auspices of the National Academy of Sciences (NAS) publishes the values as final.

Methods, Assumptions, and Suitability:

The work of the National Advisory Committee's Acute Exposure Guideline Levels (NAC/AEGL, formally chartered under the Federal Advisory Committee Act) adheres to the 1993 U.S. National Research Council/National Academies of Sciences (NRC/NAS) publication *Guidelines for Developing Community Emergency Exposure Levels for Hazardous Substances.* NAC/AEGL, in cooperation with the National Academy of Sciences' Subcommittee on AEGLs, has developed standard operating procedures (SOPs), which are followed by the program. These have been published by the National Academy Press and are referenced below. The cumulative number of AEGL values approved as "proposed" and "interim" by the NAC/AEGL FACA Committee and "final" by the National Academy of Sciences represents the measure of performance. The work is assumed to be completed at the time of final approval of the AEGL values by the NAS.

QA/QC Procedures:

QA/QC procedures include public comment via the Federal Register process; review and approval by the FACA committee; and review and approval by the NAS/AEGL committee and their external reviewers.

New/Improved Data or Systems:

This is the first time acute exposure values for extremely hazardous chemicals have been established according to a standardized process and put through such a rigorous review.

References:

Standing Operating Procedures for Developing Acute Exposure Guideline Levels for Hazardous Chemicals, National Academy Press, Washington, DC 2001.
NRC (National Research Council). 1993. Guidelines for Developing Community Emergency Exposure Levels for Hazardous Substances. Washington, DC: National Academy Press.

FY 2005 PERFORMANCE MEASURE:

Reduce occurrence of residues on a core set of 19 foods eaten by children relative to detection levels for those foods reported in 1994-1996.

Performance results related to these measures are presented in Goal 4, page 127.

Performance Database:

United States Department of Agriculture (USDA) Pesticide Data Program (PDP). The results for this annual performance measure (APM) are calculated on a calendar year basis and have been reported in the fiscal year 2003 and 2004 annual reports.

Data Source:

Data collection is conducted by the states. Information is coordinated by USDA agencies and cooperating state agencies.

Methods, Assumptions and Suitability:

The information is collected by the states and includes statistical information on pesticide use, food consumption, and residue detections, which provide the basis for realistic dietary risk assessments and evaluation of pesticide tolerance. Pesticide residue sampling and testing procedures are managed by USDA's Agricultural Marketing Service (AMS). AMS also maintains an automated information system for pesticide residue data and publishes annual summaries of residue detections. This measure helps provide information on the effect of EPA's regulatory actions on children's health via reduction of pesticide residues on children's foods. The assumption is that through reduction of pesticide residues on these foods, children's exposure to pesticides will be reduced; thus, the risk to their health diminished. This measure contributes to the Agency's goal of protecting human health and is aligned with the Food Quality Protection Act (FQPA) mandate of protecting children's health.

QA/QC Procedures:

The core of USDA's PDP's QA/QC program is Standard Operating Procedures (SOPs) based on EPA's Good Laboratory Practices. At each participating laboratory, there is a quality assurance (QA) unit which operates independently from the rest of the laboratory staff. QA Plans are followed as the standard procedure, with any deviations documented extensively. Final QA review is conducted by PDP staff responsible for collating and reviewing data for conformance with SOPs. PDP staff also monitor the performance of participating laboratories through proficiency evaluation samples, quality assurance internal reviews, and on-site visits. Additionally, analytical methods have been standardized in various areas including analytical standards, laboratory operations, data handling, instrumentation and QA/QC. With the exception of California, all samples of a commodity collected for PDP are forwarded to a single laboratory, allowing greater consistency, improved QA/QC and reduced sample loss. Program plans may be accessed at www.ams.usda.gov/science/pdp/SOPs.htm.

Data Quality Review:

In addition to having extensive QA plans to ensure reliability of the data, the PDP follows EPA's Good Laboratory Practices in standard operating procedures. A QA committee composed of quality assurance officers is responsible for annual review of program SOPs and for addressing QA/QC issues. Quality assurance units at each participating laboratory operate independently from the laboratory staff and are responsible for day-to-day quality assurance oversight. Preliminary QA/QC review is done at each participating laboratory with final review performed by PDP staff for conformance with SOPs.

Data Limitations:

Participation in the PDP is voluntary. Sampling is limited to ten states but designed in a manner to represent the food supply nationwide. The number of sampling sites and volume vary by state. Sampling procedures are described at the website, see reference below. There is a data lag of approximately 12-15 months due to collection/reporting procedures and time required for review and analysis of the data.

Error Estimate:

Uncertainties and other sources of error are minor and not expected to have any significant effect on performance assessment. More information is available on the website (See References).

References:

PDP Annual Reports, www.ams.usda.gov/science/pdp/download.htm ; www.ams.usda.gov/process/ ; CFR 40 Part 160; Food Quality Protection Act (FQPA) 1996; www.ams.usda.gov/science/pdp/SOPs.htm.

FY 2005 PERFORMANCE MEASURE:

Number of incidents and mortalities to terrestrial and aquatic wildlife caused by the 15 pesticides responsible for the greatest mortality to such wildlife.

Performance results related to these measures are presented in Goal 4, page 128.

Performance Database:

The Ecological Incident Information System (EIIS) is a national database of information on poisoning incidents of non-target plants and animals caused by pesticide use. The fields used include the number of incidents reported for each non-target plant or animal. The data used to report is the average for 3 years. Data are gathered on a calendar year basis and reported on a FY basis beginning in FY 2004. There is

approximately 2 year data lag. The Environmental Fate and Effects staff for Pesticide Programs maintain this database.

Data Source:

Data are extracted from written reports of fish and wildlife incidents submitted to the Agency by pesticide registrants under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), Section 6(a)(2), as well as incident reports voluntarily submitted by state and Federal agencies involved in investigating such incidents.

Methods, Assumptions and Suitability:

This measure helps to provide information on the effect of EPA's regulatory actions on the protection of fish and wildlife from acute toxic effects of pesticides. Incidents of fish and wildlife mortality caused by pesticides are summed annually and sums are reported as 3-year moving averages. Incidents related to known misuse of pesticides and to pesticides not currently registered in the United States are excluded, as are incidents for which the cause is highly uncertain. This indicator assumes that changes in the total number of incidents reported to the Agency reflect changes in the total number of incidents that are occurring. Inherent in this is the assumption that a consistent effort is made to investigate and report incidents year after year. This indicator is suitable only if fish and wildlife mortality incidents are investigated and reported widely enough to provide adequate monitoring of incidents throughout the country, and if the level of effort in investigating and reporting incidents are reasonably consistent over time.

QA/QC Procedures:

EPA adheres to its approved Quality Management Plan in ensuring the quality of the data. Before entering incident data in the database, a database program is used to screen for records already in the database with similar locations and dates. Similar records are then individually reviewed to prevent duplicate reporting. After each record is entered into the EIIS database, an incident report is printed that contains all the data entered into the database. A staff member, other than the one who entered the data, then reviews the information in the report and compares it to the original source report to verify data quality. Scientists using the incident database are also encouraged to report any inaccuracies they find in the database for correction.

Data Quality Review:

Internally and externally data quality reviews related to data entry have been conducted. EPA follows a quality assurance plan for accurately extracting data from reports and entering it into the EIIS database. This quality assurance plan is described in Appendix D of the Quality Management Plan for pesticides programs. The American Bird Conservancy has reviewed data in the EIIS database for records related to bird kill incidents.

Data Limitations:

This measure is designed to monitor trends in the numbers of acute poisoning events reported to the Agency. The reporting of incidents to the Agency is currently very limited. Very few fish and wildlife reports are being reported by pesticide registrants under the FIFRA 6(a)(2) requirement. This is because most fish and wildlife incidents are classified as "minor" under the current rule, and the registrants are required to report only aggregate data for these minor incidents. The aggregate data are inadequate for entering the incidents into EIIS and including them in this index because no details are reported on individual incidents, even if they are fish kills or bird kills. In 2004, only three fish kills and one wildlife kill were reported as "major" incidents with adequate data to include in this index. Incident reports voluntarily submitted from sources other than pesticide registrants also have been very scarce in recent years. Since 2003, only two state and regional government agencies have reported fish kill incidents to the Agency (the California Department of Fish and Game and the US Geological Survey) and only three have reported wildlife kills (the New York State Department of Environmental Conservation, the California Department of Fish and Game, and the Southeast Cooperative Wildlife Disease Study). Many states governments have informed the Agency that budget cuts have led to inadequate funding to investigate and report on fish and wildlife kills occurring in their states, making them unable to report these incidents to the EPA. Other states may not be reporting because they are not aware that the EPA is collecting this information. In summary, the data are currently inadequate for monitoring national trends in incidents.

Error Estimate:

Moving average counts of number of incidents per year may be interpreted as a relative index of the frequency of acute toxicity effects that pesticides are causing to fish and wildlife. The indicator numbers are subject reporting rates. If there is a change in incidents since the baseline year, it may be due to change in tracking/reporting of kills rather than change related to the use of a pesticides. Also, despite efforts to avoid duplicate counting of incidents, a few incidents likely have duplicate records in the EIIS database. A quality assurance review of bird kill incidents completed by the American Bird Conservancy in 2005 found five incidents with duplicate records, which will be corrected.

New/Improved Data or Systems:

The EPA is currently conducting a project with the American Bird Conservancy to improve the quality and quantity of data on bird kill caused by pesticides. This project should eventually result in additional reports of bird kill incidents being submitted to the Agency, but to date no additional incident reports have been obtained. The Environmental Fate and Effects Division of the Office of Pesticide Programs has begun a process to obtain an Information Collection Request (ICR) permit, which would allow soliciting state agencies for voluntary submittal of any incident reports that they produce.

References:

The Ecological Incident Information System (EIIS) is an internal EPA database. Federal Insecticide Fungicide and Rodenticide Act (FIFRA), Section 6(a)(2).

QMP: Quality Management Plan for the Office of Pesticides Program, May 20, 2000; Endangered Species Act.

FY 2005 PERFORMANCE MEASURE:

Number of risk management plan audits completed.

Performance results related to these measures are presented in Goal 4, page 128.

Data Source:

EPA's Regional offices and the states provide the data to EPA headquarters.

Methods, Assumptions and Suitability:

Data are collected and analyzed by surveying EPA's Regional offices to determine how many audits of facilities' risk management plans (RMPs) have been completed.

QA/QC Procedures:

Data are collected from states by EPA's Regional offices, with review at the Regional and Headquarters' levels.

Data Quality Review:

Data quality is evaluated by both Regional and Headquarters' personnel.

Data Limitations:

Data quality is dependent on completeness and accuracy of the data provided by state programs.

FY 2005 PERFORMANCE MEASURE:

Percentage increase of TRI chemical forms submitted over the Internet using the Toxic Release Inventory Made Easy (TRI-ME) and the Central Data Exchange (CDX).

Performance results related to these measures are presented in Goal 4, page 125.

Performance Database:

TRI System (TRIS).

Data Source:

Facility submissions of TRI data to EPA.

Methods, Assumptions, and Suitability:

As part of the regular process of opening the mail at the TRI Reporting Center, submissions are immediately classified as paper or floppy disk. This information is then entered into TRIS. The identification of an electronic submission via CDX is done automatically by the software.

QA/QC Procedures:

Currently, the mail room determines whether a submission is on paper or a floppy disk during the normal process of entering and tracking submissions. Electronic submissions via CDX are automatically tracked by the software. With an increase in electronic reporting via CDX, the manual mail room processing will be significantly reduced. Information received via hard copy are double-key entered. During the facility reconciliation process, the data entered are checked to ensure "submission-type" identification is accomplished at no less than 99 % accuracy. Accuracy is defined as accurate identification of document type.

Data Quality Reviews:

Each month the Data Processing Center conducts data quality checks to ensure 99 % accuracy of submission information captured in TRIS.

Data Limitations:

Occasionally, some facilities send in their forms in duplicative formats (e.g., paper, floppy, and/or through CDX). All submissions are entered into TRIS. The Data Processing Center follows the procedures outlined in the document "*Dupe Check Procedures*" to identify potential duplicate submissions. Submissions through CDX override duplicate submissions by disk and/or hard copy. Floppy disk submissions override duplicate paper copy submissions.

Error Estimate:

The error rate for "submission-type" data capture has been assessed to be less than 1%. The quality of the data is high.

New/Improved Performance Data or Systems:

EPA continues to identify enhancements in E-reporting capabilities via CDX.

References:

www.epa.gov/cdx/

Goal 4, Objective 2

FY 2005 PERFORMANCE MEASURES:

Number of Brownfields properties assessed.
Number of Brownfields cleanup grants awarded.
Number of properties cleaned up using Brownfields funding.
Number of acres of Brownfields property available for reuse.
Number of jobs leveraged from Brownfields activities.
Percentage of Brownfields job training trainees placed.
Amount of cleanup and redevelopment funds leveraged at Brownfields properties.

Performance results related to these measures are presented in Goal 4, page 130.

Performance Database:

The Brownfields Management System (BMS) contains the performance information identified in the above measures. Key fields related to performance measures include: Properties with Assessment Completed with Pilot/Grant Funding; Properties assessed with Targeted Brownfields Assessment Funding; Properties with Cleanup Complete; Acres Made Ready for Reuse; Cleanup/Redevelopment Jobs Leveraged; Assessment/Cleanup/Redevelopment Dollars Leveraged; Number of Participants Completing Training; Number of Participants Obtaining Employment.

Data Source:

Data are extracted from quarterly reports and property profile forms prepared by assessment, cleanup, revolving loan fund (RLF), job training, and State and Tribal 128 Voluntary Response Program cooperative agreement award recipients. Information on Targeted Brownfields Assessments is collected from EPA Regions.

Methods, Assumptions and Sustainability:

Cooperative agreement award recipients submit reports quarterly on project progress to EPA. Data used to track performance measures are extracted from quarterly reports and property profile forms by an EPA contractor. Data are then forwarded to Regional Pilot managers for review and finalization. Given the reporting cycle and the data entry/QA period, there is typically a six month data lag for BMS data.

Note that accomplishments reported by Brownfields Assessment Grantees, Brownfields Cleanup Grantees, Brownfields Revolving Loan Fund Grantees, Brownfields Job Training Grantees, Regional Targeted Brownfields Assessments, and State and Tribal 128 Voluntary Response Program Grantees all contribute towards these performance measures. "Number of Brownfields properties assessed" is an aggregate of assessments completed with Assessment Grant funding, Regional Targeted Brownfields Assessment funding, and State and Tribal 128 Voluntary Response Program funding. Number of Brownfields properties cleaned up is an aggregate of properties cleaned up by RLF Grantees, Cleanup Grantees, and State and Tribal 128 Voluntary Response Program Grantees. "Number of Acres Made Ready for Reuse" is an aggregate of acreage assessed that does not require cleanup and acreage cleaned up as reported by Assessment Grantees, Regional Targeted Brownfields Assessments, Cleanup Grantees, RLF Grantees, and State and Tribal 128 Voluntary Response Program Grantees. "Number of cleanup and redevelopment jobs leveraged" is the aggregate of jobs leveraged by Assessment, Cleanup and RLF Grantees. "Amount of cleanup and redevelopment funds leveraged at Brownfields properties" is the aggregate of funds leveraged by Assessment, Cleanup and RLF Grantees. "Percentage of Brownfields job training trainees placed" is based on the "Number of Participants Completing Training" and the "Number of Participants Obtaining Employment" reported by Job Training Grantees.

QA/QC Procedures:

Data reported by cooperative award agreement recipients are reviewed by EPA Regional pilot managers for accuracy and to ensure appropriate interpretation of key measure definitions. Reports are produced monthly with detailed data trends analysis.

Data Limitations:

All data provided voluntarily by grantees.

New/Improved Data or Systems:

The Brownfields Program developed the 'Property Profile' and 'Job Training Profile' reporting forms to be used by Assessment, Cleanup, RLF, and Job Training Grantees awarded under the Brownfields Law. These forms, approved by OMB, allow EPA to collect standardized data and will improve data quality and reliability. The BMS database has been updated to track and store the data reported in these forms. The Program is in the process of amending the OMB ICR to gather information from State and Tribal 128 Voluntary Response Program grantees. In the interim, EPA is collecting the data from Quarterly Reports.

References:

For more information on the Brownfields program, see *Reusing Land and Restoring Hope: A Report to Stakeholders from the US EPA Brownfields Program* (www.epa.gov/brownfields/news/stake_report.htm); assessment demonstration pilots and grants (www.epa.gov/brownfields/assessment_grants.htm); cleanup and revolving loan fund pilots and grants (www.epa.gov/brownfields/rlflst.htm); job training pilots and grants (www.epa.gov/brownfields/job.htm); and cleanup grants (www.epa.gov/brownfields/cleanup_grants.htm).

FY 2005 PERFORMANCE MEASURE:

Number of people in Mexico border area protected from health risks because of adequate water and wastewater sanitation systems funded through border environmental infrastructure funding (cumulative).

Performance results related to these measures are presented in Goal 4, page 132.

Performance Database:

No formal EPA database. Performance is tracked and reported quarterly by Border Environment Cooperation Commission (BECC) and North American Development Bank (NADBank). Data field is population –served by potable water and wastewater collection and treatment systems.

Data Source:

U.S. population figures from the 2000 U.S. Census (U.S. Department of Commerce, Bureau of the Census, (Washington, DC, 1990). Mexican population figures from the Mexican *Instituto Nacional de Estadistica, Geografia y Informatica, Aguascalientes*, Total Population by State (1990)); Data on U.S. and Mexican populations served by certified water/wastewater treatment systems from the BECC; Data on projects funded from the NADBank.

Methods, Assumptions and Suitability:

Summation of population from BECC and NADBank. U.S. Census data are assumed to be correct and suitable.

QA/QC Procedures:

EPA Headquarters is responsible for evaluation of reports from BECC and NADBank on drinking water and wastewater sanitation projects. Regional representatives attend meetings of the certifying and financing entities for border projects (BECC and NADBank) and conduct site visits of projects underway to ensure the accuracy of information reported (Border Environment Cooperation Commission (BECC), Cd Juarez, Chih, and North American Development Bank (NADBank), (San Antonio, TX, 2002)).

Data Quality Review:

Regional representatives attend meetings of the certifying and financing entities for border projects (BECC and NADBank) and conduct site visits of projects underway to ensure the accuracy of information reported.

Error Estimate:

Same as census data.

References:

U.S. Department of Commerce, Bureau of the Census, (Washington, DC: U.S. Department of Commerce, 1990). *Instituto Nacional de Estadistica, Geografia y Informatica, Aguascalientes*, Total Population by State (1990)

Border Environment Cooperation Commission (BECC), Cd Juarez, Chih, and North American Development Bank (NADBank), (San Antonio, TX, 2002).

FY 2005 PERFORMANCE MEASURE:

Number of environmental reviews initiated by Free Trade Area of the Americas (FTAA) countries following the enactment of the 2002 Trade Promotion Act (TPA).

Performance results related to these measures are presented in Goal 4, page 133.

Data Source:

Project / Trade Agreement Specific. One key source is the Organization of American States' Inter-American Forum on Environmental Law, which is helping a number of countries in the western hemisphere to assess the environmental effects of trade liberalization.

Methods, Assumptions and Suitability:

The decision by a developing country to conduct an environmental review of trade liberalization shows movement that environmental considerations are not an obstacle to the economic growth such countries seek through trade liberalization. In turn, the initiation of the review reflects increased willingness on the part of the government of that country to be more open with and accountable to its public. Overarching reviews will lead to project-specific environmental assessments and greater public engagement in environmental decision-making, both of which will gradually produce improved environmental performance.

QA/QC Procedures:

Verification does not involve any pollutant database analysis, but will require objective assessment of: (1) tasks completed, and (2) progress toward project goals and objectives.

Tracking development and implementation of these projects presents few challenges because EPA project staff and other USG officials maintain close contact with their counterparts. Normally, any changes become part of a public record. EPA and other USG officials can assess the manner in which these countries conduct reviews.

Assessing the effectiveness of these reviews is more subjective. Aside from feedback from Agency project staff, EPA relies, in part, on feedback from its contacts in the target trading partner countries and regions and from non-governmental organizations (NGOs) and other third parties. Because EPA works to establish long-term relationships with its contacts, the Agency is often able to assess environmental improvements in these countries and regions for a number of years following implementation of the trade agreement and/or completion of the environmental review of trade liberalization.

Data Limitations:

There can be considerable variability between the reviews conducted to date by different countries in the Americas. The variability is shown by different levels of quality and rigor in the reviews, time lags between the initiation and completion of these reviews, and time lags and uncertain linkages between such broad reviews of trade liberalization overall and the assessments of specific projects. Moreover, the environmental assessments of specific projects vary in quality and rigor as well and do not always lead to improved environmental decision-making.

Error Estimate:

None. EPA and other key players such as United States Trade Representative (USTR) and the State Department consult with their counterparts in trading partner countries and are in a position to assess the manner in which these countries undertake environmental reviews.

New/Improved Data or Systems:

In FY 2007 EPA will complete and make available to interested developing countries a new training course on how to conduct environmental reviews of free trade agreements. Those countries that participate in this training will be better able to conduct meaningful reviews on their own. We would expect to see increased quality and rigor of upcoming reviews. Thus, we will monitor for future reviews from those countries that participate in this new training course.

References:

Organization of American States: www.oas.org/usde/fida/

Goal 4, Objective 3

FY 2005 PERFORMANCE MEASURE:

Acres of habitat restored and protected nationwide as part of the National Estuary Program (NEP).

Performance results related to these measures are presented in Goal 4, page 134.

Performance Database:

The Office of Wetlands Oceans and Watersheds has developed a standardized format for data reporting and compilation, defining habitat protection and restoration activities and specifying habitat categories. The key field used to calculate annual performance is habitat acreage. Annual results have been reported since 2001 for the NEP (results are calculated on a fiscal year basis).

Information regarding habitat protection is accessible on a web page that highlights habitat loss/alteration, as well as the number of acres protected and restored by habitat type www.epa.gov/owow/estuaries/pivot/overview/intro.htm. This allows EPA to provide a visual means of communicating NEP performance and habitat protection and restoration progress to a wide range of stakeholders and decision-makers.

Data Source:

NEP documents such as annual work plans (which contain achievements made in the previous year), annual progress reports and other implementation tracking materials, are used to document the number of acres of habitat restored and protected. EPA aggregates the data provided by each NEP to arrive at a national total for the entire Program. EPA is confident that the data presented are as accurate as possible Each NEP reviews the information prior to reporting to EPA. In addition, EPA conducts regular reviews of NEP implementation to help ensure that information provided in these documents is accurate, and progress reported is in fact being achieved.

Methods, Assumptions and Suitability:

Measuring the number of acres of habitat restored and protected may not directly correlate to improvements in the health of the habitat reported, or of the estuary overall, but it is a suitable measure of on-the-ground progress. Habitat acreage does not necessarily correspond one-to-one with habitat quality, nor does habitat (quantity or quality) represent the only indicator of ecosystem health. Nevertheless, habitat acreage serves as an important surrogate and a measure of on-the-ground progress made toward EPA's annual performance goal of habitat protection and restoration in the NEP. EPA has defined and provided examples of "protection" and "restoration" activities for purposes of measure tracking and reporting (see citation for the PIVOT website in references below.) "Restored and protected" is a general term used to describe a range of activities. The term is interpreted broadly to include created areas, protected areas resulting from acquisition, conservation easement or deed restriction, submerged aquatic vegetation coverage increases, permanent shellfish bed openings, and anadromous fish habitat increases.

QA/QC Procedures:

Primary data are prepared by the staff of the NEP based on their own reports and from data supplied by other partnering agencies/organizations (that are responsible for implementing the action resulting in habitat protection and restoration). The NEP staff are requested to follow EPA guidance to prepare their reports, and to verify the numbers. EPA then confirms that the national total accurately reflects the information submitted by each program. The Office of Water Quality Management Plan (QMP), renewed every 5 years, was approved in July 2001. EPA requires that each organization prepare a document

called a Quality Management Plan (QMP) that documents the organization's data quality policy, which addresses the quality, generation and use of the organization's data and identifies the environmental programs to which the quality system applies (e.g., programs that rely on the collection or use of environmental data.)

Data Quality Review:

No audits or quality reviews conducted yet.

Data Limitations:

It is still early to determine the full extent of data limitations. Current data limitations include: information that may be reported inconsistently (based on different interpretations of the protection and restoration definitions), acreage that may be miscalculated or misreported, and acreage that may be double counted (same parcel may also be counted by partnering/implementing agency or need to be replanted multiple years). In addition, measuring the number of acres of habitat restored and protected may not directly correlate to improvements in the health of the habitat reported (particularly in the year of reporting), but is rather a measure of on-the-ground progress made by the NEPs.

New/Improved Data or Systems:

In 2004, NEP provided latitude and longitude data (where possible) for each project. These data are then mapped to highlight where these projects are located in each NEP study area. Not only does this assist both the individual NEP and EPA in obtaining a sense of geographic project coverage, but it provides a basis from which to begin exploring cases where acreage may be double-counted by different agencies. An on-line reporting system is also being developed for the NEPs' use that will assist in tracking habitat projects, and will help reduce EPA's QA/QC time. Currently, this system is scheduled to be in place by September 2005.

References:

Aggregate national and regional data for this measurement, as well as data submitted by the individual National Estuary Programs, is displayed numerically, graphically, and by habitat type in the Performance Indicators Visualization and Outreach Tool (PIVOT). PIVOT data are publicly available at www.epa.gov/owow/estuaries/pivot/overview/intro.htm.

FY 2005 PERFORMANCE MEASURE:

Working with partners, achieve an increase of wetlands with additional focus on biological and functional measures.

Performance results related to these measures are presented in Goal 4, page 135.

Performance Database:

The National Wetlands Inventory (NWI) of the U.S. Fish and Wildlife Service produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This information is used by Federal, State, and local agencies, academic institutions, U.S. Congress, and the private sector. The Emergency Wetland Resources Act of 1986 directs the Service to map the wetlands of the United States. The NWI has mapped 89 percent of the lower 48 states, and 31 percent of Alaska. The Act also requires the Service to produce a digital wetlands database for the United States. About 42 percent of the lower 48 states and 11 percent of Alaska are digitized. Congressional mandates require the U.S. Fish and Wildlife Service to produce a status and trends reports to Congress at 10-year intervals.

The status and trends report is designed to provide recent and comprehensive estimates of the abundance of wetlands in the 48 conterminous States. This status and trends report indicates whether there is an actual increase in wetland acreage or if wetlands are continuing to decrease. Up-to-date status and trends information is needed to periodically evaluate the efficacy of existing Federal programs and policies, identify national or regional wetland issues, and increase public awareness of and appreciation for wetlands.

The last status and trends report[15] provided the most recent and comprehensive estimates of the current gains and losses for different types of wetlands in the United States on public and private lands from calendar year 1986 to 1997. In calendar year 1997, there were an estimated 105.5 million acres of wetlands in the conterminous United States. Of this total, 100.5 million acres (95 percent) are freshwater wetlands and 5 million acres (5 percent) are saltwater wetlands.

The President directed in his Earth Day 2004 announcement that the next National Wetlands Inventory update, status and trends report, should be completed by the end of 2005, 5 years ahead of the current schedule, and asked that the updates be done more frequently thereafter. This new information will enhance Federal, State, Tribal, local government programs' policies and decision making.

Data Source:

The National Status and Trends Report is developed and published by the U.S. Fish and Wildlife Service. This is the only Federal study that provides statistically valid estimates with a published standard error for all wetlands in the conterminous United States. Aerial imagery is the primary data source, and it is used with reliable collateral data such as topographic maps, coastal navigation charts, published soil surveys, published wetland maps, and State, local or regional studies. A random number of sites are also field verified. All photography is cataloged, numbered, tagged, and traced in a database management system.

For each plot, aerial imagery is interpreted and annotated in accordance with procedures published by the Fish and Wildlife Service. The results are compared with previous era imagery, and any changes recorded. The differences between the data sets are analyzed and a statistical estimate of the change is produced.

The five major kinds of wetlands are: 1) freshwater (or palustrine), 2) saltwater (or estuarine), 3) riverine, 4) lacustrine (or lakes and other deepwater habitats), and 5) marine wetlands. For analysis and reporting purposes, these types of wetlands were further divided into subcategories such as freshwater forested wetland, freshwater emergent wetland, estuarine and marine intertidal wetlands.

Methods, Assumptions and Suitability:

An interagency group of statisticians developed the design for the national status and trends study. The study was based on a scientific probability sample of the surface area of the 48 coterminous States. The area sampled was about 1.93 billion acres and the sampling did not discriminate based on land ownership. The study used a stratified, simple random sampling design. About 754,000 possible sample plots comprised the total population. Geographic information system software was used to organize the information of about 4,375 random sample plots. The plots were examined with the use of remote sensed data in combination with field work. Estimates of change in wetlands were made over a specific time period.

QA/QC Procedures:

The Service has developed and implemented quality assurance measures that provide appropriate methods to take field measurements, ensure sample integrity and provide oversight of analyses, which includes reporting of procedural and statistical confidence levels. The objective was to produce comprehensive, statistically valid acreage estimate of the Nation's wetlands. Because of the sample-based approach, various quality control and quality assurance measures were built into the data collection, review, analysis, and reporting stages. This includes field verification of the plots. Six Federal agencies assist with field verification work.

Data Limitations:

Certain habitats were excluded because of the limitations of aerial imagery as the primary data source to detect wetlands. This was consistent with previous wetland status and trends studies conducted by FWS.

Error Estimate:

Estimated procedural error ranged from 4 to 6 percent of the true values when all quality assurance measures have been completed. Procedural error was related to the ability to accurately recognize and classify wetlands both from multiple sources of imagery and on the ground evaluations. Types of procedural errors were missed wetlands, inclusion of upland as wetland, misclassification of wetlands, or misinterpretation of data collection protocols. The amount of procedural error is usually a function of the quality of the data collection conventions; the number, variability, training and experience of data collection personnel; and the rigor of any quality control or quality assurance measures.

New/Improved Data or Systems:

Advances in computerized cartography were used to improve data quality and geospatial integrity. Newer technology allowed the generation of existing digital plot files at any scale to overlay directly over an image base.

References:

wetlands.fws.gov/index.html

wetlands.fws.gov/Pubs_Reports/publi.htm

FY 2005 PERFORMANCE MEASURE:

Annually, in partnership with the Corps of Engineers and states, achieve no net loss of wetlands in the Clean Water Act Section 404 regulatory program.

Performance results related to these measures are presented in Goal 4, page 135.

Performance Database:

Since 1989, the goal of the Clean Water Act Section 404 program has been no net loss of wetlands.

Historically, the Corps has collected limited data on wetlands losses and gains in its Regulatory Analysis and Management System (RAMS) permit tracking database. The Corps has compiled national Section 404 wetland permitting data for the last 10 years reflecting acres of wetland impacts avoided (through the permit process), acres permitted for impacts, and acres mitigated. However, limitations in methods used for data collection, reporting and analysis resulted in difficulties in drawing reliable conclusions regarding the effects of the Section 404 program.

Data Source:

Data included in RAMS is generally collected by private consultants hired by permit applicants or Corps Regulatory Staff. Data input is generally done by Corps staff.

Methods, Assumptions and Suitability:

RAMS was designed to be an administrative aid in tracking permits, thus it lacks many of the fields necessary to adequately track important information regarding wetland losses and gains. Also, the database was modified differently for each of the 38 Corps Districts making national summaries difficult. Furthermore, the database is also proprietary making it difficult to retrofit without utilizing its original developers.

QA/QC Procedures:

Historically, there has not been a high level of QA/QC with regard to data input into RAMS. Its antiquated format and numerous administrative fields discourage use. Lack of standard terms and classification also make all aspects of data entry problematic.

Data Quality Reviews:

Independent evaluations published in 2001 by the National Academy of Sciences (NAS) and the General Accounting Office (GAO) provided a critical evaluation of the effectiveness of wetlands compensatory mitigation (the restoration, creation, or enhancement of wetlands to compensate for permitted wetland losses) for authorized losses of wetlands and other waters under Section 404 of the Clean Water Act.

The NAS determined that available data was insufficient to determine whether or not the Section 404 program was meeting its goal of no net loss of either wetland area or function. The NAS added that available data suggested that the program was not meeting its no net loss goal. Among its suite of recommendations, the NAS noted that wetland area and function lost and regained over time should be tracked in a national database and that the Corps should expand and improve quality assurance measures for data entry.

In response to the NAS, GAO, and other recent critiques of the effectiveness of wetlands compensatory mitigation, EPA and the Corps in conjunction with the Departments of Agriculture, Commerce, Interior, and Transportation released the National Wetlands Mitigation Action Plan on December 26, 2002. The Plan includes 17 tasks that the agencies will complete in FY 07 to improve the ecological performance and results of compensatory mitigation. (Note: some Mitigation Action Plan items may be subsumed by the Corps' mitigation rulemaking expected to be finalized in calendar year 2006.)

Data Limitations:

As previously noted, RAMS currently provides the only national data on wetlands losses and gains in the Section 404 Program. Also, as previously noted, there are a number of concerns regarding the conclusions that can be drawn from these numbers. Data quality issues include:

- Inability to separate restoration, creation, enhancement and preservation acreage from the aggregate "mitigation" acreage reported;
- Lack of data regarding how much designated mitigation acreage was actually undertaken, and how much of that total was successful;
- Lack of data regarding how much of the permitted impacts actually occurred; and
- Limitations on identifying acres "avoided," because the figure is only based on the difference between original proposed impacts and impacts authorized. Often, permit applicants who are aware of the 404 program's requirements to avoid and minimize impacts to wetlands, make initial site selection and site design decisions that minimize wetland impacts prior to submitting a permit application. Such avoidance decisions benefit applicants, as their applications are more likely to be accepted and processed with minor changes. This behavioral influence that the program engenders is difficult to capture and quantify, but contributes considerable undocumented "avoided" impacts.

New/Improved Data or Systems:

The EPA and the Corps have acknowledged the need for improved 404 tracking. The Corps is currently piloting a new national permit tracking database called ORM to replace its existing database (RAMS). As part of the MAP, the Corps is working with EPA and the other Federal agencies and states to ensure that the version of ORM that is ultimately deployed will adequately track wetlands gains and losses. ORM is being designed to provide improved tracking regarding:

- Type of impacts
- Type and quantity of habitat impacted (Using Hydrogeomorphic and Cowardin classification systems)
- Type and quantity of habitat mitigated (Using Hydrogeomorphic and Cowardin classification systems)
- Type and quantity of mitigation (restoration, creation, enhancement, or preservation)
- Differentiating stream mitigation (in linear feet) from wetlands mitigation (in acres)
- Spacial tracking via GIS for both impact and mitigation sites *(planned)*
- Functional losses (debits) at the impact site and functional gains at the mitigation site (credits) if assessment tool is available and applied

References:

www.mitigationactionplan.gov/

FY 2005 PERFORMANCE MEASURE:

Prevent water pollution and protect aquatic ecosystems so that overall ecosystem health of the Great Lakes is improved.

Performance results related to these measures are presented in Goal 4, page 136.

Performance Database:

USEPA's Great Lakes National Program Office (GLNPO) will collect and track the eight (8) components of the index and publish the performance results as part of annual reporting under the Government Performance and Results Act (GPRA) and as online reporting of GLNPO's monitoring program, epa.gov/glnpo/glindicators/index.html. Extensive databases for the indicator components are maintained by GLNPO (phosphorus concentrations, contaminated sediments, benthic health, fish tissue contamination), by binational agreement with Environment Canada (air toxics deposition), and by local authorities who provide data to the USEPA (drinking water quality, beach closures). A binational team of scientists and natural resource managers is working to establish a long term monitoring program to determine extent and quality of coastal wetlands.

Data Source:

Data for the index components are tracked internally and reported through the State of the Lakes Ecosystem Conference (SOLEC) process. The document, "State of the Great Lakes 2005 -A Technical Report," presents detailed indicator reports prepared by primary authors, including listings of data sources. Depending on the indicators, data sources may include U.S. and Canadian federal agencies, state and provincial agencies, municipalities, research reports and published scientific literature. Information from the following indicators is used to evaluate the Index components: Coastal Wetlands group of indicators: *Coastal Wetland Invertebrate Community*

Health; Coastal Wetland Fish Community Health; Coastal Wetland Amphibian Diversity and Abundance; Coastal Wetland Area by Type; Coastal Wetland Plant Community Health; Effects of Water Levels Fluctuations. Phosphorus Concentrations and Loadings; Concentrations of Contaminants in Sediment Cores; Benthic Health group of indicators: *Hexagenia; Abundances of the Benthic Amphipod Diporeia spp.*; Contaminants in Sport Fish; Beach Advisories, Postings and Closures; Drinking Water Quality; Atmospheric Deposition of Toxic Chemicals.

Methods, Assumptions, and Suitability:

The Index is based on a 40 point scale where the rating uses select Great Lakes State of the Lakes Ecosystem indicators (i.e., coastal wetlands, phosphorus concentrations, Area of Concern (AOC) sediment contamination, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition). Each component of the Index is based on a 1 to 5 rating system, where 1 is poor and 5 is good. Authors of SOLEC indicator reports use best professional judgment to assess the overall status of the ecosystem component in relation to established endpoints or ecosystem objectives, when available. Each indicator is evaluated for Status (good, fair, poor, mixed) and Trend (improving, unchanging, deteriorating, undetermined). To calculate the Index, the data for each indicator are compared to the evaluation criteria for the numeric, 1 to 5, rating system. Each of the index components is included in the broader suite of Great Lakes indicators, which was developed through an extensive multi-agency process to satisfy the overall criteria of necessary, sufficient and feasible. Information on the selection process is in the document, "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4."

QA/QC Procedures:

GLNPO has an approved Quality Management System in place[1] (see reference #1 below) that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management.

The SOLEC process relies on secondary use of data, i.e., data for many of the indicators are collected, maintained and analyzed by agencies and organizations other than USEPA. Participating agencies and organizations follow their own QA/QC procedures to assure high quality data. A Quality Assurance Project Plan (QAPP) was developed to document procedures for data assessment and review for the indicators reports prepared for the State of the Great Lakes 2005 report. See "State of the Lakes Ecosystem Conference 2004 QAPP".

Data Quality Review:

GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews[2] (see reference #2 below). GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

An external Peer Review of SOLEC processes and products was conducted in 2003 by an international panel of experts familiar with large-scale regional or national indicator and reporting systems. Panel findings were generally positive and several recommendations were made to consider for future SOLEC events and reports. Many of the recommendations have been implemented, and others are being considered for feasibility. The final report by the review panel is available online at epa.gov/glnpo/solec/index.html. See "State of the Lakes Ecosystem Conference Peer Review Report" in the SOLEC 2004 section.

A second review of the suite of Great Lakes indicators was conducted by Great Lakes stakeholders in 2004. As a direct result of the findings and recommendations from the participants, several indicators were revised, combined or dropped, and a few others were added. The indicators were also regrouped to allow the user to more easily identify the indicators relevant to particular ecosystem components or environmental issues. The final report from the review is available online at epa.gov/glnpo/solec/index.html. See "State of the Lakes Ecosystem Conference Peer Review Report, Part 2: Stakeholder Review of the Great Lakes Indicators" in the SOLEC 2004 section.

Data Limitations:

Data limitations vary among the indicator components of the Index. The data are especially good for phosphorus concentrations, fish tissue contamination, benthic health, and air toxics deposition. The data associated with other components of the index (coastal wetlands, AOC sediment contamination, beach closures, and drinking water quality) are more qualitative. Some data are distributed among several sources, and without an extensive trend line. Limitations for each of the index components are included in the formal indicator descriptions in the document, "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4."

Error Estimate:

Error statistics for the Great Lakes Index have not been quantified. Each unit of the 40 point scale represents 2.5% of the total, so any unit change in the assessment of one of the component indicators would result in a change of the index of that magnitude. The degree of environmental change required to affect an indicator assessment, however, may be significantly large.

New/Improved Data or Systems:

The data system specifically for this index is being developed. Data continue to be collected through the SOLEC process by various agencies, including GLNPO. Efforts are currently in progress to integrate various Great Lakes monitoring programs to better meet SOLEC objectives and to increase efficiencies in data collection and reporting.

References:

- "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.
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- "State of the Lakes Ecosystem Conference 2004 QAPP." Unpublished. Prepared as part of Cooperative Agreement between USEPA and Environment Canada.
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- Bertram, Paul and Nancy Stadler-Salt. "Selection of Indicators for Great Lakes Basin Ecosystem Health, Version 4." Environment Canada, Burlington, Ontario, and U.S. EPA, Chicago. 2000. Available online at www.binational.net.

All SOLEC documents, background reports, indicator reports, indicator development processes, conference agenda, proceedings and presentations are available online at epa.gov/glnpo/solec/index.html The documents are sorted by SOLEC year and include the State of the Great Lakes reports which are released the following calendar year.

FY 2005 PERFORMANCE MEASURE:

The average concentrations of PCBs in whole lake trout and walleye samples will decline.

Performance results related to these measures are presented in Goal 4, page 136.

Performance Database:

Great Lakes National Program Office (GLNPO) Great Lakes Fish Monitoring Program (GLFMP) 1(see reference #1 below). This program is broken into two separate elements, Element 1—Open Water Trend Monitoring and Element 2—Game Fish Fillet Monitoring. Each program collects and monitors contaminants in Great Lakes fish at alternating locations throughout the Great Lakes Basin; fish are collected at one set of sites during even years and at another set in odd years. Element 1 began with the collection of data in Lake Michigan in 1972 and the additional lakes were added in 1976. Element 2 began with the collection of data in all five of the Great Lakes in the early 1980's. In FY06, the database will contain QA/QC data from fish collected in 2004. Data are reported on a calendar year basis and are specific to the even or odd year sampling schedule (even year sites are only compared to other even year sites etc.)

Data Source:

GLNPO is the principal source of data for the Great Lakes Fish monitoring program. The Great Lakes States and Tribes assist with fish collection. Previous cooperating organizations include the U.S. Geological Survey (USGS), the U.S. Fish and Wildlife Service (USFWS), and the Food and Drug Administration (FDA).

Methods, Assumptions, and Suitability:

This indicator provides concentrations of selected organic contaminants in Great Lakes open water fish. The Great Lakes Fish Monitoring Program is broken into two separate elements that monitor potential exposure to contaminant concentrations for wildlife (Element 1) and humans through consumption (Element 2). Only Element 1 is included in this indicator as it is the only portion of the program that can be used to determine trends.

The first element, Open Lakes Trend Monitoring Program, was created to: (1) determine time trends in contaminant concentrations, (2) assess impacts of contaminants on the fishery using fish as biomonitors, and (3) assess potential risk to the wildlife that consume contaminated fish. The first element includes data from ten 600-700 mm lake trout *(Salvelinus namaycush)* whole fish composites (5 fish in each composite) from each of the lakes. Since sufficient lake trout are not found in Lake Erie, data for 450 – 550 mm walleye *(Stizostedion vitreum vitreum)* are used for that Lake.

All GLFMP data are quality-controlled and then loaded into the Great Lakes Environmental Database (GLENDA). Included in GLENDA are flags for each data point that can be used to evaluate the usability of the data. Since concentrations can vary from year to year due to differences in site (food web etc.), comparing concentrations from one year to the next is not appropriate. This performance measure examines the average percent decline for the **long-term trend** using an exponential decrease function. Each year the appropriate average percent decline is calculated after adding new data. A baseline percent decrease was determined using data through 2000 or 1999, and the aim is that this rate of decrease will continue.

QA/QC Procedures:

GLNPO has an approved Quality Management System in place[2] (see reference #2 below). that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management. The Quality Assurance (QA) plan that supports the analytical portion of the fish contaminant program is approved and available online[3] (see reference #3 below). The draft field sampling Quality Assurance Project Plan (QAPP) is being revised and will be submitted to the GLNPO QA Officer for review upon the completion of the Quality Management Plan.

Data Quality Review:

GLNPO's Quality Management System has been evaluated as "outstanding" in previous peer and management reviews[4] (see reference #4 below). GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

Data Limitations:

The top predator fish (lake trout) program is not well-suited to portray localized changes. Nevertheless, data collected at a certain site (odd year or even year sites) can be compared to data collected from the same site. In addition, only very general comparisons can be made of contaminant concentrations between lakes.

Error Estimate:

The data quality objective of the fish contaminant program was to detect a 20% change in each measured contaminant concentration between two consecutively sampled periods at each site. Based on changing environmental conditions, the data quality objective has been revised to detect trends in concentration of 0.1 mg/kg/year based on three consecutive sampling periods (6 years, as sites are sampled every other year) for a specific site, with a power of 80% or greater. The program was designed to reach that goal with 95% confidence.

New/Improved Data or Systems:

The GLENDA database is a significant new system with enhanced capabilities. Existing and future fish data will be added to GLENDA.

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- *"Great Lakes Fish Monitoring Program—Quality Assurance Project Plan for Sample Collection Activities"*, Great Lakes National Program Office. www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP_QAPP_082504.pdf
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FY 2005 PERFORMANCE MEASURE:

Average concentrations of toxic chemicals in the air in the Great Lakes basin will decline.

Performance results related to these measures are presented in Goal 4, page 136.

Performance Database:

Great Lakes National Program Office (GLNPO) integrated atmospheric deposition network [1] (see reference #1 below) (IADN) operated jointly with Environment Canada. Reporting starts with 1992 data and includes concentrations of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and organochlorine pesticides in air and precipitation; however, this Performance Measure addresses only PCBs. Monitoring results from 2005 will be reported in 2007. Data are reported on a calendar year basis.

Data Source:

GLNPO and Environment Canada are the principal sources of the data. Data also come through in-kind support and information sharing with other Federal agencies and Canada.

Methods, Assumptions, and Suitability:

There are five master IADN stations, one for each lake, which are supplemented by satellite stations in other locations. The master stations are located in remote areas

and are meant to represent regional background levels. Concentrations from the master stations are used for the performance measure. Concentrations from the satellite stations in Chicago and Cleveland are also sometimes used to demonstrate the importance of urban areas to atmospheric deposition to the Lakes.

Air samples are collected for 24 hours using high-volume samplers containing an adsorbent. Precipitation samples are collected as 28-day composites. Laboratory analysis protocols generally call for solvent extraction of the organic sampling media with addition of surrogate recovery standards. Extracts are then concentrated followed by column chromatographic cleanup, fractionation, nitrogen blow-down to small volume (about 1 mL) and injection (typically 1 uL) into gas chromatography instruments.

All IADN data are loaded and quality controlled using the Research Database Management System (RDMQ), a Statistical Analysis System (SAS) program. RDMQ provides a unified set of quality assured data, including flags for each data point that can be used to evaluate the usability of the data. Statistical summaries of annual concentrations are generated by the program and used as input into an atmospheric loading calculation. The loadings calculation is described in detail in the Technical Summary referenced below. However, calculating loadings requires additional data and constants that introduce further error. Therefore, the averaged annual concentrations rather than the loadings are used in the performance measure. Concentrations can vary from year to year due to differences in weather (temperature, wind patterns, etc.), so comparing concentrations from one year to the next is not always appropriate. This performance measure examines the average percent decline for the **long-term trend** determined using an exponential decrease function. Each year the average percent decline is calculated after adding new data. A baseline percent decrease was determined using data through 2000, and the aim is that this rate of decrease will continue.

QA/QC Procedures:

GLNPO has a Quality Management System in place, which conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management2 (see reference #2 below). Quality Assurance Project Plans are in place for the laboratory grantee, as well as for the network as a whole. A jointly-funded QA contractor conducts laboratory and field audits, tracks QA statistics, and carries out special QA studies. Data from all contributing agencies are quality-controlled using the SAS-based system.

Data Quality Review:

GLNPO's Quality Management System has been evaluated as "outstanding" in previous peer and management reviews[3] (see reference #3 below). GLNPO has implemented all recommendations from these external audits and complies with Agency Quality Standards[4] (see reference #4 below). The IADN program has a joint Canadian-US quality system and binational Steering Committee that meets periodically in person or via conference calls to make decisions on network operation and data management and quality.

A regular set of laboratory and field blanks is taken and recorded for comparison to the IADN field samples. In addition, a suite of chemical surrogates and internal standards is used extensively in the analyses. A jointly-funded QA contractor conducts laboratory and field audits, tracks QA statistics, and carries out special QA studies. As previously mentioned, data from all contributing agencies are quality-controlled using a SAS-based system.

Data Limitations:

The sampling design is dominated by rural sites that under-emphasize urban contributions to deposition; thus, although the data are very useful for trends information, there is less assurance of the representativeness of deposition to the whole lake. U.S. and Canadian laboratories use somewhat different sampling and analytical methods; QA studies have found that differences in resulting data are attributable mostly to the sampling differences. There are gaps in open lake water column organics data, thus limiting our ability to calculate atmospheric loadings. This gap is being addressed through the recent implementation by GLNPO of the Great Lakes Aquatic Contaminant Surveillance (GLACS) program, which will collect water contaminant data in the Lakes.

In the past, there has been a lag in the data from the Canadian sites (Burnt Island on Lake Huron and Point Petre on Lake Ontario). U.S. data is usually reported 2 years after it is collected (i.e., 2002 data was reported in 2004); the Canadian data may not be available on this schedule.

Error estimate:

The performance measure examines the long-term trend in concentrations. Concentrations have an error of +/- 40%, usually less. Differences between laboratories have been found to be 40% or less. This is outstanding given the very low levels of these pollutants in the air and the difficulty in analysis. Improvements in quality assurance (use of a clean lab for Canadian precipitation analysis, making calibration standards consistent among agencies, etc.) are helping to further close this gap.

New/Improved Data or Systems:

GLNPO expects to post joint data that has passed quality review to < binational.net/ >, a joint international Web Site, and to the IADN Web Site at < www.msc.ec.gc.ca/iadn/ >. Copies of IADN data are now held in U.S. and Canadian databases. Efforts are being made to be able to streamline data requests through the National Atmospheric Chemistry Database (NAtChem), which includes atmospheric data from many North American networks. Environment Canada management is working to reduce the data lag from the Canadian IADN stations.

References:

- 1. *"Great Lakes National Program Office Indicators. Air Indicators."* www.epa.gov/glnpo/glindicators/air.html
- Details of these analyses can be found in the Laboratory Protocol Manuals or the agency project plans, which can be found on the IADN resource page at www.epa.gov/glnpo/monitoring/air/iadn/iadn.html
- Overall results of the project can be found in *"Technical Summary of Progress under the Integrated Atmospheric Deposition Program 1990-1996*" and the *"Technical Summary of Progress under*

the Integrated Atmospheric Deposition Network 1997-2002". Both (as well as the Atmospheric Loadings reports) can be found on the IADN resource page.

- 2. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.
- *"GLNPO Management Systems Review of 1999."* Unpublished—in USEPA Great Lakes National Program Office files.
- *"Integrated Atmospheric Deposition Network Quality Assurance Program Plan—Revision 1.1*. Environment Canada and USEPA. June 29, 2001. Unpublished—in USEPA Great Lakes National Program Office files.

FY 2005 PERFORMANCE MEASURE:

Restore and delist Areas of Concern within the Great Lakes Basin.

Performance results related to these measures are presented in Goal 4, page 136.

Performance Database:

USEPA's Great Lakes National Program Office will track the cumulative total Areas of Concern (AOC) and post that information www.epa.gov/glnpo/aoc/index.html Forty-three AOCs have been identified: 26 located entirely within the United States; 12 located wholly within Canada; and five that are shared by both countries. Since 1987, GLNPO has tracked the 31 that are within the US or shared; however, none of these are currently restored and delisted. Information is reported on a calendar year basis, however the system is being designed for semi-annual or more frequent updates.

Data Source:

Internal tracking and communications with Great Lakes States, the US Department of State and the International Joint Commission (IJC).

Methods, Assumptions, and Suitability:

USEPA's Great Lakes National Program Office is in regular communication with the Great Lakes States, the US Department of State and the IJC, and is responsible for coordinating and overseeing the de-listing of AOCs. Generally speaking, under the Great Lakes Water Quality Agreement, an AOC is an area in the Great Lakes determined to have significant beneficial use impairments, such as restrictions on fish and wildlife consumption, fish tumors, eutrophication, beach closings, added costs to agriculture or industry. In 1989, the IJC established a review process and developed AOC listing/delisting criteria (www.ijc.org/rel/boards/annex2/buis.htm#table1) for existing and future AOCs. In 2001, the U.S. Policy Committee, led by GLNPO and including State, Tribal, and Federal agencies responsible for Great Lakes environmental issues, developed delisting guidelines for domestic AOCs (http://www.epa.gov/glnpo/aoc/delist.html) and for the binational AOCs shared by Michigan and Ontario http://www.epa.gov/glnpo/aoc/delist.html—appendix 5).

QA/QC Procedures:

GLNPO has an approved Quality Management System in place1 (see reference #1 below) that conforms to the USEPA Quality Management Order and is audited every 3 years in accordance with Federal policy for Quality Management.

Data Quality Review:

GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews2 (see reference #2) below. GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

References:

GLNPO will develop and maintain the appropriate tracking system once there are any de-listed U.S. or binational Areas of Concern. Information regarding Areas of Concern is currently available online at: www.epa.gov/glnpo/aoc/index.html

- "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.
- "GLNPO Management Systems Review of 1999." Unpublished—in USEPA Great Lakes National Program Office files.

FY 2005 PERFORMANCE MEASURE:

Cubic yards (in millions) of contaminated sediment remediated in the Great Lakes.

Performance results related to these measures are presented in Goal 4, page 136.

Performance Database:

Data tracking sediment remediation are compiled in two different formats. The first is a matrix that shows the annual and cumulative totals of contaminated sediment that was remediated in the Great Lakes basin in the reporting year and from 1997 for each Area of Concern or other non-Areas of Concern with sediment remediation. The second format depicts the yearly totals on a calendar year basis graphically. These databases are reported approximately 1 year after the completion of work.

Data Source:

GLNPO collects sediment remediation data from various State and Federal project managers across the Great Lakes region that conduct and coordinate contaminated sediments work. These data are obtained directly from the project manager via an information fact sheet the project manager completes for any site in the Great Lakes basin that has performed any remedial work on contaminated sediment. The project manager also indicates whether an approved Quality Assurance Project Plan (QAPP) was used in the collection of data at the site. GLNPO does not accept unsolicited data

without adequate assurance that a QAPP was in place and the reporters of the data are not likely to be biased.

Methods, Assumptions, and Suitability:

The data collected to track sediment remediation in the Great Lakes show the amount of sediment remediated (dredged, capped, other) for that year, the amount of sediment remediated in prior years, and the amount of sediment remaining to be addressed for a particular site. This format is suitable for year-to-year comparisons for individual sites.

QA/QC Procedures:

GLNPO relies on the individual government/agency project managers to provide information on whether an approved QAPP was in place during remediation of contaminated sediment. This information is used to decide if the data provided by the project manager are reliable for GLNPO reporting purposes. If an approved QAPP was not used, sediment data would not likely be reported by GLNPO, unless GLNPO finds that alternative information is available that provides sufficient quality documentation for the project and associated data. This approach allows GLNPO to use best professional judgment and flexibility in reporting data from any cases where there was not a QAPP, but (a) the remedial action is noteworthy and (b) the project was conducted by recognized entities using widely accepted best practices and operating procedures.

The tracking database houses information on the calculated amount of sediment remediated at individual sites as provided by the project managers. The individual site project managers are responsible for completing the data request forms, reviewing draft figures to verify that the GLNPO project manager transferred the data correctly, and providing any updated or improved estimates. It is GLNPO's responsibility to determine if the data are usable based upon the information sheet provided by the project managers. GLNPO does not attempt to verify mass and volume estimates due to the variability in how to calculate them. GLNPO ensures that the estimates provided make sense for the site, and that all estimates are reported in the same units. GLNPO management and Sediment Team members review the data, in the graphic and matrix formats, prior to reporting. GLNPO's Sediment Team works closely with partners and has confidence in those who provide data for the summary statistics. This familiarity with partners and general knowledge of ongoing projects allows GLNPO management to detect mistakes or questionable data.

Data Quality Review:

The data, in both the graphic and matrix formats, are reviewed by individual project managers, GLNPO's Sediment Team, and management prior to being released. Data quality review procedures are outlined in the QAPP referenced below. GLNPO's Quality Management System has been given "outstanding" evaluations in previous peer and management reviews. GLNPO has implemented all recommendations from these external audits and complies with Agency Quality Standards.

Data Limitations:

The data provided in the sediment tracking database should be used as a tool to track sediment remediation progress at sites across the Great Lakes. Many of the totals for sediment remediation are estimates provided by project managers. For specific data uses, individual project managers should be contacted to provide additional information.

Error Estimate:

The amount of sediment remediated or yet to be addressed should be viewed as estimated data. A specific error estimate is not available.

New/Improved Data or Systems:

Existing tracking systems are anticipated to remain in place.

References:

- Giancarlo Ross, M.B. Quality Assurance Project Plan for Great Lakes Sediment Remediation Project Summary Support." Unpublished—in USEPA Great Lakes National Program Office files.
- Giancarlo Ross, M.B. "Sediment Remediation Matrix". Unpublished —in USEPA Great Lakes National Program Office files.
- Giancarlo Ross, M.B. "Sediment Remediation Pie Charts". Unpublished—in USEPA Great Lakes National Program Office files.
- Giancarlo Ross, M.B. "Compilation of Project Managers Informational Sheets". Unpublished—in USEPA Great Lakes National Program Office files.

FY 2005 PERFORMANCE MEASURE:

Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay.

Performance results related to these measures are presented in Goal 4, page 139.

Performance Database:

SAV acres in Chesapeake Bay. Total acres surveyed and estimated additional acres from 1978 through 2004, excluding the years 1979-1983 and 1988 when no surveys were conducted. The FY 2006 Annual Performance Report for this measure will be based on the results of the survey conducted the previous calendar year (2005). We expect to receive the preliminary survey results for calendar year 2005 in April 2006. We expect to receive the preliminary survey results for calendar year 2006 in March 2007.

Data Source:

Virginia Institute of Marine Sciences provides the data (via an EPA Chesapeake Bay Program (CBP) grant to Virginia Institute of Marine Sciences). EPA has confidence in the third party data and believes the data are accurate and reliable based on QA/QC procedures described below.

Methods, Assumptions and Suitability:

The SAV survey is a general monitoring program, conducted to optimize precision and accuracy in characterizing annually the status and trends of SAV in tidal portions of the Chesapeake Bay. The general plan is to follow fixed flight routes over shallow water areas of the Bay, to comprehensively survey all tidal shallow water areas of the Bay and its tidal tributaries. Non-tidal areas are omitted from the survey. SAV beds less than 1

square meter are not included due to the limits of the photography and interpretation. Annual monitoring began in 1978 and is ongoing. Methods are described in the Quality Assurance Project Plan (QAPP) on file for the EPA grant and at the VIMS web site (www.vims.edu/bio/sav/).

QA/QC Procedures:

Quality assurance project plan for the EPA grant to the Virginia Institute of Marine Sciences describes data collection, analysis, and management methods. This is on file at the EPA Chesapeake Bay Program Office. The VIMS web site at www.vims.edu/bio/sav/ provides this information as well. Metadata are included with the data set posted at the VIMS web site (www.vims.edu/bio/sav/metadata/recent.html).

Data Quality Reviews:

This indicator has undergone extensive technical and peer review by state, Federal and non-government organization partner members of the SAV workgroup and the Living Resources subcommittee. Data collection, data analysis and QA/QC are conducted by the principal investigators/scientists. The data are peer reviewed by scientists on the workgroup. Data selection and interpretation, the presentation of the indicator, along with all supporting information and conclusions, are arrived at via consensus by the scientists and resource manager members of the workgroup. The workgroup presents the indicator to the subcommittee where extensive peer review by Bay Program managers occurs. There have been no data deficiencies identified in external reviews.

Data Limitations:

Due to funding constraints, there were no surveys in the years 1979-1983 and 1988. Spatial gaps in 1999 occurred due to hurricane disturbance and subsequent inability to reliably photograph SAV. Spatial gaps in 2001 occurred due to post-nine-eleven flight restrictions near Washington D.C. Spatial gaps in 2003 occurred due to adverse weather in the spring and summer and Hurricane Isabel in the fall.

New/Improved Data or Systems:

Some technical improvements (e.g., photointerpretation tools) were made over the 22 years of the annual SAV survey in Chesapeake Bay.

References:

See Chesapeake Bay SAV special reports at www.vims.edu/bio/sav/savreports.html and bibliography at www.vims.edu/bio/sav/savchespub.html. The SAV distribution data files are located www.vims.edu/bio/sav/savdata.html and also at www.chesapeakebay.net/pubs/statustrends/88-data-2002.xls. The SAV indicator is published at www.chesapeakebay.net/status.cfm?sid=88.

FY 2005 PERFORMANCE MEASURES:

Reduce nitrogen loads entering Chesapeake Bay by 74 million pounds per year.
Reduce phosphorus loads entering Chesapeake Bay by 8.7 million pounds per year.
Reduce sediment loads entering Chesapeake Bay by 1.06 million tons per year.

Performance results related to these measures are presented in Goal 4, page 140.

Performance Database:

Nutrient and Sediment Loads Delivered to the Chesapeake Bay. The Bay data files used in the indicator are located at www.chesapeakebay.net/pubs/statustrends/186-data-2003.xls. Data have been collected in 1985, 2000, 2001, 2002, 2003 and are expected on an annual basis after 2003. There is a 2 year data lag. Load data are from Chesapeake Bay watershed portions of NY, MD, PA, VA, WV, DE, and DC.

The FY 2007 Annual Performance Report for these measures will be based on the results of the 2005 data collection. We expect to receive the preliminary results for 2005 in January 2007.

Data Source:

State/district data are provided to the Chesapeake Bay Program Office for input into the Chesapeake Bay Program Watershed Model.

Methods, Assumptions and Suitability:

The data are of high quality. Data are consolidated by watershed boundaries at the state level and provided to the Chesapeake Bay Program Office for input into the watershed model.

What is the Watershed Model? A lumped parameter Fortran based model (HSPF) that mimics the effects of hydrology, nutrient inputs, and air deposition on land and outputs runoff, groundwater, nutrients and sediment to receiving waters. Ten years of simulation are used and averaged to develop the reduction effects of a given set of Best Management Practices (BMPs). Using a 10-year average of actual weather (hydrologic, temperature, wind, etc.) ensures wet, dry and average conditions for each season are included. The effectiveness of the model is dependent upon the quality of the assumptions, BMPs and landuse descriptions used. The model is calibrated extensively to real-time monitoring, outside peer review and continual updates as better information, data collection and computer processing power become available.

What are the input data? The model takes meteorological inputs such as precipitation, temperature, evapotranspiration, wind speed, solar radiation, dewpoint, and cloud cover to drive the hydrologic simulation. The changes in nutrient outputs are primarily determined by such factors as land use acreage, BMPs, fertilizer, manure, atmospheric deposition, point sources, and septic loads.

BMPs: Watershed Model BMPs include all nutrient reduction activities tracked by the jurisdictions for which a source has been identified, cataloged and assigned an efficiency. Efficiencies are based on literature review, recommendations of the appropriate source workgroup and approved by the Nutrient Subcommittee. It is the responsibility of the jurisdictions to track and report all nutrient reduction activities within their borders and maintain documentation to support submissions.

Land use acreage is determined by combining analyses of satellite imagery and county-based databases for agricultural activities and human population. Fertilizer is determined by estimated application rates by crops and modified by the application of nutrient management BMPs. Manure appli-

cations are determined by an analysis of animal data from the census of agriculture.

Atmospheric deposition is determined by an analysis of National Atmospheric Deposition Program (NADP) deposition data and modified by scenarios of the Regional Acid Deposition Model. Point Source loads are determined from Discharge Monitoring Reports. Septic loads are estimated in a study commissioned by the CBP.

www.chesapeakebay.net/pubs/127.pdf

www.chesapeakebay.net/pubs/114.pdf

www.chesapeakebay.net/pubs/112.pdf

www.chesapeakebay.net/pubs/777.pdf

What are the model outputs? The watershed model puts out daily flows and nitrogen, phosphorus, and sediment loads for input to the water quality model of the Chesapeake Bay. The daily loads are averaged over a 10-year hydrologic period (1985-1994) to report an average annual load to the Bay. The effect of flow is removed from the load calculations.

What are the model assumptions? BMPs: Model assumptions are based on three conditions: knowledge, data availability and computing power. The ability to alter what is used in the watershed model is a function of the impact the change would have on calibration. In many cases there is new information, data or methodologies that would improve the model, but changes are not possible because of the impact on the current calibration.

Changes in manure handling, feed additives, new BMPs and some assumptions could be incorporated into the model without impacting the calibration. In these cases, the changes were made.

Other input assumptions, such as multiple manure application levels, increasing the number and redefining some land uses, defining new nutrient or sediment sources, adjusting for varying levels of management (range of implementation levels) are items scheduled for incorporation in the new model update (2005).

Data are collected from states and local governments programs. Methods are described at www.chesapeakebay.net/data/index.htm, (refer to CBP Watershed Model Scenario Output Database, Phase 4.3). For more information contact Kate Hopkins at hopkins.kate@epa.gov or Jeff Sweeney jsweeney@chesapeakebay.net.

QA/QC Procedures:

State offices have documentation of the design, construction and maintenance of the databases used for the performance measures, showing they conform to existing U.S. Department of Agriculture Natural Resources Conservation Service (USDA/NRCS) technical standards and specifications for nonpoint source data and EPA's Permit Compliance System (PCS) standards for point source data. State offices also have documentation of implemented Best Management Practices (BMPs) based on USDA NRCS standards and specification and the Chesapeake Bay Program's protocols and guidance. BMPs are traditionally used to reduce pollutant loads coming from nonpoint sources such as urban/suburban runoff, agriculture, and forestry activities.

References include: the USDA NRCS Technical Guide and Appendix H from the Chesapeake Bay Program (contact Russ Mader at mader.russ@epa.gov or Kate Hopkins at hopkins.kate@epa.gov). Quality assurance program plans are available in each state office.

Data Quality: Reviews:

All data are reviewed and approved by the individual jurisdictions before input to the watershed model. QA/QC is also performed on the input data to ensure basic criteria, such as not applying a BMP at a higher level than allowed. A specific level of input should yield output within a specified range of values. Output is reviewed by both the CBPO staff and the Tributary Strategy Workgroup as an additional level of QA/QC. Any values out of the expected range is analyzed and understood before approval and public release. The model itself is given a quarterly peer review by an outside independent group of experts. There have been no data deficiencies identified in external reviews.

Data Limitations:

Data collected from voluntary collection programs are not included in the database, even though they may be valid and reliable. The only data submitted by state and local governments to the Chesapeake Bay Program Office are data that are required for reporting under the cost share and regulatory programs. State and local governments are aware that additional data collection efforts are being conducted by non-governmental organizations, however, they are done independently of the cost share programs and are not reported.

Error Estimate:

There may be errors of omission, misclassification, incorrect georeferencing, misdocumentation or mistakes in the processing of data.

New/Improved Data or Systems:

The next version of the watershed model is currently under development and will be completed in 2006. The new version (phase 5) will have increased spatial resolution and ability to model the effects of management practices. The phase 5 watershed model is a joint project with cooperating state and Federal agencies. Contact Gary Shenk gshenk@chesapeakebay.net or see the web site at http://www.chesapeakebay.net/phase5.htm

References:

See www.chesapeakebay.net/data/index.htm, refer to CBP Watershed Model Scenario Output Database, Phase 4.3. Contact Kate Hopkins at hopkins.kate@epa.gov or Jeff Sweeney jsweeney@chesapeakebay.net. The nutrient and sediment loads delivered to the Bay indicator are published at www.chesapeakebay.net/status.cfm?sid=186. The nutrient and sediment loads delivered to the Bay data files used in the indicator are located at www.chesapeakebay.net/pubs/statustrends/186-data-2003.xls.

See "Chesapeake Bay Watershed Model Application and Calculation of Nutrient and Sediment Loadings, Appendix H: Tracking Best Management Practice Nutrient Reductions in the Chesapeake Bay Program, A Report of the Chesapeake Bay Program Modeling Subcommittee", USEPA Chesapeake Bay Program Office, Annapolis, MD, August 1998, available at www.chesapeakebay.net/pubs/777.pdf

See USDA NRCS Field Office Technical Guide available at www.nrcs.usda.gov/technical/efotg/

FY 2005 PERFORMANCE MEASURE:

Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico.

Performance results related to these measures are presented in Goal 4, page 141.

Performance Database:

(1) Louisiana Coastal Hypoxia Shelfwide Survey metadata (data housed at National Oceanic and Atmospheric Administration/National Ocean Data Center, Silver Spring, Maryland). Funds for this research are provided by the National Oceanic and Atmospheric Administration, Coastal Ocean Program (NOAA/COP); (2) Southeast Area Monitoring and Assessment Program (SEAMAP)—Gulf surveys. The data used in assessing performance under this measure have been collected annually on a calendar year basis since 1982.

Data Source:

(1) Hydrographic data are collected during annual surveys of the Louisiana continental shelf. Nutrient, pigment and station information data are also acquired. The physical, biological and chemical data collected are part of a long-term coastal Louisiana dataset. The goal is to understand physical and biological processes that contribute to the causes of hypoxia and use the data to support environmental models for use by resource managers; (2) The Southeast Area Monitoring and Assessment Program (SEAMAP) is a state/Federal/university program for collection, management and dissemination of fishery-independent data and information in the southeastern United States.

Methods, Assumptions and Suitability:

The distribution of hypoxia on the Louisiana shelf has been mapped annually in mid-summer (usually late July to early August) over a standard 60- to 80- station grid since 1985. During the shelfwide cruise, data are collected along transects from the mouth of the Mississippi River to the Texas border. Information is collected on a wide range of parameters, including conductivity/temperature/depth (CTD), light penetration, dissolved oxygen, suspended solids, nutrients, phytoplankton, and chlorophyll. Hydrographic, chemical, and biological data also are collected from two transects of Terrebonne Bay on a monthly basis, and bimonthly, off Atchafalaya Bay. There is a single moored instrument array in 20-m water depth in the core of the hypoxic zone that collects vertical conductivity/temperature data, as well as near-surface, mid, and near-bottom oxygen data; an upward directed Acoustic Doppler Current Profiler (ADCP) on the seabed measures direction and speed of currents from the seabed to the surface. There is also an assortment of nutrient and light meters.

Station depths on the cruises range from 3.25 to 52.4 meters. Northern end stations of transects are chosen based on the survey vessel's minimum depth limits for each longitude.

Standard data collections include hydrographic profiles for temperature, salinity, dissolved oxygen, and optical properties. Water samples for chlorophyll a and phaeopigments, nutrients, salinity, suspended sediment, and phytoplankton community composition are collected from the surface, near-bottom, and variable middle depths. The objective is to delimit and describe the area of midsummer bottom dissolved oxygen less than 2 (mg. L).

Details of data collection and methodology are provided in referenced reports.

QA/QC Procedures:

NOAA does not require written QA/QC procedures or a Quality Management Plan; however, the procedures related to data collection are covered in metadata files.

The SEAMAP Data Management System (DMS) conforms to the SEAMAP Gulf and South Atlantic DMS Requirements Document developed through a cooperative effort between National Marine Fisheries Service (NMFS) and other SEAMAP participants.

Data Quality Reviews:

(1) Essential components of the environmental monitoring program in the Gulf of Mexico include efforts to document the temporal and spatial extent of shelf hypoxia, and to collect basic hydrographic, chemical and biological data related to the development of hypoxia over seasonal cycles. All data collection protocols and data are presented to and reviewed by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (the Task Force) in support of the adaptive management approach as outlined in the Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico (the Action Plan).

(2) Biological and environmental data from all SEAMAP-Gulf surveys are included in the SEAMAP Information System, managed in conjunction with National Marine Fisheries Service—Southeast Fisheries Science Center (NMFS-SEFSC). Raw data are edited by the collecting agency and verified by the SEAMAP Data Manager prior to entry into the system. Data from all SEAMAP-Gulf surveys during 1982-2003 have been entered into the system, and data from 2004 surveys are in the process of being verified, edited, and entered for storage and retrieval.

Data Limitations:

Monitoring for shelf-wide conditions is currently performed each year primarily, but not exclusively, in July. The spatial boundaries of some monitoring efforts are limited by resource availability. Experience with the datasets has shown that when data are plotted or used in further analysis, outlying values may occasionally be discovered.

Error Estimate:

(1) The manufacturers state +/- 0.2mg/L as the error allowance for both SeaBird and Hydrolab oxygen sensors.

References:

- Mississippi River/Gulf of Mexico Watershed Nutrient Task force.2001. Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico. Washington, DC.

- Rabalais N.N., R.E. Turner, Dubravko Justic, Quay Dortch, and W.J. Wiseman. 1999. Characterization of Hypoxia. Topic 1 Report for the Integrated assessment on Hypoxia in the Gulf of Mexico. NOAA Coastal Ocean Program Decision Analysis Series No. 15. Silver Spring Maryland: NationalOceanic and Atmospheric Administration.
- Hendee, J.C. 1994. Data management for the nutrient enhanced coastal ocean productivity program. Estuaries 17:900-3
- Rabalais, Nancy N., W.J. Wiseman Jr., R.E. Turner; Comparison of continuous records of near-bottom dissolved oxygen from the hypoxia zone of Louisiana. Estuaries 19:386-407
- SEAMAP Information System www.gsmfc.org/sis.html

Goal 4, Objective 4

FY 2005 PERFORMANCE MEASURES:

Provide high quality exposure, effects and assessment research results that support the August 2006 reassessment of current-use pesticide tolerances to EPA so that, by 2008, EPA will be able to characterize key factors influencing children's and other subpopulations' risks from pesticide exposure.

Information on managing mercury and other co-pollutants from utility boilers.

Methods and tools for measuring exposure and effects in children, and characterizing and reducing risks to children from environmental agents in schools.

Technical guidance for implementing and evaluating projects to restore riparian zones.

Baseline ecological condition of Western streams determined.

Complete 8 human health assessments and publish their results on the IRIS website.

Initiate or submit to external peer review human health assessments of 8 high priority chemicals.

Risk assessment toolbox to predict and reduce the consequences of chemical/biological attacks in U.S. cities.

Technical guidance for water system owners and operators on methods/strategies for minimizing damage from intentional introduction of biological/chemical contaminants.

Water system-related case studies that provide a spectrum of contingency planning situations and responses, including one specifically focused on the National Capital area.

Performance results related to these measures are presented in Goal 4, pages 142-148.

Performance Database:

Program output; no internal tracking system.

Goal 5, Objective 1

FY 2005 PERFORMANCE MEASURES:

Percentage of concluded enforcement cases requiring that pollutants be reduced, treated, or eliminated.

Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions.

Percentage of concluded enforcement cases requiring implementation of improved environmental management practices.

Dollars invested in improved environmental performance or improved environmental management practices as a result of concluded enforcement actions (i.e., injunctive relief and SEPs).

Percentage of audits or other actions that result in the reduction, treatment, or elimination of pollutants and protection of populations or ecosystems.

Percentage of audits or other actions that result in improvements in environmental management practices.

Pounds of pollutants reduced, treated, or eliminated as a result of audits or other actions.

Dollars invested in improved environmental performance or improved environmental management practices as a result of audits or other actions.

Performance results related to these measures are presented in Goal 5, page 160.

Performance Databases:

The Integrated Compliance Information System, (ICIS), which tracks EPA civil enforcement (e.g., judicial and administrative) actions. The Criminal Case Reporting System (CCRS), the new enhanced database for tracking criminal enforcement actions, will be used in conjunction with ICIS to track the criminal enforcement recidivism measure.

Data Source:

Most of the essential data on environmental results in ICIS are collected through data developed originally through the use of the Case Conclusion Data Sheet (CCDS), which Agency staff begin preparing after the conclusion of each civil (judicial and administrative) enforcement action. EPA implemented the CCDS in 1996 to capture relevant information on the results and environmental benefits of concluded enforcement cases. The information generated through the CCDS is used to track progress for several of the performance measures. The CCDS form consists of 27 specific questions which, when completed, describe specifics of the case; the facility involved; information on how the case was concluded; the compliance actions required to be taken by the defendant(s); the costs involved; information on any Supplemental Environmental Project to be undertaken as part of the settlement; the amounts and types of any penalties assessed; and any costs recovered through the action, if applicable. The CCDS documents whether the facility/defendant, through injunctive relief, must: (1) reduce pollutants; and (2) improve management practices to curtail, eliminate or better monitor and handle pollutants in the future. The Criminal Enforcement Program also maintains a separate case conclusion data form and system for compiling and quantifying the results of criminal enforcement prosecution, including pollution reduction and the percentage of concluded criminal enforcement cases requiring improved environmental management practices. The revised criminal enforcement case conclusion form will be used beginning in FY06.

Methods, Assumptions and Suitability:

For enforcement actions which result in pollution reductions, the staff estimate the amounts of pollution reduced for an immediately implemented improvement, or an average year once a long-term solution is in place. There are established procedures for the staff to calculate, by statute, (e.g., Clean Water Act), the pollutant reductions or eliminations. The procedure first entails the determination of the difference between the current "out of compliance" concentration of the pollutant(s) and the post enforcement action "in compliance" concentration. This difference is then converted into standard units of measure.

QA/QC Procedures:

Quality Assurance/Quality Control procedures [See references] are in place for both the CCDS and ICIS entry. There are a Case Conclusion Data Sheet Training Booklet [See references] and a Case Conclusion Data Sheet Quick Guide [See references], both of which have been distributed throughout Regional and Headquarters' (HQ) offices. Separate CCDS Calculation and Completion Checklists [See references] are required to be filled out at the time the CCDS is completed. Criminal enforcement pollution reduction measures are quality assured by the program at the end of the fiscal year.

Quality Management Plans (QMPs) are prepared for each Office within The Office of Enforcement and Compliance Assurance (OECA). The Office of Compliance (OC) has established extensive processes for ensuring timely input, review and certification of ICIS information in Fiscal Year (FY) 2003. OC's QMP, effective for 5 years, was approved July 29, 2003 by the Office of Environmental Information (OEI) and is required to be re-approved in 2008. OECA instituted a requirement for semiannual executive certification of the overall accuracy of ICIS information to satisfy the Government Performance and Results Act (GPRA), the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement.

Data Quality Review:

Information contained in the CCDS and ICIS are required by policy to be reviewed by regional and headquarters' staff for completeness and accuracy. ICIS data is reviewed quarterly and reviewed and certified at mid-year and end-of-year.

Data Limitations:

The pollutant reductions or eliminations reported on the CCDS are estimates of what will be achieved if the defendant carries out the requirements of the settlement. Information on expected outcomes of state enforcement is not available. The estimates are based on information available at the time a case is settled or an order is issued. In some instances, this information will be developed and entered after the settlement, during continued discussions over specific plans for compliance. Because of the time it takes to agree on the compliance actions, there may be a delay in completing the CCDS. Additionally, because of unknowns at the time of settlement, different levels of technical proficiency, or the nature of a case, OECA's expectation is that based on information on the CCDS, the overall amounts of pollutant reductions/eliminations will be prudently underestimated.

New/Improved Data or Systems:

In November 2000, EPA completed a comprehensive guidance package on the preparation of the Case Conclusion Data Sheet. This guidance, issued to headquarters' and regional managers and staff, was made available in print and CD-ROM, and was supplemented in FY 2002 [See references]. The guidance contains work examples to ensure better calculation of the amounts of pollutants reduced or eliminated through concluded enforcement actions. EPA trained each of its ten regional offices during FY 2002. OC's Quality Management Plan was approved by OEI July 29, 2003, and is effective for 5 years. [See references]. A new criminal enforcement case management, tracking and reporting system (Criminal Case Reporting System) will come on line during the last quarter FY 2005 that will replace the existing criminal docket (CRIMDOC). This new system allows for a more user friendly database and greater tracking, management, and reporting capabilities.

References:

Quality Assurance and Quality Control procedures: Data Quality: Life Cycle Management Guidance, (IRM Policy Manual 2100, dated September 28, 1994, reference Chapter 17 for Life Cycle Management). Case Conclusion Data Sheets: Case Conclusion Data Sheet, Training Booklet, issued November 2000 available: www.epa.gov/compliance/resources/publications/planning/caseconc.pdf; Quick Guide for Case Conclusion Data Sheet, issued November 2000. Information Quality Strategy and OC's Quality Management Plans: Final Enforcement and Compliance Data Quality Strategy, and Description of FY 2002 Data Quality Strategy Implementation Plan Projects, signed March 25, 2002. ICIS: U.S. EPA, Office of Enforcement and Compliance Assurance, ICIS Phase I, implemented June 2002. Internal EPA database; non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA).

FY 2005 PERFORMANCE MEASURE:

Number of inspections, civil investigations, and criminal investigations conducted.

Performance results related to these measures are presented in Goal 5, page 160.

Performance Databases:

Output measure. Integrated Data for Enforcement Analysis (IDEA) integrates data from major enforcement and compliance systems, such as the Permit Compliance System (PCS), Air Facilities Subsystem (AFS), Resource Conservation and Recovery Act Information System (RCRAInfo), Integrated Compliance Information system (ICIS) for Clean Air Act (CAA) 112(r), National Compliance Database (NCDB), FIFRA/TSCA Tracking System (FTTS). There is also manual reporting of specific media inspections/evaluations and all civil investigations. The Criminal Case Reporting System (CCRS), which is scheduled to come on line during the last quarter of FY 2005, is a criminal case management, tracking and reporting system. Information about criminal cases investigated by the U.S. EPA-Criminal Investigation Division (CID) is entered into CCRS at case initiation, and investigation and prosecution information is tracked until case conclusion.

Data Source:

EPA's regional and Headquarters' offices and U.S. EPA-CID offices.

QA/QC Procedures:

All the systems have been developed in accordance with the Office of Information Management's Lifecycle Management Guidance, which includes data validation processes, internal screen audit checks and verification, system and user documents, data quality audit reports, third-party testing reports, and detailed report specifications for showing how data are calculated. For CRIMDOC (and the forthcoming CCRS) , the system administrator performs regularly scheduled quality assurance/quality control checks of the CRIMDOC database to validate data and to evaluate and recommend enhancements to the system.

Data Quality Review:

EPA is now using updated monitoring strategies [See references] which clarify reporting definitions and enhance oversight of state and local compliance monitoring programs. In FY2003, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement.

Data Limitations:

For all systems, there are concerns about quality and completeness of data and the ability of existing systems to meet data needs. Incompatible database structures/designs and differences in data definitions impede integrated analyses. There is also a concern that the majority of EPA inspections/evaluations and all civil investigations are manually reported by the regions and cannot be verified. Additionally, there are incomplete data available on the universe of regulated facilities because not all are inspected/permitted. In addition, the targets for each measure such as the numbers of inspections, and civil investigations are based on the FTE and extramural resources from OECA and other program offices, i.e., OAR, OSWER, and OW, while targets for the number of criminal investigations are based upon resources allocated to the program in conjunction with program strategies and priorities.

New/Improved Data or Systems:

PCS modernization is underway and is scheduled for completion first quarter 2008. An Interim Data Exchange Format (IDEF) has been established and will support the transfer of data from modernized state systems into the current PCS data system while PCS is being modernized. EPA is addressing the quality of the data in the major systems and each Office within OECA has developed a Quality Management Plan (data quality objectives, quality assurance project plans, baseline

assessments). A new Integrated Compliance Information System (ICIS) supports core program needs and consolidates and streamlines existing systems. Additionally, OECA began implementing its Data Quality Strategy in FY 2002. A new case management, tracking and reporting system (Criminal Case Reporting System) is currently being developed that will replace CRIMDOC. This new system will be a more user-friendly database with greater tracking, management and reporting capabilities.

References:

Clean Air Act Compliance Monitoring Strategy, April 25, 2001, www.epa.gov/compliance/resources/policies/monitoring/cmspolicy.pdf

AFS: www.epa.gov/compliance/data/systems/air/afssystem.html

PCS: www.epa.gov/compliance/data/systems/water/pcssys.html.

RCRAinfo: www.epa.gov/epaoswer/hazwaste/data/index.htm.

For CRIMDOC: CRIM-DOC U.S. EPA, Office of Enforcement and Compliance Assurance. Internal enforcement confidential database; non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA).

Information Quality Strategy and OC's Quality Management Plans: Final Enforcement and Compliance Data Quality Strategy, and Description of FY 2002 Data Quality Strategy Implementation Plan Projects, signed March 25, 2002.

FY 2005 PERFORMANCE MEASURE:

Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations.

Performance results related to these measures are presented in Goal 5, page 159.

Performance Databases:

ICIS and manual reporting by regions.

Data Sources:

EPA regional offices and Office of Civil Enforcement (specifically, the Clean Air Act (CAA)–Mobile Source program) and Office of Compliance—Agriculture Division.

Methods, Assumptions and Suitability:

A new measurement tool, the Inspection Conclusion Data Sheet, (ICDS) will be used to analyze results from inspections/evaluations conducted under some of EPA's major statutes. EPA will analyze data on the three pieces of information from the ICDS: on-site actions taken by facilities, deficiencies observed, and compliance assistance provided. The inspectors complete the Inspection Conclusion Data Sheet (ICDS) for each inspection or evaluation subject to ICDS reporting and the information is either entered into ICIS or reported manually by the Regions and HQ programs.

QA/QC Procedures:

ICIS has been developed per Office of Information Management Lifecycle Management Guidance, which includes data validation processes, internal screen audit checks and verification, system and user documents, data quality audit reports, third party testing reports, and detailed report specifications for showing how data are calculated.

Data Quality Review:

Regional manual reports are reviewed and checked against the inspection or evaluation data entered into other Agency databases (Air Facilities Subsystem (AFS), Permit Compliance System (PCS), Online Tracking Information System (OTIS), Integrated Data for Enforcement Analysis (IDEA)). Manual reports are also checked against ICIS if the Region entered the manual reported inspections/evaluations into that system. Information contained in the CCDS, ICDS and ICIS are required by policy to be reviewed by regional and headquarters' staff for completeness and accuracy. In FY2003, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. ICIS data are reviewed quarterly and certified at mid-year and end of year.

Data Limitations:

ICIS is currently the database of record for CAA 112(r) inspections and audits. It is not the official database of record for inspections and evaluations for other programs. Regions are encouraged to use ICIS specifically for ICDS reporting. This can result in redundant, incomplete, or contradictory data.

New/Improved Data or Systems:

The new Integrated Compliance Information System (ICIS) will support core program needs and consolidate and streamline existing systems. As ICIS becomes more widely used by the regions and HQ programs some of the problems with data entry and reporting should be resolved. As various older systems become modernized (e.g., PCS), they will incorporate the ICDS data set as part of the system. This should minimize data entry and reporting problems.

References:

ICIS: U.S. EPA, Office of Enforcement and Compliance Assurance, ICIS Phase I, implemented June 2002. Internal EPA database; non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA).

FY 2005 PERFORMANCE MEASURES:

Percentage of regulated entities seeking assistance from EPA-sponsored compliance assistance centers and clearinghouse reporting that they improved environmental management practices as a result of their use of the centers or the clearinghouse.

Percentage of regulated entities seeking assistance from EPA-sponsored compliance assistance centers and clearinghouse reporting that they reduced, treated, or eliminated pollution as a result of their use of the centers or the clearinghouse.

Percentage of regulated entities seeking assistance from EPA-sponsored compliance assistance centers and clearinghouse reporting that they increased their understanding of environmental requirements as a result of their use of the centers or the clearinghouse.

Performance results related to these measures are presented in Goal 5, page 159.

Performance Database:

EPA Headquarters manages data on the performance of the centers and clearinghouse respondents manually before entering it into ICIS.

Data source:

Headquarters will enter manually collected information into ICIS upon completion and delivery of media and sector-specific compliance assistance provided by the EPA-sponsored compliance assistance centers and the clearinghouse. ICIS is designed to capture outcome measurement information such as increased awareness/understanding of environmental laws, changes in behavior and environmental improvements as a result of the compliance assistance provided.

QA/QC Procedures:

Automated data checks and data entry guidelines are in place for ICIS. Data from manual systems will be validated with internal checks, third party testing reports, and detailed reports showing how data are calculated.

Data Quality Reviews:

Data from manual systems will be validated with internal checks, third party testing reports, and detailed reports showing how data are calculated.

Information contained in the ICIS is reviewed by Regional and Headquarters staff for completeness and accuracy. In FY2003, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. ICIS data are reviewed quarterly and reviewed and certified at mid-year and end of year.

New/Improved Data or Systems:

EPA plans to improve and/or modify elements of the compliance assistance module in ICIS based on use of the system.

References:

US EPA, Integrated Compliance Information System Compliance Assistance Module, February 2004; US EPA, Compliance Assistance in the Integrated Compliance Information System Guidance, February 20, 2004.

FY 2007 PERFORMANCE MEASURES:

Percentage of regulated entities receiving direct compliance assistance from EPA reporting that hey improved environmental management practices as a result of EPA assistance.

Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they increased their understanding of environmental requirements as a result of EPA assistance.

Percentage of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or eliminated pollution, as a result of EPA assistance.

Performance results related to these measures are presented in Goal 5, page 160.

Performance Database:

EPA Headquarters will manage data on regulated entities receiving direct compliance assistance from EPA through ICIS.

Data source:

Headquarters and EPA's Regional offices will enter information in ICIS upon completion and delivery of media and sector-specific compliance assistance including workshops, training, on-site visits and distribution of compliance assistance tools.

ICIS is designed to capture outcome measurement information such as increased awareness/understanding of environmental laws, changes in behavior and environmental improvements as a result of the compliance assistance provided.

QA/QC Procedures:

Automated data checks and data entry guidelines are in place for ICIS.

Data Quality Review:

Information contained in the ICIS is reviewed by Regional and Headquarters staff for completeness and accuracy. In FY2003, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance measurement. ICIS data are reviewed quarterly and certified at mid-year and end of year.

New/Improved Data or Systems:

EPA plans to improve and/or modify elements of the compliance assistance module in ICIS based on use of the system.

References:

US EPA, Integrated Compliance Information System Compliance Assistance Module, February 2004; US EPA, Compliance Assistance in the Integrated Compliance Information System Guidance, February 20, 2004.

Goal 5, Objective 2

FY 2005 PERFORMANCE MEASURES:

- Reduction in overall pounds of pollution.
- Billions of BTUs of energy conserved.
- Annual cumulative quantity of water saved.
- Millions of dollars saved through reductions in pollution.
- Reduction in carbon dioxide (CO_2) emissions from a baseline year of 1996. (Green Chemistry only).

Performance results related to these measures are presented in Goal 5, page 163.

The Agency's Pollution Prevention programs include Green Chemistry, Design for the Environment, Green Engineering, and other Pollution Prevention (P2) Programs. Each of these programs operates under the principles of the Pollution Prevention Act and works with others to reduce waste at the source, before it is generated. These programs are designed to facilitate the incorporation of pollution prevention concepts and principles into the daily operations of government agencies, businesses, manufacturers, nonprofit organizations, and individuals.

Performance Database:

Green Chemistry (GC): EPA is developing an electronic database ("metrics" database) which will allow organized storage and retrieval of green chemistry data submitted to EPA on alternative feedstocks, processes, and safer chemicals. The database is being designed to store and retrieve, in a systematic fashion, information on the environmental benefits and, where available, economic benefits that these alternative green chemistry technologies offer. The database is also being designed to track the quantity of hazardous chemicals and solvents eliminated through implementation of these alternative technologies. Green Chemistry technology nominations are received up to December 31 of the year preceding the reporting year, and it normally takes 6-12 months to enter new technologies into the database. By the end of FY 2005, EPA expects to achieve its target of having a single instance of each unique nominated technology for 1996-2003 in the database.

Design for the Environment (DfE): DfE does not have a performance database. Instead, DfE is populating an evaluation spreadsheet for its programs (i.e., Alternatives to Lead Solder in Electronics, Furniture Flame Retardants Alternatives, the Formulator Program, and a collaboration with the Air Office on DfE approaches as implementation mechanisms for regulating Local Area Sources, such as Auto Refinishing). Spreadsheet content will vary by approach, and generally will include measures comparing baseline technologies or products to "cleaner" ones, as well as information on partner adoption and/or market share of cleaner alternatives; for example, the DfE formulator approach tracks chemical improvements (such as pounds of chemicals of concern no longer used by partners, and conversely pounds of safer ingredients) and resource savings. This information will allow benefit calculations. Information is collected on an ongoing basis.

Green Engineering (GE): Similar to the Green Chemistry Program, EPA will be developing an electronic database to keep track of environmental benefits of GE projects including, gallons of water, British Thermal Units (BTUs) and dollars saved and pounds of carbon dioxide (CO2) emissions eliminated

Pollution Prevention (P2) Programs: EPA has worked closely with state and local P2 programs to develop a national system that will provide data on environmental outcomes (the core P2 metrics included in the above performance measures). Many EPA Regional offices, state and local P2 programs are currently collecting data on P2 program activities, outputs, and outcomes. EPA has worked successfully with these programs to reach consensus on standardized metrics, including definitions, and to reach consensus on an ongoing system to gather data on these metrics. The core measures in the National Pollution Prevention Results System were adopted in April 2005. Over 25 state and state-level P2 organizations have signed Memoranda of Agreements to provide data using the metrics. The system will also benefit from new reporting requirements in EPA P2 grants. The new system has the cooperation of key stakeholder groups, such as the National Pollution Prevention Roundtable, which is currently adding data from years 2001-2003 to a January 2003 report providing baseline data for the period 1990. The new system also has the cooperation of the regional Pollution Prevention Resource Exchange (P2RX) centers. As the system is implemented, data collected from the program will be placed in a new national database, facilitating convenient data storage and retrieval.

Data Source:

Green Chemistry (GC): Industry and academia submit nominations annually to the Office of Pollution Prevention and Toxics (OPPT) in response to the Presidential Green Chemistry Challenge Awards.

Environmental and economic benefit information is included in the nomination packages. The metrics database pulls this benefit information from the nominations.

Design for the Environment (DfE): The source of DfE's evaluation information varies by the approach and the partner industry. For example, in DfE's formulation improvement partnerships, partners provide proprietary information on both their original formulation and their environmentally improved one. Partners sign a memorandum of understanding with EPA/DfE which includes information on how the company uses cleaner chemistry to formulate a product, the environmental and health benefits of the product, and customer and sales information. For other partnerships, data sources typically include technical studies (e.g., cleaner technology substitutes assessments, life-cycle assessments) and market/sales/adoption information from associations.

Green Engineering (GE): Data will come from profiles of recognized projects by technical journals or organizations, such as the American Institute of Chemical Engineers, or directly reported by project leaders on industry projects or joint academia-industry projects.

Pollution Prevention (P2) Programs: State and local P2 programs will submit data as described above.

Methods, Assumptions, and Suitability:

Green Chemistry (GC): The information will be tracked directly through internal record-keeping systems. No models or assumptions or statistical methods are employed.

Design for the Environment (DfE): Methods and assumptions vary by approach and partner industry. Each DfE partnership identifies and focuses on a unique set of chemicals and industrial processes. For most DfE approaches, the general method is to 1) develop a model for a "typical" or "average" facility, 2) assess the differences between traditional and alternative technologies on metrics such as toxics use, resource consumption, cost, and performance, 3) track market share of alternative technologies over time, and 4) multiply the increase in use of alternative, cleaner technologies by the environmental, cost, and performance differences identified in Step 2. Through this quantitative process, the Agency is able to calculate the benefits generated by the cleaner technology: e.g. how much toxics use reduction is occurring, how much less resources are consumed. Similarly, for DfE's formulation improvement approach, the method is to analyze environmental (e.g., toxics use, resource consumption) and cost differences between the old and improved formulations. Proprietary information, including sales data, is provided by our partners. For each approach, we will develop a spreadsheet that includes the methods and assumptions.

Green Engineering (GE): The information will be tracked directly through EPA record keeping systems. No models or statistical extrapolations are expected to be used.

Pollution Prevention (P2) Programs: The data will come from state and local P2 programs as described above. No models or assumptions or statistical methods are employed.

QA/QC Procedures:

All Pollution Prevention and Toxics programs operate under the Information Quality Guidelines as found at www.epa.gov/quality/informationguidelines/ and under the Pollution Prevention and Toxics Quality Management Plan (QMP). The Quality Management Plan is for internal use only.

Green Chemistry: Data undergo a technical screening review by the Agency before being uploaded to the database to determine if they adequately support the environmental benefits described in the application. Subsequent to Agency screening, data are reviewed by an external independent panel of technical experts from academia, industry, government, and nongovernmental organizations (NGOs). Their comments on potential benefits are incorporated into the database. The panel is convened by the Green Chemistry Institute of the American Chemical Society, primarily for judging nominations submitted to the Presidential Green Chemistry Challenge Awards Program and selecting winning technologies.

Design for the Environment (DfE): Data undergo a technical screening review by DfE before being uploaded to the spreadsheet. DfE determines whether data submitted adequately support the environmental benefits described.

Green Engineering (GE): Data collected will be reviewed to ensure it meets EPA's Quality Guidelines in terms of transparency, reasonableness and accuracy.

Pollution Prevention (P2) Programs: Data will undergo technical screening review by EPA and other program participants (e.g., National Pollution Prevention Roundtable) before being placed in the database. Additional QA/QC steps to be developed, as appropriate.

Data Quality Review:

All Office of Pollution Prevention and Toxics (OPPT) programs operate under EPA's Information Quality Guidelines as found at www.epa.gov/quality/informationguidelines/ and under the OPPT Quality Management Plan (QMP).

Green Chemistry (GC): Review of industry and academic data as documented in U.S. EPA, Office of Pollution Prevention and Toxics, Green Chemistry Program Files available at www.epa.gov/opptintr/greenchemistry/

Design for the Environment (DfE): Not applicable. Green Engineering (GE): Data collected will be reviewed to meet data quality requirements.

Pollution Prevention (P2) Programs: The new metrics and data system were based, in part, on recommendations in the February 2001 GAO report, "EPA Should Strengthen Its Efforts to Measure and Encourage Pollution Prevention" (GAO-01-283). They also incorporate work by such organizations as the Northeast Waste Management Officials Association, Pacific Northwest Pollution Prevention Resource Center, and National Pollution Prevention Roundtable.

Data Limitations:

Green Chemistry (GC): Occasionally data are not available for a given technology due to confidential business information (the Presidential Green Chemistry Challenge Awards Program does not process CBI). Because the Presidential Green Chemistry Challenge is a voluntary public program, it cannot routinely accept or process CBI. If the program stakeholders cannot verify a

technology because of proprietary information, especially during the final judging stage of the awards program, they can and do ask EPA to conduct the verification internally. EPA will then ask the company to share confidential information with CBI-cleared OPPT staff in order for EPA to conduct the verification. It also is occasionally unclear as to what is the percentage market penetration of implemented alternative green chemistry technology (potential benefits vs. realized benefits). In these cases, the database is so noted.

Design for the Environment (DfE): Occasionally, data on innovative chemistries or technologies are claimed CBI by the developing company, thus limiting the implementation of beneficial pollution prevention practices on a wider scale.

Green Engineering (GE): There may be instances in which environment benefits are not clearly quantified. In those instances, the data will be excluded.

Pollution Prevention (P2) Programs: Limitations arise from the reliance on individual state and local P2 programs to gather data. These programs vary in attention to data collection from sources within their jurisdictions, data verification and other QA/QC procedures. Also, despite plans described above to move toward consistent metrics and definitions, some differences exist. EPA is attempting to address these concerns by strengthening reporting requirements in its P2 grants (which fund much of the state and local P2 work) and focusing those requirements on outcomes, adding comprehensive new grant reporting forms and databases which are parallel with the National P2 Results System, and adding a P2 component to EPA Information Exchange Network (which provides financial support and a comprehensive data system to link state data with EPA).

Error Estimate:

Green Engineering (GE): There may be instances in which environmental benefits are not clearly quantified. In those instances, the data will be excluded. Not applicable for other programs contributing data to this measure.

New/Improved Data or Systems:

Green Chemistry (GC), Design for the Environment (DfE), Green Engineering (GE): The American Chemistry Council (ACC) has initiated an industry self-monitoring program called Responsible Care. Beginning in 2003, member companies will collect and report on a variety of information. Measures tentatively include Toxics Release Inventory (TRI) releases; tons of CO2 equivalent per pound of production; total BTUs consumed per pound of production; systems for assessing or, reassessing potential environmental, health, and safety risks; percentage of products re-evaluated; percentage of commitments for chemical evaluation programs; documentation of process for characterizing and managing product risks; and documentation of communication of risk characterization results. Many of these measures are similar to the EPA program targets identified under Goal 5, Objective 2. These reports may be an invaluable source of industry baseline information. It is important that the EPA programs identified under Goal 5 evaluate the utility of the reports generated under the ACC's Responsible Care Program in support of the EPA's programs as well as the goals of Responsible Care. (CAPRM II, Chemical and Pesticide Results Measures, March 2003 pp. 313). The Pollution Prevention (P2) program's data collection system is currently under development through a partnership with the National Pollution Prevention Roundtable and EPA.

References:

Chemical and Pesticide Results Measures II: www.pepps.fsu.edu./CAPRM/index.html

Green Chemistry (GC): www.epa.gov/opptintr/greenchemistry/

Design for the Environment (DfE): www.epa.gov/opptintr/dfe/

Green Engineering (GE): www.epa.gov/opptintr/greenengineering/

Pollution Prevention (P2) Programs: www.epa.gov/oppt/p2home/index.htm

www.p2.org/workgroup/Background.cfm

www.epa.gov/Networkg

FY 2005 PERFORMANCE MEASURES:

Percent reduction in Toxics Release Inventory (TRI) reported toxic chemical releases at Federal Facilities.

Percent reduction in Toxics Release Inventory (TRI) chemical releases to the environment from the business sector per unit of production ("Clean Index").

Percent reduction in TRI chemicals in production-related wastes generated by the business sector per unit of production ("Green Index").

Performance results related to these measures are presented in Goal 5, page 163.

Performance Database:

TRIM: Toxics Release Inventory Modernization, formerly TRIS (Toxics Release Inventory System) provides facility/chemical-specific data quantifying the amount of TRI-listed chemicals entering wastes associated with production process in each year. The total amount of each chemical in production-related wastes can be broken out by the methods employed in managing such wastes, including recycling, energy recovery, treatment, and disposal/release. Amounts of these wastes that are not recycled are tracked for these performance measures. The fourth performance measure uses the Chemical Abstract System (CAS) numbers for the 23 chemicals identified by EPA as priority chemicals (www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm).

Data Source:

Regulated facilities report facility-specific, chemical-specific release, waste and recycling data to EPA on a calendar year basis. For example, in calendar year 2003, 23,957 facilities filed 97,251 TRI reports. FY 2007 results will not be available until FY 2009 due to 2 year data lag.

Methods, Assumptions, and Suitability:

TRI data are collected as required by sections 313 of EPCRA and 6607 of Pollution Prevention Act (PPA) (40 CFR ' 372; www.epa.gov/tri/). Only certain facilities in specific Standard Industrial Classification (SIC) codes are required to report annually the quantities of over 650 listed toxic chemicals and chemical categories released to each environmental medium and otherwise managed as waste (40 CFR ' 372; www.epa.gov/tri/). Regulation requires covered facilities to use monitoring, mass balance, emission factors and/or engineering calculations approaches to estimate releases and recycling volumes. For the Clean and Green Index measures and priority list chemicals measure, data controls are employed to facilitate cross-year comparisons: a subset of chemicals and sectors are assessed that are consistently reported in all years; data are normalized to control for changes in production using published U.S. Bureau of Economic Analysis (BEA) gross product indices (chain-type quantity index for the manufacturing sector).

QA/QC Procedures:

Most facilities use EPA-certified automated Toxics Release Inventory (TRI) FORM R reporting tools, which contain automated error checking mechanisms. Upon receipt of the facilities' reports, EPA conducts automated edits, error checks, data scrubs, corrections and normalization during data entry and subsequent processing to verify that the information provided by the facilities is correctly entered in TRIM. The Agency does not control the quality of the data submitted by the regulated community. EPA does, however, work with the regulated community to improve the quality of their estimates.

Data Quality Review:

The quality of the data contained in the TRI chemical reports is dependent upon the quality of the data that the reporting facility uses to estimate its releases and other waste management quantities. Use of TRI Form R by submitters and EPA's performance data reviews combine to help assure data quality.

Data Limitations:

Use of the data should be based on the user's understanding that the Agency does not have direct assurance of the accuracy of the facilities' measurement and reporting processes. TRI release data are reported by facilities on a good faith, best-estimate basis. EPA does not have the resources to conduct on-site validation of each facility's reporting data, though on-site investigations do occur each year at a subset of reporting facilities.

Error Estimate:

From the various data quality efforts, EPA has learned of several reporting issues such as incorrect assignment of threshold activities and incorrect assignment of release and other waste management quantities (EPA-745-F-93-001; EPA-745-R-98-012; www.epa.gov/tri/tridata/data_quality_reports/index.htm; www.epa.gov/tri/report/index.htm.) For example, certain facilities incorrectly assigned a 'processing' (25,000 lb) threshold instead of an 'otherwise use' (10,000 lb) threshold for certain persistent, bioaccumulative and toxic (PBT) chemicals, so they did not have to report if their releases were below 25,000 lbs. Also, for example, some facilities incorrectly reported fugitive releases instead of stack releases of certain toxic chemicals.

New/Improved Data or Systems:

To improve reporting efficiency and effectiveness, reduce burden, and promote data reliability and consistency across Agency programs, EPA simplified the Toxics Release Inventory (TRI) reporting requirements. The TRI Form Modification Rule effective September of 2005, will simplify data elements, reduced the number of reporting codes, and make two technical corrections to the regulations by correcting contact information and removing an outdated description of a pollution prevention data element. The revised TRI form, will allow the EPA to better target pollution prevention efforts, improve public access to information about source reduction and pollution control activities undertaken by some facilities, and encourage manufacturers to comply by making it easier to use. Please see the following for additional information on this rule: www.epa.gov/tri/tridata/modrule/index.htm

References:

www.epa.gov/tri/ and additional citations provided above: EPA-745-F-93-001;EPA-745-R-98-012; www.epa.gov/tri/report/index.htm; www.epa.gov/tri/tridata/data_quality_reports/index.htm; OSWER priority chemicals and fact sheets www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm; www.epa.gov/tri/report/index.htm; Bureau of Economic Analysis (BEA) indices are available at www.bea.gov/bea/regional/gsp/

FY 2005 PERFORMANCE MEASURE:

Specific annual reductions in six media/resource areas: water use, energy use, materials use, solid waste generated, air releases, and water discharges.

Performance results related to these measures are presented in Goal 5, page 162.

Performance Databases:

Both the Performance Track On-Line (a Domino database) and the Performance Track Members Database (a Microsoft Access database) store information that facilities have provided to EPA in applications and annual performance reports. Performance Track members select a set of environmental indicators on which to report performance over a 3-year period of participation. The externally reported indicators (listed above) may or may not

be included in any particular facility's set of indicators. Performance Track aggregates and reports only that information that a facility voluntarily reports to the Agency. A facility may make progress towards one of the above indicators, but if it is not among its set of "commitments", then Performance Track's data will not reflect the changes occurring at the facility. Similarly, if a facility's performance declines in any of the above areas and the indicator is not included among its set of commitments, that decline will not be reflected in the above results.

Members report on results in a calendar year. Fiscal year 2005 corresponds most closely with members' calendar year of 2005. That data will be reported to the Performance Track program by April 1, 2006. The data will then be reviewed, aggregated, and available for external reporting in August 2006.

Data Source:

All data are self-reported and self-certified by member facilities. As described below, Performance Track engages in quality control to the extent possible, but it does not conduct formal auditing. However, a criterion of Performance Track membership is the existence of an environmental management system (EMS) at the facility, a key element of which is a system of measurement and monitoring. Most Performance Track facilities have had independent third-party audits of their EMSs, which create a basis for confidence in the facilities' data. It is clear from submitted reports that some facilities have a tendency to estimate or round data. Errors are also made in converting units and in calculations. In general, however, EPA is confident that the externally reported results are a fair representation of members' performance.

Methods, Assumptions, and Suitability:

Data collected from members' applications and annual performance reports are compiled and aggregated across those members that choose to report on the given indicator. The data reflect the performance results at the facility; any improvements or declines in performance are due to activities and conditions at the specific facility as a whole. However, in some cases, facilities report results for specific sections of a facility and this may not be clear in the reports submitted to the program. For example, Member A commits to reducing its VOCs from 1000 tons to 500 tons over a 3-year period. In Year 1, it reports a reduction of VOCs from 1000 tons to 800 tons. Performance Track aggregates this reduction of 200 tons with results from other facilities. But unbeknownst to Performance Track, the facility made a commitment to reduce its VOCs from Production Line A and is only reporting on its results from that production line. The facility is not intentionally hiding information from EPA, but mistakenly thought that its commitment could focus on environmental management activities at Production Line A rather than across the entire facility. Unfortunately, due to increased production and a couple of mishaps by a sloppy technician, VOC emissions at Production Line B increased by 500 tons in Year 1. Thus, the facility's VOC emissions actually increased by 300 tons in Year 1; Performance Track's statement to the public that the facility reduced its emissions by 200 tons is therefore misleading.

The data can be used to make year-to-year comparisons, but reviewers and analysts should bear in mind that Performance Track membership is constantly in flux. Although members should retain the same set of indicators for their 3-year participation period, as new members join the program and others leave, the baseline constantly changes.

Due to unavoidable issues regarding the timing of the application period, a small subset of reported data will represent 2 years of performance at certain facilities, i.e., the baseline will be 2 years prior rather than 1 year.

QA/QC Procedures:

Data submitted with applications and annual performance reports to the program are reviewed for completeness and adherence to program formatting requirements. In cases where it appears possible that data is miscalculated or misreported, EPA or contractor staff follows up with the facility. If the accuracy of data remains under question or if a facility has provided incomplete or nonstandard data, the database is coded to ensure that the data is excluded from aggregated and externally reported results.

Additionally, Performance Track staff visit up to 20% of Performance Track member facilities each year. During those visits, facilities are asked about their data collection systems and about the sources of the data reported to the program.

Performance Track contractors conduct a quality review of data entered manually into the database. Performance Track staff conduct periodic checks of the entered data. As described, Performance Track is quality controlled to the extent possible, but is not audited in a formal way. However, a prerequisite of Performance Track membership is an environmental management system (EMS) at the facility, a key element of which is a system of measurement and monitoring. Most Performance Track facilities have had independent third-party audits of their EMSs, which create a basis for confidence in the facilities' data. A Quality Management Plan is under development.

Data Limitations:

Potential sources of error include miscalculations, faulty data collection, misreporting, inconsistent reporting, and nonstandard reporting on the part of the facility. Where facilities submit data outside of the Performance Track On-Line system, Performance Track staff or contractors must enter data manually into the database. Manually entered data is sometimes typed incorrectly.

It is clear from submitted reports that some facilities have a tendency to estimate or round data. Errors are also made in converting units and in calculations. In general, however, EPA is confident that the externally reported results are a fair representation of members' performance.

New/Improved Performance Data or Systems:

Since spring 2004, all Performance Track applications and annual performance reports have been submitted electronically (i.e., through the Performance Track On-Line system), thus avoiding the need for manual data entry. Additionally, the program is implementing a new requirement that all members gain third-party assessments of their EMSs. Also, the program has reduced the chances that data may reflect

process-specific (rather than facility-wide) data by paying additional attention to the issue in the review process and by instituting "facility-wide data" requirements for all indicators.

References:

Members' applications and annual performance reports can be found on the Performance Track website at www.epa.gov/performancetrack/particip/alphabet.htm. *Performance Track On-Line and the Performance Track Members Database* are not generally accessible. Performance Track staff can grant access to and review of the databases by request.

Goal 5, Objective 3

FY 2005 PERFORMANCE MEASURES:

Measure 1: Increase tribes' ability to develop environmental program capacity by ensuring that federally recognized tribes have access to an environmental presence.

Measure 2: Develop or integrate EPA and interagency data systems to facilitate the use of EPA's Tribal Program Enterprise Architecture (TPEA) information in setting environmental priorities and informing policy decisions.

Measure 3: Eliminate data gaps for environmental conditions for major water, land, and air programs as determined through the availability of information in the TPEA.

Measure 4: Increase implementation of environmental programs in Indian country as determined by program delegations, approvals, or primacies issued to tribes and direct implementation activities by EPA [Associated PART Measure: Percent of tribes with delegated and non-delegated programs].

Measure 5: Increase the number of EPA-approved quality assurance plans for tribal environmental monitoring and assessment activities [Associated PART Measure: Percent of tribes with EPA-reviewed monitoring and assessment occurring].

Measure 6: Increase the percent of EPA agreements with tribes that reflect holistic (multimedia) program integration and traditional use of natural resources. [Associated PART Measure: Percent of tribes with EPA-approved multimedia work plans].

Measure 7 [Efficiency]: Number of environmental programs implemented in Indian country per million dollars.

Performance results related to these measures are presented in Goal 5, page 165.

Performance Database & Data Source:

EPA's American Indian Environmental Office (AIEO) developed an information technology infrastructure, named the Tribal Program Enterprise Architecture (TPEA. The TPEA is a suite of ten secure Internet-based applications that track environmental conditions and progress toward environmental program implementation in Indian country as well as other AIEO business functions. One TPEA application, the Objective 5.3 Reporting System, tracks progress in achieving the six Strategic Targets under Objective 5.3 of EPA's National Strategic Plan—"Build Tribal Capacity (associated with Measures 1-6). EPA employees use the Objective 5.3 Reporting System to establish program performance commitments for future fiscal years and to record actual program performance accomplishments for six Strategic Targets. Therefore, the Objective 5.3 Reporting System serves as the data source and performance database for each of the six Strategic Targets and their associated PART measures (associated PART measures represent program performance differently than the Strategic Targets but use the same data).

Measure 1: Increase tribes' ability to develop environmental program capacity by ensuring that federally recognized tribes have access to an environmental presence.

Access to an environmental presence is measured by the level of General Assistance Program (GAP) funds available to support tribes in hiring staff and acquiring resources to operate an environmental program. That level has changed over time. Presently, $110,000 is considered the average annual cost for a tribe to maintain an environmental presence.

The number of tribal entities that have access to an environmental presence is calculated from the annual GAP appropriation, less recisions and an annual set aside which supports nationally significant programs, divided by $110,000. That number is compared to the number of tribal entities eligible to receive GAP funding and reported as a percentage.

Values for appropriations and recisions are public records in the EPA annual budget. The GAP set aside values are maintained by AIEO. The $110,000 level to maintain an environmental presence was determined by consensus of the EPA Regional Indian Coordinators.

Measure 2: Develop or integrate EPA and interagency data systems to facilitate the use of EPA's Tribal Program Enterprise Architecture (TPEA) information in setting environmental priorities and informing policy decisions.

A Tribal Information Management System (TIMS) is the vehicle for organizing and integrating the various data sources used in the TPEA. Current TPEA data sources are existing federal databases, both from EPA and other agencies, supplemented by data collected from the EPA regions as appropriate. All data sources are identified and referenced in the application. EPA continues to take advantage of new technology to establish direct links with other federal agency data systems (including the U.S. Geological Survey, Bureau of Reclamation, and Indian Health Service) to further develop this integrated, comprehensive, multi-agency TPEA, following the business rules and models of the Federal Enterprise Architecture.

Presently, 45 data layers are identified in the Tribal Program Enterprise Architecture. Commitments for the incorporation of additional data sources are reported annually in the Objective 5.3 Reporting System.

Measure 3: Eliminate data gaps for environmental conditions for major water, land, and air programs as determined through the availability of information in the TPEA.

Identification of data gaps in environmental information is an issue both for EPA as an agency and other organizations that attempt to analyze data from a national perspective (Heinz Center, 2002). As EPA identifies environmental data gaps, AIEO will coordinate with other Agency programs to eliminate those gaps, with special emphasis on gaps in Indian country. Thirty data gaps are listed for measure 3. These were identified by a Baseline Assessment working group made up of EPA Headquarters and Regional staff responsible for management of tribal programs. Some obvious issues in Indian country—such as the prevalence of open dumps and hazardous waste sites—are not on the list of data gaps because national systems already exist to identify and verify that information (Indian Health Service Open Dumps Report to Congress, and EPA RCRAinfo data system). Measure 3 is measured as a percentage, which when applied to the total number of gaps equals the elimination of six data gaps by 2008. Commitments for the elimination of data gaps are reported annually in the Objective 5.3 Reporting System.

Measure 4: Increase implementation of environmental programs in Indian country as determined by program delegations, approvals, or primacies issued to tribes and direct implementation activities by EPA.

[Associated PART Measure: Percent of tribes with delegated and non-delegated programs]. Measure 4 is tracked by: 1) Treatment in a manner similar to a State (TAS) approvals or primacies; 2) the execution of Direct Implementation Tribal Cooperative Agreements (DITCA); and 3) GAP grants that have provisions for the implementation of solid waste or hazardous waste programs. EPA Regional project officers managing tribal grants use the Objective 5.3 Reporting System to input data by tribe and the system cumulates them nationally. Thus, it is possible, and even likely, that a tribe will contribute to a target in multiple ways. Measure 4 implementation activities are input continuously by regional tribal program liaisons and summed at the end of the fiscal year. The associated PART Measure is reported as a percent of tribes contributing to Measure 4.

Measure 5: Increase the number of EPA-approved quality assurance plans for tribal environmental monitoring and assessment activities.

[Associated PART Measure: Percent of tribes with EPA-reviewed monitoring and assessment occurring]. Measure 5 reports on active Quality Assurance Project Plans. Data are loaded into the Objective 5.3 Reporting System by regional tribal program liaisons from information maintained by regional Quality Assurance Officers. All ongoing environmental monitoring programs are required to have active Quality Assurance Project Plans. Measure 5 data are input continuously by regional tribal program liaisons and summed at the end of the fiscal year. The associated PART Measure is reported as a percent of tribes contributing to Measure 5.

Measure 6: Increase the number of EPA agreements with tribes that reflect holistic (multimedia) program integration and traditional use of natural resources [Associated PART Measure: Percent of tribes with EPA-approved multimedia work plans].

Measure 6 reports on Performance Partnership Grants (PPGs), Tier I, II, & III Tribal Environmental Agreements (TEAs), Memoranda of Agreement (MOAs), and Memoranda of Understanding (MOUs). These data are input by tribal program liaisons at the EPA regions and summed annually. As in Measure 4, it is possible, that a tribe will contribute to the measure in more than one way. Measure 6 TEAs, PPGs, MOAs and MOUs are loaded into the Objective 5.3 Reporting System by regional tribal program liaisons and summed at the end of the fiscal year. The associated PART Measure is reported as a percent of tribes contributing to Measure 6.

Measure 7 [Efficiency]: Number of environmental programs implemented in Indian country per million dollars.

Measure 7 is calculated annually by taking the number of tribes receiving GAP grants, the number of TAS approvals or primacies, the number of DITCAs, and number of GAP grants that have provisions for the implementation of solid waste or hazardous waste programs and dividing that cumulative number by the annual GAP appropriation (less recisions and annual set aside). The measure reflects the expansion of program implementation capacity and the establishment of specific environmental programs in relation to the level of resources contributed by the EPA program statutorily targeted towards those goals.

Methods, Assumptions and Suitability:

The Objective 5.3 Reporting System contains all the information for reporting Measures 1-6 (and their associated PART measures). Measures 4, 5, and 6 assume the regional tribal program liaisons input accurate data. Measure 4 and 7 can also be verified from Integrated Grants Management System records and the Objective 5.3 Reporting System. Measure 5 can be verified from Regional Quality Assurance Officer databases. Measure 6 can be verified from official

correspondence files between EPA Regions and Tribes, or from project officer case files.

QA/QC Procedures:

Data used in the Tribal Program Enterprise Architecture contains quality assurance and metadata documentation prepared by the originating agency or program. Additionally, because the information in the Tribal Program Enterprise Architecture will be used for budget and strategic planning purposes, AIEO requires adherence to the Office of the Chief Financial Officer's Information Quality Guidelines.

Data Quality Reviews:

Data correction and improvement is an ongoing component of the Tribal Program Enterprise Architecture. The Objective 5.3 Reporting System relies on multiple staff-level reviews and a number of limitations concerning the ability to analyze environmental conditions in Indian country specific to measures 2 and 3 have been identified. As a result, a special application, the Tribal Information Management System (TIMS) Data Center was developed. This Data Center supports the submission of corrections to boundary information, narrative profiles, and factual database information—particularly latitude and longitude coordinates for facilities. AIEO will collect and pass along recommendations regarding the correction or modification of databases whenever errors are detected or suggestions for database improvement are received. Each database manager will retain the responsibility of addressing the recommended change according to their quality assurance protocols. Because the data submittals will be used for budget or strategic planning purposes, AIEO will require that all submittals meet the OCFO's Information Quality Guidelines.

Data Limitations:

The largest part of the data used by the Tribal Program Enterprise Architecture has not been coded to particular tribes by the recording agency. AIEO uses new geographic data mining technologies to extract records based on the geographical coordinates of the data points. For example, if a regulated facility has latitude and longitude coordinates that place it in the boundaries of the Wind River Reservation, then it is assigned to the Arapaho and Shoshone Tribes of the Wind River Reservation. This technique is extremely powerful because it "tribally enables" large numbers of information systems which were previously incapable of identifying tribes. This approach will be applied to all EPA databases. There are limitations, however. When database records are not geographically identified with latitude and longitude, the technique does not work and the record is lost to the system. For EPA regulated facilities in the Facility Registry System, AIEO estimates that 64% have latitude and longitude recorded. Therefore, the accuracy of EPA's data concerning environmental conditions in Indian country will depend on additional improvements to Agency data systems.

Error Estimate:

Analysis of variation of reservation boundary coverages available to EPA indicates deviations of up to 5%. Another source of error is records that are not sufficiently described geographically to be assigned to specific tribes. For some agencies, such as the USGS, the geographic record is complete, so there is no error from these sources. It is estimated that 36% of the regulated facilities in EPA's regulatory databases are not geographically described. The TPEA identifies the non-geographically indexed facilities by postal zip code for zip codes that overlap tribal boundaries.

New/Improved Data or Systems:

The technologies used by the Tribal Program Enterprise Architecture are new, secure and state–of-the-art. The geographic interface is a product called ARC/IMS, which is a web-based application, with a fully functional Geographic Information System (GIS), scalable. The Tribal Program Enterprise Architecture uses XML protocols to attach to and display information seamlessly and in real-time from cooperating agency data systems without having to download the data to an intermediate server. In addition, the baseline assessment project has developed web-based, secure data input systems that allow regional project officers to input programmatic data directly into performance reporting systems, TIMS and other customizable reports.

References:

Office of Chief Financial Officer Information Quality Guidelines: www.epa.gov/quality/informationguidelines/.

Goal 5, Objective 4

FY 2005 PERFORMANCE MEASURES:

Verifications completed.

Testing Protocols completed.

Performance results related to these measures are presented in Goal 5, page 168.

Performance Database:

Program output; no internal tracking system.

Enabling and Support Programs

FY 2005 PERFORMANCE MEASURE:

Cumulative percentage reduction in energy consumption in EPA's 21 laboratories from the 1990 base.

Performance Database:

The Agency's contractor provides energy consumption information quarterly and annually. The Agency keeps the energy consumption data in the "Energy Reporting System." The contractor is responsible for validating the data.

Data Source:

The Agency's contractor collects quarterly energy data from each of EPA's laboratories. The data are based on metered readings from the laboratory's utility bills for certain utilities (natural gas, electricity, purchased steam, chilled water, high temperature hot water, and potable water) and from on-site consumption logs for other utilities (propane and fuel oil). The data from the on-site consumption logs are compared to invoices to verify that reported consumption and cost data are correct.

QA/QC Procedures:

EPA's Sustainable Facilities Practices Branch compares reported energy use at each facility against previous years' data to see if there are any significant and unexplainable increases or decreases in energy quantities and costs.

Data Limitations:

EPA does not have a formal meter verification program to ensure that an on-site utility meter reading corresponds to the charges included in the utility bill.

FY 2005 PERFORMANCE MEASURES:

The Central Data Exchange (CDX) will fully support electronic data exchange requirements for major EPA environmental systems, enabling faster receipt, processing, and quality checking of data.

States will be able to exchange data with CDX through state nodes in real time, using new web-based data standards that allow for automated data-quality checking.

States, tribes, laboratories, and others will choose to use CDX to report environmental data electronically to EPA, taking advantage of automated data quality checks and on-line customer support.

Customer-help desk calls resolved in a timely fashion.

Performance results related to these measures are presented in ESP, page 174.

Performance Database:

CDX Customer Registration Subsystem.

Data Source:

Data are provided by state, private sector, local, and tribal government CDX users.

Methods, Assumptions, and Suitability:

All CDX users must register before they can begin reporting to the system. The records of registration provide an up-to-date, accurate count of users. Users identify themselves with several descriptors.

QA/QC Procedures:

QA/QC have been performed in accordance with a **CDX Quality Assurance Plan** [*Quality Assurance Project Plan for the Interim Central Data Exchange System*. Document number: EP005T7. Sept. 17, 2001] and the **CDX Design Document v.3**, Appendix K registration procedures [*Central Data Exchange Electronic Reporting Prototype System Requirements:* Version 3; Document number: EP005S3. December 2000]. Specifically, data are reviewed for authenticity and integrity. The **CDX Quality Assurance Plan** was updated in FY 2004 [Quality Assurance Project Plan for the Central Data Exchange," 10/8/2004; contact: Wendy Timm, 202 566 0725] to incorporate new technology and policy requirements. Work is underway to complete the revision of the **Design Document.** Automated edit checking routines are performed in accordance with program specifications and CDX quality assurance guidance [*Quality Assurance Project Plan for the Interim Central Data Exchange System*. Document number: EP005T7. Sept. 17, 2001].

Data Quality Reviews:

CDX successfully completed independent security risk assessment in the summer 2001. In addition, routine audits of CDX data collection procedures and customer service operations are provided weekly to CDX management and staff for review. Included in these reports are performance measures such as the number of CDX new users, number of submissions to CDX, number of help desk calls, number of calls resolved, ranking of errors/problems, and actions taken. These reports are reviewed and actions discussed at weekly project meetings.

Data Limitations:

The CDX system collets, reports, and tracks performance measures on data quality and customer service. While its automated routines are sufficient to screen

systemic problems/issues, a more detailed assessment of data errors/problems generally requires a secondary level of analysis that takes time and human resources.

Error Estimate:

CDX incorporates a number of features to reduce errors, such as pre-populating data whenever possible, edit checks, etc. The possibility of an error in the number of states registered for CDX, e.g., double-counting of some sort, is extremely remote (far less than 1 %).

New/Improved Performance Data or Systems:

CDX coalesces the registration/submission requirements of many different state-to-EPA, private sector-to-EPA, and local and tribal governments-to-EPA data exchanges into a single web-based system. The system allows for a more consistent and comprehensive management and performance tracking of many different external customers. The creation of a centralized registration system, coupled with the use of web forms and web-based approaches to submitting the data, invite opportunities to introduce automated quality assurance procedures for the system and reduce human error.

References:

CDX website (www.epa.gov/cdx).

FY 2005 PERFORMANCE MEASURE:

Establish an improved suite of environmental indicators for use by EPA's programs and partners in the Agency's strategic planning and performance measurement process.

Performance results related to these measures are presented in ESP, page 174.

Performance Database:

Initial collection of indicators compiled during the drafting of EPA's "Report on the Environment," supplemented by indicators currently used in the Agency's strategic planning and performance measurement process (e.g., EPA's Strategic Plan, Annual Performance Plan, Annual Performance Report, Annual Operating Plan, and National Environmental Performance Partnership Agreements), will comprise an Agency baseline of indicators (www.epa.gov/indicators/roe/index.htm).

Methods, Assumptions and Suitability:

The Office of Environmental Information (OEI), the Office of Research and Development (ORD), and the Office of the Chief Financial Officer (OCFO) will review the planning documents and establish a baseline of indicators in consultation with key Agency steering committees.

QA/QC Procedures:

As the baseline is established, protocols also will be developed to ensure that the data supporting the indicators are accurate and complete.

Data Limitations:

The challenge is to develop suitable indicators with sufficient data of known quality.

New/Improved Performance Data or Systems:

The baseline indicators and supporting data are in development.

References:

EPA's "Draft Report on the Environment" and "Technical Support Document" (EPA pub. no. 260-R-02-006). Draft Report on the Environment Technical Document (Publication # EPA 600-R-03-050). Both Dated June 2003

Web site:

www.epa.gov/indicators/roe/html/roePDF.htm

FY 2005 PERFORMANCE MEASURE:

Percent compliance with criteria used by OMB to assess Agency security programs reported annually to OMB under the Federal Information Security Management Act (FISMA)/Government Information Security Act.

Performance results related to these measures are presented in ESP, page 175.

Performance Database:

Automated Security Self-Evaluation and Remediation Tracking (ASSERT) database.

Data Source:

Information technology (IT) system owners in Agency Program and Regional offices.

Methods, Assumptions, and Suitability:

Annual IT security assessments are conducted using the methodology mandated by the Office of Management and Budget (OMB), the National Institute of Standards, and Technology (NIST) Security Self-Assessment Guide for Information Technology Systems. ASSERT has automated and web-enabled this methodology.

QA/QC Procedures:

Automated edit checking routines are performed in accordance with ASSERT design specifications to ensure answers to questions in ASSERT are consistent. The Office of Inspector General consistent with §3545 FISMA, and the Chief Information Officer's information security staff conduct independent evaluations of the assessments. The Agency certifies results to OMB in the annual FISMA report.

Data Quality Reviews:

Program offices are required to develop security action plans composed of tasks

and milestones to address security weaknesses. Program offices self-report progress toward these milestones. EPA's information security staff review these self-reported data, conduct independent validation of a sample, and discuss anomalies with the submitting office.

Data Limitations:

Resources constrain the security staff's ability to validate all of the self-reported compliance data submitted by program systems' managers.

References:

Annual Information Security Reports to OMB:

OMB guidance memorandum: www.whitehouse.gov/omb/memoranda/2003.html; ASSERT web site: https://cfint.rtpnc.epa.gov/assert/; NIST Special Publication 800-26, *Security Self_Assessment Guide for Information Technology Systems*, November 2001: csrc.nist.gov/publications/nistpubs/index.html; and, Federal Information Security Management Act, PL107-347: csrc.nist.gov/policies/FISMA_final.pdf

FY 2005 PERFORMANCE MEASURE:

Number of actions taken for environmental improvement, reductions in environmental risks, and recommendations made for environmental improvement.

Number of actions taken for improvement in business practices, criminal/civil/administrative actions, potential dollar return, and recommendations made for improved business practices.

Performance results related to these measures are presented in ESP, page 175.

Performance Database:

The OIG Performance Measurement and Results System captures and aggregates information on an array of measures in a logic model format, linking immediate outputs with long-term intermediate outcomes and results. Because intermediate and long-term results may not be realized for several years, only verifiable results are reported in the year completed, while others remain prospective until completed and verified. Database measures include numbers of: 1) recommendations for environmental and management improvement; 2) legislative, regulatory policy, directive, or process changes; 3) environmental, program, and resource integrity risks identified, reduced, or eliminated; 4) best practices identified and transferred; 5) examples of environmental and management improvements; 6) monetary value of funds questioned, saved, fined, or recovered; and 7) public or congressional inquiries resolved.

Data Source:

Designated OIG staff enter data into the system. Data are from OIG performance evaluations, audits, research, court records, EPA documents, data systems, and reports that track environmental and management actions or improvements made and risks reduced or avoided. OIG also collects independent data from EPA's partners and stakeholders.

Methods, Assumptions, and Suitability:

OIG performance results are a chain of linked events, starting with OIG outputs (e.g., recommendations, reports of best practices, and identification of risks). The subsequent actions taken by EPA or its stakeholders/partners, as a result of OIG's outputs, to improve operational efficiency and environmental program delivery are reported as intermediate outcomes. The resulting improvements in operational efficiency, risks reduced/eliminated, and conditions of environmental and human health are reported as outcomes. By using common categories of performance measures, quantitative results can be summed and reported. Each outcome is also qualitatively described, supported, and linked to an OIG product or output. The OIG can only control its outputs, and has no authority, beyond its influence, to implement its recommendations that lead to environmental and management outcomes.

QA/QC Procedures:

All performance data submitted to the database require at least one verifiable source assuring data accuracy and reliability. Data quality assurance and control are performed as an extension of OIG products and services, subject to rigorous compliance with the Government Auditing Standards of the Comptroller General[15], and regularly reviewed by OIG management, an independent OIG Management Assessment Review Team, and external independent peer reviews.

Data Quality Reviews:

There have not been any previous audit findings or reports by external groups on data or database weaknesses in the OIG Performance Measurement and Results System. All data reported are audited internally for accuracy and consistency.

Data Limitations:

All OIG staff are responsible for data accuracy in their products and services. However, there is a possibility of incomplete, miscoded, or missing data in the system due to human error or time lags. Data supporting achievement of results are often from indirect or external sources, with their own methods or standards for data verification/validation.

Error Estimate:

The error rate for outputs is estimated at +/-2%, while the error rate for reported long-term outcomes is presumably greater because of the longer period needed for tracking results. Errors tend to be those of omission.

New/Improved Data or Systems:

The OIG developed the Performance Measurement and Results System as a prototype in FY 2001 and anticipates replacing it in FY 2006 with a more sophisticated

system designed to integrate data collection and analysis. We also expect the quality of the data to improve as staff gain greater familiarity with the system and measures. This system is a best practice in government for linking an array of measures from outputs to eventual results and impacts. With enhanced linkages to customer satisfaction results and resource investments, it will provide a full-balanced scorecard with return on investment information for accountability and decision making.

References:

All OIG non-restricted performance results are referenced in the OIG Performance Measurement and Results System with supporting documentation available either through the OIG Web Site or other Agency databases. The OIG Web Site is www.epa.gov/oig.

FY 2005 PERFORMANCE MEASURE:

Agency's audited Financial Statements are timely and receive an unqualified opinion.

Performance results related to these measures are presented in ESP, page 178.

Performance Database:

Output measure. There is no performance database.

Data Source:

OMB acknowledgement of receipt of financial statements; OIG audit report.

QA/QC Procedures:

The Agency's financial statements are subject to OCFO management review and an OIG audit.

Data Quality Review:

The annual financial audit opinion, rendered by the OIG, is a gauge of the accuracy and fair presentation of the financial activity and financial balances of the Agency. The unqualified opinion is rendered by the OIG.

References:

Fiscal Year 2004 EPA Annual Report.

NOTES

1 For FY 2007, the Agency will be reporting on a measure which combines the current APGs 2.4 and 2.5. It measures the percent of community water systems in compliance with all drinking water standards. This measure arose from the Drinking Water State Revolving Fund PART.

2 Data Reliability Action Plan. U.S. EPA, October 2002. Office of Ground Water and Drinking Water internal work plan document. Drinking Water Data Reliability Analysis and Action Plan (2003) For State Reported Public Water System Data In the EPA Safe Drinking Water Information System/Federal Version (SDWIS/FED)

3 U.S. EPA, Office of Water, Office of Ground Water and Drinking Water Information Strategy (under revision). See Options for OGWDW Information Strategy (Working Draft), EPA 816-P-01-001. Washington, DC, February 2001. Available on the Internet at www.epa.gov/safewater/data/informationstrategy.html

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Appendix D: Acronyms and Definitions

ABD	Assessment Data Base
ACC	American Chemistry Council
ACS	Annual Commitment System
ADAM	Administrative Data Mart
ADCP	Acoustic Doppler Current Profiler
AEGL	Acute Exposure Guideline Levels
AHIP	America Health Insurance Plans
AOC	Areas of Concerns
AMS	Agricultural Marketing Service
APG	Annual Performance Goal
AQM	Air Quality Management
AQS	Air Quality Subsystem
ASDWA	Association of State Drinking Water Administrator
ASSERT	Automated Security Self Evaluation and Remediation
BAS	Budget Automation System
BEA	Bureau of Economic Analysis
BEACH Act	Beaches Environmental Assessment and Coastal Health Act
B&F	Building and Facilities
BFR	Brominated Fire Retardant
BIA	Bureau of Indian Affairs
BMA	Brownfield Management System
BMP	Best Management Practices
BOSC	Board of Scientific Counselor
BOMA	Building Owners and Managers Association
BPD	Bureau of Public Debt
BRAC	Base Realignment and Closure
BSI	Business Strategy, Inc.
BTU	British Thermal Unit
CAA	Clean Air Act
C&A	Certification and Accreditation
CAFO	Concentrated Animal Feeding Operation
CAIR	Clean Air Interstate Rule
CAMR	Clean Air Mercury Rule
CASTNet	Clean Air Status and Trends Network
CBP	Chesapeake Bay Program
CCDS	Case Conclusion Data Sheet
CCMP	Comprehensive Conservation and Management Plan
CDC	Centers for Disease Control
CDX	Central Data Exchange
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFC	Chlorofluorocarbon
CFO	Chief Financial Officer
CHR	Community Health Representatives
CID	Criminal Investigation Division
CO_2	Carbon Dioxide
CO	Carbon Monoxide
CONOPS	Concept of Operations
COTS	Commercial off the Shelf
CRIMDOC	Criminal Docket
CSO	Combined Sewer Overflow
CSRS	Civil Service Retirement System
CTD	Conductivity/Temperature/Depth
CWA	Clean Water Act
CWS	Community Water System
CWSRF	Clean Water State Revolving Fund
CY	Calendar Year

DCWASA	District of Columbia Water and Sewer Authority
DFAS	Defense Financial and Accounting Service
DfE	Design for the Environment
DHS	Department of Homeland Security
DITCA	Direct Implementation Tribal Cooperative Agreements
DoD	Department of Defense
DOE	Department of Energy
DQO	Data Quality Objective
DSFC	Division of Sanitation Facilities Construction
DWSRF	Drinking Water State Revolving Fund
ECAT	Emergency Consequence Assessment Tool
ECOS	Environmental Council of the States
EDSP	Endocrine Disruptor Screening Program
EFC	Environmental Finance Center
e-gov	Electronic Government
EIA	Energy Information Agency
EIIS	Ecological Incident Information System
EMP	Environmental Management Practices
EMAD	Emissions, Monitoring, and Analysis Division
EMAP	Environmental Monitoring and Assessment Program
EMPACT	Environmental Monitoring for Public Access and Community Tracking
EMS	Environmental Management System
E-Payroll	Electronic Payroll
EPA	Environmental Protection Agency
ER	Emergency Room
ERAMS	Environmental Radiation Ambient Monitoring System
ERP	Emergency Response Plan
ETS	Emissions Tracking System
ETV	Environmental Technology Verification
FACA	Federal Advisory Committee Act
FCCC	Framework Convention on Climate Change
FDA	U.S. Food and Drug Administration
FDR	Facility Data Report
FECA	Federal Employee Compensation Act
FERS	Federal Employee Retirement System
FFMIA	Federal Financial Management Improvement Act
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FISMA	Federal Information Security Management Act
FMFIA	Federal Managers' Financial Integrity Act
FR	Financial Report
FRP	Facility Response Plans
FTAA	Free Trade Area of the America
FTE	Full Time Equivalent
FOIA	Freedom of Information Act
FQPA	Food Quality Protection Act
GAO	Government Accountability Office
GAP	General Assistance Program
GC	Green Chemistry
GE	Green Engineering
GHG	Greenhouse Gas
GIS	Geographical Information System
GLACS	Great Lakes Aquatic Contaminant Surveillance
GLENDA	Great Lakes Environmental Database
GLFMP	Great Lakes Fish Monitoring Program
GLNPO	Great Lakes National Program Office
GMRA	Government Management Reform Act
GPRA	Government Performance and Results Act
GSA	General Services Administration
GWR	Groundwater Release
GW	Gigawatts
HAPS	Hazardous Air Pollutants
HCFC	Hydrochlorofluorocarbon
HPV	High Production Volume

IAQ	Indoor Air Quality
ICIS	Integrated Compliance Information System
IDEA	Integrated Data for Enforcement Analysis
IDEF	Interim Data Exchange Format
IFMA	International Facilities Managers Association
IGMS	Integrated Grants Management System
IHS	Indian Health Service
IJC	International Joint Commission
IMC	Information Management Coordinator
IPIA	Improper Payments Information Act
IRIS	Integrated Risk Information System
ISSC	Interstate Shellfish Sanitation Conference
IT	Information Technology
kWh	Kilowatt-hour
LIMS	Laboratory Information Management System
LTG	Long-Term Goals
LTM	Long-Term Monitoring
LUST	Leaking Underground Storage Tank
MACTS	Maximum Achievable Control Technology Standards
MARS	Management and Accounting Reporting System
MD&A	Management's Discussion and Analysis
MIC	Maximum Contaminant Level
MMTCE	Million Metric Tons of Carbon Equivalent
MMWR	Morbidity and Mortality Weekly Report
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSP	Merit System Principles
MSW	Municipal Solid Waste
MTBE	Methyl Tertiary-Butyl Ether
MYP	Multi-Year Research Plan
NAAQS	National Ambient Air Quality Standards
NACEPT	National Advisory Council for Environmental Policy and Technology
NADP	National Atmospheric Deposition Program
NAHB	National Association of Home Builders
NAPAP	National Acid Precipitation Assessment Program
NAPL	Non-aqueous Phase Liquids
NAREL	National Air and Radiation Environmental Laboratory
NAS	National Academy of Sciences
NAtChem	National Atmospheric Chemistry Database
NCCR II	National Coastal Condition Report II
NCCT	National Center for Computational Toxicology
NCHS	National Center for Health Statistics
NDZ	No-discharge Zone
NEI	National Emissions Inventory
NEP	National Estuary Program
NGO	Non-governmental Organizations
NHANES	National Health and Nutrition Examination Survey
NIMS	National Incident Management System
NO_x	Nitrogen Oxides
NO_2	Nitrogen Dioxide
NOAA	National Oceanographic Atmospheric Administration
NPAP	National Performance Audit Program
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	National Research Council
NSR	New Source Review
NTI	National Toxics Inventory
NTTS	National Total Tracking System
NVFEL	National Vehicle and Fuel Emissions Laboratory
NWI	National Wetlands Inventory

OAM	Office of Acquisition Management
OAQPA	Office of Air Quality Planning and Standard
OAR	Office of Air and Radiation
OARM	Office of Administration and Resources Management
OAS	Organization for American States
OCA	Other Cleanup Activity
OC	Office of Compliance
OCFO	Office of the Chief Financial Officer
OCHP	Office of Children's Health Protection
ODS	Ozone Depleting Substances
ODMPT	Ozone Depletion Potential-Weighted Metric Tons
OECD	Organization of Economic Cooperation and Development
OEHE	Office of Environmental Health and Engineering
OEI	Office of Environmental Information
OFS	Office of Financial Services
OGD	Office of Grants and Debarments
OIG	Office of the Inspector General
OMB	Office of Management and Budget
OPPIN	Office of Pesticide Program Information Network
OPPT	Office of Pollution Prevention and Toxics
OPM	Office of Personnel Management
ORBIT	OCFO Reporting and Business Intelligence Tool
ORD	Office of Research and Development
OST	Office of Science and Technology
OSRE	Office of Site Remediation Enforcement
OSWER	Office of Solid Waste and Emergency Response
OTIS	Online Tracking Information System
OUST	Office of Underground Storage Tank
OW	Office of Water
P2	Pollution Prevention
PAR	Performance and Accountability Report
PARS	Performance Appraisal and Recognition System
PART	Program Assessment Rating Tool
Pb	Lead
PBDE	Polybrominated Diphenyl Ether
PCB	Polychlorinated Biphenyl
PCS	Permit Compliance System
PDP	Pesticide Data Program
PER	Permitting for Environmental Results
PESP	Pesticide Environmental Stewardship Program
PFC	Perfluorocarbons
PFOA	Perfluoroctanoic Acid
PIVOT	Performance Indicators Visualization and Outreach Tool
PM	Particulate Matter
PMA	President's Management Agenda
PMN	Pre-manufacture Notice
RMP	Risk Management Plan
POTW	Publicly Owned Treatment Works
PPA	Pollution Prevention Act
PPG	Performance Partnership Grants
PRIA	Pesticide Registration Improvement Act
PRP	Potential Responsible Parties
PWSS	Public Water Supply Supervision
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QMP	Quality Management Plan
RAC	Response Action Contracts
RAD	Reach Access Database
RACMIS	Remedial Action Contract Management Information System
RCC	Resource Conservation Challenge
RCRA	Resource Conservation and Recovery Act
RDMS	Research Database Management System
RED	Registration Eligibility Decision
RERT	Radiological Emergency Response Team

RLF	Revolving Loan Fund
RMP	Risk Management Plans
RSEI	Risk Screening Environmental Indicators
RTP	Research Triangle Park
SAS	Statistical Analysis System
SAV	Submerged Aquatic Vegetation
SCADA	Supervisory Control and Data Acquisition
SDS	Sanitation Deficiency System
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SEAMAP	Southeast Area Monitoring and Assessment Program
SEP	Supplemental Environmental Project
SHPSS	School Health Policies and Programs Study
SIC	Standard Industrial Classification
SIMS	Shellfish Information Management System
SIP	Site Implementation Plan
SITE	Superfund Innovative Technology Evaluation
SLAMS	State and Local Air Monitoring Station
SO_2	Sulfur Dioxide
SOL	Statute of Limitations
SOLEC	State of the Lakes Ecosystem Conference
SPCC	Spill Prevention, Control and Countermeasures
SPIM	Superfund Program Implementation Manual
SRF	State Revolving Fund
S&T	Science and Technology
STAG	State and Tribal Assistance Grants
STAR	Science to Achieve Results
STARMAP	Space-Time Aquatic Resources Modeling and Analysis Program
STARS	Sanitation Tracking and Reporting System
SWAP	Source Water Assessment Program
SWP	Source Water Protection
TAG	Technical Assistance Grants
TAP	Technical Assistance Provider
TAS	Treatment as a State
TCR	Total Coliform Rule
TEP	Technical Evaluation Panel
TfS	Tools for Schools
Time/LTM	Temporally Integrated Monitoring of Eco-systems and Long-Term Monitoring (networks)
TIMS	Tribal Information Management System
TMDL	Total Maximum Daily Load
TOSC	Technical Outreach Services for Communities
TPEA	Tribal Program Enterprise Architecture
TRI	Toxic Release Inventory
TSCA	Toxic Substances Control Act
TUWRAP	Toxics Use and Waste Reduction Assistance Program
TWG	Targeted Watershed Grants
UCI	Underground Injection Control
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
USTR	United States Trade Representative
UV	Ultra-violet
VA	Vulnerability Assessment
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WATERS	Watershed Assessment, Tracking and Environmental Results
WCF	Working Capital Fund
WHO	World Health Organization
WIPP	Waste Isolation Pilot Project
WPDG	Wetland Program Development Grants
WQS	Water Quality Standards

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