



U.S. ENVIRONMENTAL PROTECTION AGENCY PERFORMANCE AND ACCOUNTABILITY REPORT

Fiscal Year
2007



ENVIRONMENTAL AND FINANCIAL PROGRESS

ABOUT THIS REPORT

PURPOSE OF THE REPORT

The Environmental Protection Agency's (EPA's) Performance and Accountability Report for Fiscal Year 2007 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

HOW THE REPORT IS ORGANIZED

Transmittal Letter to the President

This letter transmits EPA's *FY 2007 Performance and Accountability Report* from the Administrator to the President, Congress, and Office of Management and Budget. The letter highlights some of the Agency's FY 2007 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 FMFIA, FFMIA, and the Office of Management and Budget revised Circular No. A-123, "Internal Control Systems."

Message from the Chief Financial Officer

The Chief Financial Officer'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 and financial reportable controls program under FMFIA and financial management systems under FFMIA.

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

The MD&A provides an overview of the full report. It outlines EPA's organization, highlights the most significant performance results and challenges for FY 2007, describes EPA's progress in implementing the President's Management Agenda, and briefly analyzes the Agency's financial performance. The MD&A 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, and it contains the Administrator's assurance statement on the soundness of EPA's overall internal controls and its internal controls over financial reporting. The MD&A is supported and supplemented by detailed

information provided in the Performance, Financial, and Other Accompanying Information sections of this report and the appendices.

Section II – Performance Section

This section presents performance results for each of the Agency's five strategic goals. For each goal, we discuss our progress toward achieving the strategic objectives and targets presented in our *2006-2011 Strategic Plan*, and we provide a table of detailed performance results for each of the FY 2007 performance measure contained in our FY 2007 Annual Plan and Budget. This performance section addresses all of the elements of an annual program performance report specified under OMB Circular A-11, "Preparing, Submitting and Executing the Budget." For more information on this section, please contact EPA's Office of Planning, Analysis, and Accountability at (202) 564-9327.

Section III – Financial Section

The Financial 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.

Section IV – Other Accompanying Information

This section provides additional material as specified under OMB Circular A-136, "Financial Reporting Requirements." "Management Challenges" discusses EPA's progress in strengthening management practices to achieve program results; it includes the Inspector General's list of top management challenges and describes the Agency's progress in responding to each issue. This section also contains a "Summary of Financial Statement Audit and Management Assurances" table and information on Improper Payments Information Act reporting. For more information, please contact EPA's Office of Planning, Analysis, and Accountability at (202) 564-9327.

Appendices

The Appendices include summaries of program evaluation results, information on data quality, a list of relevant EPA internet links, and a glossary of acronyms.

EPA's FY 2007 PERFORMANCE AND ACCOUNTABILITY REPORT

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ADMINISTRATOR'S LETTER

November 13, 2007

The President
The White House
Washington, D.C. 20500



Dear Mr. President:

I am pleased to present the U.S. Environmental Protection Agency's Fiscal Year 2007 Performance and Accountability Report, which reviews our programmatic and financial performance over the past fiscal year. I give my assurance that the performance and financial data included here are complete and reliable, consistent with guidance provided by the Office of Management and Budget.

This report meets the requirements of the Government Performance and Results Act and other management legislation. It demonstrates EPA's commitment to be accountable for results, assessed against the annual performance goals and measures we presented in our FY 2007 Annual Plan. Our FY 2007 report reveals the considerable progress EPA has made toward each of the five long-term goals for protecting human health and the environment that we established in our 2006-2011 Strategic Plan. These results were accomplished with the help of our state, local, and tribal partners. We continue to rely on collaborative efforts, innovative programs and approaches, and sound science to promote the protection of human health and the environment and to establish a culture of environmental stewardship.

Progress and Accomplishments

In the more than 36 years that EPA has existed, we have established a strong record of environmental progress. America's air, water, and land are cleaner today than they were just a generation ago – and they continue to improve. Since 1970, our population has grown by nearly 40 percent; vehicle miles traveled have almost tripled; and our energy use has increased by almost half. Yet even with these added demands on our natural resources, emissions of the major criteria pollutants in the United States have decreased more than 50 percent. Moreover, during this same period our gross domestic product has nearly tripled. We have learned that economic growth and environmental health can go hand-in-hand.

Today, EPA is laying the groundwork for a cleaner, more dependable energy tomorrow. For example, EPA is helping American consumers and businesses make smart energy choices that make sense for our environment and their wallets through common-sense programs like ENERGY STAR. Last year alone, Americans, with the help of ENERGY STAR, saved \$14 billion on their energy bills and prevented greenhouse gas emissions equivalent to those of 25 million vehicles.

We are also helping meet your call to green our nation's energy by encouraging organizations to purchase green power. Through EPA's Green Power Partnership, launched in 2001, we are working with more than 750 partner organizations that voluntarily buy green power

– generated from eligible renewable resources such as solar, wind, geothermal, biomass, and biogas – to reduce the environmental impacts associated with conventional electricity use and to promote the development of new renewable generation resources. Overall, EPA Green Power Partners are buying more than 10 billion kilowatt-hours (kWh) of green power annually, an increase of nearly 163 percent since January 2006. The National Top 25 list of Green Power Partners accounts for more than 6 billion kWh per year of green power purchasing – more than 60 percent of the total kWh in the Green Power Partnership – reducing greenhouse gas emissions equivalent to more than 700,000 vehicles.

Since pollution knows no geographical or political boundaries, EPA is working with our international neighbors to protect our shared environment. Earlier this year, we marked the 20th anniversary of the signing of the landmark international treaty, the Montreal Protocol. Since its signing in 1987, the U.S. has achieved a 90 percent reduction in the production and consumption of ozone-depleting substances – ending the production and import of over 1.7 billion pounds per year of these chemicals. In addition, this year, the United States led the effort to adopt a new international commitment under the Montreal Protocol to accelerate the phase-out of hydrochlorofluorocarbons. Not only will we speed up the recovery of the ozone layer, the accelerated phase-out has the additional benefit of reducing greenhouse gas emissions.

While we are working to protect our environment, EPA is also committed to putting both people and property back to work. During FY 2007, EPA awarded supplemental grants to nine state or local governments to help return problem properties back into productive use. Approximately \$2.2 million is being awarded to brownfields revolving loan funds grantees. EPA's brownfields program provides funding to state, local, and tribal governments to make low-interest loans and subgrants that fund clean-up activities at brownfields sites. Since 1997, grant recipients have executed 114 loans and awarded 13 subgrants to support brownfields clean-ups totaling more than \$53 million. The loan funds have leveraged more than \$780 million in public and private clean-up and redevelopment investment.

And finally, we are staying on track to meet your goal under the 2004 Earth Day Initiative by restoring and enhancing 61,856 wetland acres during FY 2007, exceeding our cumulative target of 12,000 acres. These acres include those supported by Wetland 5 Star Restoration Grants, the National Estuary Program, and Clean Water Act Section 319 Nonpoint Source grants.

Management

EPA's leadership team is committed to achieving the goals set under the President's Management Agenda for delivering environmental results to the American public efficiently and effectively. EPA now ranks first among federal agencies in its PMA progress and status scores. During FY 2007, EPA received its first "green" status score in the Performance Improvement Initiative (formerly Budget and Performance Integration). In addition, EPA maintained its green status and progress scores throughout the year in Competitive Sourcing, Financial Performance, and Eliminating Improper Payments. EPA maintained green progress scores in Human Capital and expects to achieve a green status score later this year.

Under the Federal Managers' Financial Integrity Act, the Agency has identified three material weaknesses. We have already corrected one in the area of delinquent receivables, and we are addressing the remaining two, which are systems-related significant deficiencies that must be reported as material weaknesses under Section 4 of FMFIA and as non-compliances under the Federal Financial Management Improvement Act. EPA continues to

address improvement opportunities throughout our operations and to strengthen our overall internal controls and internal controls related to financial reporting, as required in Office of Management and Budget Circular A-123. Under FMFIA, I am giving a qualified statement of assurance that EPA's overall internal controls, with the exceptions noted, and its internal controls over financial reporting protect the Agency's programs and resources from fraud, waste, abuse, and mismanagement. My assurance statement appears in the Management's Discussion and Analysis section of this report.

Future

EPA is proud of the results we, and our partners, achieved in FY 2007 to improve the quality of air and water and to protect the land. We intend to learn from our experience this year to adjust our approaches and build on our accomplishments to better protect human health and the environment. We will meet our responsibilities for enforcing the nation's environmental laws and regulations, and we will continue to work in collaboration with our state and local partners to address our biggest environmental challenges.

Together, we are promoting America's evolution to a green culture by equipping the nation's growing army of environmental stewards with the tools they need to help pass down a cleaner, healthier world. Today, instead of having only 17,000 EPA employees working to protect the environment, we have more than 300 million Americans as environmental partners. Americans from all sectors of society – businesses, communities and individuals – have begun to embrace the fact that environmental responsibility is everyone's responsibility, not just the responsibility of EPA. By encouraging America's shift to a green culture, EPA will meet your charge of accelerating the pace of environmental protection while maintaining our nation's economic competitiveness. Together, with our partners, we are not only building on our nation's environmental accomplishments, we are creating a lasting legacy for future generations of Americans.

Respectfully,



Stephen L. Johnson

CFO's MESSAGE



This Performance and Accountability Report (PAR) presents the performance and financial results that the Environmental Protection Agency (EPA) achieved during FY 2007. The PAR provides information to the President, the Congress, and the public on the Agency's accomplishments and challenges in protecting human health and the environment, use of the financial resources entrusted to us, and progress in addressing key management challenges.

During the past year, EPA became one of the highest-rated agencies under the President's Management Agenda (PMA) scorecard, achieving "green" status scores in four of the five PMA initiatives. We are especially proud of achieving our first "green" status score under the Performance Improvement Initiative, demonstrating that we use performance information to improve our performance results. We developed Office of Management and Budget (OMB)-approved efficiency measures for all EPA programs assessed using OMB's Program Assessment Rating Tool (PART) process; incorporated long-term PART measures in the framework of our *Strategic Plan*; and used PART annual measures in our annual planning and budgeting process. We are also proud to have maintained a "green" status score for the Eliminating Improper Payments initiative.

For the eighth year in a row, EPA received an unqualified opinion on its financial statements. During the audit, the Office of Inspector General identified three material weaknesses, one relating to our process for determining the value of delinquent receivables and two information technology (IT) security-related issues. We corrected the delinquent accounts receivable material weakness and restated our FY 2006 financial statements to reflect the value of these receivables. We have initiated corrective actions to resolve the IT-security-related issues and will complete all actions in FY 2008.

As required by OMB Circular A-123, we conducted our annual assessment on the effectiveness of internal controls over financial reporting. Through this process, we identified and documented ten key financial management processes and tested 260 key controls. As of June 30, 2007, EPA found no material weaknesses. The assessment did reveal significant deficiencies in the areas of financial reporting, accounts receivable, and data security; corrective actions for these significant deficiencies were completed by September 30, 2007.

EPA is streamlining its financial workflow; improving financial reporting; and further integrating programmatic, performance, and financial information with a new comprehensive financial management system. Once implemented, our financial system will improve the timeliness and use of financial data to manage the cost of our programs and ensure that we spend taxpayer dollars wisely and efficiently. We are also replacing our current travel system with Northrop Grumman's GovTrip system, allowing us to meet the PMA eGov Travel Initiative. GovTrip supports the Agency's entire travel process, from planning and authorizing travel, making reservations, delivering electronic tickets, and calculating and approving reimbursements, to archiving data. We will complete the Agency's deployment of GovTrip by September 2008.

EPA will continue to work to meet the financial management standards that demonstrate our commitment to financial excellence and to ensure that we use taxpayers' dollars effectively in fulfilling our mission to protect human health and the environment. I look forward to continuing our collaboration with our partners and stakeholders and to developing innovative, cross-cutting strategies to help meet the challenges ahead.

I would like to extend my sincere gratitude and appreciation to EPA's dedicated staff across the country who work to protect human health and the environment on a daily basis and without whom our progress in FY 2007 would not have been possible.

A handwritten signature in black ink that reads "Lyons Gray". The signature is written in a cursive style with a large, prominent 'L' and 'G'.

Lyons Gray
Chief Financial Officer
November 15, 2007



*EPA's FY 2007
Performance and Accountability Report*

**Section I
Management's Discussion and Analysis**

This document is one chapter from the "Fiscal Year 2007 Performance and Accountability Report, U.S. Environmental Protection Agency," (EPA-190-R-07-001), published on November 15, 2007. This document is available at: <http://www.epa.gov/ocfo/par/2007par>.

MANAGEMENT'S DISCUSSION AND ANALYSIS

Since it was established in 1970, the U.S. Environmental Protection Agency has worked to achieve a cleaner, healthier environment for all Americans. From regulating auto emissions to banning the use of DDT, from cleaning up toxic waste to protecting the ozone layer, and from promoting recycling and resource conservation to revitalizing inner city brownfields sites, EPA and its partners and stakeholders have made enormous strides in protecting human health and the environment.

But while the Agency and its partners have achieved a great deal over the past several decades, much work remains. The environmental problems the country faces today are more complex than those of years past, and implementing solutions—nationally and globally—is more challenging. Population growth and its associated resource consumption, climate change, threats to homeland security, and the spread of disease through global travel, for example, pose important new concerns. Scientific advances and emerging technologies, such as nanotechnology or bioengineering, offer new opportunities for protecting human health and the environment, but also pose new risks and challenges.

EPA and its partners continue to work to address these and other issues. The President has charged EPA with accelerating progress in environmental protection while maintaining our nation's economic competitiveness. This report reviews the results that EPA has achieved during FY 2007 and the advances we have made toward our longer-term strategic goals. It also identifies program performance and overall management challenges. The PAR fulfills the requirements of the Government Performance and Results Act and other management legislation for reporting on environmental and financial performance and demonstrating results.¹

EPA's Long-Term Strategic Goals

1. Clean Air and Global Climate Change
2. Clean and Safe Water
3. Land Preservation and Restoration
4. Healthy Communities and Ecosystems
5. Compliance and Environmental Stewardship

EPA's *FY 2007 Performance and Accountability Report* describes the Agency's results in meeting the 167 performance measures it established in its *FY 2007 Annual Plan*.² It also discusses EPA's financial activities and achievements during the year. Managing taxpayer dollars efficiently and effectively and ensuring the integrity of our programs and processes are critical to EPA's success in delivering the best results to the American people.

MISSION AND ORGANIZATION

EPA's mission is to protect human health and the environment. The Agency leads the nation's environmental science, research, education, and assessment efforts. To accomplish our mission, EPA:

- Develops regulations that implement environmental laws enacted by Congress. We evaluate environmental and pollutant data to set national standards for a variety of environmental programs and delegate to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance.

- Enforces environmental laws, regulations, and standards by taking legal action. EPA also offers assistance to states, tribes, and the regulated community in understanding and complying with environmental requirements to reach desired levels of environmental quality.
- Provides grants to states, nonprofit organizations, and educational institutions to support program implementation and high-quality research that will improve the scientific basis for decisions on national environmental and human health issues and help the Agency achieve its goals.
- Performs environmental research at laboratories across the country.
- Sponsors voluntary partnerships and programs with more than 10,000 industries, businesses, nonprofit organizations, and state and local governments on more than 40 pollution prevention programs and energy conservation efforts.
- Advances educational efforts to develop an environmentally conscious and responsible public and inspires personal responsibility in caring for the environment.
- Provides publications and material on its website to inform the public.

EPA employs 17,072 people across the country, in our headquarters offices in Washington, DC; our 10 regional offices; and more than a dozen laboratories and field sites. 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 is the first career executive and the first career scientist to lead the Agency. For more information, visit EPA's website at <http://www.epa.gov>.

U.S. Environmental Protection Agency

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



How We Work: Collaboration With Partners and Stakeholders

EPA's partnerships with other countries, other federal agencies, states, tribes, and local governments are essential to address today's increasingly complex environmental challenges. We believe that it is only through our collaborative efforts with our partners—and the participation of business and industry, nonprofit organizations, environmental groups, and the American public—that we can achieve results and meet our goals for a cleaner, safer environment.

In FY 2007, the Agency continued to participate in the Environmental Council of the States (ECOS)-EPA Partnership and Performance Work Group, a senior-level oversight body governing ongoing efforts to strengthen the state-EPA partnership. A major focus for the Work Group in FY 2007 was producing a standardized template that states will use to develop and submit their state grant agreements. The template will show linkages between states' activities and EPA's strategic goals and will allow for meaningful comparisons between planned activities and performance, making progress more visible and programs more transparent. During FY 2008, EPA and states will continue examining state reporting burden and streamlining performance measures, as well as documenting important environmental work being conducted under different environmental program grants.

EPA continued to work in partnership with tribes in a government-to-government relationship to improve compliance in Indian country, focusing particularly on issues concerning drinking water systems, schools, and proper management of solid waste.

Enhancing Tribal Environmental Management

Tribal Compliance Assistance Center

In FY 2007, EPA launched a web-based Tribal Compliance Assistance Center (www.epa.gov/tribalcompliance), specifically designed to increase access to information on federal environmental requirements and to improve environmental compliance and management in Indian country.

One of 15 Compliance Assistance Centers (<http://www.assistancecenters.net>) providing sector-specific information, the Tribal Center offers comprehensive compliance assistance and pollution prevention information for regulated activities in Indian country by environmental topic, as well as by type of facility. The Tribal Center also provides links to compliance and enforcement information and enables tribes and tribal members to report environmental violations directly to EPA. The Center is designed to help tribal environmental professionals find training opportunities and locate specific personnel at EPA to answer their environmental compliance questions.

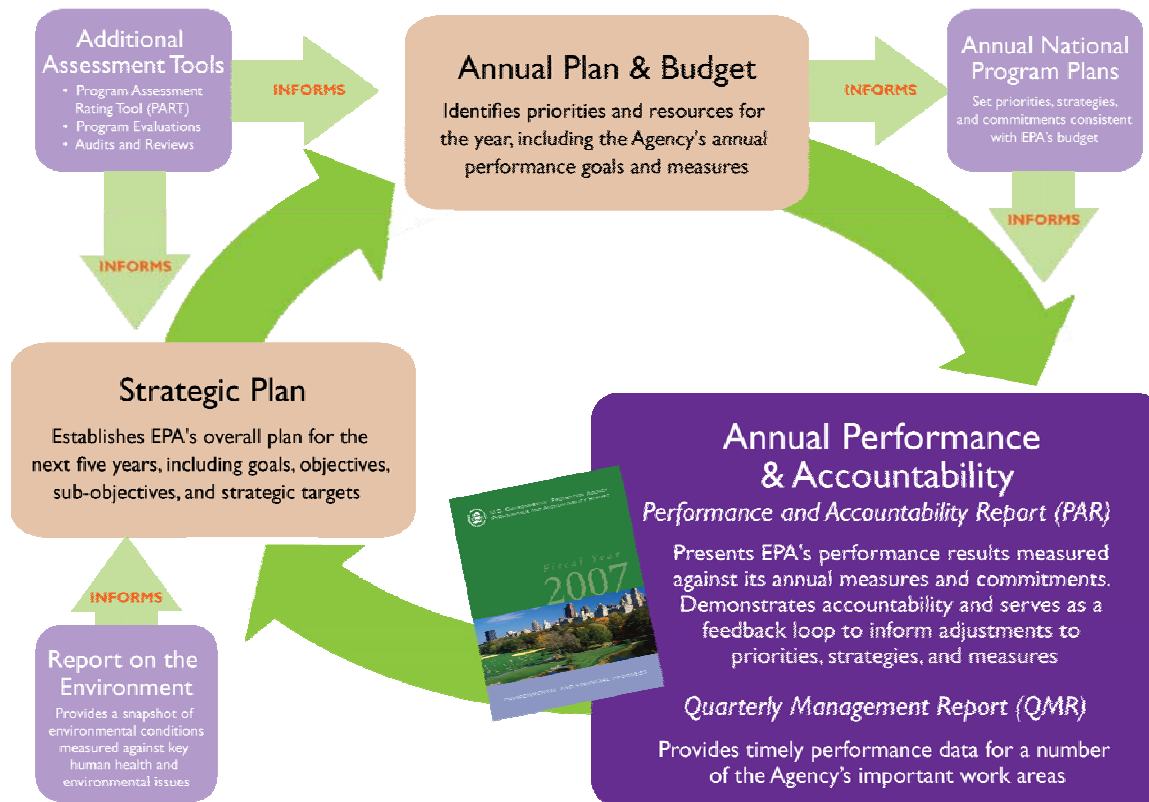
EPA's 2007 *Profile of Tribal Government Operations* (EPA Pub # 310R07001) provides useful information on the complex and wide array of tribal government operations and relevant environmental regulations and pollution prevention opportunities. The *Profile* is available online at <http://www.epa.gov/Compliance/resources/publications/assistance/sectors/notebooks/tribalsn.pdf> and in hard copy from the National Service Center for Environmental Publications at <http://www.epa.gov/nscep/> or by calling 800-490-9198.

Tribal Portal

In July 2007, EPA launched the first-of-its-kind portal website to assist the tribal community, its supporters, and the public find tribal environmental information and data through a single web-based access point. Part of EPA's commitment to strengthen its partnership with Indian tribes and governments to protect human health and the environment, the new website allows EPA to consolidate and share environmental information reflecting the tribal community's perspective and needs in an easy-to-navigate structure. Programs across the Agency, including enforcement, waste, underground storage tanks, and water, are providing information through this central website. Visit the Tribal Portal at <http://www.epa.gov/tribalportal>.

EPA's Performance Management Framework

Planning, Budgeting, and Accountability for Results



How We Work: Our Framework for Performance Management

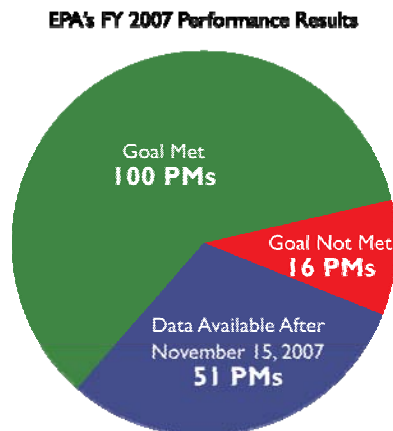
To carry out our mission to protect human health and the environment, EPA established five broad, long-range goals: clean air, clean water, protecting land, providing healthy communities and ecosystems, and promoting environmental compliance and stewardship. Our five goals, 20 supporting objectives, and a number of strategic targets are laid out in EPA's five-year *Strategic Plan*.³ Our *Strategic Plan* also provides the structure for all of our budget documents, and EPA is making great strides in more closely linking our performance with our costs. Each year, we commit to annual goals and measures that support the achievement of our longer-range strategic targets. These annual goals and measures are presented in our *Annual Performance Plan and the Congressional Justification*, and we are accountable for using our resources efficiently and effectively to achieve results against them.

We track our progress in meeting these annual goals and measures through a variety of lenses, including Program Assessment Rating Tool (PART) reviews and our internal Annual Commitment System, which helps us develop and track regional contributions—which reflect state and tribal efforts—to program results. We report on our performance against our annual goals and measures in this annual *Performance and Accountability Report*.

FY 2007 PROGRAM PERFORMANCE

In FY 2007, EPA achieved significant results under each of the five long-term environmental goals established in its *2006-2011 Strategic Plan*. In this section, we (1) offer an overview of our performance across all goals, (2) present summary results and highlight our accomplishments and challenges under each goal, (3) present highlights of our homeland security efforts across the Agency, and (4) describe a few of the efforts, underway in FY 2007, that EPA has initiated to improve its performance measurement and strengthen accountability for achieving results.

Overview of Performance Trends and Results



EPA is strengthening its performance measurement and use of performance information to make the management and budget decisions that will help us achieve our environmental and human health goals. In the past, we have tallied and presented our annual performance results by annual performance goals, which may comprise multiple performance measures. In this report, we have increased transparency and provided a more accurate and precise picture of the Agency's FY 2007 performance by reporting results for each of our performance measures and presenting our overall results by annual performance measures met and not met. We believe that reporting results against individual performance measures will enhance the Agency's, our partners' and stakeholders', and the public's understanding of EPA's actual FY 2007 performance and help in assessing our progress toward our longer-term objectives.

Performance Measures Met

In its *FY 2007 Annual Plan*, EPA committed to 167 annual performance measures (PMs). In FY 2007, the Agency met 100 of these PMs, 86 percent of the PMs for which data were available at the time this report was published.

EPA significantly exceeded its targets for a number of its FY 2007 PMs. In some cases, a particularly strong collaborative effort or application of an innovative new approach allowed the Agency to accomplish more than it had planned. For example, EPA exceeded its targets for

closing open dumps in Indian Country or on other tribal lands. Several regions, notably Region 6 (Dallas) and 9 (San Francisco), were particularly successful in leveraging General Assistance Program grants. Including open dump cleanups in RCRA Supplemental Environmental Projects also increased regional results. In other cases, the Agency had established a new PM and, lacking the experience and trend data it needed to determine ambitious yet realistic targets, set FY 2007 targets conservatively.

Performance Measures Not Met

Despite our best efforts, we and our partners were unable to meet all ambitious targets planned for FY 2007. EPA did not meet 16 of the 116 FY 2007 PMs for which performance data were available. There are a number of reasons for missing these targets:

- Unexpected demands or competing priorities sometimes diverted resources and prevented EPA and its partners from meeting FY 2007 targets.
- In its commitment to develop meaningful goals and measures that evidence environmental outcomes, the Agency in some cases may have overestimated its ability to achieve annual results. For example, EPA set an ambitious target for restoring valuable underwater grasses in the Chesapeake Bay. However, population growth, land use, and other factors have affected progress in reducing nitrogen, phosphorous, and sediment pollution loads entering the Bay. Despite the efforts of EPA, states, and others, pollution reduction strategies have not improved water quality conditions or permitted restoration of aquatic vegetation to the extent envisioned by Chesapeake Bay Program partners.
- Factors affecting the activities of the Agency's federal, state, and local government partners, who collaborate closely with EPA, also had an impact on annual performance results.

EPA is carefully considering the various causes for these FY 2007 shortfalls as we adjust our program strategies and establish annual targets for FY 2008 and beyond. As part of our annual planning process, EPA will continue to work closely with our partners to address challenges and ensure progress toward our environmental and human health objectives.

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 51 of its 167 PMs. This delay in reporting can be largely attributed to the Agency's sharpened focus on longer-term environmental and human health outcomes rather than activity-based outputs. Environmental outcome results may not become apparent within a fiscal year, and assessing environmental improvements often requires multi-year information. Many variables are involved in evaluating progress toward an outcome-oriented goal, and it takes time to understand and assess such factors as exposure and the resulting impact on human health.

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, but will be provided in subsequent reports. Extensive quality assurance/quality control (QA/QC) processes to ensure the reliability of performance data can also delay reporting. 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. In other cases, EPA presents the most current data now available and will provide complete data in a future report.

EPA relies heavily on performance data obtained 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. We are reducing 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 our partners. For example, sensor network technology offers promise for reducing data lags in measuring particulate matter levels in air and potability in water. With sensor networks in place, EPA and its partners could obtain much of the monitoring data required to assess progress in virtually real-time.

Data Now Available

EPA is now able, however, to report data from previous years that became available in FY 2007. Final performance results data became available for 46 of the FY 2006 PMs on which the Agency did not report in its *FY 2006 Performance and Accountability Report*. Of these 46 FY 2006 PMs, EPA met 39. For example, the Agency exceeded its FY 2006 target for 1,000 environmental assessments of brownfields properties by assessing 2,139 properties. EPA can now report achieving 133 (76 percent) of the 174 FY 2006 PMs for which it has data.

Improving Performance Measures and Performance Management

During FY 2007, EPA developed and implemented a series of key initiatives designed to improve the quality and consistency of its performance information and help the Agency's senior leaders "use measures to manage."

The Agency continued working to improve the quality of all of its performance measures. To support implementation of its key national programs, EPA performed a systematic Agency-wide annual review of all its FY 2007 and FY 2008 measures, and it will continue this review process for FY 2009 measures. These reviews have resulted in a more streamlined set of performance measures and improved linkages between related measures, ensuring that they are useful for performance-based management.

EPA is also creating tools to improve its access to and use of performance measures. In 2007, the Agency began a concerted effort to centralize its performance information in its automated Annual Commitment System (ACS), creating a "Measures Central" that consolidates measures and measures information. For example, ACS now tracks state grant performance information annually, and EPA generates reports using the Office of the Chief Financial Officer's Reporting and Business Intelligence Tool (ORBIT). The Agency has also updated its reporting tools to simplify access to performance information within the Agency.

EPA has continued to improve and refine the Quarterly Management Report (QMR) it initiated in FY 2006. The QMR provides timely performance data for a number of the Agency's important work areas. It complements other budget, performance, and financial management tools that support the Agency's performance management system. Originally, the QMR was used exclusively as an internal management tool. In FY 2007, the Agency made the report available to the public to increase transparency and encourage a constructive dialogue on how

EPA can use performance measures better to protect the environment. By looking at fresh data on a quarterly basis, EPA is using performance measures to “learn and do” rather than simply to “report.” The QMR is available on EPA’s website at <http://www.epa.gov/ocfo/qmr/>.

EPA has become a federal leader in performance analysis and management by integrating management systems and adopting a common vision for their use. The Agency now routinely collects performance data and makes it readily accessible, uses performance measures to inform decisions, and engages managers and staff at various levels. As a result, EPA is building a stronger results-based organizational culture.

Highlights of Program Performance by Goal

The tables below summarize performance results and resource information and highlight key achievements and challenges under each goal. Section II of this report contains detailed performance information.

STRATEGIC GOAL 1 - CLEAN AIR AND GLOBAL CLIMATE CHANGE

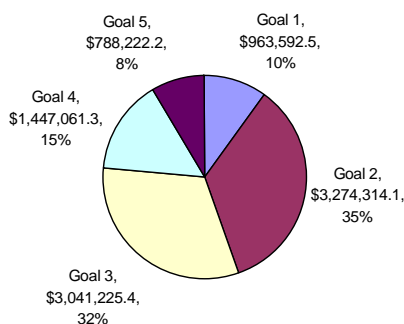
Protect and improve the air so it is healthy to breathe, and risks to human health and the environment are reduced. Reduce greenhouse gas intensity by enhancing partnerships with businesses and other sectors.

Goal 1 FY 2007 Performance Measures (PMs)

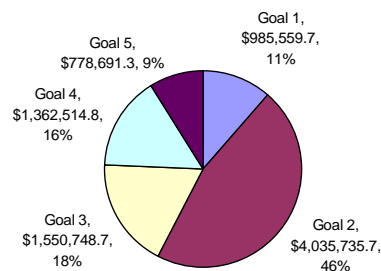
Met = 1 Not Met = 0
Data Available After November 15,
2007 = 25

(Total PMs = 26)

EPA FY 2007 Obligations
(in thousands)



EPA FY 2007 Expenditures
(in thousands)



OBJECTIVE 1 - Healthier Outdoor Air

Key Achievements

- In June 2007, EPA proposed to strengthen the nation's air quality standards for ground-level ozone, revising the standards for the first time since 1997. The proposal is based on the most recent scientific evidence about the health effects of ozone, the primary component of smog. EPA projects that health benefits of the proposed ozone standard could be in the billions of dollars.⁴ The Agency will issue final standards by March 2008.
- Ozone levels have dropped 21 percent nationwide since 1980 as EPA, states, and local governments have worked together to continue to improve the nation's air.

Challenges

- Of the six tracked pollutants, ground-level ozone and particulate matter are the most widespread. We need to integrate our toxics and climate programs with our more traditional criteria pollutant programs. Criteria pollutant reduction strategies that result in more reductions in air toxics, increased energy efficiency, and cleaner fuels should be emphasized in the design of control programs. The Agency needs to ensure that individual programs work together so that we minimize the burden on the regulated community while maximizing pollution reduction across all titles of the Clean Air Act.

OBJECTIVE 2 – Healthier Indoor Air

Key Achievements

- In 2006, the Agency held symposia and worked with grantees to train more than 3,000 health professionals on asthma and environmental trigger management. As a result of the award-winning Asthma Goldfish Public Service Campaign, national awareness of asthma triggers has increased to an all-time high of 33 percent among the general public.
- Through 2006, the Agency worked with approximately 36,000 schools to help implement an effective indoor air quality plan based on criteria set by EPA. Poor ventilation in elementary and secondary schools contributes to unsatisfactory indoor air quality, putting at risk children, a vulnerable segment of the population, who are more susceptible to pollutants and spend long hours in school facilities.
- Radon is the second leading cause of lung cancer in America and is associated with about 20,000 lung cancer deaths every year.⁵ EPA estimates that in FY 2005 (the most recent year for which we have complete data), the combination of homes with radon mitigation systems and homes built with

radon-resistant techniques—voluntary public actions that EPA promoted—saved approximately 575 lives.

Challenges

- Indoor Air is a small, voluntary program addressing multiple contaminants and high risks. To maintain momentum we must work with public, private, and nonprofit partners, each with financial and/or constituency pressures. The program also must link with EPA regulatory and other community-based risk-reduction activities to ensure maximum leverage of limited resources.

OBJECTIVE 3 – Protect the Ozone Layer

Key Achievements

- 2007 marked the 20th anniversary of the signing of the Montreal Protocol. Since signing in 1987, the United States has achieved a 90 percent reduction in the production and consumption of ozone-depleting substances (ODS), ending the production and import of over 1.7 billion pounds of these chemicals per year. The faster the ozone layer is healed, the greater the prevention of human health damages caused by excess UV radiation, including skin cancer.
- In 2005 (the last year for which data are available), the United States reduced annual emissions of ODS by more than 1200 tons (ODS equivalent, which has a climate co-benefit of 1,500 million CO₂-equivalent metric tons per year).

Challenges

- At a September 21, 2007 meeting in Montreal that recognized the 20th anniversary of the Montreal Protocol, the 191 Parties to the Protocol reached a milestone agreement to accelerate recovery of the earth's stratospheric ozone layer and, at the same time, prevent large quantities of greenhouse gas emissions. Parties agreed to speed up by a decade the phaseout of hydrochlorofluorocarbons (HCFCs). Because HCFCs are also greenhouse gases, the agreement to accelerate their phaseout also provides benefits for the climate system. The Agency will have a challenge in identifying acceptable substitutes to ozone depleting substances.

OBJECTIVE 4 – Radiation

Key Achievements

- In FY 2007, EPA participated in several major radiological emergency response exercises, including exercises that simulated the detonation of a defined-area radiological dispersal device (dirty bomb), simulated the detonation of an improvised nuclear device, and tested EPA's Incident Command System during a response to a radiological incident originating on foreign soil.
- The Agency developed RadMap, an interactive desktop tool featuring a Geographic Information System map and quick access to information on long-term radiation monitoring locations across the country. RadMap is designed for use by emergency responders and provides access to key information on 500 monitors and the areas surrounding them.

Challenges

- In FY 2007, EPA continued to expand RadNet, a nationwide system to track environmental radiation. The upgraded system is designed to provide improved coverage as well as additional air monitoring capabilities important during radiological emergencies. Despite some early start-up problems, EPA made significant progress during the year in deploying monitors.

OBJECTIVE 5 – Reduce Greenhouse Gas Intensity

Key Achievements

- EPA achieved significant greenhouse gas reductions in 2006 (the latest year for which data are available) through its climate protection partnership programs and is on track to contribute about 70 percent of the reductions necessary to achieve the President's 2012 greenhouse gas intensity goal.⁶

- EPA partnered with over 11,000 organizations nationwide to improve energy efficiency. The partnerships are working to increase the supply of clean energy across the building, industrial, and transportation sectors by breaking down the market barriers that prevent investments in cost-effective, climate-friendly technologies and practices. EPA currently estimates that its partners reduced greenhouse gas emissions by about 100 million metric tons of carbon equivalents (MMTCE) through measures in place in 2006.
- Through ENERGY STAR, consumers saved more than \$14 billion on their energy bills by purchasing more than 300 million labeled products, constructing almost 200,000 ENERGY STAR new homes, using EPA's energy performance rating system to track and improve the energy use of over 30,000 commercial buildings, and reducing energy use at hundreds of industrial facilities.
- More than 650 organizations committed to purchasing almost 7 billion kilowatt-hours of green power and 200 organizations installed more than 3,500 megawatts of new combined heat and power capacity.
- Through such efforts as the Methane-to-Markets initiative, EPA provided developing and industrialized countries with information and increased technical capacity needed to implement emissions reduction policies and climate protection programs.
- More than 600 freight carriers and shippers, covering 361,000 heavy duty diesel trucks, are now participating in EPA's SmartWay Transport Partnership Program. These partners account for approximately 12 percent of the industry's greenhouse gas emissions. SmartWay partners are implementing fuel efficiency measures that will reduce greenhouse gas emissions by over 1.9 MMTCE per year, with annual fuel savings of \$1.7 billion dollars.

Challenges

- EPA's latest annual report on greenhouse gas emissions, "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2005" (April 2007), which was prepared for the United Nations Framework on Climate Change, is a study in challenges.⁷ The report shows that the United States is making progress in reducing the emissions of some critical gases as it works toward cutting U.S. greenhouse gas intensity by 18 percent by 2012. Strong economic growth starting in 2005 and an increase in the demand for electricity during warmer summer conditions are expected to keep carbon dioxide emissions high. EPA is targeting its climate protection partnership programs to address this growing electricity demand in the residential, commercial, and industrial sectors.
- For the ENERGY STAR Program, EPA will determine the need for spot testing, to ensure the integrity of the ENERGY STAR label for consumers of home and office products.

OBJECTIVE 6 – Enhance Science and Research

Key Achievements

- EPA's Clean Air Research Program completed 100 percent of its planned actions toward the long-term goal of reducing uncertainty in the science that supports standards setting and air quality management decisions. As a result of research conducted under this program, EPA has proposed to strengthen the nation's air quality standards for ground-level ozone, revising the standards for the first time since 1997.

Challenges

- It is difficult for the research program to meaningfully measure its annual progress in reducing uncertainty and in completing a hierarchy of air pollutant sources based on the risk they pose to human health. As a result, the Clean Air Research Program is soliciting input from an independent panel of experts to better define methods for measuring annual progress.

STRATEGIC GOAL 2 – CLEAN AND SAFE WATER

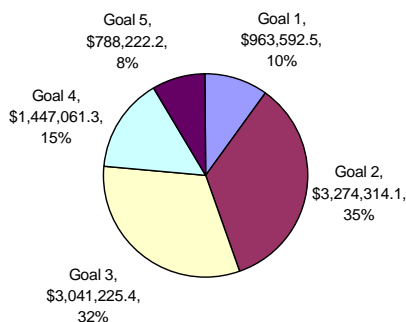
Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health; support economic and recreational activities; and provide healthy habitat for fish, plants, and wildlife.

**Goal 2 FY 2007
Performance Measures (PMs)**

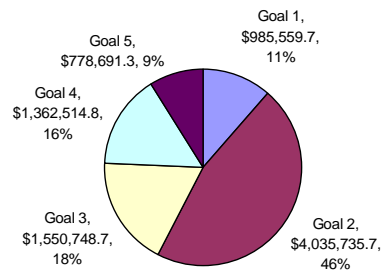
Met = 20 Not Met = 5
Data Available After November 15,
2007 = 7

(Total PMs = 32)

**EPA FY 2007 Obligations
(in thousands)**



**EPA FY 2007 Expenditures
(in thousands)**



OBJECTIVE 1 – Protect Human Health

Key Achievements

- In FY 2007, 91.5 percent of the population served by community water systems received drinking water that met all applicable health-based drinking water standards (slightly short of EPA’s target of 94 percent).
- EPA regional offices conducted emergency response preparedness exercises to improve responses in the event of a catastrophic natural or deliberate incident at drinking water or wastewater facilities. EPA prepared and disseminated materials to guide utilities in conducting self-assessments, developing plans, and designing and implementing contamination warning systems.
- EPA met its FY 2007 goal by keeping coastal and Great Lakes beaches open 95 percent of beach season days during the past year’s swimming season (calendar year 2006).
- EPA completed freshwater epidemiology studies that tested a rapid indicator for pollutants in swimming waters. These results will help local governments make decisions on beach closures and health advisory notices quickly and more efficiently.

Challenges

- The nation’s drinking water infrastructure is aging. Water utilities face the challenge of substantial reinvestment in water infrastructure to sustain current levels of service and to meet increasing future public health protection needs. Drinking Water State Revolving Funds (DWSRFs) offer low-interest loans and other assistance to water systems to help provide safe, reliable water service on a sustainable basis. The challenge for the Agency and the states is to manage the DWSRF program in a way that can maximize public health protection with available funds.
- Water systems, particularly small systems, are challenged by the need to apply existing standards for more than 90 chemical, radiological, and microbial contaminants and to implement new ones.
- To prevent groundwater pollution, EPA’s Underground Injection Control Program works with states to monitor hazardous and non-hazardous fluids injected into the ground. A major challenge in implementing the Agency’s rule on motor vehicle waste disposal wells and large capacity cesspools is locating Class V wells (shallow, on-site disposal systems, such as drywells, cesspools, and septic systems) in a Geographical Information System (GIS) format so they can be mapped and compared

to GIS locations for source water protection areas. Managers need this data to set priorities for addressing problem areas and protecting communities with groundwater-based water systems.

OBJECTIVE 2 – Protect Water Quality

Key Achievements

- EPA is making strong progress in addressing impaired waters: In FY 2007, a cumulative 15 percent (against the FY 2007 target of 14.1 percent) of waters listed as impaired in 2000 are now fully attaining water quality standards.
- Under EPA's National Pollutant Discharge Elimination System, permits implementing standards for industrial sources, municipal treatment plants, and storm water prevented discharge of 37 billion pounds of pollutants into waterways.
- EPA released the Wadeable Stream Assessment, the first statistically valid assessment of national stream condition. The assessment found that 28 percent of the nation's streams are in good condition. (Twenty-five to thirty percent of streams across the United States were estimated to have high levels of nutrients or excess sedimentation.)
- Data now available in FY 2007 show that annual load reductions for non-point sources of pollution exceeded the Agency's FY 2006 targets. EPA's partners reduced phosphorus by 11.8 million pounds, nitrogen by 14.5 million pounds, and sediment by 1.2 million tons.
- In FY 2007, the Clean Water Indian Set-Aside Program funded 65 wastewater infrastructure projects in Indian Country, covering over 7,200 homes out of a base of 26,777 homes lacking access to basic sanitation.

Challenges

- Progress in addressing impaired waters will likely slow as listings of waterbodies become more accurate and "easy" restorations are completed. Many remaining problems, such as urban wet weather impairments and persistent legacy pollutants, are complex and may take many years to solve (e.g., restoring stream bank trees to address temperature problems).
- In FY 2007, EPA created a Climate Change Workgroup to assess the implications of climate change for water programs, for example, warming waters, shifting precipitation patterns, and rising sea levels. The workgroup drafted a strategy for responding to climate change, which will be released for public review and comment in early FY 2008. EPA's National Water Program expects to finalize and begin implementing the strategy in FY 2008.

OBJECTIVE 3 – Enhance Science and Research

Key Achievements

- In FY 2007, methods, models, and tools produced by EPA's Office of Research and Development contributed, in part, to risk assessments that resulted in EPA's preliminary determinations not to regulate eleven chemical contaminants from the Contaminant Candidate List (CCL2). In this sound science-based decision, EPA helped to reduce the economic and technical burden on water utilities by allowing them to focus on protecting public health through controlling the high priority contaminants which are currently regulated.
- Through the Salmon 2100 Project, EPA developed a set of policy options for restoring salmon runs to significant, sustainable levels in California, Oregon, Washington, Idaho, and southern British Columbia.

Challenges

- To assess the utility of its research for informing key Agency decisions, EPA's Drinking Water Research Program is implementing a measure based on analyses of EPA documents. Challenges include determining the scope and most cost-effective means of conducting the analyses.

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.

Goal 3 FY 2007 Performance Measures (PMs)

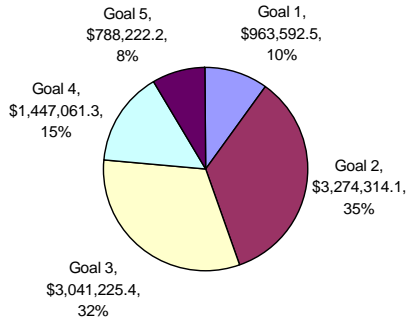
Met = 22

Not Met = 4

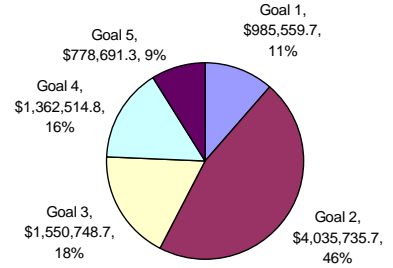
Data Available After November 15,
2007 = 3

(Total PMs = 29)

**EPA FY 2007 Obligations
(in thousands)**



**EPA FY 2007 Expenditures
(in thousands)**



OBJECTIVE 1 – Preserve Land

Key Achievements

- Through EPA-sponsored efforts, the national municipal solid waste (MSW) recycling rate has reached 32 percent of the waste stream (based on the most current data from FY 2005). EPA reduced 49.92 million metric tons of carbon equivalent (MTCE), which translates into removing 39.6 million cars from the road. The MSW recycling rate also reflects a savings of 1.4 quadrillion BTUs, which is equivalent to 11.3 billion gallons of gas or 14 percent of U.S. residential energy demand.
- The number of hazardous waste management facilities with approved controls in place to prevent dangerous releases to air, soil, and groundwater increased to 71 (2.8 percent of the baseline), meeting EPA's FY 2007 target. Pursuant to the Resource Conservation and Recovery Act (RCRA), EPA's hazardous waste management program is on track to bring 95 percent of facilities under approved controls by FY 2008.
- States made significant progress in renewing permits for hazardous waste management facilities, renewing 96 permits during FY 2007 and enabling the RCRA program to meet its FY 2008 goal of 150 permit renewals a year early.

Challenges

- Some facilities pose more of a permitting challenge than others. While the remaining workload represents a small percentage of facilities, it involves more complex permit actions, for example, addressing post-closure sites, nontraditional units (Subpart X), or large and complex federal facilities. Many of the unit types that still need to be addressed pose their own unique challenges.
- To determine underground storage tank (UST) facilities' compliance with release prevention and release detection requirements, EPA has increased efforts to inspect all UST facilities, such that each facility is inspected at least once every 3 years. In FY 2007, states found that many previously un-inspected UST facilities did not comply with requirements. EPA expects that, over time, these more frequent inspections will result in more facilities in compliance. However in the short run, as previously un-inspected or infrequently-inspected facilities are inspected, compliance rates are lower, and the Agency has not met its goal for increasing significant operational compliance rates. EPA expects that this trend will reverse as we continue to implement this inspection initiative.

OBJECTIVE 2 – Restore Land

Key Achievements

- Controlling human exposures is a top priority for EPA's Superfund Remedial Program. In FY 2007, the program controlled all identified unacceptable human exposures from site contamination for current land and/or groundwater use conditions at 13 sites, exceeding our target of 10, for a cumulative total of 1,282 (approximately 83 percent) of 1,543 sites where human exposures are a problem.
- Because groundwater can be a vehicle for spreading contamination, EPA strives to control the migration of contaminated groundwater through engineered remedies or natural processes. In FY 2007, the Superfund program accomplished this goal at 19 of these sites, exceeding its target of 10, and reaching a cumulative total of 977, or approximately 71 percent of the 1,381 sites where groundwater migration is a problem.
- Through its Superfund program, EPA met the target of 24 by completing the construction phase of cleanup at 24 sites across the country for a cumulative total of 1,030 or 65 percent of the sites on the National Priorities List (NPL). In addition, 64 Superfund sites were determined to be ready for reuse in their entirety, exceeding the target of 30.
- EPA exceeded its FY 2007 targets by addressing 1,968 high priority facilities requiring RCRA corrective action. Of this total, current human exposures are now under control at 93 percent of facilities, and the migration of contaminated groundwater is under control at 78 percent of facilities. Final remedies have been constructed for 28 percent of these facilities.
- Leaking underground storage tanks (USTs) at gas stations and other locations release petroleum and other hazardous substances into the environment and are consistently ranked by states as a leading source of groundwater contamination. EPA's state and tribal partners met and exceeded the Agency's target of 13,000 cleanups of leaking USTs, including 30 cleanups in Indian Country, with a total of 13,862 cleanups, including 54 cleanups in Indian Country.
- Since the beginning of the Agency's UST program, EPA has cleaned up more than 77 percent (or 365,361) of all reported releases. In FY 2007, we continued to work with our state and tribal partners to address the backlog of 108,766 leaking UST cleanups not yet completed.

Challenges

- EPA's Superfund program faces several challenges. At private sites, it must balance ongoing work at as many sites as possible while maintaining a cost-effective rate of remediation at each site. At both private and federal sites, it must maintain a high rate of construction completions. Current NPL sites—particularly vast federal facilities that contain a wide variety of contaminants—are far more complex than sites that have already been completed. The program also strives to keep remedies up-to-date in the face of continuing improvements in applicable science and/or technology and the discovery of emerging contaminants. Finally, it must ensure that necessary institutional controls are implemented at remediated Superfund sites, given that state and/or local governments and other federal agencies, not EPA, are the responsible authorities.
- Similarly, meeting RCRA Corrective Action Program targets for human exposure under control and groundwater migration under control will be more difficult in FY 2008, because only the most complex sites remain. Furthermore, the program has begun to emphasize the construction of final remedies, addressing the most complicated of the high priority sites. Looking forward, in FY 2009 the universe of facilities believed to need corrective action will nearly double to 3,746 sites, because we are now dealing with low- and medium-priority National Corrective Action Priority facilities. In the past, emphasis was on high-priority facilities. EPA's challenge will be to accelerate corrective action to address these sites by 2020, the end of the planning horizon.

OBJECTIVE 3 – Enhance Science and Research

Key Achievements

- EPA scientists provided policymakers and land managers with 100 percent of planned research products to support managing land resources and waste and mitigating contaminated sites.

- Agency scientific and research staff also developed new models addressing characteristics of gasoline that contribute to pollutants in drinking water drawn from groundwater. These models support a statutorily-mandated report on the health effects of alternatives to the gasoline additive methyl tert-butyl ether (MTBE), due to the Congress in August 2008.

Challenges

- Addressing the science and technology needs of decision makers—and successfully transferring research products to users to provide better science or reduce costs—is a significant challenge. Among other specific issues, EPA is working to establish federal agency leadership for the fate and transport nanotechnology research program; focusing scientific activities to have a significant impact on material reuse and Brownfields; and developing technologies to remediate Superfund mega-sites more cost-effectively.

STRATEGIC GOAL 4 – HEALTHY COMMUNITIES AND ECOSYSTEMS

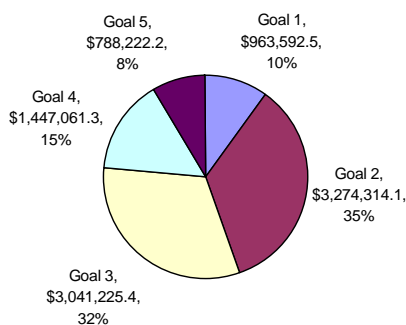
Protect, sustain, or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

Goal 4 FY 2007 Performance Measures (PMs)

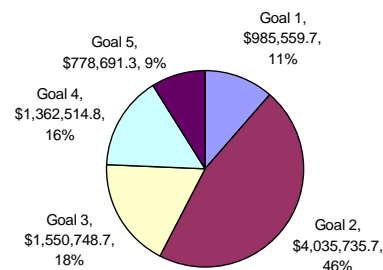
Met = 33 Not Met = 4
Data Available After November 15,
2007 = 13

(Total PMs = 50)

**EPA FY 2007 Obligations
(in thousands)**



**EPA FY 2007 Expenditures
(in thousands)**



OBJECTIVE 1 – Chemical, Organism, and Pesticide Risks

Key Achievements

- An August 2007 report by the Centers for Disease Control indicated that actions EPA took in 2002 to discontinue the industrial production of Perfluorooctyl Sulfonates (PFOS) and Perfluorooctanoic Acid (PFOA) led to a reduction in human blood levels of 32 percent for PFOS and 25 percent reduction for PFOA from 1999/2000 through 2003.
- Using data provided by industry, EPA conducted screening level hazard assessments for 223 high production volume (HPV) chemicals sponsored by the United States and 78 international HPV chemicals sponsored by the Organisation for Economic Co-Operation and Development.
- EPA conducted a significant study to evaluate lead dust levels associated with renovation, repair, and painting that disturb lead-based paint, including developing cost/benefit analysis information. These activities provide the groundwork for issuing the final renovation and repair rule in FY 2008 which will establish lead-safe practices for renovation, remodeling, and painted residential structures containing lead-based paint. This rule is a critical element in the government-wide strategy to eliminate childhood lead poisoning as a significant public health issue by 2010.
- EPA met Pesticide Registration Improvement Act (PRIA) deadlines for 99.8 percent of the 1,600 pesticide registration applications received. In FY 2006, 99.9 percent of approximately 1350 PRIA actions were completed by the due date. This fast and consistent turnaround of registration actions helps increase protection of human health and the environment and achieve the social and economic benefits of using pesticides.
- The Agency produced ecological risk assessments and determinations of potential risk to certain endangered species; consulted with the U.S. Fish and Wildlife Service and National Marine Fisheries Service; and completed rigorous Endangered Species Act assessments to meet tight court-monitored schedules related to three lawsuits.
- EPA implemented the new pesticide registration review program that monitors registered pesticides to ensure continued compliance with the statutory standard of no unreasonable adverse effects.
- EPA promulgated priority data requirement rulemakings for conventional, microbial, and biochemical pesticides which will strengthen technical and scientific information supporting pesticide registration programs and decisions.
- In cooperation with the Canadian Pest Management Regulatory Agency, EPA approved two harmonized NAFTA labels for pesticide products. This will allow pesticide products that meet the

regulatory requirements of all participating countries to move across borders and help prevent non-complying products from entering the United States.

- In August 2007, EPA was part of the delegation that reached a landmark agreement with Canada and Mexico under the Security and Prosperity Partnership for North America to ensure the safe manufacture and use of industrial chemicals. Under this agreement, EPA is expected to complete characterization risk and take necessary follow-up actions on more than 9,000 moderate and HPV chemicals by 2012.
- EPA completed validating three Endocrine Disruptors Screening Program (EDSP) test assays and issued Federal Register notices for a draft list of 73 chemicals for initial screening and peer review. These are long-awaited first steps toward initiating the testing phase of the EDSP.

Challenges

- To comply with the Endangered Species Act, EPA must assess the risks of more than 19,000 pesticide products—each with multiple uses—covering more than 1200 listed species. Completing the risk assessments under the 15-year review cycle schedule established under PRIA is complicated by EPA's need to comply with separate court-ordered schedules requiring additional assessments of potential risks of particular pesticides to particular species.
- Designing, conducting, and getting peer review of the lead dust study for the remodeling and renovation rule presented difficult technical and program management challenges.
- Confidential Business Information claims on industry's baseline reporting on the PFOA Stewardship program delayed Agency efforts to quickly make the information publicly available.
- EDSP continues to experience scientific uncertainties associated with assay development and the validation process. This can affect timing for completion of assay validation. EPA attempts to anticipate challenges and to resolve issues as they arise.

OBJECTIVE 2 – Communities

Key Achievements

- EPA's U.S.- Mexico Border program
 - Provided new drinking water connections to 1,276 homes and connected 73,475 homes to first-time wastewater service.
 - Certified 11 water infrastructure projects for construction, which should benefit more than 30,000 people when completed.
 - Removed approximately 1 million tires from the U.S.-Mexico border region and used them for fuel or in highway paving projects. Of 9 million tires, more than 3 million have been removed to date.
 - Supported Mexico's switch to ultra-low sulfur fuel (less than 15 ppm sulfur) along the U.S.-Mexico Border. This change is expected to reduce emissions along the border, affecting a population of 12 million people, and to improve availability of ultra-low sulfur diesel fuel for U.S. trucks crossing into Mexico.
- EPA's Brownfields and Land Revitalization Program assessed 2,139 properties, cleaned up 91 properties, leveraged 5,504 jobs and \$1.4 billion in cleanup and redevelopment funding, and made 1,269 acres ready for reuse through site assessment or property cleanup. (These are FY 2006 results, which became available in FY 2007 and are the most current data.)
- In FY 2007, EPA awarded 10 Collaborative Problem-Solving (CPS) agreements to assist community-based organizations in addressing a range of environmental health benefits—from reducing indoor exposure to toxic chemicals to reducing exposure to chemicals in well water
- In FY 2007, EPA provided alternative dispute resolution and environmental law training to more than 70 environmental justice grassroots organizations and tribal government representatives. This resulted in the signing of an agreement by the Navajo Nation Environmental Protection Agency and Navajo environmental justice grassroots organizations aimed at increasing tribal awareness of and participation in environmental decision-making on the Navajo reservation.

Challenges

- Implementation of cooperative plans and policies is sometimes affected by circumstances beyond the Agency's control. For example, the decision to delay by 1 year the planned FY 2007 phase-out of leaded gasoline on the part of several Middle Eastern and North African countries was prompted by regional and domestic political events, well beyond the scope of the Agency's influence.
- The unique nature of each community and its environmental health issues and needs often makes it difficult to uniformly assess outcomes and benefits from CPS cooperative agreements or other community-based collaborative problem-solving efforts.

OBJECTIVE 3 – Ecosystems

Key Achievements

- Under the President's 2004 Earth Day Initiative, EPA restored and enhanced 61,856 acres of wetland, exceeding its FY 2007 cumulative target of 12,000 acres. These acres include those supported by Wetland 5 Star Restoration Grants, the National Estuary Program, and Clean Water Act Section 319 Nonpoint Source grants.
- EPA issued the National Estuary Program (NEP) Coastal Condition Report, the first assessment of overall ecological condition of the 28 NEP estuaries. Nationally, 32 percent of U.S. NEP estuaries are in good condition, 29 percent are in fair condition, 37 percent are in poor condition, and 2 percent lack data on condition status.
- In collaboration with its partners, EPA made progress restoring and protecting the Great Lakes Ecosystem, remediating over 440,000 cubic yards of contaminated sediments in two Legacy Act projects.
- At measured sites in the Great Lakes, average concentrations of polychlorinated biphenyls (PCBs) in whole lake trout and walleye samples continued to decline by 5 percent, and the average concentrations of PCBs in the air continued to decline by 7 percent.
- EPA's Chesapeake Bay program reported a decrease in nitrogen and phosphorus discharged in the wastewater from municipal and industrial facilities which flow into the Bay, accounting for a large portion of the estimated nutrient reductions in the Chesapeake Bay watershed to date. (These accomplishments reflect the FY 2007 mid-year results, which are the most accurate.)
- Toward a 2011 goal of 20,000 acres, EPA restored, protected, or enhanced a cumulative 18,660 acres of coastal and marine habitat for the Gulf of Mexico, exceeding its FY 2007 goal of 15,800 acres.
- EPA reduced the number of impaired waterbody listings in the 13 priority areas of the Gulf of Mexico to 62, exceeding the target of 56.

Challenges

- Chesapeake Bay-wide acreage of valuable underwater bay grasses decreased by 25 percent in 2006. This decline was largely due to higher than normal water temperatures in the mid- and lower Bay and poor water clarity throughout the Chesapeake Bay, due to excessive amounts of nitrogen, phosphorus, and sediment. EPA's Chesapeake Bay Program is working to decrease pollutants from runoff and other sources to improve conditions in the Bay.

OBJECTIVE 4 – Enhance Science and Research

Key Achievements

- EPA research programs supported decision-making for healthy communities and ecosystems, achieving 95 percent of research milestones on time.
- EPA's Human Health Research Program discovered a biomarker that can predict the severity of an asthmatic response in susceptible people, resulting in new protocols for improving indoor air quality and providing the scientific basis for public education policies and risk management strategies involving exposure to molds.
- EPA's Global Change Research Program completed 75 percent of a framework linking global change to air quality. By applying an air quality model under various climate scenarios, researchers can study the effect of climate change on air quality.

- EPA's Human Health Risk Assessment program completed the Lead Air Quality Criteria Document (AQCD) on-time—68 days prior to publication of EPA's draft Staff Paper. As a result, EPA remains on schedule to complete by 2010 100 percent of the Integrated Science Assessments (ISAs—formerly known as AQCDs) necessary to inform National Ambient Air Quality Standards regulatory decision-making.

Challenges

- All research agencies and organizations face challenges in measuring and improving the efficiency of research. In FY 2007, EPA made progress in this area by developing new measures that track research cost and performance. Because implementing these measures in a meaningful way remains a challenge, EPA engaged the National Academy of Sciences (NAS) and other agencies, including the Department of Energy, the National Science Foundation, and the National Institutes of Health, in a dialogue about how best to measure the efficiency of research. NAS expects to report its findings, conclusions, and recommendations by early 2008.

STRATEGIC GOAL 5 – COMPLIANCE AND ENVIRONMENTAL STEWARDSHIP

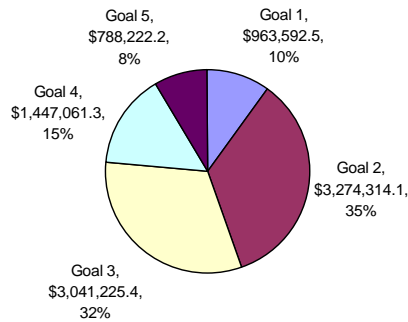
Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation and providing incentives for governments, businesses, and the public that promote environmental stewardship.

Goal 5 FY 2007 Performance Measures (PMs)

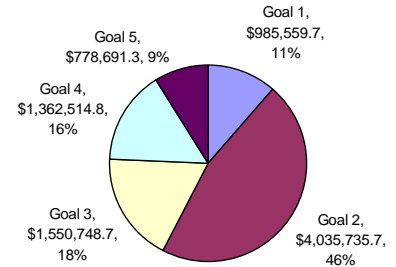
Met = 11 Not Met = 3
Data Available After November 15,
2007 = 3

(Total PMs = 17)

EPA FY 2007 Obligations (in thousands)



EPA FY 2007 Expenditures (in thousands)



OBJECTIVE 1 – Achieve Environmental Protection Through Improved Compliance

Key Achievements

- In FY 2007, EPA achieved an estimated 890 million pounds of reduced, treated, or eliminated pollutants. This is the same amount as last year and represents a significant contribution to environmental protection.⁸
- The twelve most significant enforcement actions taken in FY 2007 will result in an estimated 507 million pounds of reduced, treated, or eliminated sulfur oxides (SO_x), nitrogen oxides (NO_x), and particulate matter (PM) with an estimated \$3.8 billion human health benefit from emissions reductions that will result in fewer premature deaths, non-fatal heart attacks, and reduced incidence of bronchitis and asthma attacks.⁹
- In FY 2007, EPA required regulated entities to invest \$10.6 billion in pollution control and abatement equipment and technology to improve environmental performance or environmental management practices.
- Compliance assistance dramatically increased since FY 2006, increasing the number of regulated entities reached from 1.7 million in FY 2006 to 3.1 million in FY 2007.¹⁰

Challenges

- The Agency is revising how it prioritizes and measures the achievement of environmental results to more completely align measures with key environmental risks and noncompliance patterns addressed by the national compliance and enforcement program. Specifically, we will establish performance measures to track progress toward our national enforcement and compliance priorities.

OBJECTIVE 2 – Improve Environmental Performance Through Pollution Prevention and Other Stewardship Practices

Key Achievements

- Working through its Federal Electronics Challenge Program--a voluntary partnership representing 18 federal agencies committed to the environmentally sound acquisition, use, and disposal of electronic products government-wide--EPA, in FY 2006, decreased federal use of hazardous materials by at least 2.8 million pounds, conserved 452 billion BTUs of energy, and saved \$11.4 million (data substantially finalized in FY 2007). EPA's Electronic Product Environmental Assessment Tool (EPEAT) program, launched in 2006, developed a standard to help institutional purchasers of

electronics select environmentally sound personal computer products, and it is developing standards for four additional electronics products. As a result of the adoption of this standard, the EPEAT program decreased hazardous materials by 9.2 million pounds, conserved 1,457 billion BTUs, and saved \$37 million.

- In conjunction with industry and non-governmental organizations, EPA's Design for the Environment (DfE) Formulator Program achieved annual reductions in the use of approximately 80 million pounds of hazardous chemicals. Over 280 formulator products have received DfE recognition through the "ECO-options" label sold by such major retailers as Home Depot.
- EPA's National Partnership for Environmental Priorities (NPEP) eliminated about 1.3 million pounds of priority list chemicals from being used or released into the environment. This exceeds the Agency's FY 2007 target of 500,000 pounds of chemicals. These partnerships have been established with a variety of public and private companies and organizations that generate wastes containing one or more of 31 "priority chemicals." As outlined in EPA's *2006-2011 Strategic Plan*, NPEP's long-term goal is to reduce 4 million pounds of priority chemicals from domestic waste streams between FY 2007 and FY 2011.
- In FY 2007, the first year of the National Vehicle Mercury Switch Recovery Program, more than 5,900 participants (auto dismantlers, scrap recyclers, automakers, and steel recyclers) removed more than 680,000 mercury-containing automobile switches, preventing the potential migration of 1,500 pounds of highly toxic mercury into the environment. Every state now participates in a mercury switch recovery program.
- In FY 2007, EPA's National Environmental Performance Track (NEPT), a voluntary program to recognize and reward businesses and public facilities demonstrating strong environmental performance beyond current requirements, reported a normalized reduction in water use of 5,300,000 gallons and a reduction in materials use of 64,000 tons. Twenty states have adopted programs similar to the national program, and five others are currently following suit.

Challenges

- EPA continues working to achieve consistent and timely performance information from all components of its Pollution Prevention Program (P2), including its ten regional offices and state pollution prevention programs. The Agency made significant progress on this front in FY 2007 by implementing the State P2 Results Reporting System under a cooperative agreement with the National Pollution Prevention Roundtable.

OBJECTIVE 3 – Improve Human Health and the Environment in Indian Country

Key Achievements

- In FY 2007, EPA's Indian Environmental General Assistance Program (GAP) increased participation by tribal governments and inter-tribal consortia. This resulted in tribes building infrastructure to handle a variety of core environmental issues helping achieve EPA/tribal long-term performance goals.

Challenges

- Better tracking of performance and results in Indian country continues to be a challenge. EPA is improving performance measures and will be implementing a new reporting system. By providing information on all EPA's performance measures, including PART measures, the system will enable EPA to standardize, centralize, and integrate EPA regional data and assign accountability for data quality. This will improve our ability to monitor and evaluate performance results in Indian country, helping improve environmental protection on tribal lands.

OBJECTIVE 4 – Enhance Society's Capacity for Sustainability Through Science and Research

Key Achievements

- In April 2007, EPA's People, Prosperity and the Planet (P3) Program held its fourth annual student design competition for sustainability on the National Mall in Washington, DC. More than 300 university students from around the country exhibited their designs for a sustainable tomorrow.

Projects included green buildings, new ideas for bringing clean drinking water to underdeveloped nations, and innovative fuel cell technologies.

Challenges

- It is difficult to measure the success of attempts to include elements of sustainability in decisions on human health and the environment. EPA's Science and Technology for Sustainability Program will assist the Agency in developing meaningful measures to gauge annual and long-term success in this effort.

Accomplishments in Homeland Security and Emergency Response

Strengthening homeland security and responding to environmental emergencies is a top priority for the Agency and the nation. EPA works with other federal agencies to protect human health and the environment in the event of natural disasters and from intentional harm. The Agency plays a lead role in supporting the protection of critical water infrastructure and coordinating the development of national capabilities and strategies to address chemical, biological, and radiological contamination during a terrorist event. Among its important homeland security activities in FY 2007, EPA:

- Participated in several exercises to test the Agency's preparedness for responding to a serious incident. One major exercise scenario involved a large-scale earthquake within the New Madrid fault system, located within the Mississippi River Valley. An event of this magnitude would present numerous serious emergency response and recovery issues. EPA coordinated efforts with the U.S. Coast Guard and other agencies of the National Response Team/Regional Response Team, other national-level coordinating bodies, and affected state, local, and private sector jurisdictions. The exercise helped EPA evaluate our ability to implement the National Incident Management System and National Response Plan and to test the effectiveness of interagency and private coordination, the viability of all appropriate plans, and the availability and adequacy of government and private sector response resources.
- Made fully operational the first water security contamination warning system pilot to quickly detect and respond to contamination incidents and threats to drinking water distribution systems.
- Provided training and technical assistance to approximately 1,000 drinking water and wastewater utilities to enhance their preparedness capabilities and improve their emergency response coordination and communications plans.
- Proposed Acute Exposure Guidelines (AEGs) for 33 chemicals, exceeding the Agency's FY 2007 target of 24 and bringing to 218 the cumulative total of AEGs developed since 1996. AEGs provide short-term exposure limits applicable to a wide range of extremely hazardous substances and are used by first responders in dealing with chemical emergencies, including threats of chemical terrorism.
- Advanced the development of test methods needed to determine the efficacy of disinfectant pesticides for decontamination of important pathogenic threats, including anthrax spores, bubonic plague, and tularemia.
- Collaborated with other federal agencies to co-develop guidelines and procedures for responding to and decontaminating bioterrorism attacks at major airports.
- Developed "message maps"— science-based risk communication tools that enable quick and concise delivery of pertinent information during emergencies affecting drinking water systems.
- Prepared Version 3 of EPA's Standard Analytical Methods Manual, which provides methods for laboratories to use when measuring specific contaminants potentially associated with a

terrorist attack, evaluating the nature and extent of contamination, and assessing decontamination efficacy.

FINANCIAL ANALYSIS AND STEWARDSHIP INFORMATION

Audit Results

For the eighth consecutive year, the Agency's Office of Inspector General (OIG) issued an unqualified opinion on EPA's financial statements. However, the OIG identified three material weaknesses – one relating to our process for determining the value of delinquent receivables and two information technology (IT) security-related issues. We corrected the delinquent accounts receivable material weakness and restated our FY 2006 financial statements to reflect the value of these receivables. We have initiated corrective actions to resolve the IT-security issues and will complete all actions in FY 2008.

The financial statements and financial data presented in this report have been prepared from the Agency's accounting records in conformity with generally accepted accounting principles (GAAP) in the United States for federal entities. GAAP for federal entities are standards prescribed by the Federal Accounting Standards Advisory Board (FASAB).

Restatement

The FY 2006 restatement impacted all financial statements except the Statement of Budgetary Resources. The FY 2006 Consolidated Balance Sheet was restated to reflect a net increase of \$7.5 million in intragovernmental receivables and \$239.9 million in non-federal receivables, which resulted in an increase of \$247.4 million in total assets. Liabilities, which included custodial liabilities (\$8.8 million), cashout advances, Superfund (\$0.7 million) and other non-federal liabilities (\$3.4 million), increased by \$12.9 million.

The cumulative results of operations (CRO) beginning balance on the Consolidated Statement of Changes in Net Position for FY 2006 increased by \$74.3 million. The increase was the result of the reduction in prior fiscal years bad debt expense. In addition, the Net Cost of Operations on this statement decreased by \$160.2 million as a result of the additional revenue earned and reduction in bad debt expense for the re-established receivables. These changes increased the ending CRO balance by \$234.5 million. On the Statement of Custodial Activity, custodial revenue increased by \$1.8 million. Additional information on the restatement is provided in Note 40 of the "Annual Financial Statements" section (Section III) of this report.

Overview of Financial Position

The following discussion summarizes key financial information and significant variances between FY 2006 and FY 2007 in the Agency's financial statements. The financial statements appear in Section III of this report.

Assets

The Agency had total assets of \$17.6 billion at the end of FY 2007. The decrease in the Fund Balance with Treasury was partly offset by an increase in Investments. (See Notes 2 and 4, Section III.) The FY 2006 Consolidated Balance Sheet was restated to show a \$247 million increase in total assets, further contributing to the difference between FY 2007 and FY 2006. (See Note 40, Section III.) The Agency's assets are summarized in the following table.

Assets, U.S. Environmental Protection Agency (Dollars in Thousands)

Asset by Type	FY 2007	Restated FY 2006	Amount of Change	Percent Change
Fund Balance with Treasury	\$10,466,600	\$11,173,443	(\$706,843)	-6.3%
Investments	5,753,061	5,366,264	386,797	7.2%
Accounts Receivable, Net	416,341	618,964	(202,623)	-32.7%
Loans Receivable	23,161	30,836	(7,675)	-24.9%
Property Plant and Equipment, Net	809,873	756,794	53,079	7.0%
Other Assets	85,653	63,431	22,222	35.0%
Total Assets	\$17,554,689	\$18,009,732	(\$455,043)	-2.5%

Liabilities

The Agency had total liabilities of \$1.8 billion at the end of FY 2007. The increase from FY 2006 is primarily the result of a significant increase in Grant Liabilities. (See Note 8, Section III.)

Liabilities, U.S. Environmental Protection Agency (Dollars in Thousands)

Liabilities by Type	FY 2007	Restated FY 2006	Amount of Change	Percent Change
Account Payable and Accrued Liabilities	\$1,034,207	\$833,192	\$201,015	24.1%
Debt Due to Treasury	16,156	18,896	(2,740)	-14.5%
Custodial Liabilities	39,369	41,800	(2,431)	-5.8%
Cashout Advances, Superfund	190,269	224,407	(34,138)	-15.2%
Payroll and Benefits Payable	205,198	195,746	9,452	4.8%
Pensions and Other Actuarial Liabilities	39,786	39,408	378	1.00%
Environmental Cleanup Costs	18,214	10,083	8,131	80.6%
Commitments and Contingencies	-	8	(8)	-100%
Other Liabilities	212,099	237,681	(25,582)	-10.8%
Total Liabilities	\$1,755,298	\$1,601,221	\$154,077	9.6%

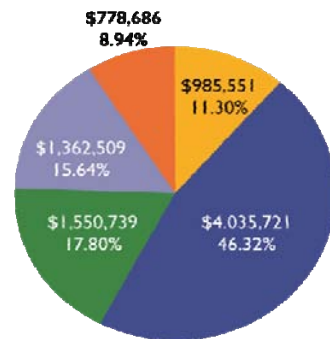
Ending Net Position

The Agency's Net Position at the end of FY 2007 was \$15.8 billion, a \$609 million decrease from the previous year's total of \$16.4 billion. The decrease is primarily attributable to substantially lower undelivered orders in FY 2007. (See Note 31, Section III.)

Results of Operations

The results of operations are reported in the Consolidated Statement of Net Cost and the Consolidated Statement of Changes in Net Position. The Agency's Net Cost of Operations for FY 2007 increased by \$528 million from FY 2006. This increase was primarily related to substantially lower bad debts expense reported in the Restated FY 2006 Net Cost Statement. (See Note 40, Section III). EPA's FY 2007 Net Cost of Operations (\$8.7 billion) consisted of Gross Costs (\$9.3 billion) less Earned Revenue (\$550 million). The chart provides the breakout of net costs by strategic goal.

How Funds Were Used: Net Program Costs
(Dollars in Thousands)



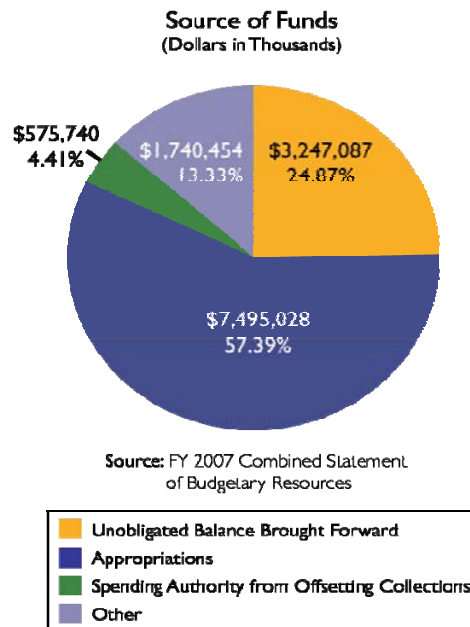
Source: FY 2007 Statement of Net Cost by Goal



Budgetary Resources

The Combined Statement of Budgetary Resources provides information on how resources were made available to the Agency and the status of those resources at the end of the fiscal year. For FY 2007, the Agency had total budgetary resources of \$13 billion compared to \$13.5 billion in FY 2006.

The decrease was primarily due to decreased reimbursements related to the Hurricane Katrina cleanup. Outlays reflect the actual cash disbursed against the Agency's obligations.



Statement of Budgetary Resources
(Dollars in Thousands)

	FY 2007	Restated FY 2006	Amount of Change	Percent Change
Total Budgetary Resources	\$13,058,309	\$13,452,220	(\$393,911)	-2.9%
Obligations Incurred:				
Direct	\$9,027,170	\$9,292,415	(265,245)	-2.9%
Reimbursable	489,752	912,718	(1,402,470)	-46.3%
Total Obligations Incurred	\$9,516,922	\$10,205,133	(\$688,211)	-6.7%
Gross Outlays	\$10,219,637	\$10,607,195	(387,558)	-3.7%
Less: Collections and Receipts	(1,962,646)	(2,291,623)	328,977	-14.4%
Total Net Outlays	\$8,256,991	\$8,315,572	(\$58,581)	-0.7%

Stewardship Information

The Agency reports on Stewardship Land as a component of Required Supplementary Information. Stewardship Land is land and land rights owned by the federal government but not acquired for or in connection with items of general property, plant, and equipment.

EPA acquires title to certain land and land rights related to remedial cleanup sites under the authorities provided in Section 104(j) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The land rights held by the Agency are easements that allow access to cleanup sites or that restrict the usage of remedial sites.

In addition, the Agency reports on three areas of Required Supplementary Stewardship Information – Research and Development, Infrastructure (clean water and drinking water facilities), and Human Capital (awareness training).

Additional financial reporting on the stewardship of these resources is provided in the “Annual Financial Statements” section of this report.











Government-Wide Financial Performance Measurements

The U.S. Chief Financial Officers Council publishes Government-wide financial performance measures on the “Metric Tracking System” (MTS) website at <http://www.fido.gov/mts/cfo/public>. These measures are a series of key financial management indicators that allow government financial managers, the Congress, and stakeholders to assess the financial performance of each agency.

During FY 2007, the Agency’s performance improved from yellow to green in one metric and remained unchanged in the other eight metrics. EPA is currently green in eight and red in one of the nine metrics.

EPA improved its performance in electronic payments by paying over 97 percent of its invoices electronically, which exceeded the goal of 96 percent.

The red rating on the delinquent accounts receivable is a long-standing issue that EPA is working through both internally and externally. The Refining the CFO Council’s Metric Tracking System—Metric 3 Workgroup, of which EPA is a participant, continues to strive for methods to reduce the balance of delinquent accounts receivable government-wide. The Workgroup is reviewing the procedures used to classify, collect, and record accounts receivable to identify similarities which could be used to standardize processes government-wide.

Government-Wide Financial Performance Metrics		
Financial Management Indicator	Rating September 2006	Rating September 2007
Amount In Suspense (Absolute) Greater than 60 Days Old		
Delinquent Accounts Receivable from the Public Over 180 Days		
Electronic Payments		
Percent Non-Credit Invoices Paid On-Time		
All Other:² Fund Balance with Treasury, Net Interest Penalties Paid Purchase Card Delinquency Rates Travel Card Delinquency Rates—Individually Billed Travel Card Delinquency Rates—Centrally Billed		

Limitations of the Financial Statements

The principal financial statements have been prepared to report the financial position and results of operations of EPA, pursuant to the requirements of 31 U.S.C. 3515 (b). While the statements have been prepared from the books and records of EPA 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.

IMPROVING MANAGEMENT AND RESULTS









The President's Management Agenda





Over the past 5 years, the President's Management Agenda (PMA) has challenged federal agencies to be "citizen-centered, results-oriented, and market-based" (see <http://www.whitehouse.gov/results>). During FY 2007, EPA made progress under each of the six PMA initiatives for which it is responsible: Human Capital, Competitive Sourcing, Expanded E-Government, Improved Financial Performance, Performance Improvement, and Eliminating Improper Payments.

This year, EPA's fourth quarter PMA scores show EPA as one of the highest-performing agencies in the federal government.¹¹ We are proud to demonstrate continued excellence and progress under our PMA initiatives and expect to continue the trend in 2008.

In addition to tracking PMA progress on a quarterly basis, federal agencies establish yearly goals for the point at which they would be "Proud to Be" in implementing PMA initiatives. This past year, EPA achieved its first green status rating for the Performance Improvement initiative since the PMA's inception. In addition, EPA maintained its green status and progress scores throughout the year in Competitive Sourcing, Financial Performance, and Eliminating Improper Payments. EPA also preserved green status scores in Expanded E-Government. EPA maintained green progress scores in Human Capital and expects to achieve a green status score later this year. More information about the Agency's PMA work is available at <http://www.epa.gov/ocfo/pma.htm>.

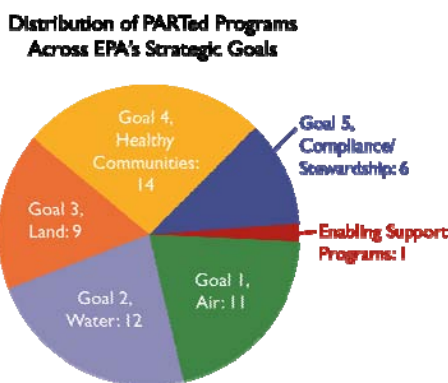
EPA's FY 2007 Progress Under The President's Management Agenda

Initiative	Status	Progress	Proud To Be (07/08) Results	Highlights
<p>Human Capital Fosters strong performance and results by increasing personal accountability and linking job requirements to EPA's mission and goals.</p>	 Yellow	 Green	<p>EPA met its goal of "Yellow" for P2B4.</p> <p>EPA has set a goal of Green for P2B5.</p>	<ul style="list-style-type: none"> Exceeded its SES time to hire target of 90 days with its average hiring time of 66 days. Completed competency management cycles for 6 priority Mission Critical Occupations (MCOs) resulting in no significant proficiency gaps. Identified vacancy rates within MCO ranks. Continued achievement in SES mobility implementation, non-SES time to hire, and management hiring satisfaction. Received full certification for SES pay and performance system with continued efforts to further strengthen alignment and results area assessments.
<p>Competitive Sourcing Having public-private competition enables the Agency to determine the most economical mode of delivering services while ensuring the highest quality of those services.</p>	 Green	 Green	<p>EPA met its goal of "Green" for P2B4.</p> <p>EPA has set a goal of maintaining Green for P2B5.</p>	<ul style="list-style-type: none"> EPA has completed 34 competitions to date, covering 288 FTE, with anticipated savings of \$24.8 million. EPA has an approved Green competition plan. EPA completed 7 competitions in the past year, covering 70 FTE, with \$7.2 million expected savings. EPA announced 8 competitions, covering 75 FTE performing IT and financial audit services in the Regions and Headquarters. EPA is progressing with a standard competition covering 47 FTE for desktop services for all Headquarters offices with selection expected in early FY 2008.
<p>Expanded E-Government Utilizes technology to better serve the United States and its people including electronic information, online transactions, and new information management capabilities.</p>	 Green	 Yellow	<p>EPA met its goal of "Green" for P2B4.</p> <p>EPA has set a goal of maintaining Green for P2B5.</p>	<ul style="list-style-type: none"> E-Travel—began phased deployment of its new travel system, GovTrip, which will support planning and authorizing travel, making reservations, delivering electronic tickets, calculating and approving reimbursements, and archiving data. Full Agency deployment is anticipated by September 2008. E-Rulemaking—As of September 2007, EPA has received over 129 million hits on Regulations.gov. Migration to the Federal Docket Management System has been completed for 28 Federal departments and agencies. These departments and agencies are comprised of over 120 entities that promulgate approximately 90% of all Federal rulemakings. The Office of Management and Budget has assigned Yellow progress scores to all agencies and departments until new Privacy and Security requirements embedded in OMB Memorandum 07-16 are fully met. As required in EPA's current scorecard, the Agency will submit a schedule of completion to OMB by December 14 which delineates how EPA will meet all M-07-16 requirements.
<p>Improved Financial Performance Focuses on running environmental programs in a fiscally responsible manner so citizens' dollars are used wisely and their health and environment are protected.</p>	 Green	 Green	<p>EPA met its goal of "Green" for P2B4.</p> <p>EPA has set a goal of maintaining Green for P2B5.</p>	<ul style="list-style-type: none"> Financial Data Integration—successfully implemented efforts to make financial information readily accessible to decision-makers administering and overseeing grants. Integrated reports contributed to a 10 percent reduction in unliquidated obligations in expired grants. Developed and tested a framework to integrate financial and contracts reporting. Reports that combine financial and contracts data are now available to contract managers to help them address issues relating to the utilization of contract funds and the evaluation of obligations and unliquidated balances. Made significant progress in improving the Agency's management of financial and administrative information associated with natural disasters and other significant emergencies. Developed a template to track costs by mission assignment, region, and state for a given incident of national significance. Met interim and annual financial statements deadlines. Integrated internal controls into our daily activities by publishing a brochure on OMB revised Circular No. A 123, revising the integrity web site to include internal controls, and beginning to develop on-line training for all employees.

Initiative	Status	Progress	Proud To Be (07/08) Results	Highlights																												
<p>Performance Improvement Contributes to EPA's quest for better performance, increased accountability, better informed decision-making, and more transparent, comprehensive reporting of environmental results to the public.</p>	 Green	 Green	<p>EPA met its goal of "Green" for P2B4.</p> <p>EPA has set a goal of maintaining Green for P2B5.</p>	<ul style="list-style-type: none"> EPA worked cooperatively with OMB on the 2007 Program Assessment Rating Tool (PART) process, completing three new PART assessments and three reassessments in 2007; five were rated Moderately Effective and 1 Adequate. See the PART section below for more details. 91% of EPA's 53 PARTed programs are rated Moderately Effective or Adequate. EPA developed efficiency measures for 53 of 53 PARTed programs, leading to EPA's first green status score in the PII initiative. EPA also received green progress scores for all four quarters in FY 2007. 																												
<p>Eliminating Improper Payments Focuses on identifying, preventing, and eliminating erroneous payments.</p>	 Green	 Green	<p>EPA met its goal of "Green" for P2B4.</p> <p>EPA has set a goal of maintaining Green for P2B5.</p>	<ul style="list-style-type: none"> The Improper Payment Information Act (IPIA) of 2002 requires the Agency to annually review all programs and activities that it administers and identify all such programs and activities susceptible to significant improper payments. Significant improper payments are annual payments in the program exceeding both 2.5 percent of the program payments and \$10 million. Continued monitoring payment activities under a 3-year relief from the sampling requirements on payments in the Clean Water and Drinking Water State Revolving Funds. Continued to show a low incidence of improper payments (<0.1 percent) As a result of EPA's ability to demonstrate that its internal controls over improper payments are adequate, OMB has granted the Agency a 3-year relief (FY 2006 - 2009) from statistical sampling of payments in the two state revolving funds. Additional reporting details required by the Improper Payments Improvement Act (IPIA) are provided in Section IV of this Performance and Accountability Report. <table border="1"> <thead> <tr> <th colspan="4">EPA's Improper Payment Reduction Effort Clean Water and Drinking Water State Revolving Funds (SRFs)</th> </tr> <tr> <th>Fiscal Year</th> <th>Target Error Rate</th> <th>Actual Error Rate</th> <th>Actual Improper Payments (dollars in millions)</th> </tr> </thead> <tbody> <tr> <td>FY 2003</td> <td>Baseline</td> <td>0.51%</td> <td>\$12.4</td> </tr> <tr> <td>FY 2004</td> <td>0.49%</td> <td>0.49%</td> <td>\$10.3</td> </tr> <tr> <td>FY 2005</td> <td>0.45%</td> <td>0.15%</td> <td>\$3.0</td> </tr> <tr> <td>FY 2006</td> <td>0.40%</td> <td>0.15%</td> <td>\$3.5</td> </tr> <tr> <td>FY 2007</td> <td>0.35%</td> <td>0.07%</td> <td>\$1.6</td> </tr> </tbody> </table>	EPA's Improper Payment Reduction Effort Clean Water and Drinking Water State Revolving Funds (SRFs)				Fiscal Year	Target Error Rate	Actual Error Rate	Actual Improper Payments (dollars in millions)	FY 2003	Baseline	0.51%	\$12.4	FY 2004	0.49%	0.49%	\$10.3	FY 2005	0.45%	0.15%	\$3.0	FY 2006	0.40%	0.15%	\$3.5	FY 2007	0.35%	0.07%	\$1.6
EPA's Improper Payment Reduction Effort Clean Water and Drinking Water State Revolving Funds (SRFs)																																
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FY 2007	0.35%	0.07%	\$1.6																													

The Program Assessment Rating Tool

EPA uses Program Assessment Rating Tool (PART) assessments, along with program evaluations, audits, and other reviews, to inform policy making, facilitate allocation of resources, and improve environmental outcomes while ensuring the most effective and efficient use of taxpayer dollars. The tables of measures and results provided in Section II of this report, “Performance Results,” identify all performance measures associated with the PART that have FY 2007 targets, and we report FY 2007 results for the measures where data are currently available. PART measures without corresponding FY 2007 targets are summarized in a separate table at the end of Section II. These measures will be incorporated into EPA’s budget and other documents, including future Performance and Accountability Reports, as data becomes available.



EPA’s PART ratings, as well as the ratings for other federal programs that have been assessed, are available to the public at <http://www.Expectmore.gov>. As of FY 2007, EPA developed 193 follow-up actions in response to PART assessments. Forty follow-up actions have been completed; 138 are currently active; and 15 have had no action taken to date.

EPA PART FOLLOW-UP ACTIONS		
Type of Follow-Up Action	Number	Focus
Performance	95	Focused on improving the Agency's ability to measure, track, and assess programmatic performance and intended environmental outcomes.
Management	85	Designed to improve EPA's program management practices and facilitate the delivery of environmental results.
Budgetary	12	Designed to ensure that EPA's resources are directed toward delivering strong environmental results
Legislative	1	Designed to affect EPA programs' legislative requirements so that the program purpose is clear and environmental outcomes can be achieved.

Other Tools for Improving Management and Results

Program Evaluation

In FY 2007, many EPA programs were evaluated for design, effectiveness, and efficiency and to identify potential improvements. Program evaluations were conducted by independent third parties, and a number of them were funded through the Agency's annual program evaluation competition sponsored by EPA's Office of Policy, Economics, and Innovation. Appendix A lists program evaluations conducted under each of the Agency's five strategic goals.

Office of Inspector General Audits, Reviews, and Investigations

EPA's Office of Inspector General (OIG) contributes to the Agency's mission to improve human health and environmental protection by assessing the economy, efficiency, and effectiveness of EPA's program management and results; ensuring that Agency resources are used as intended; and developing recommendations for improvements and cost savings. Appendix A lists OIG program evaluations and reviews completed in FY 2007 in support of each of the Agency's five strategic goals. EPA's OIG also contributes to the integrity of and public confidence in the Agency's programs and to the security of its resources by preventing and detecting possible fraud, waste, and abuse and pursuing judicial and administrative remedies.

Grants Management

EPA has met or exceeded all of the major performance metrics under its Grants Management Plan and has put in place a comprehensive system of internal controls. As a result of these controls, we have incorporated accountability in our training, performance evaluation, and management reporting systems, enhanced transparency through our competitive process for discretionary grants, and implemented policies to demonstrate the environmental results of our grants. Based on the substantial progress made over the past 7 years, the Agency has corrected its long-standing grants management weakness. To address future challenges, we are developing a new Grants Management Plan that will go into effect in 2008.

Grants Management Performance Measures

Performance Measure	Target	Progress in FY 2006	Progress in FY 2007
Percentage of grants managed by certified project officers	100%	99.1%	99.7%
Percentage of new grants subject to the competition order that are competed	85%	95.0%	94.7%
Percentage of new grants to non-profit recipients subject to the competition order that are competed	75%	90.8%	89.3%
* Percentage of active recipients who receive advanced monitoring	10%	8.4%	10.6%
Percentage of advanced monitoring reports closed within 120 days	90%	93.8%	93.4%
Percentage of eligible grants closed out	99% 90%	99.4% in 2004 and earlier 96.6% in 2005	99.6% in 2005 and earlier 95.8% in 2006
** Percentage of grant work plans that include well-defined environmental outcomes	N/A	N/A	61%

* This performance measure is tracked on a calendar year basis.

** This performance measure is based on a sample of new grants awarded in FY2006. It is a new metric, and a baseline and target will be developed in FY2008. This new measure reflects language in EPA's Environmental Results Order, and it is more precise than the measure used previously. (The earlier measure comprised "percentage of grant work plans that include a discussion of qualitative environmental results.")

EPA HOLDS ITSELF ACCOUNTABLE: SYSTEMS, CONTROLS, AND LEGAL COMPLIANCE

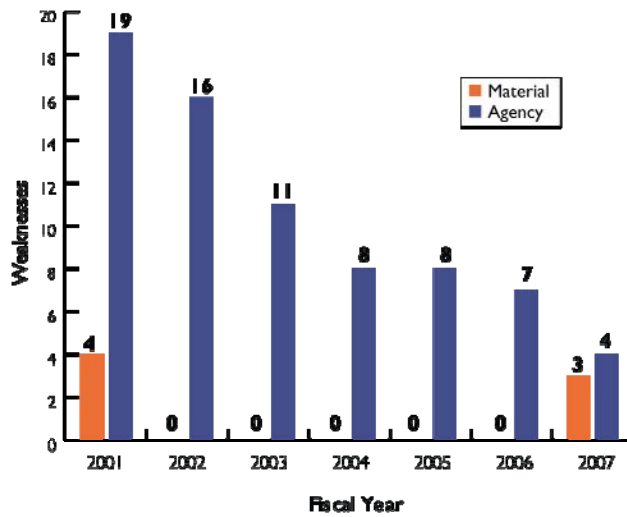
Federal Managers' Financial Integrity Act

The Federal Managers' Financial Integrity Act (FMFIA) requires agencies to conduct an annual evaluation of their management controls and financial systems and report the results to the President and Congress. In addition, EPA is required to report on the effectiveness of internal controls over financial reporting, which includes safeguarding of assets and compliance with applicable laws and regulations, in accordance with the requirements of Appendix A of OMB revised Circular No. A-123.

In late FY 2007, the Agency was engaged in researching and resolving an emerging issue related to delinquent receivables, which we immediately addressed. During the Agency's FY 2007 Financial Statements Audit, the OIG identified: (1) a material weakness in our process for determining the value of delinquent receivables and (2) six significant deficiencies. Two of the significant deficiencies are systems-related issues, and thus the Agency is required to report them as material weaknesses under Section 4 of FMFIA and as non-compliances under the Federal Financial Management Improvement Act (FFMIA). They are: (1) Key Applications Need Controls and (2) Physical Security of Critical IT Assets. The remaining four significant deficiencies will be reported as internal controls over financial reporting significant deficiencies under OMB revised Circular No. A-123, Appendix A.

The Agency has corrected the delinquent receivables material weakness. We have restated the Agency's FY 2006 financial statements to reflect the value of these receivables and have modified our operating practice of reclassifying receivables. The revision to the FY 2006 statements is reflected in *Section III, Annual Financial Statements*. Corrective actions are underway to rectify the two systems-related material weaknesses and are expected to be completed by December 31, 2007. EPA expects to complete all corrective actions to address the remaining significant deficiencies in FY 2008.

**7-Year Trend of Material and Agency Weaknesses
Fiscal Years 2001–2007**



In FY 2007, EPA closed three of seven Agency-level weaknesses: Safe Drinking Water Information System (SDWIS), Improved Management of Assistance Agreements, and Clean Water Act Section 305(b) Reporting. (See “Management Challenges” in *Section IV, Other Accompanying Information*, for a detailed discussion of these issues.)

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

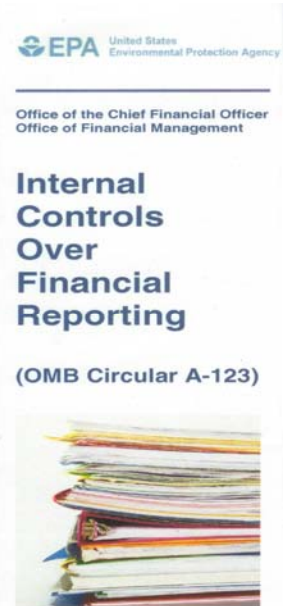
1. Data Gaps
2. Data Standards and Data Quality
3. Information Technology Systems Development and Implementation
4. Managing for Results
5. Workforce Planning
6. Efforts in Support of Homeland Security
7. Efficiently Managing Water and Wastewater Resources and Infrastructure
8. Emissions Factors for Sources of Air Pollution
9. Privacy Programs
10. Voluntary Programs

For details, see “Office of Inspector General’s FY 2007 Key Management Challenges,” on page 11 of *Section IV—Other Accompanying Information*.

During FY 2007, EPA conducted its annual assessment on the effectiveness of internal controls over financial reporting, as required by OMB revised Circular No. A-123. Through this process, we identified and documented ten financial management processes and tested 260 key controls. As of June 30, 2007, EPA found no material weaknesses. However, the assessment revealed several significant deficiencies in the areas of financial reporting, accounts receivable, and data security.

Corrective actions for these significant deficiencies were completed by September 30, 2007. Additionally, EPA closed three of its four significant deficiencies reported in the FY 2006 internal control assessment. The remaining significant deficiency, related to quarterly cost reporting, is scheduled for closure in FY 2009. We will continue to monitor the progress in correcting this issue until it is resolved.

EPA took a number of steps to emphasize the importance of internal controls and increase staff awareness of the Agency's management integrity. In FY 2007, we updated our management integrity website so that it now serves as a repository for all FMFIA-related information. The website contains a comprehensive electronic library for quick access to statutory authorities, OMB circulars, Government Accountability Office guidance, Agency-wide guidance, and other pertinent information. In an effort to raise employees' awareness of their responsibility for proper stewardship of federal resources, the Agency developed a new brochure, *Internal Controls Over Financial Reporting*, which is distributed to new employees during the "New Employee Orientation Sessions." Additionally, EPA plans to develop a prototype for annual on-line revised OMB Circular A-123 training. The Agency will pilot the training in FY 2008, prior to expanding the program to include all Agency employees.



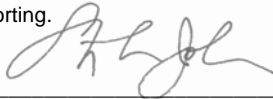
Management Assurances

Fiscal Year 2007 Assurance Statement

The U.S. Environmental Protection Agency's (EPA's) management is responsible for establishing and maintaining effective internal control and financial management systems that meet the objectives of the Federal Managers' Financial Integrity Act (FMFIA). EPA conducted its assessment of the effectiveness of internal control over the effectiveness and efficiency of operations and compliance with applicable laws and regulations in accordance with OMB Circular A-123, Management's Responsibility for Internal Control.

Based on the results of this evaluation, no material weaknesses were found in the design or operation of the Agency's internal controls and no financial management system non-conformances were identified. Subsequently, the Agency's Inspector General identified two systems-related significant deficiencies, which are required to be reported as material weaknesses and as non-compliances under the Federal Financial Management Improvement Act (FFMIA). The Agency has initiated corrective actions to rectify these weaknesses. Except for these weaknesses, I can provide reasonable assurance that as of September 30, 2007, the Agency's internal controls were operating effectively and financial systems conform with government-wide requirements.

EPA conducted its assessment of the effectiveness of internal controls over financial reporting, which includes safeguarding of assets and compliance with applicable laws and regulations, in accordance with the requirements of Appendix A of OMB Circular A-123. Based on the results of this evaluation, no material weaknesses were found in the design or operation of internal controls over financial reporting as of June 30, 2007. Subsequently, the Agency's Inspector General identified the Agency's process for determining the value of delinquent receivables as a material weakness. EPA has corrected this weakness. As a result, I can provide reasonable assurance that except for two system-related weaknesses, EPA internal controls were operating effectively as of September 30, 2007, and no other material weaknesses were found in the design or operation of the internal controls over financial reporting.



Stephen L. Johnson
Administrator

November 1, 2007
Date

Federal Financial Management Improvement Act

The Federal Financial Management Improvement Act of 1996 (FFMIA) requires that agencies implement and maintain financial management systems that comply with (1) federal financial management system requirements, (2) applicable federal accounting standards, and (3) the U.S. Government Standard General Ledger. Annually, agency heads are required to assess and report on whether these systems comply with FFMIA.

In assessing compliance with FFMIA, EPA uses the FFMIA implementation guidance issued by OMB, results of OIG reports, annual financial statements audits, the Agency's annual Federal Information Security Management Act Report, and other systems-related activities.

Last year EPA reported that two corrective actions relating to security certification policies for contractor personnel and security certification for grantee personnel were outstanding audit issues. During FY 2007, the Agency published the Personal Identify Verification Handbook to resolve these issues.

Based on all information assessed, the Agency has determined that it is not in overall substantial compliance with FFMIA for FY 2007, based on the two systems-related significant deficiencies mentioned in the FMFIA section above.

Federal Information Security Management Act

The Federal Information Security Management Act (FISMA) directs federal agencies to evaluate the effectiveness of their information security programs and practices annually and submit a report—including an independent evaluation by the Inspector General—to OMB. Agencies also report quarterly to OMB on the status of remediation of weaknesses found.

EPA's Chief Information Officer, senior agency program officials, and Inspector General submitted EPA's FISMA Report for Fiscal Year 2007 on October 1, 2007. The report presents the results of the Agency's annual security program reviews and 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. The Agency plans to sharpen its focus in the area of Electronic Authentication (e-Authentication) Risk Assessments in the coming years.

In FY 2007, EPA reported no significant deficiencies in its information security systems. However, subsequent to the Agency's submission of its FY 2007 FISMA Report, OIG identified two significant deficiencies under FISMA that are described under the FMFIA section above.

Improving Financial Management

FY 2007 marks the fourth consecutive year in which EPA has received a "Green" PMA score for Improved Financial Performance. EPA's financial management activities include achieving a clean audit opinion, resolving material weaknesses in a timely manner, improving the Agency's ability to reduce improper payments, deploying E-travel Agency-wide, and replacing legacy systems to meet federal reporting requirements.

The Agency also successfully implemented efforts to make financial information readily accessible to decision-makers. We developed and tested a framework to integrate financial and contracts reporting. Reports that combine financial and contracts data are available to contract managers and will help them address issues relating to the utilization of contract funds and the evaluation of obligations and unliquidated balances.

In addition, we made significant progress in improving the management of financial and administrative information associated with natural disasters and other significant emergencies. The Agency developed a template to track costs by mission assignment, region, and state for a given incident of national significance.

Improving Financial Management Systems

EPA's Financial System Modernization Project, a key element of the overall Financial Replacement System Plan, supports the Agency's mission and goals and the government-wide goals for improving financial management. In addition, the project supports the provision of accurate and comprehensive financial data, including stewardship and operating performance information, and enables effective decision-making at all levels to ensure cost-effective mission achievement and risk mitigation.

The Agency continues to move forward in replacing its core financial system. In February 2007, EPA awarded a contract for software acquisition and implementation services, which included migrating the financial system hosting and application management to a

commercial shared-service provider. However, a protest of the contract award was filed with the Government Accountability Office (GAO), which sustained the protest. The Agency is working to resolve the issues raised by GAO and expects to begin implementing the new financial system in FY 2008.

EPA is also developing an accessible enterprise Administrative Data Warehouse to provide a common source of authoritative data and reduce redundancy in management and data sources. The new warehouse will be phased in by the end of FY 2010, in conjunction with the new financial management system.

Inspector General Act Amendments of 1988

EPA uses the results of OIG audits and evaluations as a tool for assessing its progress and improving its ability to meet its strategic goals. In FY 2007, in response to an OIG review of EPA's audit management process, the Office of the Chief Financial Officer, in collaboration with the OIG, issued guidance and conducted training to reinforce Agency audit follow-up practices. EPA will continue working to strengthen its audit management and complete corrective actions in a timely manner.

In FY 2007, EPA was responsible for addressing OIG recommendations and tracking follow-up activities on 424 audits. The Agency achieved final action (completing all corrective actions associated with an audit) on 201 audits, including Program Evaluation/Program Performance, Assistance Agreement, Contracts, and Single audits.

Category	Disallowed Costs (Financial Audits)		Funds Put To Better Use (Performance Audits)	
	Number	Value	Number	Value
A. Audits with management decisions but without final action at the beginning of the period	*57	*\$ 63,501,358	3	\$ 41,353,000
B. Audits for which management decisions were made during the period (i) Management decisions with disallowed costs (53) (ii) Management decisions with no disallowed costs (151)	204	\$ 31,714,586	12	\$ 5,844,000
C. Total audits pending final action during the period (A+B)	261	\$ 95,215,944	15	\$ 47,197,000
D. Final action taken during the period: (i) Recoveries a) Offsets b) Collection c) Value of Property d) Other (ii) Write-Offs (iii) Reinstated Through Grantee Appeal (iv) Value of recommendations completed (v) Value of recommendations management decided should/could not be completed	192	\$ 32,648,477	9	\$ 20,000
		\$ 15,334		
		\$ 2,068,566		
		\$ 0		
		\$ 2,791,860		
		\$ 7,535,099		
		\$ 237,634		
				\$ 5,000
				\$15,000
E. Audits without final action at end of period (C-D)	69	\$ 62,567,467	6	\$27,197,000

**Note: Table reflects data captured by EPA's Management Audit Tracking System (MATS) for management decisions and final disposition of audit recommendations. Upon verification with OIG, discrepancies identified as omissions from MATS will be reconciled during the next reporting period. Differences in number of reports and amounts of disallowed costs between this report and our previous semiannual report are the result of adjustments made to follow-up data in MATS.*

EPA's FY 2007 management activities for audits with associated dollars (represented in the table above) and for audits without dollars are summarized below.

- *Final Corrective Action Not Taken.* Of the 424 audits that EPA tracked, a total of 232 audits—which include Program Evaluation/Program Performance, Assistance Agreement, Contracts, and Single audits—were without final action and not yet fully resolved at the end of FY 2007. (The 29 audits with management decisions under administrative appeal by the grantee are not included in the 232 total; see discussion below.)
- *Final Corrective Action Not Taken Beyond 1 Year.* Of the 232 audits, EPA officials had not completed final action on 45 audits within 1 year after the management decision (the point at which OIG and the Action Official reach agreement on the 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. These audits are listed below by category—audits of program performance and single audits—and identified by title and responsible office. Additional details are available on EPA's web site at www.epa.gov/ocfo/par/2007par.

Audits of Program Performance: Final action for program performance audits occurs when all corrective actions have been implemented, which may take longer than 1 year when corrections are complex and lengthy. Some audits include recommendations requiring action by more than one office. EPA is tracking 32 audits in this category.

Office of the Administrator:

2006-P00001 Industrial Wipes Congressional Request

Office of Administration and Resources Management:

2000-P00029 Interagency Agreements Follow-up
2002-P00005 CFDA Program 66.606
2004-P00026 Financial Application Development and Change Control
2005-P00019 People Plus Security Controls Need Improvement

Office of Air:

2005-P00010 Evaluation of CAA Title V Operating Permit Quality
2006-P00024 IFOSEC Series: Security Practices OAR

Office of the Chief Financial Officer:

2006-P00005 IS Service Continuity & Physical Access Controls at NCC
2006-P00027 Undistributed Superfund Costs
2006-100015 2005 Agency Financial Statement - General

Office of Enforcement & Compliance Assurance:

2001-P00006 ENF Agreement Compliance
2001-P00013 State Enforcement Effectiveness – National Audit
2004-P00021 Evaluation of EPA's Petroleum Refinery Enforcement and Compliance
2005-P00024 Priority Enforcement and Compliance Assurance Universe
2006-P00006 Performance Measurement and Reporting for Enforcement

Office of Prevention, Pesticides & Toxic Substances:

1991-101378 Pesticides Inerts
2006-P00009 Impact of Data Gaps on EPA's Implementation of FQPA

Office of Solid Waste and Emergency Response:

2000-P00002 RCRA Corrective Actions
2004-P00005 Mega Financial Responsibilities at Superfund Mine Sites
2003-P00010 Mega EPA's National Hardrock Mining Framework
2005-P00026 RCRA Financial Responsibility Requirements
2006-P00013 SF Mandate: Program Efficiencies
2006-P00016 EPA's Management Strategy for Contaminated Sediments
2006-P00027 Undistributed Superfund Costs
2006-P00007 More Information Is Needed on Toxaphene Degradation Products

Office of Water:

2002-P00012 Controlling and Abating Combined Sewer Overflows
2003-P00018 Drinking Water Capacity
2004-P00030 EPA's Pretreatment Program
2005-P00021 SDWA Tools
2006-P00021 Information Security Series: Security Practices – SDWIS
2006-P00007 More Information Is Needed On Toxaphene Degradation Products
2006-P00016 EPA's Management Strategy for Contaminated Sediments

Single Audits: Final action for single audits occurs when non-monetary compliance actions are completed. This may take longer than one year to implement if the findings are complex or if the grantee does not have the resources to take corrective action. Single audits are conducted of nonprofit organizations, universities,

and state and local governments. EPA is tracking completion of corrective action on 13 single audits for the period beginning October 1, 2007.

Region 5:

2005-300114 North Lawrence Water Authority, FY2003

Region 9:

2005-300212 Yavapai Apache Nation FY 2003

2005-300211 Yavapai Apache Nation FY 2002

Region 10:

2002-300009 Iliama Village Council

2002-300042 Iliama Village Council

2003-300047 Stevens Village Council

2003-300117 Stevens Village Council

2003-300145 Circle Village Council

2004-300011 Northway Village Council

2005-300084 Hoonah Indian Association – FY 2002

2005-300218 Chalkyitsik Village Council

2005-300239 Chalkyitsik Village Council

2006-300085 Stevens Village Council FY 2003

- *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. At the end of FY 2007, 29 audits were in administrative appeal. When these audits are out of appeal and all issues have been resolved, they will be captured in audit follow-up data reported in EPA's PAR.

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 <http://intranet.epa.gov/ocfo/budget/2008/2008cj.htm>

³ <http://www.epa.gov/ocfo/plan/plan.htm>

⁴ U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, 2007. Regulatory Impact Analyses. Proposed Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone. <http://www.epa.gov/ttn/ecas/ria.htm/ria2007>

⁵ <http://www.epa.gov/radon/healthrisks.html>, and United States Environmental Protection Agency. June 2003. "EPA Assessment of Risks from Radon in Homes PDF." EPA 402-R-03-003.

⁶ For the President's goal, see <http://www.whitehouse.gov/news/releases/2002/02/climatechange.html#>

⁷ *The Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1994-2004*, U.S. EPA 430-R-06-002, April 2006.

⁸ Data Source: Integrated Compliance Information System (ICIS), available at: <http://www.epa.gov/compliance/data/systems/modernization/index.html>.

⁹ Integrated Compliance Information System (ICIS), October 2007, available at: <http://www.epa.gov/compliance/data/systems/modernization/index.html>; Office of Air and Radiation. BenMAP model. For additional information on FY 2007 enforcement settlements, please visit the following EPA web site: <http://www.epa.gov/compliance/resources/cases/index.html>.

¹⁰ US EPA. Integrated Compliance Information System, October 28, 2006 and on-line usage reports. These measures are not calculated from a representative sample of the regulated entity universe. The percentages are based, in part, on the number of regulated entities that answered affirmatively to these questions on voluntary surveys. The percentages do not account for the number of regulated entities who chose not to answer these questions or the majority of entities who chose not to answer the surveys.

¹¹ 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.



EPA's FY 2007 Performance and Accountability Report

Section II Performance Results

This document is one chapter from the "Fiscal Year 2007 Performance and Accountability Report, U.S. Environmental Protection Agency," (EPA-190-R-07-001), published on November 15, 2007. This document is available at: <http://www.epa.gov/ocfo/par/2007par>.

INTRODUCTION TO PERFORMANCE SECTION

This section provides performance information for each of EPA's five strategic goals: (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. Each goal chapter opens by reviewing the purpose of the goal and the public benefits it provides, lists contributing EPA programs, and then discusses the progress that the Agency has made toward achieving each of the strategic objectives supporting that goal and the challenges we face. This general information is intended to provide an overview of EPA's FY 2007 performance and progress toward its longer-term goals and objectives.

More complete and detailed performance information for the goal is provided in the table of results that follows the general discussion. The table is organized by objective and includes the longer-range strategic targets that are a part of EPA's *2006 – 2011 Strategic Plan*. Objective by objective, the table provides detailed FY 2004 through FY 2007 results for each annual performance measure included in EPA's FY 2007 Annual Plan and Budget. For measures where EPA has missed or significantly exceeded its FY 2007 target or does not yet have complete FY 2007 performance data, the table provides explanations. Measures that are not currently used for Office of Management and Budget (OMB) Program Assessment Rating Tool (PART) assessments appear in italics.

The Performance Section also lists PART assessments conducted under each of the strategic goals. Future PART measures for each strategic goal are listed in a separate table, along with the year EPA expects to begin reporting data against them. Additional information on PART assessments and EPA's progress in making program improvements is available at ExpectMore.gov.

EPA's Performance Framework

FY 2007 Costs and Obligations Are Presented for Each Strategic Goal (in Thousands of Dollars)*

Strategic Goals				
Clean Air & Global Climate Change Cost: \$985,559.7 Obligation: \$963,592.5	Clean & Safe Water Cost: \$4,035,735.7 Obligation: \$3,274,314.1	Land Preservation & Restoration Cost: \$1,550,748.7 Obligation: \$3,041,225.4	Healthy Communities & Ecosystems Cost: \$1,362,514.8 Obligation: \$1,447,061.3	Compliance & Environmental Stewardship Cost: \$778,691.3 Obligation: \$788,222.2

Strategic Objectives				
Outdoor Air (16 PMs) Cost: \$627,559.7 Obligation: \$601,235.3	Human Health (12 PMs) Cost: \$1,426,541.5 Obligation: \$1,173,321.5	Preserve Land (9 PMs) Cost: \$220,621.4 Obligation: \$243,959.6	Chemical and Pesticide Risks (14 PMs) Cost: \$428,866.6 Obligation: \$492,230.9	Improved Compliance (8 PMs) Cost: \$496,644.3 Obligation: \$521,869.9
Indoor Air (4 PMs) Cost: \$49,464.3 Obligation: \$46,783.4	Water Quality (15 PMs) Cost: \$2,467,819.8 Obligation: \$1,961,309.2	Restore Land (18 PMs) Cost: \$1,275,358.7 Obligation: \$2,715,521.3	Communities (3 PMs) Cost: \$310,794.3 Obligation: \$303,715.7	Improved Environmental Performance Through P2 and Stewardship (6 PMs) Cost: \$122,382.2 Obligation: \$124,456.7
The Ozone Layer (2 PMs) Cost: \$21,702.8 Obligation: \$20,598.5	Science & Research (5 PMs) Cost: \$141,374.4 Obligation: \$139,683.4	Science & Research (2 PMs) Cost: \$54,768.6 Obligation: \$81,744.5	Ecosystems (16 PMs) Cost: \$195,829.2 Obligation: \$234,105.9	Improved Human Health and Environment in Indian Country (3 PMs) Cost: \$83,933.2 Obligation: \$75,666.8
Radiation (0 PMs) Cost: \$35,708.2 Obligation: \$43,465.3			Science & Research (17 PMs) Cost: \$427,024.7 Obligation: \$417,008.8	Science & Research (0 PMs) Cost: \$75,731.6 Obligation: \$66,228.8
Greenhouse Gas Intensity (3 PMs) Cost: \$139,726.6 Obligation: \$148,444.9				
Science & Research (1 PM) Cost: \$111,398.1 Obligation: \$103,065.1				

Note: See Performance Results for each Goal and Strategic Objective for presentation of dollars associated with FY 2007 costs and obligations.
 * Reconciles with SF-133, Lines 8a and 8b—Obligations.

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 2006-2011 Strategic Plan includes 20 objectives.

SUB-OBJECTIVE: Divides the objectives into discrete measurable outcomes. Sub-objectives do not overlap, but collectively contribute to the achievement of an objective. EPA's 2006-2011 Strategic Plan includes 45 sub-objectives.

STRATEGIC TARGET: Occurs within a sub-objective when necessary to provide additional measurable detail or elaboration on the sub-objective. EPA's 2006-2011 Strategic Plan includes 26 strategic targets.

ANNUAL PERFORMANCE MEASURE (APM): The metric that EPA uses to evaluate its success in achieving annual progress in working toward longer-term goals.

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.

CONTRIBUTING PROGRAMS:

Acid Rain Program, AirNow, Air Toxics, Clean Air Allowance Trading Programs, Clean Air Research, National Ambient Air Quality Standards Development and Implementation, Mobile Sources, New Source Review, Regional Haze, Indoor Air Quality, Stratospheric Ozone Layer Protection Program, Radiation Programs, Voluntary Climate Programs.

GOAL PURPOSE:

Air pollution is a problem for all of us. The average adult breathes more than 3,000 gallons of air every day, and children breathe even more air per pound of body weight. Air pollutants, such as those that form urban smog, may remain in the environment for long periods of time and can be carried by the wind hundreds of miles from their origin. Millions of people live in areas where urban smog, very small particles, and toxic pollutants pose serious health concerns. People exposed to certain air pollutants may experience burning in their eyes, an irritated throat, or breathing difficulties. Long-term exposure to certain air pollutants may cause cancer and may damage the immune, neurological, reproductive, and respiratory systems.

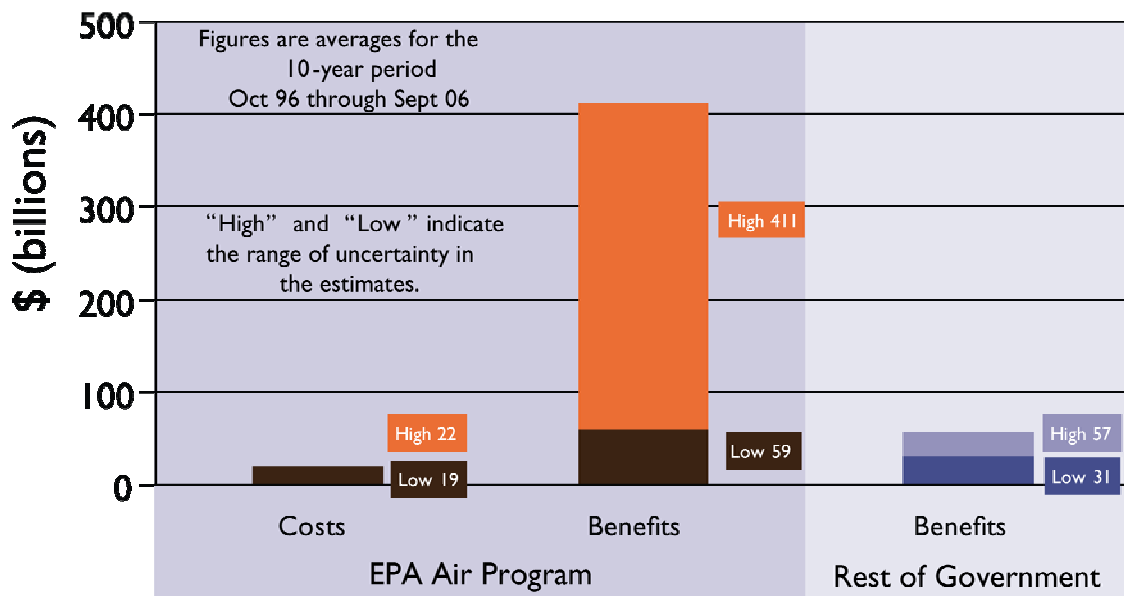
EPA implements the Clean Air Act Amendments of 1990 and other environmental laws and uses innovative approaches, such as emissions trading, to reduce and prevent the harmful emissions from power plants and other large sources, motor vehicles, and fuels that contribute to outdoor air pollution. The Clean Air Act Amendments authorize EPA to set limits on how much of a pollutant can be in the air anywhere in the United States, ensuring that all Americans have the same basic health and environmental protection. While the law allows individual states to establish stronger pollution controls, no state is allowed to have weaker pollution controls than those set for the country as a whole. It makes sense for states to take the lead in carrying out the Clean Air Act, because pollution control problems often require a particular understanding of factors such as local industries, geography, and housing patterns. The U.S. government, through EPA, assists states by providing scientific research, expert studies, engineering designs, and money to support state clean air programs.

Since most people spend much of their lives indoors, the quality of indoor air is another major area of concern for EPA. Sources of indoor air pollution include oil, gas, kerosene, coal, wood, and tobacco products and building materials and furnishings, such as asbestos-containing insulation, damp carpets, household cleaning products, and lead-based paints. Often, the people who may be exposed to indoor air pollutants for the longest periods of time are also those most susceptible to the effects of indoor air pollution: the young, the elderly, and the chronically ill, especially those suffering from respiratory or cardiovascular disease. EPA provides hotlines, publications, outreach and other initiatives to improve the quality of air in our homes, schools, and offices.

EPA also works to address climate change. Since the beginning of the industrial revolution, concentrations of several greenhouse gases (including carbon dioxide, methane, and

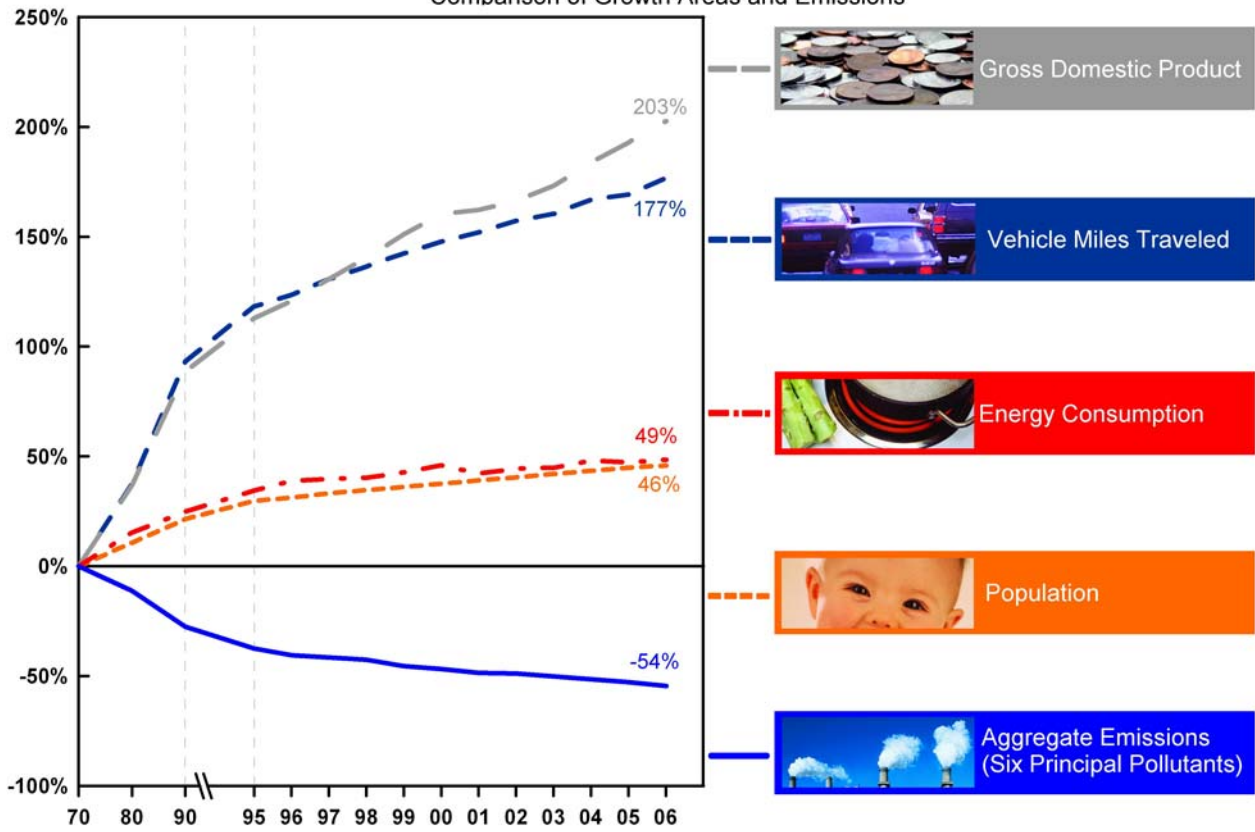
nitrous oxide) have increased substantially, contributing to climate change. Important questions remain about how much warming will occur, how fast it will occur, and how the warming will affect the rest of the climate system. To help answer these questions, the President's climate change program is focused on furthering understanding of the science of climate change and developing new technologies to reduce emissions. EPA's voluntary and incentive-based programs to reduce emissions of greenhouse gases, such as EnergySTAR, Climate Leaders, and the Landfill Methane Outreach program, are a critical part of the President's plan to reduce greenhouse gas emissions. Under the stratospheric ozone layer protection program, EPA coordinates numerous regulatory programs designed to protect and restore the ozone layer and continues to participate actively in developing international ozone protection policies.

Annual Costs and Benefits of Air Program Compared with Benefits of All Other U.S. Government Regulations Combined

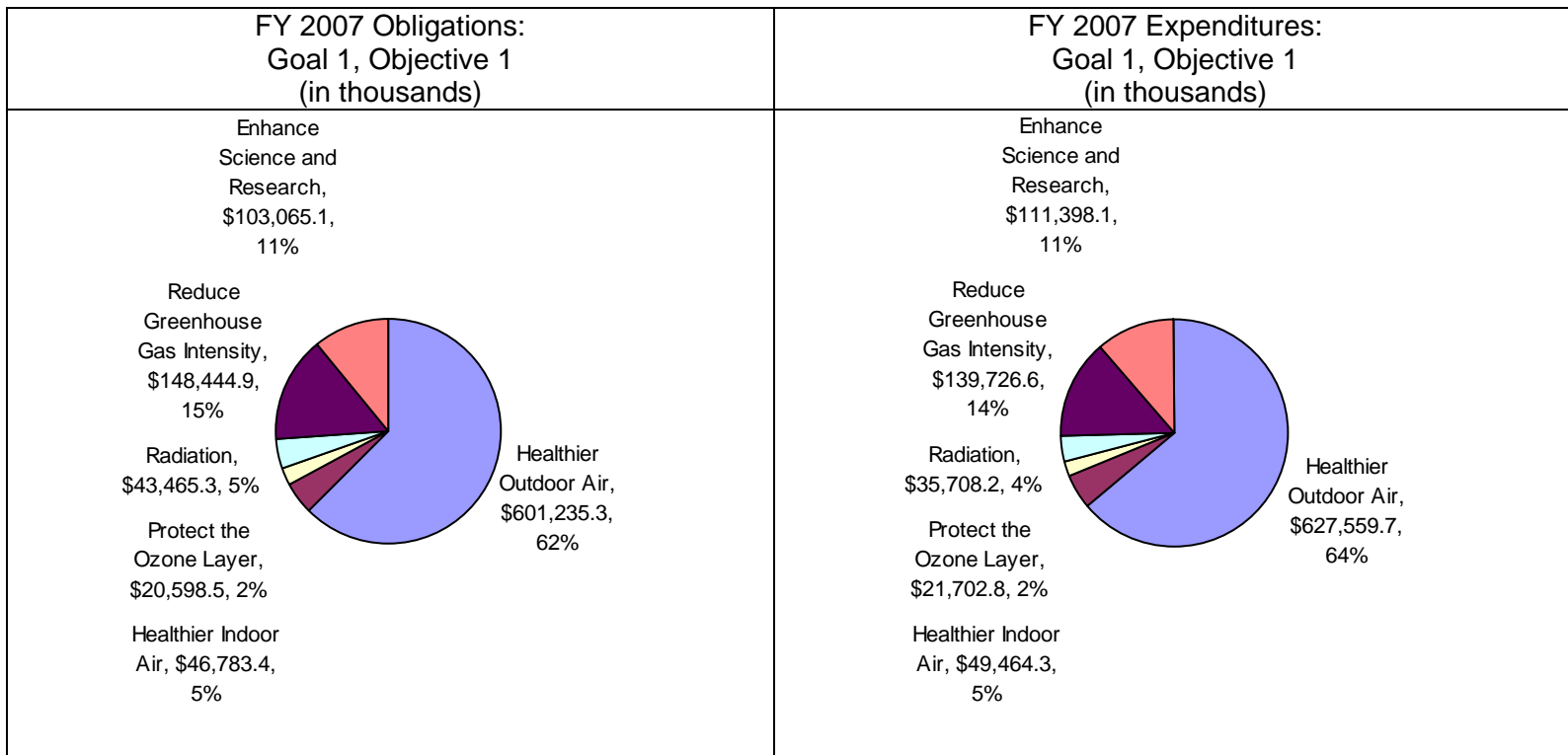


Source: Draft 2007 Report to Congress on the Cost and Benefits of Federal Regulations (OMB)

Comparison of Growth Areas and Emissions



Objective 1: Healthier Outdoor Air



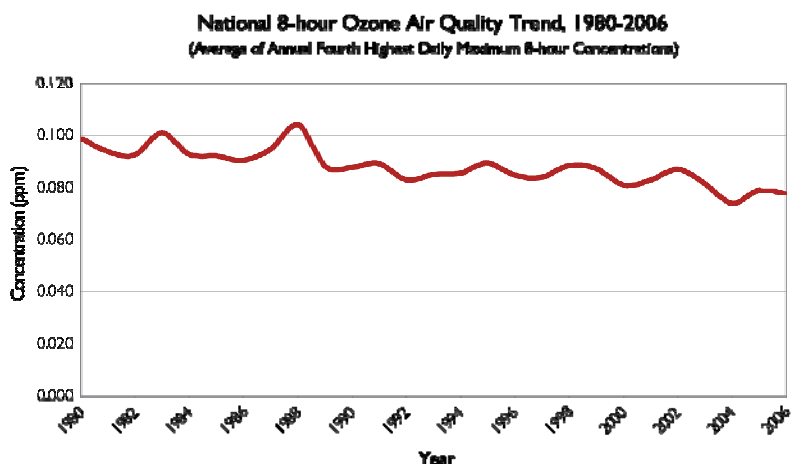
FY 2007 Resources for Program Projects Supporting this Objective*		
<p><i>Program projects are EPA's fundamental unit for budget execution and cost accounting, and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i></p> <p><i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding.</i></p>		
Goal 1: Objective 1 - Healthier Outdoor Air		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: State and Local Air Quality Management	\$205,599.0	\$227,407.5
Categorical Grant: Tribal Air Quality Management	\$11,175.5	\$11,323.9
Clean Air Allowance Trading Programs	\$27,339.6	\$27,931.3
Congressionally Mandated Projects	\$619.6	\$15,707.9
Federal Stationary Source Regulations	\$22,837.7	\$22,839.7
Federal Support for Air Quality Management	\$105,383.1	\$103,843.3
Federal Support for Air Toxics Program	\$26,981.5	\$26,287.6
Federal Vehicle and Fuels Standards and Certification	\$59,807.3	\$60,467.2
Homeland Security: Communication and Information	\$945.5	\$391.2
Homeland Security: Critical Infrastructure Protection	\$2,817.4	\$1,358.8
Homeland Security: Protection of EPA Personnel and Infrastructure	\$2,585.1	\$3,439.4
International Capacity Building	\$2,367.7	\$2,344.6

Radiation: Protection	\$0.0	\$60.1
Administrative Law	\$504.6	\$480.6
Alternative Dispute Resolution	\$123.0	\$99.7
Central Planning, Budgeting, and Finance	\$7,196.3	\$6,961.6
Children and other Sensitive Populations	\$0.0	\$32.5
Civil Rights / Title VI Compliance	\$978.3	\$946.0
Congressional, Intergovernmental, External Relations	\$4,210.7	\$4,178.6
Exchange Network	\$3,507.6	\$2,082.9
Facilities Infrastructure and Operations	\$49,738.4	\$47,012.7
Acquisition Management	\$3,223.1	\$3,079.3
Human Resources Management	\$5,122.0	\$5,110.7
Information Security	\$619.0	\$655.3
IT / Data Management	\$36,583.9	\$30,722.1
Legal Advice: Environmental Program	\$4,759.2	\$4,718.2
Legal Advice: Support Program	\$1,542.6	\$1,486.9
Audits, Evaluations, and Investigations	\$3,641.6	\$3,882.6
Regional Science and Technology	\$288.5	\$257.9
Science Advisory Board	\$488.9	\$458.0
Small Minority Business Assistance	\$240.7	\$201.5
Financial Assistance Grants / IAG Management	\$2,099.6	\$2,222.5
Clean School Bus Initiative	\$6,138.6	\$7,856.0
Regulatory/Economic-Management and Analysis	\$1,769.8	\$1,711.8
Total	\$601,235.4	\$627,559.9

The Clean Air Act directs EPA to identify and set national ambient air quality standards (NAAQS) for ubiquitous ambient pollutants that adversely affect public health and the environment. EPA has set national air quality standards for six common air pollutants—ground-level ozone (smog), carbon monoxide, lead, nitrogen dioxide, sulfur dioxide, and particulate matter (measured as PM₁₀ and PM_{2.5}). For each of these six pollutants, EPA has set health-based or "primary" standards to protect public health and environment-based or "secondary" standards to protect the public welfare (crops, vegetation, wildlife, buildings and national monuments, visibility, etc.). The Clean Air Act requires EPA to review the health and welfare-based standards at least once every 5 years and revise them if necessary to continue to protect public health and the environment. In July 2007, EPA proposed a new standard for ozone to be finalized by March 2008. The Agency will also publish a proposed lead NAAQS rule by May 1, 2008, and a final lead rule by September 1, 2008. EPA is currently reviewing several of the other criteria pollutants.

Once a NAAQS is established or revised, the Clean Air Act gives states and localities the primary responsibility for meeting that standard. State Implementation Plans (SIPs), which specify pollution control strategies to meet the standard, have led to substantial improvements in air quality. The following table summarizes our progress in meeting air quality standards for the six NAAQS.

Pollutant	Areas originally violating NAAQS ¹	Current Areas Violating NAAQS ²
Carbon monoxide	42	0
Nitrogen dioxide	1	0
Sulfur dioxide	54	0
Lead	13	1
Ozone (8-hour standard)	126	35 ³
Particulate matter measured as PM-10	86	12
Particulate matter measured as PM-2.5	39	32 ⁴



In FY 2007, EPA continued to address the challenges of implementing the 1990 Clean Air Act air toxics program, striving to meet court-ordered schedule deadlines while developing data and improving state and local capacity to take risk-based actions. EPA has a large number of rules pertaining to hazardous air pollutants scheduled for completion under different provisions of the Clean Air Act: mobile source emission standards, stationary source emission standards, risk-based standards, and area source standards.

Since the Clean Air Act was amended in 1990, EPA has issued 96 maximum achievable control technology (MACT) standards for 174 different types of stationary industrial sources of air toxics, including chemical plants, oil refineries, aerospace equipment manufacturers, and steel mills. Along with these major stationary source standards, the Agency issued standards for 16 categories of smaller stationary sources, such as dry cleaners, commercial sterilizers, secondary lead smelters, and chromium electroplating facilities.

When fully implemented, these standards are projected to reduce annual emissions of air toxics by about 1.7 million tons from 1990 levels. More recently, the Agency has issued standards covering an additional 11 categories of smaller stationary sources, and will issue

standards for another 43 categories between December 2007 and June 2009. The Agency has also issued residual risk and technology review rulemakings for 8 of the 96 major source MACT standards and plans to issue several more of these in 2008. Reductions from these additional standards for the smaller sources and reductions from the risk and technology review rulemakings are not reflected in this assessment.

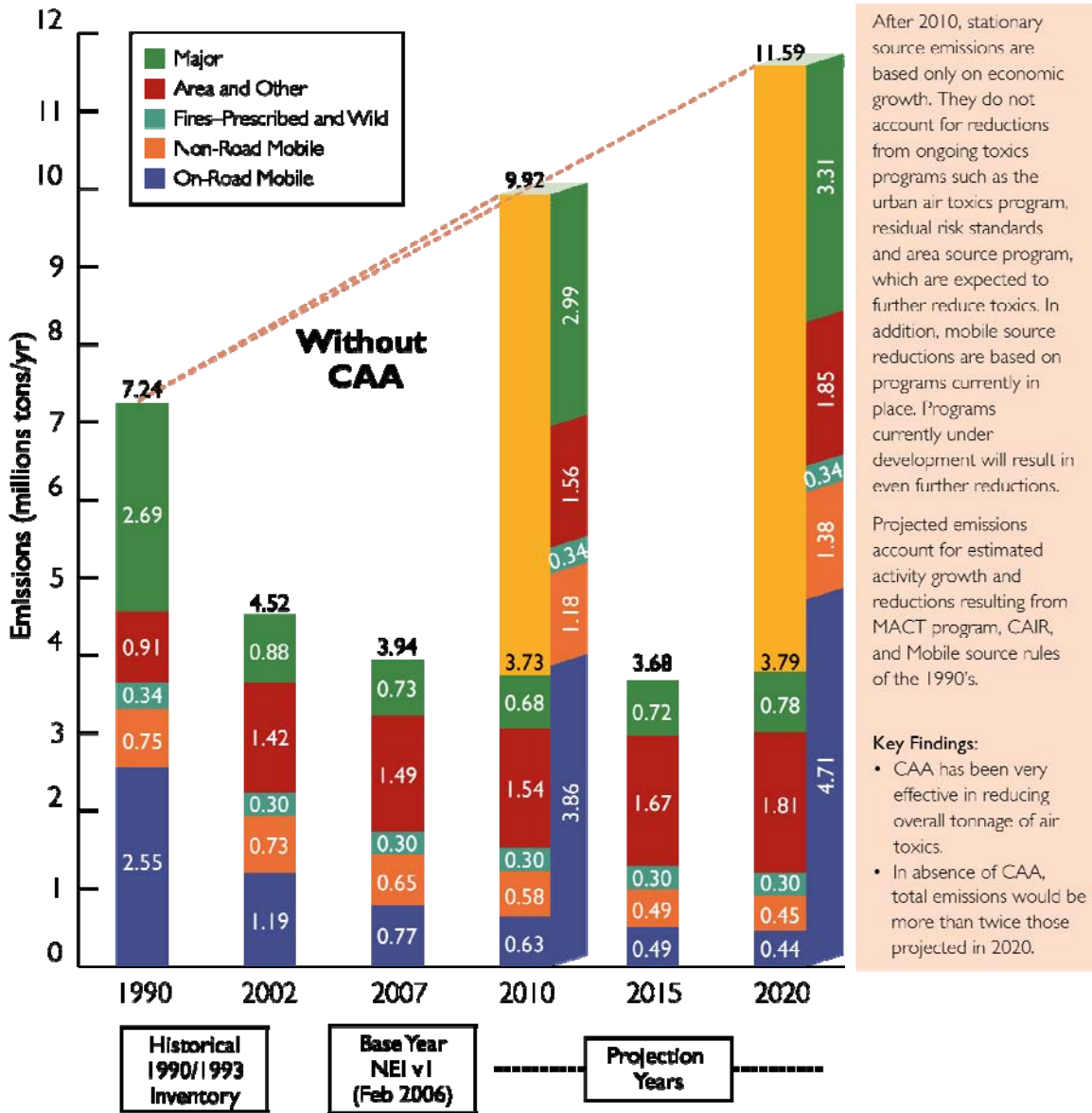
Vehicles and fuels also emit air toxics. By 2020, EPA's fuels and vehicles programs will reduce air toxic emissions by another 2.4 million tons, compared to 1990 levels. In FY 2007 EPA signed the new Mobile Source Air Toxic (MSAT) Rule, which will significantly decrease toxic fumes from gasoline, vehicles, and fuel containers. By 2030, MSAT regulations and fuel and vehicle standards already in place will reduce toxic emissions from cars to 80 percent below 1999 emissions.

In FY 2007, EPA promulgated a rule to establish a national Renewable Fuel Standards Program (RFS Program). This program was developed in collaboration with the Departments of Energy (DOE) and Agriculture (USDA) and other stakeholders to encourage blending of renewable fuels into the nation's motor vehicle fuel supply. Specifically, the rule establishes standards for renewable fuel, responsibilities for refiners and other fuel producers, a credit trading system, compliance mechanisms, and recordkeeping and reporting requirements. The RFS Program is expected to increase the volume of renewable fuel required to be blended into gasoline every year through 2012. In 2007, 4.02 percent of the fuel sold or dispensed to U.S. motorists, roughly 4.7 billion gallons, has come from renewable sources.

In FY 2007, EPA proposed the Clean Air Locomotive and Marine Diesel Rule to set stringent emission standards for cutting sulfur content in diesel fuel for locomotives, most marine vessels, and land-based nonroad engines. The Clean Air Locomotive and Marine Diesel Rule will tighten emissions standards for locomotives. Additionally, the rule sets stringent emissions standards for new locomotive and marine diesel engines and long-term regulations that require using advanced technology to reduce emissions. When fully implemented, this landmark initiative will cut particulate matter emissions by these engines by 90 percent and nitrogen oxides emissions by 80 percent.

In FY 2007, EPA also proposed a Small Engine Rule to set strict standards and cut emissions from most lawn and garden equipment and small recreational watercraft. The proposed rule will include fuel evaporative standards for equipment and watercraft covered by the rulemaking, national standards for vessels powered by stern-drive or inboard engines, and carbon monoxide standards for gasoline-powered engines used in recreational watercraft. This rule will provide an estimated \$3.4 billion in public health benefits by 2030.

U.S. Contributions of Source Categories to Total Emissions for All HAPs



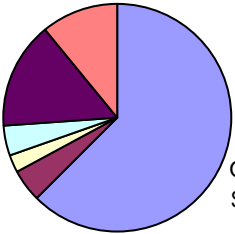
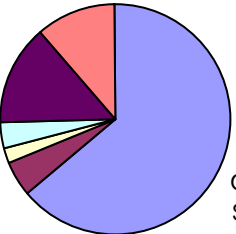
Additional Information Related to Objective 1	
Grants:	<ul style="list-style-type: none"> EPA's National Clean Diesel Campaign is using a 2-step approach to reduce pollution from diesel engines: emission standards for new diesel engines took effect in 2004, and more stringent emission standards for these engines in combination with ultra-low sulfur diesel fuel went into effect in 2007. EPA will be implementing new stringent emissions standards for non-road engines in 2008. However, because new vehicles and engines are purchased gradually over time

	<p>to replace older units, EPA has developed innovative, sector-based strategies to address pollution from diesel construction equipment and heavy-duty vehicles that are currently on the road. As part of these programs, EPA awards grants to communities to retrofit engines and implement other strategies (fuel switching, idling reduction) to reduce diesel pollution.</p> <ul style="list-style-type: none">• Across the country, EPA's seven Regional Diesel Collaboratives awarded \$5 million for 27 projects to reduce emissions in a variety of fleets and technologies. In addition, the Collaboratives awarded \$7 million for 45 diesel emissions reduction projects to benefit school bus fleets as part of Clean School Bus USA. As these grants are implemented, areas will see less pollution. Communities will include these reductions in their clean air plans for ozone and particulate matter.• In 2007, states received \$200M in State and Tribal Assistance Grants. These funds allowed states to continue revising their SIPs to attain the NAAQS for 8-hour ozone and PM_{2.5} and to reduce regional haze. These funds also provided for the continued operation of states' ambient air monitoring networks, including PM_{2.5}, air toxic, and visibility monitoring.• In partnership with the Department of Interior, EPA continues to track improvements in visibility in our national parks and other protected areas. The Agency upgraded laboratory equipment to provide more precise measurements of the carbon content of light-absorbing PM and more scientifically robust equations to relate air pollution concentrations to visibility range.• Through AIRNow, a greater number of cities started advising the public of the health risks associated with forecasted PM pollution on a daily basis. States continue to use air monitoring data to understand the causes of PM pollution so that they can develop better strategies to reduce it.• For the National Air Toxics Trends Stations, data completeness, precision, and accuracy indicators showed improvement. EPA developed more accurate sampling and analysis methods for two national risk drivers, acrolein and hexavalent chromium. Work under community-scale air toxics monitoring grants progressed toward completion; individual project goals typically include risk assessment and identifying and characterizing local sources of hazardous air pollutants. In FY 2007, 20 new grants for air toxics monitoring community-scale assessments were awarded to
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	<p>state, local, and tribal agencies across the United States. EPA completed air toxics characterization and trends analyses and made them available to the public.</p> <ul style="list-style-type: none"> • EPA is working with the Hearth, Patio and Barbecue Association, American Lung Association, and others on the Great American Woodstove Changeout—a national effort to help state, local, and tribal agencies establish campaigns to change old, dirty, “conventional” woodstoves to new, cleaner-burning appliances like masonry heaters and gas, pellet, and EPA-certified woodstoves. Already in place in targeted areas, the Great American Woodstove Changeout is a voluntary effort that can effectively reduce emissions of particulates and air toxics indoors and help bring areas into attainment with the national fine particle standard. As part of each campaign, EPA encourages and supports air pollution control agencies in reaching out to the public to “Burn Clean,” that is, to burn only seasoned wood and no garbage. Burn Clean and changeout materials are available at www.epa.gov/woodstoves.
PART:	<ul style="list-style-type: none"> • The Air Toxics Program was assessed in the 2002 PART process and received a rating of “results not demonstrated.” The program was reassessed in the 2004 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions, which include developing baseline and target information to measure program efficiency. • The Acid Rain Program was assessed in the 2003 PART process and received a rating of “moderately effective.” As a result of the PART process, the program is conducting follow-up actions, which include analyzing alternative options for an efficiency measure and promulgation and implementation of the Clean Air Interstate Rule (CAIR), projected to overcome deficiencies of Title IV by further reducing SO₂ and NO_x emission levels. • The Mobile Sources Program was assessed in the 2004 PART process and received a rating of “moderately effective.” As a result of the PART process, the program is conducting follow-up actions, which include collecting data to support the program’s efficiency measures. The baseline data for per cent reduction in time for certificate approval for large engines will be available in 2010, with a target in 2012 of a 50% reduction. • The NAAQS program was assessed in the 2005 PART process in two parts: the Federal NAAQS Program and the Air Quality Grants and Permitting Program. The Federal

	NAAQS Program received a rating of “adequate.” The Air Quality Grants and Permitting Program received a rating of “ineffective.” As a result of the PART process, the program is conducting follow-up actions, which include establishing efficiency measures for both the Federal NAAQS and Air Quality Grants and Permitting Programs. The annual efficiency measure for cumulative per cent reduction in days to process State Implementation Plan revisions is -1.2% in 2008 and -2.4% in 2009.
Web Links:	AIRNow: http://airnow.gov/ Air Program: http://www.epa.gov/ebtpages/air.html Plain English Guide to the Clean Air Act: http://www.epa.gov/air/caa/peg/ Toxic Air Pollutants Program: http://www.epa.gov/air/toxicair/

Objective 2: Healthier Indoor Air

FY 2007 Obligations: Goal 1, Objective 2 (in thousands)	FY 2007 Expenditures: Goal 1, Objective 2 (in thousands)
<p>Enhance Science and Research, \$103,065.1, 11%</p> <p>Reduce Greenhouse Gas Intensity, \$148,444.9, 15%</p> <p>Radiation, \$43,465.3, 5%</p> <p>Protect the Ozone Layer, \$20,598.5, 2%</p> <p>Healthier Indoor Air, \$46,783.4, 5%</p> <p>Healthier Outdoor Air, \$601,235.3, 62%</p> 	<p>Enhance Science and Research, \$111,398.1, 11%</p> <p>Reduce Greenhouse Gas Intensity, \$139,726.6, 14%</p> <p>Radiation, \$35,708.2, 4%</p> <p>Protect the Ozone Layer, \$21,702.8, 2%</p> <p>Healthier Indoor Air, \$49,464.3, 5%</p> <p>Healthier Outdoor Air, \$627,559.7, 64%</p> 

FY 2007 Resources for Program Projects Supporting this Objective*

Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.

**Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding*

Goal 1: Objective 2 - Healthier Indoor Air

Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Radon	\$7,314.2	\$8,273.1
Categorical Grant: Tribal Air Quality Management	\$0.0	\$51.7
Congressionally Mandated Projects	\$0.0	\$218.6
Homeland Security: Communication and Information	\$72.5	\$30.0
Homeland Security: Protection of EPA Personnel and Infrastructure	\$176.8	\$258.7
Indoor Air: Asthma Program	(\$74.7)	\$3,186.3
Indoor Air: Environment Tobacco Smoke Program	(\$11.9)	\$198.3
Indoor Air: Radon Program	\$5,614.3	\$5,699.9
Indoor Air: Schools and Workplace Program	(\$54.6)	\$954.8
International Capacity Building	\$30.8	\$38.1
Research: Air Toxics	(\$548.4)	\$74.5
Administrative Law	\$38.7	\$36.8
Alternative Dispute Resolution	\$9.4	\$7.6
Central Planning, Budgeting, and Finance	\$776.0	\$750.1
Civil Rights / Title VI Compliance	\$73.6	\$71.1
Congressional, Intergovernmental, External Relations	\$326.1	\$323.7
Exchange Network	\$269.0	\$159.6
Facilities Infrastructure and Operations	\$4,694.0	\$4,367.7
Acquisition Management	\$255.0	\$243.6
Human Resources Management	\$405.6	\$401.1
Information Security	\$49.4	\$49.5
IT / Data Management	\$3,199.3	\$2,713.4
Legal Advice: Environmental Program	\$365.6	\$362.7
Legal Advice: Support Program	\$120.0	\$115.5
Audits, Evaluations, and Investigations	\$274.5	\$292.7
Regional Science and Technology	\$22.2	\$20.3
Science Advisory Board	\$37.5	\$35.1
Small Minority Business Assistance	\$18.5	\$15.4
Financial Assistance Grants / IAG Management	\$607.6	\$642.8
Reduce Risks from Indoor Air	\$22,586.9	\$19,740.5
Regulatory/Economic-Management and Analysis	\$135.7	\$131.2
Total	\$46,783.6	\$49,464.4

EPA employs two key strategies to provide Americans with healthier indoor air: (1) increasing public awareness of actual and potential indoor air risks, so that individuals can take

steps to reduce their exposure and (2) relying on partnerships with a variety of organizations to spur action. EPA conducts outreach activities to provide the public and the professional and research communities with essential information about indoor air risks. In partnership with nongovernmental and professional entities, the Agency develops and disseminates multimedia materials to improve the design, operation, and maintenance of all types of buildings—including schools, homes, and workplaces—and bring about healthier indoor environments.

EPA's "Indoor Air Quality Tools for Schools" (IAQ TfS) effort provides individual schools, school districts, educational organizations, and educators with information on best practices, industry guidelines and sample policies, and management plans for improving indoor air quality. By providing detailed guidance as well as links to other information resources, EPA's IAQ TfS Program helps districts design new schools, as well as repair, renovate, and maintain existing facilities. Using these tools, schools can save time and money and reduce indoor air quality risks to students and staff, creating a healthier environment and enabling schools to direct valuable resources toward educating children. Through 2006, approximately 36,000 schools are implementing an indoor air quality plan based on criteria set by EPA. To share information about improving indoor air quality, EPA partners with a variety of organizations, including the National Education Association, the Association of School Business Officials, the American Federation of Teachers, and the American Lung Association. EPA exceeded its goals in FY 2006 and is on track to meet its 2007 goals in 2007 but due to data lags results for 2007 will be included in EPA's *FY 2008 Performance and Accountability Report*.

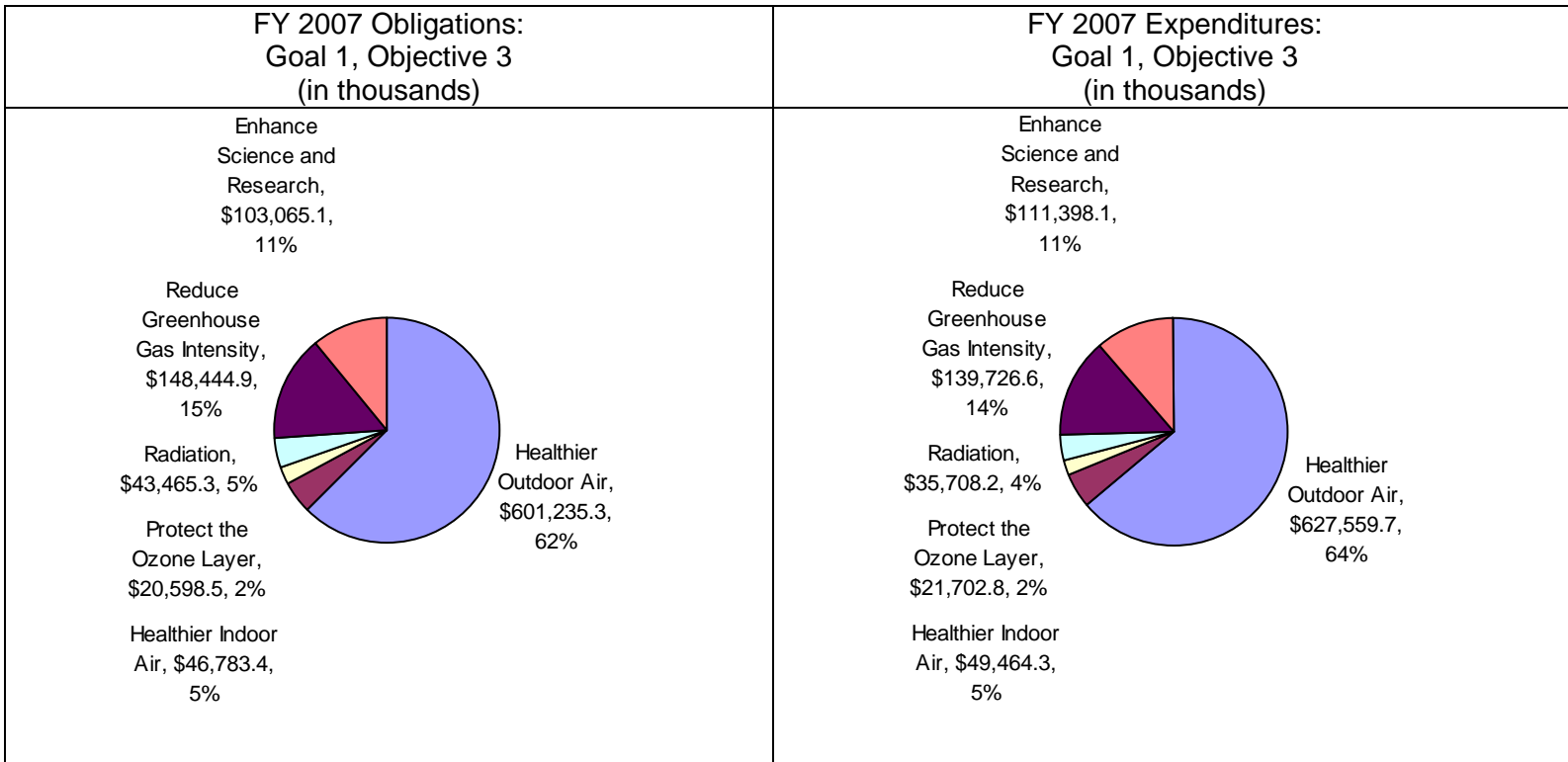
Asthma is a serious, life-threatening respiratory disease that affects more than 20 million Americans.⁵ Rates of asthma have risen sharply over the past 30 years, particularly among children aged 5 to 14.⁶ Although there is no cure, asthma can be controlled by managing environmental asthma triggers and through medical treatment. EPA's goal is to reduce exposure to asthma triggers and improve the quality of life for 4.9 million people by 2008. Toward this end, EPA provides educational material about the environmental factors—indoor and outdoor—that trigger asthma. Through 2006, 4.2 million people are estimated to be taking all essential actions to reduce exposure to indoor environmental asthma triggers and approximately 60,000 emergency room visits are avoided annually. In 2006, the Agency held symposia and worked in conjunction with grantees to train over 3,000 health professionals on asthma and environmental trigger management and increased national awareness of asthma triggers through the Goldfish Public Service Campaign to an all-time high of 33 percent. EPA exceeded its goals in FY 2006 and is on track to meet its 2007 goals; results for 2007 will be included in EPA's *FY 2008 Performance and Accountability Report*.

Radon in indoor air is the second leading cause of lung cancer in America, and contributes to nearly 20,000 deaths from lung cancer each year.⁷ EPA's indoor radon program promotes voluntary action to reduce risks from radon. Since the mid-1980s, the risks from exposure to radon in homes have been reduced significantly. This progress is the result of continuing collaboration between EPA, individuals, nongovernmental organizations, state and local governments, the radon services community, and other federal agencies. EPA recommends that homes with radon levels above the action level be mitigated and that new homes be built radon-resistant. Through 2006, (the most recent year for which data are available), EPA conservatively estimates that 714,000 homes had an operating mitigation system. In 2006 alone, approximately 79,000 additional homes were outfitted with radon mitigation devices. These estimates are based on radon mitigation vent fan sales data provided by the major U.S. radon vent fan manufacturers. An annual survey by the National Association of Home Builders Research Center estimates that through 2005, 1.4 million new homes were built radon-resistant, with more than half of those homes located in areas of high radon

potential. EPA estimates that the combination of homes with radon mitigation systems and homes built with radon-resistant techniques saved approximately 575 lives. Data from partners and other sources indicate that the Agency is on track to meet FY 2007 performance targets; FY 2007 results will be included in EPA's *FY 2009 Performance and Accountability Report*.

Additional Information Related to Objective 2	
Grants:	As part of its ongoing work, in FY 2006, EPA awarded grants to conduct demonstrations, training, and education and/or outreach projects in all indoor-environment program areas (including radon, asthma, and schools) that will reduce exposure to indoor air pollutants. These assistance agreements incorporated environmental results reporting and tracking requirements, which have improved the Agency's ability to evaluate the overall effectiveness of the grant. Standardized results templates are now a part of State Indoor Radon Grants work plans, and EPA expects to see improved comparability of reporting with the template.
PART:	The Indoor Air Program was assessed in the 2005 PART process and received a rating of "moderately effective." As a result of the PART process, the program is conducting follow-up actions, which include efficiency improvements. Initial efficiency data is scheduled to be available in 2007.
Web Links:	Indoor Air Quality: http://www.epa.gov/air/basic.html#indoor Asthma: http://www.cdc.gov/asthma/children.htm Radon Program: http://www.epa.gov/radon/healthrisks.html

Objective 3: Protect the Ozone Layer



FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding</i>		
Goal 1: Objective 3 - Protect the Ozone Layer		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Homeland Security: Communication and Information	\$18.3	\$7.6
Homeland Security: Protection of EPA Personnel and Infrastructure	\$73.0	\$106.5
Stratospheric Ozone: Domestic Programs	\$5,376.0	\$5,093.1
Stratospheric Ozone: Multilateral Fund	\$11,315.0	\$13,031.2
Administrative Law	\$9.8	\$9.3
Alternative Dispute Resolution	\$2.4	\$1.9
Central Planning, Budgeting, and Finance	\$401.2	\$385.5
Civil Rights / Title VI Compliance	\$13.7	\$13.2
Congressional, Intergovernmental, External Relations	\$49.3	\$48.4

Exchange Network	\$68.0	\$40.3
Facilities Infrastructure and Operations	\$1,477.8	\$1,356.2
Acquisition Management	\$92.5	\$88.0
Human Resources Management	\$139.2	\$136.9
Information Security	\$19.9	\$19.6
IT / Data Management	\$1,200.4	\$1,017.3
Legal Advice: Environmental Program	\$92.8	\$91.5
Legal Advice: Support Program	\$32.1	\$30.7
Audits, Evaluations, and Investigations	\$127.1	\$135.6
Regional Science and Technology	\$2.8	\$2.7
Science Advisory Board	\$9.5	\$8.9
Small Minority Business Assistance	\$4.7	\$3.9
Financial Assistance Grants / IAG Management	\$38.8	\$41.4
Regulatory/Economic-Management and Analysis	\$34.3	\$33.2
Total	\$20,598.6	\$21,702.9

The stratospheric ozone layer protects life on earth from harmful ultraviolet (UV) radiation. Scientific evidence amassed over the past 30 years indicates that the use of chlorofluorocarbons (CFCs) and other ozone-depleting substances (ODS) has destroyed stratospheric ozone.

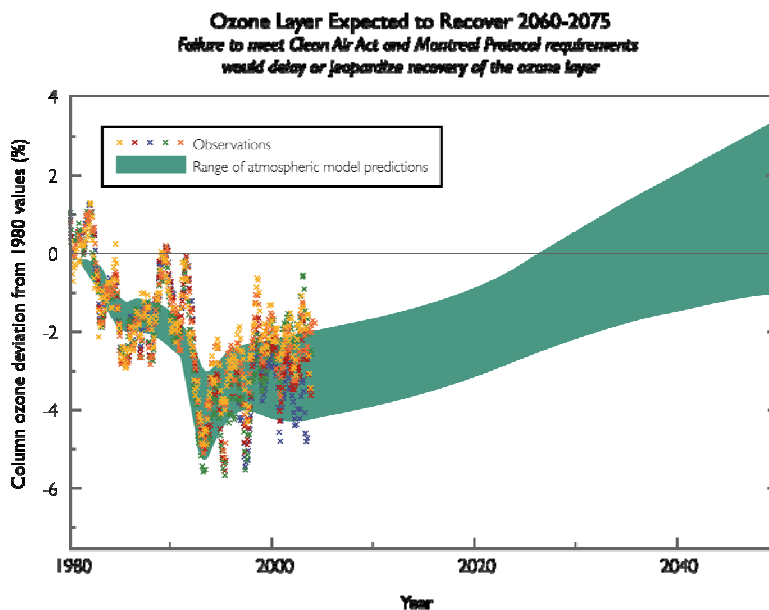
EPA has been at the forefront in developing and implementing flexible, innovative, and effective approaches to ensure stratospheric ozone layer protection. In FY 2007, the Agency approved alternatives to ozone-depleting substances, including n propyl bromide. EPA furthered the nation's commitment to restoring the ozone layer by using a marketable permit system to track domestic industry compliance with regulatory restrictions on the consumption of ODS. In addition, with the 2007 launch of a Central Data Exchange (CDX)-based electronic system, the Agency significantly streamlined the reporting process for companies that produce and import ODS.

EPA's voluntary GreenChill Program recruited new retail, equipment and chemical manufacturer partners to reduce emissions from supermarket chilling systems. The voluntary Responsible Appliance Disposal (RAD) program partners with utilities to reap environmental benefits through responsible appliance disposal. As part of the program, EPA serves as a clearinghouse for technical information on developing and implementing responsible appliance disposal programs. Under the program, utility partners encourage consumers to retire old, inefficient refrigerators, freezers, air conditioning units, and dehumidifiers and implement best practices for the recycling/disposal of these units. In FY 2007, the RAD program added new utility and university partners to assure appropriate disposal and recycling or destruction of ODS recovered from appliances. The Small Cans Partnership signed a voluntary agreement with EPA to reduce emissions from do-it-yourself servicing of mobile vehicle air conditioners.

The participation of developing countries is also essential to ensure timely restoration of the ozone layer. The United States works with its international partners through the Montreal Protocol to reduce ozone-depleting substances (<http://www.epa.gov/air/ozonedep.html>). In 2007, the United States with support from EPA proposed to accelerate the phase-out of hydrochlorofluorocarbons (HCFCs) by ten years, adding interim reduction steps, setting an earlier baseline, and, as first priority, phasing out the HCFCs most damaging to the ozone layer.

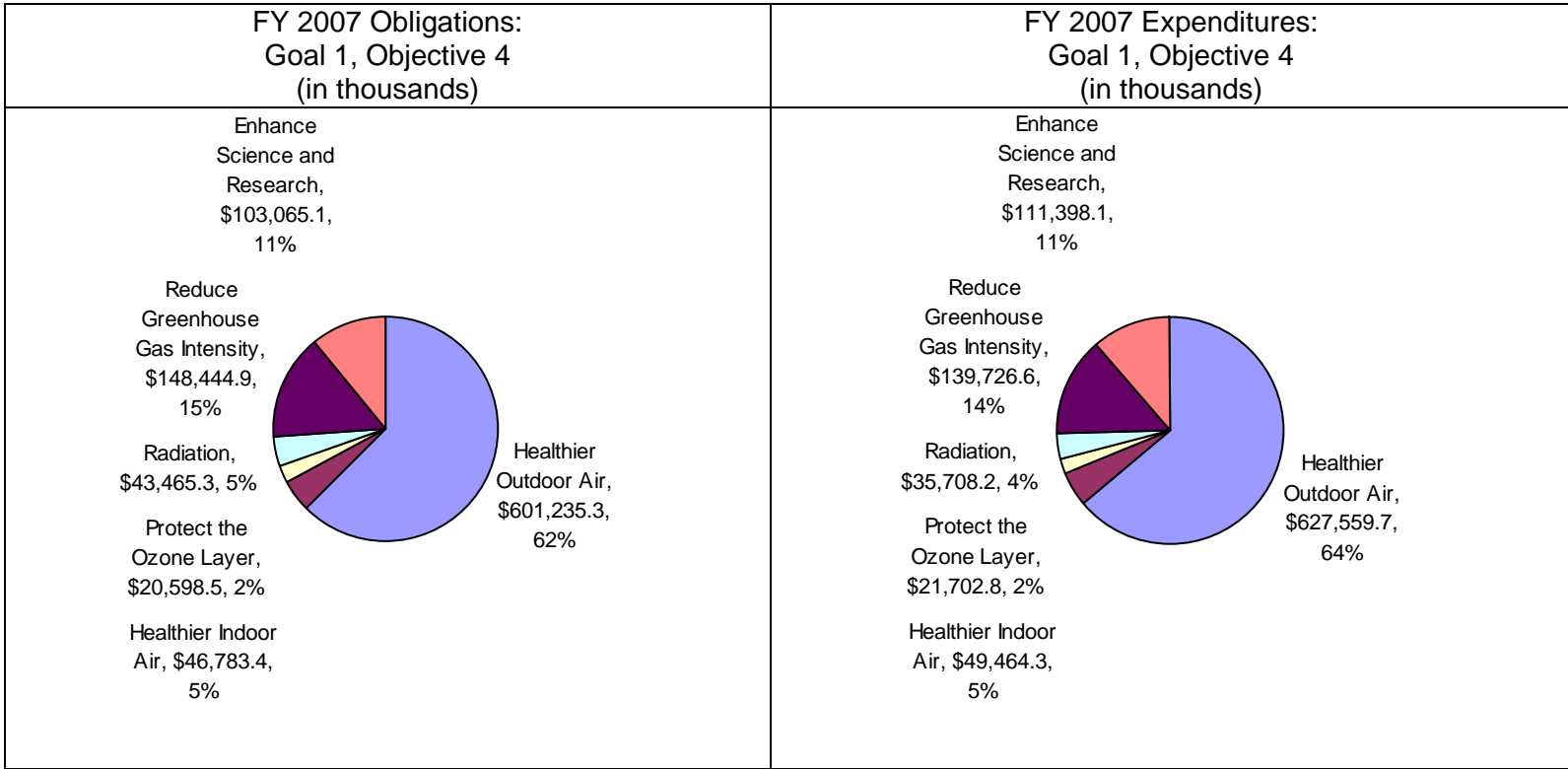
These proposals further U.S. efforts to address ozone layer protection, cleaner air, and climate change by calling on the global community to accelerate the phase-out of HCFCs (<http://www.epa.gov/ozone/intpol/montprotocolamend.html>).

Ozone-depleting substances were emitted for many years before the international agreements and Clean Air Act requirements were established, and they have a long life. Thus EPA's SunWise Program teaches children and their caregivers how to protect themselves from overexposure to the sun. Since Sunwise was launched nationally in May 2000, approximately 14,000 kindergarten through grade 8 schools and 1,200 informal education institutions have registered to use the program (<http://www.epa.gov/sunwise/>). In FY 2007, this program was suspended due to funding constraints.



Additional Information Related to Objective 3	
PART:	The Stratospheric Ozone Program was assessed in the 2004 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions which include monitoring intermediate goals (such as HCFC consumption) and efficiency measures (such as cumulative dollars spent per school in joining the SunWise program) in the near term. (The program has long-term outcome goals that extend much further into the future, for example, reduced melanoma skin cancers in 2165).
Web Links:	Ozone Depletion: http://www.epa.gov/ebtpages/airatmospozonedepletion.html

Objective 4: Radiation



FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding</i>		
Goal 1: Objective 4 - Radiation		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Homeland Security: Communication and Information	\$93.8	\$39.8
Homeland Security: Preparedness, Response, and Recovery	\$3,947.6	\$2,479.7
Homeland Security: Protection of EPA Personnel and Infrastructure	\$333.1	\$493.0
Radiation: Protection	\$17,120.0	\$13,417.6
Radiation: Response Preparedness	\$6,345.1	\$5,384.7

Administrative Law	\$53.2	\$50.7
Alternative Dispute Resolution	\$17.0	\$13.0
Central Planning, Budgeting, and Finance	\$596.5	\$570.8
Civil Rights / Title VI Compliance	\$77.3	\$74.4
Congressional, Intergovernmental, External Relations	\$287.6	\$283.0
Exchange Network	\$354.7	\$200.7
Facilities Infrastructure and Operations	\$5,707.0	\$5,325.5
Acquisition Management	\$946.6	\$786.2
Human Resources Management	\$770.7	\$718.3
Information Security	\$94.1	\$99.0
IT / Data Management	\$5,412.5	\$4,501.7
Legal Advice: Environmental Program	\$480.4	\$473.8
Legal Advice: Support Program	\$155.6	\$149.0
Audits, Evaluations, and Investigations	\$191.0	\$192.1
Regional Science and Technology	\$16.9	\$16.4
Science Advisory Board	\$51.6	\$48.3
Small Minority Business Assistance	\$25.4	\$21.2
Financial Assistance Grants / IAG Management	\$201.1	\$188.9
Regulatory/Economic-Management and Analysis	\$186.6	\$180.5
Total	\$43,465.4	\$35,708.3

EPA's Radiation Protection Program minimizes unnecessary releases of radiation and helps mitigate impacts to human health and the environment should unwanted releases occur. The program manages a nationwide environmental radiation monitoring program, RadNet, and actively responds to accidents and incidents involving nuclear or radiological material. It also oversees the safe disposal of radioactive waste, and provides generally applicable standards to all federal agencies for protecting human health and the environment from radioactive material.

EPA supports safe and environmentally sound radioactive waste management by maintaining certification and oversight responsibilities for Department of Energy (DOE) waste disposal activities at the Waste Isolation Pilot Plant (WIPP); providing technical support to the Nuclear Regulatory Commission (NRC) in applying pending standards at Yucca Mountain; coordinating with other federal agencies (including NRC and DOE) and states to develop mechanisms for controlling industrial materials with a radioactive component; and developing waste management regulations to facilitate the disposal of low-activity mixed waste by combining existing RCRA requirements with traditional radiological waste management components.

The EPA waste characterization program is focused on inspecting DOE radioactive waste generator sites and supports the DOE's goals for disposal of defense-related transuranic radioactive waste at the WIPP. Through 2007, DOE has made more than 6,000 waste shipments (with a total of nearly 100,000 containers) of transuranic waste to the WIPP since its opening in 1999.⁸ EPA continues its oversight responsibilities for waste disposal activities at waste generator sites and the WIPP site itself. Through the OMB PART process, EPA developed a measure to track progress in this program area by measuring the time it takes for EPA to approve waste characterization program modifications at DOE waste generator sites without diminishing EPA's oversight responsibilities and without modifying EPA's technical

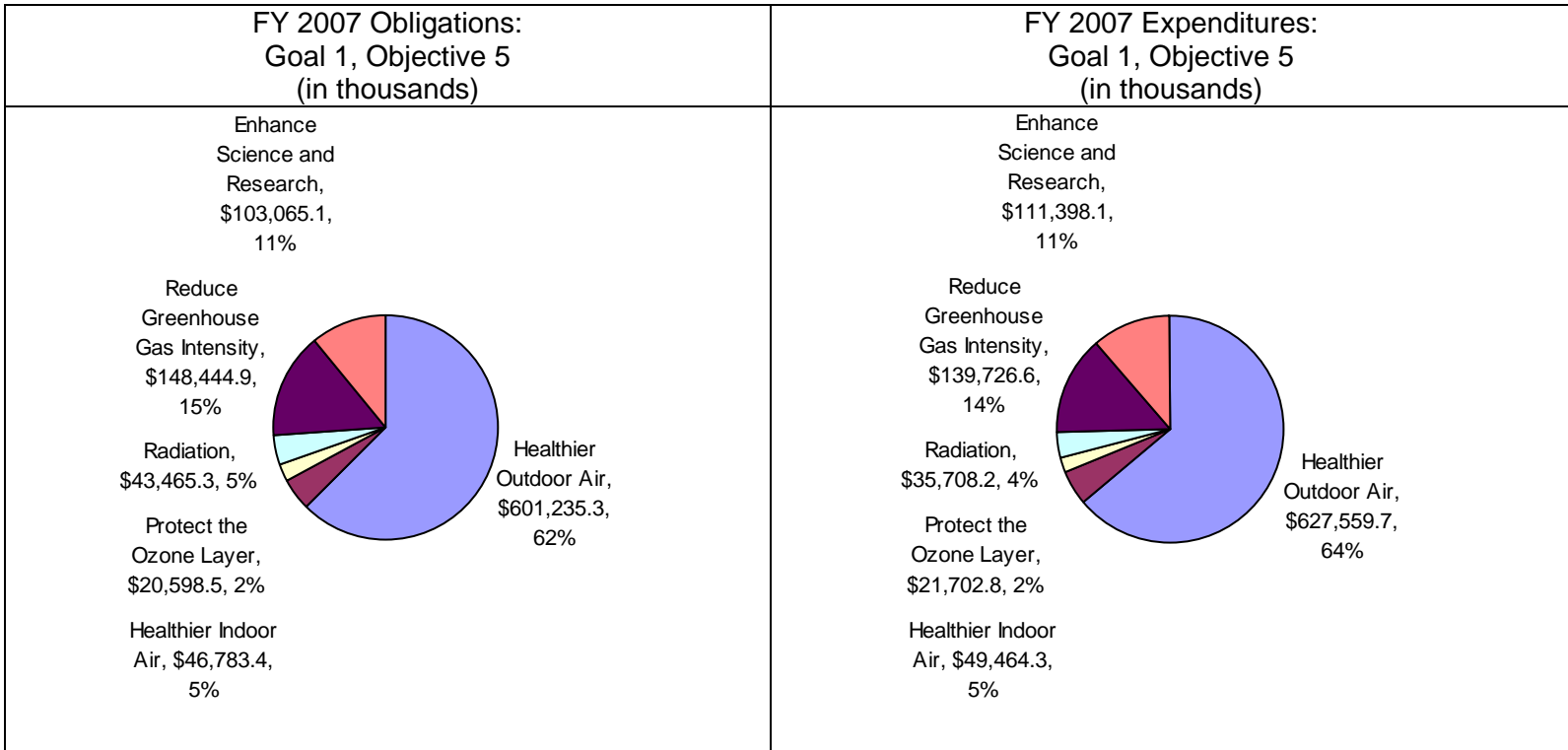
approach. From an FY 2004 baseline of 150 days, EPA has already reduced the number of days for approval to 100 in 2006.

In FY 2007, EPA continued to enhance RadNet by increasing the number of monitors and using specific siting criteria to characterize ambient radiation for more U.S. population centers and geographic areas.⁹ This enhancement strengthens the response capabilities in the existing monitoring system and its ability to provide near real-time data directly to EPA decision makers, states, local officials, and the Department of Homeland Security. With the information that the radiation monitoring program provides, health officials can guide the public to take essential actions to reduce exposures to radiation. By monitoring potential impact to population and public health, RadNet supports EPA's role in incident assessment. Through the PART process, EPA developed a measure to track progress in this program area by measuring the percentage of the most populous U.S. cities with a RadNet ambient radiation air monitoring system, which will provide data to assist in protective action determinations. EPA began with a FY 2005 baseline of 55 percent and expects to reach 95 percent by 2010.

EPA's Radiological Emergency Response Team (RERT) members are systematically provided the knowledge, skills, equipment, and support systems needed to respond to emergencies involving radioactive materials.¹⁰ To this end, the program undertakes preparedness activities including developing and streamlining response plans and procedures, providing guidance and training to first responders, and testing plans and procedures during exercises. In FY 2007, the program participated in major emergency response exercises at a variety of venues simulating detonation of a radiological dispersal device (dirty bomb), responding to an improvised nuclear device, and testing EPA's capabilities during a simulated response to a foreign radiological incident originating on foreign soil. The program also deployed personnel and physical assets in response to several actual (but minor) radiation incidents in FY 2007. Through the PART process, EPA developed a measure to track progress in this program area by measuring the level of readiness of radiation program personnel and assets to support federal radiological emergency response and recovery operations (measured as the percentage of radiation response team members and assets that meet response criteria). The 2005 baseline for the emergency response program readiness was 50 percent. The measured readiness level in FY 2006, the most recent year for which data are available, was 78 percent.

Additional Information Related to Objective 4	
PART:	The Radiation Program was reviewed in the 2007 PART process and received a rating of "moderately effective." As part of the implementation plan the program will develop a functional analysis of major radiological monitoring activity at EPA and other federal agencies. The analysis will explore complementary efficiencies and potential redundancies.
Web Links:	Radiation and Radioactivity: http://www.epa.gov/ebtpages/radiationandradioactivity.html

Objective 5: Reduce Greenhouse Gas Intensity



FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding</i>		
Goal 1: Objective 5 - Reduce Greenhouse Gas Intensity		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Climate Protection Program	\$117,999.8	\$111,796.0
Congressionally Mandated Projects	\$0.0	(\$11.3)
Homeland Security: Communication and Information	\$158.7	\$65.7
Homeland Security: Protection of EPA Personnel and Infrastructure	\$565.3	\$829.2
Administrative Law	\$84.7	\$80.7
Alternative Dispute Resolution	\$20.6	\$16.7
Central Planning, Budgeting, and Finance	\$2,727.3	\$2,621.8
Civil Rights / Title VI Compliance	\$125.6	\$120.8
Congressional, Intergovernmental, External Relations	\$470.8	\$463.6

Exchange Network	\$589.0	\$349.6
Facilities Infrastructure and Operations	\$11,194.8	\$10,349.7
Acquisition Management	\$763.1	\$725.8
Human Resources Management	\$1,151.9	\$1,139.1
Information Security	\$161.2	\$163.3
IT / Data Management	\$9,386.4	\$7,915.2
Legal Advice: Environmental Program	\$803.1	\$792.4
Legal Advice: Support Program	\$276.0	\$264.7
Audits, Evaluations, and Investigations	\$856.8	\$913.5
Regional Science and Technology	\$27.8	\$26.5
Science Advisory Board	\$82.1	\$76.9
Small Minority Business Assistance	\$40.4	\$33.8
Financial Assistance Grants / IAG Management	\$662.3	\$705.6
Regulatory/Economic-Management and Analysis	\$297.1	\$287.4
Total	\$148,444.8	\$139,726.7

In February 2002, the President announced a new approach to global climate change designed to harness the power of the marketplace and technological innovation. The President committed America to cut greenhouse gas intensity by 18 percent by 2012.

In support of the President's goal, EPA's climate protection programs overall will promote the avoidance of 162 million metric tons of carbon equivalent (MMTCE) annually by 2012, up from 58 MMTCE in 2002. Of this additional 104 MMTCE, 24 will be attributable to the sustained growth of many climate programs and are reflected in the Administration's business-as-usual projection for greenhouse gas intensity improvement; the remaining 80 MMTCE will contribute to attaining the President's goal of 18 percent greenhouse gas intensity improvement.

At the core of EPA's climate change efforts are government-industry partnership programs designed to capitalize on the opportunities that consumers, businesses, and organizations have for investing in efficient equipment, policies, and practices. While thousands of equipment purchases are made every day, consumers often select the least efficient equipment, thereby committing themselves to higher energy bills for 10 to 20 years at a time, depending upon the life of the equipment. At the same time, organizations often overlook the investment opportunities and competitive advantages represented by more efficient equipment.

EPA manages a number of efforts, such as ENERGYSTAR and transportation efficiency programs, to remove marketplace barriers and deploy technology faster in the building, industrial, and transportation sectors of the economy. EPA programs do not provide financial subsidies. Instead, they work by overcoming market barriers to energy efficiency and clean energy supply: lack of clear and objective information on technology opportunities; lack of awareness of products, services, and transportation choices; low incentives to manufacturers for research and development; split incentives and high transaction costs.

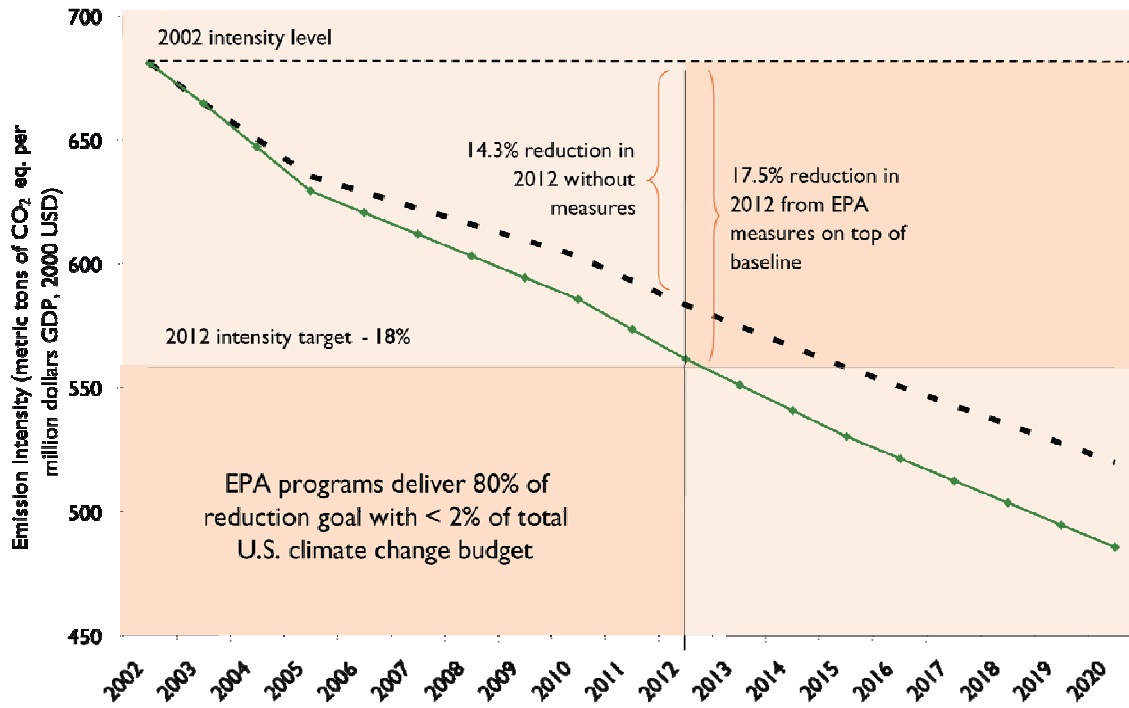
EPA's climate protection programs reduced emissions of carbon dioxide (CO₂) and other potent greenhouse gases, such as methane and perfluorocarbons (PFCs), and will continue to deliver substantial energy and environmental benefits over the next decade. As many of the investments promoted through EPA's climate programs involve energy-efficient equipment with lifetimes of decades or more, the investments made to date will continue to deliver environmental and economic benefits through 2012 and beyond. EPA currently estimates that, based on investments in equipment already made due to EPA's programs, organizations and consumers across the country will net savings of about \$130 billion and reduce greenhouse emissions by more than 800 MMTCE over the next ten years.¹¹ These programs continue to offer highly cost-effective approaches for delivering environmental benefits across the country.

EPA's international activities help provide developing and industrialized countries with greater information and the increased technical capacity they need to implement emissions reduction policies and climate protection programs. In addition, EPA works with state and local governments interested in technical, educational, and outreach assistance for clean energy projects that reduce carbon emissions.

In 2006 alone, Americans, with the help of ENERGY STAR, prevented 37 MMTCE of greenhouse gas emissions, up from 35 MMTCE in 2005.¹² More than 2 billion ENERGY STAR-qualified products have been purchased; almost 725,000 new ENERGY STAR homes have been built; more than 30,000 office buildings, schools, supermarkets, hotels, and other types of commercial buildings have benchmarked their energy use; and hundreds of industrial facilities have improved their energy efficiency using ENERGY STAR tools. More than 100 corporations have committed to setting or have already set aggressive long-term greenhouse gas reduction goals through the Climate Leaders program. More than 650 organizations purchased almost 7 billion kilowatt-hours, and 200 more have installed more than 3,500 megawatts of new combined heat and power capacity.

Cars, trucks, aircraft, and other components of the nation's transportation system emit more than one quarter of total U.S. greenhouse gas emissions. Transportation policies, plans, and choices have an immense effect on greenhouse gas emissions, particularly on carbon production. Although technology and market-oriented measures will make a major contribution toward reducing emissions, efforts to reduce vehicle miles of travel are also critical for achieving EPA's greenhouse gas emission reduction goals. In FY 2007, EPA actively supported regional, state, and community voluntary efforts that encourage additional travel choices and alternatives to single-occupancy vehicle driving.

EPA Voluntary Climate Programs Play Large Role in U.S. Climate Goals EPA Program Contributions to U.S. Total Emissions Intensity

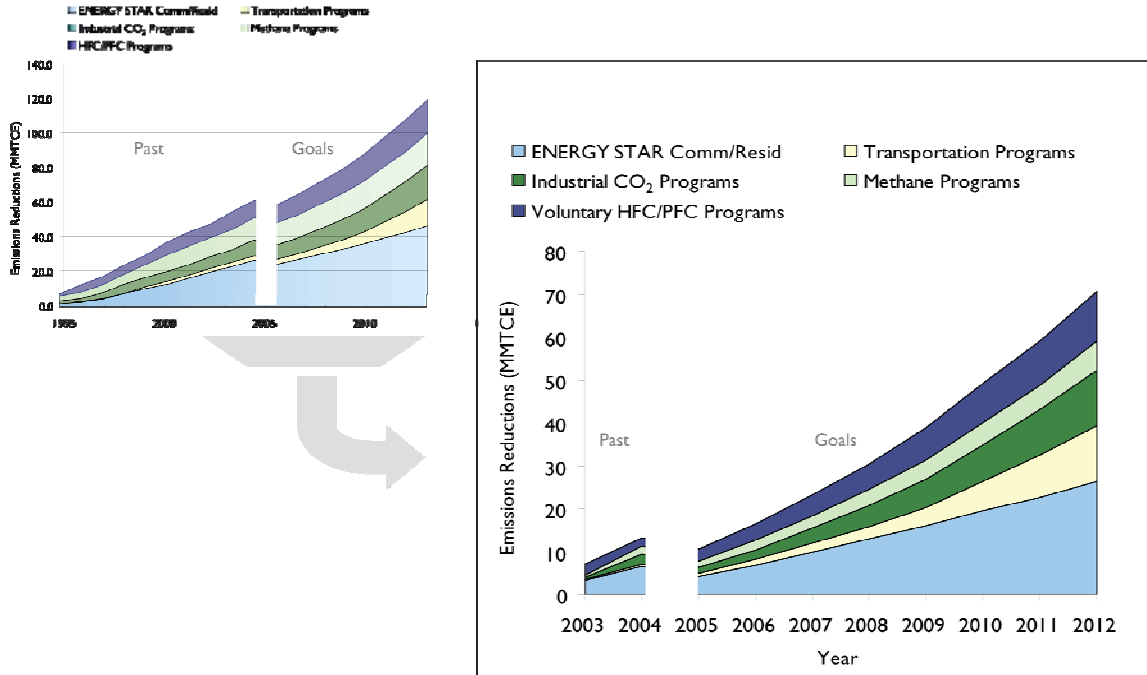


Source: USEPA. Draft numbers—undergoing interagency review

Key Programs

- ENERGY STAR
- Clean Energy
- SmartWay Transport
- Methane Reduction
- Industrial Gases (High GWP)
- Responsible Appliance Disposal

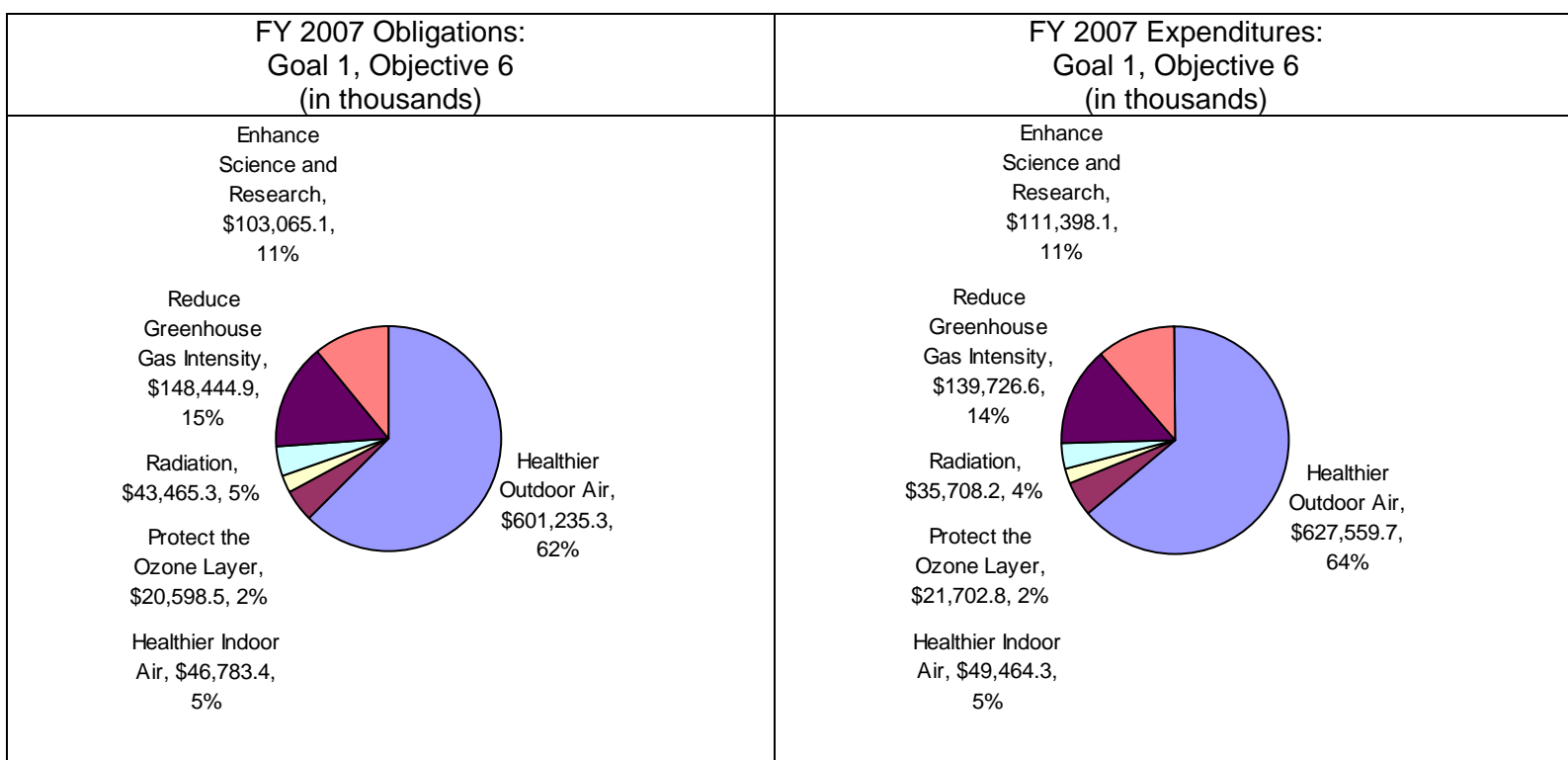
Voluntary Climate Programs on Target to Meet 2012 Goal



Additional Information Related to Objective 5	
Grants:	Grants are an integral part of the Climate Change Program's efforts to reduce greenhouse gas emissions through energy efficiency, clean energy, and cost-effective partnerships with industries and governments. The climate change grant program seeks proposals from eligible entities that will advance national, regional, state and local energy efficiency and clean energy programs through market-based approaches to program design, outreach, and delivery, as well as by fostering information exchange. Programs or projects should demonstrate potential to create lasting change in the marketplace for energy efficient and clean energy products, services, and best practices. Grant funding also supports technical, outreach, and education projects to advance public and private sector climate goals; projects for collecting and analyzing economic data relating to climate change; and programs such as Methane to Markets that facilitate climate technology transfer in developing countries. All of the activities supported by the climate change program's grant funds reduce greenhouse gas emissions and contribute to achieving performance goals.
PART:	The Climate Change program was assessed in the 2004 PART process and received a rating of "adequate." As a result of the PART process, the program is conducting follow-up actions which include implementing sector-wide efficiency measures (for the building, industry, and transportation sectors) to inform management

	and planning decisions. The program is also developing performance measures for the Clean Automotive Technology Program.
Web Links:	Energy Star Program: http://www.energystar.gov/

Objective 6: Enhance Science and Research



FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding</i>		
Goal 1: Objective 6 - Enhance Science and Research		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Clean Air Allowance Trading Programs	\$0.0	(\$17.1)

Climate Protection Program	\$456.0	\$0.2
Congressionally Mandated Projects	\$5,475.5	\$5,174.6
Homeland Security: Communication and Information	\$172.4	\$71.3
Homeland Security: Protection of EPA Personnel and Infrastructure	\$458.7	\$704.6
Research: Air Toxics	\$13,810.6	\$17,586.9
Research: Particulate Matter	(\$534.9)	\$13,667.4
Research: Troposphere Ozone	(\$37.8)	\$216.5
Administrative Law	\$92.0	\$87.6
Alternative Dispute Resolution	\$22.4	\$18.2
Central Planning, Budgeting, and Finance	\$1,964.7	\$1,887.6
Civil Rights / Title VI Compliance	\$127.2	\$122.3
Congressional, Intergovernmental, External Relations	\$455.2	\$446.9
Exchange Network	\$638.1	\$380.0
Facilities Infrastructure and Operations	\$4,245.7	\$4,317.6
Acquisition Management	\$880.0	\$836.4
Human Resources Management	\$1,274.3	\$1,299.0
Information Security	\$180.1	\$209.5
IT / Data Management	\$7,476.9	\$6,008.5
Legal Advice: Environmental Program	\$871.8	\$859.4
Legal Advice: Support Program	\$302.6	\$289.8
Audits, Evaluations, and Investigations	\$625.0	\$666.4
Regional Science and Technology	\$25.4	\$25.0
Science Advisory Board	\$89.1	\$83.5
Small Minority Business Assistance	\$43.9	\$36.7
Financial Assistance Grants / IAG Management	\$601.8	\$641.2
Research: NAAQS	\$63,025.8	\$55,466.0
Regulatory/Economic-Management and Analysis	\$322.7	\$312.1
Total	\$103,065.2	\$111,398.1

EPA continues to conduct leading-edge research to provide and apply sound science to support EPA's goals for clean air.

Research Supporting Standard-Setting and Air Quality Management Decisions

In FY 2007, EPA's Office of Research and Development (ORD) completed 100 percent of its planned actions toward reducing uncertainty in the science that supports standard-setting and air quality management decisions. As a result of this research, EPA has proposed to strengthen the nation's air quality standards for ground-level ozone, revising the standards for the first time since 1997. The standards are expected to be final in March 2008.

Agency scientists also found that ultrafine particles can cause pulmonary and cardiovascular changes in healthy young volunteers. These results are important because the current EPA size-based standards do not protect individuals from ultrafine particles. There is increased concern that, because of their small size, these particles may exit the lung and target other organ systems, including the cardiovascular system.

Research to Inform State Implementation Plans (SIPs)

ORD provided states with new tools and information to improve their understanding of sources of particulate matter and their State Implementation Plans (SIPs). These tools take the form of improved source apportionment models and a new method for measuring elemental and organic carbon.¹³

Research to Improve Assessments of Underlying Causes of Health Effects Caused by Airborne Particulate Matter (PM)

Agency research in FY 2007 produced extensive data on the species of metals present in combustion systems. This speciation information— relating to specific hazardous species in PM— provides data that can augment epidemiological and toxicological studies that would otherwise be based on elemental composition data alone. Information on the concentrations and bioavailability of specific hazardous species should make possible much clearer assessments of the underlying causes of adverse health effects caused by the inhalation of airborne PM.

Additional Information Related to Objective 6	
Program Evaluations:	EPA's Board of Scientific Counselors assessed the Clean Air Research Program's "mid-cycle" progress in September 2007. The report resulting from this review will be available in FY 2008.
Grants:	<ul style="list-style-type: none"> • In a study of more than 65,000 women over the age of 50, EPA grantees found that the risk of having a heart attack or other cardiovascular event— and the risk of dying from that event— was significantly higher in areas with higher average airborne particulate matter levels¹⁴. This study confirms previous findings and indicates that the magnitude of health effects may be larger than previously recognized. (Supported by Grant Entitled: "Northwest Research Center for Particulate Air Pollution and Health.") • EPA-funded researchers in Southern California found that local exposure to traffic on a freeway has adverse effects on children's lung development, which could result in important deficits in lung function in later life¹⁵. (Supported by Grant Entitled: "Southern California Center for Airborne Particulate Matter.") • EPA grantee research findings have revealed new information about the atmospheric processes that lead to formation of organic particulate matter, helping to explain the discrepancy between atmospheric measurements and air quality model predictions.^{16 17 18 19} These results will be used to develop effective and efficient emission control strategies to reduce particulate matter levels. (Supported by the

	<p>Following Four Grants: (1) “Atmospheric Processing of Organic Particulate Matter: Formation, Properties, Long Range Transport, and Removal,” (2) “Fundamental Experimental and Modeling Studies of Secondary Organic Aerosol,”(3) “Highly Time-Resolved Source Apportionment Techniques for Organic Aerosols Using the Aerodyne Aerosol Mass Spectrometer,” and (4) “Secondary and Regional Contributions to Organic PM: A Mechanistic Investigation of Organic PM in the Eastern and Southern United States.”)</p>
PART:	<p>The Clean Air Research Program received an “Adequate” rating on its most recent PART assessment, which was conducted in 2005 under the title National Ambient Air Quality Standards Research. As a result of the 2005 PART process, the program is currently (1) improving its financial and performance data integration, (2) developing and finalizing methods for measuring progress toward the program’s annual and long-term measures, and (3) convening annual program reviews. To those ends, the program has finalized the methodology for evaluating its progress toward its long-term measures and plans to conduct its first annual program review by FY 2008. This program has also implemented an efficiency measure that attempts to track cost and performance.</p>
Web Links:	<p>The Clean Air Research Program supports EPA’s goal of clean air by conducting leading-edge research and developing a better understanding and characterization of human health and environmental outcomes. Additional information on the program can be found at http://www.epa.gov/pmresearch.</p>

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.

OBJECTIVE: 1.1: HEALTHIER OUTDOOR AIR

Through 2011, 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.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
0	0	16	16

SUB-OBJECTIVE: 1.1.1: Ozone and PM2.5

By 2015, working with partners, improve air quality for ozone and PM2.5.

Strategic Target (1)

By 2015, reduce the population-weighted ambient concentration of ozone in all monitored counties by 14 percent from the 2003 baseline.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Cumulative percent reduction in population-weighted ambient concentration of ozone in monitored counties from 2003 baseline.	2	3	3	6	5	7	6	Data Avail 2008	Percentage
Baseline - The ozone concentration measure reflects improvements (reductions) in ambient ozone concentrations across all monitored counties, weighted by the populations in those areas. To calculate the weighting, pollutant concentrations in monitored counties are multiplied by the associated county populations. The units for this measure are therefore "million people parts per billion." The 2003 baseline is 15,972 million people-ppb.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

Strategic Target (2)

By 2015, reduce the population-weighted ambient concentration of PM2.5 in all monitored counties by six percent from the 2003 baseline

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Cumulative percent reduction in population-weighted ambient concentration of fine particulate matter (PM-2.5) in all monitored counties from 2003 baseline.					2	7	3	Data Avail 2008	Percentage
Baseline - The PM 2.5 concentration reduction annual measure reflects improvements (reductions) in the ambient concentration of fine particulate matter PM 2.5 pollution across the monitored counties, weighted by the populations in those areas. To calculate this weighting, pollutant concentrations in monitored counties are multiplied by the associated county populations. Therefore, the units for this measure are "million people micrograms per meter cubed: (million people ug/mg3). The 2003 baseline is 2.581 million people-ug/mg3. Beginning in FY 2005, the 2000 Mobile6 inventory is used at the baseline for mobile source emissions.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

Strategic Target (3)

By 2011, reduce emissions of fine particles from mobile sources by 134,700 tons from the 2000 level of 510,550 tons.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Tons of PM-2.5 Reduced since 2000 from Mobile Sources	48,974	48,974	61,217	61,217	73,460	73,460	85,704	Data Avail 2008	Tons
Baseline - The 2000 baseline for PM 2.5 from mobile sources is 510,550 tons.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

Strategic Target (4)

By 2011, reduce emissions of nitrogen oxides (NOx) from mobile sources by 3.7 million tons from the 2000 level of 11.8 million tons.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Millions of Tons of Nitrogen Oxides	1.35	1.35	1.69	1.69	2.03	2.03	2.37	Data Avail	Tons

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(NOx) Reduced since 2000 Reduced from Mobile Sources								2008	
Baseline - The 1995 baseline was 12.0M tons for mobile source NOx emissions. The 2000 baseline was 11.8M tons for mobile source NOx emissions.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

Strategic Target (5)

By 2011, through federal emission standards, reduce annual emissions of volatile organic compounds from mobile sources by 1.9 million tons from the 2000 level of 7.7 million tons.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Millions of Tons of Volatile Organic Compounds (VOCs) Reduced since 2000 from Mobile Sources	.68	0.68	.86	0.86	1.03	1.03	1.20	Data Avail 2008	Tons
Baseline - The 1995 baseline was 8.1M tons for mobile source VOC emissions. The 2000 baseline was 7.7M tons for mobile source VOC emissions.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

Strategic Target (6)

By 2018, visibility in eastern Class I areas will improve by 15 percent on the 20 percent worst visibility days, as compared to visibility on the 20 percent worst days during the 2000-2004 baseline period.

Strategic Target (7)

By 2018, visibility in western Class I areas will improve by five percent on the 20 percent worst visibility days, as compared to visibility on the 20 percent worst days during the 2000-2004 baseline period.

Strategic Target (8)

By 2011, with EPA support, 30 additional tribes (6 per year) will have completed air quality emission inventories.

Strategic Target (9)

By 2011, 18 additional tribes will possess the expertise and capability to implement the Clean Air Act in Indian country (as demonstrated by successful completion of an eligibility determination under the Tribal Authority Rule).

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Cumulative percent reduction in the number of days with Air Quality Index (AQI) values over 100 since 2003, weighted by population and AQI value.	8	15.5	13	32.1	17	39	21	Data Avail 2008	Percentage
Baseline - Baseline was zero in 2003.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									
Percent of major NSR permits issued within one year of receiving a complete permit application.			65	69	70	70	75	Data Avail 2008	Percentage
Baseline - The baseline for NSR permits issued within one year of receiving a complete permit application is 61% in 2004.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									
Percent of significant Title V operating permit revisions issued within 18 months of receiving a complete permit application.			88	88	91	91	94	Data Avail 2008	Percentage
Baseline - The 2004 baseline for significant title V operating revisions issued within 18 months of receiving a complete permit application is 85%.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									
Percent of new Title V operating permits issued within 18 months of receiving a complete permit application.			79	79	83	83	87	Data Avail 2008	Percentage
Baseline - The 2004 baseline for new title V operating permits issued within 18 months of receiving a complete permit application is 85%.									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Explanation - Due to reporting cycles, data is unavailable until 2008.									
Tons of PM-10 Reduced since 2000 from Mobile Sources	49,729	18,000	62,161	62,161	74,594	74,594	87,026	Data Avail 2008	Tons
Baseline - Beginning in FY 2005, the 2000 mobile inventory is used as the baseline for mobile source emissions. The 2000 baseline for PM-10 from mobile source is 613,000 tons.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

SUB-OBJECTIVE: 1.1.2: Air Toxics

By 2011, working with partners, reduce air toxics emissions and implement area-specific approaches to reduce the risk to public health and the environment from toxic air pollutants.

Strategic Target (1)

By 2010, reduce toxicity-weighted (for cancer risk) emissions of air toxics to a cumulative reduction of 19 percent from the 1993 non-weighted baseline of 7.24 million tons.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics from 1993 baseline.					34	Data Avail 2009	35	Data Avail 2009	Percentage
Baseline - The toxicity-weighted emission inventory will utilize the National Emissions Inventory (NEI) for air toxics along with the Agency's compendium of cancer and noncancer health risk criteria to develop a risk metric that can be tabulated and tracked on an annual basis. The baseline is based on emission inventory data from 1990-1993. The baseline is in 1993. Air toxics emissions data are revised every three years to generate inventories for the NEI, which replaced the National Toxics Inventory (NTI). The intervening years between updates of the NEI, the model EMS-HAP (Emissions Modeling System for Hazardous Air Pollutants) is used to estimate and project annual emissions of air toxics. As new inventories are completed and improved inventory data is added, the baseline (or total tons of air toxic) is adjusted.									
Explanation - Air Toxics data has always had a data lag due to the need to develop the NEI (every 3 years). The most current NEI is the 2002, which is what we used to develop the targets. When the decision was made to re-engineer a 2005 NEI.									

Strategic Target (2)

By 2010, reduce toxicity-weighted (for non-cancer risk) emissions of air toxics to a cumulative reduction of 55 percent from the 1993 non-weighted baseline of 7.24 million tons.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Cumulative percentage reduction in tons of toxicity-weighted (for non-cancer risk) emissions of air toxics from 1993 baseline.					58	Data Avail 2009	58	Data Avail 2009	Percentage
<p>Baseline - The toxicity-weighted emission inventory will utilize the National Emissions Inventory (NEI) for air toxics along with the Agency's compendium of cancer and non-cancer health risk criteria to develop a risk metric that can be tabulated and tracked on an annual basis. The baseline is based on emission inventory data from 1990-1993. The baseline is in 1993. Air toxics emissions data are revised every three years to generate inventories for the NEI, which replaced the National Toxics Inventory (NTI). The intervening years between updates of the NEI, the model EMS-HAP (Emissions Modeling System for Hazardous Air Pollutants) is used to estimate and project annual emissions of air toxics. As new inventories are completed and improved inventory data is added, the baseline (or total tons of air toxic) is adjusted.</p>									
<p>Explanation - Air Toxics data has always had a data lag due to the need to develop the NEI (every 3 years). The most current NEI is the 2002, which is what we used to develop the targets. When the decision was made to re-engineer a 2005 NEI.</p>									

SUB-OBJECTIVE: 1.1.3: Chronically Acidic Water Bodies

By 2011, reduce the number of chronically-acidic water bodies in acid-sensitive regions by two percent from 1984 levels.

Strategic Target (1)

By 2011, reduce national annual emissions of sulfur dioxide (SO2) from utility electrical power generation sources by approximately 8.45 million tons from the 1980 level of 17.4 million tons, through implementation of the Acid Rain Program and Clean Air Interstate Rule, achieving and maintaining the Acid Rain statutory SO2 emissions cap of 8.95 million tons.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Tons of sulfur dioxide emissions from electric power generation sources	5,000,000	7,100,000	6,900,000	7,200,000	7,000,000	8,000,000	7,500,000	Data Avail 2008	Tons Reduced
<p>Baseline - The baseline year is 1980. The 1980 SO2 emissions inventory totals 17.4 million tons for electric utility sources. This inventory was developed by National Acid Precipitation Assessment Program (NAPAP) and is used as the basis for reductions in Title IV of the Clean Air Act</p>									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Amendments. This data is also contained in EPA's National Air Pollutant Emissions Trends Report. The statutory SO2 emissions cap for year 2010 and later is at 8.95 million tons, approximately 8.5 million tons below 1980 emissions level. "Allowable SO2 emission level" consists of allowance allocations granted to sources each year under several provisions of the Act and additional allowances carried over, or banked, from previous years.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

Strategic Target (2)

By 2011, reduce total annual average sulfur deposition and mean ambient sulfate concentration by 30 percent from 1990 monitored levels of up to 25 kilograms per hectare for total sulfur deposition and 6.4 micrograms per cubic meter for mean ambient sulfate concentration.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent change in average sulfur deposition and mean ambient sulfate concentrations.	25	31	No FY 2005 Target		No FY 2006 Target		29	Data Avail 2008	Percentage
Baseline - Sulfur deposition contributes to acidification of lakes and streams, making them unable to support fish and other aquatic life. Reductions in sulfur deposition are critical to reducing the number of chronically acidic water bodies. Ambient sulfate and ambient nitrate ("acid rain" "particulate") contribute to unhealthy air and respiratory problems in humans, especially children and other sensitive populations. The baseline is established from monitored site levels based on consolidated map of 1989-1991 showing a three year of deposition levels produced from the CASTNET sites (http://www.epa.gov/castnet/sites.html).									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

Strategic Target (3)

By 2011, reduce total annual average nitrogen deposition and mean total ambient nitrate concentration by 15 percent from 1990 monitored levels of up to 11 kilograms per hectare for total nitrogen deposition and 4.0 micrograms per cubic meter for mean total ambient nitrate concentration.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent change in average nitrogen deposition and mean total ambient	5	7	No FY 2005		No FY 2006		10	Data Avail 2008	Percentage

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
nitrate concentrations.			Target		Target				
<p>Baseline - Nitrogen deposition contribute to acidification of lakes and streams, making them unable to support fish and other aquatic life. Reductions in nitrogen deposition are critical to reducing the number of chronically acidic water bodies. Ambient nitrate ("acid rain" "particulate") contribute to unhealthy air and respiratory problems in humans, especially and other sensitive populations. The baseline is established from monitored site levels based on consolidated map of 1989-1991 showing a three year of deposition levels produced from the CASTNET sites (http://www.epa.gov/castnet/sites.html)</p>									
<p>Explanation - Due to reporting cycles, data is unavailable until 2008.</p>									

OBJECTIVE-LEVEL MEASURES

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Limit the increase of CO emissions (in tons) from mobile sources compared to a 2000 baseline.					1.01	1.01	1.18	Data Avail 2008	Tons
<p>Baseline - The 2000 baseline was 79.2 M tons for CO.</p>									
<p>Explanation - Due to reporting cycles, data is unavailable until 2008.</p>									

OBJECTIVE: 1.2: HEALTHIER INDOOR AIR

Through 2012, working with partners, reduce human health risks by reducing exposure to indoor air contaminants through the promotion of voluntary actions by the public.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
0	0	4	4

SUB-OBJECTIVE: 1.2.1: Radon

By 2012, the number of future premature lung cancer deaths prevented annually through lowered radon exposure will increase to 1,250 from the 1997 baseline of 285 future premature lung cancer deaths prevented.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Number of additional homes (new and existing) with radon reducing features	162,000	143,000	173,000	194,000	180,000	Data Avail Late 2008	190,000	Data Avail Late 2008	Homes
<p>Baseline - This performance measure includes EPA radon and asthma work. By 2008, the number of people living in homes built (new or existing) with radon reducing features will be 225,000. The baseline for the measure is 1996 (107,000 homes). Annual Surveys are conducted by our partners to gather information such as types of houses built, lot sizes, foundation designs, types of lumber used, types of doors and windows used, etc. Also, the surveys gather information on the use of radon-resistant design features in new houses. Each year, the survey of building practices is mailed to home builders. The survey responses are analyzed, with respect to State market areas and Census Division in the U.S., 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 areas in the U.S.</p>									
<p>Explanation - Due to reporting cycles, data is unavailable until late 2008.</p>									

SUB-OBJECTIVE: 1.2.2: Asthma

By 2012, the number of people taking all essential actions to reduce exposure to indoor environmental asthma triggers will increase to 6.5 million from the 2003 baseline of 3 million. EPA will place special emphasis on children and other disproportionately impacted populations.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Number of people taking all essential actions to reduce exposure to indoor environmental asthma triggers.					4,100,000	Data Avail 2008	No FY 2007 Target	N/A	Number
<p>Baseline - In FY 2006 total number of people was 4,100,000.</p>									
<p>Explanation - No Target was set for FY 2007. For FY 2006, Data will be available FY 2008 due to reporting cycles.</p>									
Percent of public that is aware of the	>20	27.00	>20	31	>20	33	>20	Data Avail	Percentage

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
asthma program's media campaign.								2008	
Baseline - In FY 2004 actual was 27.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									
Additional health care professionals trained annually by EPA and its partner on the environmental management of asthma triggers.	2000	3,080	2000	3,380	2000	3,582	2000	Data Avail 2008	Number
Baseline - In FY 2004 actual was 3,080.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

SUB-OBJECTIVE: 1.2.3: Schools

By 2012, the number of schools implementing an effective indoor air quality management plan will increase to 40,000 from the 2002 baseline of 25,000.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Estimated annual number of schools establishing indoor air quality programs based on EPA's Tools for Schools guidance.	3000	3,100	2500	3,000	1200	Data Avail Late 2007	1100	Data Avail 2008	Number
Baseline - The nation has approximately 118,000 (updated to include new construction) schools. Each school has an average of 525 students, faculty, and staff for a total estimated population of 62,000,000. The IAQ "Tools for Schools" Guidance implementation began in 1997. Results from a 2002 IAQ practices in schools survey suggest that approximately 20-22% of U.S. schools report an adequate effective IAQ management plan that is in accordance with EPA guidelines.									
Explanation - Due to reporting cycles, data is unavailable until 2008. FY 2006 data is expected in late 2007 due to reporting cycles.									

OBJECTIVE: 1.3: PROTECT THE OZONE LAYER

By 2030, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and overexposure to ultraviolet radiation, particularly among susceptible subpopulations, such as children, will be reduced.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
0	0	2	2

Strategic Target (1)

By 2015, reduce U.S. consumption of Class II ozone-depleting substances to less than 1,520 tons per year of ozone depleting potential from the 2003 baseline of 9,900 tons per year.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Remaining US Consumption of HCFCs in tons of Ozone Depleting Potential (ODP).	<9,900	5,500	<9,900	6,770	<9,900	Data Avail 2008	<9,900	Data Avail 2009	ODP MTs
Baseline - The base of comparison for assessing progress on the 2005 annual performance goal is the domestic consumption cap of class II HCFCs as set by the Parties to the Montreal Protocol. Each Ozone Depleting Substance (ODS) is weighted based on the damage it does to the stratospheric ozone - this is its ozone-depletion potential (ODP). Beginning on January 1, 1996, the cap was set at the sum of 2.8 percent of the domestic ODP-weighted consumption of CFCs in 1989 plus the ODP-weighted level of HCFCs in 1989. Consumption equals production plus import minus export.									
Explanation - Due to reporting cycles, data is unavailable until 2009.									
Cumulative federal dollars spent per school joining the SunWise program.	693	693	580	580	560	544	525	Data Avail 2008	Dollars
Baseline - The base of comparison for assessing progress on the 2005 annual performance goal is the domestic consumption cap of class II HCFCs as set by the Parties to the Montreal Protocol. Each Ozone Depleting Substance (ODS) is weighted based on the damage it does to the stratospheric ozone - this is its ozone-depletion potential (ODP). Beginning on January 1, 1996, the cap was set at the sum of 2.8 percent of the domestic ODP-weighted consumption of CFCs in 1989 plus the ODP-weighted level of HCFCs in 1989. Consumption equals production plus import minus export.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

Strategic Target (2)

By 2165, reduce the incidence of melanoma skin cancer to 14 new skin cancer cases avoided per 100,000 people from the 1990 baseline of 13.8 cases avoided per 100,000 people.

OBJECTIVE: 1.4: RADIATION

Through 2011, working with partners, minimize unnecessary releases of radiation and be prepared to minimize impacts to human health and the environment should unwanted releases occur.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
0	0	0	0

SUB-OBJECTIVE: 1.4.1:

Placeholder for ST 01-RadNet Ambient Radiation Air Monitoring System and ST 02Readiness of Radiation Program Personnel and Assets

Strategic Target (1)

By 2011, 77 percent of the U.S. land area will be covered by the RadNet ambient radiation air monitoring system.

Strategic Target (2)

By 2011, the radiation program will maintain a 90 percent level of readiness of radiation program personnel and assets to support federal radiological emergency response and recovery operations.

OBJECTIVE: 1.5: REDUCE GREENHOUSE GAS INTENSITY

By 2012, 160 million metric tons of carbon equivalent (MMTCE) of emissions will be reduced through EPA’s voluntary climate protection programs.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
0	0	3	3

SUB-OBJECTIVE: 1.5.1: Buildings Sector

Buildings Sector. By 2012, 46 MMTCE will be reduced in the buildings sector (compared to the 2002 level).

No Strategic Target

Annual Performance Measures and	FY 2004	FY 2005	FY 2006	FY 2007

	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the buildings sector.	21.4	26.2	23.8	29.9	26.5	31.10	29.4	Data Avail 2008	MMTCE
<p>Baseline - The baseline for evaluating program performance is a projection of U.S. greenhouse gas emissions in the absence of the U.S. climate change programs. The baseline was developed as part of an interagency evaluation of the U.S. climate change programs in 2002, which built on similar baseline forecasts developed in 1997 and 1993. Baseline data for carbon emissions related to energy use is based on data from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model of the U.S. electric power sector. Baseline data for non-carbon dioxide emissions, including nitrous oxide and other high global warming potential gases are maintained by EPA. Baseline information is discussed at length in the U.S. Climate Action Report 2002 which provides a discussion of differences in assumptions between the 1997 baseline and the 2002 update, including which portion of energy efficiency programs are included in the estimates.</p>									
<p>Explanation - Due to reporting cycles, data is unavailable until 2008.</p>									

SUB-OBJECTIVE: 1.5.2: Industrial Sector

Industry Sector. By 2012, 99 MMTCE will be reduced in the industry sector (compared to the 2002 level).

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the industry sector.	53.2	53.20	53.5	58.7	57.5	69	62.6	Data Avail 2008	MMCTE
<p>Baseline - The baseline for evaluating program performance is a projection of U.S. greenhouse gas emissions in the absence of the U.S. climate change programs. The baseline was developed as part of an interagency evaluation of the U.S. climate change programs in 2002, which built on similar baseline forecasts developed in 1997 and 1993. Baseline data for carbon emissions related to energy use is based on data from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model of the U.S. electric power sector. Baseline data for non-carbon dioxide emissions, including nitrous oxide and other high global warming potential gases are maintained by EPA. Baseline information is discussed at length in the U.S. Climate Action Report 2002 which provides a discussion of differences in assumptions between the 1997 baseline and the 2002 update, including which portion of energy efficiency programs are included in the estimates.</p>									
<p>Explanation - Due to reporting cycles, data is unavailable until 2008.</p>									

SUB-OBJECTIVE: 1.5.3: Transportation Sector

By 2012, 15 MMTCE will be reduced in the transportation sector (compared to the 2002 level).

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Million metric tons of carbon equivalent (mmtce) of greenhouse gas reductions in the transportation sector.	2.6	2.6	2.9	2.9	0.6	0.6	4.2	Data Avail 2008	MMTCE
Baseline - The baseline for evaluating program performance is a projection of U.S. greenhouse gas emissions in the absence of the U.S. climate change programs. The baseline was developed as part of an interagency evaluation of the U.S. climate change programs in 2002, which built on similar baseline forecasts developed in 1997 and 1993. Baseline data for carbon emissions related to energy use is based on data from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model of the U.S. electric power sector. Baseline data for non-carbon dioxide emissions, including nitrous oxide and other high global warming potential gases are maintained by EPA. Baseline information is discussed at length in the U.S. Climate Action Report 2002 which provides a discussion of differences in assumptions between the 1997 baseline and the 2002 update, including which portion of energy efficiency programs are included in the estimates.									
Explanation - Due to reporting cycles, data is unavailable until 2008.									

OBJECTIVE: 1.6: ENHANCE SCIENCE AND RESEARCH

Through 2012, provide sound science to support EPA's goal of clean air by conducting leading-edge research and developing a better understanding and characterization of human health and environmental outcomes.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
1	0	0	1

OBJECTIVE-LEVEL MEASURES

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent planned actions accomplished toward the long-term goal of reducing uncertainty in the science that support standard setting and air quality management decisions.	81	84	91	94	100	94	100	100	Percent
<p>Baseline - The program plans to meet 100% of its planned actions in FY 2007, an improvement from 94% completion in FY 2005. In achieving these targets, the program will contribute to EPA's goal of developing a better understanding and characterization of human health and environmental outcomes related to clean air.</p>									

DISCONTINUED MEASURES

OBJECTIVE 1.1: HEALTHIER OUTDOOR AIR

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Cumulative percent increase in the number of people who live in areas with ambient PM10 concentrations below the level of the NAAQS as compared to 1992.	6	6	7	10	11	10	No Target		Percent
Cumulative percent increase in the number of areas with ambient PM10 concentrations below the level of the NAAQS as compared to 1992.	40	54	74	77	130	132	No Target		Percent
Total number of people who live in areas measuring clean air for PM10			120.8	123.5	126.4	125.6	No Target		Million People
Areas measuring clean air for PM10.			10	3	38	68	No Target		Areas
Additional people living in new areas measuring clean air for PM10.			453,000	453,000	5,500,000	4,675,000	No Target		Areas
Cumulative percent increase in the number of people who live in areas with ambient CO, NO2, SO2, or Pb concentrations below the level of the NAAQS as compared to 1992.	53	49	53	53	66	67	No Target		Percent
Cumulative percent increase in the number of areas with ambient CO, NO2, SO2, or Pb concentrations below the level of the NAAQS as compared to 1992.	87	99	108	108	111	117.6	No Target		Percent
Total number of people who live in areas measuring clean air for CO,			120.8	174	189.7	190	No Target		Million People

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
NO2, SO2, or Pb.									
Areas measuring clean air for CO, NO2, SO2, or Pb.			10	10	4	18	No Target		Areas
Additional people living in new areas measuring clean air for CO, NO2, SO2, or Pb.			4,100,000	4,100,000	15,500,000	16,795	No Target		People
Cumulative percent increase in the number of people who live in areas with ambient PM2.5 concentrations below the level of the NAAQS as compared to 2001.	1	20	1	45	1	*	No Target		Percent
Percent increase in the number of areas with ambient PM2.5 concentrations below the level of the NAAQS as compared to 2001.	1	46	1	21	1	*	No Target		Percent
SO2 emissions reduced.	5	7.1	6.9	7.2	7	*	No Target		Million Tons
<p>* Explanation - These measures have been replaced by PART performance measures approved by the Office of Management and Budget through the official PART process. The program has incorporated the most critical information from these performance measures and further improved upon them through the adoption of the program's PART measures which provide more ambitious, outcome-oriented methods to assess environmental progress. Additionally these approved PART measures form the basis for the programs' State grant templates and Senior Management Measures. They are widely used to ensure better collection of data from the States, as well to provide key progress indicators to senior management at EPA.</p>									

OBJECTIVE 1.2: HEALTHIER INDOOR AIR

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
People living in healthier indoor air.	834,400	834,400	843,300	843,300	850,000	*	No Target		People
Students/Staff experiencing improved IAQ in Schools.	1,575,000	1,630,000	1,312,500	1,574,000	630,000	*	No Target		Students/Staff

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<p>* Explanation - These measures have been replaced by PART performance measures approved by the Office of Management and Budget through the official PART process. The program has incorporated the most critical information from these performance measures and further improved upon them through the adoption of the program's PART measures which provide more ambitious, outcome-oriented methods to assess environmental progress. Additionally these approved PART measures form the basis for the programs' State grant templates and Senior Management Measures. They are widely used to ensure better collection of data from the States, as well to provide key progress indicators to senior management at EPA.</p>									

OBJECTIVE 1.4: RADIATION

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percentage of EPA RERT members that meet scenario-based criteria.			50	60	60	*	No Target		Percent
<p>* Explanation - These measures have been replaced by PART performance measures approved by the Office of Management and Budget through the official PART process. The program has incorporated the most critical information from these performance measures and further improved upon them through the adoption of the program's PART measures which provide more ambitious, outcome-oriented methods to assess environmental progress. Additionally these approved PART measures form the basis for the programs' State grant templates and Senior Management Measures. They are widely used to ensure better collection of data from the States, as well to provide key progress indicators to senior management at EPA.</p>									

OBJECTIVE 1.5: REDUCE GREENHOUSE GAS EMISSIONS

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Greenhouse gas reductions from EPA's Industrial Efficiency/Waste Management programs.	7.3	9	8	10.2	9	*	No Target		MMTCE
Greenhouse gas reductions from EPA's Industrial Methane Outreach program.	18.1	19.9	19.1	16.8	20.1	*	No Target		MMTCE
Greenhouse gas reductions from EPA's Industrial HFC/PFC programs.	29.6	28.2	34.4	29.8	41	*	No Target		MMTCE
Greenhouse gas reductions from	2	2	2	2	2	*	No Target		MMTCE

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
EPA's state and local programs.									
Annual Greenhouse Gas Reductions – All EPA programs.	81	87.9	90.2	91.5	102	*	No Target		MMTCE
Annual energy savings – All EPA programs.	110	145	120	165	145	*	No Target		Billion kWh
Fuel economy of EPA-developed SUV hybrid technology over EPA driving cycles tested.	25.2	25.2	26.3	26.3	27.3	*	No Target		MPG
<p>* Explanation - These measures have been replaced by PART performance measures approved by the Office of Management and Budget through the official PART process. The program has incorporated the most critical information from these performance measures and further improved upon them through the adoption of the program's PART measures which provide more ambitious, outcome-oriented methods to assess environmental progress. Additionally these approved PART measures form the basis for the programs' State grant templates and Senior Management Measures. They are widely used to ensure better collection of data from the States, as well to provide key progress indicators to senior management at EPA.</p>									

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.

CONTRIBUTING PROGRAMS:

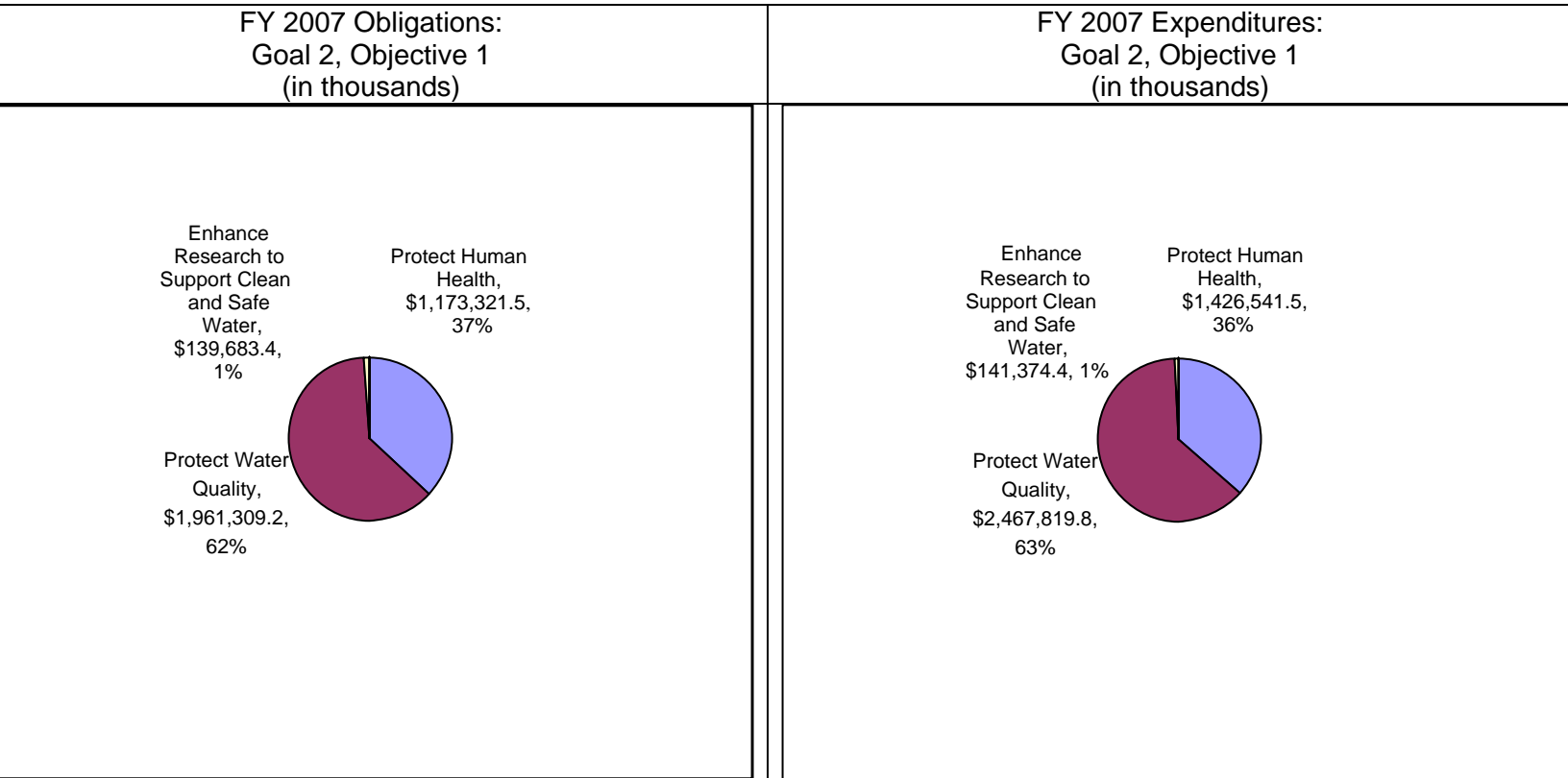
Water Monitoring, Analytical Methods, Beach Program, Coastal and Ocean Programs, Clean Water State Revolving Fund, Cooling Water Intakes Program, Drinking Water and Ground Water Protection Programs, Drinking Water State Revolving Fund, Drinking Water Research, Effluent Guidelines, Fish Consumption Advisories, Great Lakes National Program, Gulf of Mexico Program, National Pollutant Discharge Elimination System, Nonpoint Source Pollution Control, Pollutant Load Allocation, Surface Water Protection Program, Sustainable Infrastructure Program, Total Daily Maximum Loads, Underground Injection Control Program, Wastewater Management, Water Efficiency, Water Quality Standards and Criteria, Watershed Information Network, Watershed Management, Water Quality Research.

GOAL PURPOSE:

EPA, in coordination with its partners, protects and improves the quality of the nation's drinking and surface waters. To ensure that tap water is safe to drink, we set limits for drinking water contaminants; help to sustain the network of pipes and treatment facilities that constitute the nation's water infrastructure; and work with water systems to plan for, prevent, detect, and respond to terrorist or other threats to our drinking water supplies. To ensure safe ground water supplies, EPA works with our state and local partners to implement source water protection plans for the area surrounding drinking water sources. Also, the Underground Injection Control program regulates the subsurface injections of hazardous and non-hazardous substances in wells. In addition, EPA monitors surface water quality and works with state partners to strengthen water quality standards, develop and/or approve discharge permits, and reduce pollution from diffuse or nonpoint sources. EPA is restoring polluted waters across the country by implementing cleanups and promoting innovative, cost-effective practices, such as water quality trading and permitting on a watershed basis.

While EPA continues to make progress toward safe and secure drinking water, challenges remain. Drinking water systems are increasingly stressed due to aging infrastructure and expanding populations. In the chapter that follows, we report on our accomplishments and challenges in addressing water quality issues—strengthening and improving drinking water standards, maintaining safe water quality at public beaches, restoring polluted water bodies, and improving the health of coastal waters.

Objective 1: Protect Human Health



FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding</i>		
Goal 2: Objective 1 - Protect Human Health		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Public Water System Supervision (PWSS)	\$96,073.7	\$110,617.0
Categorical Grant: Underground Injection Control (UIC)	\$10,073.0	\$10,904.9
Categorical Grant: Pesticides Program Implementation	(\$45.4)	\$18.1
Categorical Grant: Beaches Protection	\$10,023.4	\$11,144.6
Categorical Grant: Homeland Security	\$3,705.7	\$4,019.0
Beach / Fish Programs	\$2,774.9	\$4,092.0
Congressionally Mandated Projects	\$73,346.0	\$93,028.1

Drinking Water Programs	\$105,061.2	\$103,860.2
Homeland Security: Communication and Information	\$436.9	\$180.7
Homeland Security: Critical Infrastructure Protection	\$14,578.9	\$22,928.2
Homeland Security: Protection of EPA Personnel and Infrastructure	\$680.0	\$999.9
Infrastructure Assistance: Drinking Water SRF	\$789,624.4	\$1,003,111.0
International Capacity Building	\$2,476.7	\$3,424.5
Pesticides: Field Programs	\$0.0	\$110.1
Administrative Law	\$233.2	\$222.1
Alternative Dispute Resolution	\$56.8	\$46.0
Central Planning, Budgeting, and Finance	\$3,924.8	\$3,800.9
Children and other Sensitive Populations	(\$13.2)	(\$2,655.1)
Civil Rights / Title VI Compliance	\$513.3	\$498.2
Congressional, Intergovernmental, External Relations	\$2,332.9	\$2,318.9
Exchange Network	\$1,621.5	\$962.3
Facilities Infrastructure and Operations	\$24,220.8	\$22,880.8
Acquisition Management	\$1,123.5	\$1,078.7
Human Resources Management	\$1,911.2	\$1,904.7
Information Security	\$197.3	\$201.6
IT / Data Management	\$13,971.0	\$11,891.8
Legal Advice: Environmental Program	\$2,209.0	\$2,197.2
Legal Advice: Support Program	\$692.2	\$669.9
Audits, Evaluations, and Investigations	\$8,463.5	\$9,023.4
Regional Science and Technology	\$170.8	\$146.3
Science Advisory Board	\$225.9	\$211.6
Small Minority Business Assistance	\$111.2	\$93.1
Financial Assistance Grants / IAG Management	\$1,729.0	\$1,819.8
Regulatory/Economic-Management and Analysis	\$817.7	\$791.0
Total	\$1,173,321.8	\$1,426,541.5

SAFE DRINKING WATER

EPA and its partners have made significant progress in providing the public with drinking water that meets health-based standards. Water systems across the country are working to meet standards for more than 90 contaminants to keep drinking water safe and secure. In FY 2007, 91.5 percent of Americans were served by community water systems meeting drinking water standards. This percentage fell short of the Agency's target of 94 percent, largely as a result of the challenges water systems face in implementing existing regulations and implementing new standards to protect public health. In Indian country, 87 percent of the population served by community systems received drinking water that met all applicable health-based standards, falling short of EPA's targeted 93 percent.

In general, small drinking water systems, including those supplying drinking water to tribes, are particularly challenged by the need to improve infrastructure and develop the capacity to meet new and existing standards.

In addition to the challenges associated with implementing any new rule, EPA works to provide needed technical support and assistance to the states. The cost associated with addressing water infrastructure issues represents an ongoing and significant challenge for the Agency as well as for states and drinking water utilities across the country.

SAFE FISH AND SHELLFISH

Throughout FY 2007, EPA worked with states and other federal agencies to address poor water quality in shellfish growing waters. Every year, states monitor shell fishing waters and restrict harvesting if shellfish are unsafe for consumption. Through its surface water protection program, EPA addresses anthropogenic activities that cause these closures, such as discharges from sewage treatment plants.

The most recent data available is for calendar year 2005, and it showed that 81 percent of state-monitored shellfish-growing acres impacted by anthropogenic sources were approved or conditionally approved for use, up from 77 percent in 1995. Data for this measure comes from periodic surveys of shellfish growing states by the Interstate Shellfish Sanitation Conference (ISSC). At this time the ISSC has not committed to doing another survey.

To increase the number of fish harvested in the U.S. that are safe to eat, EPA not only works to reduce the release of toxic contaminants into the nation's waters, but conducts activities to expand information about fish safety, and makes it available to the public. In FY 2007, EPA continued to encourage states and tribes in monitoring fish contaminants and issuing fish consumption advice. EPA also encouraged states to revisit existing advisories to evaluate whether contaminants levels in fish tissue have improved sufficiently to revise those advisories and allow more safe consumption of fish.

SAFE SWIMMING

EPA, through its Beaches Environmental Assessment, Closure and Health (BEACH) Program, is working with state, tribal, and local governmental partners to make available to the public beach water quality information. EPA established the BEACH Program to provide a framework for local governments to develop equally protective and consistent programs across the country for monitoring the quality of water at beaches and posting warnings or beach closings when pollutant levels are too high.

Beach contamination often results from stormwater running off streets, fields, and forests, as well as other sources of contamination that feed into coastal waters. Under EPA's Beach Program, more than 3,700 beaches were monitored by 35 states and territories to ensure that beaches were safe for swimming. During calendar year 2006, coastal and Great Lakes beaches were open 95 percent of beach season days, meeting EPA's FY 2007 goal. Of the more than 676,000 beach season days during the year, fewer than 5 percent were restricted due to contamination-related closings. More than half of the actions lasted for two days or less.

In FY 2007, EPA worked to improve pollution control efforts that reduce potential adverse health effects at beaches. EPA also conducted research to develop new or revised water quality criteria and more rapid methods for assessing water quality at beaches so that results can be made available in hours rather than days. These

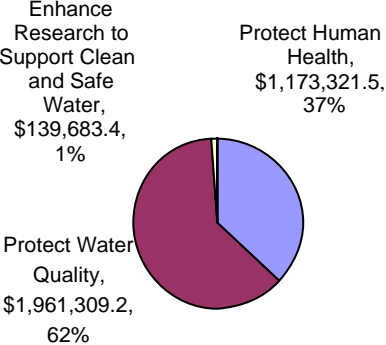
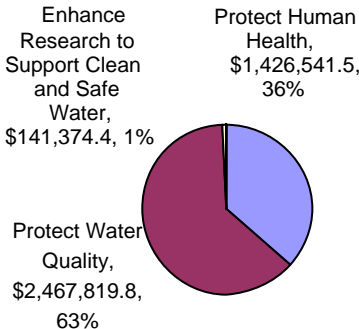
quicker tests will allow beach managers to make faster decisions about the safety of beach waters and thus help reduce the risk of illness among beachgoers.

In FY 2007, fewer beaches were in EPA's Beach program than in 2005 due to consolidations and corrected state survey data. EPA and its state partners are improving data collection and reporting to provide a more complete picture of the nation's beaches.

Additional Information Related to Objective 1	
Program Evaluations:	<i>Securing Wastewater Facilities: Costs of Vulnerability Assessments, Risk Management Plans, and Alternative Disinfection Methods Vary Widely</i> , GAO-07-480, March 30, 2007 http://www.gao.gov/new.items/d07480.pdf
Grants:	Base program support grants include: Drinking Water State Revolving Fund, PWSS Grant Program, Underground Injection Control (UIC) Grant Program. In addition, 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 that support state and local government beach monitoring and notification programs that provide the public with information on the safety of water for swimming.
PART:	<ul style="list-style-type: none"> • The Public Water System Supervision Grant Program was assessed in the 2004 PART process and received a rating of "adequate." As a result of the PART process, the program is conducting follow-up actions which include implementing recommendations from the second triennial drinking water data quality review which are designed to improve the overall quality of the data in EPA's drinking water compliance reporting system. • The Drinking Water State Revolving Fund Program was first assessed in the 2002 PART process and initially received a rating of "results not demonstrated." The program was reassessed in the 2004 PART process and received a rating of "adequate." As a result of the PART process, the program is conducting follow-up actions, including developing an efficiency measure that is more useful and meaningful for tracking annual programmatic efficiency. • The UIC Grant Program was assessed in the 2004 PART process and received a rating of "adequate." As a result of the PART process, the program is conducting follow-up actions which include developing an outcome-based annual performance measure and an efficiency measure, which demonstrate the protection of source water quality.

	<ul style="list-style-type: none"> The Drinking Water Protection Program was assessed in the 2006 PART process and received a rating of "adequate." As a result of the PART process, the program is conducting follow-up actions which include implementing data quality review recommendations to improve the overall quality of the data in EPA's drinking water compliance reporting system.
Web Links:	Ground Water and Drinking Water Program: http://www.epa.gov/safewater/ Shellfish Protection: http://www.epa.gov/waterscience/shellfish/ Water Science: http://www.epa.gov/waterscience/

Objective 2: Protect Water Quality

FY 2007 Obligations: Goal 2, Objective 2 (in thousands)	FY 2007 Expenditures: Goal 2, Objective 2 (in thousands)
 <p>Enhance Research to Support Clean and Safe Water, \$139,683.4, 1%</p> <p>Protect Human Health, \$1,173,321.5, 37%</p> <p>Protect Water Quality, \$1,961,309.2, 62%</p>	 <p>Enhance Research to Support Clean and Safe Water, \$141,374.4, 1%</p> <p>Protect Human Health, \$1,426,541.5, 36%</p> <p>Protect Water Quality, \$2,467,819.8, 63%</p>

FY 2007 Resources for Program Projects Supporting this Objective*

Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.

**Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding*

Goal 2: Objective 2 - Protect Water Quality

Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Nonpoint Source (Sec. 319)	\$204,706.7	\$232,776.3
Categorical Grant: Water Quality Cooperative Agreements	\$303.8	\$10,423.1
Categorical Grant: Pollution Control (Sec. 106)	\$205,320.3	\$225,486.1
Categorical Grant: Wastewater Operator Training	\$786.3	\$1,131.7
Congressionally Mandated Projects	\$146,254.7	\$211,054.7
Homeland Security: Communication and Information	\$806.0	\$333.5
Homeland Security: Protection of EPA Personnel and Infrastructure	\$921.5	\$1,344.9
Infrastructure Assistance: Alaska Native Villages	\$47,745.0	\$30,667.1
Infrastructure Assistance: Clean Water SRF	\$1,033,490.9	\$1,442,162.3
International Capacity Building	\$480.0	\$407.7
Marine Pollution	\$13,703.4	\$11,193.1
Surface Water Protection	\$194,720.9	\$195,069.5
Administrative Law	\$430.2	\$409.7
Alternative Dispute Resolution	\$104.8	\$85.0
Central Planning, Budgeting, and Finance	\$7,155.5	\$6,954.3
Civil Rights / Title VI Compliance	\$1,036.8	\$1,004.2
Congressional, Intergovernmental, External Relations	\$4,869.8	\$4,856.2
Exchange Network	\$2,992.5	\$1,775.3
Facilities Infrastructure and Operations	\$44,877.9	\$42,261.6
Acquisition Management	\$1,595.4	\$1,542.1
Human Resources Management	\$2,957.6	\$2,915.2
Information Security	\$251.0	\$247.6
IT / Data Management	\$21,520.3	\$18,560.9
Legal Advice: Environmental Program	\$3,910.5	\$3,896.7
Legal Advice: Support Program	\$1,228.0	\$1,188.6
Audits, Evaluations, and Investigations	\$13,929.2	\$14,850.7
Regional Science and Technology	\$362.0	\$341.7
Science Advisory Board	\$416.8	\$390.5
Small Minority Business Assistance	\$205.2	\$171.8
Financial Assistance Grants / IAG Management	\$2,717.4	\$2,858.4
Regulatory/Economic-Management and Analysis	\$1,508.7	\$1,459.3
Total	\$1,961,309.1	\$2,467,819.8

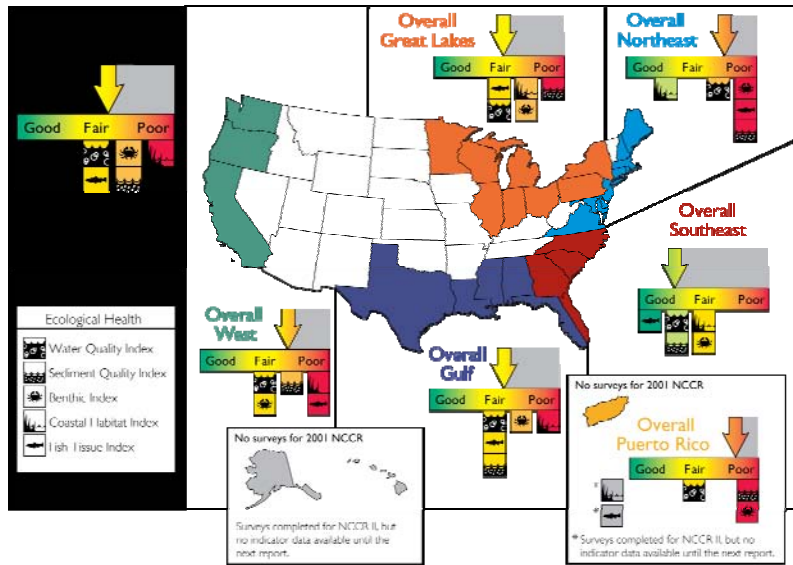
In FY 2007, EPA and states exceeded the goal of issuing 95 percent of designated priority permits. EPA also approved 86% percent of the new or revised water quality standards that states submitted for the year, exceeding the performance goal of 85 percent. This accomplishment reflects EPA's and states' continuing efforts to work together more closely during states' formulation of new and revised standards. Additionally, EPA and states completed 27,377 EPA-approved watershed pollutant reduction budgets (Total Maximum Daily Loads, or TMDLs) by the end of FY 2007, compared to the FY 2007 target of 25,811. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and a wasteload allocation of that amount is applied to the pollutant's sources.

The Clean Water State Revolving Fund (CWSRF) Program committed funds to protect, improve, and restore waterbody quality. CWSRF performance continues to be stable and strong; as indicated by a fund utilization rate of more than 90 percent nationally. In partnership with EPA, the states made available more than \$60 billion in low-cost loans for a variety of wastewater projects that help communities meet environmental standards and ensure public health.

Additionally, EPA met its 2007 target of assessing 54 percent of the Nation's waters and is on schedule to meet future targets. EPA finished sampling for the first statistically-valid survey to establish baseline condition of the Nation's lakes, and issued a report on the condition of estuaries, the *National Estuary Program Coastal Condition Report*. EPA also completed the design for the survey of the Nation's rivers and a second survey of Nation's streams. Planning for a survey of the Nation's wetlands is underway. This builds on previous successes, including the release in 2006 of the first statistically-valid assessment of national stream condition, the *Wadeable Streams Assessment*, which reported that 28 percent of the Nation's streams are in good condition. However, across the United States, 25-30 percent of streams have high levels of nutrients or excess sedimentation. These streams are twice as likely to have reduced biological integrity.

The Agency made significant progress toward ensuring that the Nation's vital water infrastructure is sustainable in the future. In FY 2007, EPA signed a Statement of Support with six major associations pledging to work collaboratively to promote effective utility management across the water sector, based on series of recommendations from a select group of leading utilities from around the country.

Overall National Coastal Condition



Source: USEPA National Coastal Condition Report II, December 2004. More information available at <http://www.epa.gov/owow/ocnccr/cnr2/>

Additional Information Related to Objective 2	
Program Evaluations:	<ul style="list-style-type: none"> • <i>EPA's Allowing States to Use Bonds to Meet Revolving Fund Match Requirements Reduces Funds Available for Water Projects</i>, March 28, 2007, 2007-P-00012-168. http://www.epa.gov/oig/reports/2007/20070329-2007-P-00012.pdf • <i>Clean Water: Further Implementation and Better Cost Data Needed to Determine Impact of EPA's Storm Water Program on Communities</i> GAO-07-479, May 31, 2007 http://www.gao.gov/new.items/d07479.pdf
Grants:	<p>Clean Water Act (CWA) Section 106 grants which fund state water quality programs. CWA Section 319 non-point source grants also support this objective with grants for developing and implementing comprehensive watershed plans that function to restore impaired waters and protect healthy waters on a watershed basis. Additionally, the Targeted Watershed Grants (TWG) Program encourages collaborative, community-driven approaches to meet clean water goals. The National Estuary Grant Program (CFDA 66.456) also supports this objective.</p>
PART:	<ul style="list-style-type: none"> • The Surface Water Protection Program was assessed in the 2005 PART process and received a rating of "moderately effective." As a result of the PART process, the program is conducting follow-up actions which include working with

	<p>states and other partners to issue water quality reports based on the statistically-valid surveys in the lower 48 states by 2011.</p> <ul style="list-style-type: none"> • The Water Pollution Control (106) Grants Program was assessed in the 2005 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions which include targeting additional program funding to States implementing probabilistic monitoring activities in support of the national probabilistic monitoring survey. • The Oceans and Coastal Program was assessed in the 2005 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions which include developing an annual performance measure for the Ocean Dumping Program. • The Non-Point Source Program was assessed in the 2004 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions which include contracting for an independent evaluation for the program that can serve as the basis for further improvements. • The CWSRF Program was assessed in the 2004 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions which include focusing on improving the quality and breadth of CWSRF performance data. In particular, EPA needs to focus on collecting data on minor systems, which receive a significant proportion of CWSRF funding, and waterborne disease. • The Alaska Native Village Program was first assessed in the 2004 PART process and initially received a rating of “ineffective.” The program was reassessed in the 2006 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions which include EPA developing regulations for the management and oversight of the program, including all grant funds to the State of Alaska and any subsidiary recipients of EPA funds via the State of Alaska.
<p>Web Links:</p>	<p>Monitoring and Assessing Quality: http://www.epa.gov/owow/monitoring/ National Stream Report: http://www.epa.gov/owow/streamsurvey/ National Coastal Condition Reports: http://www.epa.gov/owow/oceans/nccr/ Survey of the Nation’s Lakes:</p>

	http://www.epa.gov/owow/lakes/lakessurvey/ Watershed Monitoring: http://www.reo.gov/monitoring/watershed/index.htm Oceans, Coasts, and Estuaries Program: http://www.epa.gov/owow/oceans/ National Estuary Program: http://www.epa.gov/owow/estuaries/ Coastal Watershed Fact sheets: http://www.epa.gov/owow/oceans/factsheets/index.html Wetlands Program: http://www.epa.gov/owow/wetlands/ National Wetlands Mitigation Action Plan: http://www.mitigationactionplan.gov/ Coastal America: http://www.coastalamerica.gov/ TMDL Program: http://www.epa.gov/owow/tmdl
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Objective 3: Enhance Science and Research

FY 2007 Obligations: Goal 2, Objective 3 (in thousands)	FY 2007 Expenditures: Goal 2, Objective 3 (in thousands)
<p>Enhance Research to Support Clean and Safe Water, \$139,683.4, 1%</p> <p>Protect Human Health, \$1,173,321.5, 37%</p> <p>Protect Water Quality, \$1,961,309.2, 62%</p>	<p>Enhance Research to Support Clean and Safe Water, \$141,374.4, 1%</p> <p>Protect Human Health, \$1,426,541.5, 36%</p> <p>Protect Water Quality, \$2,467,819.8, 63%</p>

FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding.</i>		
Goal 2: Objective 3 - Enhance Research to Support Clean and Safe Water		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Congressionally Mandated Projects	\$2,924.7	\$11,346.9
Research: Drinking Water	\$44,628.3	\$45,215.4
Research: Water Quality	\$55,089.4	\$50,668.7
Surface Water Protection	(\$6.0)	\$18.0
Homeland Security: Communication and Information	\$321.8	\$133.1
Homeland Security: Protection of EPA Personnel and Infrastructure	\$856.1	\$1,315.2
Administrative Law	\$171.7	\$163.6
Alternative Dispute Resolution	\$41.8	\$33.9
Central Planning, Budgeting, and Finance	\$2,454.5	\$2,358.2
Civil Rights / Title VI Compliance	\$237.4	\$228.3
Congressional, Intergovernmental, External Relations	\$849.7	\$834.2
Exchange Network	\$1,191.0	\$709.2
Facilities Infrastructure and Operations	\$7,924.5	\$8,058.6
Acquisition Management	\$1,642.5	\$1,561.1
Human Resources Management	\$2,378.4	\$2,424.5
Information Security	\$336.1	\$390.9
IT / Data Management	\$13,955.4	\$11,214.6
Legal Advice: Environmental Program	\$1,627.1	\$1,604.0
Legal Advice: Support Program	\$564.9	\$540.9
Audits, Evaluations, and Investigations	\$780.9	\$832.6
Regional Science and Technology	\$47.4	\$46.7
Science Advisory Board	\$166.4	\$155.9
Small Minority Business Assistance	\$81.9	\$68.6
Financial Assistance Grants / IAG Management	\$815.3	\$868.7
Regulatory/Economic-Management and Analysis	\$602.3	\$582.6
Total	\$139,683.5	\$141,374.4

To support the Agency's work toward clean and safe water, EPA's research programs conduct leading-edge research to develop a better understanding and characterization of water-related environmental outcomes. In FY 2007, EPA's Drinking Water Research Program completed 100 percent of its planned research outputs in support of Contaminant Candidate List (CCL) and Six-Year Review decisions. As part of its research, the program continued developing methods for CCL chemicals; these methods are used to collect occurrence data in Unregulated Contaminant Monitoring Rules and to make decisions on whether additional regulations are needed. The

program also evaluated virulence factors for microbes so that EPA could classify and prioritize microbes for future CCLs.²⁰

In support of Clean Water Act (CWA) regulatory and non-regulatory activities, EPA's Water Quality Research Program completed 100 percent of its planned research outputs. For example, EPA completed freshwater epidemiology studies using a rapid molecular-based indicator of fecal contamination. The rapid indicator was shown to be highly associated with adverse health effects and will be available to local governments to make timelier beach closure and advisory decisions. EPA and states may also incorporate the rapid indicator into CWA criteria and standards.

Additionally, EPA developed a landscape model and case study in Illinois for identifying impaired (303(d) listed) water bodies that are most likely to recover on a statewide basis. The case study demonstrates how states can use landscape models to prioritize water bodies for restoration providing an efficient method for increasing the number of impaired water bodies that can be restored and removed from the 303(d) list.
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Additional Information Related to Objective 3	
Program Evaluations:	<ul style="list-style-type: none"> • In FY 2007, EPA's Board of Scientific Counselors (BOSC) assessed the Drinking Water Research Program's progress in a report entitled <u>Mid-Cycle Review of the Office of and Research and Development's Drinking Water Research Program at the Environmental Protection Agency.</u> • In FY 2007, EPA's Water Quality Research Program took action in response to recommendations from a 2006 BOSC report entitled <u>Review of the Office of Research and Development's Water Quality Research Program at the Environmental Protection Agency.</u> The Water Quality Research Program's response to the BOSC—along with a list of planned actions—can be found on the <u>BOSC Website.</u>
Grants:	<ul style="list-style-type: none"> ○ EPA STAR grantees developed methods to (1) assess the extent to which current water and wastewater treatment practices are successful at removing Pharmaceutical and Personal Care Products (PPCPs) from water bodies,^{22,23} (2) fill important data gaps on the occurrence, fate, transport and ecological impacts of PPCPs,^{24,25,26} and (3) inform risk assessments of pharmaceuticals and provide a model for the pharmaceutical commercialization process. (Supported by the Following Five Grants: (1) "Impact of Residual Pharmaceutical Agents and their Metabolites in Wastewater Effluents on Downstream Drinking Water Treatment Facilities," (2) "Pharmaceuticals and Antiseptics: Occurrence and Fate in Drinking Water, Sewage Treatment Facilities, and Coastal Waters," (3) "Effectiveness of UV Irradiation for Pathogen Inactivation in Surface Waters," (4) "The

	<p>Environmental Occurrence, Fate, and Ecotoxicity of Selective Serotonin Reuptake Inhibitors (SSRIs) in Aquatic Environments,” and (5) “Environmental Toxicology Chemistry and The Environmental Occurrence, Fate, and Ecotoxicity of Selective Serotonin Reuptake Inhibitors (SSRIs) in Aquatic Environments.”</p> <ul style="list-style-type: none"> ○ EPA-funded research²⁷ linked sewage disposal to the overgrowth destruction of some coral reefs in Southeast Florida. Florida’s Department of Environmental Protection, the Florida Wildlife Research Institute, and EPA are using these research results to assess alternatives for wastewater treatment and disposal in Southeast Florida. Additionally, scientists and resource managers in the Southeast Florida Coral Reef Initiative are using these results to improve knowledge of land-based sources of pollution in the region. (Supported by a Grant Entitled: Physiology and Ecology of Macroalgal Blooms on Coral Reefs off Southeast Florida.)
PART:	<ul style="list-style-type: none"> ○ EPA’s Drinking Water Research Program received an “Adequate” rating on its 2005 OMB PART assessment, which was conducted under the title Drinking Water Research. As a result of the 2005 PART process, the program is currently (1) setting targets for the remainder of its long-term and annual measures, (2) improving its oversight of grantees and contractors, and (3) implementing an efficiency measure that attempts to track cost and performance. ○ EPA’s Water Quality Research Program received an “Adequate” rating on its 2006 OMB PART assessment, which was conducted under the title Water Quality Research. As a result of the 2006 PART process, the program has established a procedure under which the BOSC will assign each program long-term goal a progress rating as part of its review. These ratings will provide the data for new program long-term outcome measures. Additionally, to establish an outcome-oriented efficiency measure, ORD has initiated a National Academy of Sciences study to determine the most appropriate approach. The program is also working to improve its collection of grantee and contractor performance information.
Web Links:	<p>The Drinking Water Research and Water Quality Research Programs conduct leading-edge research in support of EPA’s goal of clean water. Additional information on the Drinking Water program can be found at http://www.epa.gov/ord/dw/index.html.</p>

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.

OBJECTIVE: 2.1: 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.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
5	4	3	12

SUB-OBJECTIVE: 2.1.1: Water Safe To Drink

By 2011, 91 percent of the population served by community water systems will receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection.

Strategic Target (1)

By 2011, 90 percent of community water systems will provide drinking water that meets all applicable health-based drinking water standards throughout the year.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percentage of community water systems that provide drinking water that meets health-based standards with which systems need to comply as of December 2001.</i>			94	92	94	92	N/A	N/A	Percentage of CWSs
Baseline – In 1998, 85% of the population that was served by community water systems and 96% of the population served by non-community, non-transient drinking water systems received drinking water for which no violations of federally enforceable health standards had occurred during the year. Year-to-year performance is expected to change as new standards take effect. Covered standards include: Stage I disinfection by-products/interim enhanced surface water treatment, rule/long-term enhanced surface water treatment rule/arsenic.									
Explanation – Target not achieved primarily due to Total Coliform violations, which are sporadic in nature and difficult to control.									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percentage of community water systems that provide drinking water that meets health-based standards with a compliance date of January 2002 or later.</i>			75	97	75	97	N/A	N/A	Percentage of CWSs
<p>Baseline - In 1998, 85% of the population that was served by community water systems and 96% of the population served by non-community, non-transient drinking water systems received drinking water for which no violations of federally enforceable health standards had occurred during the year. Year-to-year performance is expected to change as new standards take effect. Covered standards include: Stage I disinfection by-products/interim enhanced surface water treatment, rule/long-term enhanced surface water treatment rule/arsenic.</p>									
Percent of community water systems that have undergone a sanitary survey within the past three years (five years for outstanding performance.)	Baseline	80	94	94	95	94	95	92	Percent of CWS
<p>Baseline - The baseline for this measure is 80% of community water systems in 2004.</p>									
<p>Explanation – In FY 2006, forty eight of fifty one primacy agencies conducted sanitary surveys at all of their Community Water Systems within the last three years. In FY 2007, five of ten regions met their targets. Starting in 2007, the measure changed from the percent of states to the percent of community water systems. This change made data gathering more difficult. 2008 data is required to be reported in the Safe Drinking Water Information System/Federal Version (SDWIS/FED) thereby reducing data gathering issues and possible under reporting.</p>									
Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection.					93.5	89.3	94	89	Percent of Systems
<p>Baseline - In 2002, 91.8% community water systems met all applicable health-based standards through approaches that included effective treatment and source water protection.</p>									
<p>Explanation - Compliance has been steady for existing standards with Total Coliform Rule violations having the highest effect, and lower for new standards, particularly for smaller water systems for more recent regulations and standards.</p>									

Strategic Target (2)

By 2011, community water systems will provide drinking water that meets all applicable health-based drinking water standards during 96 percent of person months (i.e., all persons served by community water systems times 12 months).

Strategic Target (3)

By 2011, 86 percent of the population in Indian country served by community water systems will receive drinking water that meets all applicable health-based drinking water standards.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percent of the population in Indian country served by community water systems that receive drinking water that meets all applicable health-based drinking water standards.</i>			86.3	86.3	90	86.6	93	87	Percent of Population
Baseline - 91.1% of the population in Indian country was served by community water systems that received drinking water that met all applicable health-based standards in 2002.									
Explanation - Four regions were below their regional target due to violations. These violations varied from Total Coliform Rule and Disinfectants Byproduct Rule violations.									

Strategic Target (4)

By 2011, minimize risk to public health through source water protection for 50 percent of community water systems and for the associated 62 percent of the population served by community water systems (i.e., "minimized risk" achieved by substantial implementation, as determined by the state, of actions in a source water protection strategy).

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percent of source water areas (both surface and ground water) for community water systems will achieve minimized risk to public health.</i>			20	20	20	24	30	33	Percent of Areas
Baseline - 8% of source water areas for community water systems achieved minimized risk to public health in 2002.									

Strategic Target (5)

By 2015, in coordination with other federal agencies, reduce by 50 percent the number of homes on tribal lands lacking access to safe drinking water.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of households on Tribal lands lacking access to safe drinking water.</i>					30,800	38,737	30,500	36,575	Households
Baseline - In 2003, Indian Health Service indicated that 39,000 homes lacked access to safe drinking water (12% of tribal homes nationwide).									
Explanation – The number of homes lacking access fluctuates from year to year and may not decrease due to new needs, and new homes, as well as homes where water and wastewater facilities fall out of compliance, new environmental regulations, and population growth occur.									

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>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.</i>			94	91	94	92	N/A	N/A	Percent of Population
Baseline - In 1998, 85% of the population that was served by community water systems and 96% of the population served by non-community, non-transient drinking water systems received drinking water for which no violations of federally enforceable health standards had occurred during the year. Year-to-year performance is expected to change as new standards take effect. Covered standards include: Stage I disinfection by-products/interim enhanced surface water treatment, rule/long-term enhanced surface water treatment rule/arsenic.									
Explanation – The result improved over the previous year. As in 2005, the result was lowered by 2.3% by a single very large system in New York reporting a Surface Water Treatment Rule violation. In addition, a very large system in Ohio reported a Nitrates violation, and there was an increase in systems reporting Arsenic violations under the new standard.									
<i>Population served by community water systems that receive drinking water that meets health-based standards with a compliance date of</i>			96.3	96.3	75	97	N/A	N/A	Percent of Population

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>January 2002 or later.</i>									
Baseline - In 1998, 85% of the population that was served by community water systems and 96% of the population served by non-community, non-transient drinking water systems received drinking water for which no violations of federally enforceable health standards had occurred during the year. Year-to-year performance is expected to change as new standards take effect. Covered standards include: Stage I disinfection by-products/interim enhanced surface water treatment, rule/long-term enhanced surface water treatment rule/arsenic.									
Percent of population served by CWSs that will receive drinking water that meets all applicable health-based drinking water standards through approaches incl. effective treatment & source water protection.			88.5	88.5	93	89.4	94	92	Percent of Population
Baseline - In 2002, 93.6% of the population that was served by community water systems and 96% of the population served by non-community, non-transient drinking water systems received drinking water for which no violations of Federally enforceable health standards had occurred during the year. Year-to-year performance is expected to change as new standards take effect. Covered standards include: Stage 1 disinfection by-products, interim enhanced surface water treatment rule, long-term enhanced surface water treatment rule, arsenic.									
Explanation - FY 2007 result is an increase from 2006 level (89.4%) and above FY 2011 target of 91%. FY 2011 target, from the Agency's 2006-2011 Strategic Plan is based on a larger set of regulations. Often, drinking water systems have not been monitoring for newly regulated contaminants and thus are unaware whether they will have to implement treatment changes. These systems are thus in violation when new standards take effect. Year-to-year performance is expected to change as systems implement recent standards.									
Fund utilization rate for the DWSRF.	80.6	82.8	81.9	84.7	83.3	86.9	85	88	Rate
Baseline - The baseline for this measure is a 79.2% fund utilization rate in 2003.									
Number of additional projects initiating operations.	405	473	415	439	425	431	433	438	Projects
Baseline - In 2002, 1,538 projects were initiating operations.									

SUB-OBJECTIVE: 2.1.2: Fish and Shellfish Safe to Eat

By 2011, reduce public health risk and allow increased consumption of fish and shellfish, as measured by the strategic targets described. (EPA has developed a new performance measure for future inclusion under this sub-objective. This measure will be reported in the FY 2008 PAR).

Strategic Target (1)

By 2011, reduce the percentage of women of childbearing age having mercury levels in blood above the level of concern to 4.6 percent.

Strategic Target (2)

By 2011, maintain or improve the percentage of state-monitored shellfish-growing acres impacted by anthropogenic sources that are approved or conditionally approved for use.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percent of state-monitored shellfish-growing acres impacted by anthropogenic sources that are approved or conditionally approved for use.</i>			80	81.2	91 (FY 08)	Data No Longer Available	81	Data No Longer Available	Percent of Areas
Baseline - For shellfish consumption, 77% of assessed estuary square miles met this designated use.									
Explanation - The Interstate Shellfish Sanitation Conference (ISSC) typically requests the data on approved acreages from shellfish producing states on a two-year cycle and prepares reports. Survey responses are voluntary. The ISSC has not responded to EPA's August 13, 2007 request for a date for the next Report.									

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percent of water miles/acres, identified by states or tribes as having fish consumption advisories in 2002, where increased consumption of fish is allowed.</i>			1	0	1	Data No Longer Available	2	Data No Longer Available	Percent of Miles/Acres
Baseline - In 2002, fish consumption advisories were 13.4 million (32.9%) lake acres and 544,000 (15.3%) river miles. In 1995, 77% of assessed estuary square miles met the designated use for shell fish consumption.									
Explanation - The percentages of lake acres and river miles under advisory increase from year to year as states increase their monitoring efforts. Therefore, to adequately measure the percentage of waterbodies with increased fish consumption allowed, we need to look at individual waterbodies under advisory and their respective meal advice recommendations. These meal advice recommendations were first collected in 2004 and a 2002									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<p>baseline is not available. When comparing the 2004 baseline to 2005 data, a number of confounding factors arose that make it very difficult to develop a percentage in response to this measure. States have developed their own fish advisory programs over the years, and there is variability among the states in the scope and extent of monitoring, in how frequently previously tested waters are sampled again, in how decisions are made to place waters under advisory, and in the specific advice that is provided when contaminated fish are found. Due to this variability, a national assessment would be very difficult to develop and defend.</p>									

SUB-OBJECTIVE: 2.1.3: Water Safe for Swimming

By 2011, the number of waterborne disease outbreaks attributable to swimming in or other recreational contact with coastal and Great Lakes waters will be maintained at two, measured as a 5-year average.

Strategic Target (1)

By 2011, the number of waterborne disease outbreaks attributable to swimming in or other recreational contact with coastal and Great Lakes waters will be maintained at two, measured as a 5-year average.

Strategic Target (2)

By 2011, maintain the percentage of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming at 96 percent. [Beach season days are equal to 4,025 beaches multiplied by variable number of days of beach season at each beach).

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percent of days of beach season that coastal and Great Lakes beaches monitored by State beach safety programs are open and safe for swimming.</i>					94	97	92.6	95.2	Percent of Days/Season
<p>Baseline - In 2002, monitored beaches were opened 94% of the days during the beach season.</p>									

No Strategic Target

Annual Performance Measures and	FY 2004	FY 2005	FY 2006	FY 2007
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	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
<i>Restore water quality to allow swimming in stream miles and lake acres identified by states.</i>			2	Data No Longer Available	3	Data No Longer Available	4	Data No Longer Available	Percent of Miles/Acres
Baseline – Baseline data is unavailable for this measure.									
Explanation - Data is unavailable for this measure. It is unclear if data will ever be available because of lack of computer data nationally. ATTAINS has the capability for tracking this information as it does track waterbody status for Designated Uses, but, because not all States report to us in the timely and/or complete manner, the data is not currently available.									

OBJECTIVE: 2.2: PROTECT WATER QUALITY

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

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
10	1	4	15

SUB-OBJECTIVE: 2.2.1: Improve Water Quality on a Watershed Basis

By 2012, use pollution prevention and restoration approaches to protect the quality of rivers, lakes, and streams on a watershed basis.

Strategic Target (1)

By 2012, attain water quality standards for all pollutants and impairments in more than 2,250 water bodies identified in 2002 as not attaining standards (cumulative).

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Annual percentage of waterbody segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained (cumulative).	2	3	2	9	10.3	13.1	14.1	15	Percent of Segments
Baseline - In 2002, 0% of the 255,408 miles/and 6,803,419 acres of waters identified on 1998/2000 lists of impaired waters developed by States and approved by EPA under section 303(d) of the Clean Water Act.									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Fund utilization rate for the CWSRF.	93	93	90	95.4	93.3	94.7	93.4	96.7	Rate
Baseline – The baseline for this measure is a 91% fund utilization rate in 2002.									
Number of TMDLs that are established by States and approved by EPA on schedule consistent with national policy (cumulative).	11,105	11,584	14,462	15,342	16,896	19,373	21,923	23,376	TMDLs
Baseline - The baseline for this measure is 2,677 TMDLs in 2000.									
Percentage of high priority state NPDES permits that are scheduled to be reissued.			95	104	95	96.4	95	111	Percentage of Permits
Baseline - 95% (Regions required to meet 95% of the universe.)									
Explanation - $483/434 = 111\%$. The priority permits initiative was created to prioritize the issuance of the most environmentally significant permits. Since this process has such a significant impact on water quality, states continually strive to exceed their goals. We are ahead of schedule in issuing designated priority permits. This is an annual measure, which represents our progress on scheduled priority permits. States can issue permits scheduled for future years and receive credit, thus resulting in a higher than 100% rate.									
Percentage of major dischargers in Significant Noncompliance (SNC) at any time during the fiscal year.	Baseline	22.5	Maintain/Improve	19.7	Maintain/Improve	20.2	22.5	Data Avail 2008	Percentage of Dischargers
Baseline - The baseline for this measure is 22.5% of major dischargers in Significant Noncompliance in 2004.									
Explanation – There is a data lag for this measure because EPA's Office of Water must coordinate with EPA's Office of Enforcement and Compliance Assurance to compile final results (available in March 2008).									
Percent of states and territories that, within the preceding 3-year period, submitted new or revised WQ criteria acceptable to EPA that reflect new science information from EPA or other sources not considered in previous standards.	Baseline	70	62	62	66	66.1	67	66.1	Percent of State/Territories

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline – Not Applicable because the number of submissions changes on an annual basis.									
Explanation - Some submissions were unexpectedly delayed within the states because they were awaiting the required attorney general certifications.									
Percentage of submissions of new or revised water quality standards from States and Territories that are approved by EPA.	Baseline	87.6	89.5	83.5	90.9	89	85	85.6	Percentage of Submissions
Baseline - Not Applicable because the number of submissions changes on an annual basis.									
Number of TMDLs that are established or approved by EPA on a schedule consistent with national policy (cumulative).	12,378	14,589	17,767	18,660	20,501	23,185	25,811	27,377	TMDLs
Baseline - The baseline for this measure is 2,843 TMDLs in 2000.									
Percentage of waters assessed using statistically valid surveys.	38	38	38	38	54	54	54	54	Percentage of Waters
Baseline – The baseline for this measure is 31% of waters assessed in 2000.									
Percent of high priority EPA and state NPDES permits that are reissued on schedule.			95	100	95	98.5	95	104	Percent of Permits
Baseline - 95% (Regions are required to meet 95% of the universe.)									
Explanation - The priority permits initiative was created to prioritize the issuance of the most environmentally significant permits. Since this process has such a significant impact on water quality, states and EPA continually strive to exceed their goals. We are ahead of schedule in issuing designated priority permits. This is an annual measure, which represents our progress on scheduled priority permits. States and EPA can issue permits scheduled for future years and receive credit, thus resulting in a higher than 100% rate.									

Strategic Target (2)

By 2012, remove at least 5,600 of the specific causes of water body impairments identified by states in 2002 (cumulative).

Annual Performance Measures and	FY 2004	FY 2005	FY 2006	FY 2007	
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	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Reduction in phosphorus loadings (millions of pounds).	4.5	3.1	4.5	3.2	4.5	11.8	4.5	Data Avail 2008	Lbs in Millions
Baseline – Not Applicable.									
Explanation - Data available spring 2008.									
Additional pounds (in millions) of reduction to total nitrogen loadings.	8.5	23.4	8.5	5.9	8.5	14.5	8.5	Data Avail 2008	Lbs in Millions
Baseline – Not Applicable.									
Explanation - Data available spring 2008.									
Additional tons of reduction to total sediment loadings.	700,000	5,900,000	700,000	1,500,000	700,000	1,200,000	700,000	Data Avail 2008	Tons
Baseline – Not Applicable.									
Explanation - Data available spring 2008.									

Strategic Target (3)

By 2012, improve water quality conditions in 250 impaired watersheds nationwide using the watershed approach (cumulative).

Strategic Target (4)

Through 2012, the condition of the nation's wadeable streams does not degrade (i.e., there is no statistically significant increase in the percent of streams rated "poor" and no statistically significant decrease in the streams rated "good").

Strategic Target (5)

By 2015, in coordination with other federal partners, reduce by 50 percent the number of homes on tribal lands lacking access to basic sanitation (cumulative).

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of households on tribal lands lacking access to basic sanitation.</i>			51,000	46,728	59,250	36,092	40,631	28,497	Households
Baseline – In 2002, Indian Health Service indicated that 71,000 households on Tribal lands lack access to basic sanitation.									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Explanation – The extent to which this measure was exceeded was partially due to inconsistencies in how the measure was counted. EPA has changed the basic sanitation measure to better reflect program accomplishments. A new baseline and long-term target also have been established. The new measure will be monitored beginning in FY 2008.									

Strategic Target (6)

By 2012, improve water quality in Indian country at not fewer than 50 baseline monitoring stations in tribal waters (i.e., show improvement in one or more of seven key parameters: dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, and turbidity).

SUB-OBJECTIVE: 2.2.2: Improve Coastal and Ocean Waters

By 2011, prevent water pollution and protect coastal and ocean systems to improve national coastal aquatic ecosystem health by at least 0.2 points on the "good/fair/poor" scale of the National Coastal Condition Report.

Strategic Target (1)

By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Northeast Region.

Strategic Target (2)

By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Southeast Region.

Strategic Target (3)

By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the West Coast Region.

Strategic Target (4)

By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Puerto Rico Region.

Strategic Target (5)

By 2011, 95 percent of active dredged material ocean dumping sites will have achieved environmentally acceptable conditions (as reflected in each site's management plan and measured through onsite monitoring programs).

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
National Coastal Condition Report (NCCR) score for overall aquatic ecosystem health of coastal waters nationally (1-5 scale).					2.7	2.7	2.8	2.8	Scale score
Baseline - 2002 Baseline: 2.4									

OBJECTIVE: 2.3: ENHANCE SCIENCE AND RESEARCH

By 2011, conduct leading-edge, sound scientific research to support the protection of human health through the reduction of human exposure to contaminants in drinking water, fish and shellfish, and recreational waters and to support the protection of aquatic ecosystems-specifically, the quality of rivers, lakes, and streams, and coastal and ocean waters.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
5	0	0	5

OBJECTIVE-LEVEL MEASURES

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percentage of planned outputs delivered in support of Six Year Review decisions.	100	69	100	90	100	94	100	100	Percent
Baseline - In 2003, the program began measuring its planned actions in support of Six Year Review decisions and completed 100% of its actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in drinking water.									
Percentage of planned outputs delivered in support of Contaminant Candidate List Decisions.	100	78	100	60	100	100	100	100	Percent

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline - In 2003, the program began measuring its planned actions in support of the Contaminant Candidate List (CCL) decisions and completed 73% of its planned actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in drinking water.									
Percentage of planned outputs (in support of Water Quality Research Program (WQRP) long-term goal #1) delivered	100	100	100	100	100	100	100	100	Percent
Baseline - In 2003, the program began measuring its planned actions in support of long-term goal one and completed 100% of its actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in fish, shellfish, and recreational waters, and to support the protection of aquatic ecosystems.									
Percentage of planned outputs (in support of WQRP long-term goal #2) delivered	100	75	100	67	100	100	100	100	Percent
Baseline - In 2003, the program began measuring its planned actions in support of long-term goal two and completed 100% of its actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in fish, shellfish, and recreational waters, and to support the protection of aquatic ecosystems.									
Percentage of planned outputs (in support of WQRP long-term goal #3) delivered	100	89	100	71	100	92	100	100	Percent
Baseline - In 2003, the program began measuring its planned actions in support of long-term goal three and completed 100% of its actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in fish, shellfish, and recreational waters, and to support the protection of aquatic ecosystems.									

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.

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 Protection and Restoration Research, Homeland Security.

GOAL PURPOSE:

EPA's land preservation and restoration goal presents our strategic vision for managing waste, conserving and recovering the value of wastes, preventing releases, responding to emergencies, and cleaning up contaminated land. Uncontrolled wastes can cause acute illness or chronic disease and can threaten healthy ecosystems. Cleanup almost always costs more than prevention, and contaminated land can be a barrier to bringing jobs and revitalization to a community. Disposed wastes also represent a loss of important material and energy values.

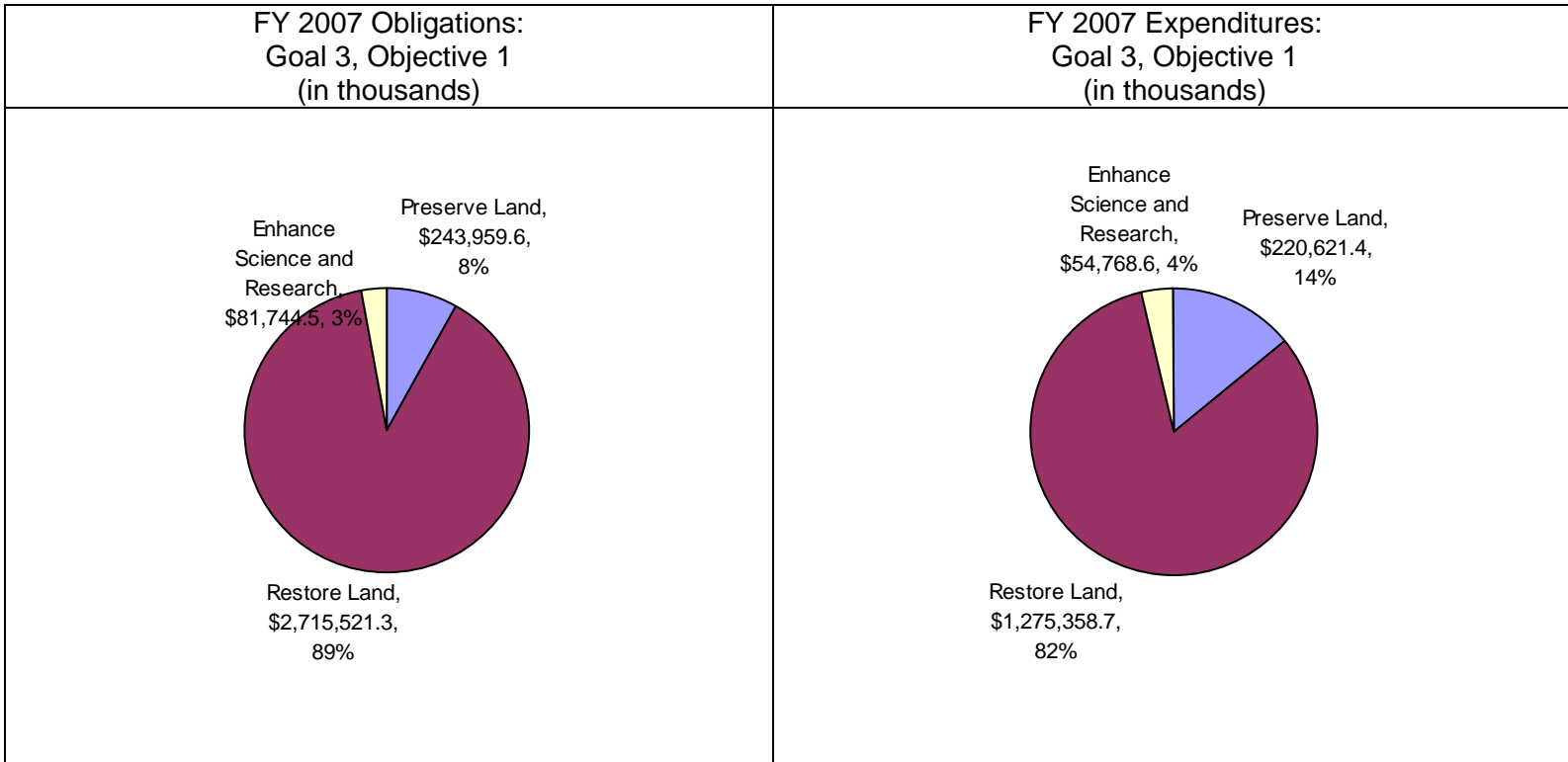
EPA employs a hierarchy of approaches to protect the land, including reducing waste at its source, recycling waste for materials or energy values, managing waste effectively to prevent spills and releases of toxic materials, and cleaning up contaminated properties. EPA works to ensure that hazardous and solid wastes are managed safely at industrial facilities. Working with states, tribes, local governments and responsible parties, we clean up uncontrolled or hazardous waste sites and return land to productive use. Similarly, we work to address risks associated with leaking underground storage tanks and wastes managed at industrial facilities.

We are helping develop public-private partnerships to conserve resources in key areas. We collaborate with our partners in innovative, non-regulatory efforts to minimize the amount of waste generated and promote recycling to recover materials and energy. Through programs like our Resource Conservation Challenge, we promote opportunities for converting waste to economically viable products, thereby conserving resources.

We also work closely with other government agencies to ensure that we are ready to respond in the event of an emergency which could affect human health or the environment. We strive to improve our preparedness and response capabilities, particularly in the area of homeland security.

Finally, we conduct and apply scientific research to develop cost-effective methods for managing wastes, assessing risks, and cleaning up hazardous waste sites.

Objective 1: Preserve Land



FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting, and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives.</i>		
<i>This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding</i>		
Goal 3: Objective 1 - Preserve Land		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Hazardous Waste Financial Assistance	\$71,530.0	\$67,493.3
Categorical Grant: Tribal General Assistance Program	(\$2.8)	\$49.7
Categorical Grant: Underground Storage Tanks	\$29,008.8	\$13,935.8
Compliance Assistance and Centers	\$843.6	\$799.9
Congressionally Mandated Projects	\$2,216.9	\$1,238.1
Homeland Security: Communication and Information	\$389.6	\$161.2
Homeland Security: Protection of EPA Personnel and	\$711.3	\$1,037.7

Infrastructure		
LUST / UST	\$9,827.1	\$9,051.4
RCRA: Waste Management	\$66,032.9	\$67,482.8
RCRA: Waste Minimization & Recycling	\$9,516.2	\$9,718.5
Administrative Law	\$207.9	\$198.0
Alternative Dispute Resolution	\$50.7	\$41.1
Central Planning, Budgeting, and Finance	\$2,760.3	\$2,676.8
Civil Rights / Title VI Compliance	\$447.5	\$434.1
Congressional, Intergovernmental, External Relations	\$2,019.4	\$2,004.9
Exchange Network	\$1,446.5	\$858.1
Facilities Infrastructure and Operations	\$23,781.0	\$22,298.1
Acquisition Management	\$1,058.3	\$1,014.6
Human Resources Management	\$1,781.9	\$1,757.0
Information Security	\$193.7	\$191.1
IT / Data Management	\$13,954.5	\$11,944.8
Legal Advice: Environmental Program	\$1,913.8	\$1,901.4
Legal Advice: Support Program	\$603.5	\$582.7
Audits, Evaluations, and Investigations	\$1,458.0	\$1,554.4
Regional Science and Technology	\$143.8	\$132.1
Science Advisory Board	\$201.5	\$188.7
Small Minority Business Assistance	\$99.2	\$83.0
Financial Assistance Grants / IAG Management	\$1,035.2	\$1,086.5
Regulatory/Economic-Management and Analysis	\$729.3	\$705.4
Total	\$243,959.6	\$220,621.2

Waste Recycling and Waste Reduction

In FY 2007 EPA continued to make progress toward its municipal solid waste (MSW) reduction goals of diverting 85.2 million tons of MSW and maintaining a daily per capita generation of MSW at 4.5 pounds. EPA missed the FY 2005 target of 81 million tons, achieving a total of 79 million tons, a shortfall of nearly 2.5 percent. EPA has undertaken a number of new activities to try to increase the volume of waste diverted toward recycling (e.g., new recycling message, increasing work with local governments and organizations, creating a new Internet toolkit, and encouraging the adoption of Pay-As-You-Throw). The total recycling volume is influenced by many other factors, and EPA is working hard to more clearly show the correlation between the Agency's contributions and the targeted outcome.

EPA promotes waste reduction and recycling through partnership programs. Over the last year we have greatly increased the number of partners with whom we are collaborating. For example, WasteWise focuses on partnerships with businesses and institutions such as universities, hospitals, non-profits, and state, local, and tribal governments, and GreenScapes focuses on organics reuse. Through the successes of partnership programs such as these, EPA is continuing to focus on improving its performance in meeting its recycling goals.

The Coal Combustion Partnership Program (C2P2) is another premier partnership program based on collaboration with industry and all levels of government.

C2P2 is designed to increase recycling of coal combustion products, which are generated at the rate of 128 million tons annually. EPA surpassed its FY 2006 target by reusing an additional 3 percent of coal ash instead of disposing of it. Data for FY 2007 will be available at the end of FY 2008. This program contributes to EPA's national recycling goal. In fact, by 2011, the Agency is committed to increasing the use of coal combustion ash to 50 percent from 32 percent in 2001. Reductions in greenhouse gas (GHG) emissions are one of the environmental benefits of the C2P2 Partnership. For example, substituting one ton of coal ash for one ton of cement in concrete avoids 0.8 tons of GHG emissions, while at the same time enhances the quality of the concrete produced.

The Agency collaborated with the electronics industry, recyclers, and state and local governments to reuse and/or recycle 34 million pounds of electronic equipment, such as computers, printers, fax machines, and televisions. We also worked with 17 federal agencies (representing 145 partners) to reuse and recycle their electronic equipment. We partnered with representatives from airports, stadiums, convention centers, concert halls, offices, highway stops, and many other locations, providing tools and technical assistance to foster an increase in the recycling rates. The municipal waste reduction and recycling program increased its outreach efforts, educating the public about the benefits of recycling and increasing participation in recycling programs.

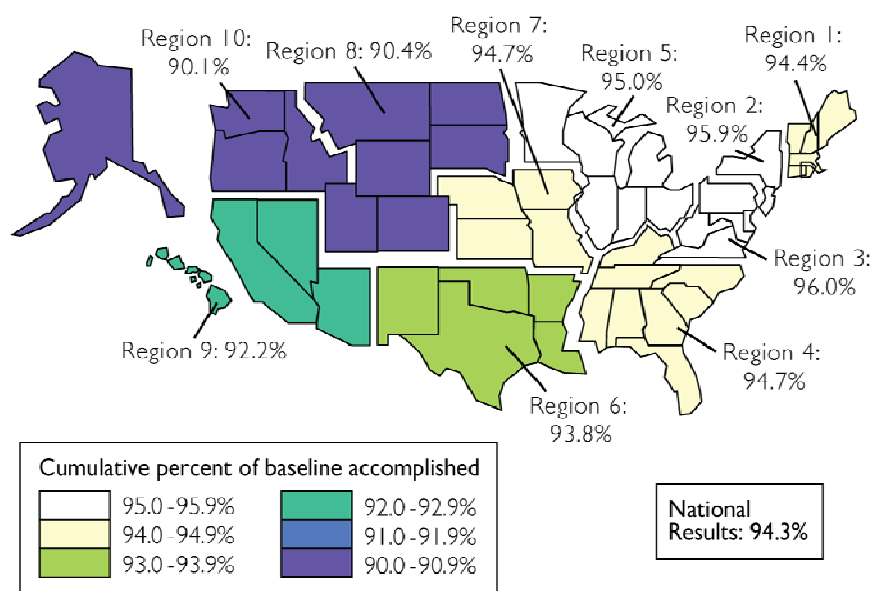
In 2007, EPA made progress on building a public/private network to make responsible chemical management available to all schools across the nation. These partnerships help to create sustainable chemical management programs in schools.

Hazardous Waste Facility Permitting

EPA's strategy for preventing releases of hazardous waste relies on issuing and maintaining facility permits that mandate appropriate controls for each hazardous waste facility site. The permitting program met its 2007 annual target of increasing the percentage of hazardous waste management facilities under appropriate controls by 2.4 percent, although many of these facilities presented types of hazardous waste units that were difficult to address. As a result, 94.3 percent of facilities in the current universe of 2,462 are under approved controls. The program is on track to bring 95 percent of the facilities under approved controls by the end of FY 2008.

Once a hazardous waste management facility receives a permit, the permit must be renewed periodically in order to ensure that the facility is up to current standards for safe waste management and prevention of hazardous waste releases. In FY 2007, state partners issued 96 permit renewals, which exceeded the target of 50. This progress allowed the program to meet the 2008 strategic goal a year early as the RCRA program has already completed 163 permit renewals, ahead of the FY08 target of 150. Because of the uncertainty in developing a renewal target number, EPA determined through consultations with its Regions that an annual target of 50 was ambitious. Nearly two years later, we are exceeding this target by almost two times so in retrospect the target was not ambitious enough. Now that the program has been tracking the goal for updated controls for two years, the program has a better understanding of the expectations and the available work left to be done. Our regional and state counterparts are telling us that the backlog of renewals is being significantly reduced. The next set of goals that include updated controls are expected to be more challenging than the current ones set for the FY08 Strategic Plan.

**Regional Permitting Program Progress
Fiscal Year 2007, End of Year Results**



Hazardous waste facilities that do not have approved controls often present complex management issues. Developing approved controls for large federal facilities, particularly those with non-traditional treatment units, is difficult and requires more time to evaluate technical information, address risks, and deal with public concerns. Many of the 71 hazardous waste facilities that came under approved controls in FY 2007 presented types of units that were relatively difficult to address. The remaining facilities left to permit in many cases have units that are either difficult to permit or have difficulty meeting the "under control criteria" because of the large number of units at a given facility. These facilities include many Subpart X units and federal facilities. The permitting of RCRA Subpart X units/facilities is based, not on meeting specific requirements common to 40 CFR 264 Subparts I – O, but on meeting the environmental performance standard of 40 CFR 264.601. How a unit meets the performance standard can involve screening assessments to show that releases to air, water, and soils are minimized, and can involve detailed risk assessments that can be challenging to conduct. We also require that all units are "under control" at that facility to count toward meeting the GPRA permitting goal.

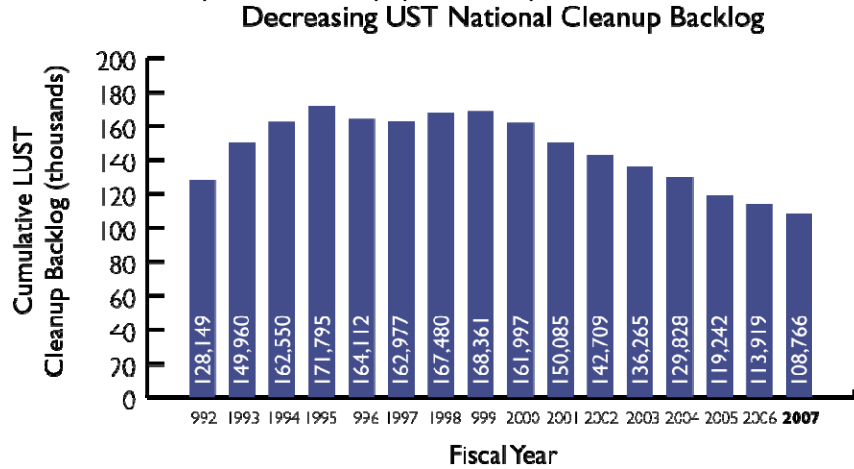
EPA and the states have successfully implemented a new Uniform Hazardous Waste Manifest Form, which was required for all shipments of hazardous waste beginning on September 5, 2006. The standard form streamlines the waste shipment process, helps interstate commerce, and reduces regulatory paperwork, while ensuring the continued safe management of hazardous waste. Successful implementation of this new manifest form is a critical step in developing a successful electronic system.

In addition, as part of our ongoing efforts to streamline and improve tracking of hazardous waste shipments, EPA continues work to develop an electronic manifest system. Currently, as many as 5 million manifests are completed each year at an annual compliance cost of approximately \$200 - \$500 million. We estimate that once implemented, an electronic manifest system will result in aggregate annual savings of

\$100 million to users and states (if 75 percent of the manifests are completed electronically) and a net savings of approximately \$23 - \$40 per manifest.

Underground Storage Tank Significant Operational Compliance and Confirmed Releases

Except in Indian country, the Underground Storage Tank (UST) Program is carried out by our state partners. To prevent releases from underground storage tanks, EPA and its partners ensure that UST systems are in significant operational compliance (SOC) with release detection and release prevention equipment requirements and that the equipment is used, functioning, and properly maintained. For FY 2006 and FY 2007, EPA and its partners achieved an SOC rate of 62 percent in both years. These rates are lower than the targets of 66 percent for FY 2006 and 67 percent for FY 2007 (which represent a 1 percent increase for each year). To determine compliance, EPA and its partners have been increasing efforts to inspect all UST facilities, such that each facility will be inspected at least once every 3 years. We expect that over time the increased frequency of inspections will result in improved rates of facility compliance. However, in the short run EPA and its partners are finding that previously un-inspected or infrequently-inspected UST facilities are contributing to lower rates of compliance. We expect that implementing the inspection initiative will reverse this downward trend. Through its compliance activities, EPA and its partners remain committed to maintaining the number of confirmed releases at UST facilities at 10,000 or fewer. At the end of FY 2007, the actual number of confirmed releases was 7,570.



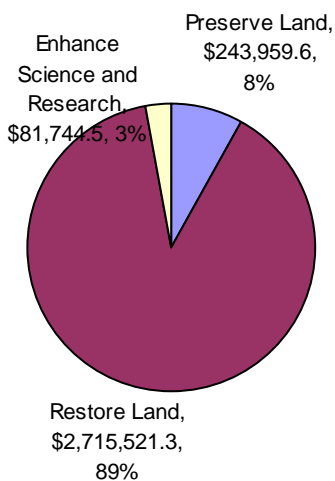
Additional Information Related to Objective 1	
Program Evaluations:	OIG Oversight Evaluation: The OIG initiated an oversight evaluation of the UST program in 2006. Given the ongoing changes in the UST program due to the Energy Policy Act, the OIG does not plan to do any additional work on this evaluation until late FY 2007 or early FY 2008.
Grants:	<ul style="list-style-type: none"> Through UST categorical grants, State and Tribal Assistance Grants were awarded to 49 states; Washington, DC; Puerto Rico; 4 territories; and 15 tribes to encourage owners and operators to operate and maintain their USTs properly. Tribal grants funded projects that included developing UST compliance assistance

	<p>and certification programs; conducting compliance assistance visits and providing technical support for tribes; developing tribal UST owner/operator training workshops and outreach materials; conducting UST compliance inspections and tracking significant operational compliance in Indian Country; building UST program capacity; and overseeing UST program implementation.</p> <ul style="list-style-type: none">• State and Tribal Assistance Grants also provided funding to states implementing the UST provisions of the Energy Policy Act. These grants included funding for conducting inspections at previously uninspected facilities; developing third-party inspection programs to enable states to increase their inspection presence; and implementing delivery prohibition, secondary containment, and other Energy Policy Act requirements. At the end of FY 2007, there was a reduction over the previous year's target of UST facilities in significant operational compliance. Additionally, between FY 1999 and FY 2007, confirmed UST releases averaged 10,534. The annual number of confirmed releases in FY 2007 was 7,570.• State and Tribal Assistance Grants were used to make competitive awards of five cooperative agreements, up to a total of \$288,000, to Indian tribal governments and intertribal consortia in support of programs that address hazardous waste mismanagement in Indian Country. This grant program is designed to support comprehensive hazardous waste management activities that will ensure that hazardous waste is managed safely from "cradle-to-grave." The grant projects will improve the tribe's knowledge about the location of hazardous waste handlers/facilities and the types of hazardous waste they manage as reflected by inventories of facilities. The projects will also help tribes develop codes, regulations, ordinances, policies, and/or guidance for regulating hazardous waste and promote their ability to properly identify, manage, or dispose of hazardous waste, as demonstrated by a reduction in the number of citations under tribal codes, regulations, and ordinances, and fewer reports of illegal hazardous waste disposal. In addition, the projects will also: increase the use of hazardous waste reduction and re-use activities as demonstrated by increased use of household hazardous waste collection stations and re-use centers; train tribal leaders and environmental staff and improve community awareness of proper hazardous waste and used oil management practices, as demonstrated by level of participation in household hazardous waste collection events and used oil collection programs; and increase the purchasing of alternative, less hazardous products.• The Resource Conservation and Recovery Act (RCRA) statute authorizes EPA to assist state governments through the Hazardous Waste Financial Assistance Grant program. The
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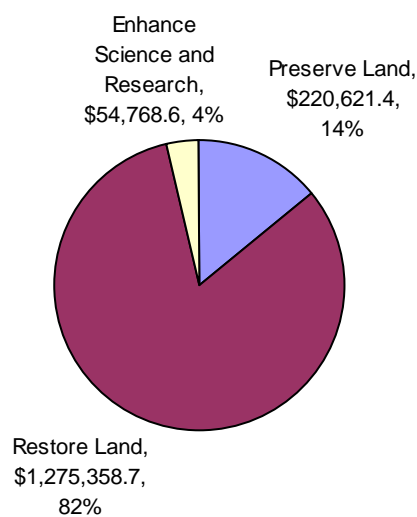
	<p>states propose legislation and upgrade regulations to achieve equivalence with the Federal Hazardous Waste Management Program, and apply to EPA for authorization to administer the program. The state grants provide for the development and implementation of an authorized hazardous waste management program for the purpose of controlling the generation, transportation, treatment, storage and disposal of hazardous wastes, including controlling and cleaning up past and continuing releases from hazardous waste management facilities through corrective action.</p>
PART:	<ul style="list-style-type: none"> • The RCRA Recycling, Waste Minimization and Waste Management Program was assessed in the 2004 PART process and received a rating of “adequate.” The program has completed PART follow-up actions including the development of an efficiency measure for the waste minimization component of the RCRA base program. The cost per pound of removing a priority chemical from a waste stream will be measured. • The Oil Spill Program was assessed in the 2005 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions, which include refining data sources and developing outcome measures that will be in place for FY 2009. • The UST (prevention) program received an overall PART rating of “moderately effective” in 2006. As a component of the program’s improvement plan, EPA worked with its state partners to develop an efficiency measure of the annual confirmed releases per the annual UST leak prevention costs.
Web Links:	<p>Overview of the Federal UST Program: http://www.epa.gov/OUST/overview.htm, Underground Storage Tank Provisions Of The Energy Policy Act Of 2005: http://www.epa.gov/oust/fedlaws/epact_05.htm#Final, EPA Waste Programs: http://www.epa.gov/epaoswer/osw/, Electronic Product Environmental Assessment Tool (EPEAT): http://www.epa.gov/epp/pubs/products/epeat.htm, Oil Spill Program: http://www.epa.gov/oilspill/.</p>

Objective 2: Restore Land

FY 2007 Obligations:
Goal 3, Objective 2
(in thousands)



FY 2007 Expenditures:
Goal 3, Objective 2
(in thousands)



FY 2007 Resources for Program Projects Supporting this Objective*

Program projects are EPA's fundamental unit for budget execution and cost accounting, and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.

**Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding*

Goal 3: Objective 2 - Restore Land

Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Hazardous Waste Financial Assistance	\$31,539.2	\$31,992.7
Base Realignment and Closure (BRAC)	\$7,014.3	\$143.7
Civil Enforcement	\$2,298.0	\$2,280.7
Compliance Assistance and Centers	\$274.3	\$306.1
Congressionally Mandated Projects	\$244.3	\$2,373.7
Homeland Security: Communication and Information	\$998.4	\$593.4
Homeland Security: Preparedness, Response, and Recovery	\$52,203.5	\$41,038.0
Homeland Security: Protection of EPA	\$1,806.7	\$1,796.7

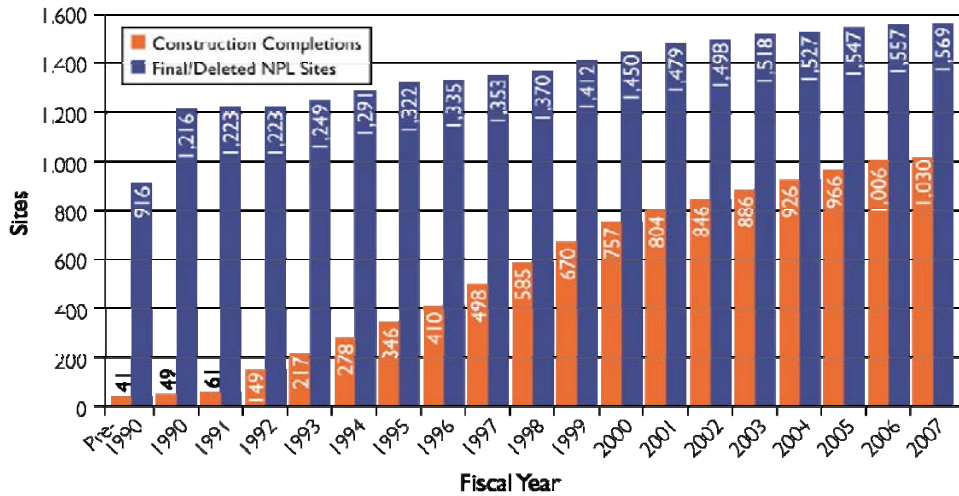
Personnel and Infrastructure		
LUST / UST	\$16,784.8	\$13,706.2
LUST Cooperative Agreements	\$63,043.5	\$59,398.1
Oil Spill: Prevention, Preparedness and Response	\$30,338.4	\$13,332.0
RCRA: Corrective Action	\$39,593.4	\$38,548.6
Superfund: Emergency Response and Removal	\$185,759.1	\$205,147.1
Superfund: Enforcement	\$211,533.9	\$42,635.9
Superfund: EPA Emergency Preparedness	\$10,154.1	\$11,148.4
Superfund: Federal Facilities	\$35,957.5	\$31,994.2
Superfund: Federal Facilities IAGs	(\$36.0)	\$14.6
Superfund: Remedial	\$1,787,050.0	\$577,589.6
Superfund: Support to Other Federal Agencies	\$4,874.2	\$5,705.0
Administrative Law	\$1,130.2	\$1,076.4
Alternative Dispute Resolution	\$1,044.3	\$688.0
Central Planning, Budgeting, and Finance	\$29,542.6	\$24,865.2
Civil Rights / Title VI Compliance	\$2,926.1	\$2,837.2
Congressional, Intergovernmental, External Relations	\$14,499.7	\$14,459.3
Exchange Network	\$5,002.8	\$1,064.9
Facilities Infrastructure and Operations	\$80,805.3	\$75,556.5
Acquisition Management	\$21,330.4	\$17,213.1
Human Resources Management	\$6,933.0	\$5,476.8
Information Security	\$583.3	\$524.8
IT / Data Management	\$32,217.9	\$29,279.9
Legal Advice: Environmental Program	\$2,109.4	\$2,095.3
Legal Advice: Support Program	\$420.9	\$409.7
Audits, Evaluations, and Investigations	\$14,620.0	\$1,702.5
Regional Science and Technology	\$1,040.1	\$1,486.3
Science Advisory Board	\$1,095.1	\$1,025.9
Small Minority Business Assistance	\$539.1	\$451.2
Financial Assistance Grants / IAG Management	\$3,135.4	\$2,637.7
Superfund: Federal Facilities Enforcement	\$11,150.4	\$8,929.2
Regulatory/Economic-Management and Analysis	\$3,963.8	\$3,834.0
Total	\$2,715,521.4	\$1,275,358.6

EPA's cleanup programs (Superfund, Resource Conservation and Recovery Act [RCRA] Corrective Action, and Leaking Underground Storage Tank [LUST]) aim to control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other actions and make land available for reuse. These programs made significant strides in FY 2007.

In FY 2007, the Superfund Remedial and Federal Facility Response Programs conducted or oversaw 657 ongoing cleanup construction projects (by EPA, potentially

responsible parties, and federal facilities) at 420 sites. Federal facilities accounted for 219 of these ongoing projects at 78 sites. Through these activities, the program accomplished the following:

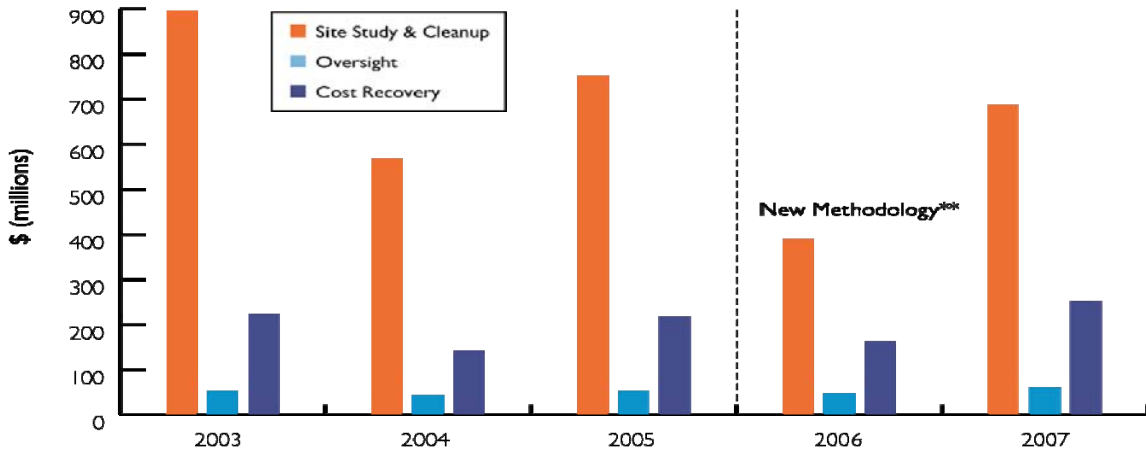
Number of Construction Completions and Final/Deleted NPL Sites



- Made 395 final site-assessment decisions under Superfund, exceeding the target of 350.
- Controlled all identified unacceptable human exposures from site contamination for current land and/or groundwater use conditions at a net total of 13 additional Superfund human exposure sites, exceeding the target of ten.
- Controlled the migration of contaminated groundwater through engineered remedies or natural processes at a net total of 19 additional Superfund groundwater exposure sites, exceeding the target of 10.
- Completed construction of remedies at 24 Superfund sites, meeting the target of 24 private and federal sites.
- Determined that 64 Superfund sites were ready for reuse sitewide, exceeding the target of 30. The Sitewide Ready-for-Reuse performance measure tracks those entire NPL sites where: (1) construction of the remedy is completed; (2) all cleanup goals to reduce unacceptable risk have been achieved that may affect current and reasonably anticipated future land uses of the site for land/water/air; and, (3) all institutional controls have been put in place.

The Superfund Enforcement Program continued to pursue its strategies of “Enforcement First” and “Smart Enforcement.” “Enforcement First” allows EPA to focus appropriated funds on sites where potentially responsible parties either do not exist or lack the funds or capabilities needed to conduct the cleanup. “Smart Enforcement” ensures that EPA uses the most appropriate enforcement or compliance tools to address the most significant problems and achieve the best outcomes. By applying these two strategies, EPA’s FY 2007 Superfund enforcement goals are: to reach a settlement or take an enforcement action by the start of remedial action at 95 percent of non-federal Superfund sites that have viable, liable parties, and to address cost recovery at all NPL and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than \$200,000.

**FY 2007 Enforcement and Compliance Annual Results
Private Party Commitments for Superfund Site Study
and Cleanup, Oversight, and Cost Recovery
FY 2003–FY 2007**



Source: Site Study and Cleanup and Cost Recovery: Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), 10/2007; Oversight: Integrated Financial Management System (IFMS), 10/2007

**In FY 2006, the Office of Site Remediation Enforcement (OSRE) changed the reporting requirements for Consent Decrees (CDs) to count only CDs that have been entered by the court. In previous years, OSRE gave credit when the CD was referred to the Department of Justice, lodged with the court, or entered by the court. The chart shows results based on the new methodology.

In FY 2007, EPA met its goal to reach a settlement or take an enforcement action by the start of remedial action at 95 percent of non-federal Superfund sites that have viable, liable parties. EPA did not achieve its GPRA goal of addressing 100 percent of the pending cost recovery cases with outstanding unaddressed past costs greater than \$200,000 and pending SOL concerns through enforcement, settlements, or compromise/write-off. Although cost recovery was addressed at 342 NPL and non-NPL sites, of which 155 had total costs greater than or equal to \$200,000 and 65 had potential SOL concerns, EPA achieved 98 percent. This was due to a missed SOL case that was awaiting write-off because there were no viable responsible parties. Although the SOL was missed, there was no loss in recovery dollars. (The region had written off costs associated with the missed SOL, but failed to complete the supporting decision documents before the expiration of the SOL.)

In addition, EPA secured private party commitments for cleanup and cost recovery and billed private parties for oversight for amounts that exceeded \$1 billion.

For the universe of 1,968 RCRA corrective action facilities, EPA had set 2007 targets for 92 percent of facilities with current human exposures under control, 77 percent with migration of contaminated groundwater under control, and 25 percent with final remedies constructed. In each case EPA exceeded the target, increasing these percentages to 93, 78, and 28 percent, respectively. The RCRA Corrective Action Program owes its success in 2007 largely to the many years EPA regions and state environmental agencies have spent characterizing high-priority facilities and moving them toward final cleanups. In 2007, these efforts culminated in the control of human exposures and the containment of contaminated groundwater at many of the Corrective Action Program's most difficult sites. Meanwhile, the Agency's ambitious goal for 2020 –

to complete remedy construction at 95 percent of all 3,746 facilities believed to need Corrective Action – has spurred regions and states to accelerate remedy construction efforts. The Corrective Action Program also expects to meet its long-term targets for 2008 – 95 percent human exposures under control and 81 percent groundwater migration under control – and increase the percentage of facilities with final remedies constructed to 30 percent.

To meet RCRA corrective action 2020 goals, EPA is promoting streamlined approaches, leveraging state programs, and encouraging other innovative activities. For example, the State of Maryland worked with Duke Realty to purchase and revitalize the extensive General Motors (GM) Baltimore site, using a facility lead agreement. A planned business park containing 16 buildings will bring thousands of jobs to the shuttered GM property. Duke's investment in the project is expected to exceed \$140 million. On a smaller scale, the Illinois voluntary cleanup program is addressing those portions of RCRA sites that can be cleaned up and reused earlier than the rest of the site. These are two examples of the many efforts underway to address and revitalize RCRA sites in a timely fashion.

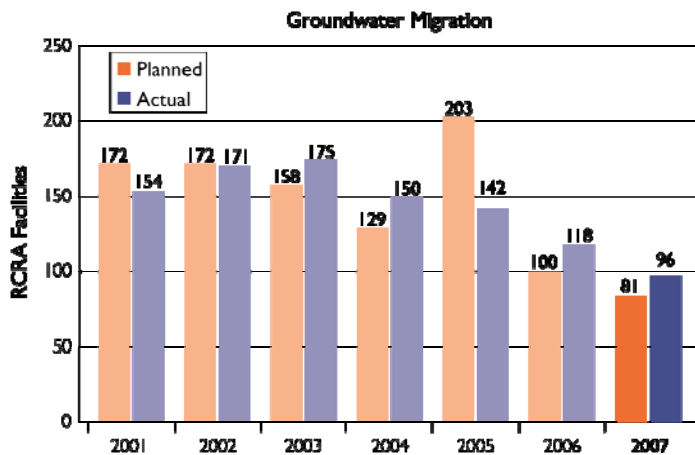
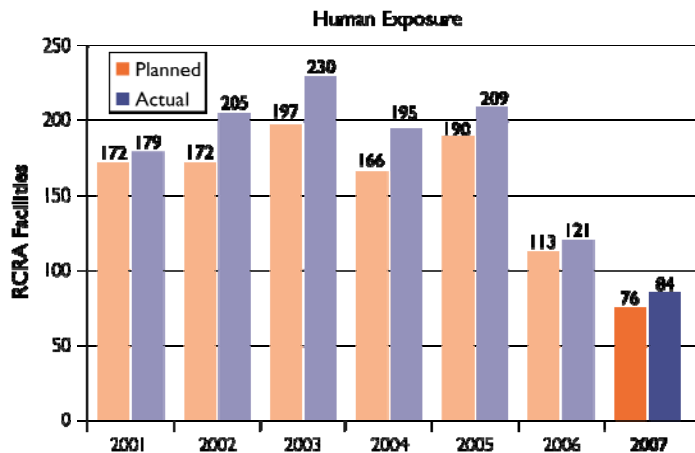
The LUST Program promotes rapid and effective responses to releases from federally-regulated underground storage tanks containing petroleum by enhancing state, local, and tribal enforcement and response capability. EPA continues to focus on increasing the efficiency of LUST cleanups nationwide. In FY 2007, EPA's state and tribal partners completed 13916 UST cleanups, meeting the target of 13,000 (including 54 cleanups in Indian Country).

Preparedness and Response

In FY 2007, the Emergency Response and Removal (ERR) Program exceeded both of its removal targets by completing 200 Superfund-lead removals and 151 voluntary removals.

During FY 2007, the Office of Emergency Management (OEM) developed two new outcome measures for the ERR Program that will go into effect in FY 2008. These new measures will illustrate the benefits of ERR actions for reducing health risks and protecting the environment over time.

RCRA Environmental Indicators



The Core ER sets standards to ensure that each region works toward improving and maintaining an excellent response program that is capable of responding quickly and effectively to chemical, oil, biological agents and radiological incidents. For FY 2007, OEM has developed an Agency-wide readiness score by expanding the Core ER evaluation in an effort to measure the progress in implementing the Agency's National Approach to Response (NAR). OEM is now evaluating each EPA Region, headquarters, and EPA emergency response special teams to measure their progress in preparing for five simultaneous incidents of national significance (INS).

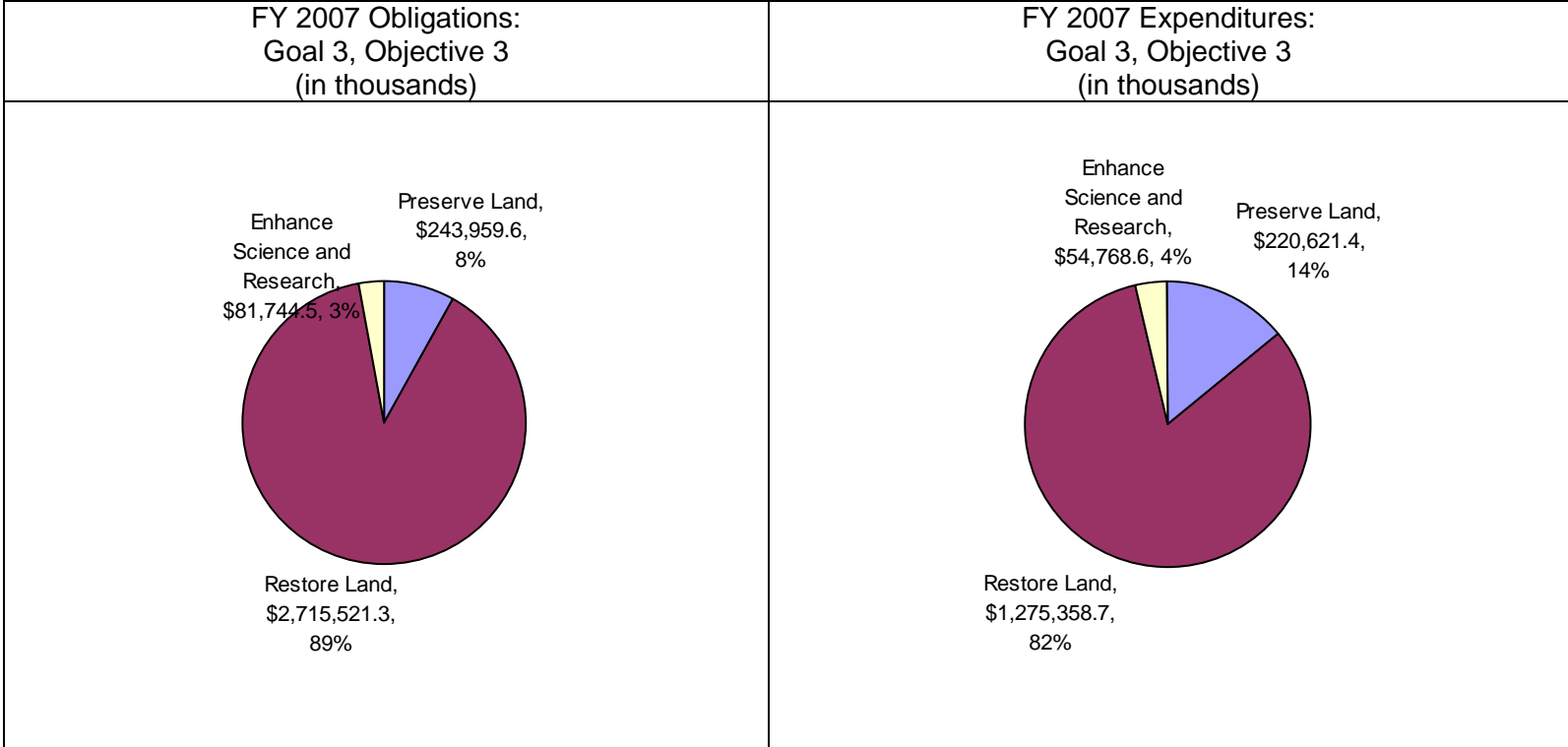
Additional Information Related to Objective 2	
Program Evaluations:	<ul style="list-style-type: none"> • GAO Report (GAO-07-1091): World Trade Center - EPA's Most Recent Test and Clean Program Raises Concerns That Need to Be Addressed to Better Prepare for Indoor Contamination Following Disasters. Additional information on these reports is available in the Program Evaluation Section, Appendix A, page A. • GAO Report (GAO-07-806T): World Trade Center - Preliminary Observations on EPA's Second Program to Address Indoor Contamination. Additional information on this report is available in the Program Evaluation Section, Appendix A, page A. • OIG Reports: Superfund's Board of Directors Needs to Evaluation Actions to Improve the Superfund Program; EPA Needs to Take More Action in Implementing Alternative Approaches to Superfund Cleanups; EPA Can Improve Its Managing of Superfund Interagency Agreements with U.S. Army Corps of Engineers; Environmental Justice Concerns and Communication Problems Complicated Cleaning Up Ringwood Mines/Landfill Site; EPA Has Improved Five-Year Review Process for Superfund Remedies, But Further Steps Needed; EPA Needs to Plan and Complete a Toxicity Assessment for the Libby Asbestos Cleanup. Additional information on this report is available in the Program Evaluation Section, Appendix A, page A. • OSWER Reviews: Superfund Contract Laboratory Program Customer Satisfaction Evaluation (preliminary report). Additional information on this report is available in the Program Evaluation Section, Appendix A, page A. • Federal Facilities Restoration and Reuse Office (FFRRO): A Comprehensive Review of EPA Policy and Guidance for Federal Facility Cleanup and Property Transfer. Additional information on this report is available in the Program Evaluation Section, Appendix A, page A-8. • GAO Report (GAO-07-152): Leaking Underground Storage Tanks: EPA Should Take Steps to Better Ensure the

	<p>Effective Use of Public Funding for Cleanups. Additional information on this report is available in the Program Evaluation Section Appendix.</p>
<p>Grants:</p>	<ul style="list-style-type: none"> • EPA awards 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 National Priority List (NPL). EPA awards Core cooperative agreements to States and Tribes to conduct CERCLA implementation activities that are not directly assignable to specific sites, but are intended to develop and maintain a State's or Indian tribe's ability to participate in CERCLA response program. Activities funded include: hiring staff, administrative salaries, clerical help, financial accounting, data management, program management, medical monitoring, health and safety training for field employees, computer systems purchases, training, legal assistance and legislative development. Products or funded activities include reports, accounting and tracking systems, hired and trained staff, cost recovery procedures and techniques, and laws and regulations for hazardous waste control. EPA also awards site-specific cooperative agreements (pre-remedial, remedial response, removal, enforcement and support agency) to assure participation of States and Indian tribes in assessing and cleaning up Superfund sites. All 10 EPA regional offices awarded cooperative agreements to our intergovernmental partners to lead cleanup actions or to support EPA-lead cleanup actions at hazardous waste sites. Cooperative agreements were awarded to lead the evaluation of newly discovered sites, to assess and investigate sites that have been identified as needing further action, to select, in partnership with EPA, the appropriate technologies and cleanup actions for these sites, to design the selected technologies and cleanup actions, and to construct the designed remedy. Funding was used to start or continue long term remedial actions to treat ground water where remediation goals have not yet been reached. Finally, funding was provided to States and tribes to meaningfully and substantially participate in cleanup actions where EPA led the cleanup. • 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.

	<ul style="list-style-type: none"> • LUST Cooperative Agreements were awarded to 49 states, The District of Columbia, Puerto Rico, 4 territories, and 10 tribes. Tribal cooperative agreements funded projects that included site assessments and cleanups, sampling equipment for tribal inspectors, LUST program capacity building, and oversight of LUST program implementation. In FY 2007, LUST cooperative agreements provided funding to states for emergency responses, responsible party lead cleanups with state oversight, state-lead cleanups, and state LUST capacity building. In FY 2007, EPA's state and tribal partners completed 13916 UST cleanups, meeting the target of 13,000 (including 54 cleanups in Indian Country).
PART:	<ul style="list-style-type: none"> • The Superfund Remedial Program was assessed in the 2004 PART process and received a rating of "adequate." As a result of the PART assessment, the program is conducting follow-up actions in three key areas: (1) implementing the Agency's 120-day study on management of the Superfund program, (2) developing and implementing improved measures of program efficiency, and (3) modernizing the program's CERCLIS data repository to ensure accurate and complete information on program performance and financial management. The program will undergo another PART review in 2009. • The Superfund Federal Facilities Program was assessed in the 2005 PART process and received a rating of "moderately effective." As a result of the PART assessment, the program is conducting follow-up actions, which include working with other federal agencies to support attainment of long-term environmental and human health goals by reviewing and recommending remedies for cleanup. • The Superfund Removal Program was assessed in the 2005 PART process and received a rating of "moderately effective." As a result of the PART process, the program is introducing two new outcome measures for FY 2008 and continues to work to ensure data quality and availability. • The RCRA Corrective Action Program was assessed in the 2003 PART process and received a rating of "adequate." The program has completed follow-up actions including defining new baselines for performance measures and establishing ambitious annual targets to achieve the long-term objectives of the program. As part of the 5-year cycle, the Corrective Action Program is scheduled for re-PART in 2008.
Web Links:	<p>Superfund Program: http://www.epa.gov/superfund/; Federal Facilities Restoration and Reuse Program: http://www.epa.gov/swefrr/; Corrective Action:</p>

	http://www.epa.gov/epaoswer/hazwaste/ca/index.htm , Overview of the Federal UST Program: http://www.epa.gov/OUST/overview.htm
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Objective 3: Enhance Science and Research



FY 2007 Resources for Program Projects Supporting this Objective*

Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.

**Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding*

Goal 3: Objective 3 - Enhance Science and Research		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Congressionally Mandated Projects	\$20.1	\$3,223.9
Homeland Security: Communication and Information	\$95.6	\$39.5
Homeland Security: Protection of EPA Personnel and Infrastructure	\$256.3	\$393.3
Research: Land Protection and Restoration	\$66,102.9	\$33,675.9
Research: SITE Program	\$97.5	\$4,641.0

Superfund: Remedial	\$3,691.8	\$2,487.4
Administrative Law	\$51.0	\$48.6
Alternative Dispute Resolution	\$12.4	\$10.1
Central Planning, Budgeting, and Finance	\$1,128.1	\$1,030.9
Civil Rights / Title VI Compliance	\$70.5	\$67.8
Congressional, Intergovernmental, External Relations	\$252.4	\$247.8
Exchange Network	\$353.7	\$210.6
Facilities Infrastructure and Operations	\$2,358.9	\$2,411.7
Acquisition Management	\$504.5	\$488.4
Human Resources Management	\$706.6	\$720.4
Information Security	\$99.9	\$115.9
IT / Data Management	\$4,144.3	\$3,330.5
Legal Advice: Environmental Program	\$483.3	\$476.4
Legal Advice: Support Program	\$167.8	\$160.7
Audits, Evaluations, and Investigations	\$467.1	\$295.2
Regional Science and Technology	\$14.1	\$13.9
Science Advisory Board	\$49.4	\$46.3
Small Minority Business Assistance	\$24.3	\$20.4
Financial Assistance Grants / IAG Management	\$413.1	\$439.0
Regulatory/Economic-Management and Analysis	\$178.9	\$173.0
Total	\$81,744.5	\$54,768.6

Objective 3 – Enhance Science and Research

EPA continues to effectively provide timely, cutting-edge, problem-driven research products to support sound science decisions relating to the protection and restoration of land.

Asbestos Health Effects Research

EPA has been working in Libby, Montana since 1999, when an Emergency Response Team was sent to investigate concerns about asbestos-contaminated vermiculite. Since that time, EPA has been working closely with the community to clean up contamination and reduce risks to human health. To support the Libby risk assessment, EPA initiated studies in 2007 to assess the health effects of asbestos fibers. To ensure broader applicability to the issues related to environmental asbestos health effects, EPA also plans to conduct comparative research on at least two other site-specific asbestos-containing environmental samples. EPA's ongoing cleanup and research efforts continue to make Libby a safer place to live, work, and visit.²⁸

Evaluation of the Aerosolization of the Asbestos and Related Fibers from Bulk Materials

In response to emerging needs, EPA is evaluating the aerosolization of asbestos fibers from bulk soils and developing lessons learned using the results of three field studies. EPA will improve the field equipment and conduct additional studies in Montana, Michigan, Washington, Oregon, and California. EPA also plans to conduct indoor carpet sampling using a specifically designed test instrument.

Mining Site Treatment Method

EPA has carried out site-specific studies to examine the hydrogeology and groundwater geochemistry at the Asarco East Helena Superfund Site. Subsequently, an industry-EPA agreement (a Cooperative Research and Development Agreement, or "CRADA") was established with the primary responsible party to construct a pilot-scale Permeable Reactive Barrier (PRB) to test this technology for implementation at the site. The pilot-scale PRB was installed in June 2005 and has been monitored since that time. EPA has been involved further in developing a site-wide plan for ground water cleanup that includes isolation of the source and full-scale PRBs, both on the site and off-site at the tail end of the plume. A plan has been developed to remediate a highly contaminated aquifer.

Vapor Intrusion Research Used by States

EPA recently synthesized the results of vapor intrusion research in the document entitled, *Assessment of Vapor Intrusion in Homes Near the Raymark Superfund Site Using Basement and Sub-Slab Air Samples*²⁹. The method and associated quality control measures developed for sub-slab sampling are being used at EPA regional offices across the United States. Several states, including California and Colorado, have incorporated many of the report's recommendations into state guidance documents on vapor intrusion.

Additional Development of Methods and Models To Provide Better Science in the Assessment of Contaminants.

Recent EPA research products include:

- An immunochromatography sample preparation method that will allow clients to streamline sample preparation and realize significant time and expense savings in testing for PCBs, pyrethroid pesticides, and water soluble herbicides.
- On-line tools for assessing subsurface transport of petroleum hydrocarbons (<http://www.epa.gov/athens/onsite>), which can be integrated into site assessment and cleanup decision making.
- An updated statistical package, TACS (Tools for Analysis of Contaminated Sites), to support site characterization.

EPA-wide Framework for Metals Risk Assessment

Because metal compounds present unique issues for risk assessors, EPA released a new *Framework for Metals Risk Assessment*, on March 8, 2007, to advance the understanding of the impact of metals in a consistent manner across the Agency's

programs.³⁰ The framework outlines key principles and describes how metals should be considered in conducting human health and ecological risk assessments.

To effectively support EPA's land research needs, the Land Research Program periodically updates its multiyear research plan. In response to Agency needs, the latest version of the plan reflects a new nanotechnology fate and transport research program, implemented in FY 2007.

Additional Information Related to Objective 3	
Program Evaluations:	In FY 2007, the Land Protection and Restoration Research Program took action to address recommendations resulting from EPA's Board of Scientific Counselors (BOSC) FY 2006 review: Review of the Office of Research and Development's Land Protection and Restoration Research Program at the Environmental Protection Agency . The program's response to the BOSC—along with a list of planned actions—can be found on the BOSC Website at http://www.epa.gov/OSP/bosc/pdf/land0603rpt.pdf .
PART:	EPA's Land Protection and Restoration Research Program received an "Adequate" rating on its 2006 PART assessment. Subsequent to the review, the program will establish new long-term outcome measures based on independent panel ratings of progress. Additionally, ORD has initiated a National Academy of Sciences (NAS) study to determine the most appropriate approach for establishing an outcome-oriented efficiency measure. The program is also working to improve its collection of partner performance information.
Web Links:	Office and Research and Development: http://www.epa.gov/ord/

GOAL 3: LAND PRESERVATION AND RESTORATION

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

OBJECTIVE: 3.1: PRESERVE LAND

By 2011, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper management of waste and petroleum products at facilities in ways that prevent releases.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
5	1	3	9

SUB-OBJECTIVE: 3.1.1: Reduce Waste Generation and Increase Recycling

By 2011, reduce materials use through product and process redesign, and increase materials and energy recovery from wastes otherwise requiring disposal.

Strategic Target (1)

By 2011, increase reuse and recycling of construction and demolition debris by 6 percent from a baseline of 59 percent in 2003.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percentage of construction and demolition debris that is reused or recycled.</i>							62	65	<i>Percent</i>
Baseline - In FY 2003, 160 million tons of construction and demolition debris were generated from buildings (of which 40 percent was recycled), and 170 million tons were generated from roads (of which 88 percent was recycled).									
Explanation - During EPA's peer review of the baseline data used to establish the C&D materials long-term 2011 goal and annual targets, stakeholders provided comments and clarification on the data sources used to estimate the amount of C&D materials being recycled. After addressing these comments and including these data, EPA recalculated the recycling rate and found that 65 percent of C&D materials were already being recycled. During FY 2008, EPA will work with stakeholders to develop a new long-term goal and annual targets founded on improved data.									

Strategic Target (2)

By 2011, increase the use of coal combustion ash to 50 percent from 32 percent in 2001.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percentage of coal combustion ash that is used instead of disposed.</i>							1.8	Data Avail FY 2008	Percent
Baseline - For coal combustion ash, approximately 128 million tons are generated annually. In 2006, 43percent was used rather than landfilled.									
Explanation - Data will be available in September 2008.									

Strategic Target (3)

By 2011, increase by 118 the number of tribes covered by an integrated waste management plan compared to FY 2006.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of tribes covered by an adequate and recently-approved integrated solid waste management plan.</i>							27	28	Tribes
Baseline - This is a new measure for FY 2007. The baseline is established as zero.									

Strategic Target (4)

By 2011, close, clean up, or upgrade 138 open dumps in Indian Country and on other tribal lands compared to FY 2006.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of closed, cleaned up, or upgraded open dumps in Indian Country or on other tribal lands.</i>							30	107	Open Dumps

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline - This is a new measure for FY 2007. The baseline is established as zero.									
<p>Explanation – EPA Regions 6 and 9 were able to effectively leverage the GAP grant by highlighting open dump closure work in the grant solicitation. As a result, for example, the majority of Region 9 tribes included solid waste projects under GAP. Furthermore, in Region 9, dump cleanup projects are starting to be included in RCRA Supplemental Environmental Projects (SEPs), which increased the regional results. In fact, nearly ten dumps were cleaned up under SEPs and a significant number of cleanups funded in prior years reached completion. We partnered with our Tribal Programs Office to highlight dump closure work in the FY06 and FY07 GAP grant solicitation. As a result, the majority of Region 9 tribes included solid waste projects under GAP. Dump cleanup projects have been a priority for 2 years and this type of work is starting to be included in RCRA Supplemental Environmental Projects (SEPs) in Region 9. Twenty-four dumps were funded in FY06 but final closure did not occur until FY07. Multiple sites were not anticipated when we made the original bid, including the 13 sites on the Torres Martinez Reservation. Region 6 also had a number of open dumps closed under the GAP grants, which were not expected by the Regional RCRA program. EPA expects to extensively revisit this tribal measure and establish new targets during the development of the next EPA Strategic Plan (2009-2014).</p>									

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Millions of tons of municipal solid waste diverted.	79	77.7	81	79	83.1	Data Avail FY 2008	85.2	Data Avail FY 2009	Million Tons
Baseline - An analysis conducted at the end of FY 2005 shows approximately 79 million tons (33 percent) of municipal solid waste diverted.									
<p>Explanation - MSW data will not be available until November 2008. The data lag occurs because the calculation incorporates several sources of information and is compiled by Franklin. It takes them a year to get the information and prepare the calculations. EPA missed the FY 2005 target of 81 million tons, achieving a total of 79 million tons, a shortfall of nearly 2.5 percent. EPA has undertaken a number of new activities to try to increase the volume of waste diverted toward recycling (e.g., new public recycling message, increasing work with local governments and organizations, creating a new toolkit, and encouraging the adoption of Pay-As-You-Throw). The total recycling volume is influenced by many other factors, and EPA is working hard to more clearly show the correlation between its contributions and the targeted outcome.</p>									
Daily per capita generation of municipal solid waste.	4.5	4.6	4.5	4.5	4.5	Data Avail FY 2008	4.5	Data Avail FY 2009	Pounds MSW
Baseline - An analysis conducted at the end of FY 2005 shows approximately 4.5 lbs of MSW per person daily generation.									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Explanation - MSW data will not be available until November 2008.									

SUB-OBJECTIVE: 3.1.2: Manage Hazardous Waste and Petroleum Products Properly

By 2011, reduce releases to the environment by managing hazardous wastes and petroleum products properly.

Strategic Target (1)

By 2011, prevent releases at 500 RCRA hazardous waste management facilities by implementing initial approved controls or updated controls. (The universe of facilities will be reassessed in FY 2009. However, we currently estimate that there will be about 820 facilities that will require these controls. The goal of 500 represents about 60 percent of the universe of 820 facilities.)

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Annual increase in the percentage of RCRA hazardous waste management facilities with permits or other approved controls.	2.4	3.7	2.8	3.1	2.5	4.3	2.4	2.9	Percent
Baseline - At the end of FY 2006, the percentage of hazardous waste management facilities with permits or other approved controls nationwide was 91.4 percent.									

Strategic Target (2)

By 2011, increase the percentage of UST facilities that are in significant operational compliance with both release detection and release prevention requirements to 71 percent from 66 percent in 2006 (an increase of 5 percent) out of a total estimated universe of approximately 245,000 facilities.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Increase the rate of significant operational compliance by 1% over the previous year's rate (target).		64	65	66	66	62	67	62	Percent

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline - Annual targets increase each year by one percent from the FY04 baseline of 64 percent.									
Explanation - In FY 2006 and FY 2007, states found that many previously un-inspected UST facilities did not comply with requirements. As previously un-inspected or infrequently-inspected facilities are inspected, compliance rates are lower, and the Agency has not met its goal for increasing significant operational compliance rates.									

Strategic Target (3)

Each year through 2011, minimize the number of confirmed releases at UST facilities to 10,000 or fewer from a universe of approximately 650,000 UST tanks.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>No more than 10,000 confirmed releases per year.</i>	<10,000	7,848	<10,000	7,421	<10,000	8,361	<10,000	7570	UST releases
Baseline - Between FY 1999 and FY 2006, confirmed UST releases averaged 10,534									

OBJECTIVE: 3.2: RESTORE LAND

By 2011, 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.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
15	3	0	18

SUB-OBJECTIVE: 3.2.1: Prepare for and Respond to Accidental and Intentional Releases

By 2011, reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our nation's capability to prevent, prepare for, and respond more effectively to these emergencies.

Strategic Target (1)

By 2011, achieve and maintain at least 95 percent of maximum score on readiness evaluation criteria in each region.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Average state of emergency response readiness as determined by readiness criteria.</i>							55	96	Percent
Baseline - In FY 2006, 96 was the average score of the ten EPA regions based on the core emergency response readiness criteria.									
Explanation - The higher than expected scores for the emergency response readiness criteria reflects the regions' prompt attention to the implementation of new policies and procedures.									

Strategic Target (2)

Between 2006 and 2011, complete 975 Superfund-lead hazardous substance removal actions.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Superfund-lead removal actions completed annually.			195	172	195	157	195	200	Removals
Baseline - In FY 2006, there were 157 Superfund-lead removal actions completed, for a total of approximately 5,300 completions since 1980.									

Strategic Target (3)

Between 2006 and 2011, oversee and complete 650 voluntary removal actions.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Voluntary removal actions, overseen by EPA, completed.			105	137	115	93	120	151	Removals
Baseline - In FY 2006, there were 93 voluntary removal actions completed, for a total of approximately 1,200 completions since 1980.									

Strategic Target (4)

By 2011, reduce by 25 percent the gallons of oil spilled by facilities subject to Facility Response Plan regulations relative to the 601,000 gallons of oil spilled in 2003.

Strategic Target (5)

By 2011, inspect (and ensure compliance at) 90 percent of the estimated 4,200 facilities subject to Facility Response Plan regulations, up from 50 percent in 2004.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percentage of inspected facilities subject to Facility Response Plan (FRP) regulations found to be in compliance.			100	77	100	71	75	67	Percent
Baseline - In FY 2006, 71 percent of inspected facilities subject to FRP regulations were found to be in compliance.									
Explanation - The lower than expected result is due to inspection of facilities anticipated to be out of compliance with SPCC and/or FRP regulations as a result of State referrals, citizen complaints, and/or recent reports of oil discharges at these facilities. EPA focuses its limited resources on inspecting facilities about which we have received complaints and/or referrals.									

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of inspections and exercises conducted at oil storage facilities that are required to have Facility Response Plans.</i>			360	335	100	345	200	335	Inspections/Exercises
Baseline - In FY 2006, there were 345 inspections and exercises conducted at oil storage facilities that are required to have Facility Response Plans.									
Explanation -									
Percentage of inspected facilities subject to Spill Prevention, Control and Countermeasures (SPCC)			100	100	100	50	53	40	Percent

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
regulations found to be in compliance.									
Baseline - In FY 2006, 50 percent of inspected facilities subject to SPCC regulations were found to be in compliance.									
Explanation - The lower than expected result is due to inspection of facilities anticipated to be out of compliance with SPCC and/or FRP regulations as a result of State referrals, citizen complaints, and/or recent reports of oil discharges at these facilities. EPA focuses its limited resources on inspecting facilities about which we have received complaints and/or referrals.									

SUB-OBJECTIVE: 3.2.2: Clean Up and Revitalize Contaminated Land

By 2011, 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.

Strategic Target (1)

By 2011, make final assessment decisions at 40,491 of 44,700 potentially hazardous waste sites evaluated by EPA to help resolve community concerns on whether these sites require long-term cleanup to protect public health and the environment and to help determine if they can be cleared for possible redevelopment.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Superfund final site assessment decisions completed.	475	548	500	551	419	518	350	395	Assessments
Baseline - In FY 2006, Superfund completed 518 final site assessment decisions for a cumulative total of 39,288 since the program's inception.									

Strategic Target (2)

By 2011, control all identified unacceptable human exposures from site contamination for current land and/or groundwater use conditions at approximately 85 percent (1,316) of 1,543 Superfund human exposure sites (as of FY 2005). BY 2011, increase to 95 percent the high NCAPS-ranked RCRA facilities with human exposures to toxins controlled.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Superfund sites with human health protection achieved (exposure</i>					10	34	10	13	Sites

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>pathways are eliminated or potential exposures are under health-based levels for current use of land or water resources).</i>									
Baseline - In FY 2006, Superfund controlled human exposures at 82 percent (1,269 of 1554) of eligible NPL sites.									
Percentage of RCRA CA facilities with current human exposures under control (using 2008 baseline).					82	89	92	93	Percent
Baseline - In FY 2006, 88 percent of facilities have human exposures controlled, reflecting the strong EPA/state partnership in this program.									

Strategic Target (3)

By 2011, control the migration of contaminated groundwater through engineered remedies, natural processes, or other appropriate actions at 74 percent (1,017) of 1,381 Superfund groundwater sites. By 2011, increase to 80 percent the high NCAPS-ranked RCRA facilities with migration of groundwater under control.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Superfund sites with contaminated groundwater migration under control.</i>					10	21	10	19	Sites
Baseline - In FY 2006, Superfund controlled groundwater migration at 68 percent (958 of 1402) of eligible NPL sites.									
Percentage of RCRA CA facilities with migration of contaminated groundwater under control (using 2008 baseline).					68	74	77	78	Percent
Baseline - In FY 2006, 73 percent of facilities have groundwater migration controlled, reflecting the strong EPA/state partnership in this program.									

Strategic Target (4)

By 2011, reduce the backlog of LUST cleanups (confirmed releases that have yet to be cleaned up) that do not meet state risk-based standards for human exposure and groundwater migration from 26 percent down to 21 percent. By 2011, increase to 22 percent the RCRA facilities with final remedies constructed. By 2011, complete construction of remedies at approximately 76 percent (1,171) of 1,547 Superfund sites.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Number of cleanups that meet state risk-based standards for human exposure and groundwater migration (tracked as the number LUST cleanups completed).	21,000	14,285	14,500	14,583	13,600	14,493	13,000	13,862	Cleanups
Baseline - In FY 2006, EPA completed 14,493 leaking underground storage tank (LUST) cleanups, for a cumulative total of 350,813 LUST cleanups completed since the inception of the program. LUST Cleanups completed in Indian Country are included in this number.									
Number of cleanups that meet risk-based standards for human exposure and groundwater migration in Indian Country.			30	53	30	43	30	54	Cleanups
Baseline - In FY 2006, EPA completed 43 leaking underground storage tank (LUST) cleanups in Indian country, for a cumulative total of 738 LUST cleanups completed since the inception of the program.									
Explanation - The national LUST Remediation in Indian Country contract has led to an increase in LUST cleanups completed in Indian Country in FY 2007.									
Annual number of Superfund sites with remedy construction completed.	40	40	40	40	40	40	24	24	Completions
Baseline - In FY 2006, Superfund completed construction at 65 percent (1006 of 1557) of the eligible NPL sites.									
<i>Percent of RCRA construction completions using 2008 baseline.</i>					13	22	25	28	Percent
Baseline - In FY 2006, RCRA achieved 22 percent construction completions.									

Strategic Target (5)

By 2011, ensure that 36 percent (345) of 966 final and deleted construction complete NPL sites are ready for reuse site-wide.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of Superfund sites ready for reuse site-wide.</i>							30	64	Sites
Baseline - Through FY 2006, there were 195 Superfund sites ready for reuse site-wide.									
Explanation - EPA made an additional 64 Superfund sites ready for reuse sitewide in FY07. This number exceeded our target of 30 additional sites due to the amount of assistance Headquarters provided the regions in training, guidance and "hands on" data entry. Because this is a brand new measure, regions approached it conservatively. As a result, a number of regions exceeded their target. In addition, after a presentation by the OSWER AA on the new measure, Region 6's Regional Administrator made it a priority to accelerate the Region's evaluation of candidate sites. This led to a large number of Region 6 sites achieving this measure at the end of the fiscal year.									

SUB-OBJECTIVE: 3.2.3: Maximize Potentially Responsible Party Participation at Superfund Sites

Through 2011, conserve federal resources by ensuring that potentially responsible parties conduct or pay for Superfund cleanups whenever possible.

Strategic Target (1)

Each year through 2011, reach a settlement or take an enforcement action before the start of a remedial action at 95 percent of Superfund sites having viable, liable responsible parties other than the federal government.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percentage of Superfund sites at which settlement or enforcement action taken before the start of RA.</i>	90	98	90	100	90	100	95	98	Percent
Baseline - In FY 1998 approximately 70 percent of new remedial work at NPL sites (excluding federal facilities) was initiated by private parties. In FY 2003, a settlement was reached or an enforcement action was taken with non-federal PRPs before the start of the remedial action at approximately 90 percent of Superfund sites.									

Strategic Target (2)

Each year through 2011, address all unaddressed costs in Statute of Limitations cases for Superfund sites with unaddressed total past Superfund costs equal to or greater than \$200,000.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Refer to DOJ, settle, or write off 100 % of Statute of Limitations (SOLs) cases for SF sites with total unaddressed past costs equal to or greater than \$200,000 and report value of costs recovered.</i>	100	100	100	99	100	100	100	98	Percent
Baseline - In FY 1998 the Agency will have addressed 100 percent of Cost Recovery at all NPL & non-NPL sites with total past costs equal or greater than \$200,000.									
Explanation - EPA did not achieve its goal of addressing 100 percent of the pending cost recovery cases with outstanding unaddressed past costs greater than \$200,000 and pending statute of limitations (SOL) concerns through enforcement, settlements, or compromise/write-off. In FY 2007 EPA achieved 98 percent. Although the goal was not met, there was no loss in dollars recovered. (The region wrote off the costs associated with the missed SOL case, but decision documents were not completed before the expiration of the SOL.)									

OBJECTIVE: 3.3: ENHANCE SCIENCE AND RESEARCH

Through 2011, provide and apply sound science for protecting and restoring land by conducting leading-edge research, which through collaboration, leads to preferred environmental outcomes

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
2	0	0	2

OBJECTIVE-LEVEL MEASURES

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percentage of planned outputs delivered in support of the manage material streams, conserve resources and appropriately manage waste long-term goal.	100	80	100	100	100	100	100	100	Percent
Baseline - In 2003, the program began measuring the planned outputs delivered in support of the manage material streams, conserve resources and appropriately manage waste long-term goal; 67 percent of its outputs were completed on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the use of land protection and restoration.									
Percentage of planned outputs delivered in support of the mitigation, management and long-term stewardship of contaminated sites long-term goal.	100	55	100	70	100	96	100	100	Percent
Baseline - In 2003, the program began measuring the planned outputs delivered in support of the mitigation, management and long-term stewardship of contaminated sites long-term goal; 87 percent of its outputs were completed on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the use of land protection and restoration.									

GOAL 4 - HEALTHY COMMUNITIES AND ECOSYSTEMS

Protect, sustain, or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

CONTRIBUTING PROGRAMS:

Brownfields and Land Revitalization, Chemical Risk Review and Reduction, Chemical Risk Management, Chesapeake Bay, Children's Health Protection, Commission for Environmental Cooperation, Community Action for a Renewed Environment (CARE), Computational Toxicology Research, Endocrine Disruptors Research and Program Efforts, Environment and Trade, Environmental Justice, Global Change Research, Great Lakes, Gulf of Mexico, Homeland Security Research, Human Health and Ecosystem Protection Research, Human Health Risk Assessment, International Capacity Building, Lead and Lead Categorical Grant Programs, Long Island Sound, Mercury Research, National Environmental Monitoring Initiative, National Estuary Program, Other Geographic Programs (including Lake Pontchartrain, Puget Sound, and South Florida), Persistent Organic Pollutants, Pesticides and Toxics Research, Pesticides Licensing and Implementation, Smart Growth, Research Fellowships, State and Local Prevention and Preparedness, Targeted Watersheds, US-Mexico Border, Wetlands.

GOAL PURPOSE:

To protect, sustain, and restore our nation's communities and ecosystems, EPA uses a mix of regulatory programs, partnership efforts, and incentive-based approaches. EPA programs ensure that pesticides and other chemicals entering the market meet health and safety standards, that pesticides and chemicals already in commerce do not harm our health or environment, and that action is taken to reduce risks from pesticides and chemicals of greatest concern.

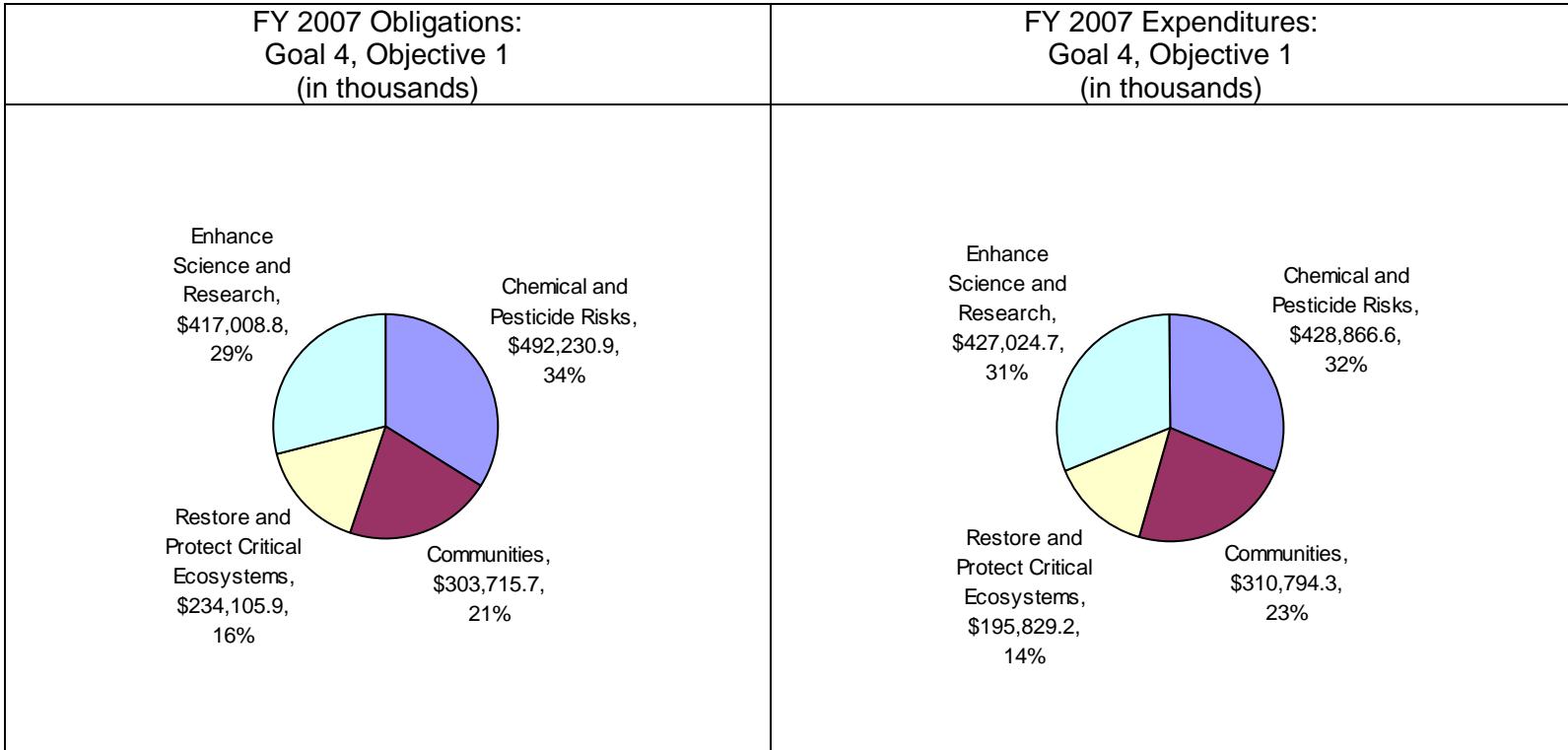
Many of our programs to achieve and sustain healthy communities are designed to bring tools, resources, and approaches to bear at the local level. We encourage community redevelopment by providing funds to identify, assess, and clean up the estimated hundreds of thousands of properties that lie abandoned or unused due to previous pollution. We help promote public involvement and establish a sense of environmental stewardship to sustain environmental improvements by forging partnerships with communities to address local pollution problems.

We also collaborate with other federal agencies, states, tribes, local governments and many nongovernmental organizations on geographically based efforts to protect America's wetlands and major estuaries. Working with our partners and stakeholders, we have established special programs to protect and restore our natural resources.

Some threats to Americans' health and to our environment originate outside our borders. Many pollutants can easily travel across borders via rivers, air and ocean currents, and migrating wildlife. EPA employs a range of strategies to help mitigate some of these risks, including participating in bilateral programs, cooperating with multinational organizations, and contributing to a set of measurable environmental and health end points.

Sound science guides us in identifying and addressing emerging issues and advances our understanding of long-standing human health and environmental challenges. Our cutting edge research helps us better characterize risks and benefits, furthers our ability to measure and describe environmental conditions, and encourages stewardship and sustainable solutions to environmental problems.

Objective 1: Chemical, Organism, and Pesticide Risks



FY 2007 Resources for Program Projects Supporting this Objective*

Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.

**Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding.*

Goal 4: Objective 1 - Chemical and Pesticide Risks

Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Pesticides Program Implementation	\$13,172.1	\$13,748.9
Categorical Grant: Lead	\$21,329.7	\$14,179.8
Commission for Environmental Cooperation	\$355.4	\$601.2

Congressionally Mandated Projects	\$1,140.3	\$6,836.0
Endocrine Disruptors	\$9,870.4	\$7,290.9
Homeland Security: Communication and Information	\$1,006.9	\$416.6
Homeland Security: Preparedness, Response, and Recovery	\$5,085.8	\$3,022.7
Homeland Security: Protection of EPA Personnel and Infrastructure	\$3,463.3	\$5,055.5
International Capacity Building	\$3,193.8	\$3,269.9
Pesticides: Field Programs	\$22,968.0	\$24,063.7
Pesticides: Registration of New Pesticides	\$62,365.2	\$44,909.9
Pesticides: Review / Reregistration of Existing Pesticides	\$74,150.5	\$55,320.5
POPs Implementation	\$414.7	\$34.9
Science Policy and Biotechnology	\$1,208.1	\$1,448.1
State and Local Prevention and Preparedness	\$12,428.7	\$10,859.7
Toxic Substances: Chemical Risk Management	\$8,294.1	\$8,345.3
Toxic Substances: Chemical Risk Review and Reduction	\$46,152.7	\$44,249.3
Toxic Substances: Lead Risk Reduction Program	\$13,720.3	\$12,580.4
TRI / Right to Know	\$14,626.8	\$14,307.7
Administrative Law	\$537.4	\$511.8
Alternative Dispute Resolution	\$130.9	\$106.1
Central Planning, Budgeting, and Finance	\$7,127.4	\$6,871.3
Children and other Sensitive Populations	\$0.0	\$0.0
Civil Rights / Title VI Compliance	\$848.1	\$817.5
Congressional, Intergovernmental, External Relations	\$3,343.6	\$3,298.8
Exchange Network	\$3,738.2	\$2,217.8
Facilities Infrastructure and Operations	\$76,955.9	\$69,067.0
Acquisition Management	\$4,537.5	\$4,318.7
Human Resources Management	\$6,891.6	\$6,826.4
Information Security	\$949.9	\$941.3
IT / Data Management	\$58,348.0	\$49,481.7
Legal Advice: Environmental Program	\$5,075.4	\$5,015.1
Legal Advice: Support Program	\$1,721.9	\$1,653.2
Audits, Evaluations, and Investigations	\$2,372.0	\$2,529.0
Regional Science and Technology	\$207.5	\$199.3
Science Advisory Board	\$520.7	\$487.8
Small Minority Business Assistance	\$256.3	\$214.6
Financial Assistance Grants / IAG Management	\$1,836.9	\$1,945.2
Regulatory/Economic-Management and Analysis	\$1,884.8	\$1,823.1
Total	\$492,230.8	\$428,866.7

Reviewing and Reducing Risks of New and Existing Chemicals

EPA serves as America's gatekeeper for safe chemicals, reviewing new chemicals introduced into U.S. commerce to ensure that they do not pose unreasonable risks to humans or the environment. The Agency judges its effectiveness in fulfilling this important responsibility by comparing the results of its analyses to chemical hazard reports submitted by chemical manufacturers. Performance data from FY 2004 through FY 2007 have not identified any risks that had been overlooked, testifying to the high caliber analyses performed for approximately 1,500 new chemicals annually.

EPA is also charged with assessing and acting on the thousands of chemicals that were already in commerce before its authority to review new chemicals was established in 1977. The Agency has set a strategic target to ensure that new chemicals introduced into commerce do not pose unreasonable risks to workers, consumers, or the environment, measured through the Risk Screening Environmental Indicators (RSEI) model, which combines Toxics Release Inventory manufacturing sector data with chemical hazard data and U.S. Census data to generate a production-adjusted relative risk index. While, due to TRI reporting schedules, FY 2007 results will not be available until FY 2009, newly available data for 2004 and 2005, 20 percent and 2.5 percent respectively, show significant progress towards the strategic target. These reductions bring cumulative reduction to 29.3 percent since 2001.

A number of key program actions contribute to these risk reductions. EPA is assessing and acting on several prominent existing chemicals of potential concern. The Agency continued to explore the hazards, sources, and pathways of exposure and risks of perfluorinated chemicals, such as perfluorooctanoic acid (PFOA) and perfluorooctanyl sulfonate (PFOS.) Perfluorinated chemicals are used in the manufacture of many consumer and industrial products including non-stick cookware coatings; waterproof, breathable clothing; fire and chemical-resistant tubing and cables; and oil, stain, and grease-resistant surface treatments for carpets, clothing, paper, and cardboard.

In August 2007, the Centers for Disease Control issued a report documenting significant reductions in human blood levels of PFOS, PFOA, and related chemicals from 1999/2000 through the most recent data in 2003/2004, concluding that these reductions "most likely are related to discontinuation in 2002 of industrial production" brought about by EPA action on these chemicals.

Since 2000, EPA has taken a number of actions on these chemicals. After discussions with EPA, the domestic manufacturer of PFOS phased out production between 2000 and 2002. EPA finalized two Significant New Use Rules (SNURs) on 88 PFOS-related chemicals in 2002, and it will issue another final SNUR on 183 additional PFOS-related chemicals in FY 2007. EPA also continued the global PFOA Stewardship Program in FY 2007, under which participating companies have committed to reduce PFOA and related chemicals from emissions and product content by 95 percent no later than 2010 and to work towards eliminating emissions and product content by 2015. In August 2007, the Centers for Disease Control issued a report documenting significant reductions in human blood levels of PFOS, PFOA, and related chemicals from 1999/2000 through the most recent data in 2003/2004, concluding that these reductions "most likely are related to discontinuation in 2002 of industrial production" brought about by EPA action on these chemicals.³¹

EPA's High Production Volume (HPV) Challenge Program is a key component of the Agency's strategy for fulfilling its responsibility to assess and take action on existing chemicals. Under the HPV Challenge, the Agency completed work that provided the public with access to critical health and environmental effects data on more than 2,250 chemicals encountered in communities every day. As of August 2007, 372 chemical companies and 105 industry consortia had volunteered to provide data directly to EPA for an additional 1,401 U.S.-sponsored HPV chemicals and to the International Council of Chemical Associations (ICCA), the European component of the program, for 849 additional chemicals.

EPA entered the final stages of the HPV Challenge Program in FY 2007 by initiating screening level assessments of the HPV chemicals, completing hazard assessments for 223 HPVs. This work augments efforts by the Organization for Economic Co-operation and Development, which completed Screening Information Assessment Reports for 630 internationally-sponsored HPVs through FY 2006 and an additional 78 HPVs during FY 2007. This work will lead to development of risk characterizations and risk-based decisions for taking action on priority HPV chemicals.

The United States, Canada, and Mexico are strengthening their efforts to ensure the safe manufacture and use of industrial chemicals by developing a regional partnership for assessing and managing potential risks. On August 21, 2007, President Bush, Canadian Prime Minister Stephen Harper, and Mexican President Felipe Calderon announced this agreement as part of the Security and Prosperity Partnership of North America. The three countries agreed that their agencies would coordinate efforts to assess and take action on industrial chemicals. By 2012, the United States will complete risk characterizations and take action, as needed, on more than 9,000 chemicals produced in excess of 25,000 pounds per year. The 2012 goal is to ensure that these chemicals are produced and used in ways that minimize risks to health and the environment. The agreement establishes goals to be met by 2020, which include creating and updating chemical inventories in all three countries, as well as coordinating the management of chemicals in North America as outlined in other international agreements. This agreement will build on Canada's Chemical Management Program to categorize chemicals for review, assessment, and management of EPA's HPV Challenge Program.³² With the agreed goals and time horizon, this North American program will contribute significantly to the ongoing related efforts under the Commission on Environmental Cooperation Sound Management of Chemicals (CEC SMOC) Working Group. It also complements the non-regulatory work under the North American Agreement on Environmental Cooperation (NAAEC) to address chemical issues.

Managing Risks of Priority Chemicals

In 2007 EPA is well on its way to meeting all of the commitments identified in its *Roadmap for Mercury*. The Agency is establishing a stakeholder process to examine the long-term management of domestic mercury stocks; developing a mercury products data base; finalizing a Significant New Use Rule on mercury automobile switches; partnering with automobile manufacturers to virtually eliminate mercury in all parts of cars and auto processing; publishing a Chemical Management Guide for school administrators; working with the states to promote recycling of fluorescent lamps and other best

management practices for products such as dental amalgam and non-ferrous thermometers; and promoting the procurement of non-mercury products through the Green Suppliers Network.

In 2007 the Agency made substantial strides in promoting the reduction of mercury use through the UNEP Mercury Partnerships. EPA focused primarily on reducing mercury from chlor-alkali production, mercury in products, and artisanal mining. The Agency is exchanging information and expertise, transferring and applying best management practices, developing and improving mercury use and emission inventories, providing technical assistance in implementing mercury product substitution and reduction programs, and raising public awareness. Working with Canada, Norway, the World Chlorine Council and other partners, EPA has achieved an additional 533 kg reduction at chlor-alkali production facilities in Russia in 2007. EPA is also working with the Basel Secretariat to build capacity in developing countries to address mercury waste and has established more than fifteen projects spanning Latin America, Africa, and Eurasia.

Reducing Lead-Based Paint Risks

Lead poisoning is an entirely preventable disease that causes neurological damage, particularly among children. The primary source of lead exposure for children is lead based paint. EPA is one of the federal agencies combating childhood lead poisoning, with a goal of eliminating the incidence of poisoning by 2010.

Data released in 2005 by the Centers for Disease Control demonstrated 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 for the period from 1999 to 2002. These findings indicate major progress towards EPA's 2010 strategic target. However, the remaining population of at-risk children is often difficult to reach, and evidence has shown a higher incidence of childhood lead poisoning among low-income than non-low income children. Therefore, in FY 2006 EPA established a second long-term goal for the Lead Program to reduce the disparity in blood lead levels between low- and non-low-income children. In FY 2007 the Agency launched a new grant program designed to link national organizations that have the ability to directly address childhood lead poisoning prevention for local communities identified as most at-risk for childhood lead poisoning and continued a grant program aimed at reducing the incidence of childhood lead poisoning in vulnerable populations.

To reduce children's exposure to hazards created by renovation, repair, and painting that disturb lead-based paint, EPA is finalizing a major new rule to require renovation contractors to receive training and make use of lead-safe work practices when renovating housing and child-occupied facilities. To support this rule, EPA has conducted a study to evaluate lead dust levels associated with renovation, repair, and painting jobs that disturb lead-based paint.³³ The Agency has also developed a document to support EPA's analysis of the costs and benefits associated with the rulemaking, "Approach for Estimating Changes in Children's IQ from Lead Dust Generated During Renovation, Repair, and Painting in Residences and Child-Occupied Facilities."³⁴ The study and the costs/benefits analysis are the focus of a consultation with the Clean Air Scientific Advisory Committee.³⁵

Protect Human Health and the Environment from Pesticide Risk, and Realize the Value from Pesticide Availability

EPA's Pesticide Program promotes public health safety, safe and abundant food, worker safety, and protection of land and other media from pesticide contamination. Our FY 2007 efforts put the Agency on a trajectory to provide long-term health benefits by 2011 that include:

- Reducing the concentration of pesticides detected in the general population by 50 percent.
- Protecting workers exposed to pesticides by maintaining or improving upon the current low incident rate.
- Achieving a 50 percent reduction in moderate to severe incidents for 6 acutely toxic pesticides.
- Reducing the percent of urban watersheds that exceed National Pesticide Program aquatic life benchmarks for three key pesticides and reducing the percent of agricultural watersheds that exceed EPA aquatic life benchmarks for two key pesticides.

In addition, the Pesticide Program's success in ensuring that safe pesticides continue to be available to address emergency pest infestations results in avoiding \$1.5 billion in crop losses and \$900 million in termite structural damage each year.

EPA's Pesticide Registration Program licenses pesticides for use, ensuring they present a reasonable certainty of no harm to human health and the environment. The 1996 Food Quality Protection Act (FQPA) required EPA to make determinations about the reregistration of existing pesticides and review the registrations of thousands of pesticide end-use products. Subsequently, the Pesticide Registration Improvement Act (PRIA) mandated that the Agency complete reregistration of all food-use pesticides as it completed their tolerance reassessments. Reregistering food-use pesticides meant not only that EPA reassessed their tolerances, but also evaluated the safety of those pesticides for workers and the environment. During FY 2007, EPA made progress in reviewing and registering new pesticides, new uses for existing pesticides, and other registration requests in accordance with FQPA standards and Pesticide Registration Improvement Act timeframes. In completing these actions, EPA gave special consideration to susceptible populations, especially children. Specific accomplishments included:

- Completed a cumulative 95.4 percent of Registration Eligibility Decisions. EPA did not meet its target for the year due to the extension of the comment period for the fumigants into FY 2008.
- Completed 962 Product Reregistrations and slightly exceeded its target.
- Registered 14 reduced-risk chemicals and biopesticides, 16 new active ingredients, and 233 new uses.

Implementing the Endocrine Disruptor Screening Program

EPA is implementing its Endocrine Disruptor Screening Program (EDSP) in three major parts: (1) assay validation, (2) priority setting and chemical selection, and (3) development of policies and procedures for testing. In FY 2007, the EDSP initiated EPA

peer review of three Tier 1 assays (four more peer reviews will begin before end of calendar year). The cumulative number of assays validated in FY 2007 is 3/20 . EDSP continues to experience scientific uncertainties associated with assay development and the validation of process. This can affect timing for completion of assay validation.

EDSP's priority setting activities in FY 2007 included implementation of the priority-setting methodology described in the September 2005 Federal Register notice, and publication of a draft list of 73 chemicals to undergo initial screening in a June 2007 Federal Register Notice.

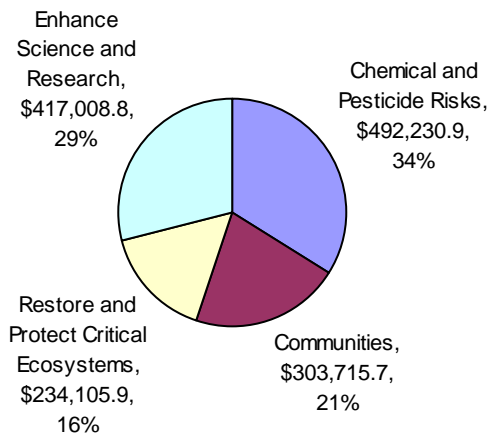
In terms of the third component, EPA has prepared draft implementation policies, an Information Collection Request, and 408(p) orders in anticipation of issuing a Federal Register notice.

Additional Information Related to Objective 1	
Grants:	<ul style="list-style-type: none"> • Pesticide Implementation grants, largely delegated to states and tribes, help implement pesticide use decisions. These grant resources assist states and tribes in developing pesticide certification and training worker protection programs, conducting endangered species activities, and promoting environmental stewardship. • Lead Categorical Grants contribute significantly to reductions in the incidence of childhood lead poisoning. They are used primarily to support state and EPA direct implementation of the TSCA Section 404(g) lead-based paint professionals certification and training program, grants to reduce lead risks on tribal lands, and two programs targeting populations of children deemed most at risk of exposure to lead-based paint. By the end of FY 2007, state and EPA processing of lead-based paint certifications resulted in a cumulative total of 31,000 estimated certified lead-based paint professionals nationwide.
PART:	<ul style="list-style-type: none"> • The Pesticides Registration Program underwent PART review in 2002 and the Pesticides Reregistration program underwent PART review most recently in 2004. Both programs received ratings of "Adequate." • The Pesticides Field Program underwent PART in 2004 and received a rating of "Results Not Demonstrated." • EPA's Existing Chemicals Program underwent PART review in 2002 and received a rating of "Results Not Demonstrated." It was reassessed in 2003 and received an "Adequate" rating.

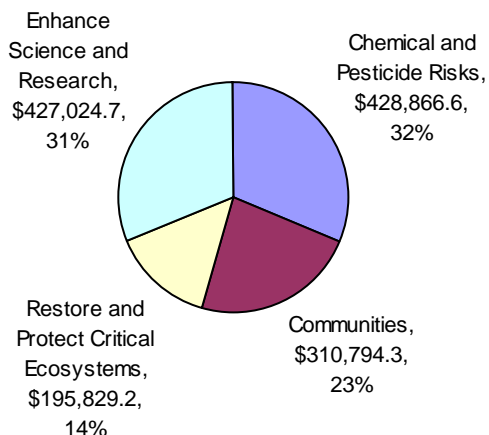
	<ul style="list-style-type: none"> EPA's New Chemicals Program underwent PART review in 2002 and initially received a rating of "Adequate." It was then reassessed in 2003 and received a "Moderately Effective" rating. The Existing and New Chemicals Programs were combined and reassessed in 2007 as the Chemical Risk Review and Reduction Program, which received a "Moderately Effective" rating. In 2007, the Agency developed a cost-efficiency measure for management of the TSCA 8(e) Hazard Notification process which tracks the percent reduction from the baseline year in the average cost of conducting TSCA 8(e) processing and searches. A second efficiency measure tracks the percentage reduction in cost of managing Pre-Manufacture Notice submissions through the focus meeting as a percentage of baseline year cost.
Web Links:	<ul style="list-style-type: none"> EPA's chemical risk reduction programs collectively act to assess, reduce and prevent risks to human health and the environment posed by new and existing chemicals. Additional program information can be found at http://www.epa.gov/oppt/, - Pollution, Prevention and Toxics http://www.epa.gov/oppt/newchems/, - TSCA New Chemicals http://www.epa.gov/oppt/chemtest/, - Chemical Information Collection http://www.epa.gov/oppt/lead/, - Lead Program http://www.epa.gov/lead/pubs/traincert.htm. - Info on Lead Professionals The pesticide programs protect human health and the environment by implementing our statutes and regulatory actions. Through these actions, EPA ensures that pesticides continue to be safe and available when used in accordance with the label and that we realize the benefits of pesticide use. For additional information, visit the following websites: Pesticides main page: http://www.epa.gov/pesticides/ Pesticide Registration: http://www.epa.gov/pesticides/regulating/registering/index.htm Registration Review: http://www.epa.gov/oppsrrd1/registration_review/ Status of Registrations: http://www.epa.gov/pesticides/reregistration/status.htm Pesticides Fact Sheets: http://www.epa.gov/pesticides/factsheets/index.htm The following website provides information about EPA's Endocrine Disruptor Screening Program: http://www.epa.gov/scipoly/oscpendo/index.htm

Objective 2: Communities

FY 2007 Obligations:
Goal 4, Objective 2
(in thousands)



FY 2007 Expenditures:
Goal 4, Objective 2
(in thousands)



FY 2007 Resources for Program Projects Supporting this Objective*

Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.

**Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding.*

Goal 4: Objective 2 - Communities

Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Brownfields	\$49,267.2	\$54,696.5
Brownfields	\$16,717.8	\$34,337.4
Commission for Environmental Cooperation	\$3,855.6	\$3,279.3
Congressionally Mandated Projects	\$492.5	\$1,178.0
Environment and Trade	\$3,860.0	\$1,966.9
Environmental Justice	\$7,468.2	\$6,177.5
Geographic Program: Other	\$3,590.2	\$1,766.1
Homeland Security: Communication and Information	\$157.7	\$65.7
Homeland Security: Protection of EPA Personnel and Infrastructure	\$326.0	\$487.3

Brownfields Projects	\$115,480.9	\$70,851.4
Infrastructure Assistance: Mexico Border	\$53,967.2	\$87,556.1
POPs Implementation	\$1,698.6	\$2,347.6
Regulatory Innovation	\$3,175.8	\$2,983.5
US Mexico Border	\$5,727.9	\$5,471.8
Administrative Law	\$85.6	\$81.5
Alternative Dispute Resolution	\$22.6	\$18.0
Central Planning, Budgeting, and Finance	\$2,092.1	\$2,021.8
Children and other Sensitive Populations	(\$57.0)	\$1,882.4
Civil Rights / Title VI Compliance	\$181.6	\$175.5
Congressional, Intergovernmental, External Relations	\$858.0	\$855.4
Exchange Network	\$588.7	\$344.8
Facilities Infrastructure and Operations	\$10,041.7	\$9,363.6
Acquisition Management	\$673.6	\$593.5
Human Resources Management	\$799.3	\$764.0
Information Security	\$84.1	\$82.9
IT / Data Management	\$6,130.9	\$5,206.6
Legal Advice: Environmental Program	\$775.2	\$771.2
Legal Advice: Support Program	\$246.4	\$238.7
Audits, Evaluations, and Investigations	\$2,312.4	\$2,433.8
Regional Geographic Initiatives	\$6,281.4	\$6,424.8
Regional Science and Technology	\$58.2	\$55.2
Science Advisory Board	\$82.9	\$77.7
Small Minority Business Assistance	\$40.8	\$34.2
Financial Assistance Grants / IAG Management	\$1,352.5	\$1,372.9
Children and Other Sensitive Populations: Agency Coordination	\$4,978.9	\$4,540.4
Regulatory/Economic-Management and Analysis	\$300.1	\$290.3
Total	\$303,715.6	\$310,794.3

Brownfields

Brownfields are real properties where expansion, redevelopment, or reuse may be complicated by the presence or potential presence of hazardous substances, pollutants, or contaminants. EPA's Brownfields and Land Revitalization Program works in partnership with states, tribes, localities, and other external stakeholders, as well as with other EPA cleanup programs, to promote the assessment, cleanup and sustainable reuse of Brownfields and other contaminated properties..

While complete FY 2007 performance information will not be available until May 2008 due to grantee reporting schedules, EPA is on track to achieve its Brownfields performance goals. FY 2006 results now available show that the program achieved its FY 2006 performance goals, assessing 2,139 properties, cleaning up 88 properties, and leveraging 5,504 jobs and \$1.4 billion in cleanup and redevelopment funds. In addition, the Agency made 1,598³⁶ acres ready for reuse through site assessment or property

cleanup. We expanded the definition of “ready for reuse” to include certification that any required institutional controls are in place.

During FY 2007, the program modernized its information collection by implementing a web-based system for electronically reporting environmental accomplishments for all grants awarded under the Brownfields law since FY 2003. The program conducted three outreach workshops to encourage small and mid-sized lenders to invest in cleanup and redevelopment projects, and it provided training and technical assistance to increase nonprofit organizations’ capacity to conduct cleanup and revitalization activities. The Agency developed and supported the use of long-term stewardship and land use controls tracking tools, such as the “land use control web ring” to ensure public access to site information.

International Efforts

To meet many of our domestic environmental protection goals, we must address international sources of pollutants. In April 2007 the United States and India signed a memorandum of understanding renewing their commitment to work cooperatively on environmental issues. The agreement between EPA and the Indian Minister of Environment and Forests focuses on four priorities: air quality, water quality, toxic chemicals and waste, and the management of environmental agencies. Also, EPA assisted Russia and other countries of the former Soviet Union in reducing or avoiding emissions of more than 130,000 tons of particulate matter (PM) and more than 10 million tons of CO₂-eq—primarily at coal-fired power plants—in FY 2007. The reduction amounted to more than 5-7 percent of PM emissions from Russia’s power generation sector that are reported officially.

Even in the remote Arctic, industrial chemicals such as polychlorinated biphenyls (PCBs) are found in the tissues of local wildlife. As a result of EPA’s efforts since 2003, more than 3,196 tons of obsolete pesticides have been inventoried and placed into safe storage in 10 Arctic and sub-Arctic regions of Russia. These include 66 tons of mercury-containing pesticides, more than 313 tons of persistent organic pollutants (POPs) containing pesticides, and 1,500 tons of POPs and mercury mixes. Safely storing these pesticides reduces releases to the environment and helps prevent exposing more than 17 million people residing in these ten regions to these harmful chemicals.

Environmental Justice

In FY 2007, EPA’s environmental justice program developed a new tool and method for identifying areas of potential environmental and public health issues of concern to low-income, minority, and tribal communities. Initially, EPA’s Office of Enforcement and Compliance Assistance will use the Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT), a consistent methodology, as a screening tool for identifying areas with potential environmental justice concerns.

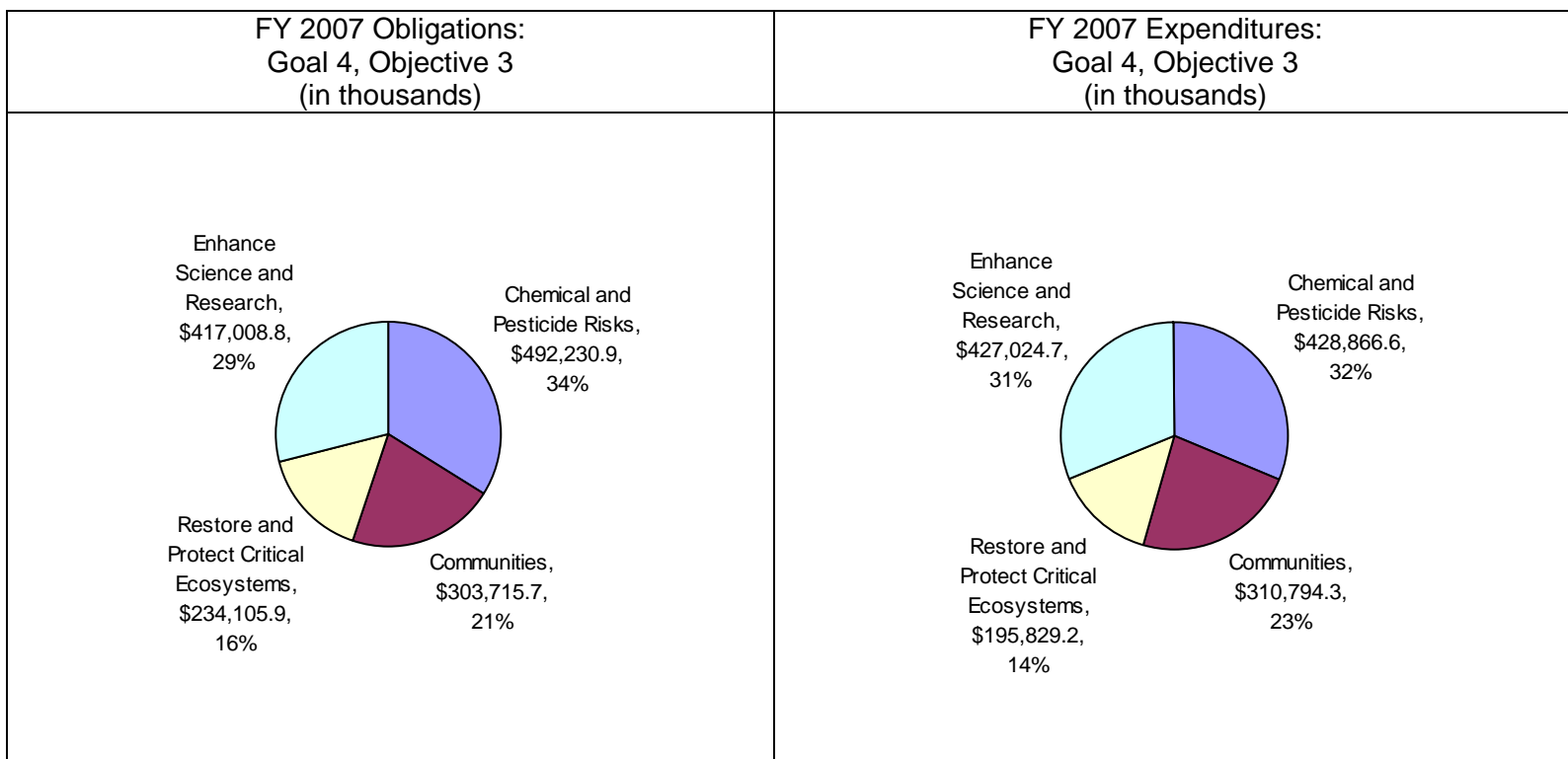
The Agency also began developing processes for assessing its effectiveness in addressing environmental justice concerns and identifying opportunities for improving its environmental justice program. An Agency-wide workgroup is leading “Environmental Justice Reviews” and creating protocols for reviewing the programs, policies, and

activities affiliated with EPA's primary functions: standards setting, rulemaking/regulatory development, enforcement and compliance, cleanup and remediation, and permitting. The Agency expects to complete developing the protocols and begin conducting Environmental Justice Reviews by early 2008.

Additional Information Related to Objective 2	
Grants:	<ul style="list-style-type: none"> • Grants provided to the Border Environment Cooperation Commission and the North American Development Bank support development of water infrastructure. In FY 2007, the U.S.-Mexico Border program received an appropriation totally \$50 million. Eleven new projects were certified in FY 2007 to begin construction while existing projects continued to make progress in providing safe drinking water and sanitation to citizens on the border. • In FY 2007, EPA selected 188 Brownfields Assessment Grants for inventory, planning, and assessment activities. EPA selected 90 Brownfields Cleanup Grants for work at identified properties. In addition, 13 grants were selected to capitalize revolving loan funds that provide loans and subgrants for property cleanup; 12 grants were awarded to establish environmental job training programs in communities impacted by Brownfields. EPA awarded nearly \$50 million in grant funding to states and tribes to establish and enhance response programs. • In 2007 EPA, in concert with the international mercury reduction efforts of the Mercury Partnership (Canada, Norway, the United States, and the World Chlorine Council made up of 27 countries), achieved an additional 533 kg mercury reduction at chlor-alkali production facilities in Russia.
PART:	<ul style="list-style-type: none"> • The U.S.-Mexico Border Water Infrastructure Program was assessed in the 2004 PART process and received a rating of "Adequate." As a result of the PART review, the program is conducting follow-up actions which include developing baselines and targets for its long-term and efficiency measures. • The Brownfields Program was assessed in the 2003 PART process and received a rating of "Adequate." As a result of the PART process, the program is implementing new performance measures, has modernized its information

	collection infrastructure, and has conducted regional program reviews.
Web Links:	U.S. Mexico Border Program: http://www.epa.gov/border2012/ Brownfields Information: http://www.epa.gov/brownfields

Objective 3: Ecosystems



FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding.</i>		
Goal 4: Objective 3 - Restore and Protect Critical Ecosystems		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Wetlands	\$16,082.5	\$18,092.7

Program Development		
Categorical Grant: Targeted Watersheds	\$4,578.6	\$12,149.0
Congressionally Mandated Projects	\$2,131.4	\$9,446.3
Geographic Program: Chesapeake Bay	\$20,094.9	\$23,698.2
Geographic Program: Great Lakes	\$24,212.4	\$20,491.6
Geographic Program: Gulf of Mexico	\$4,373.0	\$3,777.3
Geographic Program: Lake Champlain	\$995.5	\$2,027.4
Geographic Program: Long Island Sound	\$1,326.0	\$3,118.3
Geographic Program: Other	\$6,140.0	\$5,252.3
Great Lakes Legacy Act	\$44,072.1	\$22,923.4
Homeland Security: Communication and Information	\$205.6	\$85.1
Homeland Security: Protection of EPA Personnel and Infrastructure	\$173.8	\$253.7
National Estuary Program / Coastal Waterways	\$20,744.7	\$24,860.7
Wetlands	\$60,666.8	\$22,431.4
Administrative Law	\$109.7	\$104.5
Alternative Dispute Resolution	\$26.7	\$21.7
Central Planning, Budgeting, and Finance	\$5,538.0	\$5,395.5
Civil Rights / Title VI Compliance	\$276.5	\$268.4
Congressional, Intergovernmental, External Relations	\$1,282.7	\$1,276.8
Exchange Network	\$763.4	\$452.9
Facilities Infrastructure and Operations	\$10,765.3	\$10,225.2
Acquisition Management	\$351.6	\$341.6
Human Resources Management	\$688.0	\$678.9
Information Security	\$47.3	\$46.7
IT / Data Management	\$4,570.9	\$3,929.7
Legal Advice: Environmental Program	\$1,023.7	\$1,019.9
Legal Advice: Support Program	\$305.1	\$297.3
Audits, Evaluations, and Investigations	\$1,345.4	\$1,434.4
Regional Geographic Initiatives	(\$99.1)	\$420.1
Regional Science and Technology	\$90.0	\$81.2
Science Advisory Board	\$106.3	\$99.6
Small Minority Business Assistance	\$52.3	\$43.8
Financial Assistance Grants / IAG	\$679.9	\$711.4

Management		
Regulatory/Economic- Management and Analysis	\$384.9	\$372.3
Total	\$234,105.9	\$195,829.3

In 2007, the cooperative efforts of EPA, states, tribes, and other stakeholders contributed to continued restoration and protection of important ecosystems throughout the country, which resulted in some key successes:

Wetlands

According to the 2006 National Wetlands Inventory Status and Trends Report, wetlands gains continued to exceed wetlands losses in the United States from 1998 through 2004 at a rate of 32,000 acres per year. This is an improving trend we expect will continue. We anticipate that the next Status and Trends Report, due out in 2011, will show a continuation of upward trends, and show that we actually met our targets in 2007 and beyond.

National Estuary Program

During its 20th year, the National Estuary Program (NEP) in FY 2007 continued to implement effective and innovative management solutions for the benefit and protection of water quality and living resources in some of the nation's most important estuaries. In particular, the NEPs and their partners protected and restored approximately 102,463 acres of habitat and leveraged nearly \$12 for every \$1 of EPA funding.

Great Lakes

Improvements in the Great Lakes Index score indicate that fewer toxins are entering the food chain, ecosystem and human health are better protected, fish are safer to eat, water is safer to drink, and beaches are safer for swimming. From a baseline score of 20, EPA's Great Lakes Index target score of 22.7 out of a possible 40 indicates long-term progress in improving the condition of the Great Lakes ecosystem. The Great Lakes Index uses assessments of the condition of select 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) to assess the overall condition of the Great Lakes. The most recent improvement in the index is a specific result of fewer beach closures being reported in 2006, a year in which there were more beaches in the program and in which bacterial source elimination is occurring at individual beaches.

The results of analyses reported in 2007 indicated that average long-term total Polychlorinated Biphenyls (PCB) concentrations in top predator fish at sites on each Great Lake declined more than 5 percent annually between 1991 and 2005, meeting the target for declines in concentration trends. Atmospheric deposition has been shown to be a significant source of pollutants to the Great Lakes. Average long-term

concentrations of PCBs in U.S. air measured at stations on Lakes Superior, Michigan, and Erie decreased more than 7 percent annually, meeting the targeted commitment.

Data for 2006, which became available in FY 2007, reported the remediation of more than 400,000 cubic yards of contaminated sediments through the combined efforts of EPA, states, and other partners and the initiation of the fourth and fifth Great Lakes Legacy Act projects. Having remediated nearly 4.5 million cubic yards of contaminated sediments through 2006, EPA and its partners have already substantially exceeded the 2008 goal of remediating 3.3 million cubic yards of contaminated sediments.

EPA achieved its Area of Concern target for FY 2007 (cumulative delisting of 1 Area of Concern) through delisting the Oswego Area of Concern in FY 2006. A de-listing indicates that the area now meets the public's vision for that area and that it is no longer among the most polluted areas in the Great Lakes. GLNPO and its partners continue to make progress in de-listings by focusing on removing individual beneficial use impairments at Areas of Concern. In FY 2007, U.S. EPA-GLNPO, in concert with our federal, state and local partners, successfully removed three beneficial use impairments:

- November 16, 2006: Manistique River, Michigan AOC—Degradation of Benthos
- April 17, 2007: Presque Isle Bay, Pennsylvania AOC—Restrictions on Dredging
- May 9, 2007: Torch Lake, Michigan AOC—Fish Tumors and other Deformities

Phosphorus is the limiting nutrient in the Great Lakes that controls algae growth. Elevated phosphorus concentrations are linked to the increased “dead zone,” or zone of limited dissolved oxygen. In recent years, Lake Erie exceeded phosphorus guideline levels, particularly in its central basin, which is most representative of the Lake’s anoxia problems. FY 2006 data now available indicate that the targeted concentration level was not met. Exploration of this problem, identified by GLNPO, is being augmented by work with the National Oceanic and Atmospheric Administration (NOAA) and Environment Canada.

Chesapeake Bay

Since 1985, Chesapeake Bay Program partners have achieved nearly three-quarters of the wastewater nitrogen reduction goal and more than four-fifths of the wastewater phosphorus reduction goal, accounting for a large portion of the estimated nutrient reductions in the Chesapeake Bay watershed to date. However, as the population in the Chesapeake watershed continues to grow (an estimated 170,000 annually since 2000), the volume of waste requiring treatment grows. To keep pace with the growing population and meet Bay restoration goals, Bay jurisdictions are implementing a new permitting approach that requires hundreds of wastewater treatment plants to install a new generation of nutrient reduction technology equipment.

Additionally, the Bay-wide acreage of underwater grasses decreased by 25 percent in 2006 to the lowest total acreage figure since 1989. This decline was largely due to higher than normal water temperatures in the middle and lower Bay and poor water clarity throughout the Bay, due to excessive amounts of nitrogen, phosphorus, and sediment. EPA is working with federal and state Chesapeake Bay Program partners to implement pollution reduction strategies to restore Bay health.

Gulf of Mexico

In FY 2007, the Gulf of Mexico Program in partnership with NOAA, the U.S. Geological Survey, and the National Aeronautics and Space Administration is supporting a binational partnership to expand the Harmful Algal Blooms Observing System (HABSOS) into the State of Veracruz, Mexico. This state-of-the-art technology provides timely access to data and information via satellite for detecting, tracking and forecasting harmful algal bloom events and their effects on public health and natural resources. Opportunities are being explored for expanding the network established in Veracruz to other Mexican Gulf States.

The Gulf Program exceeded its strategic target to restore, protect, or enhance coastal and marine habitats in FY 2007, achieving 18,660 acres toward the 2009 goal of 20,000 acres, and putting the program well ahead of its FY 2007 goal of 15,800 acres. Additionally, with the support of numerous federal, state, local, and private partners, the Gulf Program achieved a reduction of 62 in impaired waterbody listings in the 13 priority areas of the Gulf of Mexico, exceeding the target of 56.

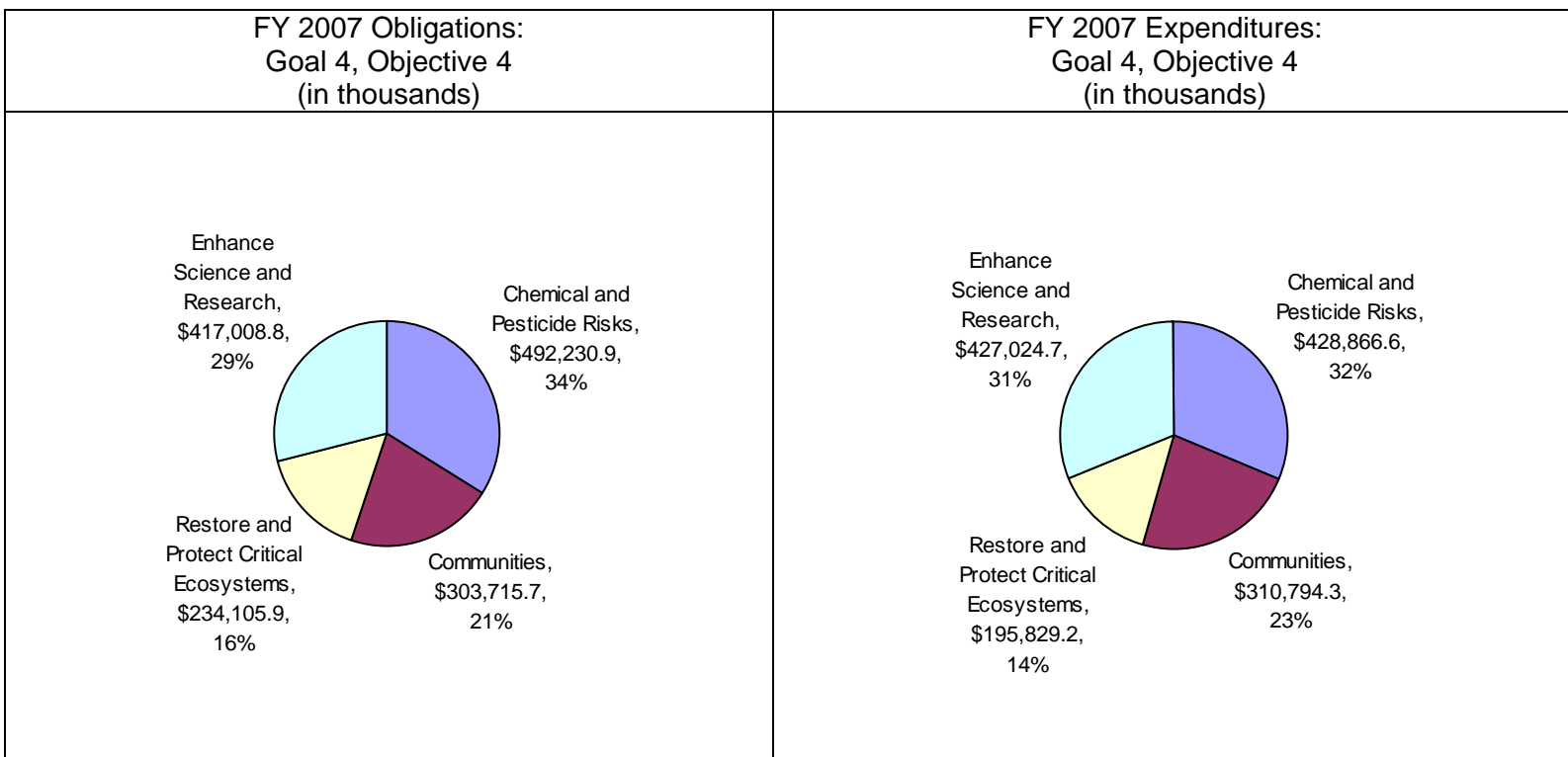
An important role for the Gulf Program in 2007 was co-leading with NOAA a federal workgroup of 13 agencies to help Gulf States identify and implement priority actions included in the Governors' Action Plan released by the five Gulf state governors in March 2006. These priority actions addressed such issues as water quality, wetland conservation, and environmental education. Work on more than 90 percent of the 73 actions is in progress or has been completed in the 18 months since the release of the Action Plan.

Additional Information Related to Objective 3	
Program Evaluations:	<ul style="list-style-type: none">• Federal Facilities in Chesapeake Bay Watershed Generally Comply With Major Clean Water Act Permits, September 5, 2007, 2007-P-00032 http://www.epa.gov/oig/reports/2007/20070905-2007-P-00032.pdf• EPA Relying on Existing Clean Air Act Requirements to Reduce Air Deposition to the Chesapeake Bay and Its Watershed, February 28, 2007, 2007-P-00009 http://www.epa.gov/oig/reports/2007/20070228-2007-P-00009.pdf• Saving the Chesapeake Bay Watershed Requires Better Coordination of Environmental and Agricultural Resources, November 20, 2006, 2007-P-00004 http://www.epa.gov/oig/reports/2007/20061120-2007-P-

	<p>00004.pdf</p> <ul style="list-style-type: none"> • Development Growth Outpacing Progress in Watershed Efforts to Restore the Chesapeake Bay, September 10, 2007, 2007-P-00031 http://www.epa.gov/oig/reports/2007/20070910-2007-P-00031.pdf. • Taking Environmental Protection to the Next Level: An Assessment of the U.S. Environmental Services Delivery System, National Academy of Public Administration, April 2007 www.napawash.org • Great Lakes. EPA and States Have Made Progress Implementing the BEACH Act, but Additional Actions Could Improve Public Health Protection, GAO-07-591, May 1, 2007. http://www.gao.gov/new.items/d07591.pdf
Grants:	<ul style="list-style-type: none"> • 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. • Wetland Program Development Grants (WPDGs) are critical for building state, tribal, and local government capacity to protect and manage wetlands. Established in 1990, the WPDG program provides funds to states, tribes, and local governments to develop programs that increase their participation in wetland restoration, improvement, and protection activities. • The Great Lakes National Program Office issues state and tribal grants for Lake-wide Management Plans and Remedial Action Plans (addressing Areas of Concern). The program issues competitive grants addressing Pollution Prevention and Reduction, Habitat (Ecological) Protection and Restoration, Invasive Species, and Strategic or Emerging Issues, Atmospheric Deposition, Fish Contaminants, and Biology. The program also addresses contaminated sediments through grants and through project agreements pursuant to the Great Lakes Legacy Act. • CWA Section 117(e) grants fund the full range of state water quality nutrient reduction programs in the Chesapeake Bay watershed. In particular, the grants emphasize state tributary strategies to improve water quality and help meet the goals of the Chesapeake 2000 agreement.

	<ul style="list-style-type: none"> 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.
PART:	<ul style="list-style-type: none"> The Great Lakes National Program was assessed in the 2007 PART process and received a rating of “adequate.” As a result of the PART review, the program is conducting follow-up actions which include determining options for ensuring that other remediation programs, such as Superfund, consider Great Lakes water quality goals and developing a set of recommendations for improving ways the program targets funding and coordinates with other federal programs. The Chesapeake Bay Program was assessed in the 2006 PART process and received a rating of “moderately effective.” As a result of the PART review, the program is conducting follow up actions which include investigating potential methods to better characterize the uncertainty of water quality models, developing a comprehensive implementation strategy, and promoting and tracking implementation of the most cost effective restoration activities to maximize water quality improvements
Web Links:	<p>Great Lakes National Program Office: http://www.epa.gov/glnpo/</p> <p>Chesapeake Bay Grants: http://www.epa.gov/region03/chesapeake/grants.htm</p> <p>Sediment White Paper: http://www.ijc.org/php/publications/html/sedrem.html</p>

Objective 4: Enhance Science and Research



FY 2007 Resources for Program Projects Supporting this Objective*		
<i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i>		
<i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding.</i>		
Goal 4: Objective 4 - Enhance Science and Research		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Congressionally Mandated Projects	\$349.2	\$10,170.5
Homeland Security: Communication and Information	\$722.6	\$299.0
Homeland Security: Preparedness, Response, and Recovery	\$35,111.2	\$34,519.4
Homeland Security: Protection of EPA Personnel and Infrastructure	\$1,922.6	\$2,953.7
Human Health Risk Assessment	\$39,415.2	\$39,271.3
Research: Computational Toxicology	\$12,424.8	\$11,999.6
Research: Endocrine Disruptor	\$10,609.4	\$12,078.3
Research: Global Change	\$20,317.3	\$19,183.1
Research: Human Health and	\$169,831.5	\$175,731.2

Ecosystems		
Research: Pesticides and Toxics	\$29,949.8	\$29,280.9
Research: Fellowships	\$11,982.4	\$14,336.3
Administrative Law	\$385.7	\$367.3
Alternative Dispute Resolution	\$94.0	\$76.2
Central Planning, Budgeting, and Finance	\$7,925.5	\$7,614.6
Civil Rights / Title VI Compliance	\$533.2	\$512.7
Congressional, Intergovernmental, External Relations	\$1,908.3	\$1,873.4
Exchange Network	\$2,674.7	\$1,592.8
Facilities Infrastructure and Operations	\$17,797.2	\$18,098.5
Acquisition Management	\$3,688.9	\$3,506.0
Human Resources Management	\$5,341.5	\$5,445.1
Information Security	\$754.8	\$878.0
IT / Data Management	\$31,341.6	\$25,186.3
Legal Advice: Environmental Program	\$3,654.3	\$3,602.4
Legal Advice: Support Program	\$1,268.6	\$1,214.8
Audits, Evaluations, and Investigations	\$2,521.0	\$2,687.8
Regional Science and Technology	\$106.5	\$104.8
Science Advisory Board	\$373.7	\$350.1
Small Minority Business Assistance	\$184.0	\$154.0
Financial Assistance Grants / IAG Management	\$2,466.7	\$2,628.2
Regulatory/Economic-Management and Analysis	\$1,352.6	\$1,308.4
Total	\$417,008.8	\$427,024.7

EPA continues to conduct leading-edge research to provide a sound scientific foundation for its work in protecting, sustaining, and restoring the health of people, communities, and ecosystems.

Human Health Research

In 2007, research under EPA's Human Health Research Program led to a more systematic understanding of the physical, chemical, and biological processes that determine how environmental pollutants can affect humans. In 2007, EPA published the comprehensive synthesis report, *Important Exposure Factors for Children: An Analysis of Laboratory and Observational Field Data Characterizing Cumulative Exposure to Pesticides*³⁷, a critical tool in improving future assessments of children's exposures to environmental contaminants and in minimizing risks that pesticide use poses to children.

Ecological Research

EPA's Ecological Research Program also continues to develop tools and protocols for EPA program offices, states, tribes, and other customers to improve their understanding and management of ecosystems. Examples of new tools that have been recently developed and applied by clients include:

- *“DNA barcodes” that more accurately and efficiently identify aquatic invasive species.* This tool was recently used by scientists to confirm a new invasive species in the Duluth-Superior Harbor. If left undetected, this species could have posed a serious threat to the harbor and to Lake Superior.
- *Regionalized “individual -based” modeling methods that examine how salmon are affected over large areas by multiple, interacting stressors such as high stream temperature, increased turbidity, and loss of pool habitat.* The Forest Service is using this model to examine fire management strategies and their effect on salmon; additionally, the interstate, interagency Gila-San Francisco Coordinating Committee has reviewed the model for use in assessing the impacts of a potential new water diversion on two endangered desert minnow species.
- *An ecological classification of rivers for regional risk assessment that describes all river reaches and their associated drainages and riparian buffers across Illinois, Michigan, and Wisconsin.* State agencies including Illinois Department of Natural Resources, Illinois EPA, Illinois Natural Areas Program, Michigan DNR, Michigan Department of Environmental Quality, Michigan Natural Features Inventory, and Wisconsin DNR are using the framework to identify conservation and bioassessment reference reaches, establish nutrient and other water quality standards, establish water withdrawal standards, and write state Wildlife Conservation Action Plans. In addition, the draft framework is being used by USGS, Water Division for a Great Lakes Basin water availability assessment, and by USGS, Biological Resource Discipline as the basis for the Great Lakes Regional Aquatic General Assistance Program conservation planning program.

Global Change Research

EPA’s Global Change Research Program continues to enhance the understanding of potential impacts of climate variability and change on the environment. The program recently developed a Climate Assessment Tool to help water resource managers address the high sensitivity of water resources and aquatic ecosystems to changes in climate. This tool is incorporated into EPA’s watershed management program, BASINS (Better Assessment Science Integrating Point and Nonpoint Sources) and allows managers to meet future demands for water and water quality regulations by considering changes in the risk of floods and droughts, river channel stability, water quality, and wildlife habitats due to climate change. EPA research also contributed to an evaluation of the effect of climate change on air quality through the application of an air quality model under various climate scenarios.

Safe Pesticides/ Safe Products Research

Safe Pesticides/ Safe Products (SP2) Research Program provides the scientific information needed to reduce or prevent unreasonable risks from exposures to pesticides, toxic chemicals, and products of biotechnology. In FY 2007, the program supported the Agency’s risk assessment, enforceable consent agreement, and stewardship activities regarding Perfluorooctanoic Acid (PFOA) and other perfluorinated compounds (PFCs). It also worked on the methods for characterizing PFCs in selected environmental and biological media, and the potential for selected PFCs to degrade to

PFOA.³⁸ These client-oriented outputs feed into the program's measures, which relate to 1) completing planned annual outputs on time, 2) demonstrating improvements in bibliometric analysis results, and 3) making improvements in independent panel review ratings of overall progress. In 2007, the program completed the vast majority of its planned outputs on time, completing 86%, 100%, and 80% of the outputs toward its respective long-term goals. The program also established baselines for its long-term measures, receiving a rating of "exceeds expectations" on progress toward one long-term goal, and a rating of "meets expectations" on progress toward the other two. The program assesses its progress on its bibliometric analysis measures biannually, and will next assess progress in FY 2008.

The program also developed exposure tools for characterizing the fate and transport of pesticides from source waters, through drinking water treatment plants, to consumers, producing an advanced screening model for understanding pesticide transformation pathways under various treatment conditions. This research—along with companion risk management treatment research—is being used to update the existing drinking water treatment protocols as required by the Food Quality Protection Act.³⁹

Computational Toxicology Research

EPA's Computational Toxicology Research Program developed "ToxRefDB," a system using computers to study data on the toxicity and health effects of hundreds of pesticide chemicals that EPA has reviewed over the last 35 years. ToxRefDB allows scientists and regulators to review and analyze years of complicated data that were previously stored in paper files—sometimes for decades. Long forgotten data can now be used with new molecular data generated from the latest scientific studies to better understand the effects of these environmental chemicals. Additionally, EPA's new Distributed Structure-Searchable Toxicity (DSSTox) Database Network has helped to build a data foundation for public use to improve the study and understanding of toxicity and possible adverse effects of chemicals.

Endocrine Disruptors Research

EPA's Endocrine Disruptors Research Program provides the scientific information necessary to reduce or prevent unreasonable risks from exposures to endocrine disrupting chemicals. In FY 2007, EPA research demonstrated that chemicals like those that are detected in municipal wastewaters can affect wild fish reproduction and population sustainability.⁴⁰ The completion of this important research-- along with the program's other planned research-- allowed the program to meet several of its annual targets for FY 2007. The program annually assesses its progress in completing improved protocols for screening and testing, effects and exposure milestones, assessment milestones, and risk management milestones. Due to revisions of the program's Multi-Year Plan, some of the work targeted for completion in FY 2007 was shifted to other EPA research programs, and therefore was not met. However, the program exceeded its target for effects and exposure milestones, completing an extra milestone in FY 2007.

Human Health Risk Assessment

The peer-reviewed products of EPA's Human Health Risk Assessment are used extensively by EPA programs, regions, and other parties to support current regulatory standards and to manage environmental cleanups. In FY 2007, EPA delivered 16 IRIS assessments to interagency review: Tetrahydrofuran; Beryllium; Acrylamide; Propionaldehyde; 1,2,3-Trichloropropane; Mirex; 2-Hexanone; Cerium; Kepone; cis-1,2-Dichloroethylene; trans-1,2-Dichloroethylene; Carbon tetrachloride; Thallium; Pentachlorophenol; Trichloroacetic acid; and Ethylene glycol monobutyl ether. EPA also completed 51 new or revised Provisional Peer Reviewed Toxicity Values (PPRTVs).

EPA posted 2 final IRIS health assessment documents in FY 2007, half of the goal of 4 final assessments: 1,1,1-Trichloroethane and Trimethylpentane. The total number of IRIS assessments delivered and finalized are an increase over FY 2006 and EPA continues working with OMB to identify more meaningful performance targets based on the relative priority and expected impact of the assessments. In addition to IRIS, EPA completed the Lead Air Quality Criteria Document in support of EPA National Ambient Air Quality Standards regulatory decision making, and submitted for Clean Air Scientific Advisory Committee review an Integrated Science Assessment for Oxides of Nitrogen and Integrated Science Assessment for Oxides of Sulfur.

Homeland Security

EPA's homeland security research efforts are providing decision-makers with critical tools to help protect human health and the environment in the event of a terrorist attack. In 2007, research conducted by EPA and the National Institute for Standards and Technology (NIST) resulted in the Building Retrofit Report and Cost-Benefit Software that provides building owners, managers, engineers, and architects with information about retrofit options that will protect against airborne hazards. The software also provides economic analysis tools to support informed, cost-effective risk management decisions. In addition, EPA developed "message maps"—science-based risk communication tools that enable quick and concise delivery of pertinent information during an emergency—for scenarios affecting drinking water systems. Scenarios include the injection of a disease agent into the water, damage to the distribution infrastructure, or a massive power failure. EPA produced a video to introduce stakeholders to the process of developing maps as part of their strategy for responding to terrorist threats and other disasters. And EPA prepared Version 3 of the Standard Analytical Methods Manual (SAM), which contains methods for laboratories to use when measuring specific contaminants potentially associated with a terrorist attack, evaluating the nature and extent of contamination, and assessing decontamination efficacy. Additional chemical methods were added to version 3 as well as methods for detection of pathogens, radionuclides and biotoxins. SAM has been incorporated into response plans and was used in response to a suspected water tampering incident in Region 1.

Additional Information Related to Objective 4	
Program Evaluations:	<ul style="list-style-type: none"> • In FY 2007, EPA's BOSC conducted a mid-cycle review of the Ecological Research Program. The resulting report is entitled <u>Mid-Cycle Review of the Office of Research and Development's Ecological Research Program at the Environmental Protection Agency.</u> • In FY 2007, the Global Change Research Program took action to address recommendations resulting from BOSC FY 2006 review: <u>Review of the Office of Research and Development's Global Change Research Program at the Environmental Protection Agency.</u> The program's response to the BOSC—along with a list of planned actions—can be found on the <u>BOSC Website.</u> • In FY 2007, the Fellowships Program took action to address recommendations resulting from BOSC FY 2006 review: <u>Review of the Office of Research and Development's Science To Achieve Results (STAR) and Greater Research Opportunities (GRO) Fellowship Programs at the U.S. Environmental Protection Agency.</u> The program's response to the BOSC can be found on the <u>BOSC Website.</u> • In FY 2007, BOSC conducted a mid-cycle review of the Human Health Research Program. The resulting report is entitled <u>Mid-Cycle Review of the Office of Research and Development's Human Health Research Program.</u> • In FY 2007, BOSC conducted a mid-cycle review of the Pesticides and Toxics Research Program. The resulting report is entitled <u>Mid-Cycle Review of the Office of Research and Development's Safe Pesticides/ Safe Products (SP2) Research Program.</u>
Grants:	<ul style="list-style-type: none"> • EPA grantee research⁴¹ led to an improved cumulative assessment of pesticides. This work has resulted in policy and procedural changes within local governments, grower associations, and produce shippers that will reduce the risks of exposures to multiple pesticides. (Supported by Grant Entitled: "Centers of Excellence in Children's Environmental Health and Disease Prevention Research and Centers for Children's Environmental Health and Disease Prevention Research.") • EPA grantee research^{42 43} has identified wide population variability in a gene that produces enzymes for detoxifying organophosphate pesticides; these results show that some people, especially young children, are more sensitive to the adverse health effects of these pesticides. (Supported by the Following Two Grants: (1) Centers of Excellence in Children's Environmental Health and Disease

	<p>Prevention Research, and (2) Centers for Children's Environmental Health and Disease Prevention Research.</p> <ul style="list-style-type: none"> • In 2007, EPA research grants supported Native American Tribes by conducting the science to determine potential risks unique to their populations because of their customs, occupations and lifestyles⁴⁴. (Supported by Grant Entitled "Lifestyles and Cultural Practices of Tribal Populations and Risks from Toxic Substances in the Environment.") • In 2007, an EPA-funded study of the Willamette River in Oregon found that restoration of the river's floodplain has the potential to cool thermal discharges to the river, as well as to create many other benefits such as flood control, increased aquatic habitat, and increased recreational opportunities⁴⁵. The researchers continue to work with local stakeholders to determine the pros and cons of alternative restoration options. (Supported by Grant Entitled "Harnessing the hydrologic disturbance regime: sustaining multiple benefits in large river floodplains in the Pacific Northwest. ") • EPA grantee findings indicate that global change will have significant impacts on air quality in the United States, including higher ozone concentrations.^{46 47 48} Consequently, EPA is working to incorporate global change impacts in the air quality management process. (Supported by the Following Four Grants: (1) "Modeling Heat and Air Quality Impacts of Changing Urban Land Uses and Climate," (2) "Development and Evaluation of a Methodology for Determining Air Pollution Emissions Relative to Geophysical and Societal Changes," (3) "Impacts of Global Climate and Emission Changes on U.S. Air Quality," and (4) "Application of a Unified Aerosol-Chemistry-Climate GCM to Understand the Effects of Changing Climate and Global Anthropogenic Emissions on U.S. Air Quality.")
PART:	<ul style="list-style-type: none"> • EPA's Ecological Research Program received a "Moderately Effective" rating on its most recent PART assessment, which was conducted in 2007 under the title Ecological Research. • EPA's Endocrine Disruptors Program received an "Adequate" rating on its 2004 PART review, which was conducted as a cross-Agency assessment under the title Endocrine Disruptors. As a result of the PART process, the program has articulated its R&D priorities to ensure compelling, merit-based justifications for funding allocations. Additionally, the Office of Prevention, Pesticides, and Toxics has compiled baseline data for its efficiency measure, and continues to collect data for comparison to its baseline. • EPA's Global Change Research Program received an "Adequate"

	<p>rating on its 2006 PART assessment, which was conducted under the title Global Change Research. As a result of the PART process, the program has (1) worked to finalize independent review-informed performance measures, (2) worked to clarify its framework and mission, (3) instituted an efficiency measure, and (4) worked to improve budget–performance integration.</p> <ul style="list-style-type: none"> • EPA’s Human Health Research Program received an “Adequate” rating on its 2005 PART assessment, which was conducted under the title Human Health Research. As a result of the PART process, the program has implemented all follow-up recommendations resulting from its 2005 BOSC review; established preliminary targets for its long-term measures based on BOSC mid-cycle review feedback; and worked to improve its budget and performance integration. • EPA’s Human Health Risk Assessment Program received a “Moderately Effective” rating on its 2006 PART assessment. As a result of the PART process, the program is currently (1) expanding its efficiency measures, (2) implementing a new IRIS review process, (3) investigating alternative approaches for measuring progress related to providing timely, high quality scientific assessments, and (4) instating regular independent program reviews. • EPA’s Pesticides and Toxics Research Program received a “Moderately Effective” rating on its 2007 PART assessment.
Web Links:	<p>Children's Research Center White Paper: http://yosemite.epa.gov/ochp/ochpweb.nsf/content/CEHRC_Findings.htm/\$file/CEHRC%20Findings.doc</p> <p>Wilamette Ecosystem Marketplace Development: http://www.mwvcog.org/WillamettePartnership/WillamEcoMarket.asp</p> <p>Human Health Research Program: http://www.epa.gov/hhrp/</p> <p>Climate Change Program: http://www.epa.gov/climatechange/index.html -</p> <p>Endocrine Disruptors Research Initiative: http://www.epa.gov/endocrine/</p> <p>National Center for Environmental Research: http://www.epa.gov/ncer/fellow</p> <p>Board of Scientific Counselors: http://www.epa.gov/osp/bosc/subcomm-hhra.htm</p>

GOAL 4: HEALTHY COMMUNITIES AND ECOSYSTEMS

Protect, sustain, or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

OBJECTIVE: 4.1: CHEMICAL AND PESTICIDE RISKS

By 2011, prevent and reduce pesticide and industrial chemical risks to humans, communities, and ecosystems.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
10	1	3	14

SUB-OBJECTIVE: 4.1.1: Reduce Chemical Risks

By 2011, prevent and reduce chemical risks to humans, communities, and ecosystems.

Strategic Target (1)

By 2011, eliminate or effectively manage risks associated with 100 percent of High Production Volume (HPV) chemicals for which unreasonable risks have been identified through EPA risk assessments.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percentage of HPV chemicals identified as priority concerns through assessment of Screening Information Data Sets (SIDS) and other information with risks eliminated or effectively managed.</i>					100	100	100	100	<i>Percent of HPV Chems.</i>
Baseline - The baseline for HPV measure is zero chemicals in 1998. EPA screening of data obtained through the HPV Challenge Program is commencing in 2006; actions to obtain additional information needed to assess risks will commence subsequently as chemicals are identified as priority concerns through the screening process.									

Strategic Target (2)

Through 2011, ensure that new chemicals introduced into commerce do not pose unreasonable risks to workers, consumers, or the environment.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percent of chemicals or organisms introduced into commerce that do not pose unreasonable risks to workers, consumers, or the environment.</i>			100	100	100	100	100	100	Percent
Baseline - The baseline for percent of chemicals or organisms introduced into commerce that do not pose unreasonable risks to workers, consumers, or the environment in 2004 and 2005 is 100%.									
Background - This measure analyzes previously reviewed PreManufacturing Notice chemical reviews with incoming 8(e) reports in the Toxic Substances Control Act (TSCA) on an annual basis. TSCA requires that chemical manufacturers, importers, processors and distributors notify EPA within 30 days of new information on chemicals that may lead to a conclusion of substantial risk to human health or the environment.									

Strategic Target (3)

By 2011, achieve a 31 percent cumulative reduction of chronic human health risk from environmental releases of industrial chemicals in commerce since 2001.

Strategic Target (4)

By 2010, eliminate childhood lead poisoning cases as a public health concern by reducing to zero the number of cases of children (aged 1-5 years) with elevated blood lead levels (>10ug/dl).

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Number of cases of children (aged 1-5 years) with elevated blood lead levels (>10ug/dl).	270,000	Data Avail. 2007	BiAnnual	BiAnnual	216,000	Data Avail. FY 2009	BiAnnual	BiAnnual	Children
Baseline - Data released by CDC from the National Health and Nutritional Evaluation Survey (NHANES) in May of 2005 estimated a population of 310,000 children aged 1 - 5 with lead poisoning (blood lead levels of 10 ug/dl or greater). EPA has incorporated into its Strategic Plan the federal government goal to eliminate childhood lead poisoning as a public health concern by 2010.									
Explanation - This performance measure is reported BiAnnually. FY 2004 results are currently being reviewed by CDC management.									

Strategic Target (5)

By 2010, reduce to 28 percent the percent difference in the geometric mean blood lead level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old.			BiAnnual	BiAnnual	29	Data Avail. FY 2009	BiAnnual	BiAnnual	Percent
Baseline - Baseline for percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old is 37% in 1991-1994.									
Explanation - This measure is reported BiAnnually.									

Strategic Target (6)

By 2011, through work with international partners, eliminate the use of lead in gasoline in the remaining 35 countries that still use lead as an additive, affecting over 700 million people.

Strategic Target (7)

By 2011, through work with international partners, over 3 billion people will have access to low-sulfur fuel in 10 countries, including China, India, Mexico and Brazil.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Safe Disposal of Transformers</i>	8000	7,015	5000	9,769	5,000	Data Avail FY 2007	N/A	N/A	Transformers
Explanation - Performance measure is no longer reported. Since the data is aggregated from facilities within the Regions, FY 2006 analysis is not expected to be completed until late Nov 2007.									
<i>Safe Disposal of Capacitors</i>	6,000	1,457	9000	1,323	9,000	Data Avail	N/A	N/A	Capacitors

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
						FY 2007			
Explanation - Performance measure is no longer reported. Since the data is aggregated from facilities within the Regions, FY06 analysis is not expected to be completed until late Nov 2007.									
Annual number of chemicals with proposed values for Acute Exposure Guidelines Levels (AEGL)	20	29	20	29	24	23	24	33	Chemicals
Baseline - In 2006, a total of 185 chemicals with proposed, interim or final AEGL Values were reported for the AEGL Program (cumulative count).									
Explanation - The FY 2007 target was exceeded through increased program efficiency in reviewing and presenting chemicals at international meetings and early FY 2007 action on chemicals delayed from action in FY 2006 while issues associated with use of human testing data were resolved Agency-wide.									
<i>Cumulative number of chemicals for which VCCEP data needs documents are issued by EPA in response to Industry sponsored Tier 1 risk assessments. (Indirectly supports Strategic Target 1)</i>					8	6	9	14	<i>Cumulative Number of Chemicals</i>
Baseline - Baseline for the VCCEP Program is 0 for FY 2003.									
Explanation - In FY 2007, OPPT was able to continue and complete work on data needs documents for VCCEP chemicals which were not ready to report at the end of FY 2006. Also, the program was able to group similar chemicals and issue one data needs document for each group increasing the total number of chemicals to 14.									
Reduction in the current year production-adjusted risk-based score of releases and transfers of toxic chemicals from manufacturing facilities. (Indirectly supports Strategic Target 2)	2.5	20	2.5	2.5	2.5	Data Avail. FY 2008	2.5	Data Avail. FY 2009	Percent Reduction in RSEI Risk
Baseline - Baseline for the Risk Screening Environmental Indicators Model Program is based on the cumulative reduction that was reported in 2002-2003 and is 6.6 percent.									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Explanation - RSEI scores are dependent on TRI data which is subject to a 2 year data lag.									

SUB-OBJECTIVE: 4.1.2: Reduce Chemical Risks at Facilities and in Communities

By 2011, protect human health, communities, and the environment from chemical releases through facility risk-reduction efforts and building community preparedness and response capabilities.

Strategic Target (1)

By 2011, continue to maintain the Risk Management Plan (RMP) prevention program and further reduce by 5 percent the number of accidents at RMP facilities.

Strategic Target (2)

By 2011, reduce by 5 percent the consequences of accidents at RMP facilities, as measured by injuries, fatalities, and property damage.

Strategic Target (3)

By 2011, vulnerability zones surrounding RMP facilities will be reduced by 5 percent from the 2004 baseline, which will result in the reduction of risk for over 4 million people in the community.

Strategic Target (4)

By 2011, improve by 10 percent from the 2007 baseline the capabilities of Local Emergency Planning Committees (LEPCs) to prevent, prepare for, and respond to chemical emergencies (as measured by a survey of those LEPCs), thereby reducing the risk to communities from the potentially devastating effects of chemical accidents.

Performance Measures supporting all Strategic Targets

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of risk management plan audits completed.</i>	400	730	400	885	400	550	400	628	<i>Audits</i>
Baseline - 2820 Risk Management Plan audits were completed between FY 2002 and FY 2006.									

SUB-OBJECTIVE: 4.1.3: Protect Human Health from Pesticide Risk

Through 2011, protect human health by implementing our statutes and taking regulatory actions to ensure pesticides continue to be safe and available when used in accordance with the label.

Strategic Target (1)

By 2011, reduce the concentration of pesticides detected in the general population by 50 percent. Baselines are determined from 1990-1992 Centers for Disease Control-National Health and Nutrition Examination Survey (NHANES) data.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent reduction in concentrations of pesticides detected in general population.							10	Data Avail. FY 2008	Cumulative Reduction
Baseline - According to NHANES data for 1999-2002 the concentration of pesticides residues detected in blood samples from the general population are: Dimethylphosphaste = 0.41 ug/L; Dimethylthiophosphate = 1.06 ug/L; Dimethyldithiophosphate = 0.07 ug/L; Diethylphosphate = 0.78 ug/L; Diethylthiophosphate = 0.5 ug/L; Diethyldithiophosphate = 0.07 ug/L; and 3,5,6-Trichloro-2-pyridinol = 1.9 ug/L.									
Explanation - Data was originally expected in August of 2006 and have yet to be provided. Data is now expected in early 2008. The data required for OPP to conduct the analysis is not yet available from the CDC's National Center for Health Statistics (NCHS).									

Strategic Target (2)

Through 2011, protect those occupationally exposed to pesticides by improving upon or maintaining a rate of 3.5 incidents per 100,000 potential risk events. Baseline: There were 1385 occupational pesticide incidents in 2003 out of 39,850,000 potential pesticide risk events/year.

Strategic Target (3)

By 2011, improve the health of those who work in or around pesticides by reaching a 50 percent targeted reduction in moderate to severe incidents for six acutely toxic agricultural pesticides with the highest incident rate: chlorpyrifos, diazinon, malathion, pyrethrins, 2,4-dichlorophenoxy acetic acid (2,4-D), and carbofuran.

Performance Measures supporting all Strategic Targets

Annual Performance Measures and	FY 2004	FY 2005	FY 2006	FY 2007
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	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Percentage of agricultural acres treated with reduced-risk pesticides.	8.5	13	13.5	16	17	18	18	Data Avail. FY 2008	Acre-Treatments
Baseline - The baseline for acres-treated is 3.6% of total acreage in 1998, when the reduced-risk pesticide acre treatments was 30,332,499 and total (all pesticides) was 843,063,644 acre-treatments. Each year's total acre-treatments, as reported by Doane Marketing Research, Inc serve as the basis for computing the percentage of acre-treatments using reduced risk pesticides. Acre-treatments count the total number of pesticides treatments which acre receives each year.									
Explanation - Data is collected on CY basis. Data will be available by Spring 2008.									
<i>Register reduced risk pesticides, including biopesticides.</i>	14	49	14	14	14	15	14	14	<i>Pesticides</i>
Baseline - Zero in 1996. Cumulative actuals in FY 2006 for reduced risk pesticides are 182 registrations.									
<i>New Chemicals (Active Ingredients)</i>	8	7	8	3	8	19	8	16	<i>Chemicals</i>
Baseline - Zero in 1996. Cumulative actuals in FY 2006 was 101 new chemicals (AI)									
Explanation - Low target based on historical data; completed more than anticipated.									
<i>New Uses</i>	200	249	200	164	200	235	200	233	<i>Actions</i>
Baseline - Zero in 1996. Cumulative actuals in FY 2006 was 3,541 new use actions.									
Explanation - Target exceeded as a result of improved efficiencies.									

SUB-OBJECTIVE: 4.1.4: Protect the Environment from Pesticide Risk

Through 2011, protect the environment by implementing our statutes and taking regulatory actions to ensure pesticides continue to be safe and available when used in accordance with the label.

Strategic Target (1)

By 2011, reduce the percentage of urban watersheds sampled by the US Geological Survey's National Water Quality Assessment (USGS NAWQA) program that exceed the National Pesticide Program aquatic life benchmarks for three key pesticides of concern (diazinon, chlorpyrifos, malathion).

Strategic Target (2)

By 2011, reduce the number of agricultural watersheds sampled by the USGS NAWQA program that exceed EPA aquatic life benchmarks for 2 key pesticides (azinphos-methyl and chlorpyrifos).

Performance Measures supporting all Strategic Targets

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Product Reregistration</i>					545	545	545	962	Actions
Baseline - A total of 7,358 product reregistrations were completed by 2006.									
Explanation - Target was exceeded due to the completion of one chemical with hundreds of products as well as changes to the review process that focuses on expediting product reregistration of chemicals with significant risk mitigation. Because of this continuing trend, we are planning to set more aggressive targets at the earliest opportunity.									

SUB-OBJECTIVE: 4.1.5: Realize the Value from Pesticide Availability

Through 2011, ensure the public health and economic benefits of pesticide availability and use are achieved.

Strategic Target (1)

By 2011, annually avoid \$900M in termite structural damage by ensuring that safe and effective pesticides are registered/re-registered and available for termite treatment.

Strategic Target (2)

By 2011, avoid \$1.5 billion of crop loss by ensuring that effective pesticides are available to address emergency pest infestations.

Performance Measures supporting all Strategic Targets

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Maintain timeliness of S18 decisions</i>					45	48	45	36	Days

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline - The Section 18's 2005 baseline is 45 days.									
Explanation - Target exceeded as a result of the emergency exemption streamlining rule that was completed in 2006.									

OBJECTIVE-LEVEL MEASURES

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Cumulative number of assays that have been validated.					11/20	2/21	8/20	3/20	Assays
Baseline - There are zero assays in 2005. The reason we have no quantitative baseline was the measure is a cumulative measure and we started at zero assays at the start of the program.									
Explanation - Target not met due to scientific uncertainties associated with assay development and the validation process.									

OBJECTIVE: 4.2: COMMUNITIES

Sustain, clean up, and restore communities and the ecological systems that support them.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
0	0	3	3

SUB-OBJECTIVE: 4.2.1: Sustain Community Health

By 2011, reduce the air, water, and land impacts of new growth and development through use of smart growth strategies in 30 communities that will achieve significant measurable environmental and/or public health improvements. The baseline will be established in 2006.

SUB-OBJECTIVE: 4.2.2: Restore Community Health through Collaborative Problem-Solving

Make significant environmental improvements in communities with potential disproportionately high and adverse environmental and/or public health effects ("areas with potential environmental justice concerns") and foster the ability of communities to address local environmental concerns with other stakeholders through collaborative problem solving.

Strategic Target (1)

By 2011, 30 communities with potential environmental justice concerns will achieve significant measurable environmental or public health improvement through collaborative problem-solving strategies.

SUB-OBJECTIVE: 4.2.3: Assess and Clean Up Brownfields

Working with state, tribal, and local partners, promote the assessment, cleanup, and sustainable reuse of Brownfields properties.

Strategic Target (1)

By 2011, conduct environmental assessments at 13,900 properties.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Brownfield properties assessed.	1,000	1,076	1,000	1,381	1,000	2,139	1,000	Data Avail. FY 2008	Assessments
Baseline - In FY 2005, the Brownfields program assessed 1,381 properties.									
Explanation - Due to grantee reporting cycle, complete FY07 data will not be available until May 2008.									

Strategic Target (2)

By 2011, make 1,125 acres (cumulative) of Brownfields ready for reuse.

Strategic Target (3)

By 2011, leverage \$12.9 billion (cumulative) in assessment, cleanup, and redevelopment funding at Brownfields properties.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Billions of dollars of cleanup and redevelopment funds leveraged at Brownfields sites.	0.9	0.7	0.9	1.0	1.0	1.4	0.9	Data Avail. FY 2008	Billion Dollars in Funds
Baseline - In FY 2005, the Brownfields program leveraged \$1.0B in cleanup and redevelopment funding.									
Explanation - Due to grantee reporting cycle, complete FY07 data will not be available until May 2008.									

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Jobs leveraged from Brownfields activities.</i>	2,000	2,250	5,000	6,128	5,000	5,504	5,000	Data Avail. FY 2008	Jobs
Baseline - In FY 2005, the Brownfields program leveraged 6,128 jobs.									
Explanation - Due to grantee reporting cycle, complete FY07 data will not be available until May 2008.									

SUB-OBJECTIVE: 4.2.4: Sustain and Restore the United States - Mexico Border Environmental Health

By 2012, sustain and restore the environmental health along the United States-Mexico border through implementation of the "Border 2012 plan.

Strategic Target (1)

By 2012, achieve a majority of currently exceeded water quality standards in impaired trans-boundary surface waters.

Strategic Target (2)

By 2012, provide safe drinking water to 25 percent of homes in the Mexican border area that lacked access to safe drinking water in 2003.

Strategic Target (3)

By 2012, provide adequate wastewater sanitation to 25 percent of homes in the Mexican border area that lacked access to wastewater sanitation in 2003.

Strategic Target (4)

By 2012, cleanup five waste sites

SUB-OBJECTIVE: 4.2.5: Sustain and Restore Pacific Island Territories

By 2011, sustain and restore the environmental health of the U.S. Pacific Island Territories of American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI).

Strategic Target (1)

By 2011, 95 percent of the population in each of the U.S. Pacific Island Territories served by community drinking water systems will receive drinking water that meets all applicable health-based drinking water standards throughout the year.

Strategic Target (2)

By 2011, the sewage treatment plants in the U.S. Pacific Island Territories will comply 90 percent of the time with permit limits for biochemical oxygen demand (BOD) and total suspended solids (TSS).

Strategic Target (3)

By 2011, beaches in each of the U.S. Pacific Island Territories monitored under the Beach Safety Program will be open and safe for swimming 96 percent of days of the beach season.

SUB-OBJECTIVE: 4.2.6: Reduce Persistent Organic Pollutants (POPs) Exposure

By 2011, reduce the mean maternal serum blood levels of POPs contaminants in indigenous populations in the Arctic.

Strategic Target (1)

By 2011, reduce mean maternal blood levels of polychlorinated biphenyls (PCBs) (measured as Aroclor 1260) in indigenous populations in the Arctic to 5.6 µg/l.

Strategic Target (2)

By 2011, reduce mean maternal blood levels of chlordane (measured as the metabolites oxychlordane and trans-nonachlor) in indigenous populations in the Arctic to 1.1 µg/l.

OBJECTIVE: 4.3: RESTORE AND PROTECT CRITICAL ECOSYSTEMS

Protect, sustain, and restore the health of critical natural habitats and ecosystems.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
9	1	6	16

SUB-OBJECTIVE: 4.3.1: Increase Wetlands

By 2011, working with partners, achieve a net increase in wetlands acres with additional focus on assessment of wetland condition.

Strategic Target (1)

By 2011, working with partners, achieve a net increase of 100,000 acres of wetlands per year with additional focus on biological and functional measures and assessment of wetland condition. (2004 Baseline: 32,000 acres annual net wetland gain based on new U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory Status and Trends Report, 1998-2004.)

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Working with partners, achieve a net increase of acres of wetlands per year with additional focus on biological and functional measures and assessment of wetland conditions.</i>			100,000	Data Avail. FY 2011	100,000	Data Avail. FY 2011	100,000	Data Avail. FY 2011	Acres/Year
<p>Baseline - The United States achieved a net cumulative increase of 32,000 acres per year of wetlands over a 6-year period, from 1998 through 2004, as measured by the U.S. Fish and Wildlife Service and reported in Status and Trends of Wetlands in the Conterminous United States, 1998 to 2004. (Dahl, T.E. 2006. Status and Trends of Wetlands in the Conterminous United States, 1998 to 2004. U.S. Department of the Interior; Fish and Wildlife Service, Washington, D.C. 112 pp.)</p>									
<p>Explanation - The 2006 NWI Status and Trends Report showed that wetland gains exceeded wetland losses in the US from 1998 to 2004 at a rate of 32,000 acres per year. The 2007 target was 300,000 acres cumulatively over 2005, 2006 and 2007. We are hopeful that the next report, due out in 2011, will show a continuation of upward trends and prove that we actually met or exceeded our targets in 2007 and beyond.</p>									

Strategic Target (2)

By 2011, in partnership with the U.S. Army Corps of Engineers (the Corps), states, and tribes, achieve "no net loss" of wetlands each year under the Clean Water Act Section 404 regulatory program, beginning in 2007.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>In partnership with the U.S. Army Corps of Engineers, states, and tribes, achieve no net loss of wetlands each year under the Clean Water Act Section 404 regulatory program</i>			No Net Loss	Data Avail. FY 2008	No Net Loss	Data Avail. FY 2008	No Net Loss	Data Avail. FY 2008	Acres
<p>Baseline - No Net Loss: FY 2003: 1:1.12 (ELI 2005 Status Report on Compensatory Mitigation in the U.S., pg. 24; http://www.epa.gov/owow/wetlands/pdf/ELIMitigation2005.pdf)</p>									
<p>Explanation - EPA will have data to report under this measure once the EPA interface for the ORM 2.0 Database is complete (estimated 01/01/2008)</p>									

SUB-OBJECTIVE: 4.3.2: Facilitate the Ecosystem-Scale Restoration of Estuaries of National Significance

By 2011, working with partners, protect or restore an additional (i.e., measuring from 2007 forward) 250,000 acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Acres protected or restored in NEP study areas.			25,000	103,959	25,000	140,033	50,000	102,462.90	Acres
Baseline- In 2002, 0 acres were protected or restored in NEP study areas.									
Explanation - It is often difficult to determine an accurate number of habitat acres that will be protected and restored because projects can sometimes take a number of years to design, fund, implement, and complete. In what year a project is actually completed can be difficult to predict. For example, large restoration projects often have multiple partners, funding and other problems that delay projects for years. EPA will work with the NEPs to try and address some of the difficulties with establishing a target in order to set more realistic targets in the future.									

SUB-OBJECTIVE: 4.3.3: Improve the Health of the Great Lakes

By 2011, prevent water pollution and protect aquatic systems so that the overall ecosystem health of the Great Lakes is at least 23 points on a 40-point scale.

Strategic Target (1)

Through 2011, maintain or improve an average annual 5 percent decline for the long-term trend in average concentrations of PCBs in whole lake trout and walleye samples.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Average annual percentage decline for the long-term trend in concentrations of PCBs in whole lake trout and walleye samples.</i>			5	6	5	6	5	6	<i>Percent Annual Decrease</i>
Baseline - On average, total PCB concentrations in whole Great Lakes top predator fish have recently declined 5 percent annually - average concentrations at Lake sites from 2002 were: L Superior-9ug/g; L Michigan- 1.6ug/g; L Huron- .8ug/g L Erie- 1.8ug/g; and L Ontario- 1.2ug/g. 9iv)									

Strategic Target (2)

Through 2011, maintain or improve an average 7 percent annual decline for the long-term trend in average concentrations of toxic chemicals (PCBs) in the air in the Great Lakes basin.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Average annual percentage decline for the long-term trend in concentrations of PCBs in the air in the Great Lakes Basin.</i>			7	7	7	8	7	7.5	Percent Annual Decrease
Baseline - Average concentrations of toxic chemicals in the air (PCBs) from 2002 were; L Superior- 60 pg/m2; L Michigan- 87 pg/m2; L Huron-19 pg/m2; L Erie- 183 pg/m2; and L Ontario- 36 pg/m2.									

Strategic Target (3)

By 2010, restore and delist a cumulative total of at least 8 Areas of Concern within the Great Lakes basin

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of Areas of Concern in the Great Lakes Basin which are restored and de-listed. (cumulative)</i>			3	0	2	1	1	1	AOC
Baseline - In 2002, no Areas of Concern had been delisted.									
Explanation - Commitment was reduced to 1, cumulative.									

Strategic Target (4)

By 2011, remediate a cumulative total of 7 million cubic yards of contaminated sediment in the Great Lakes.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Cubic yards of contaminated sediment remediated (cumulative) in the Great Lakes.</i>			2.9	3.7	4.5	4.1	4.5	4.5	M cubic yards
Baseline - 2.1 million cubic yards of contaminated sediments were remediated from 1997 through 2001 of the 40 million requiring remediation.									

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic systems.</i>			21.0	21.9	21	21.1	21	22.7	Scale
Baseline - Great Lakes rating of 20.9 reported in 2003, based on most current data available, generally from 2001) on a 40 point scale where the rating uses select Great Lakes State of the Lakes Ecosystem indicators based on a 1 to 5 rating system for each indicator, where 1 is poor and 5 is good.									

SUB-OBJECTIVE: 4.3.4: Improve the Aquatic Health of the Chesapeake Bay Ecosystem

By 2011, prevent water pollution and protect aquatic systems so that the overall aquatic system health of the Chesapeake Bay is improved.

Strategic Target (1)

By 2011, achieve 45 percent (83,250 acres) of the long-term restoration goal of 185,000 acres of submerged aquatic vegetation.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay. (cumulative)</i>			90,000	72,942	90,000	78,259	90,000	59,090	Acres
Baseline - In 1984, there were 38,230 acres of submerged aquatic vegetation in the Chesapeake Bay.									
Explanation - Measure not met largely due to higher than normal water temperatures in the mid and lower Bay as well as poor water clarity throughout the Bay due to excess amounts of nitrogen and sediment.									

Strategic Target (2)

By 2011, achieve 40 percent (29.92 cubic km) of the long-term restoration goal of 100 percent attainment of the dissolved oxygen water quality standards in all tidal waters of the Bay.

Strategic Target (3)

By 2011, achieve 59 percent (95.88 million pounds) of the long-term goal to reduce annual nitrogen loads 162 million pounds from 1985 levels.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent of point source nitrogen reduction goal of 49.9 million pounds achieved.					65	68	70	Data Avail Late FY 2007	Percent
Baseline - 61% of point source nitrogen goal achieved in 2005.									
Explanation - End-of-Year data will not be available until 11/30/07. Based on the mid-year data, 33.7/49.9 million pound reduction goal--68% (on track to meet target.)									
Percent of goal achieved for implementation of nitrogen reduction practices (expressed as progress meeting the nitrogen reduction goal of 162.5 million pounds).					44	44	47	Data Avail Late FY 2007	Percent
Baseline - 41% of nitrogen goal achieved in 2005.									
Explanation - End-of-Year data will not be available until 11/30/07. Based on the mid-year data, 71.2/162.5 million pound reduction goal = 44% (on track to meet target.)									

Strategic Target (4)

By 2011, achieve 74 percent (10.63 million pounds) of the long-term goal to reduce annual phosphorus loads 14.3 million pounds from 1985 levels.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent of point source phosphorus reduction goal of 6.16 million pounds achieved.					82	84	84	84	Percent
Baseline - 80% of point source phosphorus goal achieved in 2005.									
Explanation - FY07 Actual based on FY07 mid-year data. End-of-Year data will not be available until 11/30/07. Based on the mid-year data, 5.18/6.16 million pound reduction goal = 84% (Measure Met).									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent of goal achieved for implementation of phosphorus reduction practices (expressed as progress meeting the phosphorus reduction goal of 14.36 million pounds).					61	61	64	Data Avail Late FY 2007	Percent
Baseline - 58% of phosphorus goal achieved in 2005.									
Explanation - End-of-Year data will be available 11/30/07. Based on the mid-year data, 8.67/14.36 million pound reduction goal = 60% (On track to meet target.)									

Strategic Target (5)

By 2011, achieve 74 percent (1.25 million tons) of the long-term goal to reduce annual land-based sediment loads 1.68 million tons from 1985 levels.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent of goal achieved for implementation of sediment reduction practices (expressed as progress meeting the sediment reduction goal of 1.69 million pounds).					57	57	61	Data Avail Late FY 2007	Percent
Baseline - 54% of sediment goal achieved in 2005.									
Explanation - End-of-Year data will be available 11/30/07. Based on mid-year data, 0.96/1.69 million ton reduction goal = 57% (On track to meet target.)									

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent of forest buffer planting goal of 10,000 miles achieved.					46	46	53	53	Percent
Baseline - 38% of goal achieved in 2005.									

SUB-OBJECTIVE: 4.3.5: Improve the Aquatic Health of the Gulf of Mexico

By 2011, the overall health of coastal waters of the Gulf of Mexico will be improved from 2.4 to 2.6 on the good/fair/poor@ scale of the National Coastal Condition Report.

Strategic Target (1)

By 2011, restore water and habitat quality to meet water quality standards in 71 impaired segments (cumulative) in 13 priority coastal areas (i.e., 20 percent of the 354 impaired segments identified in 13 priority coastal areas).

Strategic Target (2)

By 2011, restore, enhance, or protect 20,000 acres of important coastal and marine habitats.

Strategic Target (3)

By 2015, reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico to less than 5,000 km², as measured by the 5-year running average of the size of the zone.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Improve the overall health of coastal waters of the Gulf of Mexico on the "good/fair/poor" scale of the National Coastal Condition Report.</i>			0.1	2.4	2.4	2.4	2.4	2.4	Scale
Baseline - In 2004, the Gulf of Mexico rating of fair/poor was 2.4 where the rating is based on a 5-point system in which 1 is poor and 5 is good and is expressed as an aeriially weighted mean of regional scores using the National Coastal Condition Report II indicators: water quality index, sediment quality index, benthic index, coastal habitat index, and fish tissue contaminants.									

SUB-OBJECTIVE: 4.3.6: Restore and Protect Long Island Sound

By 2011, working through the Long Island Sound Study Management Conference partnership, prevent water pollution, improve water quality, protect aquatic systems, and restore the habitat of Long Island Sound.

Strategic Target (1)

By 2014, reduce point source nitrogen discharges to Long Island Sound by 58.5 percent as measured by the Long Island Sound Nitrogen Total Maximum Daily Load.

Strategic Target (2)

By 2011, reduce the size of hypoxic area in Long Island Sound (i.e., the average maximum July-September <3mg/l DO) by 25 percent; reduce average duration of maximum hypoxic event by 25 percent.

Strategic Target (3)

By 2011, restore or protect an additional 300 acres of coastal habitat, including tidal wetlands, dunes, riparian buffers, and freshwater wetlands from the 2005 baseline.

Strategic Target (4)

By 2011, reopen an additional 50 miles of river and stream corridor to anadromous fish passage from the 2005 baseline through removal of dams and barriers or installation of by-pass structures such as fishways.

SUB-OBJECTIVE: 4.3.7: Restore and Protect the South Florida Ecosystem

Protect and maintain the South Florida Ecosystem, including the Everglades and coral reef ecosystems.

Strategic Target (1)

Annually, beginning in 2008, work with the U. S. Army Corps of Engineers and other partners to achieve "no net loss of wetlands in South Florida under Section 404 of the Clean Water Act.

Strategic Target (2)

By 2012, working with all stakeholders (federal, state, regional, and local), achieve "no net loss" of stony coral cover (mean percent stony coral cover) in the Florida Keys National Marine Sanctuary (FKNMS) and in the coastal waters of Dade, Broward, and Palm Beach Counties, Florida.

Strategic Target (3)

By 2011, maintain the overall health and functionality of sea grass beds in the FKNMS each year beginning in 2008, as measured by the long-term sea grass monitoring project that addresses composition and abundance, productivity, and nutrient availability

Strategic Target (4)

By 2011, maintain the overall water quality of the near shore and coastal waters of the FKNMS each year, beginning in 2008.

Strategic Target (5)

By 2011, maintain the water quality of the Everglades ecosystem each year, beginning in 2008, as measured through water quality monitoring of total phosphorus.

SUB-OBJECTIVE: 4.3.8: Restore and Protect the Puget Sound Basin

By 2011, improve water quality, air quality, and minimize the adverse impacts of rapid development in the Puget Sound Basin.

Strategic Target (1)

By 2011, improve water quality and lift harvest restrictions in 1,000 acres of shellfish bed growing areas impacted by degraded or declining water quality.

Strategic Target (2)

By 2011, 200 acres of prioritized contaminated sediments are remediated.

Strategic Target (3)

By 2011, 3,500 acres of tidally- and seasonally-influenced estuarine wetlands are restored.

Strategic Target (4)

By 2011, through coordinated diesel emission mitigation efforts, reduce total diesel emissions in the Puget Sound airshed by 8 percent.

SUB-OBJECTIVE: 4.3.9: Restore and Protect the Columbia River Basin

By 2011, prevent water pollution, and improve and protect water quality and ecosystems in the Columbia River Basin to reduce risks to human health and the environment.

Strategic Target (1)

By 2011, protect, enhance or restore 13,000 acres of wetland habitat and 3,000 acres of upland habitat.

Strategic Target (2)

By 2011, clean up 150 acres of known highly contaminated sediments.

Strategic Target (3)

By 2011, demonstrate a 10 percent reduction in mean concentration of contaminants of concern found in water and fish tissue.

OBJECTIVE: 4.4: ENHANCE SCIENCE AND RESEARCH

Through 2011, identify and synthesize the best available scientific information, models, methods, and analyses to support Agency guidance and policy decisions related to the health of people, communities, and ecosystems. Focus research on pesticides and chemical toxicology; global change; and comprehensive, cross-cutting studies of human, community, and ecosystem health.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
15	2	0	17

OBJECTIVE-LEVEL MEASURES

HUMAN HEALTH RESEARCH

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percentage of planned outputs delivered in support of public health outcomes long-term goal			100	100	100	100	100	100	Percent
Baseline-In FY 2002, the program began tracking its planned outputs supporting its public health outcomes long-term goal and completed 100% of outputs on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to human health.									
Percentage of planned outputs delivered in support of mechanistic data long-term goal met.			100	100	100	92	100	100	Percent
Baseline-In FY 2000, the program began tracking its planned outputs supporting its mechanistic data long-term goal and completed 100% of outputs on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to human health.									
Percentage of planned outputs delivered in support of aggregate and cumulative risk long-term goal.			100	86	100	100	100	100	Percent
Baseline - In FY 2000, the program began tracking its planned outputs supporting its aggregate and cumulative risk long-term goal and completed 80% of outputs on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to human health.									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percentage of planned outputs delivered in support of the susceptible subpopulations long-term goal.			100	100	100	100	100	100	Percent
Baseline - In FY 2000, the program began tracking its planned outputs supporting its susceptible subpopulations long-term goal and completed 100% of outputs on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to human health.									

ECOLOGICAL RESEARCH

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Number of states using a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of programs and policies.			20	22	25	25	30	30	States
Baseline - The Ecological Research Program developed a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of national programs and policies. In 2005 when usage data were first available, 22 states were using this Environmental Monitoring and Assessment Program (EMAP). This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the ecosystems.									

RESEARCH ON ENDOCRINE DISRUPTING CHEMICALS

Improved protocols for screening and testing	3	3	2	2	1	1	6	3	Reports
Baseline - In 2001, the program began tracking improved protocols for screening and testing and produced 9 of 9 reports on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems,									

with regard to chemical toxicology.									
Explanation - The computational toxicology grants that originally supported this measure were relocated to EPA's Safe Pesticides/ Safe Products Research Program during Multi-Year Plan revisions.									
Effects and exposure milestones met	5	5	5	5	9	9	4	5	Reports
Baseline - In 2001, the program began tracking reports related to effects and exposure and produced 22 of 22 reports on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems, with regard to chemical toxicology.									
Risk management milestones met	5	5	3	3	3	3	3	2	Reports
Baseline - In 2001, the program began tracking reports related to risk management and produced 2 of 2 reports on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems, with regard to chemical toxicology.									
Explanation - The scope of the work in this area was revised during the Endocrine Disruptors Research Program's Multi-Year Plan Revision process. The work in this area was relocated to the EPA's Safe Pesticides/ Safe Products Research Program.									

HOMELAND SECURITY RESEARCH

<i>Percentage of planned outputs delivered in support of efficient and effective clean-ups and safe disposal of contamination wastes.</i>	100	100	100	100	100	100	100	100	Percent
Baseline - EPA's homeland security research provides appropriate, effective, and rapid risk assessment guidelines and technologies to help decision-makers prepare for, detect, contain, and decontaminate building and water treatment systems against which chemical and/or biological attacks have been directed. The Agency intends to expand the state of the knowledge of potential threats, as well as its response capabilities, by assembling and evaluating private sector tools and capabilities so that preferred response approaches can be identified, promoted, and evaluated for future use by first responders, decision-makers, and the public. This APG will provide guidance documents for the restoration of buildings and water systems and the establishment of remediation goals. These products will enable first responders to better deal with threats to the public and the environment posed by the intentional release of toxic or infectious materials.									
<i>Percentage of planned outputs delivered in support of water security initiatives.</i>	100	100	100	100	100	100	100	100	Percent
Baseline - EPA's homeland security research provides appropriate, effective, and rapid risk assessment guidelines and technologies to help decision-makers prepare for, detect, contain, and decontaminate building and water treatment systems against which chemical and/or biological attacks have									

been directed. The Agency intends to expand the state of the knowledge of potential threats, as well as its response capabilities, by assembling and evaluating private sector tools and capabilities so that preferred response approaches can be identified, promoted, and evaluated for future use by first responders, decision-makers, and the public. This APG will provide guidance documents for the restoration of buildings and water systems and the establishment of remediation goals. These products will enable first responders to better deal with threats to the public and the environment posed by the intentional release of toxic or infectious materials.

<i>Percent of planned outputs delivered in support of support risk assessors and decision-makers in the rapid assessment of risk and the determination of cleanup goals and procedures following contamination</i>	100	100	100	100	100	100	100	100	100	Percent
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Baseline - EPA's homeland security research provides appropriate, effective, and rapid risk assessment guidelines and technologies to help decision-makers prepare for, detect, contain, and decontaminate building and water treatment systems against which chemical and/or biological attacks have been directed. The Agency intends to expand the state of the knowledge of potential threats, as well as its response capabilities, by assembling and evaluating private sector tools and capabilities so that preferred response approaches can be identified, promoted, and evaluated for future use by first responders, decision-makers, and the public. This APG will provide guidance documents for the restoration of buildings and water systems and the establishment of remediation goals. These products will enable first responders to better deal with threats to the public and the environment posed by the intentional release of toxic or infectious materials.

<i>Percentage of planned outputs delivered in support of establishment of the environmental National Laboratory Response Network</i>								100	100	Percent
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GLOBAL CHANGE RESEARCH

Percent progress toward completion of a framework linking global change to air quality.	30	33	45	47.5	60	65	75	75	Percent
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Baseline - In 2001, the program began work on a framework linking global change to air quality and completed 0% of the hierarchy. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems, with regard to global change.

Percentage of planned outputs delivered.							Baseline	100	Percent
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Baseline - In FY 2007, the program began measuring the percentage of outputs delivered. This measure will contribute to EPA's goal of providing

scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems, with regard to global change.

HUMAN HEALTH RISK ASSESSMENT

Percentage of planned outputs delivered in support of Air Quality Criteria/Science Assessment documents.			N/A	100	N/A	100	90	100	Percent
Baseline - In 2004, the program began work on delivering outputs in support of the Air Quality/Science Assessment document and had an output delivery of 0%. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems.									
Percentage of planned outputs delivered in support of HHRA health assessments.	N/A	73	N/A	108	N/A	63*	90	100	Percent
<p>Baseline - In 2004, the program began work on delivering outputs in support of HHRA health assessments and delivered 73% or 8 of 11 planned assessments on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems.</p> <p>Explanation – The Multi-Year Plan for HHRA established an ambitious goal of completing 16 chronic assessments each year beginning in 2006, and the program has an annual performance target of delivering at least 90% of those assessments on time. Since 2004, the number of delivered assessments has increased significantly. In 2004, the program delivered 8 assessments. In 2005, the program delivered 13 assessments despite planning to complete only 12. In 2006, the program delivered 10 assessments*. And in 2007, the program delivered 16 chronic assessments as planned, exceeding the performance target.</p> <p>* In 2006, as part of a pilot test, the program also completed substantial work for 5 acute assessments in support of the residual risk program (see Integrated Risk Information System agenda in 71 FR 29149).</p>									
Percentage of planned outputs delivered in support of HHRA Technical Support Documents.	N/A	83	N/A	44	N/A	81	90	100	Percent
Baseline - In 2004, the program began work on delivering outputs in support of HHRA Technical Support Documents and delivered 83% of outputs on time. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems.									

GOAL 5 - COMPLIANCE AND ENVIRONMENTAL STEWARDSHIP

Protect human health and the environment through ensuring compliance with environmental requirements by enforcing environmental statutes, preventing pollution, and promoting environmental stewardship. Encourage innovation and provide incentives for governments, businesses, and the public that promote environmental stewardship and long-term sustainable outcomes.

CONTRIBUTING PROGRAMS:

Compliance Assistance Program, Compliance Incentives Program, Monitoring and Enforcement Program, Toxic Substances Compliance Grant Program, Pesticide Enforcement Grant Program, Sector Grant Program, 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, Economic Decision Sciences Research, and Sustainability Research.

GOAL PURPOSE:

EPA ensures that government, business, and the public comply with federal laws and regulations by monitoring compliance and taking enforcement actions that result in reduced pollution and improved environmental management practices. To accelerate the nation's environmental protection efforts, EPA works to prevent pollution at the source, to encourage other forms of environmental stewardship, and to promote the tools of innovation and collaboration.

Effective compliance assistance and strong, consistent enforcement are critical to achieving the human health and environmental benefits expected from our environmental laws. EPA monitors compliance patterns and trends and focuses on priority problem areas identified in consultation with states, tribes, and other partners. The Agency supports the regulated community by assisting regulated entities in understanding environmental requirements, helping them identify cost-effective compliance options and strategies, and providing incentives for compliance.

EPA promotes the principles of responsible environmental stewardship, sustainability, and accountability to achieve its strategic goals. Collaborating closely with other federal agencies, states, and tribes, the Agency identifies and promotes innovations that assist businesses and communities in improving their environmental performance. EPA works to improve and encourage pollution prevention and sustainable practices, helping businesses and communities move beyond compliance and become partners in protecting our national resources and improving the environment and our citizens' health. It works with businesses to increase energy efficiency, find environmentally preferable substitutes for chemicals of concern, and change processes to reduce toxic waste. EPA promotes improved communication through data sharing and collaboration and conducts research on pollution prevention, new and developing technologies, social and economic issues, and decision making to help promote environmental stewardship. EPA also works with other nations as they

develop their own environmental protection programs, leading to lower levels of pollution in the United States and worldwide.

Ensuring compliance and promoting environmental stewardship is an important component of the Agency's efforts to protect human health and the environment in Indian country. EPA continues to provide resources to support federally recognized tribes and inter-tribal consortia in assessing environmental conditions on their lands and building environmental programs tailored to their needs. Tribes, the first stewards of America's environment, provide an invaluable perspective on environmental protection that benefits and strengthens all of our stewardship programs.

Objective 1: Achieve Environmental Protection through Improved Compliance

FY 2007 Obligations: Goal 5, Objective 1 (in thousands)	FY 2007 Expenditures: Goal 5, Objective 1 (in thousands)
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Improve Human Health and the Environment in Indian Country \$75,666.8, 10%</p> </div> <div style="text-align: center;"> <p>Enhance Societies Capacity for Sustainability through Science and Research \$66,228.8, 8%</p> </div> </div> <div style="text-align: center; margin: 20px 0;"> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Improve Environmental Performance through Pollution Prevention and Other Stewardship Practices \$124,456.7, 16%</p> </div> <div style="text-align: center;"> <p>Achieve Environmental Protection through Improved Compliance \$521,869.9, 66%</p> </div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Improve Human Health and the Environment in Indian Country \$83,933.2, 11%</p> </div> <div style="text-align: center;"> <p>Enhance Societies Capacity for Sustainability through Science and Research \$75,731.6, 9%</p> </div> </div> <div style="text-align: center; margin: 20px 0;"> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Improve Environmental Performance through Pollution Prevention and Other Stewardship Practices \$122,382.2, 16%</p> </div> <div style="text-align: center;"> <p>Achieve Environmental Protection through Improved Compliance \$496,644.3, 64%</p> </div> </div>

FY 2007 Resources for Program Projects Supporting this Objective*

Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.

**Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding*

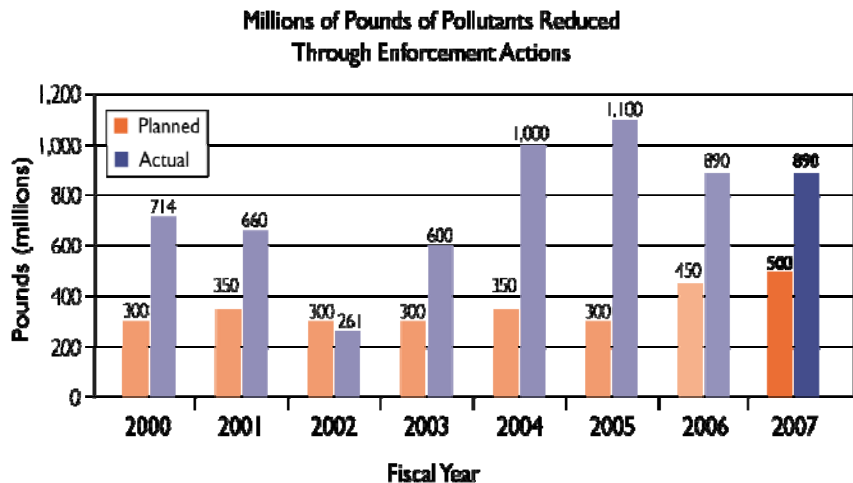
Goal 5: Objective 1 - Achieve Environmental Protection through Improved Compliance

Program Project	FY 2007 Obligations	FY 2007 Expenditures
Categorical Grant: Pesticides Enforcement	\$18,404.5	\$18,312.1
Categorical Grant: Toxics Substances Compliance	\$5,272.4	\$5,794.3
Categorical Grant: Sector Program	\$1,161.1	\$1,543.7
Civil Enforcement	\$124,038.2	\$122,709.6
Compliance Assistance and Centers	\$28,404.6	\$29,034.7
Compliance Incentives	\$9,699.4	\$9,366.7
Compliance Monitoring	\$92,683.6	\$85,544.2
Congressionally Mandated Projects	(\$7.2)	\$165.9
Criminal Enforcement	\$49,136.1	\$47,017.6
Enforcement Training	\$3,479.5	\$3,709.4
Homeland Security: Communication and Information	\$1,463.3	\$609.8
Homeland Security: Critical Infrastructure Protection	\$5,812.6	\$4,901.1
Homeland Security: Protection of EPA Personnel and Infrastructure	\$1,794.9	\$2,619.8
International Capacity Building	\$6.3	\$10.3
Administrative Law	\$795.6	\$757.8
Alternative Dispute Resolution	\$212.7	\$168.5
Central Planning, Budgeting, and Finance	\$10,216.9	\$9,927.7
Civil Rights / Title VI Compliance	\$1,877.6	\$1,821.9
Congressional, Intergovernmental, External Relations	\$9,771.7	\$9,774.7
Exchange Network	\$5,464.7	\$3,195.2
Facilities Infrastructure and Operations	\$82,270.8	\$77,497.8
Acquisition Management	\$5,265.1	\$4,517.0
Human Resources Management	\$5,827.0	\$5,522.0
Information Security	\$452.8	\$445.4
IT / Data Management	\$40,262.6	\$33,890.6
Legal Advice: Environmental Program	\$7,201.3	\$7,173.1
Legal Advice: Support Program	\$2,172.7	\$2,100.0
Audits, Evaluations, and Investigations	\$2,545.8	\$2,640.1
Regional Science and Technology	\$640.7	\$590.3
Science Advisory Board	\$770.9	\$722.2
Small Minority Business Assistance	\$379.5	\$317.7
Financial Assistance Grants / IAG Management	\$1,601.8	\$1,544.1

Regulatory/Economic-Management and Analysis	\$2,790.4	\$2,699.1
Total	\$521,869.9	\$496,644.4

EPA assists members of the regulated community in understanding environmental regulations and improving their environmental management practices (EMPs) with the goal of reducing the amount of pollution they produce or discharge. The Agency offers compliance assistance directly, through onsite visits and training, and through its Compliance Assistance Centers. EPA uses inspections, investigations, and enforcement actions to identify egregious violations and return violators to compliance as quickly as possible, greatly reducing impacts on sensitive populations. To increase compliance and improve EMPs, EPA encourages facilities to identify, disclose, and correct violations through incentives such as reduced or eliminated penalties.

EPA's progress toward this objective can be demonstrated through a few key performance accomplishments. EPA has reduced, treated, or eliminated 890 million pounds of pollution through enforcement actions in FY 2007. That is the same amount as last year and represents a significant contribution to environmental protection.



Pollutant reduction totals show large variations from year to year due to the fact that reductions tend to be driven by the results from a few very large cases. For additional information on recent enforcement cases, please visit EPA's website:

<http://www.epa.gov/compliance/resources/cases/index.html>. As a result of concluded enforcement actions, violators have committed to spending \$10.6 billion to improve their environmental performance or improve their EMPs. Ninety-one percent of facilities receiving direct compliance assistance from EPA have improved their EMPs.

Compliance Assistance

The Agency exceeded its compliance assistance performance targets in FY2007 due to changes in how it calculates results. EPA poses set questions to compliance assistance recipients regarding their improvements in environmental practices and pollutant reductions. These measures are not calculated from a representative sample of the regulated entity universe. The percentages are based, in part, on the number of regulated entities that answered affirmatively to these questions on voluntary surveys. The percentages do not account for the number of regulated entities who chose not to

answer these questions or the majority of entities who chose not to answer the survey. Even for those respondents who respond positively, there is no objective way to verify the accuracy of their response.

Compliance Incentives

In FY 2007, 17 voluntary disclosures under EPA's Audit Policy resulted in an estimated 1.2 million pounds of pollutants reduced, treated, or eliminated. Unlike traditional enforcement cases, voluntary disclosures under EPA's Audit Policy are completely dependent upon regulated entities choosing to disclose violations. Pollutant reductions vary significantly from year to year because reductions tend to be driven by a small number of audit settlements. As an example of the variability in performance results under the compliance incentives program, EPA reduced, treated or eliminated an estimated 1.9 million pounds of pollutants in FY2005, and an estimated .05 million pounds of pollutants in FY2006. In an effort to maximize environmental outcomes from Audit Policy disclosures, the Agency recently sought public comment on the appropriateness of a tailored incentives designed to encourage new owners of regulated entities to audit facilities and self-disclose violations to the Agency, and whether the Agency should test this idea through a pilot program. If a pilot is proposed, it will be circulated for public comment in FY 2008.

Monitoring & Enforcement

Pollutant reduction results show large variations from year to year due to the fact that the overall reductions occur from a few large cases. Two large cases, Wisconsin Electric Power Company and the East Kentucky Power Cooperative, Inc. resulted in agreements to reduce, treat or eliminate an estimated 341 million pounds of pollutants.

EPA surpassed the FY 2007 performance target for the dollars invested in improved environmental performance and management practices by \$6.4 million dollars due to particularly high injunctive relief requirements in FY 2007 Clean Air Act settlements. Total dollars invested in environmental performance or improved environmental management practices are dependent on a small number of significant cases that vary widely from year to year due to specific case settlements that are entirely unpredictable when the Agency sets performance targets two years in advance. For example, three of the largest Clean Air Act settlements in FY 2007 account for nearly \$1.6 billion of the total \$4.2 billion dollars of injunctive relief. Similarly, the two largest Clean Water Act settlements to bring critical municipal sewer systems into compliance account for over \$3.3 billion of the FY 2007 performance result.

Explanation of the Missed Measures

EPA missed the performance target for complying actions taken by a facility during an on-site inspection/evaluation. Activities taken by a facility to correct deficiencies identified at the time of an on-site inspection/evaluation are known as complying actions. The absolute number of facilities that took complying actions went up by 9.4% - from 1,234 in FY 2006 to 1,350 in FY 2007. While inspectors communicated deficiencies to over 7,000 facilities this year, not all deficiencies can be corrected immediately while the inspector is on-site. The Agency plans to address the failure to meet the performance target in FY 2008 by expanding the type of corrective actions

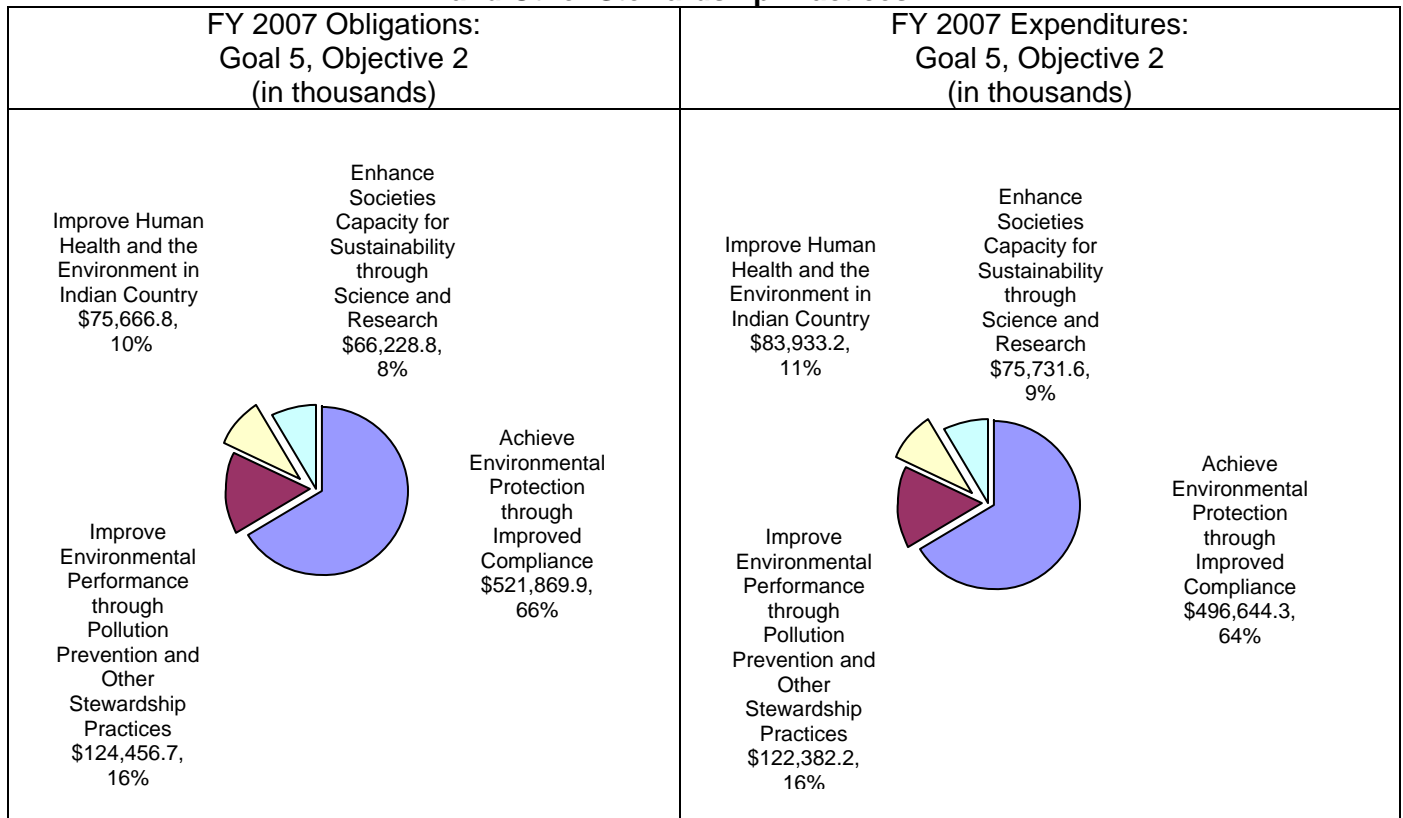
reported to include those which occur after the inspector leaves the site but prior to an enforcement action.

EPA slightly missed the performance target for the percentage of concluded cases that require pollutant reductions in FY 2007. It is not possible to predict the number of enforcement actions that will be concluded in a given year or the percentage that will actually require pollutants to be reduced. The absolute number of concluded enforcement cases has increased over the last three years. And, for those three years, EPA has exceeded its targets for pounds of pollutants reduced. In FY 2007, EPA settled a few cases with very significant pollutant reductions. As a result, only three large Clean Air Act settlements in FY 2007 account for nearly 50% of the total pollution reductions.

Additional Information Related to Objective 1	
Program Evaluations:	<p>Office of the Inspector General: (1) <i>Assessment of EPA’s Projected Pollutant Reductions Resulting from Enforcement Actions and Settlements</i>; (2) <i>Overcoming Obstacles to Measuring Compliance: Practices in Selected Agencies</i>; (3) <i>Better Enforcement Oversight Needed for Major Facilities with Water Discharge Permits in Long-Term Significant Non-compliance</i>; (4) <i>Federal Facilities in Chesapeake Bay Watershed Generally Comply with Major Clean Water Act Permits</i>.</p> <p>Government Accountability Office: <i>EPA-State Enforcement Partnership Has Improved, but EPA’s Oversight Needs Further Enhancement</i>.</p> <p>Additional information on this report is available in the Program Evaluation, Appendix A.</p>
Grants:	Categorical Grants – Pesticides Enforcement; Toxic Substance Compliance.
PART:	<p>The EPA Enforcement of Environmental Laws (Civil) program was first assessed in the 2002 PART process and initially received a rating of “results not demonstrated.” The program was reassessed in the 2004 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions which include development of statistically valid compliance rates for its national priority implementation when it is feasible and serves a clear management purpose. OECA has recently revised its national priority strategies for the FY 2008-2010 cycle and is determining which strategies would benefit most from the development of a compliance rate. OECA continues to work with the Office of Air and Radiation to characterize the human health benefits accruing from pollutant reductions due to concluded air enforcement cases. A headquarters/regional workgroup is reviewing options for developing a problem-based strategic architecture. It is projected the workgroup will finalize a proposal by</p>

	<p>the end of 2007.</p> <p>The Enforcement of Environmental Laws (Criminal) program was first assessed in the 2003 PART process and received a rating of “results not demonstrated.” The program was reassessed in the 2004 PART process and received a rating of “adequate.” As a result of the PART process, the program is conducting follow-up actions which include developing recidivism baselines and targets for criminal enforcement.</p> <p>The Pesticide Enforcement Grant program was assessed in the 2004 PART process and received a rating of “ineffective.” As a result of the PART process, the program is conducting follow-up actions which included finalizing outcome performance measures in March 2005 and negotiating state and tribal cooperative agreements in 2006. The program will also develop baselines and targets for the performance measures and will evaluate the cost-effectiveness.</p>
Web Links:	<p>Compliance and Enforcement Program: http://www.epa.gov/compliance, Compliance and Enforcement Data, Planning and Results: http://www.epa.gov/compliance/data/results/index.html Civil Enforcement Program: http://www.epa.gov/compliance/civil/index.html</p>

Objective 2: Improve Environmental Performance through Pollution Prevention and Other Stewardship Practices



FY 2007 Resources for Program Projects Supporting this Objective*
Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.
**Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding*

Goal 5: Objective 2 - Improve Environmental Performance through Pollution Prevention and Other Stewardship Practices

Program Project	FY 2007 Obligations	FY 2007 Expenditures
Homeland Security: Communication and Information	\$241.4	\$99.9
Homeland Security: Protection of EPA Personnel and Infrastructure	\$521.5	\$760.6
Administrative Law	\$128.9	\$122.7
Alternative Dispute Resolution	\$31.4	\$25.5
Central Planning, Budgeting, and Finance	\$2,001.4	\$1,939.1
Civil Rights / Title VI Compliance	\$263.6	\$255.4
Congressional, Intergovernmental, External Relations	\$1,188.6	\$1,182.4
Exchange Network	\$896.4	\$531.8
Facilities Infrastructure and Operations	\$15,662.0	\$14,606.4
Acquisition Management	\$736.4	\$704.9
Human Resources Management	\$1,220.7	\$1,207.3
Information Security	\$142.0	\$140.0
IT / Data Management	\$9,831.7	\$8,389.3
Legal Advice: Environmental Program	\$1,213.9	\$1,205.4
Legal Advice: Support Program	\$393.0	\$380.3
Audits, Evaluations, and Investigations	\$674.4	\$719.1
Regional Science and Technology	\$83.9	\$79.6
Science Advisory Board	\$124.9	\$117.0
Small Minority Business Assistance	\$61.5	\$51.4
Financial Assistance Grants / IAG Management	\$1,142.1	\$1,211.1
Regulatory/Economic-Management and Analysis	\$452.0	\$437.2
Categorical Grant: Pollution Prevention	\$6,010.3	\$5,382.2
Categorical Grant: Environmental Information	\$15,194.4	\$17,315.7
Congressionally Mandated	\$2.2	\$2,646.2

Projects		
NEPA Implementation	\$14,790.2	\$13,906.8
Pollution Prevention Program	\$17,606.3	\$16,831.0
RCRA: Waste Minimization & Recycling	\$2,971.3	\$2,778.3
Regulatory/Economic-Management and Analysis	(\$86.3)	\$118.7
Regulatory Innovation	\$19,510.1	\$17,463.7
Environmental Education	\$7,678.4	\$7,870.9
Small Business Ombudsman	\$3,768.0	\$3,902.3
Total	\$124,456.6	\$122,382.2

During FY 2007, EPA made significant progress in preventing pollution at the source. As of early November 2007, businesses, institutions, and governments participating in EPA's pollution prevention programs reduced use of hazardous materials by 419.5 million pounds, reduced use of energy by 1,035 billion BTUs, conserved 290 million gallons of water, and achieved \$30.8 million in cost savings.^{49,50} This progress boosted cumulative results since FY 2000 to 2.0 billion pounds reduced, 8.3 trillion BTUs, conserved, 9.7 billion gallons of water conserved, and \$182 million in cost savings toward the Agency's strategic targets.^{51,52}

These substantial pollution prevention results were achieved collectively through a wide variety of established and innovative approaches:

- Regional EPA offices administered Source Reduction and State and Tribal Assistance Grants to prevent pollution.
- P2RX centers enabled states and industry to produce P2 results by providing comprehensive and innovative P2 information across regions.
- In response to the Presidential Green Chemistry Challenge, businesses and academia have developed safer chemicals and processes.
- The federal government has increased its purchase of environmentally preferable products through the Federal Electronics Challenge and the Electronic Product Environmental Assessment Tool (EPEAT).
- Through the Green Suppliers Network, the National Institute of Standards and Technology expanded the Lean Manufacturing business paradigm and associated technical assistance to include pollution prevention practices.
- Partnership for Sustainable Healthcare enabled hospitals and other healthcare facilities to prevent pollution and reduce hazardous wastes, such as mercury.
- Under the Design for the Environment Program, partners collaborated to develop safer and effective substitutes for tin lead solder and safer detergents.

Environmentally Preferable Purchasing

EPA made considerable progress in promoting environmentally preferable purchasing by federal agencies. In FY 2007, EPA finalized FY 2006 data for the Federal Electronics Challenge (FEC) Program and Electronic Product Environmental Assessment Tool (EPEAT) programs. Through EPA's Federal Electronics Challenge, the federal government decreased its use of hazardous materials by 2.8 million pounds, conserved 452 billion BTUs of energy, and saved \$11.4 million. Finalized FY 2006

results became available in 2007 resulting from the EPEAT program finalizing the Institute of Electrical and Electronic Engineers (IEEE) 1680 Standard for Environmental Assessment of Personal Computer Products which decreased hazardous materials by 9.3 million pounds, conserved 1,457 billion BTUs, and saved \$37 million.

Green Suppliers Network

EPA's Green Suppliers Network (GSN) provides technical assistance in lean manufacturing and pollution prevention techniques to improve suppliers' productivity, efficiency, and environmental performance leveraging a national network of manufacturing technical assistance resources. By the end of 2007, the GSN completed 49 technical reviews and identified over \$27.2 million in potential cost savings.⁵³

Presidential Green Chemistry Challenge Program

The Presidential Green Chemistry Challenge Program fosters development of new chemistries that cost less, reduce hazardous chemical usage and waste, and reduce the need for dangerous manufacturing processes. Through FY 2007, award winners collectively account for 193 million pounds of hazardous materials reduction. Since its inception in 1995, the program has reduced hazardous materials by 942 million pounds and saved 605 million gallons of water.⁵⁴

Design for the Environment Program

Collaborating with industry and nongovernmental organizations to reduce risk from chemicals, the Design for the Environment (DfE) Program promotes opportunities for pollution prevention and stewardship in the design and use of chemical products and formulations. Since 1997, DfE's Formulator Program has reviewed and recognized more than 280 products. In FY 2007, all active partnership projects within DfE reduced more than 200 million pounds of chemicals of concern.⁵⁵

Mercury Switches

The National Vehicle Mercury Switch Recovery Program (NVMRP) has the potential to recover 80 to 90 percent of available mercury switches from old automobiles that wind up in scrap yards to be shredded and melted to make new steel—the source of at least half of the mercury emitted by electric arc furnaces, the nation's fourth largest source of mercury air emissions. Working together, EPA's Offices of Solid Waste; Policy, Economics, and Innovation; Air; and Pollution Prevention and Toxics met the goal of the first year—to engage States to encourage automobile and scrap recyclers in their states to participate in the NVMSRP. Every state now participates in a mercury switch recovery program. Data show that by late August 2007, over 5,900 automobile dismantlers had joined the program; and 680,000 switches have been collected, representing 1,500 pounds of mercury that will not be emitted to the environment during 2007, its first year of implementation.

National Partnership for Environmental Priorities

The National Partnership for Environmental Priorities (NPEP) works to reduce priority chemicals from waste streams. Under EPA's new strategic plan, the NPEP program has committed to reducing 4 million pounds of priority chemicals from FY 2007

to FY 2011. This past fiscal year, actual reductions reported by NPEP partners and confirmed by EPA total 1.3 million pounds against the 2007 target of 500,000 pounds. NPEP achievements are also being used to report on historical measures from the old strategic plan as they more accurately reflect EPA activities as opposed to economic conditions that influence priority chemical generation. Since program inception, NPEP partners have reduced over 3.5 million pounds of priority chemicals through both source reduction and recycling activities.

Performance Track

In FY 2007, Performance Track members worked toward goals they set in 31 different environmental indicators. Performance Track has six priority areas for reducing environmental impacts: water use, energy use, materials use, air emissions, discharges to water, and solid waste. Members reported normalized reductions of 5,300,000,000 gallons of water, 72,000 tons of air emissions, and 64,000 tons of materials used. Although the targets were not met in FY 2007 for energy use, discharges to water, and non-hazardous waste, members reported normalized reductions of 2,600,000 MMBTUs of energy use and 175,000 tons of solid waste. Discharges to water increased by 623 tons in FY 2007.

Also, the number of Performance Track members demonstrating improved performance on a normalized basis increased for water use, energy use, solid waste, and discharges to water. (The number of water use improvements grew from 105 to 113; energy use improvements grew from 129 to 144; solid waste improvements increased from 127 to 148; and the reductions in discharges to water grew from 20 to 28.) In fact, in these four areas, the number of improvements has grown steadily every year since FY 2003. This growth reflects not only an increase in Performance Track membership, but also the program’s increasing emphasis on key performance areas. Improvements made by Performance Track members demonstrate that facilities of all types and sizes are willing and able to identify and commit to beyond-compliance environmental performance improvement opportunities and to share their results with the public.

Additional Information Related to Objective 2	
Grants:	State and Tribal Assistance Grants, Source Reduction Grants, and grants which fund Pollution Prevention Resource Exchange Centers.
PART:	EPA's Pollution Prevention Program underwent PART review in 2006 and received a “moderately effective” rating, confirming that the program produces important environmental results in a well-managed and efficient manner. The Agency’s PART improvement plan calls for EPA to evaluate and implement Science Advisory Board Report recommendations for improving performance measures to better demonstrate Pollution Prevention results, work to reduce barriers confronted by industry and others in attempting to implement source reduction, fully implement the P2 State Reporting

	System, and develop additional efficiency measures. The Pollution Prevention Program has already developed one efficiency measure focusing on the Design for the Environment Program and is in the process of developing an efficiency measure for the Federal Electronic Challenge Program.
Web Links:	Pollution Prevention (P2) Program: http://www.epa.gov/p2/ , P2 Grants and Funding: http://www.epa.gov/p2/pubs/grants/index.htm , The Pollution Prevention Resource Exchange: http://www.p2rx.org/ , Design for the Environment (DfE) Program: http://www.epa.gov/oppt/dfel/ , Federal Electronics Challenge Program: http://www.federalelectronicschallenge.net/ , Green Chemistry Program: http://www.epa.gov/oppt/greenchemistry/ , P2 Partnership for Sustainable Healthcare: http://www.epa.gov/p2/pubs/psh.htm , The Green Suppliers Network: http://www.epa.gov/greensuppliers/ , The National Pollution Prevention Roundtable: http://www.p2.org/

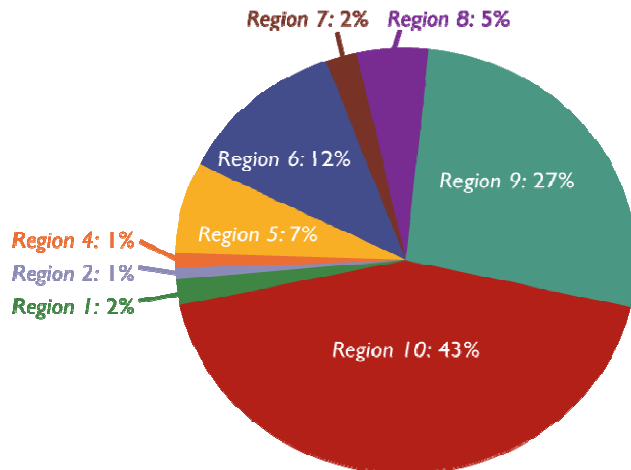
Objective 3: Improve Human Health and the Environment in Indian Country

FY 2007 Obligations: Goal 5, Objective 3 (in thousands)	FY 2007 Expenditures: Goal 5, Objective 3 (in thousands)
<p>Improve Human Health and the Environment in Indian Country \$75,666.8, 10%</p> <p>Enhance Societies Capacity for Sustainability through Science and Research \$66,228.8, 8%</p> <p>Achieve Environmental Protection through Improved Compliance \$521,869.9, 66%</p> <p>Improve Environmental Performance through Pollution Prevention and Other Stewardship Practices \$124,456.7, 16%</p>	<p>Improve Human Health and the Environment in Indian Country \$83,933.2, 11%</p> <p>Enhance Societies Capacity for Sustainability through Science and Research \$75,731.6, 9%</p> <p>Achieve Environmental Protection through Improved Compliance \$496,644.3, 64%</p> <p>Improve Environmental Performance through Pollution Prevention and Other Stewardship Practices \$122,382.2, 16%</p>

FY 2007 Resources for Program Projects Supporting this Objective*		
<p><i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i></p> <p><i>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding</i></p>		
Goal 5: Objective 3 - Improve Human Health and the Environment in Indian Country		
Program Project	FY 2007 Obligations	FY 2007 Costs
Categorical Grant: Tribal General Assistance Program	\$57,758.3	\$66,410.2
Congressionally Mandated Projects	(\$282.6)	\$46.1
Homeland Security: Communication and Information	\$56.2	\$23.2
Homeland Security: Protection of EPA Personnel and Infrastructure	\$46.8	\$68.3
Tribal - Capacity Building	\$11,048.5	\$10,700.1
Administrative Law	\$30.0	\$28.5
Alternative Dispute Resolution	\$7.3	\$5.9
Central Planning, Budgeting, and Finance	\$408.8	\$397.5
Civil Rights / Title VI Compliance	\$76.4	\$74.8
Congressional, Intergovernmental, External Relations	\$325.7	\$325.0
Exchange Network	\$208.5	\$123.7
Facilities Infrastructure and Operations	\$2,980.0	\$2,827.0
Acquisition Management	\$82.2	\$79.6
Human Resources Management	\$169.7	\$170.0
Information Security	\$12.8	\$12.6
IT / Data Management	\$1,285.4	\$1,147.5
Legal Advice: Environmental Program	\$270.9	\$271.1
Legal Advice: Support Program	\$81.3	\$80.5
Audits, Evaluations, and Investigations	\$555.5	\$592.3
Regional Science and Technology	\$29.5	\$30.5
Science Advisory Board	\$29.0	\$27.2
Small Minority Business Assistance	\$14.3	\$12.0
Financial Assistance Grants / IAG Management	\$367.2	\$377.9
Regulatory/Economic-Management and Analysis	\$105.1	\$101.7
Total	\$75,666.8	\$83,933.2

EPA has demonstrated improvements in core tribal environmental program capacity critical to protecting human health and the environment in Indian country. In 2007, EPA met its overall annual performance goal of assisting federally recognized tribes in assessing the condition of their environment, helping build their capacity to implement environmental programs where needed to improve tribal health and environments, and implementing programs in Indian country where needed to address environmental issues. EPA considers the Indian General Assistance Program (GAP) to be the core component for achieving the objective of building tribal capacity. GAP provides funds for tribes to plan, develop and/or establish an environmental protection program. Working with the tribes, the Agency met its goal of providing 90 percent of federally recognized Indian tribes with access to GAP grants.

GAP Regional Distribution
FY 2007 Enacted Budget \$56,654,000



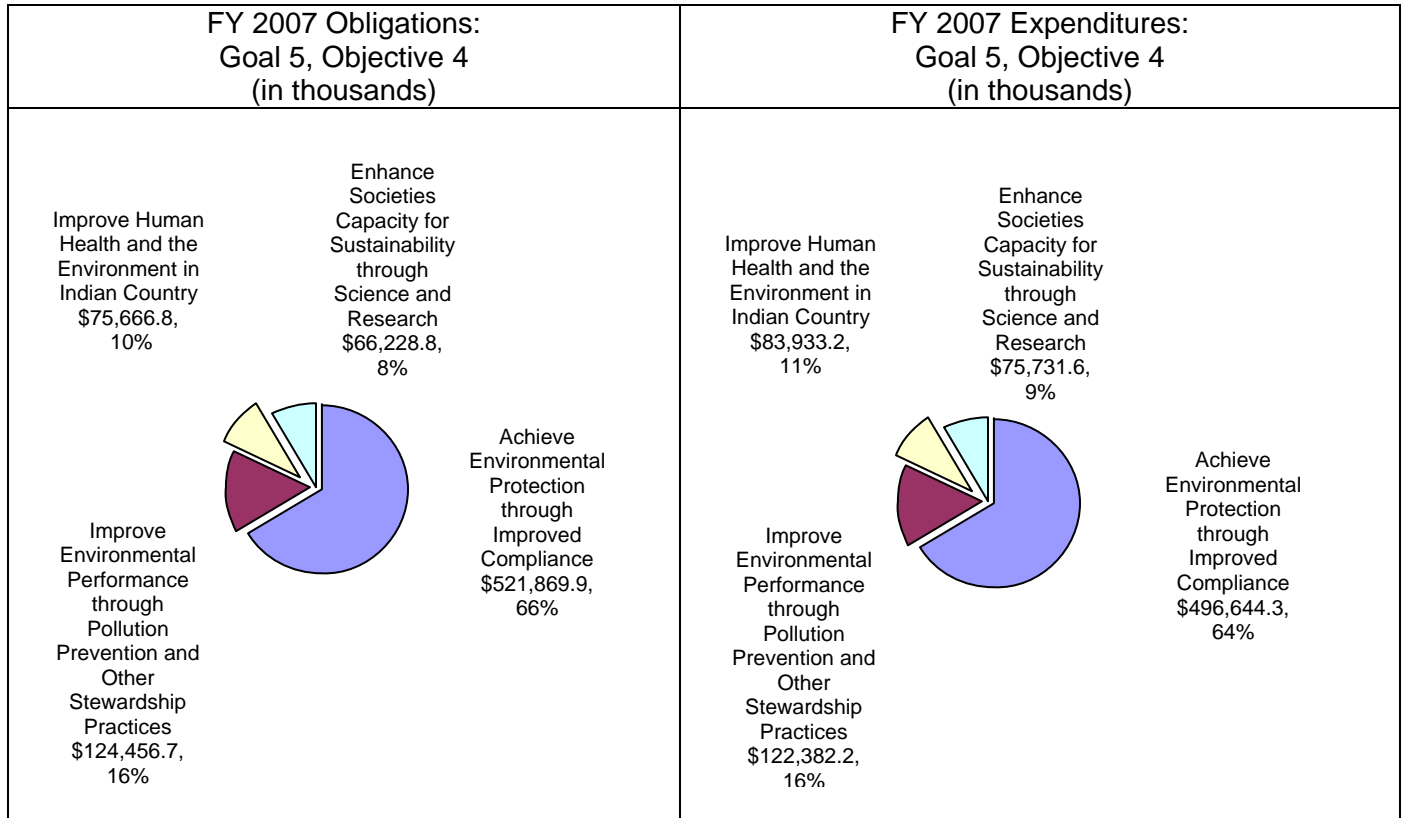
Progress in building tribal capacity is also shown by exceeding targets established for their performance measures:

- *Percent of tribes with EPA-approved multimedia workplans (cumulative)* - exceeded target of 42 percent by achieving 59 percent. The additional 17 percent of tribes above the target was achieved as tribes broadened their scope of environmental activities⁵⁶.
- *Percent of tribes with delegated and non-delegated programs (cumulative)*- achieved 73 percent against the goal of 49 percent. The Agency exceeded its goal as a result of continued efforts to reach out to smaller less advantaged tribes⁵⁷.
- *Percent of tribes with EPA reviewed monitoring and assessment occurring (cumulative)*- exceeded the target of 31percent by achieving this measure for 43 percent of tribes. This measure counts the number of tribes with EPA reviewed Quality Assurance Project Plans (QAPPS).
- *Number of environmental programs implemented in Indian country per million dollars*- exceeded the target of 12.3 percent by 14 percent for this annual efficiency measure⁵⁸.

EPA will continue to increase our efforts to work with tribes to provide efficient measures to assess environmental conditions in Indian country.

Additional Information Related to Objective 3	
Program Evaluations:	An independent evaluation of the Indian Environmental General Assistance Program was completed in May 2007. The results of this evaluation clearly establish that GAP has been effective in building the foundation of environmental capacity among tribes.
Grants:	Categorical Grant—Tribal General Assistance Program, authorized by the Indian Environmental General Assistance Program Act, 42 U.S.C. § 4368b (1992), as amended
PART:	The Tribal GAP program underwent its second PART assessment in 2007 and received an overall rating of “moderately effective.” As a result of the PART process, EPA has set ambitious goals and revised GAP performance measures to strengthen their relevance and accuracy. In response to the evaluation, EPA is implementing the GAP tracking system. Regional training will be conducted in Sept-Dec. 2007. The system will be evaluated in 2008 and recommendations for improvement will be updated. Development of a long-term solid waste measure is being considered.
Web Links:	Evaluation of the Tribal GAP program: http://www.epa.gov/evaluate/GAPFinalReport.pdf The American Indian Environmental Office (AIEO): http://www.epa.gov/indian/ American Indian Tribal Portal: http://www.epa.gov/tribalportal

Objective 4: Enhance Science and Research



<p>FY 2007 Resources for Program Projects Supporting this Objective*</p> <p><i>Program projects are EPA's fundamental unit for budget execution and cost accounting and they serve as the foundations for the Agency's budget. Frequently, program projects support multiple PMs and objectives. This table lists the program projects and associated resources that support this objective.</i></p> <p><small>*Resources associated with Program projects may not match the Goal and Objective obligations and expenditures exactly due to rounding</small></p>		
Goal 5: Objective 4 - Enhance Societies Capacity for Sustainability through Science and Research		
Program Project	FY 2007 Obligations	FY 2007 Expenditures
Congressionally Mandated Projects	\$3,577.6	\$9,959.3
Forensics Support	\$17,542.9	\$16,303.5
Homeland Security: Communication and Information	\$121.3	\$51.3
Homeland Security: Protection of EPA Personnel and Infrastructure	\$358.1	\$546.5

Research: Environmental Technology Verification (ETV)	\$1,405.3	\$1,947.5
Research: Pollution Prevention	(\$403.5)	\$9,520.4
Administrative Law	\$68.6	\$65.3
Alternative Dispute Resolution	\$21.7	\$16.5
Central Planning, Budgeting, and Finance	\$1,136.1	\$1,087.3
Civil Rights / Title VI Compliance	\$94.8	\$91.2
Congressional, Intergovernmental, External Relations	\$348.9	\$340.7
Exchange Network	\$457.3	\$259.9
Facilities Infrastructure and Operations	\$3,566.5	\$3,550.7
Acquisition Management	\$1,221.6	\$1,021.3
Human Resources Management	\$1,009.5	\$963.5
Information Security	\$125.3	\$144.8
IT / Data Management	\$5,722.5	\$4,599.1
Legal Advice: Environmental Program	\$623.8	\$614.8
Legal Advice: Support Program	\$204.8	\$196.1
Audits, Evaluations, and Investigations	\$370.7	\$378.7
Regional Science and Technology	\$18.9	\$18.6
Science Advisory Board	\$66.4	\$62.2
Small Minority Business Assistance	\$32.7	\$27.4
Financial Assistance Grants / IAG Management	\$538.0	\$522.5
Research: Economics and Decision Science(EDS)	\$2,290.3	\$393.9
Research: Sustainability	\$25,468.1	\$22,815.8
Regulatory/Economic-Management and Analysis	\$240.5	\$232.6
Total	\$66,228.7	\$75,731.4

Objective 4: Enhance Science and Research

EPA continues to strengthen the scientific evidence and research supporting environmental policies and decisions on compliance, pollution prevention, and environmental stewardship. Two examples of this research are:

Shepherd Creek Urban Watershed Management Pilot Project

In 2007, EPA's Shepherd Creek Urban Watershed Management pilot project continued to collect hydrologic, ecological, and water quality monitoring data in Cincinnati, Ohio's Shepherd Creek. As part of this project, EPA completed an experimental auction that provided market-based economic incentives to home-owners

in an effort to control pollution from non-point sources. The detailed assessment of all impervious areas in the creek watershed completed in 2006 was used to determine which geographic locations within the watershed would most benefit from best management practices (BMPs) designed to reduce urban stormwater runoff. Through the auction, homeowners were asked to bid on, purchase, and install the BMP of their choice (several types were available). With the auction completed and the BMPs in place, an evaluation of their effectiveness is now in progress. ORD expects to develop a series of generalized methodologies for watershed management using the hydrologic/ecological data, land-use practices, and economic incentives employed in this pilot project.

Technology for a Sustainable Environment (TSE) Grant Program

In 2007, EPA published a report⁵⁹ synthesizing the scientific innovations, environmental results, and economic benefits derived from the Technology for a Sustainable Environment (TSE) grant program, a partnership between EPA and NSF from 1994 to 2003. The program invested over \$50 million in innovative interdisciplinary research in green chemistry, green engineering, and industrial ecology at universities throughout the U.S, and supported multiple EPA goals and regional environmental protection efforts.

The results of TSE-funded research on organic solvents⁶⁰ exemplify the TSE’s program’s success. Organic solvents are used in hundreds of industrial processes ranging from manufacturing Teflon to developing film; some of these solvents are highly toxic or can break down into ozone-depleting gases, and some processes contaminate billions of gallons of wastewater. Given these detrimental environmental impacts, the TSE program funded research to identify alternatives to organic solvent-based processes. Under this grant, researchers developed detergent-like “surfactants” that allow CO2 to dissolve substances that would not normally be soluble. One of the consumer applications of this research is an alternative dry cleaning solution that replaces the organic solvent perchloroethylene. This detergent system is now used in more than 100 dry cleaning establishments in over 12 states. Additionally, a follow-up grant has allowed for the extension of this solvent research into applications for the microelectronics industries.

Additional Information Related to Objective 4	
Program Evaluations:	EPA’s Board of Scientific Counselors conducted a comprehensive assessment of the Sustainability Research Program in April, 2007. The report resulting from this review will be available in FY 2008.
Grants:	In FY 2007, recipients of EPA project-specific grants found that, while companies are willing to participate in voluntary programs that target changes in production processes, there are no significant sustained improvements in environmental performance. Of the industry-led programs, only the adoption of a formal Environmental

	<p>Management System seems to be associated with some environmental improvements. (These Results Were Supported by the Following Grants: (1) “Environmental Management Strategies and Corporate Performance: Identification and Analysis of the Motivators of Regulated Entities' Environmental Behavior and Performance,” (2) “Do Formalized Management Systems Produce Superior Performance?” (3) “Environmental Management Systems: Informing Organizational Decisions,” (4) “Oregon Business Decisions for Environmental Performance,” (5) “Pollution Prevention: The Role of Environmental Management and Information,” and (6) “Comparative Plant-Level Analysis of Three Voluntary Environmental Programs.”</p>
PART:	<p>The Sustainability Research Program received a “Results Not Demonstrated” rating on its 2003 PART assessment, which was conducted under the title Pollution Prevention and New Technologies Research. As a result of the PART process, the program has improved its strategic planning, and has instituted a plan for regular external review. The program has also worked to establish performance measures, and instituted a new efficiency measure in FY 2007.</p>
Web Links:	<p>Sustainability Research Program: http://www.epa.gov/sustainability/</p>

¹Koehler, D.A. “Voluntary Environmental Programs – Policy at a Crossroads?” forthcoming Policy Studies Journal, 2007.

GOAL 5: COMPLIANCE AND ENVIRONMENTAL STEWARDSHIP

Protect human health and the environment through ensuring compliance with environmental requirements by enforcing environmental statutes, preventing pollution, and promoting environmental stewardship. Encourage innovation and provide incentives for governments, businesses, and the public that promote environmental stewardship and long-term sustainable outcomes.

OBJECTIVE: 5.1: ACHIEVE ENVIRONMENTAL PROTECTION THROUGH IMPROVED COMPLIANCE

By 2011, maximize compliance to protect human health and the environment through enforcement and other compliance assurance activities by achieving a 5 percent increase in the pounds of pollution reduced, treated, or eliminated by regulated entities, including those in Indian country.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
6	2	0	8

SUB-OBJECTIVE: 5.1.1: Compliance Assistance

By 2011, prevent noncompliance or reduce environmental risks, with an emphasis on achieving results in all areas including those with potential environmental justice concerns, through EPA compliance assistance by maintaining or improving on the following percentages for direct assistance provided to regulated entities, including those in Indian country: 50 percent of the regulated entities receiving direct assistance improve their management practices; and 12 percent of the regulated entities receiving direct assistance reduce, treat, or eliminate pollution.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved environmental management practices as a result of EPA assistance.</i>			50	51	50	74	50	91	<i>Percent</i>
Baseline - The FY 2006 baseline for the percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved EMP as a result of EPA assistance is 74 percent. These measures are <u>not</u> calculated from a representative sample of the regulated entity universe. The percentages are based, in part, on the number of regulated entities that answered affirmatively to these questions on voluntary surveys. The percentages do not account for the number of regulated entities who chose not to answer these questions or the majority of entities who chose not to									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
answer the surveys.									
<i>Percentage of regulated entities receiving direct assistance from EPA reporting that they reduced, treated, or eliminated pollution, as a result of EPA assistance.</i>			25	13	15	28	15	50	Percent
Baseline - The FY 2006 baseline for the percentage of regulated entities receiving direct compliance assistance from EPA reporting that they reduced, treated, or eliminated pollution as a result of EPA compliance assistance is 28 percent. These measures are <u>not</u> calculated from a representative sample of the regulated entity universe. The percentages are based, in part, on the number of regulated entities that answered affirmatively to these questions on voluntary surveys. The percentages do not account for the number of regulated entities who chose not to answer these questions or the majority of entities who chose not to answer the surveys.									

SUB-OBJECTIVE: 5.1.2: Compliance Incentives

By 2011, identify and correct noncompliance and reduce environmental risks, with an emphasis on achieving results in all areas including those with potential environmental justice concerns. Use of compliance incentives will result in a 5 percentage point increase in the number of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce, treat or eliminate pollution or improve environmental practices at their facilities, including those in Indian country.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Pounds of pollutants estimated to be reduced, treated, or eliminated, as a result of audit agreements.			0.25	1.9	0.4	0.05	0.4	1.2	Million Pounds
Baseline - The FY 2006 baseline for pounds of pollutants estimated to be reduced, treated, or eliminated as a result of audit agreements is 0.05 million pounds of pollutants									

SUB-OBJECTIVE: 5.1.3: Monitoring and Enforcement

By 2011, identify, correct, and deter noncompliance and reduce environmental risks, with an emphasis on achieving results in all areas including those with potential environmental justice concerns, through monitoring and enforcement of regulated entities' compliance, including those in Indian country, by achieving: a 5 percent increase in the number of facilities taking complying actions during EPA inspections and evaluations after deficiencies have been identified; a 5 percentage point increase in the percent of enforcement actions requiring that pollutants be reduced, treated, or eliminated FY 2005 baseline: 28.8 percent); and a 5 percentage point increase in the percent of enforcement actions requiring improvement of environmental management practices.

No Strategic Target

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enf)			300	1,100	450	890	500	890	Million Pounds
Baseline - The FY 2004-2006 rolling average baseline for pounds of pollution estimated to be reduced, treated, or eliminated is 997,000,000 pounds of pollutants.									
Percentage of concluded enforcement cases requiring that pollution be reduced, treated, or eliminated.			30	28.8	30	Data Avail FY 2008	30	27	Percent
Baseline - The FY 2007 baseline for the percentage of concluded enforcement cases requiring that pollutants estimated to be reduced, treated, or eliminated is the FY2005 result which is 28.8 percent. The reason for using the FY2005 result as the FY2006 baseline is due to the data lag in the FY2006 result.									
Percentage of concluded enforcement cases requiring implementation of improved environmental management practices.			60	72.5	65	82	70	70	Percent
Baseline - The FY2006 baseline for the percentage of concluded enforcement cases requiring implementation of improved environmental management practices is 82 percent.									
Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations.			10	19	25	16	30	18	Percent

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline - The FY 2006 baseline for the percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations is 16 percent.									
<i>Dollars invested in improved environmental performance or improved environmental management practices as a result of concluded enforcement actions (i.e., injunctive relief and SEPs)</i>			4	10	4.1	5	4.2	10.6	Billion Dollars
Baseline - The FY 2004-2006 rolling average baseline for dollars invested in improved environmental performance or improved environmental management practices is \$6,600,000,000.									

OBJECTIVE: 5.2: IMPROVE ENVIRONMENTAL PERFORMANCE THROUGH POLLUTION PREVENTION AND OTHER STEWARDSHIP PRACTICES

By 2011, enhance public health and environmental protection and increase conservation of natural resources by promoting pollution prevention and the adoption of other stewardship practices by companies, communities, governmental organizations, and individuals.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
2	1	3	6

SUB-OBJECTIVE: 5.2.1: Prevent Pollution and Promote Environmental Stewardship by Government and the Public

Prevent Pollution and Promote Environmental Stewardship. By 2011, reduce pollution, conserve natural resources, and improve other environmental stewardship practices while reducing costs through implementation of EPA's pollution prevention programs.

Strategic Target (1)

By 2011, reduce 4.5 billion pounds of hazardous materials cumulatively compared to the 2000 baseline of 44 million pounds reduced.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Pounds of hazardous materials	120	155	290	315	401	394	414	419.5	Million

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
reduced by P2 program participants.									Pounds
Baseline - The baseline for the Pollution Prevention Program hazardous material reduced was 44 million pounds in FY 2000.									
<p>Explanation - In FY 2004, the program was able to exceed its target due to the combined reporting of the Green Chemistry, P2RX, Design for the Environment, and Partnership for Sustainable Healthcare centers of results. Results from Green Chemistry Presidential award winners were the primary contributor for the program.</p> <p>In FY 2005, the program continued to exceed its target due to the combined reporting of EPAs 10 Regions via Grant results, Green Chemistry, P2RX, Design for the Environment, and Partnership for Sustainable Healthcare centers of results. Articulated and substantial Regional grant results as well as expanded results from the Design for the Environment program were primary contributors to exceeding the target.</p> <p>FY 2006 results represent data from six of seven P2 centers of results. All six of these centers generated substantial results leading to the program's highest reported number of pounds to date. Partial data has been received for P2RX and our State partners through the National P2 Results Database. It is anticipated that when more States report, the program will hit its target.</p> <p>FY 2007 results represent data from five of seven centers of results and represent significant achievements from those centers who reported. Data from the last two centers will further increase these results during the next Fiscal Year.</p>									

Strategic Target (2)

By 2011, reduce, conserve, or offset 31.5 trillion British Thermal Units (BTUs) cumulatively compared to the 2002 baseline amount of 0 BTUs reduced, conserved, or offset.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>BTUs of energy reduced, conserved or offset by P2 program participants.</i>					906.7	4,442	1,106.8	<i>Data Avail FY 2008</i>	<i>Billion BTUs</i>
Baseline - The baseline reference point for reductions of pollution and conservation of BTUs and water is zero for 2002.									
<p>Explanation - - In FY 2006, the Environmentally Preferable Purchasing Center of results came on-line and started producing results. These results from both the Federal Electronics Challenge and the Electronics Product Environmental Assessment Tool (EPEAT) when combined with significant Regional Grant results explain why these results are significantly greater than targets. We anticipate revising these targets at the next available opportunity.</p> <p>FY 2007 results are incomplete. Full results from both Regions and the EPP center of results will enable the program to exceed its FY 2007 target.</p>									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Full results will be available next Summer for the Fall PART update.									

Strategic Target (3)

By 2011, reduce water use by 19 billion gallons cumulatively compared to the 2000 baseline amount of 220 million pounds reduced.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Gallons of water reduced by P2 program participants.</i>					328.8	2,272	1,790.1	<i>Data Avail FY 2008</i>	Million Gallons
Baseline - The baseline for the Pollution Prevention Program gallons of water was 220 millions gallons in FY 2000.									
Explanation - In FY 2006, Regional Grant results produced greater than anticipated results allowing the program to significantly exceed its FY 2006 Performance target. Full P2 Grant Results have been made publicly available and can be viewed here: http://www.epa.gov/p2/pubs/public_reporting_fy06.pdf .									
In FY 2007, Regional Grant reports have not been received for all Grantees and from other P2 Centers of Results.									

Strategic Target (4)

By 2011, save \$791.9 million through pollution prevention improvements in business, institutional, and governmental costs cumulatively compared to the 2002 baseline of \$0.0 saved.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Business, institutional and government costs reduced by P2 program participants.			30.4	27.5	38.2	86.2	44.3	<i>Data Avail FY 2008</i>	Million Dollars Saved
Baseline - The baseline for the Pollution Prevention Program cost savings was zero dollars in FY 2002.									
Explanation - FY 2007 results have not yet been received from all centers of results, including Environmentally Preferable Purchasing (EPP) Program. Results will be available in Summer 2008.									

Strategic Target (5)

By 2011, reduce 4 million pounds of priority chemicals from waste streams as measured by National Partnership for Environmental Priorities (NPEP) contributions, Supplemental Environmental Projects (SEPs), and other tools used by EPA to achieve priority chemical reductions.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Number of pounds (in millions) of priority chemicals reduced, as measured by National Partnership for Environmental Priorities members.							0.5	1.3	Million Pounds
<p>Baseline -The number of pounds (in millions) of priority chemicals reduced by industry through the NPEP program. The baseline is numerically zero every year as new reductions are directly based on fiscal year partner achievements. The 2006 – 2011 strategic plan goal is to reduce four million pounds of priority chemicals by 2011. The FY 2008 and FY 2009 targets are 1 million pounds per year. The new performance measure reflects the fact that NPEP has significantly increased its membership and now has over 150 partners who have removed over 3.5 million pounds of priority chemicals from the environment. Reductions will be achieved primarily through source reduction made possible by safer chemical substitutes. The FY 2007 target was exceeded because two large facilities achieved greater than expected naphthalene and lead reductions ahead of schedule.</p>									
Number of pounds reduced (in millions) in generation of priority list chemicals from 2001 baseline of 84 million pounds.	1.2	1.0	1.2	0.94	1.2	1.28	No FY 2007 Target	N/A	Million Pounds
<p>Baseline – The 2001 baseline of priority chemicals reported to the Toxic Release Inventory (TRI) changes yearly as reporting errors are corrected. This necessitated changes in performance targets which made tracking progress difficult. The NPEP measurement system described above is being used to report on FY 2005 and FY 2006 priority chemical reduction targets because it more directly reflects reductions that are a result of EPA activities and not a result of economic conditions that correlate to priority chemical generation. Added benefits to using this system include: reductions correspond to the fiscal year instead of the calendar year; there is no reporting time lag; and it captures reductions of priority chemicals not reported to TRI. Historical data is available for these years because program success was being tracked by reductions through NPEP partner achievements; this history was a major reason for changing the performance measure with the new strategic plan.</p>									
<p>Explanation – NPEP fell short of the FY 2005 goal as the first big wave of partner commitments were just starting to be achieved. The economic recovery in 2005 made reaching the goal more difficult as increased industrial output is correlated with increased priority chemical generation. As a testament to program effectiveness, NPEP met the target set under the old measure for FY 2006.</p>									

SUB-OBJECTIVE: 5.2.2: Promote Improved Environmental Performance through Business and Community Innovation

Promote Improved Environmental Performance Through Business and Community Innovation. Through 2011, improve environmental performance with sustainable outcomes through sector-based approaches, performance-based programs, and assistance to small business.

Strategic Target (1)

By FY 2011, the reported results of Performance Track member facilities collectively will show the following normalized annual reductions: 5.1 billion gallons in water use; 13,000 tons of hazardous materials use; 230,000 megatons of carbon dioxide equivalent (MTCOE) of greenhouse gases; 300 tons of toxic discharges to water; and 5,500 tons of combined NOx, SOx, VOC, and PM emissions. (Performance Track member facilities make commitments to, and report yearly progress on, performance improvements in up to four environmental areas. In FY 2005, Performance Track members achieved normalized annual reductions of 3.4 billion gallons in water use; 8,794 tons of hazardous materials use; 151,129 MTCO2E of greenhouse gases; 186 tons of toxic discharges to water; and 3,533 tons of combined NOx, SOx, VOC, and PM emissions.)

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Reduce 3.7 billion gallons of water use; 16.3 million MMBTUs of energy use; 1,050 tons of materials use; 460,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges.</i>							4	3	<i>Media reduction</i>
<p>Baseline - For Performance Track, the baseline year is 2001 for FY 2005, 2006, and 2007. Performance will be measured against the 2001 baseline annual reduction of 475 M gallons of water conserved, 0.24 million MMBTUs of energy conserved, 150,000 tons of solid waste reduced, 1,113 tons of air emissions reduced, 6,870 tons of water discharged, and -2,154 tons of materials reduced. For FY 2008, the baseline year is 2005. The 2005 baseline annual normalized reductions are: 3,387,333,545 gallons of water reduced, 8,794 tons of hazardous materials reduced, 151,129 MTCO2Es of greenhouse gas emissions reduced, 186 tons of toxic discharges to water reduced, and 3,533 tons of NOx, SOx, VOCs and PM emissions reduced.</p>									
<p>Explanation - The goal for FY07 was to meet 4 of the strategic targets for reducing environmental impacts in 6 priority areas. The reductions, normalized for changes in production or activity level at a facility were met and/or exceeded in 3 areas, i.e., water use-reductions of 5,300,000,000 gallons; air emissions -72,000 tons; and materials use-64,000 tons. The targets were not met for energy use, discharges to water and non-hazardous waste. Discharges to water increased by 623 tons. Setting annual targets is a challenge because it is difficult to predict the number, size, and environmental impacts of the facilities that will join. It is also difficult to predict the 4 environmental areas that each new and renewing member will select to set goals (facilities can choose from 31 different environmental indicators). Aggregate results are heavily impacted by large facilities whose use of materials can be orders of magnitude higher than other participants in the program. Outlier results are difficult to predict as a few large facilities significantly impact the overall results. Specifically, the energy use, discharges to water, and solid waste targets were not met due to this issue. The FY07 targets were based on extrapolation of FY2005 results. A large portion of the savings achieved in FY 2005 for these areas was by a few large facilities. PT assumed that similar reductions could be made in future years. In summary, the targets were based on results achieved in FY 2005 by a</p>									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
few outliers. Similarly, the materials use and water use targets were exceeded in FY 2007 due to a few facilities that achieved large reductions. The Performance Track Program will revisit ways to set targets in FY 2008.									

Strategic Target (2)

By 2011, the participating manufacturing and service sectors in the Sector Strategies Program will achieve an aggregate 10 percent reduction in environmental releases to air, water, and land, working from a 2004 baseline and normalized to reflect economic growth.

SUB-OBJECTIVE: 5.2.3: Promote Environmental Policy Innovation

Through 2011, achieve measurably improved environmental results, promote stewardship behavior, and advance sustainable outcomes by testing, evaluating, and applying alternative approaches to environmental protection in states, companies, and communities. This work also will seek to improve the organizational cost effectiveness and efficiency for regulatory agencies as well as regulated entities.

Strategic Target (1)

By 2011, innovation projects under the State Innovation Grant Program and other piloting mechanisms will achieve, on average, an 8 percent or greater improvement in environmental results (such as reductions in air or water discharges, improvements in ambient water or air quality, or improvements in compliance rates), or a 5 percent or greater improvement in cost effectiveness and efficiency.

OBJECTIVE: 5.3: IMPROVE HUMAN HEALTH AND THE ENVIRONMENT IN INDIAN COUNTRY

Protect human health and the environment on tribal lands by assisting federally-recognized tribes to build environmental management capacity, assess environmental conditions and measure results, and implement environmental programs in Indian country.

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
3	0	0	3

Strategic Target (1)

By 2011, increase the percent of tribes implementing federal environmental programs in Indian country to 9 percent.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent of tribes with EPA-approved multimedia workplans.			39	33	39	42	42	59	Percent Tribes
Baseline - There are 572 tribal entities that are eligible for GAP program funding. These entities are the ones for which environmental assessments of their lands will be conducted.									
Explanation - In 2008, the Tribal GAP program will be reporting new measures approved by OMB during our re-PART that are more specific and accurately capture criteria to be measured.									

Strategic Target (2)

By 2011, increase the percent of tribes conducting EPA-approved environmental monitoring and assessment activities in Indian country to 26 percent.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent of Tribes with EPA-reviewed monitoring and assessment occurring.			25	29	30	30.8	31	43	Percent Tribes
Baseline - There are 572 tribal entities that are eligible for GAP program funding. These entities are the ones for which environmental assessments of their lands will be conducted.									
Explanation - In 2008, the Tribal GAP program will be reporting new measures approved by OMB during our re-PART that are more specific and accurately capture criteria to be measured.									

Strategic Target (3)

By 2011, increase the percent of tribes with an environmental program to 67 percent.

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Percent of tribes with delegated and non-delegated programs (cumulative).			44	47	48	57	49	73	Percent Tribes
Baseline - There are 572 tribal entities that are eligible for GAP program funding. These entities are the ones for which environmental assessments of their lands will be conducted.									

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Explanation - In 2008, the Tribal GAP program will be reporting new measures approved by OMB during our re-PART that are more specific and accurately capture criteria to be measured.									

OBJECTIVE: 5.4: ENHANCE SOCIETIES CAPACITY FOR SUSTAINABILITY THROUGH SCIENCE AND RESEARCH

Conduct leading-edge, sound scientific research on pollution prevention, new technology development, socioeconomic, sustainable systems, and decision-making tools. By 2011, the products of this research will be independently recognized as providing critical and key evidence in informing Agency policies and decisions and solving problems for the Agency and its partners and stakeholders.

ENABLING SUPPORT PROGRAMS

Energy Consumption Reduction

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
1	0	0	1

Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Cumulative percentage reduction in energy consumption.</i>					2	3	5	9	Percent

Baseline - On January 24, 2007, the President signed Executive Order: Strengthening Federal Environment, Energy, and Transportation Management, requiring all Federal Agencies to reduce its Green House Gas intensity and its energy use by 3% annually through FY 2015. For the Agency's 29 reporting facilities, the FY 2003 energy consumption of British Thermal Units (BTUs) per square foot is 359,087 BTUs per square foot.

Explanation - The actual number represents end of 3rd quarter data. Final data will be available in early 2008 and reported in the FY 2008 PAR.

Fraud Detection and Deterrence

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
1	0	0	1

Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	

Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Criminal, civil, administrative, and fraud prevention actions.</i>	80	108	80	125	80	121	80	103	Actions

Baseline - In FY 2005, the OIG established a baseline of 98 criminal, civil, administrative, and fraud prevention actions. This number is based on the difference between the 3 year average of targets versus actuals.

Audit and Advisory Services

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
3	0	0	3

Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Environmental and business actions taken for improved performance or risk reduction.</i>					303	407	318	464	Actions

Baseline - In FY 2005, the OIG established a revised baseline of 426 environmental and business actions taken for improved performance or risk reduction. This number is based on the difference between the 3 year average of targets versus actuals.

Explanation - These results (actions taken and risks reduced) are subsequent outcome actions coming to fruition from a high number of output results (recommendations and risks identified) in the previous two years. There appears to be a ripple effect of one to two years between the output results and the intended subsequent outcomes.

<i>Environmental and business recommendations or risks identified for corrective action.</i>					925	1,024	925	949	Recommendations
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Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline - FY 2005, the OIG established 991 environmental and business recommendations or risks identified for corrective action. This number is based on the difference between the 3 year average of targets versus actuals.									
<i>Return on the annual dollar investment, as a percentage of the OIG budget, from audits and investigations.</i>					150	1100	150	189	Percent
Baseline - In FY 2005, the OIG established 211% in potential dollar return on investment as a percentage of OIG budget, from savings, questioned costs, fines, recoveries, and settlements.									
Explanation - The OIG has increased its emphases on identifying cost efficiencies associated with performance audits, program evaluations and investigations.									

Information Exchange Network

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
2	0	0	2

Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of major EPA environmental systems that use the CDX electronic requirements enabling faster receipt, processing, and quality checking of data.</i>			12	22	29	32	36	37	Systems
Baseline - The Central Data Exchange program began in FY 2001.									

Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Number of users from states, tribes, laboratories, and others that choose CDX to report environmental data electronically to EPA.</i>			20,000	45,000	47,000	62,000	55,000	88,516	Users
Baseline - The Central Data Exchange program began in FY 2001.									

Information Security

PMs Met	PMs Not Met	Data Available After November 15, 2007	Total PMs
1	0	0	1

Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percent of Federal Information Security Management Act reportable systems that are certified and accredited.</i>	75	91	75	90	100	100	100	100	Percent

Baseline - In FY 2002, the Agency started planning an effort to expand and strengthen its information security infrastructure.

Human Capital

PMs Met	PMs Not Met	Data Available After November	Total PMs
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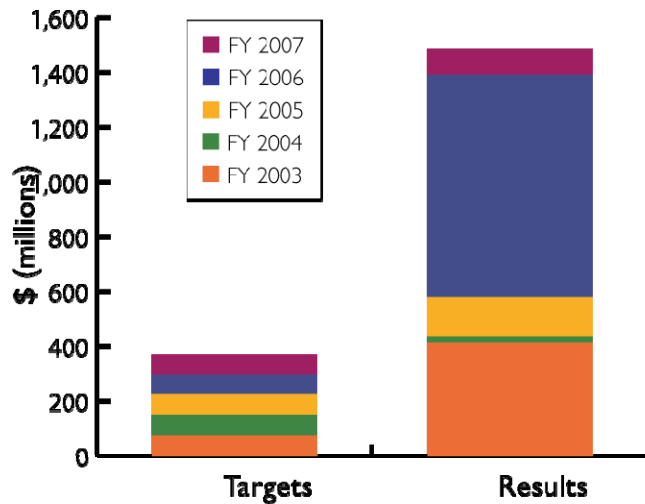
		15, 2007	
5	0	0	5

Performance Measures	FY 2004		FY 2005		FY 2006		FY 2007		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
<i>Percent to which competency/skill gaps are reduced (beginner to intermediate) in mission critical occupations.</i>							25	62	Percent
Baseline - Survey data is used to assess the competencies of EPA's mission critical occupations (MCOs). Reassessments of the assessed MCOs are repeated and compared to previous assessments.									
Explanation - EPA exceeded the goal due to the uncertainty in originally establishing this goal with limited prior experience conducting Agency-wide competency assessments for specific MCOs. However, greater consistency is expected in the future for both the use of competency assessment tools and results as our knowledge increases and as we continue to assess additional MCOs and their relevant competencies over time.									
<i>Percent to which competency/skill gaps are reduced (intermediate to expert) in mission critical occupations.</i>							15	64	Percent
Baseline - Survey data is used to assess the competencies of EPA's mission critical occupations (MCOs). Reassessments of the assessed MCOs are repeated and compared to previous assessments.									
Explanation - EPA exceeded the goal due to the uncertainty in originally establishing this goal with limited prior experience conducting Agency-wide competency assessments for specific MCOs. However, greater consistency is expected in the future for both the use of competency assessment tools and results as our knowledge increases and as we continue to assess additional MCOs and their relevant competencies over time.									
<i>Number of new hires recruited through EPA's Environmental Intern Program (EIP) in mission critical occupations.</i>							100	100	Percent
Baseline - The baseline of 100 % includes 28 hires into mission critical occupations.									
<i>Average time to hire non-SES positions</i>							45	28	Days

	FY 2004		FY 2005		FY 2006		FY 2007		
Performance Measures	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
<i>from date vacancy closes to date offer is extended, expressed in working days</i>									
Baseline - Based on 796 cases, the average is 31 days.									
<i>For SES positions, the average time from date vacancy closes to date offer is extended, expressed in working days</i>							90	66	Days
Baseline - Based on 14 cases, the average is 116 days.									
Explanation – EPA achieved this goal by reassessing the steps in SES hiring process including a review of current (or baseline) timeliness, and developing a tactical plan for improved oversight and monitoring progress. EPA also established an efficiency strategy that included setting expiration dates to the SES certificates of eligibles and streamlining the process related to background investigations and drug testing.									

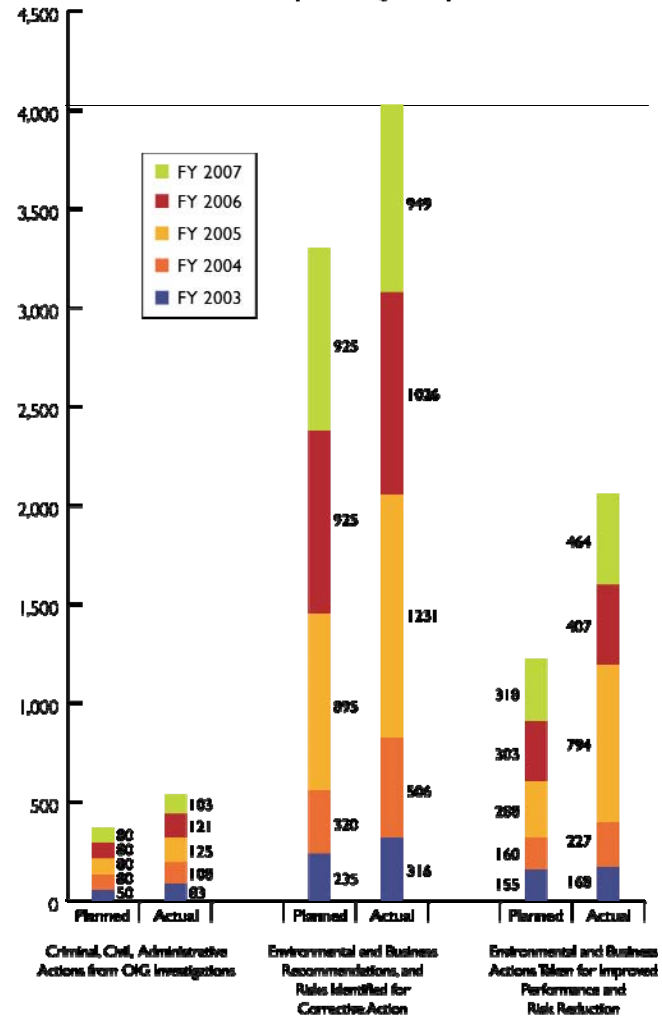
Return on the Annual Dollar Investment in the OIG

*Annual Targets Are 150% of the OIG Budgets
Cumulative Results vs. Targets FY 2003–2007*



Source: OIG information systems, IGOR and PMRS.

EPA's OIG Helps Improve Agency Management, Accountability, and Program Operations



Source: OIG information systems, IGOR and PMRS.

PAR: FY 2007 External Efficiency Measures

Goal 1:										
Program	Measure	FY04 Target	FY04 Actual	FY05 Target	FY05 Actual	FY06 Target	FY06 Actual	FY07 Target	FY07 Actual	Units
Indoor Air Program	Total Cost (public and private) per future premature cancer death prevented through lowered radon exposure.					450,000	Data Avail 2008	N/A	N/A	Dollars
Baseline - The baseline for this measure is \$495,000 in 2003.										
Explanation - Due to reporting cycles, data will not be available until 2008.										
Indoor Air Program	Annual cost to EPA per person with asthma taking all essential actions to reduce exposure to indoor environmental asthma triggers.					8.38	Data Avail 2008	N/A	N/A	Dollars
Baseline - The baseline for this measure is \$25.10 in 2003.										
Explanation - Due to reporting cycles, data will not be available until 2008.										
Indoor Air Program	Average cost to EPA per student per year in a school that is implementing an Indoor Air Quality plan.					2	Data Avail 2008	N/A	N/A	Dollars
Baseline - The baseline for this measure is \$6.10 in 2003.										
Explanation - Due to reporting cycles, data will not be available until 2008.										
Climate Change	Tons of greenhouse gas emissions (mmtce) prevented per societal dollar in the transportation sector.					0.15	0.19	N/A	N/A	Dollars
Baseline - The baseline for this measure is \$0.15 in 2006.										

Climate Change	Tons of greenhouse gas emissions (mmtce) prevented per societal dollar in the industry sector.							3.1	Data Avail 2008	N/A	N/A	Dollars
Baseline - The baseline for this measure is \$3.1 in 2006.												
Explanation - Due to reporting cycles, data will not be available until 2008.												
Climate Change	Tons of greenhouse gas emissions (mmtce) prevented per societal dollar in the building sector.							0.7	Data Avail 2008	N/A	N/A	Dollars
Baseline - The baseline for this measure is \$.70 in 2006.												
Explanation - Due to reporting cycles, data will not be available until 2008.												

Goal 2:										
Program	Measure	FY04 Target	FY04 Actual	FY05 Target	FY05 Actual	FY06 Target	FY06 Actual	FY07 Target	FY07 Actual	Units
Surface Water Protection	Loading (pounds) of pollutants removed per program dollar expended.	N/A	122	180	180	233	233	285	310	# Pounds
Baseline - The baseline for this measure is 122 loading of pollutants removed per dollar expended in 2004.										
Water Pollution Control (Sec. 106)	Cost per water segment restored.	N/A	1,544,998	Baseline	828,654	1,358,351	576,618	636,744	512,735	Dollars
Baseline - The baseline for this measure is \$701,495 in 2005.										
Water Quality Research	Peer-reviewed publications over FTE.							0.8	Data Avail 2008	Publications
Baseline - In 2004, the program began measuring its number of peer reviewed publications per full-time employee and achieved a ratio of 0.76. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in fish, shellfish, and recreational waters, and to support the protection of aquatic ecosystems.										
Explanation - Due to the program's two year appropriations, data for this measure will not be available until 2008.										

Goal 3:

Program	Measure	FY04 Target	FY04 Actual	FY05 Target	FY05 Actual	FY06 Target	FY06 Actual	FY07 Target	FY07 Actual	Units
Land Protection and Restoration Research	Average time (in days) for technical support centers to process and respond to requests for technical document review, statistical analysis and evaluation of characterization and treatability study plans.					32.5	31	30.5	Data Avail 2008	Days
Baseline -In 2005, the program began tracking the average number of days its technical support centers take to process and respond to requests for technical document review, statistical analysis, and the evaluation of characterization and treatability study plans for tech plans. The average amount of time to process and respond was 35.3 days in 2005. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the use of land protection and restoration.										
Explanation - Data for this measure will be available in July 2008. The technical support centers compile and calculate their processing time at the end of the calendar year.										
RCRA Corrective Action	Percent increase of final remedy components constructed at RCRA corrective action facilities per federal, state, and private sector.							3	6.2	Percent
Baseline -In FY 2006, there were .665 final remedy components constructed per million dollars.										
RCRA Base, Permits, and Grants	Facilities under control (permitted) per total permitting cost.							2	3.36	Percent
Baseline -In FY 2006, there were 3.1 facilities under control (permitted) per million dollars of permitting cost.										
Superfund Removal	Superfund-lead removal actions completed annually per million dollars.			2.1	1.54	0.91	1.02	0.92	1.04	Removals
Baseline -In FY 2004, there were .87 removal actions annually per million dollars.										
Superfund Remedial Action	Human exposures under control per million dollars.							6.1	6.9	Thousand
Baseline -In FY 2006, there were 6.1 human exposures under control per million dollars and in FY 2005, there were 5.7.										

Goal 4:

Program	Measure	FY04 Target	FY04 Actual	FY05 Target	FY05 Actual	FY06 Target	FY06 Actual	FY07 Target	FY07 Actual	Units
Human Health Risk Assessment	Average cost to produce Air Quality Criteria/Science assessment documents.					-	7,252	5,386	5,533	Average Cost (\$)
Baseline - When the program began producing Air Quality Criteria/Science Assessment documents in FY 2004, the average cost to produce these assessment documents was \$13,989K. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to the health of people, communities, and ecosystems.										
Explanation - The average annual cost was significantly lower than 2006, but marginally (2.7%) above the ambitious target for 2007.										
Protect Human Health from Pesticide Risk	Percent reduction in review time for registration of conventional pesticides.			7	7	8	34	9	5	% Reduction in Review Time
Baseline -The original baseline was pre-PRIA and it was based on the FY 2002 turnaround time of 44 months. The reporting is based on the reduction from the prior year.										
Explanation -The actions completed in 2007 were inherently more complicated than those worked on in prior years so less improvement in review time was realized.										
Human Health Research	Average time (in days) to process research grant proposals from RFA closure to submittal to EPA's GAD, while maintaining a credible and efficient competitive merit review system.					307	277	292	254	Average Days
Baseline -In 2003, the program began tracking its average grants processing time and developed a baseline of 405 days. This measure contributes to EPA's goal of providing scientifically sound guidance and policy decisions related to human health.										
Chesapeake Bay	Total nitrogen reduction practices implementation achieved as a result of agricultural best management practices implementation per million dollars to implement agricultural Best Management Practices.					49,113	45,928	47,031	Data Avail Late 2007	Pounds per million \$
Baseline - The baseline for this measure is 43,289 pounds per million dollars.										

Explanation - End-of-Year data will not be available until November 30, 2007. Based on the mid-year data which is 45,928 the measure is not on track to meet the end-of-year target.											
Pesticide Field Programs	Average cost and average time to produce or update an Endangered Species Bulletin.								10	0	% Reduction
Baseline -In 2004, the average cost per Endangered Species Bulletin produced or updated was \$4,000 and 100 hours.											
Explanation -No Bulletins were issued for FY2007 due to external factors outside EPA's control.											
Pesticide Reregistration	Cumulative percent of Reregistration Eligibility Decisions Completed.	81.7	77.6	81.4	82	93.5	91	97	95.4	Cumulative % Completed	
Baseline - The baseline for REDs is completion of 612 REDs by 2008.											
Explanation - The target was not met for 2 reasons: (1) Due to strong public interest in the soil fumigants, the public comment period was extended until November 2007, thus EPA was unable to complete these REDs; (2) EPA missed the target for this APG in FY 2006 by more than 2%. The 2007 target was not adjusted to compensate for this. We anticipate completing the soil fumigant REDs in FY 2008, thus meeting our overall target of completing all REDs by 2008.											
Pesticide Reregistration				7	75	10	62	40	40	% Reduction	
Baseline - Reregistration decision time baseline is 30 months in 2002.											
Chemical Risk Review and Reduction	Percent increase from baseline year in cost savings due to new chemical prescreening.					6.67	15.1	6.7	-42	% Increase from Baseline	
Baseline - Baseline for the percent change from prior year in cost savings due to new chemical pre-screening is \$51,000 (6.7%) in FY 2004-2005.											
Explanation - The cost savings target was not achieved because the rate at which PMN submissions were pre-screened by submitters decreased to 8.7% from 17% in FY 2006. These pre-screening rates drive cost savings for this measure. Pre-screening rates declined in part due to slower than expected start up of actions by the industry association that had agreed to assume responsibility for providing training and technical assistance to industry in the use of EPA's chemical risk screening tools.											
Chemical Risk Review and Reduction	Percent reduction from prior year in total EPA cost per chemical for which proposed AEGL value sets are developed.							34,160 (2)	12.6	Cost Savings (Percent)	

Baseline - A total EPA cost of \$35,191 per chemical in 2006.

Explanation - This measure has exceeded its target through increased program efficiency in reviewing and presenting chemicals prior to and at international meetings and early FY 2007 action on chemicals delayed from action in FY 2006 while issues associated with the use of human testing data were resolved Agency-wide.

Lead Program	Annual percentage of lead-based paint certification and refund applications that require less than 20 days of EPA effort to process.	Baseline	77	N/A	89	N/A	90	90	92	Percent Certif/Refund
Baseline - Baseline for percentage of lead-based paint certification and refund applications that require less than 40 days of EPA effort to process is 54% in 2004.										
Ocean, Coastal, and Estuary Protection	Program dollars per acre of habitat protected or restored.			515	533	510	401	505	482	Dollars/acre
Baseline - 2005 Baseline: 449,242 acres of habitat protected or restored; cumulative from 2002.										

Goal 5:

Program	Measure	FY04 Target	FY04 Actual	FY05 Target	FY05 Actual	FY06 Target	FY06 Actual	FY07 Target	FY07 Actual	Units
Tribal General Assistance Program	Number of environmental programs implemented in Indian Country per million dollars.			11.1	12.3	13.7	12.4	12.5	14.1	Programs
Baseline - There are 572 tribal entities that are eligible for GAP program funding. These entities are the ones for which environmental assessments of their lands will be conducted.										
EPA's Recycling, Waste Minimization, and Waste Management	Number of pounds (in millions) of priority list chemicals removed from or reduced in waste streams per cost to perform such actions.							1.5	Data Avail 2008	Percent
Baseline - In FY 2006, 0.41 lbs. of priority list chemicals were removed per dollar to perform such actions.										
Explanation - Final cost figures for FY07 expected to be available by the end of December 2007.										

**PROGRAM ASSESSMENT RATING TOOL (PART)
SUPPLEMENTAL INFORMATION**

PART Program	PART Measures	Year Data Available
Goal 1	Clean Air and Global Climate Change	
	<i>Annual Performance Measure</i>	
National Ambient Air Quality Standards Research	Percentage of NAAQS program publications rated as highly cited papers	FY 2008
National Ambient Air Quality Standards Research	Percent progress toward completion of a hierarchy of air pollutant sources based on the risk they pose to human health.	FY 2008
	<i>Efficiency Performance Measure</i>	
Mobile Source Air Pollution Standards and Certification	Percent reduction in time (days) per certificate approval for large engines (non-road compression-ignition engines, heavy duty gas and diesel engines)	FY 2012
National Ambient Air Quality Standards Research	Percent variance from planned cost and schedule.	UD
Toxic Air Pollutants	Tons of pollutants (VOC, NOX, PM, CO) reduced per total emission reduction dollars spent.	UD
Toxic Air Pollutants	Tons of toxicity-weighted (for cancer and non-cancer risk) emissions reduced per total cost (\$).	UD
Goal 2	Clean and Safe Water	
	<i>Annual Performance Measure</i>	
Drinking Water Protection Program	Percent of data for violations of health-based standards at public water systems that is accurate and complete in SDWIS/FED for all MCL and TT rules.	UD
Drinking Water Research	Percentage of research products used by the Office of Water as the basis of or in support of Contaminant Candidate List Decisions.	UD
Drinking Water Research	Percentage of research products used by the Office of Water as the basis of or in support of Six Year Review Decisions.	UD
	<i>Efficiency Performance Measure</i>	
Drinking Water Research	Percent variance from planned cost and schedule.	UD
Drinking Water	People receiving drinking water that meets all	FY 2011

PART Program	PART Measures	Year Data Available
Protection Program, Public Water Supply Systems Grants, Drinking Water State Revolving Fund, Underground Injection Control	applicable health-based standards per million dollars spent to manage the national drinking water program.	
Drinking Water State Revolving Fund	Average funding (millions of dollars) per project initiating operations	FY 2012
Underground Injection Control Grant Program	Dollars per well to move Class V wells back into compliance	FY 2011
Goal 3: Land Preservation and Restoration		
<i>Efficiency Performance Measure</i>		
EPA's Recycling, Waste Minimization and Waste Management Program	Billions of pounds of municipal solid waste recycled per total Federal costs.	UD
Leaking Underground Storage Tank Cleanup Program	Cleanups complete (3-year rolling average) per total cleanup dollars.	UD
Leaking Underground Storage Tank Cleanup Program	Number of annual confirmed UST releases per federal, state and territorial costs.	UD
Goal 4 Healthy Communities and Ecosystems		
<i>Annual Performance Measure</i>		
EPA Human Health Research	Percentage of human health program publications rated as highly cited papers.	FY 2008
EPA Pesticides and Toxics Research	Percentage of SP2 program publications rated as highly cited papers.	FY 2008
EPA Pesticides and Toxics Research	Percentage of SP2 publications in "high impact" journals.	FY 2008
<i>Efficiency Performance Measure</i>		

PART Program	PART Measures	Year Data Available
Brownfields Revitalization	Acres of brownfields made ready for reuse per million dollars.	UD
Global Change Research	Percent variance from planned cost and schedule.	UD
Goal 5	Compliance and Environmental Stewardship	
	<i>Annual Performance Measure</i>	
EPA Enforcement of Environmental Laws (Criminal)	Change in behavior to use Improved Management practices. (criminal enforcement)	FY 2007
EPA Enforcement of Environmental Laws (Criminal)	Pollutant impact.	FY 2008
EPA Enforcement of Environmental Laws (Criminal)	Pounds of pollution reduced, treated or eliminated. (criminal enforcement)	FY 2007
EPA Enforcement of Environmental Laws (Criminal)	Reduction in recidivism (criminal enforcement).	FY 2007
EPA Environmental Education	Number of National Network Environmental Management Studies fellows who pursue environmental careers.	FY 2007
EPA Environmental Education	Percent of all students and teachers targeted demonstrate increased environmental knowledge, as measured by the Guidelines for Learning for K-12, developed by the North American Association for Environmental Education	FY 2008
EPA Environmental Education	Number of states adopting or aligning Guidelines for Learning curricula and standards to state academic standards or number of states developing new environmental education standards based on Guidelines for Learning	FY 2008
EPA Pesticide Enforcement Grant Program	Percent of compliance actions taken as a result of inspection/enforcement. (pesticide enforcement)	FY 2007
EPA Pesticide Enforcement Grant Program	Percent of violators committing subsequent violations. (pesticide enforcement)	FY 2007
	<i>Efficiency Performance Measure</i>	
EPA Enforcement of Environmental Laws (Civil)	Pounds of pollutants reduced, treated, or eliminated per FTE. (civil enforcement)	FY 2007
EPA Enforcement	Pounds of pollutant reduction per FTE. (criminal	FY 2007

PART Program	PART Measures	Year Data Available
of Environmental Laws (Criminal)	enforcement)	
EPA Environmental Education	Ratio of number of students/teachers that have improved environmental knowledge per total dollars expended.	FY 2008
EPA Pesticide Enforcement Grant Program	Number of enforcement actions taken (Federal + State) per million dollars of cost (Federal + State). (pesticide enforcement)	FY 2007

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- ¹ Areas originally violating NAAQS are based upon 1993-1996 air quality data.
- ² Current air quality violations are based upon 2004-2006 air quality data.
- ³ SIPs for ozone attainment were due to EPA in June 2007 with attainment dates ranging from June 2007 for ozone areas classified as Marginal to June 2021 for areas classified as Severe-17.
- ⁴ SIPs for PM_{2.5} are not due to EPA until April 2008 with required attainment by April 2010. Under certain conditions attainment may be extended until April 2015.
- ⁵ United States Environmental Protection Agency. May 2007. "Asthma Facts." EPA 402-F-04-019
- ⁶ See: <http://www.cdc.gov/asthma/children.htm>
- ⁷ See: <http://www.epa.gov/radon/healthrisks.html>, and United States Environmental Protection Agency. June 2003. "EPA Assessment of Risks from Radon in Homes PDF." EPA 402-R-03-003.
- ⁸ See: <http://www.wipp.energy.gov/>
- ⁹ See: <http://www.epa.gov/narel/radnet/>
- ¹⁰ See: <http://www.epa.gov/radiation/rert/>
- ¹¹ 2006 estimated annual results.
- ¹² Ibid.
- ¹³ The Optimization of Thermal-Optical Analysis for the Measurement of Black Carbon in Regional PM_{2.5} A Chemometric Approach U.S. Environmental Protection Agency Office of Research and Development Washington, DC 20460, EPA 600/R-07/119, August 2007
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²⁸ For additional information on Libby, Montana and asbestos, see <http://epa.gov/region8/superfund/libby/>.

²⁹ This publication can be found at <http://www.epa.gov/ada/download/reports/600R05147/600R05147-fm.pdf>.

³⁰ Additional information may be found at <http://www.epa.gov/osa/metalsframework/>.

³¹ <http://www.ehponline.org/docs/2007/10598/abstract.html>

³² <http://yosemite.epa.gov/opa/admpress.nsf/0cd7fdf95b701616852572a000658ef2/77660c0da9fe643e8525733e0065d48b!OpenDocument>

³³ Characterization of Dust Lead Levels after Renovation, Repair, and Painting Activities

<http://www.epa.gov/lead/pubs/duststudy01-23-07.pdf>

³⁴ http://www.epa.gov/lead/pubs/casac_draft_approach_july2007.pdf

³⁵ <http://www.epa.gov/lead/pubs/casac.htm>

³⁶ The Brownfields Program previously reported 1,088 acres ready for reuse in FY05. Further analysis of the data revealed an error in the calculations. The correct number of acres made ready for reuse in FY05 is 759.

³⁷ EPA/600/R-07/013, 2007

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⁴¹ [http://yosemite.epa.gov/ochp/ochpweb.nsf/content/CEHRC_Findings.htm/\\$file/CEHRC%20Findings.doc](http://yosemite.epa.gov/ochp/ochpweb.nsf/content/CEHRC_Findings.htm/$file/CEHRC%20Findings.doc)

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⁴⁴ Barbara L. Harper and Stuart G. Harris, A possible approach for setting a mercury risk-based action level based on tribal fish ingestion rates, *Environmental Research*, In Press, Corrected Proof, Available online 13 July 2007.

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⁴⁶ Bell, M.L., R. Goldberg, C. Hogrefe, P.L. Kinney, K. Knowlton, B. Lynn, J. Rosenthal, C. Rosenzweig, and J.A. Patz, 2007: Climate change, ambient ozone, and health in 50 U.S. cities. *Climatic Change*, DOI 10.1007/s10584-006-9166-7.

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⁴⁹ Pollution Prevention (P2) Programs: <http://www.epa.gov/oppt/p2home/index.htm>

⁵⁰ The annual performance measures cited are revised versions of the Program's original FY 2006 performance measures, developed and made retroactive through the program's successful FY 2006 Performance Assessment Rating Tool assessment and included in *EPA's 2006-2011 Strategic Plan*.

⁵¹ Pollution Prevention (P2) Programs: <http://www.epa.gov/oppt/p2home/index.htm>

⁵² The annual performance measures cited are revised versions of the Program's original FY 2006 performance measures, developed and made retroactive through the program's successful FY 2006 Performance Assessment Rating Tool assessment and included in *EPA's 2006-2011 Strategic Plan*.

⁵³ Data available in April, 2007 through NIST survey responses. Green Suppliers Network (GSN):

<http://www.greensuppliers.gov>

⁵⁴ Green Chemistry (GC): <http://www.epa.gov/opptintr/greenchemistry/>

⁵⁵ Design for the Environment (DfE): <http://www.epa.gov/opptintr/dfe/>

⁵⁶ This measure counts the number of tribes with Memorandums of Understandings (MOUs), Memorandums of Agreements (MOAs), Tribal Environmental Agreements (TEAs), Performance Partnership Grants (PPGs), or grant eligible "Treatment in a manner similar to a state" (TAS) approvals.

⁵⁷ This measure counts tribes that have TAS approvals, delegations or primacies, Direct Implementation Tribal Cooperative Agreements (DICTAs) or GAP grants with provisions for the implementation of solid waste or hazardous waste activities.

⁵⁸ The total number of tribes receiving GAP grants, TAS approvals or primacies, Direct Implementation Cooperative Tribal Agreements (DICTAs), GAP grants with provisions for the implementation of solid and hazardous waste activities is divided by the annual GAP appropriation (less rescissions and annual set-asides).

⁵⁹ http://es.epa.gov/ncer/science/tse/decade_innovation.pdf

⁶⁰ http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/905/report/0



EPA's FY 2007 Performance and Accountability Report

Section III Financial Statements

This document is one chapter from the "Fiscal Year 2007 Performance and Accountability Report, U.S. Environmental Protection Agency," (EPA-190-R-07-001), published on November 15, 2007. This document is available at: <http://www.epa.gov/ocfo/par/2007par>.

INTRODUCTION TO FINANCIAL SECTION

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 Circular A-136, *Financial Reporting Requirements*, as well as the following legislation:

- Chief Financial Officers Act of 1990
- Government Management Reform Act of 1994

The first portion of this section contains Principal Financial Statements. The statements provide a comparison of FY 2007 and 2006 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 Custodial Activity** – reports collection of nonexchange revenue for the General Fund of the Treasury, trust funds, and 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.
- **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.
- **Stewardship PP&E (Land)** – provides information on EPA land and land rights (easements) acquisitions/withdrawals related to remedial clean-up sites.

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 three areas: Stewardship Investments for Non-Federal Physical Property (clean water and drinking water facilities), Human Capital (awareness training and fellowships), and Research and Development.

The *Supplemental Information* portion presents the following unaudited information:

[Superfund Financial Statements and Related Notes](#) – provides information on the Superfund Trust Fund.

The Inspector General's Report on EPA's Fiscal 2007 and 2006 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.

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. Statement of Custodial Activity

Notes to Financial Statements

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- Note 38. Adjustment for Allocation Transfers
- Note 39. Reconciliation of Net Cost of Operations to Budget (formerly the Statement of Financing)
- Note 40. Restatement of FY 2006 Financial Statements

Required Supplementary Information (Unaudited)

- 1. Deferred Maintenance and Stewardship Land
- 2. Supplemental Statement of Budgetary Resources

Required Supplementary Stewardship Information (Unaudited)

Supplemental Information and Other Reporting Requirements (Unaudited)

Superfund Financial Statements and Related Notes

**Environmental Protection Agency
Consolidated Balance Sheet
As of September 30, 2007 and 2006 (Restated)
(Dollars in Thousands)**

	FY 2007	Restated FY 2006
ASSETS		
Intragovernmental:		
Fund Balance With Treasury (Note 2)	\$ 10,466,600	\$ 11,173,443
Investments (Notes 4 and 18)	5,753,061	5,366,264
Accounts Receivable, Net (Notes 5 and 40)	57,039	135,263
Other (Note 6)	81,069	59,143
Total Intragovernmental	\$ 16,357,769	\$ 16,734,113
Cash and Other Monetary Assets (Note 3)	10	10
Accounts Receivable, Net (Notes 5 and 40)	359,302	483,701
Loans Receivable, Net - Non-Federal (Note 7)	23,161	30,836
Property, Plant & Equipment, Net (Note 9)	809,873	756,794
Other (Note 6)	4,574	4,278
Total Assets	\$ 17,554,689	\$ 18,009,732
Stewardship PP& E (Note 11)		
LIABILITIES		
Intragovernmental:		
Accounts Payable and Accrued Liabilities (Note 8)	122,207	107,525
Debt Due to Treasury (Note 10)	16,156	18,896
Custodial Liability (Notes 12 and 40)	39,369	41,800
Other (Note 13)	98,360	102,934
Total Intragovernmental	\$ 276,092	\$ 271,155
Accounts Payable & Accrued Liabilities (Note 8)	\$ 912,000	\$ 725,667
Pensions & Other Actuarial Liabilities (Note 15)	39,786	39,408
Environmental Cleanup Costs (Note 24)	18,214	10,083
Cashout Advances, Superfund (Notes 16 and 40)	190,269	224,407
Commitments & Contingencies (Notes 19 and 24)	-	8
Payroll & Benefits Payable (Note 35)	205,198	195,746
Other (Notes 13 and 40)	113,739	134,747
Total Liabilities	\$ 1,755,298	\$ 1,601,221
NET POSITION		
Unexpended Appropriations - Other Funds (Note 17)	9,350,591	10,299,640
Cumulative Results of Operations - Earmarked Funds (Notes 20 and 40)	5,886,227	5,533,025
Cumulative Results of Operation - Other Funds (Note 40)	562,573	575,846
Total Net Position	15,799,391	16,408,511
Total Liabilities and Net Position	\$ 17,554,689	\$ 18,009,732

The accompanying notes are an integral part of these financial statements.

**Environmental Protection Agency
Consolidated Statement of Net Cost
For the Periods Ending September 30, 2007 and 2006 (Restated)
(Dollars in Thousands)**

	FY 2007	Restated FY 2006
COSTS		
Gross Costs (Notes 22 and 40)	\$ 9,263,304	\$ 9,061,660
Less:		
Earned Revenue (Notes 21, 22 and 40)	550,098	876,105
NET COST OF OPERATIONS (Notes 22 and 40)	\$ 8,713,206	\$ 8,185,555

The accompanying notes are an integral part of these financial statements.

**Environmental Protection Agency
Consolidated Statement of Net Cost by Goal
For the Period Ending September 30, 2007
(Dollars in Thousands)**

	<u>Clean Air</u>	<u>Clean & Safe Water</u>	<u>Land Preservation & Restoration</u>	<u>Healthy Communities & Ecosystems</u>	<u>Compliance & Environmental Stewardship</u>
Costs:					
Intragovernmental	\$ 185,389	\$ 180,571	\$ 396,786	\$ 275,068	\$ 182,101
With the Public	818,753	3,868,428	1,607,952	1,144,793	603,463
Total Costs (Note 22)	<u>1,004,142</u>	<u>4,048,999</u>	<u>2,004,738</u>	<u>1,419,861</u>	<u>785,564</u>
Less:					
Earned Revenue, Federal	15,594	11,016	101,036	18,450	5,613
Earned Revenue, non-Federal	<u>2,997</u>	<u>2,262</u>	<u>352,963</u>	<u>38,902</u>	<u>1,265</u>
Total Earned Revenue (Notes 21 and 22)	<u>18,591</u>	<u>13,278</u>	<u>453,999</u>	<u>57,352</u>	<u>6,878</u>
NET COST OF OPERATIONS (Note 22)	<u>\$ 985,551</u>	<u>\$ 4,035,721</u>	<u>\$ 1,550,739</u>	<u>\$ 1,362,509</u>	<u>\$ 778,686</u>
	<u>Consolidated Totals</u>				
Costs:					
Intragovernmental	\$ 1,219,915				
With the Public	<u>\$ 8,043,389</u>				
Total Costs (Note 22)	<u>\$ 9,263,304</u>				
Less:					
Earned Revenue, Federal	\$ 151,709				
Earned Revenue, non-Federal	<u>\$ 398,389</u>				
Total Earned Revenue (Notes 21 and 22)	<u>\$ 550,098</u>				
NET COST OF OPERATIONS (Note 22)	<u>\$ 8,713,206</u>				

The accompanying notes are an integral part of these financial statements.

**Environmental Protection Agency
Consolidated Statement of Net Cost by Goal
For the Period Ending September 30, 2006 (Restated)
(Dollars in Thousands)**

	<u>Clean Air</u>	<u>Clean & Safe Water</u>	<u>Land Preservation & Restoration</u>	<u>Healthy Communities & Ecosystems</u>	<u>Compliance & Environmental Stewardship</u>
Costs:					
Intragovernmental	\$ 192,774	\$ 137,874	\$ 448,101	\$ 271,667	\$ 183,628
With the Public	<u>763,805</u>	<u>3,717,427</u>	<u>1,722,469</u>	<u>1,029,787</u>	<u>594,128</u>
Total Costs (Notes 22 and 40)	<u>956,579</u>	<u>3,855,301</u>	<u>2,170,570</u>	<u>1,301,454</u>	<u>777,756</u>
Less:					
Earned Revenue, Federal	37,264	9,088	440,068	37,670	9,998
Earned Revenue, non-Fed	<u>2,258</u>	<u>2,822</u>	<u>303,497</u>	<u>31,090</u>	<u>2,350</u>
Total Earned Revenue (Notes 21, 22 and 40)	<u>39,522</u>	<u>11,910</u>	<u>743,565</u>	<u>68,760</u>	<u>12,348</u>
NET COST OF OPERATIONS (Notes 22 and 40)	<u>\$ 917,057</u>	<u>\$ 3,843,391</u>	<u>\$ 1,427,005</u>	<u>\$ 1,232,694</u>	<u>\$ 765,408</u>

	<u>Restated Consolidated Totals</u>
Costs:	
Intragovernmental	\$ 1,234,044
With the Public	<u>\$ 7,827,616</u>
Total Costs (Notes 22 and 40)	<u>\$ 9,061,660</u>
Less:	
Earned Revenue, Federal	\$ 534,088
Earned Revenue, non-Fed	<u>\$ 342,017</u>
Total Earned Revenue (Notes 21, 22 and 40)	<u>\$ 876,105</u>
NET COST OF OPERATIONS (Notes 22 and 40)	<u>\$ 8,185,555</u>

The accompanying notes are an integral part of these financial statements.

Environmental Protection Agency
Consolidating Statement of Changes in Net Position
For the Periods Ending September 30, 2007 and 2006 (Restated)
(Dollars in Thousands)

	<u>FY 2007 Earmarked Funds</u>	<u>FY 2007 All Other Funds</u>	<u>FY 2007 Consolidated Total</u>
Cumulative Results of Operations:			
Net Position - Beginning of Period	5,533,025	575,846	6,108,871
Adjustment:			
Change in Accounting Principle (Note 38)	20,900	-	20,900
Beginning Balances, as Adjusted	\$ 5,553,925	\$ 575,846	\$ 6,129,771
Budgetary Financing Sources:			
Appropriations Used	-	8,367,123	8,367,123
Nonexchange Revenue - Securities Investment (Note 37)	258,986	-	258,986
Nonexchange Revenue - Other (Note 37)	252,148	-	252,148
Transfers In/Out (Note 33)	(25,686)	43,491	17,805
Trust Fund Appropriations	1,040,371	(1,040,371)	-
Total Budgetary Financing Sources	\$ 1,525,819	\$ 7,370,243	\$ 8,896,062
Other Financing Sources (Non-Exchange)			
Transfers In/Out (Note 33)	39	525	564
Imputed Financing Sources (Note 34)	21,868	113,741	135,609
Total Other Financing Sources	\$ 21,907	\$ 114,266	\$ 136,173
Net Cost of Operations	(1,215,424)	(7,497,782)	(8,713,206)
Net Change	332,302	(13,273)	319,029
Cumulative Results of Operations	<u>\$ 5,886,227</u>	<u>\$ 562,573</u>	<u>\$ 6,448,800</u>
Unexpended Appropriations:			
Net Position - Beginning of Period	-	10,299,640	10,299,640
Beginning Balances, as Adjusted	-	10,299,640	10,299,640
Budgetary Financing Sources:			
Appropriations Received	-	7,422,635	7,422,635
Other Adjustments (Note 36)	-	(4,561)	(4,561)
Appropriations Used	-	(8,367,123)	(8,367,123)
Total Budgetary Financing Sources	-	(949,049)	(949,049)
Total Unexpended Appropriations	-	9,350,591	9,350,591
TOTAL NET POSITION	<u>\$ 5,886,227</u>	<u>\$ 9,913,164</u>	<u>\$ 15,799,391</u>

The accompanying notes are an integral part of these financial statements
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Environmental Protection Agency
Consolidating Statement of Changes in Net Position
For the Periods Ending September 30, 2007 and 2006 (Restated)
(Dollars in Thousands)

	Restated FY 2006 Earmarked Funds	Restated FY 2006 All Other Funds	Restated FY 2006 Consolidated Total
Cumulative Results of Operations:			
Net Position - Beginning of Period	4,882,528	525,757	5,408,285
Prior Period Adjustment (Note 40)	62,150	12,168	74,318
Beginning Balances, as Adjusted	\$ 4,944,678	\$ 537,925	\$ 5,482,603
Budgetary Financing Sources:			
Appropriations Used	-	8,204,577	8,204,577
Nonexchange Revenue - Securities Invest (Note 37)	206,473	-	206,473
Nonexchange Revenue - Other (Note 37)	249,553	-	249,553
Transfers In/Out (Note 33)	(32,672)	43,366	10,694
Trust Fund Appropriations	1,204,826	(1,204,826)	-
Total Budgetary Financing Sources	\$ 1,628,180	\$ 7,043,117	\$ 8,671,297
Other Financing Sources (Nonexchange)			
Transfers In/Out (Note 33)	-	(28)	(28)
Imputed Financing Sources (Note 34)	19,106	121,448	140,554
Total Other Financing Sources	\$ 19,106	\$ 121,420	\$ 140,526
Net Cost of Operations	(1,058,939)	(7,126,616)	(8,185,555)
Net Change	588,347	37,921	626,268
Cumulative Results of Operations	\$ 5,533,025	\$ 575,846	\$ 6,108,871
Unexpended Appropriations:			
Net Position - Beginning of Period	-	11,007,589	11,007,589
Budgetary Financing Sources:			
Appropriations Received	-	7,691,493	7,691,493
Appropriations Transferred In/Out (Note 33)	-	753	753
Other Adjustments (Note 36)	-	(195,618)	(195,618)
Appropriations Used	-	(8,204,577)	(8,204,577)
Total Budgetary Financing Sources	-	(707,949)	(707,949)
Total Unexpended Appropriations	-	10,299,640	10,299,640
TOTAL NET POSITION	\$ 5,533,025	\$ 10,875,486	\$ 16,408,511

The accompanying notes are an integral part of these financial statements

**Environmental Protection Agency
 Combined Statement of Budgetary Resources
 For the Periods Ending September 30, 2007 and 2006
 (Dollars in Thousands)**

	FY 2007	FY 2006
BUDGETARY RESOURCES		
Unobligated Balance, Brought Forward, October 1:		
Brought Forward October 1	\$ 3,247,087	\$ 3,106,756
Adjustment to Unobligated Balance (Alloc Transfer Agencies) (Note 38)	15,527	-
Adjusted Subtotal	3,262,614	3,106,756
Recoveries of Prior Year Unpaid Obligations (Note 29)	387,621	264,710
Budgetary Authority:		
Appropriation	7,495,028	7,828,401
Borrowing Authority	29	-
Spending Authority from Offsetting Collections		
Earned:		
Collected	640,354	930,417
Change in Receivables from Federal Sources	(72,546)	87,322
Change in Unfilled Customer Orders:		
Advance Received	(34,934)	(8,617)
Without Advance from Federal Sources	(625)	149,607
Expenditure Transfers from Trusts Funds	43,491	43,366
Total Spending Authority from Offsetting Collections	575,740	1,202,095
Nonexpenditure Transfers, Net, Anticipated and Actual (Note 33)	1,344,610	1,258,208
Temporarily Not Available Pursuant to Public Law (Note 29)	-	(9,466)
Permanently Not Available (Note 29)	(7,333)	(198,484)
Total Budgetary Resources (Note 28)	\$ 13,058,309	\$ 13,452,220
 STATUS OF BUDGETARY RESOURCES		
Obligations Incurred:		
Direct	\$ 9,027,170	\$ 9,292,415
Reimbursable	489,752	912,718
Total Obligations Incurred (Note 28)	9,516,922	10,205,133
Unobligated Balances:		
Apportioned (Note 30)	3,274,344	3,156,100
Exempt from Apportionment	-	-
Total Unobligated Balances	3,274,344	3,156,100
Unobligated Balances Not Available (Note 30)	267,043	90,987
Total Status of Budgetary Resources	\$ 13,058,309	\$ 13,452,220

The accompanying notes are an integral part of these financial statements

**Environmental Protection Agency
 Combined Statement of Budgetary Resources
 For the Periods Ending September 30, 2007 and 2006
 (Dollars in Thousands)**

	FY 2007	FY 2006
CHANGE IN OBLIGATED BALANCE		
Obligated Balance, Net:		
Unpaid Obligations, Brought Forward, October 1	\$ 10,956,328	\$ 11,623,098
Adjustment to Unpaid Obligations (Alloc Transfer Agencies) (Note 38)	7,215	-
Adjusted Total	10,963,543	11,623,098
Less: Uncollected Customer Payments from Federal Sources, Brought Forward, October 1	(712,239)	(486,985)
Total Unpaid Obligated Balance, Net	10,251,304	11,136,113
Obligations Incurred, Net (Note 28)	9,516,922	10,205,133
Less: Gross Outlays (Note 28)	(10,219,637)	(10,607,195)
Less: Recoveries of Prior Year Unpaid Obligations, Actual (Note 29)	(387,621)	(264,710)
Change in Uncollected Customer Payments from Federal Sources	79,449	(225,252)
Total, Change in Obligated Balance	9,240,417	10,244,089
Obligated Balance, Net, End of Period:		
Unpaid Obligations	9,873,207	10,956,328
Less: Uncollected Customer Payments from Federal Sources	(632,790)	(712,239)
Total, Unpaid Obligated Balance, Net, End of Period	\$ 9,240,417	\$ 10,244,089
 NET OUTLAYS		
Net Outlays:		
Gross Outlays (Note 28)	\$ 10,219,637	\$ 10,607,195
Less: Offsetting Collections (Note 28)	(655,188)	(976,843)
Less: Distributed Offsetting Receipts (Notes 28 and 32)	(1,307,458)	(1,314,780)
Total, Net Outlays	\$ 8,256,991	\$ 8,315,572

The accompanying notes are an integral part of these financial statements.

**Environmental Protection Agency
Statement of Custodial Activity
For the Periods Ending September 30, 2007 and 2006 (Restated)
(Dollars in Thousands)**

	<u>FY 2007</u>	<u>Restated FY 2006</u>
Revenue Activity:		
Sources of Cash Collections:		
Fines and Penalties	\$ 86,409	\$ 35,842
Other	(4,171)	66,348
Total Cash Collections	<u>\$ 82,238</u>	<u>\$ 102,190</u>
Accrual Adjustment	7,092	(80,806)
Total Custodial Revenue (Note 27)	<u>\$ 89,330</u>	<u>\$ 21,384</u>
Disposition of Collections:		
Transferred to Others (General Fund)	\$ 90,774	\$ 102,298
Increases/Decreases in Amounts to be Transferred	(1,444)	(80,914)
Total Disposition of Collections	<u>\$ 89,330</u>	<u>\$ 21,384</u>
Net Custodial Revenue Activity (Note 27)	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>

The accompanying notes are an integral part of these financial 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 OMB Circular A-136, *Financial Reporting Requirements*, 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 in accordance with 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 2007, the accompanying financial statements are grouped and presented in a consolidated manner. These 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 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 2007, 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. *Payments to Leaking Underground Storage Tank Appropriation:* The Payment to the Leaking Underground Storage Tank appropriation, Treasury fund group 0251, authorizes appropriations from the General Fund of the Treasury to finance activities conducted through the Leaking Underground Storage Tank program.

h. *Asbestos Loan Program:* The Asbestos Loan Program is accounted for under Treasury fund group 0118, Program Account, for interest subsidy and administrative support; under Treasury fund group 4322, Financing Account, 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 Account 0118 disburses the subsidy to the Financing Fund for increases in the subsidy. The Financing Account 4322 receives the subsidy payment, borrows from Treasury and collects the asbestos loans.

i. Allocations and Appropriations Transferred to the Agency: The EPA does not receive allocations or appropriations transferred from other Federal agencies.

j. 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.

k. 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 Re-estimates 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.

l. Allocation of Budget Authority: EPA is an allocation budget transfer parent to five Federal agencies: Department of the Interior (DOI), Department of Labor (DOL), Centers for Disease Control and Prevention (CDC), Department of Commerce (DOC), and Federal Emergency Management Agency (FEMA). EPA has a Memorandum of Understanding (MOU) with each child agency to provide an annual work plan and quarterly progress report containing an accounting of funds obligated in each budget category within 15 days after the end of each quarter. This allows EPA to properly report the financial activity. The allocation transfers are reported in the net cost of operations, changes in net position, balance sheet and budgetary resources where activity is being performed by the receiving Federal entity.

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, Financing Account for loan disbursements, loans receivable and loan collections on post-FY 1991 loans. Refer to General Fund Appropriations paragraph h. for details.

d. Working Capital Fund (WCF): The WCF, Treasury fund group 4565, includes three activities: computer support services, financial system 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 of the financial statements.

Special Funds (Treasury Fund Group 5000 - 5999)

a. Environmental Services Receipt Account: The Environmental Services Receipt Account authorized by a 1990 act, "To amend the Clean Air Act (P.L. 101-549)," 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 authorized by a 1992 act, "Making appropriations for the Department of Veterans Affairs and Housing and Urban Development, and for sundry independent agencies, boards, commissions corporations, and offices for the fiscal year ending September 30, 1993 (P.L. 102-389)," 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 authorized by a 2004 act, "Consolidated Appropriations Act (P.L. 108-199)," 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)

Deposits include: Fees for Ocean Dumping; Nonconformance Penalties; Clean Air Allowance Auction and Sale; Advances without Orders; Suspense and Payroll Deposits for Savings Bonds; and State and City Income Taxes Withheld. These funds are accounted for under Treasury fund groups 6264, 6265, 6266, 6500, 6050 and 6275, respectively.

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 authorized in the Federal Water Pollution Control Act (Clean Water Act) as amended by P.L. 92-500, The Federal Water Pollution Control Act Amendments of 1972, 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 passes 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 in subsequent years after the loans were 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 and telecommunication services, financial system services, 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 from the collection of reimbursements under 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 Principal Fund of the Oil Spill Liability 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.

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) may be placed in site-specific 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 reimbursable special accounts continue to be deposited in the Trust Fund and made available for future appropriation.

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 within statutory limits. The Asbestos Direct Loan Financing fund 4322, an off-budget fund, receives additional funding to support the outstanding loans through collections from the Program fund 0118 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 4).

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, depending on who has the lead for the site (i.e., publicly or privately owned). States may pay the full amount of their share in advance or incrementally throughout the remedial action process.

During fiscal year 2007, EPA collected debt previously written-off and considered not collectible. Consequently, EPA reevaluated its implementation of the policy on delinquent debt classified as Currently Not Collectible (CNC). The Agency determined that it cannot forecast collections with absolute certainty due to the nature and unpredictability of external factors that impact a debtor's ability to pay. Therefore, EPA has discontinued writing off delinquent receivables over 2-years old as CNC.

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 S&T and OIG funds, 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.

Personal property also consists of capital leases. In order to be defined as a capital lease, it must, at its inception, have a lease term of two or more years and the lower of the fair value or present value of the minimum lease payments must be \$75 thousand or more. In addition, the lease must meet one of the following criteria: transfers ownership to EPA, contains a bargain purchase option, the lease term is equal to 75 percent or more of the estimated service life, or the present value of the lease and other minimum lease payments equal or exceed 90 percent of the fair value.

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 retains control of the property (i.e., pump and treat facility) for 10 years or less, and transfers 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 is based on a 10 year life. However, if any property is transferred to a state in a year or less, this property is 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.

An exception to the accounting of contractor-held property includes equipment purchased by the Working Capital Fund (WCF). This property is retained in FAS and depreciated utilizing the straight-line method based upon the asset's acquisition date and useful life.

Real property consists of land, buildings, and capital and leasehold improvements. Real property, other than land, is capitalized when the value is \$85 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 the WCF, 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 if those investments are considered either Capital Planning and Investment Control (CPIC) or CPIC Lite systems with the provisions of SFFAS No. 10, "Accounting for Internal Use Software." Once software enters the maintenance life cycle phase, it 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. At the end of FY 2006 and FY 2007, 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 Note 39, 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, 1987, 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 CSRS and FERS, 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 Balance with Treasury (FBWT)

Fund Balances with Treasury as of September 30, 2007 and 2006, consist of the following:

	<u>FY 2007</u>			<u>FY 2006</u>		
	<u>Entity Assets</u>	<u>Non-Entity Assets</u>	<u>Total</u>	<u>Entity Assets</u>	<u>Non-Entity Assets</u>	<u>Total</u>
Trust Funds:						
Superfund	\$ 51,081	\$ -	\$ 51,081	\$ 35,086	\$ -	\$ 35,086
LUST	32,406	-	32,406	25,497	-	25,497
Oil Spill & Misc.	4,576	-	4,576	6,789	-	6,789
Revolving Funds:						
FIFRA/Tolerance	9,313	-	9,313	8,074	-	8,074
Working Capital	70,460	-	70,460	77,635	-	77,635
Cr. Reform Finan.	429	-	429	400	-	400
Appropriated	10,084,002	-	10,084,002	10,820,079	-	10,820,079
Other Fund Types	205,693	8,640	214,333	182,303	17,580	199,883
Total	<u>\$ 10,457,960</u>	<u>\$ 8,640</u>	<u>\$ 10,466,600</u>	<u>\$ 11,155,863</u>	<u>\$ 17,580</u>	<u>\$ 11,173,443</u>

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.

	<u>FY 2007</u>	<u>FY 2006</u>
Status of Fund Balances:		
Unobligated Amounts in Fund Balances		
Available for Obligation	\$3,274,338	\$3,156,100
Unavailable for Obligation	267,042	90,987
Net Receivables from Invested Balances	(2,527,186)	(2,515,007)
Balances in Treasury Trust Fund (Note 18)	14,394	12,505
Obligated Balance not yet Disbursed	9,240,417	10,244,089
Non-Budgetary FBWT	197,595	184,769
Totals	<u>\$10,466,600</u>	<u>\$11,173,443</u>

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 2007 and FY 2006 no differences existed between Treasury's accounts and EPA's statements for fund balances with Treasury.

Note 3. Cash and Other Monetary Assets

For September 30, 2007 and September 30, 2006, cash consists of an imprest fund of \$10 thousand.

Note 4. Investments

For September 30, 2007 and September 30, 2006 investments related to Superfund and LUST consist of the following:

		Cost	Unamortized (Premium) Discount	Interest Receivable	Investments, Net	Market Value
Intragovernmental Securities:						
Non-Marketable	FY 2007	\$ 5,680,321	\$ (29,481)	\$ 43,259	\$ 5,753,061	\$ 5,753,061
Non-Marketable	FY 2006	\$ 5,305,992	\$ (21,752)	\$ 38,520	\$ 5,366,264	\$ 5,366,264

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.) All investments in Treasury securities are earmarked funds (See Note 20).

The Federal Government does not set aside assets to pay future benefits or other expenditures associated with earmarked funds. The cash receipts collected from the public for an earmarked fund are deposited in the U.S. Treasury, which uses the cash for general Government purposes. Treasury securities are issued to EPA as evidence of its receipts. Treasury securities are an asset to EPA and a liability to the U.S. Treasury. Because EPA and the U.S. Treasury are both parts of the Government, these assets and liabilities offset each other from the standpoint of the Government as a whole. For this reason, they do not represent an asset or liability in the U.S. Government-wide financial statements.

Treasury securities provide EPA with authority to draw upon the U.S. Treasury to make future benefit payments or other expenditures. When EPA requires redemption of these securities to make expenditures, the Government finances those expenditures out of accumulated cash balances, by raising taxes or other receipts, by borrowing from the public or repaying less debt, or by curtailing other expenditures. This is the same way that the Government finances all other expenditures.

Note 5. Accounts Receivable

The Accounts Receivable for September 30, 2007 and September 30, 2006 Restated, consist of the following:

	<u>FY 2007</u>	<u>Restated FY 2006</u>
Intragovernmental Assets:		
Accounts & Interest Receivable	\$ 57,039	\$ 148,796
Less: Allowance for Uncollectibles	-	(13,533)
Total	<u>\$ 57,039</u>	<u>\$ 135,263</u>
Non-Federal Assets:		
Unbilled Accounts Receivable	\$ 136,779	\$ 116,060
Accounts & Interest Receivable	992,575	1,076,891
Less: Allowance for Uncollectibles	(770,052)	(709,250)
Total	<u>\$ 359,302</u>	<u>\$ 483,701</u>

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

Other Assets for September 30, 2007 and 2006, consist of the following:

	<u>FY 2007</u>	<u>FY 2006</u>
Intragovernmental Assets:		
Advances to Federal Agencies \$	80,940	\$ 58,847
Advances for Postage	129	296
Total Intragovernmental Assets \$	<u>81,069</u>	<u>\$ 59,143</u>
 Non-Federal Assets:		
Travel Advances \$	106	\$ 154
Letter of Credit Advances	9	9
Grant Advances	116	118
Other Advances	3,699	3,249
Operating Materials and Supplies	160	183
Inventory for Sale	246	565
Securities Received in Settlement of Debt	238	-
Total Non-Federal Assets \$	<u>4,574</u>	<u>\$ 4,278</u>

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 the Federal Credit Reform Act, which mandates that the present value of the subsidy costs (i.e., interest rate differentials, interest 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, 2007 and 2006, are as follows:

	<u>FY 2007</u>			<u>FY 2006</u>		
	<u>Loans Receivable, Gross</u>	<u>Allowance*</u>	<u>Value of Assets Related to Direct Loans</u>	<u>Loans Receivable, Gross</u>	<u>Allowance*</u>	<u>Value of Assets Related to Direct Loans</u>
Direct Loans Obligated Prior to FY 1992	\$ 7,435	\$ -	\$ 7,435	\$ 12,327	\$ -	\$ 12,327
Direct Loans Obligated After FY 1991	18,440	(2,714)	15,726	22,391	(3,882)	18,509
Total	\$ <u>25,875</u>	\$ <u>(2,714)</u>	\$ <u>23,161</u>	\$ <u>34,718</u>	\$ <u>(3,882)</u>	\$ <u>30,836</u>

* 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).

Subsidy Expenses for Credit Reform Loans (reported on a cash basis):

	Interest Rate Re- estimate	Technical Re- estimate	Total
Downward Subsidy Reestimate - FY 2007	\$ <u>(17)</u>	\$ <u>(12)</u>	\$ <u>(29)</u>
FY 2007 Totals	\$ <u>(17)</u>	\$ <u>(12)</u>	\$ <u>(29)</u>
Upward Subsidy Reestimate – FY 2006	\$ <u>32</u>	\$ <u>26</u>	\$ <u>58</u>
FY 2006 Totals	\$ <u>32</u>	\$ <u>26</u>	\$ <u>58</u>

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, 2007 and 2006.

	<u>FY 2007</u>	<u>FY 2006</u>
Intragovernmental:		
Accounts Payable to other Federal Agencies	\$ 2,611	\$ 923
Liability for Allocation Transfers	19,878	20,580
Accrued Liabilities, Federal	99,718	86,022
Total Intragovernmental	\$ 122,207	\$ 107,525
Non-Federal:		
	<u>FY 2007</u>	<u>FY 2006</u>
Accounts Payable, Non-Federal	\$ 114,082	\$ 106,156
Advances Payable, Non-Federal	16	16
Interest Payable	7	7
Grant Liabilities	601,034	414,112
Other Accrued Liabilities, Non-Federal	196,861	205,376
Total Non-Federal	\$ 912,000	\$ 725,667

Note 9. General Property, Plant and Equipment (PP&E)

Plant, property and equipment consist of software; real, EPA-Held and Contractor-Held personal, and capital lease property.

As of September 30, 2007 and 2006, Plant, Property and Equipment consist of the following:

	<u>FY 2007</u>			<u>FY 2006</u>		
	<u>Acquisition</u>	<u>Accumulated</u>	<u>Net Book Value</u>	<u>Acquisition</u>	<u>Accumulated</u>	<u>Net Book</u>
	<u>Value</u>	<u>Depreciation</u>		<u>Value</u>	<u>Depreciation</u>	<u>Value</u>
EPA-Held Equipment	\$ 222,848	\$ (119,605)	\$ 103,243	\$ 207,328	\$ (116,228)	\$ 91,100
Software	258,637	(49,407)	209,230	198,961	(37,871)	161,090
Contractor Held Equip.	64,641	(23,486)	41,155	64,757	(25,001)	39,756
Land and Buildings	579,880	(143,594)	436,286	573,887	(132,168)	441,719
Capital Leases	47,505	(27,546)	19,959	49,844	(26,715)	23,129
Total	\$ 1,173,511	\$ (363,638)	\$ 809,873	\$ 1,094,777	\$ (337,983)	\$ 756,794

Note 10. Debt Due to Treasury

The debt due to Treasury consists of the following as of September 30, 2007 and 2006:

All Other Funds	<u>FY 2007</u>			<u>FY 2006</u>		
	<u>Beginning Balance</u>	<u>Net Borrowing</u>	<u>Ending Balance</u>	<u>Beginning Balance</u>	<u>Net Borrowing</u>	<u>Ending Balance</u>
Intragovernmental:						
Debt to Treasury	\$ 18,896	\$ (2,740)	\$ 16,156	\$ 21,744	\$ (2,848)	\$ 18,896

Note 11. 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, 2007 and 2006, the Agency possesses the following land and land rights:

	<u>FY 2007</u>	<u>FY 2006</u>
Superfund Sites with Easements		
Beginning Balance	32	33
Additions	2	-
Withdrawals	1	1
Ending Balance	<u>33</u>	<u>32</u>
Superfund Sites with Land Acquired		
Beginning Balance	31	29
Additions	1	2
Withdrawals	0	-
Ending Balance	<u>32</u>	<u>31</u>

Note 12. Custodial Liability

Custodial Liability represents the amount of net accounts receivable that, when collected, will be deposited to the Treasury General Fund. Included in the custodial liability are amounts for fines and penalties, interest assessments, repayments of loans, and miscellaneous other accounts receivable. As of September 30, 2007 and 2006, custodial liability is \$39 and \$42 million (restated), respectively.

Note 13. Other Liabilities

Other Liabilities consist of the following as of September 30, 2007:

	Covered by Budgetary Resources	Not Covered by Budgetary Resources	Total
Other Liabilities – Intragovernmental			
Current			
Employer Contributions & Payroll Taxes	\$ 13,632	\$ -	\$ 13,632
WCF Advances	1,779	-	1,779
Other Advances	11,040	-	11,040
Advances, HRSTF Cashout	40,063	-	40,063
Deferred HRSTF Cashout	609	-	609
Liability for Deposit Funds	(37)	-	(37)
Resources Payable to Treasury	138	-	138
Subsidy Payable to Treasury	34	-	34
Non-Current			
Unfunded FECA Liability	-	9,102	9,102
Payable to Treasury Judgment Fund	-	22,000	22,000
Total Intragovernmental	\$ 67,258	\$ 31,102	\$ 98,360
Other Liabilities - Non-Federal			
Current			
Unearned Advances, Non-Federal	\$ 72,671	\$ -	\$ 72,671
Liability for Deposit Funds, Non-Federal	8,453	-	8,453
Non-Current			
Other Liabilities	-	230	230
Capital Lease Liability	-	32,385	32,385
Total Non-Federal	\$ 81,124	\$ 32,615	\$ 113,739

Other Liabilities consist of the following as of September 30, 2006 (Restated):

Other Liabilities – Intragovernmental	Covered by Budgetary Resources	Not Covered by Budgetary Resources	Total
Current			
Employer Contributions & Payroll Taxes	\$ 13,203	\$ -	\$ 13,203
WCF Advances	11,730	-	11,730
Other Advances	8,786	-	8,786
Advances, HRSTF Cashout	38,684	-	38,684
Deferred HRSTF Cashout	53	-	53
Liability for Deposit Funds	(44)	-	(44)
Resources Payable to Treasury	29	-	29
Non-Current			
Unfunded FECA Liability	-	8,493	8,493
Payable to Treasury Judgment Fund	-	22,000	22,000
Total Intragovernmental	\$ 72,441	\$ 30,493	\$ 102,934
Other Liabilities - Non-Federal			
Current			
Unearned Advances, Non-Federal	\$ 81,548	\$ -	\$ 81,548
Liability for Deposit Funds, Non-Federal	17,477	-	17,477
Non-Current			
Other Liabilities	-	280	280
Capital Lease Liability	-	35,442	35,442
Total Non-Federal	\$ 99,025	\$ 35,722	\$ 134,747

Note 14. Leases

Capital Leases:

The Capital Leases:

EPA has three capital leases for land and buildings housing scientific laboratories and/or

Summary of Assets Under Capital Lease:	FY 2007	FY 2006
Real Property	\$ 40,913	\$ 40,913
Personal Property	155	2,494
Software License	6,437	6,437
Total	\$ 47,505	\$ 49,844
Accumulated Amortization	\$ 27,546	\$ 26,715

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.

EPA also had capital leases terminating in FY 2007 for seven shuttle buses. However, during FY 2006, three of the seven shuttle buses were no longer needed and disposed of in the Fixed Asset System and General Ledger. 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. The IBM Supercomputer was disposed of in FY 2007, and the Microsoft Office software's lease will terminate in FY 2009.

During FY 2005, EPA entered into a capital lease for a Storage Area Network. The lease terminates in FY 2008 and payments are expended from the EPM appropriation. The total future minimum capital lease payments are listed below.

<u>Future Payments Due:</u>	
Fiscal Year	Capital Leases
2008	\$ 7,866
2009	6,295
2010	6,101
2011	5,714
After 5 Years	59,201
Total Future Minimum Lease Payments	\$ 85,177
Less: Imputed Interest	(52,792)
Net Capital Lease Liability	\$ 32,385
Liabilities not Covered by Budgetary Resources (See Note 13)	\$ 32,385

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 two current direct operating leases and one which expired in FY 2007, for land and buildings housing scientific laboratories and/or computer facilities. Both 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. One lease expires in FYs 2017 and the other in 2020. These charges are expended from the EPM appropriation.

The total minimum future operating lease costs are listed below.

<u>Fiscal Year</u>	<u>Operating Leases, Land and Buildings</u>	
2008	\$	74
2009		74
2010		74
2011		74
Beyond 2011		550
Payments	\$	846

Note 15. Pensions 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, 2007 and 2006, consists of the following:

	<u>FY 2007</u>	<u>FY 2006</u>
FECA Actuarial Liability	\$ 39,786	\$ 39,408

The FY 2007 present value of these estimated outflows are calculated using a discount rate of 4.93 percent in the first year, and 5.078 percent in the years thereafter. The estimated future costs are recorded as an unfunded liability.

Note 16. 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 for potential future work at such sites in accordance with the terms of the settlement agreement. Funds placed in special accounts may be disbursed to potentially responsible parties, to states that take responsibility for the site, or to other Federal agencies to conduct or finance response actions in lieu of EPA without further appropriation by Congress.

Note 17. Unexpended Appropriations – Other Funds

As of September 30, 2007 and 2006, the Unexpended Appropriations consist of the following:

Unexpended Appropriations:	<u>FY 2007</u>	<u>FY 2006</u>
Unobligated		
Available	\$ 1,791,873	\$ 1,724,552
Unavailable	81,753	51,852
Undelivered Orders	<u>7,476,965</u>	<u>8,523,236</u>
Total	<u>\$ 9,350,591</u>	<u>\$ 10,299,640</u>

Note 18. Amounts Held by Treasury

Amounts Held by Treasury for Future Appropriations consist of amounts held in trusteeship by Treasury in the Superfund and LUST Trust Funds.

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.

The following reflects the Superfund Trust Fund maintained by Treasury as of September 30, 2007 and 2006. The amounts contained in these notes have been provided by Treasury. 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 2007	EPA	Treasury	Combined
Undistributed Balances			
Uninvested Fund Balance	\$ -	\$ 1,538	\$ 1,538
Total Undisbursed Balance	-	1,538	1,538
Interest Receivable	-	12,795	12,795
Investments, Net	2,466,812	272,244	2,739,056
Total Assets	\$ 2,466,812	\$ 286,577	\$ 2,753,389
Liabilities & Equity			
Receipts and Outlays	-	-	-
Equity	\$ 2,466,812	\$ 286,577	\$ 2,753,389
Total Liabilities and Equity	\$ 2,466,812	\$ 286,577	\$ 2,753,389
Receipts			
Corporate Environmental	\$ -	\$ 2,602	\$ 2,602
Cost Recoveries	-	234,050	234,050
Fines & Penalties	-	1,063	1,063
Total Revenue	-	237,715	237,715
Appropriations Received	-	1,040,371	1,040,371
Interest Income	-	141,407	141,407
Total Receipts	\$ -	\$ 1,419,493	\$ 1,419,493
Outlays			
Transfers to/from EPA, Net	\$ 1,316,114	\$ (1,316,114)	\$ -
Transfers from CDC (recovery)	\$ -	\$ 1,370	\$ 1,370
Total Outlays	1,316,114	(1,314,744)	1,370
Net Income	\$ 1,316,114	\$ 104,749	\$ 1,420,863

In FY 2007, the EPA received an appropriation for Superfund of \$1,040.3 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, 2007 and 2006, the Treasury Trust Fund has a liability to EPA for previously appropriated funds of \$2,466.8 million and \$2,446.5 million, respectively.

SUPERFUND FY 2006	EPA	Treasury	Combined
Undistributed Balances			
Uninvested Fund Balance	\$ -	\$ 775	\$ 775
Total Undisbursed Balance	-	775	775
Interest Receivable	-	7,985	7,985
Investments, Net	2,446,467	173,069	2,619,536
Total Assets	\$ 2,446,467	\$ 181,829	\$ 2,628,296
Liabilities & Equity			
Receipts and Outlays	\$	\$ 82,274	\$ 82,274
Equity	\$ 2,446,467	\$ 99,555	\$ 2,546,022
Total Liabilities and Equity	\$ 2,446,467	\$ 181,829	\$ 2,628,296
Receipts			
Corporate Environmental	\$ -	\$ 1,144	\$ 1,144
Cost Recoveries	-	59,661	59,661
Fines & Penalties	-	2,467	2,467
Total Revenue	-	63,272	63,272
Appropriations Received	-	1,189,826	1,189,826
Interest Income	-	108,807	108,807
Total Receipts	\$ -	\$ 1,361,905	\$ 1,361,905
Outlays			
Transfers to/from EPA, Net	\$ 1,280,333	\$ (1,280,333)	\$ -
Transfers from CDC (recovery)	\$	\$ 702	\$ 702
Total Outlays	1,280,333	(1,279,631)	702
Net Income	\$ 1,280,333	\$ 82,274	\$ 1,362,607

LUST (Unaudited)

LUST is supported primarily by a sales tax on motor fuels to clean up LUST waste sites. In FYs 2007 and 2006 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. 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 2007	<u>EPA</u>	<u>Treasury</u>	<u>Combined</u>
Undistributed Balances			
Uninvested Fund Balance	\$ -	\$ 12,856	\$ 12,856
Total Undisbursed Balance	-	12,856	12,856
Interest Receivable	-	30,465	30,465
Investments, Net	80,252	2,890,497	2,970,749
Total Assets	\$ 80,252	\$ 2,933,818	\$ 3,014,070
Liabilities & Equity			
Equity	\$ 80,252	\$ 2,933,818	\$ 3,014,070
Equity	\$ 80,252	\$ 2,933,818	\$ 3,014,070
Receipts			
Highway TF Tax	\$ -	\$ 204,272	\$ 204,272
Airport TF Tax	-	23,528	23,528
Inland TF Tax	-	457	457
Refund Gasoline Tax	-	(914)	(914)
Refund Diesel Tax	-	(934)	(934)
Refund Aviation Fuel	-	(197)	(197)
Refund Aviation Tax	-	(18)	(18)
Total Revenue	-	226,194	226,194
Interest Income	-	117,579	117,579
Total Receipts	\$ -	\$ 343,773	\$ 343,773
Outlays			
Transfers to/from EPA, Net	\$ 72,035	\$ (72,035)	-
Total Outlays	72,035	(72,035)	-
Net Income	\$ 72,035	\$ 271,738	\$ 343,773

LUST FY 2006	<u>EPA</u>	<u>Treasury</u>	<u>Combined</u>
Undistributed Balances			
Uninvested Fund Balance	\$ -	\$ 11,750	\$ 11,750
Total Undisbursed Balance	-	11,750	11,750
Interest Receivable	-	30,535	30,535
Investments, Net	88,417	2,619,793	2,708,210
Total Assets	\$ 88,417	\$ 2,662,078	\$ 2,750,495
Liabilities & Equity			
Equity	\$ 88,417	\$ 2,662,078	\$ 2,750,495
Equity	\$ 88,417	\$ 2,662,078	\$ 2,750,495
Receipts			
Highway TF Tax	\$ -	\$ 196,371	\$ 196,371
Airport TF Tax	-	2,772	2,772
Inland TF Tax	-	404	404
Transfers from EPA	-	15,000	15,000
Refund Gasoline Tax	-	(1,453)	(1,453)
Refund Diesel Tax	-	(1,434)	(1,434)
Refund Aviation Fuel	-	(409)	(409)
Refund Aviation Tax	-	(24)	(24)
Total Revenue	-	211,227	211,227
Interest Income	-	97,666	97,666
Total Receipts	\$ -	\$ 308,893	\$ 308,893
Outlays			
Transfers to/from EPA, Net	\$ 86,861	\$ (86,861)	\$ -
Total Outlays	86,861	(86,861)	-
Net Income	\$ 86,861	\$ 222,032	\$ 308,893

Note 19. 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, 2007, there are currently two CERCLA Section 106(b) administrative claims. If the claimants are successful, the total losses on the claims could amount to approximately \$5.7 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, 2007, there is one claim amounting to \$5.6 million which may be considered threatened litigation involving all other appropriated funds of the Agency.

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, 2007, 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 20. Earmarked Funds

	Environmental Services	LUST	Superfund	Other Earmarked Funds	Total Earmarked Funds
Balance Sheet as of September 30, 2007					
ASSETS					
Fund Balance with Treasury	\$ 188,370	\$ 32,405	\$ 51,081	\$ 31,213	\$ 303,069
Investments	-	3,001,214	2,751,850	(3)	5,753,061
Accounts Receivable, Net	-	-	329,829	3,724	333,553
Other Assets	-	180	86,558	757	87,495
Total Assets	<u>\$ 188,370</u>	<u>\$ 3,033,799</u>	<u>\$ 3,219,318</u>	<u>\$ 35,691</u>	<u>\$ 6,477,178</u>
-					
Other Liabilities	-	10,030	548,893	32,028	590,951
Total Liabilities	<u>\$ -</u>	<u>\$ 10,030</u>	<u>\$ 548,893</u>	<u>\$ 32,028</u>	<u>\$ 590,951</u>
-					
Cumulative Results of Operations	\$ 188,370	\$ 3,023,769	\$ 2,670,425	\$ 3,663	\$ 5,886,227
Total Liabilities and Net Position	<u>\$ 188,370</u>	<u>\$ 3,033,799</u>	<u>\$ 3,219,318</u>	<u>\$ 35,691</u>	<u>\$ 6,477,178</u>

Statement of Changes in Net Cost For the Period Ended September 30, 2007					
Gross Programs Costs	\$ -	\$ 76,242	\$ 1,497,010	\$ 72,308	\$ 1,645,560
Less: Earned Revenues	-	(1,414)	377,904	53,646	430,136
Net Cost of Operations	<u>\$ -</u>	<u>\$ 77,656</u>	<u>\$ 1,119,106</u>	<u>\$ 18,662</u>	<u>\$ 1,215,424</u>

Statement of Changes in Net Position for the Period Ended September 30, 2007					
Net Position, Beginning of Period	\$ 165,723	\$ 2,757,325	\$ 2,606,400	\$ 3,577	\$ 5,533,025
Changes in Accounting Principle (Alloc Trans Agency) (Note 38)			20,900	-	20,900
Beginning Balance as Adjusted	165,723	2,757,325	2,627,300	3,577	5,553,925
Nonexchange Revenue - Securities Investment	-	117,579	141,407	-	258,986
Nonexchange Revenue - Other	22,648	226,194	2,721	585	252,148
Other Budgetary Financing Sources	-	-	998,952	15,733	1,014,685
Other Financing Sources	-	327	19,151	2,429	21,907
Net Cost of Operations	-	(77,656)	(1,119,106)	(18,662)	(1,215,424)
Change in Net Position	<u>\$ 22,648</u>	<u>\$ 266,444</u>	<u>\$ 43,125</u>	<u>\$ 85</u>	<u>\$ 332,302</u>
Net Position End of Period	<u>\$ 188,371</u>	<u>\$ 3,023,769</u>	<u>\$ 2,670,425</u>	<u>\$ 3,662</u>	<u>\$ 5,886,227</u>

	Environmental Services	LUST	Superfund	Other Earmarked Funds	Total Earmarked Funds
Balance Sheet as of September 30, 2006 (Restated)					
ASSETS					
Fund Balance with Treasury	\$ 165,723	\$ 25,497	\$ 35,086	\$ 31,445	\$ 257,751
Investments	-	2,738,746	2,627,521	(3)	5,366,264
Accounts Receivable, Net	-	-	447,747	2,821	450,568
Other Assets	-	176	63,874	1,067	65,117
Total Assets	<u>\$ 165,723</u>	<u>\$ 2,764,419</u>	<u>\$ 3,174,228</u>	<u>\$ 35,330</u>	<u>\$ 6,139,700</u>
Other Liabilities	\$ -	\$ 7,094	\$ 567,828	\$ 31,753	\$ 606,675
Total Liabilities	<u>\$ -</u>	<u>\$ 7,094</u>	<u>\$ 567,828</u>	<u>\$ 31,753</u>	<u>\$ 606,675</u>
Cumulative Results of Operations	\$ 165,723	\$ 2,757,325	\$ 2,606,400	\$ 3,577	\$ 5,533,025
Total Liabilities and Net Position	<u>\$ 165,723</u>	<u>\$ 2,764,419</u>	<u>\$ 3,174,228</u>	<u>\$ 35,330</u>	<u>\$ 6,139,700</u>

**Statement of Changes in Net Cost For the
Period Ended September 30, 2006
(Restated)**

Gross Programs Costs	\$ -	\$ 75,073	\$ 1,284,267	\$ 62,435	\$ 1,421,775
Less: Earned Revenues	<u>-</u>	<u>-</u>	<u>327,606</u>	<u>35,230</u>	<u>362,836</u>
Net Cost of Operations	<u>\$ -</u>	<u>\$ 75,073</u>	<u>\$ 956,661</u>	<u>\$ 27,205</u>	<u>\$ 1,058,939</u>

**Statement of Changes in Net Position for the
Period Ended September 30, 2006 (Restated)**

Net Position, Beginning of Period	\$ 145,088	\$ 2,523,158	\$ 2,200,115	\$ 14,167	\$ 4,882,528
Prior Period Adjustment (Note 40)			62,150		62,150
Beginning Balance as Adjusted	<u>145,088</u>	<u>2,523,158</u>	<u>2,262,265</u>	<u>14,167</u>	<u>4,944,678</u>
Nonexchange Revenue-Securities Investment		97,666	108,807		206,473
Nonexchange Revenue-Other	\$ 20,635	\$ 196,227	\$ 32,691	\$ -	\$ 249,553
Other Budgetary Financing Sources	-	15,000	1,141,824	15,330	1,172,154
Other Financing Sources	-	347	17,474	1,285	19,106
Net Cost of Operations	-	(75,073)	(956,661)	(27,205)	(1,058,939)
Change in Net Position	<u>\$ 20,635</u>	<u>\$ 234,167</u>	<u>\$ 344,135</u>	<u>\$ (10,590)</u>	<u>\$ 588,347</u>
Net Position End of Period	<u>\$ 165,723</u>	<u>\$ 2,757,325</u>	<u>\$ 2,606,400</u>	<u>\$ 3,577</u>	<u>\$ 5,533,025</u>

Earmarked funds are as follows:

Environmental Services Receipt Account: The Environmental Services Receipt Account authorized by a 1990 Act, "To amend the Clean Air Act (P.L. 101-549)," 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.

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.

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, special account receipts from settlement agreements, and investment activity.

Other Earmarked Funds:

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.

Miscellaneous Contributed Funds Trust Fund: The Miscellaneous Contributed Funds Trust Fund authorized in the Federal Water Pollution Control Act (Clean Water Act) as amended P.L. 92-500 (The Federal Water Pollution Control Act Amendments of 1972), 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.

Pesticide Registration Fund: The Pesticide Registration Fund authorized by a 2004 Act, "Consolidated Appropriations Act (P.L. 108-199)," 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.

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.

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.

Exxon Valdez Settlement Fund: The Exxon Valdez Settlement Fund authorized by a 1992 Act, "Making appropriations for the Department of Veterans Affairs and Housing and Urban Development, and for sundry independent agencies, boards, commissions, corporations, and offices for the fiscal year ending September 30, 1993 (P.L. 102-389)," 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.

Note 21. 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. As of September 30, 2007 and 2006 (restated), exchange revenues are \$550 million and \$876 million (restated), respectively.

Note 22. Intragovernmental Costs and Exchange Revenue

	FY 2007			FY 2006 (Restated)		
	Intragovern- mental	With the Public	TOTAL	Intragovern- mental	With the Public	TOTAL
Clean Air						
Program Costs	\$ 185,389	\$ 818,753	\$ 1,004,142	\$ 192,774	\$ 763,805	\$ 956,579
Earned Revenue	<u>15,594</u>	<u>2,997</u>	<u>18,591</u>	<u>37,264</u>	<u>2,258</u>	<u>39,522</u>
NET COST	\$ 169,795	\$ 815,756	\$ 985,551	\$ 155,510	\$ 761,547	\$ 917,057
Clean & Safe Water						
Program Costs	\$ 180,571	\$ 3,868,428	\$ 4,048,999	\$ 137,874	\$ 3,717,427	\$ 3,855,301
Earned Revenue	<u>11,016</u>	<u>2,262</u>	<u>13,278</u>	<u>9,088</u>	<u>2,822</u>	<u>11,910</u>
NET COST	\$ 169,555	\$ 3,866,166	\$ 4,035,721	\$ 128,786	\$ 3,714,605	\$ 3,843,391
Land Preservation & Restoration						
Program Costs	\$ 396,786	\$ 1,607,952	\$ 2,004,738	\$ 448,101	\$ 1,722,469	\$ 2,170,570
Earned Revenue	<u>101,036</u>	<u>352,963</u>	<u>453,999</u>	<u>440,068</u>	<u>303,497</u>	<u>743,565</u>
NET COST	\$ 295,750	\$ 1,254,989	\$ 1,550,739	\$ 8,033	\$ 1,418,972	\$ 1,427,005
Healthy Communities & Ecosystems						
Program Costs	\$ 275,068	\$ 1,144,793	\$ 1,419,861	\$ 271,667	\$ 1,029,787	\$ 1,301,454
Earned Revenue	<u>18,450</u>	<u>38,902</u>	<u>57,352</u>	<u>37,670</u>	<u>31,090</u>	<u>68,760</u>
NET COST	\$ 256,618	\$ 1,105,891	\$ 1,362,509	\$ 233,997	\$ 998,697	\$ 1,232,694
Compliance & Environmental Stewardship						
Program Costs	\$ 182,101	\$ 603,463	\$ 785,564	\$ 183,628	\$ 594,128	\$ 777,756
Earned Revenue	<u>5,613</u>	<u>1,265</u>	<u>6,878</u>	<u>9,998</u>	<u>2,350</u>	<u>12,348</u>
NET COST	\$ 176,488	\$ 602,198	\$ 778,686	\$ 173,630	\$ 591,778	\$ 765,408
Total						
Program Costs	\$ 1,219,915	\$ 8,043,389	\$ 9,263,304	\$ 1,234,044	\$ 7,827,616	\$ 9,061,660
Earned Revenue	<u>151,709</u>	<u>398,389</u>	<u>550,098</u>	<u>534,088</u>	<u>342,017</u>	<u>876,105</u>
NET COST	\$ <u>1,068,206</u>	\$ <u>7,645,000</u>	\$ <u>8,713,206</u>	\$ <u>699,956</u>	\$ <u>7,485,599</u>	\$ <u>8,185,555</u>

Intragovernmental costs relate to the source of the goods or services not the classification of the related revenue.

Note 23. Cost of Stewardship Land

The costs related to the acquisition of stewardship were less than \$150 thousand in FY 2007 and approximately \$1 million in FY 2006. These costs are included in the Statement of Net Cost.

Note 24. Environmental Cleanup Costs

As of September 30, 2007 EPA has three sites that require clean up stemming from its activities. Costs amounting to \$205 thousand may be paid out of the Treasury Judgment Fund. Two 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 two sites that have an unfunded environmental liability of \$230 thousand.

Accrued Cleanup Cost:

The EPA has 15 sites that will require future clean up associated with permanent closure. The estimated costs will be approximately \$18 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 2007 estimate for unfunded cleanup costs increased by \$8 million from the FY 2006 estimate. This increase is due primarily to a change in methodology used by a site to calculate unfunded cleanup costs.

Note 25. 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, 2007, the total remaining state credits have been estimated at \$14.5 million. The estimated ending credit balance on September 30, 2006 was \$17.1 million.

Note 26. 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, 2007, EPA had 15 outstanding preauthorized mixed funding agreements with obligations totaling \$25 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 27. Custodial Revenues and Accounts Receivable

	<u>FY 2007</u>	<u>Restated FY 2006</u>
Fines, Penalties and Other Miscellaneous Receipts	\$ 89,330	\$ 21,384
Accounts Receivable for Fines, Penalties and Other Miscellaneous Receipts:		
Accounts Receivable	\$ 196,590	\$ 192,739
Less: Allowance for Uncollectible Accounts	(156,401)	(150,943)
Total	\$ 40,189	\$ 41,796

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.

Note 28. Statement of Budgetary Resources

Budgetary resources, obligations incurred and outlays, as presented in the audited FY 2007 Statement of Budgetary Resources, will be reconciled to the amounts included in the FY 2009 Budget of the United States Government when they become available. The Budget of the United States Government with actual numbers for FY 2007 has not yet been published. We expect it will be published by March 2008, and it will be available on the OMB website at <http://www.whitehouse.gov/omb/budget/fy2009>. The actual amounts published for the year ended September 30, 2006 are included in EPA's FY 2007 financial statement disclosures.

<u>FY 2006</u>	<u>Budgetary Resources</u>	<u>Obligations</u>	<u>Offsetting Receipts</u>	<u>Net Outlays</u>
Statement of Budgetary Resources	\$ 13,452,220	10,205,133	\$ 1,314,780	\$ 9,630,352
Funds Reported by Other Federal Entities	19,090	3,563	-	3,661
Adjustments to Unliquidated Obligations, Unfilled Customer Orders and Other	5,763	1,825	-	-
Expired and Immaterial Funds*	(94,312)	(1,535)	-	-
Rounding Differences**	1,239	1,014	220	(1,013)
Reported in Budget of the U. S. Government	\$ 13,384,000	\$ 10,210,000	\$ 1,315,000	\$ 9,633,000

* 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 29. 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:

	<u>FY 2007</u>	<u>FY 2006</u>
Recoveries of Prior Year Obligations-downward adjustments of prior years' obligations	\$ 387,621	\$ 264,710
Temporarily Not Available-rescinded authority	-	(9,466)
Permanently Not Available:		
Payments to Treasury	(2,769)	(2,848)
Rescinded authority	-	(185,472)
Canceled authority	(4,564)	(10,164)
Total Permanently Not Available	\$ (7,333)	\$ (198,484)

Note 30. Unobligated Balances Available

The unobligated balances available consist of the following as of September 30, 2007 and 2006. Unobligated balances are a combination of two lines on the Statement of Budgetary Resources: Apportioned, Unobligated Balances and Unobligated Balances Not Available. 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.

	<u>FY 2007</u>	<u>FY 2006</u>
Unexpired Unobligated Balance	\$ 3,279,240	\$ 3,156,100
Expired Unobligated Balance	262,147	90,987
Total	\$ 3,541,387	\$ 3,247,087

Note 31. Undelivered Orders at the End of the Period

Budgetary resources obligated for undelivered orders at the end of the September 30, 2007 and 2006 are as follows:

	<u>FY 2007</u>	<u>FY 2006</u>
Undelivered Orders	\$ 8,714,675	\$ 10,000,509

Note 32. Offsetting Receipts

Distributed offsetting receipts credited to the general fund, special fund, or trust fund receipt accounts offset gross outlays. For FYs 2007 and 2006, the following receipts were generated from these activities:

	<u>FY 2007</u>	<u>FY 2006</u>
Trust Fund Recoveries	\$ 234,171	\$ 59,748
Special Fund Environmental Service	22,648	20,634
Downward Re-estimates of Subsidies	29	-
Trust Fund Appropriation	1,040,372	1,204,825
Special Fund Receipt Account and Treasury		
Miscellaneous Receipts and Clearing Accounts	10,238	29,573
Total	\$ <u>1,307,458</u>	\$ <u>1,314,780</u>

Note 33. Transfers-In and Out, Statement of Changes in Net Position

Appropriation Transfers, In/Out:

For FYs 2007 and 2006, 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 reconciliation with the Statement of Budgetary Resources follow:

Transfers In/Out Without Reimbursement, Budgetary:

Fund/Type of Account	<u>FY 2007</u>	<u>FY 2006</u>
Department of State	\$ -	\$ 1,500
Appalachian Regional Commission	-	(747)
Total Appropriation Transfers (Other Funds)	\$ -	\$ 753
Net Transfers from Invested Funds	1,344,610	1,248,523
Allocations Rescinded	-	8,932
Total of Net Transfers on Statement of Budgetary Resources	\$ <u>1,344,610</u>	\$ <u>1,258,208</u>

For FYs 2007 and 2006 Transfers In/Out under Budgetary Financing Sources on the Statement of Changes in Net Position consists of transfers to or from other Federal agencies and between EPA funds. These transfers affect Cumulative Results of Operations. Detail of the transfers-in and transfers-out, expenditure and nonexpenditure, follows:

Type of Transfer/Funds	FY 2007		FY 2006	
	<u>Earmark</u>	<u>Other Funds</u>	<u>Earmark</u>	<u>Other Funds</u>
Transfers-in (out), nonexpenditure to other federal agencies	\$ -	\$ -	\$ (4,509)	\$ (127)
Transfers-in (out) nonexpenditure, Earmark to S&T and OIG funds	(43,491)	43,491	(43,493)	43,493
Transfer-in nonexpenditure recovery from CDC	1,370	-	-	-
Transfers-in, nonexpenditure, Oil Spill	15,734	-	15,330	-
Adjustment from Prior Year	701	-	-	-
without Reimbursement, Budgetary	<u>\$ (25,686)</u>	<u>\$ 43,491</u>	<u>\$ (32,672)</u>	<u>\$ 43,366</u>

Transfers In/Out without Reimbursement, Other Financing Sources:

For FYs 2007 and 2006 Transfers In/Out without Reimbursement under Other Financing Sources on the Statement of 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:

Type of Transfer/Funds	FY 2007		FY 2006	
	<u>Earmark</u>	<u>Other Funds</u>	<u>Earmark</u>	<u>Other Funds</u>
Transfers-in by allocation transfer agency	\$ 39	\$ -	\$ -	\$ -
Transfers-in property	-	530	-	-
Transfers (out) of prior year negative subsidy to be paid following year	-	(5)	-	(28)
Total Transfers in (out) without Reimbursement, Budgetary	<u>\$ 39</u>	<u>\$ 525</u>	<u>\$ -</u>	<u>\$ (28)</u>

34. Imputed Financing Sources

In accordance with SFFAS No. 5, "Accounting for 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 2007 were \$133.3 million (\$21.9 million from Earmark funds, and \$111.4 million from Other Funds). For FY 2006, the estimates were \$131.1 million (\$19.1 million from Earmark Funds, and \$112 million from Other Funds).

In addition to the pension and retirement benefits described above, EPA also records imputed costs and financing for Treasury Judgment Fund payments made 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 2007 entries for Judgment Fund payments totaled \$2.3 million (Other Funds). For FY 2006, entries for Judgment Fund payments totaled \$9.5 million (Other Funds).

The combined total of imputed financing costs for FY 2007 is \$135.6 million and in FY 2006 was \$140.6 million.

Note 35. Payroll and Benefits Payable

Payroll and benefits payable to EPA employees for the years ending September 30, 2007 and 2006, consist of the following:

FY 2007 Payroll & Benefits Payable	Covered by Budgetary Resources	Not Covered by Budgetary Resources	Total
Accrued Funded Payroll & Benefits	\$ 30,957	\$ -	\$ 30,957
Withholdings Payable	29,297	-	29,297
Employer Contributions Payable-TSP	2,101	-	2,101
Accrued Unfunded Annual Leave	-	142,843	142,843
Total - Current	\$ 62,355	\$ 142,843	\$ 205,198

FY 2006 Payroll & Benefits Payable	Covered by Budgetary Resources	Not Covered by Budgetary Resources	Total
Accrued Funded Payroll & Benefits	\$ 31,023	\$ -	\$ 31,023
Withholdings Payable	27,653	-	27,653
Employer Contributions Payable-TSP	2,010	-	2,010
Accrued Unfunded Annual Leave	-	135,060	135,060
Total - Current	\$ 60,686	\$ 135,060	\$ 195,746

Note 36. 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 cancellation of funds that expired 5 years earlier. These amounts affect Unexpended Appropriations.

	Other Funds FY 2007	Other Funds FY 2006
Rescissions to General Appropriations	\$ -	\$ 185,472
Canceled General Authority	4,561	10,146
Total Other Adjustments	\$ 4,561	\$ 195,618

Note 37. Nonexchange Revenue, Statement of Changes in Net Position

The Nonexchange Revenue, Budgetary Financing Sources, on the Statement of Changes in Net Position for FYs 2007 and 2006 consist of the following items:

	Earmark Funds	Earmark Funds
	FY 2007	Restated
		FY 2006
Interest on Trust Fund	\$ 258,986	\$ 206,473
Tax Revenue, Net of Refunds	228,796	197,372
Fines and Penalties Revenue	704	31,422
Special Receipt Fund Revenue	22,648	20,759
Revenue	\$ 511,134	\$ 456,026

Note 38. Adjustment for Allocation Transfers

Beginning in FY 2007, the agency that transfers budget authority to another Federal entity must report all budgetary and proprietary activity related to these transfers in its financial statements. The cumulative effect of this activity is reported as a "Change in Accounting Principle" on the Statement of Net Position (\$20.9 million - Earmark Funds) and as an "Adjustment to Unobligated Balance, Brought Forward" and an "Adjustment to Unpaid Obligations, Brought Forward" on the Statement of Budgetary Resources.

Statement of Budgetary Resources

	FY 2007
Beginning Balance:	
Unobligated Balance, Brought Forward October 1	\$ 3,247,087
Adjustment of Unobligated Balance (Allocation Transfer Agencies)	15,527
Adjusted Total Beginning Balance	\$ 3,262,614

Note 39. Reconciliation of Net Cost of Operations to Budget (formerly the Statement of Financing)

	<u>FY 2007</u>	<u>Restated FY 2006</u>
RESOURCES USED TO FINANCE ACTIVITIES:		
Budgetary Resources Obligated		
Obligations Incurred	\$ 9,516,922	\$ 10,205,133
Less: Spending Authority from Offsetting Collections and Recoveries	<u>(963,361)</u>	<u>(1,466,805)</u>
Obligations, Net of Offsetting Collections	\$ 8,553,561	\$ 8,738,328
Less: Offsetting Receipts (Note 32)	<u>(1,307,458)</u>	<u>(1,314,780)</u>
Net Obligations	\$ 7,246,103	\$ 7,423,548
Other Resources		
Transfers In/Out Without Reimbursement, Property	\$ 530	\$ -
Imputed Financing Sources (Note 34)	<u>135,609</u>	<u>140,554</u>
Net Other Resources Used to Finance Activities	\$ 136,139	\$ 140,554
 Total Resources Used To Finance Activities	 \$ 7,382,242	 \$ 7,564,102
RESOURCES USED TO FINANCE ITEMS		
NOT PART OF THE NET COST OF OPERATIONS:		
Change in Budgetary Resources Obligated	\$ 1,229,438	\$ 722,153
Resources that Fund Prior Periods Expenses	-	(2,020)
Budgetary Offsetting Collections and Receipts that Do Not Affect Net Cost of Operations:		
Credit Program Collections Increasing Loan Liabilities for Guarantees or Subsidy Allowances	3,979	4,114
Offsetting Receipts Not Affecting Net Cost	267,087	109,955
Resources that Finance Asset Acquisition	<u>(113,393)</u>	<u>(115,641)</u>
 Total Resources Used to Finance Items Not Part of the Net Cost of Operations	 \$ 1,387,111	 \$ 718,561
 Total Resources Used to Finance the Net Cost of Operations	 \$ 8,769,353	 \$ 8,282,663

	<u>FY 2007</u>	<u>Restated FY 2006</u>
COMPONENTS OF THE 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	\$ 7,771	\$ 4,776
Increase in Environmental and Disposal Liability	8,073	3,352
Upward/Downward Reestimates of Credit Subsidy Expense	33	-
Increase in Public Exchange Revenue Receivables	(168,330)	(42,011)
Increase in Workers Compensation Costs	986	37
Other	420	1,823
Total Components of Net Cost of Operations that Require or Generate Resources in Future Periods	\$ (151,047)	\$ (32,023)
Components Not Requiring/Generating Resources:		
Depreciation and Amortization	\$ 52,248	\$ 56,959
Revaluation of Assets and Liabilities	-	-
Expenses Not Requiring Budgetary Resources	42,652	(122,044)
Total Components of Net Cost that Will Not Require or Generate Resources	\$ 94,900	\$ (65,085)
Total Components of Net Cost of Operations That Will Not Require or Generate Resources in the Current Period	\$ (56,147)	\$ (97,108)
Net Cost of Operations	\$ 8,713,206	\$ 8,185,555

Note 40. Restatement of FY 2006 Financial Statements

In FY 2006, EPA implemented a policy following the Office of Management and Budget (OMB), Circular A-129, *Policies for Federal Credit Programs and Non-Tax Receivables*, for delinquent receivables that were currently not collectible (CNC). EPA's policy required receivables over 2-years delinquent with no past collections to be written-off and reclassified as CNC or closed-out when there was uncertainty about collection. Consistent with its policy, the Agency wrote-off and reclassified to \$704 million of non-Federal and \$21 million of Federal receivables. Of this amount, approximately \$653.6 million were Superfund-related receivables. Prior to the reclassification of the receivables in FY 2006, EPA had no material collections for these receivables.

OMB Circular A-129 also required that in those cases where material collections could be documented to occur after 2 years, debt could not be written-off until the estimated collections become immaterial. In such cases, the receivable must remain on the Agency's books with an adequate reserve for the uncollectible portion.

Late in FY 2007, EPA had material collections of receivables that had been written-off and classified as CNC. One of the receivables was a 1989 judgment granted in favor of EPA for cleanup costs incurred at a Superfund site. A bond for the amount due to EPA was posted in 1999. The judgment was appealed by the polluter through the U.S. Courts and was upheld in favor of EPA on each appeal.

In FY 2005, an EPA attorney considered the receivable 100% collectible. In FY 2007, the Agency collected the full value of the receivable established in 1989 plus interest.

Based on these material collections, EPA reevaluated its policy and implementation of reclassifying receivables to CNC. The Agency determined that it cannot forecast collections with absolute certainty due to the nature and unpredictability of external factors that impact a debtor's ability to pay EPA. Therefore, EPA has updated its policy to discontinue reclassification of its receivables over 2-years delinquent to CNC. This change is consistent with the documented material collections language in OMB Circular A-129.

In addition, the facts related to the material collection indicated that the receivable should not have been reclassified as CNC during FY 2006, as it was likely that EPA would collect the receivable at some point in the future. As a result, EPA has restated its FY 2006 financial statements to reflect the impact of recognizing the net realizable value for the receivables previously classified as CNC. A prior period adjustment was recorded to reflect amounts that were charged to bad debt expense in prior fiscal years related to the CNC reclassification.

The FY 2006 Consolidated Balance Sheet was restated to reflect a net increase of \$7.5 million in intragovernmental receivables and \$239.9 million in non-Federal receivables, which resulted in an increase of \$247.4 million in total assets. Liabilities, which include custodial liabilities (\$8.8 million), cashout advances, Superfund (\$0.7 million) and other non-Federal liabilities (\$3.4 million), increased by \$12.9 million.

The cumulative results of operations (CRO) beginning balance on the Consolidating Statement of Changes in Net Position for FY 2006 increased by \$74.3 million. The increase is the result of the reduction in prior fiscal years bad debt expense. In addition, on the FY 2006 Consolidating Statement of Changes in Net Position, the Net Cost of Operations decreased by \$160.2 million as a result of the additional revenue earned and reduction in bad debt expense on the re-established receivables. The decrease in expenses and increase in revenues increased the ending CRO balance by \$234.5 million.

On the Statement of Custodial Activity, custodial revenue increased by \$1.8 million.

The following table depicts the changes by financial statements and line item for FY 2006:

Financial Statement & Line Item Affected by Restatement	Restated FY 2006	Original FY 2006	Change
Consolidated Balance Sheet			
Intragovernmental Accounts Receivable, Net	135,263	127,727	7,536
Non-Federal Assets			
Accounts & Interest Receivable	1,076,890	364,517	712,373
Less: Allowance for Uncollectibles	(709,250)	(236,753)	(472,497)
Accounts Receivable, Net-Non Federal	483,700	243,824	239,876
Restatement Effect on Total Assets	18,009,732	17,762,319	247,413
Liabilities			
Custodial Liability	41,801	32,963	8,838
Cashout Advances, Superfund	224,407	223,760	647
Other-Non Federal	134,747	131,322	3,425
Restatement Effect on Total Liabilities	1,601,222	1,588,312	12,910
Results of Operations			
Cumulative Results of Operations - Earmarked Funds	5,533,025	4,177,329	1,355,696
Cumulative Results of Operation - Other Funds	575,846	1,697,038	(1,121,192)
Total Net Position	16,408,511	16,174,007	234,504
Total Liabilities and Net Position	18,009,732	17,762,319	247,413
Consolidated Statement of Net Cost			
Gross Costs	9,061,660	9,215,502	(153,842)
Earned Revenue	876,105	869,762	6,343
Net Cost of Operations	8,185,555	8,345,740	(160,185)
Consolidating Statement of Changes in Net Position			
Net Position - Beginning of Period, Prior Period			
Adjustment (Earmark Funds)	62,150	-	62,150
Net Position - Beginning of Period, Prior Period			
Adjustment (Other Funds)	12,168	-	12,168
Net Cost of Operations	8,185,555	8,345,740	(160,185)
Net Change	626,268	466,082	160,186
Cummulative Results of Operations	6,108,871	5,874,367	234,504
Statement of Custodial Activity			
Accrual Adjustment	(80,806)	(82,620)	1,814
Total Custodial Revenue	21,384	19,570	1,814
Increase/Decreases in Amounts to be transferred	(80,914)	(82,728)	1,814
Total Disposition of Collections	21,384	19,570	1,814

1.
Environmental Protection Agency
Required Supplementary Information
As of September 30, 2007
(Dollars in Thousands)
(Unaudited)

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.

Stewardship Land

Stewardship land is acquired as contaminated sites in need of remediation and clean-up; thus the quality of the land is far-below the standard for usable and manageable land. Easements on stewardship lands are in good and usable condition but acquired in order to gain access to contaminated sites.

2.
Environmental Protection Agency
Required Supplementary Information
Supplemental Statement of Budgetary Resources (Unaudited)
As of September 30, 2007
(Dollars in Thousands)

	<u>EPM</u>	<u>FIFRA</u>	<u>LUST</u>	<u>S&T</u>	<u>STAG</u>	<u>OTHER</u>	<u>TOTAL</u>
BUDGETARY RESOURCE							
Unobligated Balance Brought Forward, October 1							
Brought Forward October 1	\$ 566,216	\$ 5,645	\$ 15,266	\$ 205,792	\$ 1,310,813	\$ 1,143,355	\$ 3,247,087
Adjustment to Unobligation Balance (Alloc Transfer Agencies) (Note 38)						15,527	15,527
Adjusted Subtotal	566,216	5,645	15,266	205,792	1,310,813	1,158,882	3,262,614
Recoveries of prior year unpaid obligations	100,745	828	2,659	11,988	136,882	134,519	387,621
Budgetary Authority:							
Appropriation	2,358,370	-	-	733,387	3,213,708	1,189,563	7,495,028
Borrowing Authority	-	-	-	-	-	29	29
Spending Authority from Offsetting Collections:							
Collected	153,929	21,390	44	9,299	6,960	448,732	640,354
Change in receivables from Federal sources	(69,820)	-	-	(1,648)	(27)	(1,051)	(72,546)
Advance received	4,647	631	-	(1,907)	-	(38,305)	(34,934)
Without advance from Federal source	(28,978)	-	-	(547)	27	28,873	(625)
Expenditure Transfers from trust funds	-	-	-	30,156	-	13,335	43,491
Nonexpenditure transfers, net anticipated and actual	-	-	72,034	-	-	1,272,576	1,344,610
Temporarily not available pursuant to Public Law	-	-	-	-	-	-	-
Permanently not available	(2,855)	-	-	(1,668)	-	(2,810)	(7,333)
Total Budgetary Resources	\$ 3,082,254	\$ 28,494	\$ 90,003	\$ 984,852	\$ 4,668,363	\$ 4,204,343	\$ 13,058,309
STATUS OF BUDGETARY RESOURCES							
Obligations Incurred:							
Direct	\$ 2,323,967	\$ -	\$ 83,691	\$ 757,078	\$ 3,337,633	\$ 2,524,801	\$ 9,027,170
Reimbursable	86,200	21,479	40	5,837	-	376,196	489,752
Total Obligations Incurred	2,410,167	21,479	83,731	762,915	3,337,633	2,900,997	9,516,922
Unobligated Balances:							
Unobligated funds apportioned	444,096	7,015	6,272	192,010	1,330,730	1,294,221	3,274,344
Unobligated balance not available	227,991	-	-	29,927	-	9,125	267,043
Total Status of Budgetary Resources	\$ 3,082,254	\$ 28,494	\$ 90,003	\$ 984,852	\$ 4,668,363	\$ 4,204,343	\$ 13,058,309
CHANGE IN OBLIGATED BALANCE							
Obligated Balance, Net							
Unpaid obligations brought forward, October 1	\$ 989,404	\$ 2,426	\$ 85,443	\$ 586,759	\$ 7,674,782	\$ 1,617,514	\$ 10,956,328
Adjustment to Unpaid Obligations (Alloc Transfer Agencies) (Note 38)	-	-	-	-	-	7,215	7,215
Adjusted Total	989,404	2,426	85,443	586,759	7,674,782	1,624,729	10,963,543
Less: Uncollected customer payments from Federal sources brought forward, October 1	(546,184)	-	-	(42,296)	-	(123,759)	(712,239)
Total unpaid obligation balance, net	443,220	2,426	85,443	544,463	7,674,782	1,500,970	10,251,304
Obligations incurred, net	2,410,167	21,478	83,733	762,916	3,337,632	2,900,996	9,516,922
Less: Gross outlays	(2,468,491)	(20,781)	(72,986)	(831,325)	(3,945,094)	(2,880,960)	(10,219,637)
Less: Recoveries of prior year unpaid obligations, actual	(100,745)	(828)	(2,659)	(11,988)	(136,882)	(134,519)	(387,621)
Change in uncollected customer payments from Federal sources	98,799	-	-	8,336	-	(27,686)	79,449
Total	382,950	2,295	93,531	472,402	6,930,438	1,358,801	9,240,417
Obligated balance, net, end of period:							
Unpaid obligations	830,336	2,295	93,531	506,362	6,930,438	1,510,245	9,873,207
Less: Uncollected customer payments from Federal sources	(447,386)	-	-	(33,960)	-	(151,444)	(632,790)
Total, unpaid obligated balance, net, end of period	\$ 382,950	\$ 2,295	\$ 93,531	\$ 472,402	\$ 6,930,438	\$ 1,358,801	\$ 9,240,417
NET OUTLAYS							
Gross outlays	\$ 2,468,491	\$ 20,781	\$ 72,986	\$ 831,324	\$ 3,945,095	\$ 2,880,960	\$ 10,219,637
Less: Offsetting collections	(158,576)	(22,020)	(45)	(43,689)	(6,959)	(423,899)	(655,188)
Less: Distributed Offsetting Receipts	-	-	-	-	-	(1,307,458)	(1,307,458)
Total, Net Outlays	\$ 2,309,915	\$ (1,239)	\$ 72,941	\$ 787,635	\$ 3,938,136	\$ 1,149,603	\$ 8,256,991

**Environmental Protection Agency
 Required Supplementary Stewardship Information (Unaudited)
 For the Year Ended September 30, 2007
 (Dollars in Thousands)**

INVESTMENT IN THE NATION’S RESEARCH AND DEVELOPMENT: (Non-Federal Physical Property):

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, the framework, and technologies we need to detect, abate, and avoid environmental problems. Research also provides the crucial underpinning(s) for EPA decision-making 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 2007, the full cost of the Agency’s Research and Development activities totaled over \$724.6 million. Below is a breakout of the expenses (dollars in thousands):

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY2007</u>
Programmatic Expenses	593,295	581,323	628,467	630,438	624,088
Allocated Expenses	106,971	91,675	112,558	104,167	100,553

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):

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Construction Grants	15,845	48,948	21,148	39,193	9,975
Clean Water SRF	1,295,394	1,407,345	1,127,883	1,339,702	1,399,616
Safe Drinking Water SRF	842,936	802,629	715,060	910,032	962,903
Other Infrastructure Grants	582,091	341,767	385,226	411,023	381,481
Allocated Expenses	493,349	410,129	402,853	446,113	443,716

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.

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):

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Training and Awareness Grants	47,827	48,416	46,750	43,765	32,845
Fellowships	6,572	7,553	10,195	12,639	12,185
Allocated Expenses	9,808	8,826	10,199	9,320	7,255

Environmental Protection Agency
Supplemental Information and Other Reporting Requirements (Unaudited)
Balance Sheet for Superfund Trust Fund
For the Periods Ending September 30, 2007 and 2006 (Restated)
(Dollars in Thousands)

	FY 2007	Restated FY 2006
ASSETS		
Intragovernmental:		
Fund Balance With Treasury (Note S1)	\$ 51,081	\$ 35,086
Investments	2,751,850	2,627,521
Accounts Receivable, Net (Note 40)	16,955	15,064
Other	14,927	8,191
Total Intragovernmental	\$ 2,834,813	\$ 2,685,862
Accounts Receivable, Net (Note 40)	312,874	432,683
Property, Plant & Equipment, Net	70,601	54,917
Other	1,030	766
Total Assets	\$ 3,219,318	\$ 3,174,228
LIABILITIES		
Intragovernmental:		
Accounts Payable and Accrued Liabilities	89,239	84,706
Other	46,182	44,324
Total Intragovernmental	\$ 135,421	\$ 129,030
Accounts Payable & Accrued Liabilities	\$ 139,607	\$ 122,788
Pensions & Other Actuarial Liabilities	6,889	6,925
Cashout Advances, Superfund (Note S2 and Note 40)	190,269	224,406
Payroll & Benefits Payable	35,914	34,969
Other (Note 40)	40,793	49,710
Total Liabilities	\$ 548,893	\$ 567,828
NET POSITION		
Cumulative Results of Operations (Note 40)	2,670,425	2,606,400
Total Net Position	2,670,425	2,606,400
Total Liabilities and Net Position	\$ 3,219,318	\$ 3,174,228

Environmental Protection Agency
Supplemental Information and Other Reporting Requirements (Unaudited)
Statement of Net Cost for Superfund Trust Fund
For the Periods Ending September 30, 2007 and 2006 (Restated)
(Dollars in Thousands)

	<u>FY 2007</u>	<u>Restated FY 2006</u>
COSTS		
Gross Costs (Note 40)	\$ 1,497,010	\$ 1,284,267
Expenses from Other Appropriations (Note S5)	<u>76,452</u>	<u>61,635</u>
Total Costs	1,573,462	1,345,902
Less:		
Earned Revenue (Note 40)	<u>377,904</u>	<u>327,606</u>
NET COST OF OPERATIONS (Note 40)	\$ <u><u>1,195,558</u></u>	\$ <u><u>1,018,296</u></u>

Environmental Protection Agency
Supplemental Information and Other Reporting Requirements (Unaudited)
Statement of Changes in Net Position for Superfund Trust Fund
For the Periods Ending September 30, 2007 and 2006 (Restated)
(Dollars in Thousands)

	FY2007 Cumulative Results of Operations	Restated FY 2006 Cumulative Results of Operations
	<u> </u>	<u> </u>
Net Position - Beginning of Period	\$ 2,606,400	\$ 2,200,115
Adjustment:		
(a) Change in Accounting Principles (Alloc Transfer Agencies) (Note 38)	20,900	-
(b) Prior Period Adjustment (Note 40)	-	62,150
Beginning Balances, as Adjusted	<u>\$ 2,627,300</u>	<u>\$ 2,262,265</u>
 Budgetary Financing Sources:		
Nonexchange Revenue -Securities Investment	141,407	108,807
Nonexchange Revenue -Other	2,721	32,691
Transfers In/Out	(41,419)	(48,002)
Trust Fund Appropriations	1,040,371	1,189,826
Income from Other Appropriations (Note S5)	76,452	61,635
Total Budgetary Financing Sources	<u>\$ 1,219,532</u>	<u>\$ 1,344,957</u>
 Other Financing Sources (Non-Exchange)		
Transfers in/Out	39	-
Imputed Financing Sources	19,112	17,474
Total Other Financing Sources	<u>\$ 19,151</u>	<u>\$ 17,474</u>
 Net Cost of Operations	(1,195,558)	(1,018,296)
 Net Change	43,125	344,135
 Cumulative Results of Operations	<u><u>\$ 2,670,425</u></u>	<u><u>\$ 2,606,400</u></u>

Environmental Protection Agency
Supplemental Information and Other Reporting Requirements (Unaudited)
Statement of Budgetary Resources for Superfund Trust Fund
For the Periods Ending September 30, 2007 and 2006
(Dollars in Thousands)

	<u>FY 2007</u>	<u>FY 2006</u>
BUDGETARY RESOURCES		
Unobligated Balance, Brought Forward, October 1:		
Brought Forward October 1	\$ 1,088,388	\$ 930,392
Adjustment to Unobligated Balance (Alloc Transfer Agcy) (Note 38)	<u>15,527</u>	<u>-</u>
Adjusted Subtotal	1,103,915	930,392
Recoveries of Prior Year Unpaid Obligations	127,261	121,664
Budgetary Authority:		
Appropriation	43,493	92,269
Spending Authority from Offsetting Collections		
Earned:		
Collected	227,367	289,736
Change in Receivables from Federal Sources	(1,811)	54
Change in Unfilled Customer Orders:		
Advance Received	(33,969)	(18,990)
Without Advance from Federal Sources	<u>29,999</u>	<u>3,693</u>
Total Spending Authority from Offsetting Collections	221,586	274,493
Nonexpenditure Transfers, Net, Anticipated and Actual	1,272,575	1,184,428
Temporarily Not Available Pursuant to Public Law		(7,767)
Permanently Not Available	<u>(2)</u>	<u>(19)</u>
Total Budgetary Resources	<u>\$ 2,768,828</u>	<u>\$ 2,595,460</u>
 STATUS OF BUDGETARY RESOURCES		
Obligations Incurred:		
Direct	\$ 1,367,588	\$ 1,337,854
Reimbursable	<u>155,929</u>	<u>169,218</u>
Total Obligations Incurred	1,523,517	1,507,072
Unobligated Balances:		
Apportioned	<u>1,240,416</u>	<u>1,088,388</u>
Total Unobligated Balances	1,240,416	1,088,388
Unobligated Balances Not Available	<u>4,895</u>	<u>-</u>
Total Status of Budgetary Resources (\$6)	<u>\$ 2,768,828</u>	<u>\$ 2,595,460</u>

Environmental Protection Agency
Supplemental Information and Other Reporting Requirements (Unaudited)
Statement of Budgetary Resources for Superfund Trust Fund
For the Periods Ending September 30, 2007 and 2006
(Dollars in Thousands)

	<u>FY 2007</u>	<u>FY 2006</u>
CHANGE IN OBLIGATED BALANCE		
Obligated Balance, Net:		
Unpaid Obligations, Brought Forward, October 1	\$ 1,454,495	\$ 1,546,186
Adjustment to Unpaid Obligations (Alloc Transfer Agencies) (Note 38)	<u>7,215</u>	<u>-</u>
Adjusted Total	1,461,710	1,546,186
Less: Uncollected Customer Payments from Federal Sources, Brought Forward, October 1	<u>(81,983)</u>	<u>(78,234)</u>
Total Unpaid Obligated Balance, Net	1,379,727	1,467,952
Obligations Incurred	1,523,517	1,507,072
Less: Gross Outlays	(1,496,631)	(1,477,100)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	(127,261)	(121,664)
Change in Uncollected Customer Payments from Federal Sources	<u>(28,187)</u>	<u>(3,748)</u>
Total, Change in Obligated Balance	1,251,165	1,372,512
Obligated Balance, Net, End of Period:		
Unpaid Obligations	1,361,335	1,454,495
Less: Uncollected Customer Payments from Federal Sources	<u>(110,170)</u>	<u>(81,983)</u>
Total, Unpaid Obligated Balance, Net, End of Period	\$ 1,251,165	\$ 1,372,512
 NET OUTLAYS		
Net Outlays:		
Gross Outlays (Note S6)	\$ 1,496,631	\$ 1,477,100
Less: Offsetting Collections (Note S6)	(193,398)	(270,746)
Distributed Offsetting Receipts * (Note S6)	<u>(1,274,542)</u>	<u>(1,249,574)</u>
Total, Net Outlays	28,691	(43,220)

*Offsetting receipts line includes the amount in 68X0250 (payment to trust fund) from Treasury. The payment cannot be made directly through the trust fund but must go through a "pass-through" fund.

**Environmental Protection Agency
Supplemental Information and Other Reporting Requirements (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, 2007 and 2006 consist of the following:

	<u>FY 2007</u>		<u>FY 2006</u>
Fund Balance	\$ 51,081		\$ 35,086

Fund balances are available to pay current liabilities and to finance authorized purchase commitments (see Status of Fund Balances below).

Status of Fund Balances:	<u>FY 2007</u>		<u>FY 2006</u>
Unobligated Amounts in Fund Balances:			
Available for Obligation	\$ 1,240,417	\$	1,088,389
Unavailable for Obligations	4,895		-
Net Receivables from Invested Balances	(2,446,934)		(2,426,589)
Balances in Treasury Trust Fund	1,539		775
Obligated Balance not yet Disbursed	<u>1,251,164</u>		<u>1,372,511</u>
Totals	<u>\$ 51,081</u>	\$	<u>35,086</u>

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, 2007, the total remaining state credits have been estimated at \$14.5 million. The estimated ending credit balance on September 30, 2006 was \$17.1 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, 2007, EPA had 15 outstanding preauthorized mixed funding agreements with obligations totaling \$25 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 2007 and 2006, 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 2007			FY 2006		
	Income from Other Appropriations	Expenses from Other Appropriations	Net Effect	Income from Other Appropriations	Expenses from Other Appropriations	Net Effect
Superfund	\$ 76,452	\$ (76,452)	\$ -	\$ 61,635	\$ (61,635)	\$ -
All Others	(76,452)	76,452	-	(61,635)	61,635	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

In addition, the related general support services costs allocated to the Superfund Trust Fund from the S&T and EPM funds are \$2.3 million for FY 2007 and \$3 million for FY 2006.

Note S6. Statement of Budgetary Resources, Superfund

Budgetary resources, obligations incurred, and outlays, as presented in the audited FY 2007 Statement of Budgetary Resources, will be reconciled to the amounts included in the Budget of the United States Government when they become available. The Budget of the United States Government with actual numbers for FY 2007 has not yet been published. We expect it will be published by March 2008, and it will be available on the OMB website at <http://www.whitehouse.gov/omb/budget/fy2009>. The actual amounts published for the year ended September 30, 2006 are included in EPA's FY 2007 financial statement disclosures.

FY 2006	Budgetary Resources	Obligations	Offsetting Receipts	Outlays
Statement of Budgetary Resources	\$ 2,595,460	1,507,072	\$ 1,249,574	\$ 1,206,354
Funds Reported by Other Federal Entities	19,090	3,563	-	3,661
Adjustments to Outlays				(5,105)
Rounding Differences*	450	365	426	90
Reported in Budget of the U. S. Government	\$ 2,615,000	\$ 1,511,000	\$ 1,250,000	\$ 1,205,000

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:

	FY 2007	FY 2006
Advances	\$ 5,817	\$ 7,843
Expenditure Transfers Payable	\$30,948	\$37,227

Accrued Liabilities	\$ 6,001	\$ 4,642
Expenses	\$21,418	\$25,491
Transfers	\$43,491	\$43,493



OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

Audit Report

Audit of EPA's Fiscal 2007 and 2006 (Restated) Consolidated Financial Statements

Report No. 08-1-0032

November 15, 2007

Abbreviations

ASSERT	Automated Self Evaluation and Reporting Tool
BRAINS	Billing & Reimbursable Accounting Information Network System
CNC	Currently Not Collectible
DOJ	Department of Justice
EPA	U.S. Environmental Protection Agency
FFMIA	Federal Financial Management Improvement Act
FMFIA	Federal Managers' Financial Integrity Act
GAO	Government Accountability Office
IFMS	Integrated Financial Management System
IT	Information Technology
mLINQS	Relocation Expense Management System
OARM	Office of Administration and Resources Management
OCFO	Office of the Chief Financial Officer
OIG	Office of Inspector General
OMB	Office of Management and Budget
READ	Registry of EPA Applications and Databases
RMDS	Resources Management Directive System
RSSI	Required Supplementary Stewardship Information
SSFAS	Statement of Federal Financial Accounting Standards
SUSF	Suspense Table



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 the U.S. Environmental Protection Agency (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 stated 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/2008/20071115-08-1-0032.pdf

Audit of EPA's Fiscal 2007 and 2006 (Restated) Consolidated Financial Statements

EPA Receives Unqualified Opinion

We rendered an unqualified, or clean, opinion on EPA's Consolidated Financial Statements for fiscal 2007 and 2006 (restated), meaning that they were fairly presented and free of material misstatement.

Internal Control Material Weakness, Significant Deficiencies Noted

We noted one material weakness with EPA's Implementation of the "Currently Not Collectible" policy for accounts receivable that caused a Material Understatement of Asset Value and led to the restatement of the fiscal 2006 financial statements. Further, we noted the following six significant deficiencies:

- EPA did not properly compute an allowance for doubtful accounts.
- EPA needs to improve internal controls in recording and accounting for accounts receivable.
- Key applications do not meet federal and EPA information security requirements.
- Access and security practices over critical information technology assets need improvement.
- EPA needs to improve controls over the Integrated Financial Management System Suspense Table.
- EPA did not maintain adequate documentation for obligating accounting adjustments.

Noncompliance With Laws and Regulations Noted

EPA is in noncompliance with regulations relating to reconciling intragovernmental transactions.

Federal Financial Management Improvement Act Noncompliance

We identified two instances of substantial noncompliance under the Federal Financial Management Improvement Act. These noncompliances are also significant deficiencies. Two critical applications did not meet federal and EPA information technology security requirements. Also, key controls associated with certain servers did not comply with federal guidelines.

Agency Comments and Office of Inspector General Evaluation

In a memorandum received on November 9, 2007, from the Chief Financial Officer, the Agency recognized the issues raised and indicated it will take corrective actions.



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

OFFICE OF
INSPECTOR GENERAL

November 15, 2007

MEMORANDUM

SUBJECT: Audit of EPA's Fiscal 2007 and 2006 (Restated)
Consolidated Financial Statements
Report No. 08-1-0032

FROM: Paul C. Curtis 
Director, Financial Statement Audits

TO: Lyons Gray
Chief Financial Officer

Attached is our audit report on the U.S. Environmental Protection Agency's (EPA's) Fiscal 2007 and 2006 (restated) consolidated financial statements. We are reporting a material weakness related to EPA's accounting for delinquent receivables, as well as six reportable conditions. Two of the reportable conditions are financial report systems-related significant deficiencies under the Federal Information Security Management Act of 2002. By definition they are also instances of substantial noncompliance under the Federal Financial Management Improvement Act. We also identified a noncompliance with laws and regulations related to reporting intragovernmental transactions. Attachment 3 contains the status of recommendations from prior years.

The estimated cost of this report – calculated by multiplying the project's staff days by the applicable daily full cost billing rates in effect at the time – is \$2,367,128.

This audit report represents the opinion of the Office of Inspector General, and the findings 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. This report will be available at <http://epa.gov/oig/>.

In accordance with EPA Manual 2750, *Audit Management Process*, you are required to provide us with a written response to the final audit report within 90 days of the final report date. 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 for Audit, at (202) 566-0899.

Attachments

cc: See Appendix III, Distribution

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Audit of EPA's Fiscal 2007 and 2006 (Restated) Consolidated Financial Statements

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Inspector General's Report on EPA's Fiscal 2007 and 2006 (Restated) Consolidated Financial Statements

The Administrator
U.S. Environmental Protection Agency

We have audited the consolidated balance sheet of the U.S. Environmental Protection Agency (EPA, or the Agency) as of September 30, 2007 and 2006 (Restated), and the related consolidated statements of net cost, net cost by goal, changes in net position, and custodial activity; 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 U.S. 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 07-04, *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.

As discussed in Note 40, the Agency has restated its financial statements for fiscal 2006 due to material errors in accounting for delinquent debts. In fiscal 2006, EPA adopted OMB Circular A-129, *Policies for Federal Credit Programs and Non-Tax Receivables*, for accounting for what it considered to be delinquent debts. This policy, as adopted by EPA, required that all receivables outstanding longer than 2 years be removed from the books and put in a memo account. In fiscal 2007, EPA received material collections on those receivables. Further review of correspondence from attorneys indicated that material receivables removed from the books in 2006 were collectible. The evidence was available to the Agency but not considered at the time. As a result, EPA has re-evaluated its decision to adopt OMB Circular A-129, did an in-depth review of the receivables removed from the books, and determined that it needed to restate the fiscal 2006 financial statements in order to properly reflect the value of Agency assets. The Agency restated the fiscal 2006 financial statements to reflect an increase in the net book value of receivables of \$247,413, an increase in liabilities of \$12,910, a reversal of write-offs to expense of \$160,185, and a prior period adjustment of \$74,318.

Due to the material errors found in accounting for delinquent debts, our report on EPA's fiscal 2006 financial statements, issued on November 15, 2006, is not to be relied upon. That report is replaced by this report on the restated fiscal 2006 financial statements. We reported the internal control deficiencies that resulted in the material errors as a material weakness in the Internal Control section of our report.

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, custodial activity, and combined budgetary resources of EPA as of and for the years ended September 30, 2007 and 2006 (restated), in conformity with accounting principles generally accepted in the United States of America.

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements taken as a whole. The consolidating information for earmarked and all other funds presented in the statement of changes in net position is for purposes of additional analysis of the consolidated financial statements. The consolidating information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and, in our opinion, is fairly stated in all material respects in relation to the consolidated financial statements taken as a whole.

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 2007 and 2006 (restated), which are being presented for additional analysis and are not a required part of the basic financial statements. 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.

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 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.

Compliance with applicable laws, regulations, and government-wide policies - Transactions are executed in accordance with laws governing the use of budget authority, government-wide policies, laws identified by OMB, and other laws and regulations that could have a direct and material effect on the financial statements.

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.

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. We did this as a basis for designing our auditing procedures for the purpose of expressing an opinion on the financial statements and to comply with OMB audit guidance, not to express an opinion on internal control. Accordingly, we do not express an opinion on internal control over financial reporting nor on management's assertion on internal controls included in Management's Discussion and Analysis. We limited our internal control testing to those controls necessary to achieve the objectives described in OMB Bulletin No. 07-04, *Audit Requirements for Federal Financial Statements*. We did not test all internal controls relevant to operating objectives as broadly defined by the Federal Managers' Financial Integrity Act of 1982 (FMFIA), 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 significant deficiencies. Under standards issued by the American Institute of Certified Public Accountants, a significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the Agency's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the entity's financial statements that is more than inconsequential will not be prevented or detected. A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or

detected. 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 significant deficiencies, of which one is considered 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. 07-04. 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 2007 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. 07-04. 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.

Material Weakness

EPA's Implementation of the "Currently Not Collectible" Policy for Accounts Receivable Materially Understated Asset Value

During fiscal 2006, EPA materially understated the fiscal 2006 asset value by writing off \$150 million for 31 accounts receivable that were collectible. EPA recorded the write-offs based on implementation of its new "Currently Not Collectible" (CNC) policy. This policy mandated automatic write-off from accounts receivable to a CNC memo account set up for those receivables that had no collection activity for 2 years. After write-off, the Servicing Finance Offices were supposed to review the receivables recorded in the CNC memo account in the Integrated Financial Management System (IFMS) and determine whether they were properly classified as CNC. EPA did not review accounts receivable that were automatically written off. During fiscal 2007, EPA collected \$150 million of receivables written off, including one large receivable of \$127 million. As a result, EPA did not disclose receivables in the 2006 Financial Statements that had a material net realizable value. Federal accounting standards require EPA to record receivables at net realizable value. We consider the control weakness that resulted in EPA undervaluing its fiscal 2006 receivables by \$150 million to be a material weakness.

Significant Deficiencies

Allowance for Doubtful Accounts Calculation Needs Improvement

EPA did not properly compute an allowance for doubtful accounts for fiscal 2006 and 2007. Federal accounting standards and OMB Circular A-136 require agencies to reduce accounts receivable to net realizable value by computing an allowance for doubtful accounts. EPA did not obtain sufficient objective evidence to support the calculation of its allowance estimate on the 2006 re-established receivables and the 2007 receivables.

By not using objective evidence to support their allowance estimates, EPA's financial statements could be misstated.

EPA Needs to Improve Internal Controls in Recording and Accounting for Accounts Receivable

We found 150 errors during testing of internal controls for EPA's accounting for accounts receivable. These errors occurred because EPA had not established or implemented procedures to ensure timely and accurate recording of accounts receivable. Federal accounting standards and EPA policies require accurate and timely recording of transactions. These errors and internal control deficiencies affect the reliability and integrity of accounts receivable on the financial statements and the information used to manage these receivables.

Key Applications Do Not Meet Federal and EPA Information Security Requirements

EPA had not complied with federal and Agency information security standards. In particular, key systems (BRAINS and mLINQS)¹ did not have required contingency plans and signed authorizations to operate. The systems also lacked independent reviews of security controls and security plans. EPA did not review these systems for compliance with Federal Financial Management System Requirements. At the time of our review, EPA also had not recognized these systems in either of the Agency's databases used to track the inventory of EPA applications (ASSERT or READ).² The conditions noted existed because EPA management did not consider these systems "major applications," and thus did not believe it was necessary to comply with published requirements. This is also a substantial noncompliance issue under the Federal Financial Management Improvement Act (FFMIA) of 1996.

Access and Security Practices Over Critical Information Technology Assets Need Improvement

EPA needs to take more steps to support its security practices and access controls over critical information technology (IT) assets. In particular, our field work disclosed concerns in the following management control areas:

- **Disaster Recovery Practices** – EPA had not separated duties for backing up, transporting, and securing critical business data, thereby creating a situation where key business data is susceptible to loss, theft, or misuse without detection. EPA lacks accountability over the use and custody of media drives containing key financial and sensitive personally identifiable information.

¹ BRAINS (Billing & Reimbursable Accounting Information Network System) is used to process accounts receivable; mLINQS (Relocation Expense Management System) is used to process Permanent Change of Station payments.

² ASSERT (Automated Self Evaluation and Reporting Tool) and READ (Registry of EPA Applications and Databases) track the inventory of EPA applications.

- **System Monitoring Practices** – EPA does not monitor critical servers for known vulnerabilities or review system log files for violations of Agency policy. Personnel with significant security responsibility did not receive training on their responsibilities. EPA does not use all available system configuration and security monitoring tools to enforce Agency policies.
- **Server Room Access Controls** – EPA lacks practices to control the access to critical IT assets by non-EPA personnel and other visitors. EPA lacks control over keys to the server room, and the server room activity is not captured or recorded. Critical IT assets are not secured in a manner that would prevent an unauthorized user from tampering with them. For example, unauthorized personnel could physically access the server components and use this access to bypass security implemented to protect the server's data.

Environmental Controls – The server room did not have a correctly installed water shield to protect EPA servers and Uninterrupted Power Supply. The server room did not have sensors that can monitor and alert appropriate personnel of environmental conditions that are hazardous to critical IT assets (excessive humidity, high temperature, and water).

This is also a substantial noncompliance under FFMIA.

EPA Needs to Improve Controls Over the IFMS Suspense Table

EPA needs to improve practices for removing financial transactions that do not process completely in IFMS. IFMS is EPA's core financial accounting system. We found that, monthly, EPA personnel automatically purged all financial transactions over 45 days old from the IFMS Suspense Table (SUSF) without obtaining evidence that the transactions should be deleted, as required by EPA Office of Financial Management Policy Announcement 04-02. This occurred because EPA had not implemented a management oversight process to enforce the Agency's policy requiring EPA offices to explain entries in the SUSF file between 30-45 days old. Although EPA sent notices to the originator regarding the status of its SUSF entries, the originator did not provide responses. In addition, EPA had not put in place a delinquency notice to inform senior EPA officials that uncleared entries remain in the SUSF. In an attempt to reduce the number of excessive out-of-date entries in the SUSF table never reviewed, subsequently deleted, or cleared, EPA personnel said they deleted the financial transactions instead of having the user that originated it do so.

EPA Did Not Maintain Adequate Documentation for Obligation Accounting Adjustments

EPA made adjustments to obligation transactions in IFMS without documenting why the transactions were made and who approved them. This occurred because finance personnel did not understand the policy requirements for documenting adjustments. We have reported similar instances of unsupported transactions since fiscal 2000. EPA policy requires that all financial transactions recorded in the accounting system be supported by

adequate source documentation. Inputting adjusting entries into the Agency's accounting system without adequate documentation increases the risk of fraud, waste, and abuse by increasing the possibility that unauthorized or inaccurate information is entered.

Attachment 3 contains the status of recommendations related to significant deficiencies reported in prior years' reports. We 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. 07-04, *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 FMFIA report that relate to the financial statements and identify material weaknesses disclosed by the 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 a significant deficiency, or combination of significant deficiencies, that result in a more than remote likelihood that a material misstatement of the financial statements will not be prevented or detected.

The Agency reported that three material weaknesses had been identified for fiscal 2007, one of which has been corrected. All these material weaknesses were identified by the OIG in the course of this audit, and are described in this report.

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. 07-04, *Audit Requirements for Federal Financial Statements*. The OMB guidance requires that we evaluate compliance with federal financial management system requirements, including the requirements referred to in the 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.

Our tests of laws and regulations disclosed the following noncompliance issue.

EPA Needs to Reconcile Differences With Trading Partners

As of September 30, 2007, EPA had over \$375 million in net unreconciled differences with 46 of its trading partners for intragovernmental transactions. Treasury policy requires agencies to confirm and reconcile intragovernmental transactions with their trading partners. EPA had difficulty reconciling these differences primarily because of differing accounting treatments and accrual methodologies between federal agencies. EPA's inability to reconcile its intragovernmental transactions contributes to a long-standing government-wide problem that hinders the ability of the Government Accountability Office (GAO) to render an opinion on the Consolidated Financial Statements of the Federal Government. Attachment 2 provides additional details and our recommendations on actions that should be taken on this matter.

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. An OMB memorandum dated January 4, 2001, *Revised Implementation Guidance for the Federal Financial Management Improvement Act*, 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 work disclosed instances where the Agency's financial management systems did not substantially comply with the applicable federal accounting standard. We identified two financial report systems-related significant deficiencies under the Federal Information Security Management Act of 2002. By definition they are also instances of substantial noncompliances under FFMIA. The noncompliances are: (1) two critical applications did not meet federal and EPA IT security requirements; and (2) key managerial, operational, and technical controls associated with monitoring for system vulnerabilities on, controlling physical access to, and monitoring environmental controls associated with certain servers did not comply with federal guidelines. The noncompliances occurred because management did not consider the two critical applications to be "major applications," did not document performance expectations in written procedures, and did not correct previously identified deficiencies. These issues are also considered to be significant deficiencies. The details of these noncompliances can be found above and in attachment 1.

We 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.

Our audit work was also performed to meet the requirement in 42 U.S. Code 9611(k) with respect to the Hazardous Substance Superfund to conduct an annual audit of payments, obligations, reimbursements, or other uses of the Fund. We reported a material weakness on accounting for delinquent receivables, which relates primarily to Superfund receivables and other significant deficiencies above.

Prior Audit Coverage

During previous financial or financial-related audits, we reported weaknesses that impacted our audit objectives in the following areas:

- Payroll internal controls.
- General ledger adjustments for receivables transferred to the Cincinnati Finance Center.
- Contingency plans for financial applications.
- Reconciling and reporting intragovernmental transactions, assets, and liabilities by federal trading partner.
- Recording marketable securities.
- Correcting rejected transactions.
- Assessing automated application processing controls for IFMS.
- Security screenings for non-federal personnel.
- Change control procedures for IFMS.

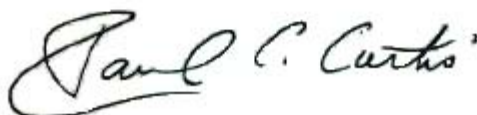
Attachment 3, Status of Prior Audit Report Recommendations, summarizes the current status of corrective actions taken on prior audit report recommendations.

Agency Comments and OIG Evaluation

In a memorandum dated November 9, 2007, the Office of the Chief Financial Officer (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 Statement Audits
Office of Inspector General
U.S. Environmental Protection Agency
November 14, 2007

Material Weakness and Significant Deficiencies

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Material Weakness

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1 – EPA’s Implementation of the “Currently Not Collectible” Policy for Accounts Receivable Materially Understated Asset Value

During fiscal 2006, EPA materially understated the fiscal 2006 asset value by writing off \$150 million for 31 accounts receivable that were collectible. EPA recorded the write-offs based on implementation of its new “Currently Not Collectible” (CNC) policy. This policy mandated automatic write-off from accounts receivable to a CNC memo account set up for those receivables that had no collection activity for 2 years. After write-off, the Servicing Finance Offices were supposed to review the receivables recorded in the CNC memo account in IFMS and determine whether they were properly classified as CNC. EPA did not review accounts receivable that were automatically written off. During fiscal 2007, EPA collected \$150 million of receivables written off, including one large receivable of \$127 million. As a result, EPA did not disclose receivables in the 2006 Financial Statements that had a material net realizable value. Federal accounting standards require EPA to record receivables at net realizable value. We consider the control weakness that resulted in EPA undervaluing its fiscal 2006 receivables by \$150 million to be a material weakness.

OCFO based the CNC policy on OMB Circular A-129, *Policies for Federal Credit Programs and Non-Tax Receivables*. Circular A-129 made write-off of accounts receivable generally mandatory for delinquent debt older than 2 years. EPA’s implementation of OMB’s policy in fiscal 2006 made write-off of accounts receivable mandatory if delinquent for more than 2 years. EPA’s write-offs included receivables that were considered to be collectible.

As of September 30, 2006, EPA wrote off \$725 million under the policy. In fiscal 2007, we identified collections of \$150 million on previously written-off receivables. The collections included \$127 million for one receivable written off in fiscal 2006. EPA wrote off the receivable even though the case attorney considered the receivable to be fully collectible. The material collections on write-offs indicate that EPA did not value the receivables at the proper net realizable value.

Statement of Federal Financial Accounting Standards (SFFAS) Number 1 prescribes asset valuation. SFFAS states that a receivable should be recognized when a federal entity establishes a claim. An allowance for an estimated uncollectible amount should reduce the gross amount of receivables to its net realizable value.

EPA’s Resources Management Directive System (RMDS) 2540-09,³ Chapter 9, *Receivables and Billings*, stated that the Servicing Finance Offices should use a combination of the percentage analysis method and the specific identification method. The percentage analysis method is used for smaller dollar debts, whereas the specific identification method is used for large debts. Both methods require an objective analysis of the outstanding debt using an aging of receivables (debt) report at the end of each quarter.

³ RMDS 2540-09 Chapter 9 was updated on September 18, 2007, and states that EPA should recognize an allowance for estimated uncollectible amounts to reduce the gross amount of debt to its net realizable value. EPA should individually analyze accounts that represent significant amounts to determine the loss allowance. EPA should assess potential losses for other accounts on a group basis.

The CNC policy required automatic write-off of receivables that were delinquent for 2 or more years even though they might be collected in the future. The policy was not appropriate for valuing the majority of EPA's receivables, such as Superfund cost recovery and grant refund receivables, because they commonly require several years to collect.

EPA's implementation of the CNC policy, as described by RMDS 2540-09 Chapter 9, is in direct conflict with generally accepted accounting standard SFFAS Number 1. RMDS 2540-09 Chapter 9 requires receivables to be removed from the general ledger and classified as CNC if "the debt has been delinquent for two or more years; the debt might be collected in the future and EPA will continue ...collection activity..." SFFAS Number 1 requires assets to be reflected at their net realizable value. By writing off receivables that were considered collectible, EPA was in noncompliance with standards and materially understated receivables.

EPA did not properly implement the CNC policy as required by RMDS 2540-09. In addition to the process that automatically wrote off receivables that had no collections for 2 years, the policy required the Servicing Finance Offices to follow up to determine if the receivable was properly classified. If the debt was not properly classified as CNC, the Servicing Finance Offices were to "reclassify the debt as either open or close-out." In a July 5, 2005, email, EPA's case attorney for the \$127 million settlement stated the receivable was fully collectible. EPA did not act upon the attorney's information to prevent the write-off. The policy also required Receivables and Billings staff in the Reports and Analysis Staff to (1) monitor and evaluate each Servicing Finance Office's quarterly review for quality control and compliance, and (2) ensure that all quarterly reviews collectively support the CNC 9050 general ledger account. EPA did not perform a quarterly review of CNC receivables, nor did Reports and Analysis Staff evaluate items reclassified as CNC. As a result, EPA wrote off some non-delinquent receivables, including receivables that had recent collections. In reports to OMB, EPA also misstated the amount of its delinquent receivables.

Because of the materiality of the collectible accounts receivable that were written off, the continued collection on written-off receivables, and the likelihood such errors will repeat under the current system of controls, we consider the Agency's valuation of accounts receivable to be a material weakness. OMB Bulletin No. 07-04, *Audit Requirements for Federal Financial Statements*, dated September 4, 2007, defines a material weakness as a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected. EPA will need to correct this material error by restating the fiscal 2006 financial statements.

Recommendations

We recommend that the OCFO:

1. Change its accounting policy to reflect receivables at their net realizable value. The policy should provide that accounts receivable considered fully or partially collectible should not be written off, but should remain in accounts receivable with an appropriate allowance for doubtful accounts.

2. Restore all CNC receivables to open accounts receivable with an appropriate allowance for doubtful accounts.

Agency Comments and OIG Evaluation

The Agency agreed with our findings and recommendations. The Agency restated its fiscal 2006 financial statements and discontinued the practice of writing off delinquent receivables over 2 years old.

2 – EPA’s Allowance for Doubtful Accounts Calculation Needs Improvement

EPA did not properly compute an allowance for doubtful accounts for fiscal 2006 and 2007. Federal accounting standards and OMB Circular A-136 require agencies to reduce accounts receivable to net realizable value by computing an allowance for doubtful accounts. EPA did not obtain sufficient objective evidence to support the calculation of its allowance estimate on the 2006 re-established receivables and the 2007 receivables. By not using objective evidence to support allowance estimates, EPA’s financial statements could be misstated.

EPA re-established \$704,818,433 of fiscal 2006 accounts receivable that were previously written off as currently not collectible. We tested the allowance estimate on a majority of the re-established high dollar receivables and some smaller receivables. Overall we tested \$661,702,225, or 94 percent, of the amount of the re-established accounts receivable. The table below summarizes the test results.

	No. of Transactions	Receivable Amount	Allowance Amount
Re-established Accounts Receivable at EPA	665	\$704,818,433	\$507,018,368
Amounts Tested	55	\$661,702,225	\$471,982,994
Unsupported Allowance	25	\$201,531,819	\$179,729,256

Source: OIG analysis

For \$201,531,819, or 29 percent of the dollars tested, accounts receivable files did not contain sufficient objective information to support EPA’s allowance estimates.

Objective evidence for allowance estimates should be documented, relevant to the conclusion, and from an authoritative third party. Sufficient evidence may be obtained from external sources such as the case attorney, Program Official, or Department of Justice (DOJ). Examples of objective evidence would be the case attorney’s assessment of the collectibility of an accounts receivable, an assessment by someone in the program office with knowledge of the accounts receivable, or historical documentation on the status of the receivable.

The Agency did not properly update or apply aging percentages in computing the fiscal 2007 allowance for doubtful accounts. We found that EPA did not properly calculate the second and third quarter 2007 allowance for doubtful accounts. EPA did not:

- Reconcile the receivables used in the allowance calculation to the general ledger balances and ensure the calculation included all receivables.
- Use the fiscal 2007 percentages for the second and third quarter allowance calculations. Rather than use the 2007 percentages, EPA substituted substantially higher percentages in several categories.
- Update the percentages based on current data. EPA has not updated its methodology since it consolidated the receivable function at one of its finance centers.

SFFAS Number 1 states that an allowance for estimated uncollectible amounts should be recognized to reduce the gross amount of accounts receivable to its net realizable value. Accounts receivable representing significant amounts should be individually analyzed to determine loss amounts using a systematic methodology. Loss estimates should be based on (a) the debtor's ability to pay, (b) the debtor's payment record and willingness to pay, and (c) the probable recovery of amounts from secondary sources.

Under Generally Accepted Accounting Principles, the Objectivity Principle states that accounting will be recorded on the basis of objective evidence. The Objectivity Principle describes objective evidence as "...different people looking at the same evidence will arrive at the same values for the transaction. Accounting entries will be based on fact and not on personal opinion or feelings."

EPA's RMDS 2540, Chapter 9, Section 10(a), requires Servicing Finance Offices to "derive by age category an estimated percentage of the amount that will not be collected based on the experience of collecting past due accounts."

Appropriate allowance estimates are necessary to recognize accounts receivable at net realizable value. Without appropriate estimates of accounts receivable collectibility, EPA's financial statements and results of operations would not be fairly stated.

Recommendations

We recommend that the OCFO:

3. Prepare the specific identification allowance for doubtful accounts estimates based upon the objective evidence. Such evidence may be obtained from the case attorney, Program Official, DOJ assessment of the receivable's collectibility, or other sources, depending upon the type of receivable.
4. Reconcile the receivables to the general ledger and ensure the allowance for doubtful accounts calculation includes all receivables.
5. Use the percentages applicable to the current year for the year-end allowance for doubtful account percentage analysis calculations.
6. Update the allowance for doubtful account percentages based on current data.

Agency Comments and OIG Evaluation

The Agency agreed with our findings and recommendations.

3 - EPA Needs to Improve Internal Controls in Recording and Accounting for Accounts Receivable

We found 150 errors during testing of EPA's internal controls for accounting for accounts receivable. These errors occurred because EPA had not established or implemented procedures to ensure timely and accurate recording of accounts receivable. Federal accounting standards and EPA policies require accurate and timely recording of transactions. These errors and internal control deficiencies affect the reliability and integrity of accounts receivable on the financial statements and the information used to manage these receivables.

GAO's *Standards for Internal Control in the Federal Government* require accurate and timely recording of transactions and events. OMB Circular A-123, *Management's Responsibility for Internal Control*, states: "control activities include policies, procedures and mechanisms in place to help ensure that agency objectives are met. Several examples include: proper segregation of duties (separate personnel with authority to authorize a transaction, process the transaction, and review the transaction); proper authorization; and appropriate documentation and access to that documentation."

During our testing of accounts receivable, we found the following weaknesses in EPA's internal controls and ability to account for accounts receivable:

- EPA did not timely receive 39 legal documents totaling \$35,344,222 that supported accounts receivable. Further, EPA did not timely record 11 receivables totaling \$20,612,176 after receipt of legal documents. Regional counsel and DOJ did not forward legal documents and supporting documentation to the Finance Office within a reasonable time. Some receivable documents were not received until up to 141 days after the effective date. EPA's RMDS 2550 D, Chapter 14, requires regional enforcement and counsel offices to forward copies of all entered consent decrees and judgments to the finance offices within 3 work days of receipt from DOJ or the court. Finance offices are to record the Superfund accounts receivable in IFMS within 3 work days of receipt of the legal document.
- EPA did not record 10 receivables totaling \$4,068,971 included on regional office and DOJ reports. EPA finance offices did not follow up with regional offices and DOJ to obtain legal documents when collections were received prior to accounts receivable documentation being received and recorded in IFMS. Further, EPA finance offices did not routinely communicate with regional counsel offices, program offices, or DOJ when there were discrepancies between accounts receivable recorded in IFMS and external reports. EPA's *Office of the Comptroller Transmittal No. 00-05: Reporting and Tracking Superfund Accounts Receivable*, dated January 11, 2000, states finance offices must maintain routine communications with the Office of Regional Counsel and program offices to ensure Superfund accounts receivable are recorded timely. Subsequent to our review, EPA researched the receivables, concurred with the auditors, and recorded the receivables in the accounting system. These receivables represent potential monetary benefits to EPA.

- EPA did not record 18 bankruptcy accounts receivable totaling \$9,331,597 at the court-approved claim amount. EPA does not have a uniform process to record bankruptcies. Some bankruptcy receivables were recorded at the assessed claim amount while others were recorded at the collection amount. EPA's *Office of the Comptroller Policy Announcement No. 02-05: Superfund Accounts Receivable: Collection Actions for Delinquent Accounts*, dated August 20, 2002, requires EPA to record bankruptcy accounts receivable at the assessed claim amount. EPA bankruptcy receivables may be based on a pre-existing consent decree, judgment, administrative agreement, Administrative Order on Consent, or a proof of claim. Subsequent to our review, EPA researched the receivables, concurred with the auditors, and recorded the bankruptcy receivables in the accounting system. These also represent potential monetary benefits to EPA.
- EPA recorded 6 federal accounts receivable totaling \$3,162,722 as non federal accounts receivable. EPA staff has not received training on the different types of accounts receivable. SFFAS Number 1 states: "Receivables from federal entities are intra-governmental receivables, and should be reported separately from receivables from non federal entities." In addition, EPA recorded \$226,137 of interest for six receivables in general ledger accounts used for principal instead of general ledger accounts used for interest.
- EPA did not maintain evidence of supervisory review and approval for 5 transactions totaling \$24 million. EPA's management has not established internal control procedures for supervisory review of transactions. EPA's current practice permits accountants and financial specialists to record accounts receivable activity (including corrections and cancellations) directly into IFMS without supervisory review and approval. One such transaction was a \$14 million entry that resulted in an overstatement in accounts receivable at September 30, 2007.

OMB *Circular A-123* cites supervision and the separation of duties as examples of management control standards. It states managers should exercise appropriate oversight to ensure individuals do not exceed or abuse their assigned authorities. GAO's *Standards for Internal Controls* states: "key duties and responsibilities need to be divided or segregated among different people to reduce the risk of error or fraud. This should include separating the responsibilities for authorizing transactions, processing and recording them and reviewing the transactions." The standards also state that all transactions and other significant events are to be clearly documented, documentation is to be readily available for examination, and qualified and continuous supervision is to be provided to ensure that internal control objectives are achieved.

- EPA wrote off 70 accounts receivable totaling \$149,900 without supporting documentation, and also exceeded its authority when it improperly wrote off 1 accounts receivable. We statistically sampled 55 transactions and found that EPA wrote off all 55 accounts receivable tested, totaling \$45,246, because EPA could not locate the files. We found that EPA wrote off all 70 transactions in the same manner. Office of Comptroller Policy Announcement No. 93-02, *Policies for Documenting Agency Financial*

Transactions, requires that “all financial transactions recorded in the accounting system be supported by adequate source documentation, and that this documentation be easily accessible.” By not exercising proper collection efforts and maintaining adequate documentation to support the validity of receivables, EPA may have incorrectly written off receivables with net realizable values.

Without adequate supporting documentation, questions arise about the validity and integrity of the financial information 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. The high error rate encountered on the above transactions indicates that controls are not functioning as prescribed. The weaknesses in internal control procedures increase the risk that accounts receivable may not be accurately stated and their status and collectibility may not be accurately reflected.

Recommendations

We recommend that the OCFO:

7. Establish procedures to monitor all tracking reports and follow up with the regional offices and DOJ to obtain receivable documents identified through reconciliations or by receiving collections in advance of the legal documents.
8. Develop uniform procedures to record bankruptcy receivables and establish procedures to properly record federal receivables and their related allowance.
9. Provide staff with training to ensure accounts receivable are accurately recorded in the accounting system.
10. Require standardized recording techniques for accounts receivable items, including proper supporting documentation for transactions, evidence of supervisory review and approval, and segregating duties of entry origination (accountants) and data entry.
11. Determine how the accounts receivable files were lost, and develop procedures to ensure the situation does not repeat. Re-establish the improperly written-off accounts receivable and establish an appropriate allowance for doubtful accounts until determination has been made by management as to whether the debts should be written off.

Agency Comments and OIG Evaluation

The Agency agreed with our findings and recommendations.

4 – Key Applications Do Not Meet Federal and EPA Information Security Requirements

EPA had not complied with federal and Agency information security standards. In particular, key systems (BRAINS and mLINQS)⁴ did not have required contingency plans and signed authorizations to operate. The systems also lacked independent reviews of security controls and security plans. EPA did not review these systems for compliance with Federal Financial Management System Requirements. At the time of our review, EPA also had not recognized these systems in either of the Agency's databases used to track the inventory of EPA applications (ASSERT or READ).⁵ The conditions noted existed because EPA management did not consider these systems "major applications," and thus did not believe it was necessary to comply with published requirements.

Our research and interviews disclosed these key systems play a vital role in EPA's mission. For example, the EPA accounts receivable system processed over \$479 million of financial transactions in fiscal 2007. EPA enters this system's output into IFMS, the Agency's core financial management application, and these entries make up a material amount in the accounts receivable general ledger balance within IFMS. In addition, the system EPA uses to process Permanent Change of Station payments contains sensitive personally identifiable information that is susceptible to identity fraud, if compromised. Management stated EPA would also use this system to process Permanent Change of Station payments for other federal agencies. For these reasons, and the fact that these key systems are critical to EPA's financial mission, management should have taken steps to comply with all mandatory information security requirements. This includes implementing controls to protect the integrity, confidentiality, and availability of the data processed by these applications.

While management made some progress to address weaknesses noted, much still needs to be accomplished. An effective security program needs time to mature. Due to the significance of these weaknesses, EPA cannot be assured that its systems and data are adequately secured. Until these controls are in place, operating, and effectively established, information security management remains a significant deficiency for EPA. OMB emphasizes the importance of these required security controls and prescribes management's reporting requirements for significant deficiencies in OMB Circular A-130, *Management of Federal Information Resources*. With respect to Federal Financial Management System Requirements, the noted weaknesses represent substantial noncompliance with requirements in OMB Circular A-127, *Financial Management Systems*. If these weaknesses are compromised, the potential exists that EPA cannot reasonably ensure it can: (1) provide reliable and timely financial information for managing current operations; and (2) reliably account for its assets so that they can be properly protected from loss, misappropriation, or destruction.

⁴ BRAINS (Billing & Reimbursable Accounting Information Network System) is used to process accounts receivable; mLINQS (Relocation Expense Management System) is used to process Permanent Change of Station payments.

⁵ ASSERT (Automated Self Evaluation and Reporting Tool) and READ (Registry of EPA Applications and Databases) track the inventory of EPA applications.

Recommendations

We recommend that the OCFO:

12. Develop a contingency plan for BRAINS and mLINQS. The plans should be approved by management and have documented annual reviews and testing.
13. Develop a security plan for BRAINS and mLINQS. This should include having both applications comply with all the federal security requirements specified by the National Institute for Standards and Technology, including the completion of the security certification and accreditation process and the resulting formal authorization to operate.
14. Record BRAINS and mLINQS in the Agency's system inventory databases (ASSERT and READ).
15. Enter Plans of Action and Milestones for all the above noted deficiencies in the Agency's security weakness tracking database (ASSERT).

Agency Comments and OIG Evaluation

The Agency agreed with our findings and recommendations and has committed to comply with all systems and security requirements in time for the OIG to verify compliance by December 31, 2007.

5 – Access and Security Practices Over Critical IT Assets Need Improvement

EPA needs to take more steps to support its security practices and access controls over critical IT assets. In particular, our field work disclosed concerns in the following management control areas:

- **Disaster Recovery Practices** – EPA had not separated duties for backing up, transporting, and securing critical business data, thereby creating a situation where key business data is susceptible to loss, theft, or misuse without detection. EPA lacks accountability over the use and custody of media drives containing key financial and sensitive personally identifiable information.
- **System Monitoring Practices** – EPA does not monitor critical servers for known vulnerabilities or review system log files for violations of Agency policy. Personnel with significant security responsibility did not receive training on their responsibilities. EPA does not use all available system configuration and security monitoring tools to enforce Agency policies.
- **Server Room Access Controls** – EPA lacks practices to control the access to critical IT assets by non-EPA personnel and other visitors. EPA lacks control over keys to the server room and the server room activity is not captured or recorded. Critical IT assets are not secured in a manner that would prevent an unauthorized user from tampering with them. For example, unauthorized personnel could physically access the server components and use this access to bypass security implemented to protect the server's data.
- **Environmental Controls** – The server room did not have a correctly installed water shield to protect EPA servers and Uninterrupted Power Supply. The server room did not have sensors that can monitor and alert appropriate personnel of environmental conditions that are hazardous to critical IT assets (excessive humidity, high temperature, and water).

These controls are vital because EPA processes all of EPA's accounts receivable, except those related to grants, contracts, and payroll. EPA uses BRAINS to process over \$479 million in accounts receivable transactions. BRAINS' output is the main data entry source for the Agency's financial management system. EPA also uses another system, mLINQS, that contains personally identifiable information and requires additional controls to detect a security breach and protect the data. EPA plans to use mLINQS to process Permanent Change of Station payments for other federal agencies. Therefore, EPA assumed greater responsibility for (1) providing increased security, and (2) reporting security breaches for mLINQS.

The key cause for many of the noted conditions stems from EPA not stating performance expectations in written procedures. EPA referenced many of the needed controls in its Local Area Network security plan. However, the plan did not assign responsibility or provide detailed steps on how to accomplish the tasks. EPA also had not reassessed its risks, although EPA

underwent consolidation of financial services and increased the use of automation to process financial transactions. EPA's risks also increased because EPA needed to provide increased security to protect personally identifiable information in mLINQS. As a result, these weaknesses placed sensitive information, including financial information and EPA employee information, at risk of inadvertent or deliberate misuse, fraudulent use, improper disclosure, theft, or destruction, possibly occurring without detection.

Federal requirements outline the design for controls reviewed during this audit. Properly designed controls should provide the Agency the ability to reasonably ensure that they can provide reliable and timely financial information for managing current operations. The controls should provide the Agency the ability to account for assets reliably, so that they can be properly protected from loss, misappropriation, or destruction. Our site visit to EPA determined that it is highly likely that if a security incident, breach, or hazardous incident occurred, the event would adversely affect EPA's ability to report financial information as required by federal laws.

Subsequent to audit field work, EPA transferred to the Office of Administration and Resources Management (OARM) the responsibility for managing the service support of its business servers. This includes performing data backups and system maintenance, as well as securing the server room. EPA and OARM use a Memorandum of Understanding to outline the support requirements between the two offices. However, our review of the Memorandum of Understanding noted that it lacked the specific requirements as to how OARM should provide the service support. Since EPA does not have written procedures, EPA does not have benchmarks to measure the service provided by OARM.

Recommendations

We recommend that the OCFO:

16. Update the Memorandum of Understanding with OARM to incorporate requirements for the following key security responsibilities:
 - **Critical server data backup and handling of storage media** – The procedures should delineate separation of duties between the backup tasks and the media handling tasks.
 - **Server scanning and monitoring** – The procedures should outline the frequency for testing servers and require a copy of the test results to be provided to the Cincinnati Finance Center for review.
 - **System logs practices** – The procedures should include guidance on areas such as configuring log sources, performing log analysis, and initiating responses to identified events.
 - **Server room access practices** – The procedures should include steps for logging and escorting visitors and controls over the use of the server room key.
17. Request that OARM implement the use of all available Agency-provided system monitoring reports for operating systems in use on EPA servers and provide the results to EPA management monthly for review.

18. Conduct and document an annual verification and validation of implemented procedures to ensure controls are implemented as intended and are effective.
19. Correctly install the existing water shield over the Cincinnati Finance Center's servers and expand its coverage to include the Uninterruptible Power Supply system.
20. Add controls to protect the Cincinnati Finance Center's servers from the risk associated with unmonitored visitors having access to servers operating critical business applications. This could include relocating the Cincinnati Finance Center's servers to a location controlled by the Finance Center, partitioning the server room in a manner where servers have improved physical access controls, or installing a lockable container within the current server room that is controlled by the Finance Center.
21. Install an environmental monitoring system to protect the Cincinnati Finance Center-owned servers from possible heat and water damage. The system should include sensors that monitor for humidity, temperature, and water.

Agency Comments and OIG Evaluation

The Agency agreed with our findings and recommendations and has committed to comply with all systems and security requirements in time for the OIG to verify compliance by December 31, 2007.

6 – EPA Needs to Improve Controls Over the IFMS Suspense Table

EPA needs to improve practices for removing financial transactions that do not process completely in IFMS. IFMS is EPA's core financial accounting system. We found that, monthly, EPA personnel automatically purged all financial transactions over 45 days old from the IFMS Suspense Table (SUSF) without obtaining evidence that the transactions should be deleted, as required by Office of Financial Management Policy Announcement 04-02. This occurred because EPA had not implemented a management oversight process to enforce the Agency's policy requiring EPA offices to explain entries in the SUSF file between 30-45 days old. Although EPA sent notices to the originator regarding the status of its SUSF entries, the originator did not provide responses. In addition, EPA had not put in place a delinquency notice to inform senior EPA officials that un-cleared entries remained in the SUSF. In an attempt to reduce the number of excessive out-of-date entries in the SUSF table never reviewed, subsequently deleted, or cleared, EPA personnel said they deleted the financial transactions instead of having the user that originated it do so.

The monthly purging of SUSF entries greater than 45 days old could result in relevant financial data being deleted, causing a misstatement in IFMS. Failure to provide explanations of entries in the SUSF table between 30-45 days is a violation of EPA's policy. It also creates a control weakness in that the originator of a transaction has no accountability for the entry after it is created.

Subsequent to the end of the accounting period, EPA personnel completed a review of financial transactions automatically purged from SUSF and provided results of their analysis to the OIG. We conducted a limited review of these results, and did not find instances where EPA personnel inappropriately deleted material financial transactions.

Recommendations

We recommend that the OCFO:

22. Terminate the automatic monthly purging of all SUSF entries that are greater than 45 days old and require the originator of the SUSF entry to delete or clear the entry.
23. Continue sending out monthly SUSF entry reports to all entry originators and their supervisors.
24. Require originators of SUSF entries to provide EPA staff with explanations for why entries greater than 30 days old remain in the SUSF, and provide the estimated date these entries will be cleared. EPA staff should review these explanations and share the information with the originator's supervisor.
25. Develop a delinquency report for all SUSF transactions that are greater than 60 days old and distribute the report monthly to EPA Assistant and Regional Administrators.

Agency Comments and OIG Evaluation

The Agency generally agreed with our findings and recommendations.

7 – EPA Did Not Maintain Adequate Documentation for Obligation Accounting Adjustments

EPA made adjustments to obligation transactions in IFMS without documenting why the transactions were made and who approved them. This occurred because finance personnel did not understand the policy requirements for documenting adjustments. We have reported similar instances of unsupported transactions since fiscal 2000. EPA policy requires that all financial transactions recorded in the accounting system be supported by adequate source documentation. Inputting adjusting entries into the Agency's accounting system without adequate documentation increases the risk of fraud, waste, and abuse by increasing the possibility that unauthorized or inaccurate information is entered.

EPA Comptroller Policy Announcement 93-02, *Policies for Documenting Agency Financial Transactions* (November 1992), 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 transactions initially 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.

Lack of adequate supporting documentation raises questions about the validity and integrity of the Agency's financial information contained in IFMS. Failure to require adequate source documentation before recording transactions in the Agency's accounting system, the IFMS, increases the risk of fraud, waste, and abuse by increasing the possibility that unauthorized or inaccurate information is entered into the accounting system.

GAO's *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."

During our analysis of obligation transactions, we found two adjustments to entries in IFMS, totaling \$50,055,643, that were not supported by sufficient documentation. There was no explanation as to why the entries were made and no evidence of supervisory approval.

Transaction Date	Transaction Code	Transaction Number	Object Class Code	Transaction Amount Debit (Credit)
01/08/07	CG01	CS39000106	4111	\$(49,305,643)
02/05/07	GO01	BG99732505	4108	\$(750,000)
Total				\$(50,055,643)

Source: OIG analysis

One obligation transaction, totaling \$49,305,643, had no supporting documentation, explanation of the entry, or evidence of supervisory approval. The second obligation transaction, totaling \$750,000, did not have a journal or standard voucher to document the reason for the entry and evidence of supervisory approval.

Lack of adequate supporting documentation affects the validity and integrity of the Agency's financial information. Inputting adjusting entries into the Agency's accounting system without adequate documentation increases the risk of fraud, waste, and abuse by increasing the possibility that unauthorized or inaccurate information will be entered in IFMS. We recognize that the Agency has a policy in place that requires adequate documentation of adjustments to IFMS entries; however, noncompliance with the policy indicates the need for management attention.

Recommendations

We recommend that the OCFO:

26. Reiterate to the Finance Center personnel the importance of adequately documenting adjusting and correcting entries entered in IFMS in accordance with the EPA Comptroller Policy Announcement No. 93-02, *Policies for Documenting Agency Financial Transactions*, and the GAO *Standards for Internal Controls in the Federal Government*.
27. Instruct the Finance Center Directors to ensure that supervisory approval is documented for any adjustments to IFMS entries.
28. During quality assurance reviews, verify that EPA policies on approving and documenting accounting adjustments are being followed.

Agency Comments and OIG Evaluation

The Agency indicated it understood the concerns raised and will emphasize the importance of adequately documenting accounting adjustments to the financial management community and determine the appropriate level of approval for these entries.

Compliance with Laws and Regulations

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8 - EPA Needs to Reconcile Differences with Trading Partners

As of September 30, 2007, EPA had over \$375 million in net unreconciled differences with 46 of its trading partners for intragovernmental transactions. Treasury policy requires agencies to confirm and reconcile intragovernmental transactions with their trading partners. EPA had difficulty reconciling these differences primarily because of differing accounting treatments and accrual methodologies between federal agencies. EPA's inability to reconcile its intragovernmental transactions contributes to a long-standing government-wide problem that hinders the ability of GAO to render an opinion on the Consolidated Financial Statements of the Federal Government.

In addition to the \$375 million, EPA also had \$371 million in differences with Treasury's General Fund. Most of these differences related to custodial liabilities, tax revenues, and accrued collections, as well as adjustments to benefit expenses related to EPA's contributions to the Federal Insurance Contributions Act.

Treasury's fiscal 2007 4th quarter Intragovernmental Activity Detail Report and Material Differences Report showed the following material differences for EPA:

<u>Federal Agency</u>	<u>Difference</u>	<u>Category of Difference</u>
General Services Administration	\$21 million	Accounts Receivable/Payable
Department of Homeland Security	\$46 million	Accounts Receivable/Payable
Department of Homeland Security	\$18 million	Advances to/From Other Agencies
Department of Homeland Security	\$22 million	Buy/Sell Costs/Revenue
Department of Health and Human Services	\$36 million	Advances to/From Other Agencies
Department of Health and Human Services	\$21 million	Buy/Sell Costs/Revenue
Various Federal Agencies	\$211 million	Various Categories

While the Agency has actively worked with its trading partners to reduce differences, material differences continue to exist. Many of the differences result from different accounting treatments and accrual methodologies used by EPA's trading partners. Other situations that contribute to the differences include incorrect trading partner coding, working capital fund revenue recognition, and advance payments in suspense. The differences could be resolved by EPA using the dispute resolution process described in Treasury's Financial Manual, Bulletin No. 2007-03, *Intragovernmental Business Rules*, and making adjustments to address the other situations described above.

EPA reported in the 4th quarter Intragovernmental Activity Detail Report \$19.9 million in differences with seven trading partners in the Transfers Receivable/Payable category. EPA created these differences with allocation transfer entries made in prior fiscal years and has not provided documentation to identify reasons for the transactions. The seven trading partners did not report any reciprocal activity in this category. Treasury's Financial Manual states that the transferor and the transferee shall establish procedures to ensure that transfers are acknowledged and recorded by the transferee in a timely manner. We believe EPA should review and discuss these transfers with its trading partners to comply with Treasury guidance.

During fiscal 2007, EPA increased its efforts to reconcile its intragovernmental activity on a quarterly basis with its partners. Numerous differences persist, and EPA's inability to resolve these differences negatively affects GAO's ability to opine on the Consolidated Financial Statements. EPA should use the dispute resolution process described in the *Intragovernmental Business Rules* and increase its efforts to record proper adjustments with its partners.

Recommendations

We recommend the OCFO:

29. Continue to reconcile the Agency's intragovernmental transactions and make appropriate adjustments to comply with federal financial reporting requirements.
30. Use the resolution dispute process to work with its trading partners on the treatment of accounting and accrual methodology differences.
31. Research prior year Transfers Receivable/Payable entries, and provide information to the Cincinnati Finance Center for discussion with the trading partners to resolve the \$19.9 million differences.

Agency Comments and OIG Evaluation

The Agency agreed with our findings. The also agreed to make appropriate adjustments to comply with federal financial reporting requirements, and use the dispute resolution process to resolve outstanding issues when appropriate.

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 Follow-up Official and is responsible for ensuring that corrective actions are implemented. Starting in fiscal 2006, OCFO included in its Organizational Assessment Measures a metric for audit follow-up. OCFO management regularly reviews these measures during OCFO's monthly Budget and Performance Review meetings. In fiscal 2007, the Agency took steps to improve its audit follow-up process by certifying completion of corrective actions and improving documentation of corrective actions.

The Agency has continued to make substantial progress in completing corrective actions from prior years. The status of issues from prior financial statement audits and other audits whose findings and recommendations could have a material effect on financial statements and have corrective actions in process are listed in the following table.

Audit Issue Areas with Corrective Actions in Process
<ul style="list-style-type: none"> <p>• Automated Application Processing Controls for IFMS: EPA has made progress towards replacing IFMS, and expects to begin implementation in fiscal 2008. However, until EPA implements the planned replacement automated accounting system that addresses past issues, we will continue to disclose a significant deficiency concerning documentation of the current accounting system and its automated application processing controls.</p>
<ul style="list-style-type: none"> <p>• EPA Needs to Improve Contingency Plans for Financial Applications: Although EPA has made some progress in correcting this deficiency, EPA still needs to update the PeoplePlus personnel contact list within the National Computer Center Critical Application Disaster Recovery Plan. EPA is currently updating this Plan. We plan to follow up to verify that the Plan has been appropriately updated during the fiscal 2008 financial statements audit.</p>
<ul style="list-style-type: none"> <p>• EPA Needs to Improve Reconciliation of Differences with Trading Partners: EPA has decreased its material differences in reconciling intragovernmental transactions with other agencies. However, as described in Attachment 2, <i>Compliance with Laws and Regulations</i>, there remain significant amounts not reconciled with trading partners.</p>
<ul style="list-style-type: none"> <p>• EPA Needs to Strengthen Financial Database Security Oversight and Monitor Compliance: EPA did not complete all the corrective actions in response to Audit Report No. 2007-P-00017 (March 29, 2007), <i>EPA Needs to Strengthen Financial Database Security Oversight and Monitor Compliance</i>, by the end of fiscal 2007. While those actions we reviewed appeared to have addressed our recommendations, we will need to review all corrective actions in response to this audit during the fiscal 2008 financial statements audit to determine if they are effective in correcting the underlying conditions.</p>

Status of Current Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
1	12	Change its accounting policy to reflect receivables at their net realizable value. The policy should provide that accounts receivable considered fully or partially collectible should not be written off, but should remain in accounts receivable with an appropriate allowance for doubtful accounts.		Office of the Chief Financial Officer			
2	13	Restore all CNC receivables to open accounts receivable with an appropriate allowance for doubtful accounts.		Office of the Chief Financial Officer			
3	15	Prepare the specific identification allowance for doubtful accounts estimates based upon the objective evidence. Such evidence may be obtained from the case attorney, Program Official, DOJ assessment of the receivable's collectibility, or other sources, depending upon the type of receivable.		Office of the Chief Financial Officer			
4	15	Reconcile the receivables to the general ledger and ensure the allowance for doubtful accounts calculation includes all receivables.		Office of the Chief Financial Officer			
5	15	Use the percentages applicable to the current year for the year-end allowance for doubtful account percentage analysis calculations.		Office of the Chief Financial Officer			
6	15	Update the allowance for doubtful account percentages based on current data.		Office of the Chief Financial Officer			
7	18	Establish procedures to monitor all tracking reports and follow up with the regional offices and DOJ to obtain receivable documents identified through reconciliations or by receiving collections in advance of the legal documents.		Office of the Chief Financial Officer		\$4,069.0	\$4,069.0
8	18	Develop uniform procedures to record bankruptcy receivables and establish procedures to properly record federal receivables and their related allowance.		Office of the Chief Financial Officer		\$9,331.6	\$9,331.6
9	18	Provide staff with training to ensure accounts receivable are accurately recorded in the accounting system.		Office of the Chief Financial Officer			
10	18	Require standardized recording techniques for accounts receivable items, including proper supporting documentation for transactions, evidence of supervisory review and approval, and segregating duties of entry origination (accountants) and data entry.		Office of the Chief Financial Officer			

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
11	18	Determine how the accounts receivable files were lost, and develop procedures to ensure the situation does not repeat. Re-establish the improperly written-off accounts receivable and establish an appropriate allowance for doubtful accounts until determination has been made by management as to whether the debts should be written off.		Office of the Chief Financial Officer		\$149.9	\$149.9
12	20	Develop a contingency plan for BRAINS and mLINQS. The plans should be approved by management and have documented annual reviews and testing.		Office of the Chief Financial Officer			
13	20	Develop a security plan for BRAINS and mLINQS. This should include having both applications comply with all the federal security requirements specified by the National Institute for Standards and Technology, including the completion of the security certification and accreditation process and the resulting formal authorization to operate.		Office of the Chief Financial Officer			
14	20	Record BRAINS and mLINQS in the Agency's system inventory databases (ASSERT and READ).		Office of the Chief Financial Officer			
15	20	Enter Plans of Action and Milestones for all the above noted deficiencies in the Agency's security weakness tracking database (ASSERT).		Office of the Chief Financial Officer			
16	22	Update the Memorandum of Understanding with OARM to incorporate requirements for the following key security responsibilities: <ul style="list-style-type: none"> • Critical server data backup and handling of storage media – The procedures should delineate separation of duties between the backup tasks and the media handling tasks. • Server scanning and monitoring – The procedures should outline the frequency for testing servers and require a copy of the test results to be provided to the Cincinnati Finance Center for review. • System logs practices – The procedures should include guidance on areas such as configuring log sources, performing log analysis, and initiating responses to identified events. • Server room access practices – The procedures should include steps for logging and escorting visitors and controls over the use of the server room key. 		Office of the Chief Financial Officer			
17	22	Request that OARM implement the use of all available Agency-provided system monitoring reports for operating systems in use on EPA servers and provide the results to EPA management monthly for review.		Office of the Chief Financial Officer			
18	23	Conduct and document an annual verification and validation of implemented procedures to ensure controls are implemented as intended and are effective.		Office of the Chief Financial Officer			

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
19	23	Correctly install the existing water shield over the Cincinnati Finance Center's servers and expand its coverage to include the Uninterruptible Power Supply system.		Office of the Chief Financial Officer			
20	23	Add controls to protect the Cincinnati Finance Center's servers from the risk associated with unmonitored visitors having access to servers operating critical business applications. This could include relocating the Cincinnati Finance Center's servers to a location controlled by the Finance Center, partitioning the server room in a manner where servers have improved physical access controls, or installing a lockable container within the current server room that is controlled by the Finance Center.		Office of the Chief Financial Officer			
21	23	Install an environmental monitoring system to protect the Cincinnati Finance Center-owned servers from possible heat and water damage. The system should include sensors that monitor for humidity, temperature, and water.		Office of the Chief Financial Officer			
22	24	Terminate the automatic monthly purging of all SUSF entries that are greater than 45 days old and require the originator of the SUSF entry to delete or clear the entry.		Office of the Chief Financial Officer			
23	24	Continue sending out monthly SUSF entry reports to all entry originators and their supervisors.		Office of the Chief Financial Officer			
24	24	Require originators of SUSF entries to provide EPA staff with explanations for why entries greater than 30 days old remain in the SUSF, and provide the estimated date these entries will be cleared. EPA staff should review these explanations and share the information with the originator's supervisor.		Office of the Chief Financial Officer			
25	24	Develop a delinquency report for all SUSF transactions that are greater than 60 days old and distribute the report monthly to EPA Assistant and Regional Administrators.		Office of the Chief Financial Officer			
26	26	Reiterate to the Finance Center personnel the importance of adequately documenting adjusting and correcting entries entered in IFMS in accordance with the EPA Comptroller Policy Announcement No. 93-02, <i>Policies for Documenting Agency Financial Transactions</i> , and the GAO <i>Standards for Internal Controls in the Federal Government</i> .		Office of the Chief Financial Officer			
27	26	Instruct the Finance Center Directors to ensure that supervisory approval is documented for any adjustments to IFMS entries.		Office of the Chief Financial Officer			
28	26	During quality assurance reviews, verify that EPA policies on approving and documenting accounting adjustments are being followed.		Office of the Chief Financial Officer			

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
29	29	Continue to reconcile the Agency's intragovernmental transactions and make appropriate adjustments to comply with federal financial reporting requirements.		Office of the Chief Financial Officer			
30	29	Use the resolution dispute process to work with its trading partners on the treatment of accounting and accrual methodology differences.		Office of the Chief Financial Officer			
31	29	Research prior year Transfers Receivable/Payable entries, and provide information to the Cincinnati Finance Center for discussion with the trading partners to resolve the \$19.9 million differences.		Office of the Chief Financial Officer			

¹ O = recommendation is open with agreed-to corrective actions pending;
C = recommendation is closed with all agreed-to actions completed;
U = recommendation is undecided with resolution efforts in progress

Agency's Response to Draft Report

November 8, 2007

MEMORANDUM

SUBJECT: OCFO Response to OIG Draft Audit Report, "Audit of EPA's Fiscal 2007 and 2006 (Restated) Consolidated Financial Statements," dated November 8, 2007

FROM: Lyons Gray
Chief Financial Officer

TO: Bill Roderick
Acting Inspector General

Thank you for another opportunity to work with the Office of the Inspector General on the U. S. Environmental Protection Agency's Consolidated Financial Statements and related audit. OCFO's response to the audit report is attached.

The Agency remains committed to sound internal controls and effective policies and procedures. We are continually evaluating ways to improve operations without compromising fiscal integrity. In this regard, I want to personally thank your staff for their willingness to return to Cincinnati in December to verify that we have implemented appropriate corrective actions for the material weaknesses related to information security and physical access to IT hardware.

I look forward to another productive year working with you and your staff. If you have any questions pertaining to operations, please contact Milton Brown, Director of the Office of Financial Services. Contact Lorna McAllister, Director of the Office of Financial Management for questions on the financial statements.

Attachment

cc: Melissa Heist
Paul Curtis
Maryann Froehlich
Joshua Baylson
Lorna McAllister
Milton Brown

OCFO's Response to the Draft OIG Report

"Audit of EPA's Fiscal 2007 and 2006 Consolidated Financial Statements"

Introduction

In FY 2007, EPA completed the consolidation of its major financial services within OCFO's four national finance centers. Transfers included travel payments, vendor and other commercial payments, grant and interagency agreement payments, along with the accounts receivable function. In addition to delivering financial services more efficiently and using automation to gain economies of scale, the goal was to achieve greater compliance with EPA, OMB and other government financial regulations and guidelines. The Agency financial consolidation has reduced Agency costs and has yielded better performance against established financial goalposts.

EPA consolidated all functions to facilitate an employee move into a one-stop-shop center. This new approach will ensure that employees are given consistent information related to their move by experienced staff experts. The centralized web-based relocation program is supported by a COTS software (mLINQs).

In addition, EPA re-evaluated its operating practice of reclassifying certain delinquent receivables after it collected approximately \$150 million in debts previously written-off. The Agency revised its existing policy and operating practices, and reestablished \$725 million in receivables along with appropriate allowances. As a result of these actions, EPA restated its FY 2006 financial statements to reflect the value of the previously reclassified receivables.

EPA also partnered with other Federal agencies to narrow significantly the gap in the differences reported by the Department of the Treasury with the Agency's major trading partners.

OIG Concerns 1 - 3: The OIG made three recommendations on how the Agency records, documents, and values delinquent debt.

OCFO agrees. During fiscal year 2007, EPA collected debt previously written-off and considered not collectible. Consequently, EPA reevaluated its implementation of the policy on delinquent debt. The Agency determined that it cannot forecast collections with absolute certainty due to the nature and unpredictability of external factors that impact a debtor's ability to pay. Therefore, EPA has discontinued the practice of writing off delinquent receivables over two years old.

EPA restored all of these receivables to their net realizable value, which includes an appropriate allowance for doubtful accounts. The fiscal year 2006 column of the financial statements has been updated to reflect these changes.

EPA recognizes that there are improvement opportunities in accounts receivable operating practices including:

- Timely acquisition and maintenance of documentation and supporting evidence;
- Segregation of duties for effective verification and reconciliation;
- Staff training on standard processes, which will support uniformity and consistency; and
- Approach and method to calculate allowances for doubtful accounts.

EPA is actively working to change its business practices to address all of the above.

OIG Concerns 4 - 5: The OIG made two recommendations on information security for two applications and physical access practices and safeguards over IT hardware.

OCFO agrees. The applications in question support accounts receivable work and e-Relocation services to EPA and other government entities. EPA commits to comply with all systems and security requirements in time for OIG to verify compliance by the end of December 2007.

OIG Concern 6: The OIG identified a minor inconsistency in the process for purging and documenting transactions that failed automated system controls established to ensure the integrity of the financial information.

OCFO understands the OIG's concern. EPA evaluated every questionable transaction and determined each transaction was properly processed within a reasonable time. EPA will establish procedures and metrics to ensure transactions are managed appropriately prior to deletion.

OIG Concern 7: EPA did not maintain adequate documentation for obligation accounting adjustments.

OCFO understands the concerns raised by OIG. We will emphasize the importance of adequately documenting accounting adjustments to the financial management community and determine the appropriate level of approval for these entries.

OIG Concern 8: EPA needs to reconcile differences with trading partners.

OCFO agrees. OCFO will make appropriate adjustments to comply with Federal financial reporting requirements and, when appropriate, use the dispute resolution process to resolve outstanding issues.

Distribution

Office of the Administrator
Chief Financial Officer
Assistant Administrator for Administration and Resources Management
Assistant Administrator for Environmental Information
General Counsel
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Audit Follow-up Coordinator, Office of Grants and Debarment
Audit Follow-up Coordinator, Office of the Administrator
Deputy Inspector General



*EPA's FY 2007
Performance and Accountability Report*

**Section IV
Other Accompanying Information**

This document is one chapter from the "Fiscal Year 2007 Performance and Accountability Report, U.S. Environmental Protection Agency," (EPA-190-R-07-001), published on November 15, 2007. This document is available at: <http://www.epa.gov/ocfo/par/2007par>.

MANAGEMENT CHALLENGES AND INTEGRITY WEAKNESSES

Management challenges and integrity weaknesses represent vulnerabilities in program operations that may impair EPA's ability to achieve its mission and threaten the Agency's safeguards against fraud, waste, abuse, and mismanagement. These areas are identified through internal Agency reviews and independent reviews by EPA's external evaluators, such as the Office of Management and Budget (OMB), the Government Accountability Office (GAO), and EPA's Office of Inspector General (OIG). EPA's senior managers remain committed to maintaining effective and efficient internal controls to ensure that program activities are carried out in accordance with applicable laws and sound management policy. EPA leaders meet periodically to review and discuss progress the Agency is making to address issues raised by OIG and other external evaluators, as well as progress in addressing current weaknesses and emerging issues.

This section includes two components: (1) a brief discussion of EPA's progress in addressing its FY 2007 integrity weaknesses, and (2) a discussion of the top ten management challenges identified by EPA's OIG and the Agency's response.

EPA'S PROGRESS IN ADDRESSING FY 2007 WEAKNESSES

(Prepared by EPA)

Under the Federal Managers' Financial Integrity Act (FMFIA), all federal agencies must provide reasonable assurance that policies, procedures, and guidance are adequate to support the achievement of their intended mission, goals, and objectives. (See Section I, *Management's Discussion and Analysis*, for EPA's assurance statement.) Agencies also must report any material weaknesses identified through internal and/or external reviews and their strategies to remedy the problems.

In FY 2007, EPA reported three new material weaknesses and corrected a number of its less severe internal control deficiencies. This section discusses the weaknesses and significant deficiencies closed in FY 2007 as well as those for which corrective actions are still underway.

MATERIAL WEAKNESSES

Value of Delinquent Receivables

In FY 2006, EPA implemented Office of Management and Budget (OMB) Circular A-129, *Policies for Federal Credit Programs and Non-Tax Receivables*, for delinquent receivables that were currently not collectible. EPA's policy required that receivables over 2 years delinquent with no past collections be written-off and reclassified to a memo account or closed out when there was uncertainty about collection. Consistent with its policy, the Agency wrote-off and reclassified \$725 million. Prior to the reclassification of these receivables in FY 2006, EPA had no material collections for them.

Any receivable having documented payment evidence would remain on the Agency's books with an adequate allowance until the collections become immaterial. During FY 2006, EPA collected less than \$1.5 million or less than 1 percent (immaterial amount) of this debt. In FY 2007, the Agency collected material amounts (approximately \$150 million or 20 percent) on the outstanding reclassified debts.

Based on these material collections, EPA re-evaluated its operating practice of reclassifying receivables. The Agency determined that it cannot forecast collections with absolute certainty due to the nature and unpredictability of external factors that impact a debtor's ability to pay EPA. Therefore, EPA discontinued reclassifying its receivables at least 2 years old and standardized its approach to ensure consistency. As a result, EPA has restated its FY 2006 financial statements to reflect the value of the previously reclassified receivables.

Key Applications Lack Security Requirements

According to the OIG, two critical applications at the Cincinnati Finance Center (CFC), the Billing & Reimbursable Accounting Information Network System (BRAINS) and the Relocation Expense Management System (mLINQS), lack key security planning documents. The applications need documented security plans and security controls.

- **mLINQS:** To remedy this deficiency, a security plan for mLINQS has been approved; a contingency plan will be developed by December 31, 2007; and a formal risk assessment will be conducted by an independent source by December 31, 2007. mLINQS is currently registered in ASSERT as a major application and was included in the final Agency ASSERT report for FY 2007.
- **BRAINS:** A General Support System (GSS) Security Addendum documenting controls will be prepared and made an attachment of the Norwood LAN security plan. The User Manual will be updated to reflect the actual business process, detailing the monthly reconciliation procedures. BRAINS will be removed from ASSERT. All actions will be completed by December 31, 2007.

EPA's FY 2007 Weaknesses and Significant Deficiencies

Material Weaknesses

1. Value of Delinquent Receivables*
2. Key Applications Lack Security Requirements
3. Physical Security of Critical IT Assets

Agency -level Weaknesses

1. Safe Drinking Water Information System (SDWIS)*
2. Clean Water Act Section 305(b) Reporting*
3. Assistance Agreements*
4. Human Capital
5. Homeland Security
6. Permit Compliance System
7. Implementation of Data Standards

Significant Deficiencies

1. Timely Capitalization of Assets*
2. Personal Property Oversight*
3. Disposition of Contractor Held Property*
4. Abnormal General Ledger Balance*
5. Quarterly Treasury Reports on Receivables*
6. Interagency Agreements*
7. Superfund Cost Recovery and Cashouts*
8. Data Security (Contracts)*
9. Data Security (Payroll)*
10. Allowance for Doubtful Accounts
11. SF State Share Cost (Improved Quarterly Cost Reporting)
12. IFMS Suspense Table

* All corrective actions associated with these weaknesses or significant deficiencies were completed in FY 2007

Physical Security of Critical IT Assets

Physical security and environmental controls need to be improved and previously identified weaknesses need management's attention. To remedy this deficiency, controls over visitor and general access to the server room will be established and physical security enhanced with improved technology. A new camera will be installed within the existing server room; a video recording system will be installed for all cameras; and a card reader system will be installed outside the server room by December 31, 2007. A new file server room will be constructed and is expected to be operational by July/August 2008, and installation of temperature, humidity, and water sensors will be incorporated into its design. A water shield for the servers and uninterruptible power supply (UPS) will also be provided in the new server room.

Handling of critical business data, monitoring of key technology assets, and server room access controls need to be improved, and CFC needs to have documented procedures. To remedy this deficiency, standard operating procedures (SOPs) will be in place by December 31, 2007, with the verification and validation process incorporated into the performance review of the performance-based contract currently in place to support this activity. Controls over visitor and general access to the server room will be established and physical security enhanced with improved technology. A new camera will be installed within the existing server room; a video recording system will be installed for all cameras; and a card reader system will be installed outside the server room by December 31, 2007. Written formal procedures for reviewing the card reader log for the server room will be completed by November 30, 2007. Servers will be monitored for known vulnerabilities; log files will be reviewed for violations of established standards; and Agency-provided tools will be used as appropriate.

AGENCY WEAKNESSES

Safe Drinking Water Information System (SDWIS)

SDWIS data quality has been an Agency concern since 1998. Over the years, EPA worked diligently to improve the quality, accuracy, and completeness of data in SDWIS. In September 2005, we completed modernization efforts which successfully addressed three historical data quality issues: difficulty getting data into SDWIS; high costs for data processing and storage; and difficulty getting data out of SDWIS. Additionally, EPA has assessed data quality and outlined improvements in its triennial Data Reliability Implementation/Action Plan. In collaboration with states and the Association of State Drinking Water Administrators (ASDWA), we are now implementing a comprehensive data quality improvement plan. EPA and ASDWA have agreed on a data quality goal of 90 percent for health-based violation data by the 2008-2010 triennial evaluation period: 10 states have already met this goal, and the Agency is tracking progress through its annual performance goals and measures.

EPA has focused its efforts to improve data quality on two objectives: (1) ensuring that the system that receives and maintains the data is technologically robust and user friendly and (2) ensuring that the compliance decisions made at the state level are appropriate and accurately entered into the data system. EPA has undertaken considerable effort in the last several years to modernize the SDWIS/FED database and improve the SDWIS/STATE application. The Agency has identified completeness of data as an important issue affecting

data quality. On-site data verifications (DVs) have proven critical to identifying data quality gaps and potential root causes. EPA has adhered to a robust data verification audit process; it conducted 15 DV audits in FY 2005, 2006, and 2007 and plans an additional 15 in 2008. **The Agency has completed all corrective actions associated with this weakness and will use the goals and measures established to monitor the program on an on-going basis.**

Clean Water Act Section 305(b) Reporting

EPA has worked with states, federal agencies, and others in the monitoring community to improve the quality of water monitoring data and information and to improve reports on water quality that are needed by decision-makers and the public to judge progress toward CWA goals. The Agency's corrective action strategy to close this weakness focused on (1) strengthening state water quality monitoring programs, (2) promoting the use of multiple monitoring approaches to answer questions about different water body types at the national, regional, and state watershed levels to support good management decisions, (3) improving reports on water quality conditions at the national, regional, and state levels, and (4) ensuring that data management systems contain the needed water quality information and are accessible to decision-makers and the public.

The Agency has made progress in each of the areas; for instance, all states have submitted and are now implementing their comprehensive water quality monitoring strategies. Additionally, the Agency received funds to collaborate with states on a series of statistically-valid assessments nationwide that will be used to track trends in water conditions, guide key water management decisions, and provide information on whether our nation's pollution programs are effectively improving water quality. **The Agency has completed all corrective actions associated with this weakness.**

Improved Management of Assistance Agreements

For the past several years, OIG and GAO have raised concerns about the Agency's grants management practices. In FY 2003, EPA established a long-term Grants Management Plan, with associated performance measures, that serves as a road map of the Agency's approach for improving grants management. The Plan includes five strategic goals: (1) enhance skills of personnel involved in grants management; (2) promote competition in the award of grants; (3) leverage technology to improve program performance; (4) strengthen EPA oversight of grants; and (5) support identifying and realizing environmental outcomes.

EPA has taken substantial actions to improve its management of assistance agreements through updated policies, increased training, and improved accountability. While grants management will continue to require sustained management attention, the Agency has in place an infrastructure responsive to the concerns identified by OIG and GAO. **The Agency has completed and validated the effectiveness of all corrective actions associated with this weakness.**

Human Capital Implementation Strategy / Employee Competencies

In FY 2001, EPA acknowledged human capital (HC) as an Agency-level weakness. Over the years, the Agency has made significant progress in strengthening its HC program. This included developing a robust HC accountability program, improving the HC audit program,

and expanding the Agency's leadership development programs to enhance skills and ensure continuity of leadership. Despite these accomplishments, the Agency continues to face challenges in addressing the workforce planning component of its human capital weakness. To address the workforce planning concerns identified by OIG and GAO, EPA developed a workforce planning/competency management system that gauges skill gaps and guides the design of strategies for closing the gaps. Additionally, EPA is working closely with OMB and the Office of Personnel Management (OPM) to align the Agency's Human Capital Strategy to meet the objectives outlined in the PMA as it relates to the Strategic Management of Human Capital. **EPA is committed to addressing its human capital challenges and expects to complete all final corrective actions related to this weakness by FY 2008.**

Agency Efforts in Support of Homeland Security

To respond to new Homeland Security Presidential Directives (HSPDs) and the increasing complexity of its contribution to homeland security, EPA established the Homeland Security Collaborative Network (HSCN). The HSCN coordinates and directly addresses high priority, cross-Agency technical and policy issues related to day-to-day homeland security policies and activities.

To address OIG's concern that EPA improve processes for identifying, obtaining, maintaining, and tracking response equipment necessary for Nationally Significant Incidents, EPA created and convened the Homeland Security Policy Coordinating Committee (PCC). The PCC serves as an executive committee that is activated after a homeland-security-related attack and acts to ensure that the Agency's senior political leadership is brought together to provide policy direction to responders. **Correction is scheduled for FY 2008.**

Implementation of Data Standards

The Agency has made progress in addressing the implementation of data standards. In FY 2007, EPA completed the remaining corrective actions associated with this weakness. However, we will continue to monitor ongoing activities, such as tracking program implementation of data standards, to validate the effectiveness of our actions. The validation strategy will include continuous monitoring of implementation of data standards within the Registry of EPA Applications and Databases and publish the semi-annual Data Standards Report Card. **Correction is scheduled for 2010.**

Permit Compliance System (PCS)

EPA has developed and successfully implemented a modernized, national information system designed to meet the needs of today's NPDES permitting and enforcement program. In conjunction with the states, the Agency completed three major initiatives: (1) PCS Modernization for direct user states, (2) Interim Data Exchange Format (IDEF), and (3) Electronic Reporting to address these problems and improve the usefulness of PCS as a management tool.

In conjunction with the states, EPA has now completed three major initiatives: PCS Modernization; the Interim Data Exchange Format (IDEF); and Electronic Reporting to address these problems and improve the usefulness of PCS as a management tool. Each of these efforts incorporated extensive state involvement and defined interim milestones and expected outcomes. The initiatives were carefully coordinated to adhere to all Agency data standards,

including facility identification and locational data standards. The Agency carefully monitored its progress in meeting the key project milestones and gauged success by the level of state participation, improvements in the quality and comprehensiveness of the data, and reliability of the analyses generated. EPA is redesigning PCS to better address current requirements of the NPDES permitting and enforcement program, such as tracking pollutant loadings, capturing information on storm water sources, and assessing the health of individual watersheds.

In FY 2007, EPA began to build the batch component for ICIS-NPDES to allow the remaining states to electronically transfer data into the new system. The development of the batch component of the new system will allow for the submission of NPDES data from state systems to ICIS-NPDES in the Extensible Mark-up Language (XML) format via the National Environmental Exchange Network and EPA's CDX. As this is completed over the next few years, these states will be migrated from PCS to the ICIS-NPDES.

When development of the batch component of ICIS-NPDES is completed, both the states and EPA will be able to use the new system to ensure complete and accurate NPDES permit discharge data. **The completion date for this weakness is FY 2013 and is based on various assumptions that extend over the next 6 years¹.**

SIGNIFICANT DEFICIENCIES

Timely Capitalization of Real Assets

The Agency identified timely capitalization of real assets as a significant deficiency under A-123 in FY 2006. **The Agency has completed all corrective actions for this significant deficiency.** The Agency will continue to periodically run reports to ensure timely and accurate project updates.

Formal Guidance on and Implementation of Personal Property Oversight

The Agency identified personal property oversight as a significant deficiency under A-123 in FY 2006. **All corrective actions for this significant deficiency have been completed.** The Agency will continue to conduct periodic internal/external reviews of property management programs.

Formal Guidance on Disposition of Contractor-held Property

The Agency identified the disposition of contractor-held property as a significant deficiency under A-123 in FY 2006. In April 2007, the Agency issued and implemented its revised Contract Management Manual, Chapter 45, *Government-Furnished Property*. **All corrective actions for this significant deficiency have been completed.**

Abnormal General Ledger Balance

The Agency identified abnormal general ledger balance as a significant deficiency under the FY 2007 internal controls over financial reporting review. **The Agency developed a strategy to address this significant deficiency, and all corrective actions have been completed.**

Quarterly Treasury Report on Receivables

The Agency identified quarterly treasury report on receivables as a significant deficiency under the FY 2007 internal controls over financial reporting review. **The Agency developed a strategy to address this significant deficiency, and all corrective actions have been completed.**

Interagency Agreements

The Agency identified interagency agreements as a significant deficiency under the FY 2007 internal controls over financial reporting review. **The Agency developed a strategy to address this significant deficiency, and all corrective actions have been completed.**

Superfund Cost Recovery and Cashouts

The Agency identified Superfund cost recovery and cashouts as a significant deficiency under the FY 2007 internal controls over financial reporting review. **The Agency developed a strategy to address this significant deficiency, and all corrective actions have been completed.**

Data Security (Contracts)

The Agency identified data security (contracts) as a significant deficiency under the FY 2007 internal controls over financial reporting review. **The Agency developed a strategy to address this significant deficiency, and all corrective actions have been completed.**

Data Security (Payroll)

The Agency identified data security (payroll) as a significant deficiency under the FY 2007 internal controls over financial reporting review. **The Agency developed a strategy to address this significant deficiency, and all corrective actions have been completed.**

Allowance for Doubtful Accounts, Fiscal Year 2007 Financial Statement Audit

According to the OIG, the CFC did not properly update or apply percentages on computing the fiscal 2007 allowance for doubtful accounts and did not properly calculate the 2nd and 3rd quarter allowance for doubtful accounts. The CFC response indicated agreement with certain recommendations, provided an explanation of the way CFC computed the allowance based on current policies and procedures, and identified where guidance referenced by OIG was not issued or current. **Corrective actions for this significant deficiency have been completed.** EPA will continue to work with OIG to clarify any remaining issues.

SF State Cost Share (Improved Quarterly Cost Reporting)

The Agency identified improved quarterly cost reporting as a significant deficiency under A-123 in FY 2006. The deficiency relates to how efficiently EPA tracks Superfund State Cost Share (SSC) contributions and matches them to expenses each quarter. The Agency has taken steps to centrally automate the manual SSC accrual process as part of consolidating accounts

receivable functions that were previously dispersed across the Agency in the CFC. EPA Headquarters is working with the last region to move its accounts receivable functions to CFC. In FY 2008, the Agency will develop and test an automated process and then evaluate the results of automation. **Correction is scheduled for FY 2009.**

Increased Controls Over the Integrated Financial Management System (IFMS) Suspense Table (SUSF)

Increased controls over the IFMS SUSF are needed. To remedy this, the Agency will no longer systematically purge aged data from IFMS. The Agency's policy will be updated to reflect the applicable Office of Management and Budget system requirements. **Steps to address this deficiency have been initiated, and correction is scheduled for FY 2008.**

SUMMARY OF FINANCIAL STATEMENT AUDIT

Audit Opinion	Unqualified				
Restatement	Yes				
Material Weaknesses	Beginning Balance	New	Resolved	Consolidated	Ending Balance
Key Applications Need Security Controls	0	1	0	0	1
Physical Security of Critical IT Assets	0	1	0	0	1
<i>Total Material Weaknesses</i>	0	2	0	0	2

SUMMARY OF MANAGEMENT ASSURANCES

Effectiveness of Internal Control over Financial Reporting (FMFIA § 2) (A-123 Appendix A)						
Statement of Assurance	Unqualified					
Material Weaknesses	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
<i>Total Material Weaknesses</i>	0	0	0	0	0	0
Effectiveness of Internal Control over Operations (FMFIA § 2)						
Statement of Assurance	Unqualified					
Material Weaknesses	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
Not Applicable (N/A)	0	0	0	0	0	0
<i>Total Material Weaknesses</i>	0	0	0	0	0	0
Conformance with Financial Management System Requirements (FMFIA § 4)						
Statement of Assurance	Systems Do Not Conform to Financial Management System Requirements					
Non-Conformances	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
Key Applications Lack Security Requirements	0	1	0	0	0	1
Physical Security of Critical IT Assets	0	1	0	0	0	1
<i>Total Non-Conformances</i>	0	2	0	0	0	2
Compliance with Federal Financial Management Improvement Act (FFMIA)						
	Agency			Auditor		
Overall Substantial Compliance	No			No		
1. System Requirement	No					
2. Accounting Standards	Yes					
3. USSGL at Transaction Level	Yes					

Overall, EPA has a qualified statement of assurance, as described in the Administrator's Fiscal Year 2007 Assurance Statement on page 41 of *Section 1 – Management's Discussion and Analysis*. The table above represents three components of management assurances:

1. In FY 2007 EPA found no material weaknesses based on its annual assessment on the effectiveness of the non-systems-related internal controls over financial reporting (FMFIA section 2, A-123 Appendix A).
2. In FY 2007 EPA found no material weaknesses based on its review of the effectiveness of non-systems-related programmatic internal controls over operations (FMFIA section 2).
3. During the Agency's FY 2007 Financial Statements Audit, the OIG identified two systems-related significant deficiencies, which the Agency is required to report as non-conformances and material weaknesses under FMFIA section 4 and as non-compliances under FFMA.

OFFICE OF INSPECTOR GENERAL'S FY 2007 KEY MANAGEMENT CHALLENGES

As required by the Reports Consolidation Act of 2000, OIG identifies, briefly assesses, and reports annually the most serious management and performance challenges facing the Agency. In FY 2007 OIG identified ten areas it considers to be EPA's most pressing management challenges. While some are new, others, such as managing human capital/workforce planning and homeland security, are recurring issues that take time to resolve. Notably, OIG did not suggest elevating any of these issues to the level of a material weakness. EPA has made great progress in addressing the issues OIG identified and will continue to work diligently in assessing and resolving vulnerabilities before they become serious management issues.

The table below summarizes the issues that OIG identified in FY 2007 as key management challenges facing EPA and their relationship to the Agency's Strategic Plan and to the President's Management Agenda. Following the table is a detailed discussion of the challenges, as reported in OIG's April 19, 2007 memorandum to EPA's Administrator, "EPA's Key Management Challenges." EPA's response to each challenge follows in italics.

EPA's Top Major Management Challenges Reported by the Office of Inspector General	FY 2005	FY 2006	FY 2007	Link to EPA Strategic Goal	Link to President's Management Agenda
Managing for Results:* Focusing on the logic of design, measures of success (outputs and outcomes), and measures of efficiency, so that EPA programs and processes can be set up to evaluate results and make necessary changes.	•	•	•	Cross-Goal	Integrating Performance & Budget
Agency Efforts in Support of Homeland Security: Implementing a strategy to effectively coordinate and address threats.	•	•	•	Cross-Goal	Homeland Security
Data Standards and Data Quality:** Improving the quality of data used to make decisions and monitor progress, and data accessibility to EPA's partners.	•	•	•	Cross-Goal	E-Gov
Emissions Factors for Sources of Air Pollution: Reliable emission factors and data are needed for targeting the right control strategies, ensure permitting is done properly, and measure the effectiveness of programs in reducing air pollution.		•	•	Goal 1	
Workforce Planning:**** Implementing a strategy that will result in a competent, well-trained, and motivated workforce.	•	•	•	Cross-Goal	Human Capital
Voluntary Programs:*** Applying voluntary approaches and innovative or alternative practices to provide flexible, collaborative, market driven solutions for measurable results.		•	•	Cross-Goal	
Efficiently Managing Water and Wastewater Resources and Infrastructure: Current drinking water, treatment and supply, and wastewater treatment and disposal systems are wearing out and will take huge investments to replace, repair and construct facilities.		•	•	Goal 2	
Information Technology Systems Development and Implementation: Overseeing information technology projects to ensure they meet planned budgets and schedules.		•	•	Cross-Goal	E-Gov
Data Gaps: Deciding what environmental and other indicators will be measured, providing data standards and common definitions to ensure that sufficient, consistent and usable data are collected.		•	•	Cross-Goal	E-Gov
Privacy Program: Integrating policies and controls into EPA's E-Government and other systems infrastructure for the protection of personal identifiable information.			•	Cross-Goal	E-Gov Homeland Security

* From FY 2004 and 2005 Working Relationships with the States and Linking Mission to Management were consolidated into Managing for Results.

** From FY 2004 and 2005 Information Resources Management and Data Quality were consolidated into Data Standards and Data Quality

*** FY 2006 titled Voluntary, Alternative, and Innovative Practices and Programs

**** FY 2006 and 2006 titled Human Capital Management

Managing for Results

EPA programs reviewed using OMB's Program Assessment Rating Tool (PART) continue to receive improved scores. Overall, nearly 90 percent of the 51 programs reviewed have received "adequate" or passing scores. While many of EPA's programs received high PART scores in areas such as program purpose and program management, EPA continues to be challenged in demonstrating program results. Only 24 percent of EPA's programs achieved passing scores in the area of Program results/Accountability². According to the PART results, the Agency scored low in this area for several reasons:

- EPA is not regularly conducting independent evaluations of sufficient scope and quality to support program improvements and evaluate program effectiveness.
- EPA does not collect timely and credible performance information, including information from program partners, and use it to manage the program and improve performance.
- EPA programs do not have ambitious targets and timeframes for their long-term measures.
- EPA's budget requests are not tied to accomplishment of annual and long-term performance goals, and resource needs are not presented in a complete and transparent manner in the program's budget.³

To address these factors and better demonstrate results, EPA management needs to make a concerted effort to focus on the logic of program design and to ensure that the Agency designs programs and processes so that it can measure, evaluate, and demonstrate results.⁴ Designing programs with clear and measurable results allows for transparency of, and accountability for, program performance. EPA also needs to ensure program managers are held accountable for ensuring that programs are designed with the means to measure and demonstrate program results and that the information gathered is used to manage and improve program results.⁵

EPA does not have a systematic process for conducting evaluations of its programs and operations, but rather conducts evaluations on an ad-hoc informal basis.⁶ The Evaluation Support Division (ESD) in the Office of Policy, Economics, and Innovation serves as the Agency's center of expertise for program evaluation and provides support to the Agency programs when requested.⁷ However, with only six FTEs, ESD does not have the work force to conduct a meaningful number of evaluations for the Agency.⁸ ESD primarily tries to build capacity for program evaluation within the Agency by running a program evaluation competition (PEC), providing performance measurement and program evaluation training, and coordinating an evaluation network. Program and regional managers initiate evaluations of programs within their offices. ESD provides program and regional managers an opportunity to submit proposals for program evaluations from which ESD selects, funds, and manages approximately five evaluations annually under the PEC. While this approach provides coverage for some Agency programs, it does not fully meet the Agency's need for program evaluation.

EPA has limitations to overcome before establishing a systematic approach to program evaluation. Currently, ESD estimates that EPA spends approximately \$1 million annually on program evaluation, up to .03 percent of its budget. Other Federal agencies and corporations, considered leaders in program evaluation, budget for or set aside about 1 percent of their annual budgets, or up to 15 percent per project, for program evaluation. EPA also needs additional staff capable of commissioning and managing independent, high-quality program evaluations with sound methodologies that produce evidence of program effectiveness or guide decisions to improve effectiveness and results. EPA does not have a large community of knowledgeable and experienced evaluators of environmental programs from which it can draw to perform its evaluations. EPA's reliance on States and localities for data on program performance makes obtaining consistent quality data a major challenge for the Agency.⁹ With the complexity of environmental programs and the difficulty in measuring environmental performance, a well-designed program evaluation function is an important tool that can assist EPA in demonstrating program performance and improving results. Leveraging the evaluative resources provided by GAO and OIG should be part of EPA's plan for addressing this challenge.¹⁰

The Agency recently completed its *2006-2011 Strategic Plan* (Plan) which the Agency expects to help focus its efforts on obtaining measurable results. The Plan reported continued improvement in the quality of the Agency's performance measures, its ability to track costs, and its ability to provide this information to managers for their use in managing their programs more effectively. The Plan also highlighted progress in improving the outcome orientation of objectives and targets, analyzing performance trends and budget information to establish budget priorities, and improving and developing performance and financial management reports.¹¹

The OIG recognizes that directly linking public health and environmental improvements to actions by EPA and its partners is a challenging undertaking. Nevertheless, the Agency should continue its efforts to improve its strategic planning and tracking of accomplishments and their associated costs. The Agency needs to evaluate its programs to ensure that they include the means to measure and demonstrate program results. Then it needs to follow through to obtain timely, accurate data that it can use to improve the efficiency and effectiveness of its programs and hold Agency employees accountable.¹²

EPA's Response (Prepared by the Agency)

Over the past years, national programs, regional offices, and the Agency's external stakeholders have worked collaboratively to strengthen results-based management at EPA. In FY 2006, the Agency issued its 2006-2011 Strategic Plan, which charts an ambitious course for environmental protection over the next 5 years and focuses on achieving measurable results that will help advance the protection of human health and the environment. The revised Strategic Plan reflects more outcome-oriented goals and objectives and benefits from information on environmental indicators and from futures analysis. The Agency continues to improve the quality of its performance measures as well as its ability to track the cost of achieving environmental results by reducing reporting burden, strengthening data quality, and reinforcing accountability.

OMB acknowledges EPA's significant accomplishments in the area of Financial Performance and Budget and Performance Integration under the PMA. For the 2nd and 3rd quarters of FY 2007, EPA received status and progress scores of "green" for its continued use of financial and performance information in day-to-day program management and decision making. EPA also continued efforts to streamline efficiency measures.

Highlights of progress include:

- *Maintained and improved the ACS as a management tool for senior managers to support more effective program management and use of results in Agency decision making.*
- *Enhanced the Annual Commitment System (ACS) to track three new classes of measures (Senior Executive Service organizational assessment, state grant template, and regional priorities). The system also flags measures that contribute to OMB's PART reviews.*
- *Launched a new intranet website (<http://intranet.epa.gov/ocfo/acs>) to provide Agency staff with information on ACS development and the annual performance commitment process.*
- *Developed new detailed performance reports through the Office of the Chief Financial Officer's Reporting and Business Intelligence Tool (ORBIT).*
- *Retired the Management and Accounting Reporting Systems (MARS), saving \$1 million annually and improving Agency access to key budget and financial management reports.*
- *Achieved OMB approval of efficiency measures for all 51 of EPA's completed PART programs.*

- *Issued the 2006-2011 Strategic Plan, which reflects a sharper focus on priorities established by the Administrator (i.e., environmental justice, innovation and collaboration, environmental stewardship, and the role of state and tribal partners).*
- *Received a “green” status score for Budget and Performance Integration under the PMA for the 2nd and 3rd Quarters of FY 2007.*

Plans for further improvements:

- *Identify and implement initiatives that support the Agency’s vision for greater central governance of performance measures and stronger program and organizational accountability.*
- *Improve senior managers’ access to the Agency’s performance information by modifying data systems (BAS, PERS, ACS) to include a “measures central” screen. The screen will improve the usability of the data system and serve as a filter for all Agency performance measures (GPRA, QMR, and senior management measures).*
- *Identify and endorse a limited set of “top tier” measures and integrate them in the FY 2008 National Program Managers Guidance, FY 2008 annual commitment process, and FY 2009 budget.*
- *Continue to promote and maintain ORBIT as a primary reporting tool for Agency budget, financial, and performance data.*
- *Expand the Agency’s use of the state grant template to report on FY 2007 results, increasing transparency and ensuring that state grants are accountable for achieving EPA’s mission.*

Efforts in Support of Homeland Security

The Department of Homeland Security (DHS) maintains the lead for the unified national effort to better prepare for, prevent, and respond to potential attacks against the United States from those who seek to harm it. In addition to carrying out its mission to protect human health and the environment, EPA also plays a vital role in homeland security efforts by helping to protect the environment from terrorist acts. EPA has developed technical and scientific expertise that enhances the ability of DHS to address potential terrorist threats. The National Response Plan and several Homeland Security Presidential Directives direct EPA to support, coordinate, or lead responses to incidents of national significance, including terrorist attacks.

EPA has faced unprecedented new challenges in responding to incidents of national significance including the World Trade Center and Pentagon terrorist attacks, and Hurricanes Katrina and Rita. These events further defined and demonstrated the Nation’s expectations of EPA’s emergency response role. These new expectations have expanded EPA’s traditional emergency response functions.

In June 2006, the Agency finalized its *Emergency Response Business Plan* (ERBP or Plan). The stated purpose of the ERBP is to address EPA’s overall readiness to respond to five simultaneous incidents of national significance while maintaining effective day-to-day emergency response operations. The Plan identifies national incident scenarios and gaps in resources to respond to the scenarios, and documents the distribution of available emergency response resources in the regions. The OIG evaluated the Plan in 2006 and 2007. We identified planning assumptions and aspects of the planning process that may challenge EPA’s ability to rely on the Plan as a valid assessment of its readiness, including:

- The Plan does not provide the rationale for the incidents of national significance on which it is based.

- The Plan does not document the methodology used to determine the required emergency response resources.
- In developing the Plan, EPA conducted little or no coordination with other Federal government response agencies, or State and local emergency response agencies. The Plan does not address the likely involvement of these resources.
- The Plan does not incorporate lessons learned from responses to similar incidents of national significance or incidents involving tasks similar to those described in the Plan.
- The Plan does not address the criteria or responsible agencies for deciding when it is safe for residents to return to areas impacted by the incidents.

We will formally communicate our findings to the Agency and will continue to monitor Agency progress in ensuring readiness to meet its homeland security responsibilities.

EPA's Response (Prepared by the Agency)

EPA has an Emergency Response Business Plan to increase the Agency's preparedness in responding to environmental and homeland security related disasters. The plan provides a framework for the Agency to address simultaneous incidents of national significance while maintaining effective day-to-day emergency response and removal operations. In preparing the plan, headquarters and regions use five simultaneous incidents in a "worst case" planning scenario around which to develop detailed assessments, gap analyses, and program activities. The plan incorporates chemical, biological and radiological scenarios, and it briefly describes changes needed in managing personnel, financial, and other resources required to address incidents of national significance readiness.

Additionally, the Agency has developed a Draft Homeland Security 2007, 2008, 2009 Priority Work Plan to identify EPA's overall planning framework for advancing the Agency to the next level of preparedness. The draft work plan summarizes EPA's Presidential and other externally driven homeland security mandates and identifies the Agency's desired end state, or final destination, and its desired results and actions for each through 2009. The Agency plans to use the work plan as a tool to define priorities and encourage progress as EPA continues to improve its level of homeland security preparedness.

Highlights of progress include:

- *Established a Steering Committee to provide oversight and leadership to the numerous workgroups that support the Agency's National Approach to Response.*
- *Developed a draft Incident Management Handbook that provides guidance on organizational structure and outlines the communications flow during an incident of national significance (expected issuance December 2007).*
- *Developed and implemented an Information Technology Strategy that allows EPA to share information with its partners through the Emergency Management Portal and with the general public from its public web site.*
- *Formed an Administrative and Finance Workgroup to address procurement, property tracking, and pay issues.*
- *Developed a draft plan for acquiring and maintaining field communications equipment for EPA's emergency response programs.*

Plans for further improvements include:

- *Release the final version of EPA's National Approach to Response (NAR) Crisis Communication Plan. (The plan addresses roles and responsibilities for Incidents of National Significance).*
- *Implement the Emergency Response Business Plan's approach for making the necessary changes in the management of personnel, financial, and other resources through NAR priority projects.*
- *Continue to develop training courses related to weapons of mass destruction and pandemic and avian influenza.*

Data Standards and Data Quality

The Agency has a substantive effort in place to develop data standards and provide guidance for their implementation, but incorporating data standards in information collections from initial plans to obtaining the data for analysis is not yet a routine activity in all programs.¹³ Data standards are an essential component of EPA's information program. They promote efficiently sharing environmental information among EPA, States, tribes, and other information partners. Using common data standards among partners ensures consistently defined and formatted data elements and sets of data values, and ensures access to more meaningful environmental data.

EPA has acknowledged the challenge of implementing data standards in Agency systems, and developed a three-pronged corrective action plan involving (1) a communication strategy that promotes awareness of implementation procedures and best practices, (2) tracking implementation of data standards, and (3) a validation strategy to review progress in implementing the standards and the effectiveness of corrective actions. The Agency made considerable progress on the action plan and will continue to track program implementation of data standards and conduct performance reviews of key systems through fiscal 2010.¹⁴

EPA and its partners also need to continue to focus on ensuring that data are of sufficient quality for decision-making. OIG evaluation and investigative activities involving laboratories' analysis of drinking water samples continue to raise concerns with the integrity of sample results. Without any national studies of water quality data that include examining laboratory integrity, the full extent of the problem remains unassessed. Given the potential impact of poor quality data on human health, EPA should

- assess drinking water laboratory integrity and incorporate promising techniques to identify improper practices and fraud in the laboratory oversight process,
- develop a mechanism to identify, and a policy to address, data in EPA databases from questionable laboratories¹⁵ and,
- conduct routine quality assurance and quality control analysis for the non-reporting of violations of drinking water standards and violations of regulatory monitoring and reporting requirements.¹⁶

EPA considers data quality for drinking water an Agency-level weakness, and originally established a corrective action completion target that extended into 2007.¹⁷ However, EPA still needs to negotiate several key action items and milestones that may extend the completion date for this weakness into fiscal 2008 or beyond.

Recent OIG work regarding emergencies, such as Hurricane Katrina, also shows an immediate need for decision makers at various levels of government to have reliable water quality data. One of the databases used by EPA to assist in managing environmental data caused local officials difficulty querying the database due to a lack of training and trouble verifying the quality of data due to inconsistent data entry. We recommended that EPA set protocols to address these types of issues.¹⁸

EPA's Response (Prepared by the Agency)

EPA declared "Implementation of Data Standards" an Agency-level weakness under FMFIA in FY 2005, and has since made progress in addressing challenges related to data standards and data quality. The Agency currently has in place a corrective action strategy that addresses issues identified by OIG. In response to OIG concerns regarding the integrity of laboratories, EPA continues to require laboratories to submit Quality Assurance Reports and Work Plans annually. In accordance with a February 2004 policy directive developed by the Agency's Science Policy Council, laboratories are to seek accreditation from independent accrediting organizations or conduct independent external assessments of their laboratory practices to demonstrate competency. As of April 2007, nine laboratories have achieved accreditation. While EPA has completed the milestones associated with correcting its "Implementation of Data Standards" weakness, we will continue to monitor and verify performance, promote awareness, and develop training modules to implement data standards.

Highlights of progress include:

- Developed a communications plan promoting implementation of upcoming standards and awareness of associated documentation, including implementation strategy, procedures, and best practices.*
- Issued a semi-annual Data Standards "Report Card" designed to track program implementation of data standards.*
- Reviewed data standards implementation for all systems managed under one prime contractor.*

Plans for further improvements include:

- Continue to develop training modules and conduct training on standards implementation for system developers supporting EPA program offices.*
- Design and launch a new EPA data standards website that will provide data standards and implementation information for EPA program offices and system developers.*
- Continue to monitor implementation of data standards within the Registry of EPA Application and Databases and publish the semi-annual Data Standards Report Card.*

Emissions Factors for Sources of Air Pollution

Emissions factors are used to develop the emissions data that are the cornerstone of a host of important environmental decisions made by EPA; State, local, and tribal agencies; industries; environmental groups; and others.¹⁹ Emissions factors are used for about 80 percent of emissions determinations for sources of air pollution.²⁰ These decisions include facility permitting, developing control strategies, making compliance and enforcement decisions, measuring environmental progress, and demonstrating program results under Government Performance and Results Act.²¹ Without reliable emissions factors, users cannot be sure that

(1) air pollution control strategies target the right industries or products, (2) permitting programs include all required sources and establish proper emissions limits, and (3) air programs are effective in reducing air pollution.²²

The Agency faces significant challenges in improving emissions factors. A March 2006 OIG evaluation found (1) conflicting guidance on the appropriate use of emissions factors, (2) a rating system that did not quantify the uncertainty associated with the emissions factors, (3) inadequate funding of the emissions factor program, and (4) the lack of a comprehensive plan to improve data collection and set emissions factor priorities.²³ These management-related issues continue to contribute to the impairment of emissions factor development, hampering achievement of the Clean Air Act's requirements and major Air program goals.²⁴

As a result, emissions factors are being inappropriately used for key environmental decisions.²⁵ For example, emissions factors have been used for non-inventory purposes, such as setting permit limits and reporting the level of air pollution control at specific facilities.²⁶ For three industry sectors EPA examined, inappropriately using emissions factors contributed to more than one million tons of pollutants not being controlled.²⁷ EPA guidance states that the user must take into account the uncertainty of the emissions factor when considering its use;²⁸ however, emissions factor uncertainty is little understood, leading to inappropriate uses.²⁹ For example, the fiberglass industry believed EPA emissions factors were overestimating its emissions so it developed new emissions factors.³⁰ However, instead of decreasing estimated emissions for the industry, the improved emissions factors increased the estimated emissions for the fiberglass industry by about 100 percent.³¹

EPA is shifting its efforts toward more direct, continuous monitoring and measurement of emissions from all major emissions sources.³² However, increased demand for low-cost environmental data is driving the need for more quality emissions factors.³³ Use of emissions factors will continue for a broad array of environmental decisions for years to come, including measuring and reporting environmental progress.³⁴ For example, EPA is planning to use emissions factor derived data to make decisions regarding the risks that remain after air toxics technology-based standards have been implemented, and to decide the effectiveness of existing air toxics practices, processes, and control technologies.³⁵ If EPA can improve the quality of its factors, this should improve environmental decision-making for reducing air pollution.³⁶ However, if EPA continues to use insufficient measures to determine program results, the Agency may not be reaching the goals it has claimed to reach, the air may not be as clean as the Agency claims,³⁷ and EPA and States may make misinformed decisions for the most promising future actions to improve air quality.³⁸

EPA has recently taken steps to improve the quality of the emissions data used to make environmental decisions through the development of a Quality Management Plan.³⁹ The purpose of this management plan is to help ensure that data generated by or for the Agency are of known and acceptable quality.⁴⁰ In addition, EPA completed a statistical study of the uncertainty associated with published emissions factors that are based on emissions testing data.⁴¹ While progress has been made since our 2006 report, the Agency's challenges are to address the large number of emissions factors rated low; ensure stable, sufficient funding to address underlying data gaps and limitations;⁴² limit decisions made with poor quality emissions factors; and provide significant non-regulatory incentives to industry, State, and local agencies to provide EPA with the data the Agency has long sought to improve the quality of emissions factors.⁴³

EPA's Response (Prepared by the Agency)

The Agency has made significant progress in addressing the issues identified in OIG's March 2006 evaluation report, EPA Can Improve Emissions Factors Development and Management. EPA remains on track in implementing its plan to make it easier for others to transmit and transform their emissions data into emissions factors that account for uncertainty. Building on previous success, the Agency continues to re-engineer the emissions factor program to develop emissions factors faster, increase the number of emission factors, and account for uncertainty in emissions factors.

With respect to developing guidance for using emissions factors, EPA agrees that the Agency needs to be clearer about the regulatory and environmental risks of using emissions factors, including the risks associated with their original intended application and for programs that have adopted their use as an expeditious means of achieving their goals. The Agency has developed a new, streamlined emissions factor development process that is currently undergoing public review, and we expect to finalize these new procedures later this year.

In response to OIG's finding that the current emissions factor rating system did not quantify the uncertainty associated with emissions factors, the Agency has completed a statistical study of the uncertainty associated with published emissions factors that are based on emissions testing data, such as those contained in AP-42. We presented our approach and study results to internal reviewers and a panel of expert peer reviewers and addressed their comments and suggestions. In February 2007, EPA submitted a report describing the technical approach and the results to Congress and OMB. The report is currently available on the web for public review and comment. EPA is now beginning to analyze various policy options available for accounting for uncertainty.

The OIG has recommended the development of a comprehensive plan to improve data collection and set emission factor priorities. We have developed and submitted a comprehensive strategic plan meeting those recommendations, which is currently under review by OIG. The plan focuses on advancing direct, continuous site-specific measurements of the pollutant of concern and addresses the development and use of emissions factors for situations where site-specific measurements are infeasible or the risks of adverse program decisions are unacceptable.

Highlights of progress include:

- Launched WebFIRE, an interactive website that combines AP-42 and FIRE data so that users are no longer required to conduct independent checks while searching for emission factors.*
- Conducted an analysis to determine the uncertainty of highly-rated emissions factors.*

Plans for further improvements include:

- Enhance WebFIRE to allow users independently to check and verify background information for emissions factors.*
- Develop emissions factors for coke ovens, landfills, municipal waste combustors, steel mini-mills, landing losses for external floating roofs, and low pressure petroleum storage tanks.*
- Initiate development of emissions factors for natural gas engines, rubber manufacturers, and animal feeding operations.*

Workforce Planning

Achieving EPA's environmental and human health goals depends on the ability to attract, develop, and retain a highly skilled, diverse, and results oriented work force. To accomplish this,

EPA leaders must strategically manage their most important resource - human capital. In March 2006, EPA issued its first comprehensive Strategic Workforce Plan to address the challenge of having the right people, at the right location, at the right time.⁴⁴

Human capital management is one of the government-wide initiatives under the President's Management Agenda (PMA). The PMA initiative requires agencies to improve workforce planning by moving beyond the concept of managing through attrition and replacing employees on a one-to-one basis. Under the PMA, Federal agencies' human capital strategies are required to be linked to organizational mission, vision, core values, goals, and objectives. Further, the PMA requires agencies to use strategic workforce planning as a tool to recruit and retain employees, identify required competencies, and determine the size and location of its workforce.⁴⁵

Audits reports, issued by OIG and GAO between 2000 and 2004, identified significant concerns with EPA's human capital strategy. The reports indicated the Agency's strategy did not (1) explain how to achieve its human capital objectives for protecting the environment, (2) identify the resources needed and the specific milestones for implementing the human capital objectives, and (3) provide results-oriented (outcome) measures to track the Agency's progress and evaluate its success in achieving these objectives.⁴⁶

Based in part on these concerns, as well as challenges the Agency faces in meeting requirements under PMA, Human Capital Management has been listed as a top management challenge since 2001. EPA is working closely with OMB and the Office of Personnel Management (OPM) to align the Agency's human capital strategy to meet the objectives outlined in the PMA, as it relates to the strategic management of human capital.⁴⁷

Actions the Agency is taking, or has completed, to improve workforce planning include:

- Completed a comprehensive Strategic Workforce Plan in March 2006.
- Developed and is currently implementing a Mission Critical Occupation (MCO) competency-based and resource-based approach for identifying occupations deemed critical for the Agency to achieve its mission.
- Identified 19 MCOs and prioritized the list to establish the Agency's first six priority MCOs to be evaluated (Information Technology Specialist, Human Resources Specialist, Leader, Toxicologist, Grant Specialist, and Contract Specialist).
- Adopted OPM's four step model for strategic workforce planning which includes an analysis of the critical occupation supply, demand, gaps, and strategies to address gaps.
- Began applying OPM's four step process to the priority MCOs. As of March 2007, EPA had completed the four steps for the IT Specialist; steps 1 through 3 for Human Resources Specialist and Leader; and step 1 for Toxicologist, Grant Specialist and Contract Specialist.
- Procured a competency assessment tool and is completing competency assessments for toxicologists, grant and contract specialists.⁴⁸

Despite these accomplishments, the Agency continues to face challenges to workforce planning. A review of the Agency's workforce planning efforts revealed challenges which may affect the Agency's ability to get to "green" status on the PMA scorecard, including the need to:

- Complete the remaining steps in the workforce planning model for the six priority MCOs by the first quarter of FY 2008.

- Assess the remaining 13 MCOs that include occupations key to achieving the Agency's mission, such as health and physical scientists, biologists, chemists, environmental engineers, and support occupations.
- Meet the OPM Senior Executive Service certification requirement by aligning performance goals using a cascading approach.
- Meet OMB and OPM expectations to identify the number of employees and locations for each of the 19 Mission Critical Occupations, as well as narrow any gaps identified.⁴⁹

EPA acknowledges human capital as an Agency-level weakness and is taking actions to strengthen this area.⁵⁰ However, because many of the actions taken are not yet completed or not to a point where their effectiveness can be measured, additional time is needed to determine whether the actions will be effective in addressing EPA's workforce challenges. EPA plans to continue to monitor and report on the progress of its human capital initiatives, assess the overall effectiveness of the Agency strategy for human capital, and determine whether EPA is achieving its desired human capital results.⁵¹

EPA's Response (Prepared by the Agency)

In FY 2001, EPA acknowledged human capital (HC) as an Agency-level weakness. Over the years, the Agency has made significant progress in strengthening its HC program. This included developing a robust HC accountability program, improving the HC audit program and expanding the Agency's leadership development programs to enhance skills and ensure continuity of leadership. Despite these accomplishments, the Agency continues to face challenges in addressing the workforce planning component of its human capital weakness. To address the workforce planning concerns identified by OIG and GAO, EPA developed a workforce planning/competency management system that gauges skill gaps and guides the design of strategies for closing the gaps. Additionally, EPA is working closely with OMB and the Office of Personnel Management (OPM) to align the Agency's Human Capital Strategy to meet the objectives outlined in the PMA as it relates to the Strategic Management of Human Capital. The Agency expects to complete all final corrective actions related to this weakness by December 2007.

Highlights of progress include:

- *Furthered the local-level awareness of the comprehensive Agency Strategic Workforce Plan and utilized various HR options to close gaps.*
- *Began phase I implementation of the electronic Official Personnel Folders program by training HR specialists and administrators on its use.*
- *Continued to work with OMB on HR LoB initiative to address duplicative and redundant HR systems.*
- *Launched the "Successful Leaders Program" to survey employees and their supervisors to determine needed training.*
- *Improved the efficiency of the EZHire system, enabling the Agency to better track and monitor its compliance with OPM's 45-day hiring model.*
- *With its Union partners, EPA established an Agency-wide Leave Bank Board in February 2007.*

Plans for further improvements include:

- *Continue to track and assess program and regional workforce plans to ensure alignment with the Agency's workforce plans and strategic goals.*

- *Continue to monitor and report on progress of EPA's HC initiatives to assess the overall effectiveness of the Agency Strategy for Human Capital and to complete all final corrective actions related to this weakness by December 2007.*

Voluntary Programs

EPA supports and advocates for a range of voluntary programs designed to provide flexibility and novel and beneficial approaches to achieve environmental goals. The basic premise of voluntary approaches is flexible, collaborative, market-driven solutions that can deliver measurable environmental results. These programs primarily work with business, community, or other partners to either reduce pollution below regulatory requirements, or ameliorate environmental problems not otherwise regulated by EPA (e.g. water and energy use, recycling).⁵² In 2002, EPA released an innovation strategy that described EPA activities and priority issues.⁵³

Voluntary programs have proliferated in recent years and now address a wide variety of environmental challenges.⁵⁴ However, their growth has not been matched by appropriate organization and oversight. Recent OIG work illustrates that EPA does not have Agency-wide policies that require the inclusion of key evaluative elements such as standardized management processes, consistent and reliable data, and uniform operational guidelines that allow for comparative assessment. EPA has not developed specific definitions that help EPA staff to categorize or identify these diverse voluntary programs. Finally, EPA has not implemented a systematic process to develop, test, and market voluntary programs, or to regularly evaluate the effectiveness of these programs. As a result, EPA cannot identify a consistent population of voluntary programs, there are no policies requiring voluntary programs to have comparative programmatic elements, and there is no systematic process in place to regularly assess the effectiveness of these programs. In addition, we found shortcomings in EPA's "gold standard" voluntary programs with quality controls, performance measurement, and strategic planning.⁵⁵

Clearly, EPA must be innovative and flexible, and adapt to changes in environmental protection to continue progress toward environmental goals. The challenge is to maintain those vital elements of the existing system, such as the standards, permits, and compliance assurance efforts which are part of EPA's basic mandate, while simultaneously pursuing creative new tools and approaches that complement and enhance the Agency's efficiency and effectiveness.

In 2004, the Innovation Action Council was charged with voluntary program oversight and created the Voluntary Program Coordination team. This team has issued several guidance documents and has attempted to stay in regular contact with many of the voluntary programs.

However, it does not have Agency-wide oversight authority to conduct day-to-day management functions, or to develop management procedures, measurement protocols, or outcome reporting requirements. EPA can take steps to address these oversight, evaluation and management challenges to maximize potential environmental benefits of voluntary programs.

EPA's Response (Prepared by the Agency)

EPA programs and regions support a range of voluntary/partnership programs, which function as an adjunct to regulatory programs or fill in where a regulatory approach is not practicable. These

programs are diverse in size, scope, environmental media, target environmental issue, and stakeholder base. They range from high-profile programs such as ENERGY STAR and Performance Track to smaller, more targeted programs such as Sunwise or Natural Gas STAR. There are more than 50 partnership programs Agency-wide which are managed by many different program offices and regions, each of which is responsible for ensuring that programs are well designed and well run. Thus, it is difficult for any single office response to address such a broadly-defined management challenge.

However, the Agency's Innovation Action Council (IAC), which directs and oversees the Agency's innovation agenda, has initiated a number of efforts to clarify the goals and measures and evaluate the results of innovative and "voluntary" partnership programs. As part of this initiative, a Partnership Program Coordination Team has been formed within OPEI's National Center for Environmental Innovation.

Highlights of progress include:

- Issued guidelines on optimal program design, performance measurement, and marketing.
- Implemented a notification system for new and expanding programs.
- Established a charter that includes an Agency-wide workgroup and network to maximize uniform understanding of and compliance with relevant policies and procedures.
- Established a coordination function in the Office of the Administrator to encourage sound program design and management, with a special emphasis on performance measurement.
- Finalized guidelines for marketing partnership programs, and issued a compilation of previous guidelines. Guidelines are available on the Partners intranet website at: <http://www.epa.gov/partners>.
- Formed a cross-agency Partnership Program Review Workgroup, charged with developing a framework for the systematic evaluation and assessment of partnership programs.

Plans for further improvements include:

- Initiate the development of a new set of Guidelines on Program Evaluation for partnership programs.
- Finalize a Progress/Accomplishments Report that will compile the environmental results reported by programs across the Agency.
- Conduct training on best practices and procedures, and arrange seminars and discussion groups on new research on trends and strategies.

Efficiently Managing Water and Wastewater Resources and Infrastructure

America's water assets are critical to the country's public health and economic, environmental, and cultural vitality. About 160,000 public drinking water systems and 16,000 sewage treatment plants throughout the Nation supply fresh water and remove and treat used water. Over the past 20 years, communities have spent more than \$1 trillion (in 2001 dollars) on drinking water treatment and supply, and wastewater treatment and disposal. Still, these systems are projected to have huge costs to repair, replace, and construct new water infrastructure. Current systems are wearing out, and recent and future environmental requirements from EPA will necessitate additional investments.

In 2002, EPA estimated the 20-year water infrastructure capital needs as ranging between \$485 billion and \$896 billion. EPA annually commits funding to the Clean Water and Drinking Water State Revolving Funds (SRFs) to ensure that communities have access to capital for their drinking and wastewater infrastructure needs. The 2008 President's Budget proposes \$688 million for the Clean Water SRF and \$842 million for the Drinking Water SRF⁵⁶. These amounts are unchanged from the prior year's budget submission.

EPA has to find ways to be more innovative on the finance and management fronts to assist States and communities in overcoming infrastructure issues. OIG reports on such topics as Drinking Water Protection Efforts, Source Water Protection, Small Drinking Water Systems⁵⁷, Combined Sewer Overflows and State Revolving Funds have identified funding as a significant barrier to progress. Our work has shown that a competition exists between infrastructure and other priority water needs (e.g. drinking water source protection, regulatory program implementation, security) for the limited available SRF money.

Funding requirements can be more difficult for small systems to meet, impeding their ability to obtain much needed resources. The Agency faces a continuing challenge to find ways to reach and influence the management behavior, skills, and abilities of thousands of small utilities. Preparing and publishing documents, and convening workshops reach only a small portion of the systems that need EPA's expertise. Recent OIG work shows that lack of long-term planning, management and operator competencies and retention, and problems understanding regulations continue to be challenges for small utilities. Good practices, such as mentoring programs by larger utilities, show promise for wider application to benefit small utilities and could help address the management issues that are a component of the water infrastructure challenges. EPA needs to define its role as part of a long-term National strategy on sustainable water infrastructure that addresses financial and management issues, so that the Nation's water quality is protected now and in the future.

In addition, EPA regulations and policies allowing States to use bonds repaid from SRF interest to meet SRF match requirements are resulting in fewer dollars being available for water projects. Twenty States have used the Clean Water SRF to repay bonds issued to meet the required fund match, and 16 of those States also did so for the Drinking Water SRF. Further, four States used short-term bonds for their State match and then retired those bonds from SRF funds within a week of issuing them. These practices have resulted in an estimated \$937 million less available for loans since the inception of the SRF programs. We acknowledge that States have funding limitations and depend on legislatures for funding. Nonetheless, the majority of States have been able to finance their 20-percent match without using bonds financed by the SRFs, and we believe this is a goal toward which all States should strive.⁵⁸

EPA has approached this challenge by focusing on its "Four Pillars of Sustainable Infrastructure" – better management, water efficiency, full cost pricing, and the watershed approach. While EPA hopes to build upon these "pillars" using the tools of technology, innovation, and collaboration, it is faced with the challenge of trying to do more with less. In the absence of growth in Federal funding, EPA has taken a non-financial and non-regulatory approach to meet the infrastructure challenge. For example, in the past year it established a voluntary program to conserve water ("WaterSense"), issued a "green infrastructure" policy, and convened a national conference on sustainable infrastructure. The Agency recognizes that much more remains to be done and recently pointed to the need for innovative actions and technologies for closing the infrastructure gap. However, the critical question for the agency is whether EPA's approach is adequate to the infrastructure challenge.

EPA's Response (Prepared by the Agency)

EPA believes it has taken and will continue to take effective steps to define and pursue its role in ensuring that the nation's water and wastewater infrastructure is sustainable in the future. While much

of the change is needed at the local level, EPA provides leadership, tools, innovation, and momentum to encourage a shift toward financial and managerial sustainability. The Agency's role is to provide education and outreach and to serve as a "wholesaler" of information to our state and national professional association partners. EPA's Four Pillars of Sustainable Infrastructure (SI) have provided the structure to define the sustainability challenge, raised the visibility of the issue to a national scale, and offered a suite of approaches to move towards sustainability. Water infrastructure has been further elevated on the national stage as one of the Administrator's top four priorities.

EPA is leading by example by breaking down barriers to progress in its own programs and partnerships and working toward policies that foster sustainability, while protecting human health and the environment. Internally, EPA is speaking with one voice—reaching across offices to promote the innovation needed to address the sustainability challenge. SI has been a major topic for the national Water Division Directors' and SES meetings, helping the Agency work across traditional organizational lines to allow and promote innovation. The Agency is promoting SI through permits, Special Environmental Projects, and injunctive relief. The Agency is also coordinating efforts in its Performance Track and Smart Growth programs to foster aspects of sustainability, energy, and infrastructure related to climate change.

EPA's efforts go well beyond the areas of focus under the Four Pillars. In the area of innovative finance, the Agency is working to allow the expanded use of Private Activity Bonds to bring more private capital into the sector and exploring and promoting innovative uses of SRF loans. In March 2007, in partnership with 14 other organizations, EPA convened a national conference on Paying for Sustainable Water Infrastructure that brought stakeholders from all levels of government and the private sector together to explore creative methods of paying for sustainable water infrastructure. Four conference tracks covered topics related to reducing costs and increasing investment in drinking water and wastewater systems and programs. The conference looked beyond the Four Pillars to broader issues and expanding all stakeholders' efforts, since solutions to the sustainability challenge will require joint and collaborative effort. EPA has since met with conference co-sponsors to consolidate learning and define critical areas for additional collaborative action, such as improved outreach to local officials.

On July 2, 2007, EPA responded to OIG's audit recommendations, indicating that the Agency has followed the tenets embedded in legislation and regulation to allow states maximum flexibility in operating their SRFs. States face differing fiscal realities and need the ability to adopt policies for meeting their match requirements that are appropriate for their situations. As noted in the report, EPA agreed to assess the effects on states of its state match bond policy and the potential impact of changes to the current policy. Our assessment indicates that states show near unanimous support for the current policy and believe that its cumulative effect on the SRF program has been highly beneficial. States further indicate that adopting the OIG recommendation would be disruptive and detrimental to the SRF program. Finally, at least 11 states that take advantage of the current policy believe they would be unable to procure state appropriations for match, and therefore unable to apply for federal funds. It is notable that the majority of states that issue match bonds also leverage their federal capitalization grants to make maximum use of the program. EPA believes that, on balance, its current policy on state match bonds is successful in providing maximum state flexibility and effective environmental and public health protection and that further action is not warranted at this time.

Highlights of progress include:

- *Launched WaterSense, a market enhancement program that is increasing national awareness of water-efficient choices and the value of clean and safe water.*
- *Signed a ground-breaking agreement with six major water and wastewater associations jointly to promote effective utility management based on a series of Attributes of Effectively Managed Utilities, other management tools, and utility performance measures.*

- *Co-sponsored the Water Quality Trading Conference with USDA that brought utility companies and the agricultural community together to build momentum for trading programs that maximize impact from infrastructure investments.*
- *Continued to produce assistance documents and tools targeting the needs and special circumstances of small utilities (e.g., Simple Tools for Effective Performance and Total Electronic Asset Management Software).*
- *Convened a Watershed Forum with several major utilities to discuss ways to promote adoption of various watershed tools, such as green infrastructure, into local infrastructure decisions.*
- *Convened a panel of experts to discuss the importance of full cost pricing of water and wastewater services by utilities.*
- *Co-sponsored the Paying for Sustainable Water Infrastructure: Innovations for the 21st Century Conference which brought together stakeholders from all levels of government and the private sector to explore creative methods for paying for sustainable water infrastructure today and into the future.*

Plans for further improvements include:

- *Develop a Small Communities Team work plan focused on better management of wastewater for small communities and disadvantaged or underserved populations.*
- *Prepare a Drinking Water Capacity Development Strategic Plan to ensure that the Agency's outreach efforts to small utilities are well coordinated and effective.*
- *Release the Water Quality Trading Toolkit for Permit Writers, which explains how to implement the National Water Quality Trading Policy and is the first "how to trade" guidance published by the Agency.*
- *By end of summer of 2008, publish a series of "technical guides" that will provide technical information for establishing trading programs in such areas as water quality monitoring and developing scientifically-based trade ratios.*
- *By winter 2008, complete the Check Up Program for Small Systems software, an asset management tool designed to help small systems.*
- *Work with the Green Infrastructure Collaborative workgroup on a strategy to expand the use of green infrastructure solutions.*
- *Host a National Capacity Development Program workshop to expand outreach and explore solutions to the challenges faced by small systems.*

Information Technology Systems Development and Implementation

EPA requested approximately \$433 million in system development/maintenance funding for fiscal year 2007.⁵⁹ As noted by GAO, major systems development efforts are inherently risky⁶⁰ and EPA has experienced problems similar to those encountered by other Federal agencies.⁶¹ Our report on information technology (IT) project management identified instances where EPA needed to continue efforts to ensure its IT projects met (1) planned budgets and schedules and (2) Agency prescribed system life cycle documentation requirements.⁶²

Since FY 2006, EPA has made some improvements in the area of IT systems development and implementation. EPA issued an Operational Analysis Guidance document⁶³ and System Life Cycle Management (SLCM) policy.⁶⁴ In addition, EPA (1) completed independent validations for reasonableness for 10 ongoing development projects, (2) validated IT project manager qualifications, and (3) initiated a quarterly certification process for all major IT acquisitions to ensure there is no duplication with the President's E-Gov initiatives.⁶⁵

However, despite these efforts, more management control and oversight is necessary to ensure IT projects meet the performance standards established by the Office of Management and Budget (OMB).⁶⁶ In particular, EPA needs to take steps to ensure the following.

- High-risk IT projects do not exceed prescribed cost and schedule variances. Recently, EPA reported that 22 percent (4 of 18) of its current high-risk IT projects have cost and schedule variances over 10 percent.⁶⁷ Despite having qualified project managers for these investments, EPA has experienced: (1) schedule slippages in the Financial System Modernization Project acquisition process, (2) unforeseen schedule delays in system integration planning and testing of interfaces to the Defense Finance Accounting Service payroll system, and (3) a high number of unanticipated and significant technical and systems issues associated with the Agency's E-Travel migration. These problems have resulted in overall schedule variances of Agency systems ranging from 13 to 36 percent over planned milestones.⁶⁸
- EPA regional and program offices complete system life cycle documentation to guide the development of Agency systems, in a timely manner, as required by Agency policy. The OIG conducted follow-up work on EPA efforts to complete key system documentation for major environmental systems. This review showed that EPA offices do not prepare essential documentation as required by Agency policy. In particular, current audit work identified instances of missing or unapproved System Management Plans (SMP) for major environmental systems.⁶⁹ The SMP is the principal tool used by System Managers to control, assess, and document the system throughout the system life cycle process.⁷⁰ Although EPA is currently revising its SLCM procedures to address these issues, the Agency has not indicated when it will issue the new procedures.⁷¹ Inadequate system documentation prevents the OIG from assessing the reliability of the automated application processing controls in EPA's Integrated Financial Management System (IFMS). While EPA has made progress towards replacing IFMS, delays and the lack of documentation continue to result in a reportable condition in the Agency's financial statements.⁷²
- Earned Value Management procedures are strengthened. EPA has not finalized its draft November 2006 Earned Value Management (EVM) Procedures used to assist project managers in collecting and reporting on performance of major IT investments.⁷³ These procedures include (1) implementing modifications to EPA contracts that require the contractor to use EVM procedures and (2) validating the project's performance measurement baseline.⁷⁴

EPA's Response (Prepared by the Agency)

In its September 2005 report, "EPA Needs to Improve Oversight of Its Information Technology Projects," OIG noted that EPA has experienced system development and implementation problems and did not sufficiently oversee information technology (IT) projects to ensure they met planned budgets and schedules. In response to OIG's audit findings, EPA developed an action plan to enhance management control and oversight. The action plan calls for formally delegating the responsibility for independent oversight review, adding a question in the Capital Planning and Investment Control (CPIC) process focusing on System Life Cycle documentation and approvals, and further emphasizing the importance of reviewing solutions architecture documents. It also calls for revising the System Life Cycle Management Procedures and continued outreach and education for senior management and Senior Information Officials. While EPA's Chief Information Officer (CIO) has the lead for ensuring effective IT project

management, primary authority and responsibility lies with the senior manager in the office that owns the IT project, with appropriate oversight by the CIO.

Highlights of progress include:

- Received certification from program and regional Senior Information Officials that all IT acquisitions of \$2 million or more had undergone an E-Gov, Line of Business, and SmartBuy review.
- Ensured that program offices completed Earned Value Management (EVM) analysis and reporting for on-going development projects.
- Developed Enterprise Architecture Governance Procedures that require review, approval, and certification that solutions architectures are aligned with both federal and EPA enterprise architectures.
- Conducted outreach briefings for Agency Senior Information Officials, discussing CPIC and project management.
- Issued the draft Enterprise Architecture Program 2007 Architecture Development Standard and Guidance.

Plans for further improvements include:

- Finalize the draft Earned Value Management Procedures by the end of FY 2007.
- Continue to conduct outreach briefings with senior management.
- Conduct annual EVM program reviews with project managers.
- Continue to work with the appropriate office to ensure that EVM systems are included in contracts and to establish guidelines for project/program compliance and system certification.

Data Gaps

If EPA is to manage for results, it needs to decide what environmental and other indicators will be measured so that organizations responsible for delivering environmental programs identify, collect, and measure what is important. Ensuring that the right type of data is available for analysis is essential for effective environmental decision making. OIG audits and evaluations pointed out that data to measure program success are not always present.

While EPA has developed a comprehensive work plan to measure the performance of the National Environmental Exchange Network (Network), data necessary to measure progress in meeting key Network objectives have not been collected. Such performance measures would provide the baseline data necessary to measure the Network's performance over time. Without the key performance data, management is hindered in its efforts to ensure funds spent on electronic data collection initiatives provide the quality and quantity of environmental data necessary to improve program efficiency and effectiveness.⁷⁵

EPA and its partners also need to take steps to implement the numerous data requirements designed to provide better protection against the health risks of pesticides under the Food Quality Protection Act. Although EPA took some steps to collect required data for assessing the health risks of pesticides on children, significant data gaps remain. EPA needs to collect more data on aggregate exposure risk and take various steps to improve its cumulative risk assessments, including updating databases and expanding partnerships with other Federal organizations.⁷⁶

While extensive data have been collected on mercury emissions from coal-fired utilities, data gaps still exist with respect to understanding the effectiveness of specific controls in

reducing mercury emissions from coal. In a February 2005 study on the control of mercury emissions, EPA noted that there are data and science gaps associated with existing control technologies that are intended to reduce emissions of other pollutants (with the co-benefit of reducing mercury), as well as with emerging technologies specifically designed to reduce mercury emissions. These mercury emissions uncertainties, which EPA has not yet quantified, could impact the accuracy of the estimated utility emissions entered into EPA's atmospheric models and the resulting deposition estimates.⁷⁷

In 2006, an OIG audit revealed that data gaps exist regarding the management of hazardous waste units granted interim status under Subtitle C of the Resource Conservation and Recovery Act.⁷⁸ Undoubtedly, EPA must be creative and work collectively with States, tribes, territories, and industry to address many of these immense data gap problems. In its efforts to address these challenges, EPA implemented a process to identify and prioritize data gaps. This included coordinating the latest draft Report of the Environment (ROE) with the Agency's strategic planning and budgeting processes. In developing EPA's 2006-2011 *Strategic Plan*, National Program Managers considered the suite of ROE questions and indicators in an effort to help the Agency develop better environmental performance goals and measures. This effort also set out to help the Agency identify and set priorities for filling gaps in the information needed to manage programs. In the future, EPA must continue its plans to analyze and discuss the ROE indicator gaps and limitations. EPA also must continue to develop new, and strengthen existing, outreach programs to identify how and where EPA can leverage data collection efforts among its partners.⁷⁹

EPA's Response (Prepared by the Agency)

As part of its strategic planning, EPA continues to implement and refine processes to identify data gaps and to set priorities for addressing them. For example, the Agency is coordinating the draft Report of the Environment (ROE) with its strategic planning and budgeting process. As part of developing EPA's 2006-2011 Strategic Plan, national program managers (NPMs) considered the suite of ROE questions and indicators to help develop better environmental performance goals and measures and to identify and set priorities for filling gaps in the information needed to manage programs. NPMs were also required to develop preliminary strategies for improving performance measures to make them more environmental-outcome oriented. Each strategy identified priorities for filling key data gaps to meet the most critical needs and provided a brief recommendation on how to address critical gaps in program data.

Highlights of progress include:

- *Developed a pilot (endorsed by ICS) that assesses how the ROE and strategic planning efforts can best inform and support one another.*
- *Completed the Water pilot, as part of the ROE/SP pilots.*
- *Briefed the Indicators Steering Committee on the preliminary accomplishments of the ROE/SP Pilot.*
- *Implemented a comprehensive work plan to measure the performance of the Exchange Network.*

Plans for further improvements include:

- *Continue to further refine the process to identify and prioritize data gaps identified in the ROE as part of the Agency's Strategic Plan and budgeting planning processes.*

Privacy Program

With the increased scrutiny regarding the protection of personally identifiable information (PII), Federal agencies' privacy programs have become the subject of recent oversight by OMB.⁸⁰ EPA, like many agencies, has found it a challenge to remain focused on its privacy responsibilities and integrate privacy into the evolving nature of E-Government and other mandated privacy activities. EPA is currently in the process of re-establishing its Privacy Program (Program).⁸¹ However, recent OIG audit work discovered that EPA needs to implement a more comprehensive management control structure to govern and ensure its Privacy Program's success. In particular, EPA needs to strengthen its management controls over developing and distributing key privacy guidance, monitoring the effectiveness of the Program, and putting processes in place to measure the Agency's compliance with key privacy program tenets.⁸²

EPA needs to update the overarching policy that outlines the administration and management of the Program and establish a structure to ensure key privacy policies, procedures, and guidance are readily available to personnel responsible for implementation. The current Program policy is outdated and lacks the specificity needed for EPA offices to understand the Program's standards or the duties and responsibilities of those responsible for implementing the program. Furthermore, EPA needs to complete projects to develop a centralized location where key privacy guidance documents are accessible. EPA has indicated it plans to establish (1) an intranet site for posting privacy policies, procedures and guidance; and (2) a privacy liaison structure within each EPA office to ensure key documents are distributed. EPA indicated that it is currently updating the Privacy Program policy; however, the project intended to make key privacy guidance documents available on the Agency's intranet site is on hold, without any planned completion milestone date. Likewise, the Agency has not set a milestone date for establishing the envisioned privacy liaison structure.

EPA also needs to complete plans for ensuring compliance with the Agency's Privacy Program's policies and procedures,⁸³ and establishing an effective oversight process to perform compliance evaluations or inspections.⁸⁴ Like many of the Privacy Program provisions, establishing a monitoring process is still in the planning stage.⁸⁵ EPA's Privacy officials indicated they plan to monitor compliance by using the Privacy Program liaison structure, established at the program and regional office level. Privacy officials also plan to ensure that the Agency is not collecting unnecessary PII and that required forms have legally sufficient Privacy Act Statements. However, none of these activities has been initiated nor has a target date been set for their implementation.⁸⁶

In addition, EPA needs to continue its efforts to establish practices that will help Privacy Program managers effectively measure the success of the Program. Although the Agency's Privacy Program is still in the infancy stage, EPA needs to establish a formal plan with milestones to identify the activities to be performed and performance measures for assessing progress.

Managing an effective Privacy Program will require EPA to work closely with its program and regional offices to ensure they develop and implement a successful program, thereby meeting the requirements for protecting PII collected by the Agency. Although EPA is poised to meet this challenge, it needs an effective, yet flexible, management control structure to oversee what will be an evolving process. Furthermore, EPA needs to aggressively complete and implement key Privacy Program guidance and other vital planned activities.

EPA's Response (Prepared by the Agency)

EPA acknowledges that it faces challenges in establishing privacy programs, including revising and developing policies, establishing oversight and accountability, ensuring compliance, and measuring success. However, over the past year, EPA has made significant progress in integrating its privacy and security reporting responsibilities into its business processes.

In June 2006, the Agency established a Personal Identifiable Information (PII) Workgroup under the Quality Information Council to identify and implement short- and long-term actions to protect PII from unauthorized access and disclosure. The workgroup developed an action plan to ensure that key privacy initiatives are met and that the critical tenets of the privacy program are accomplished. The action plan, which includes milestones and expected outcomes, will help the Agency better understand its risks for PII breaches by knowing where its privacy collections are located, managed, and accessed and whether the Agency is storing and collecting unnecessary PII. EPA has already completed several critical activities within the action plan and will continue to monitor progress in this area.

Highlights of progress include:

- Reviewed the Agency's technical controls to ensure consistency with the National Institute of Standards and Technology (NIST) and OMB requirements*
- Prepared System of Records for new system (on-going)*
- Established and implemented guidance for preparing Privacy Impact Assessments on all new Agency systems (on-going).*
- Reviewed Agency privacy policies to ensure they address the controls identified by NIST.*
- Reviewed all Agency Privacy Act Systems of Records to determine which systems are remotely accessed, are downloaded, and/or collect sensitive PII, and whether stringent controls are required.*
- Reviewed and submitted draft language for the Agency's new telework policy to ensure that employees are aware of their responsibilities to protect PII when working offsite.*

Plans for further improvements include:

- Develop a privacy intranet website that will make privacy documents available to employees.*
- Continue to monitor progress to ensure the Agency is in compliance with NIST and OMB standards and/or requirements.*

IMPROPER PAYMENTS INFORMATION ACT OF 2002 REPORTING DETAILS

I. RISK ASSESSMENTS: To implement the Improper Payments Information Act of 2002 (IPIA) requirements, the Agency reviewed and sampled disbursements made in the highest risk susceptible inventories. EPA determined that its programs did 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 was 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 0.30 percent over a five-year period. By the end of FY 2005, EPA surpassed the FY 2008 target of 0.30 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	0.49 percent
2005	\$2.0 billion	\$3.0 million	0.15 percent
2006	\$2.3 billion	\$3.5 million	0.15 percent
2007	\$2.3 billion (est.)	\$1.64 million	0.07 percent

II. STATISTICAL SAMPLING PROCESS: Based on having low error rates and less than \$10 million in erroneous payments for two consecutive years (FY 2005 - 2006), OMB has approved relief from annual statistical sampling and reporting requirements for the Clean Water and Drinking Water SRF Programs. EPA will need to conduct a risk assessment on these programs in three years (FY 2010), or may be required to re-initiate measurement activities if there are any substantial changes to the program (legislation, funding, etc.) that may impact payment accuracy.

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 above, EPA was granted relief from annual statistical sampling of direct and subrecipient SRF payments. Since FY 2006, the Agency tracks erroneous payments by grant recipient in the Grantee Compliance Database.

During FY 2005, EPA 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. Nineteen of the non-profit grantee reviews identified potential erroneous payments. In FY 2006, the Agency completed its risk-based judgmental CY 2005 sample of 99 non-profit recipient reports - 24 identified potential erroneous payments. Results of both years are provided in the table below. Additionally in FY 2006, EPA introduced a new statistical sampling approach for the review of CY 2006 non-profit grantee monitoring/audit reports for erroneous payments.

EPA will report updated information on the appeal process results (costs still in recipient appeal) in the FY 2008 PAR. The Agency also reports on these results for the Improved Financial Management Initiative of the President's Management Agenda.

Non-Profit Grantees Review/Audit Results	CY 2004 Review	CY 2005 Review	CY 2006 Review
All potential erroneous payments cited	\$650,799	\$1,016,967	\$563,195
Questioned costs determined allowable	\$224,977	\$217,418	\$64,597
Actual erroneous payments (unallowable costs)	\$18,755	\$57,791	\$10,476
Costs that have been recovered	\$18,755	\$57,791	\$10,476
Costs still in recipient appeal process	\$407,067	\$656,243	\$488,122
Percent of erroneous payments	0.21 percent	0.29 percent	0.036 percent

B. Contracts: EPA continues to take appropriate action as needed to reduce or eliminate improper payments. The appropriate Contracts Officer Representatives or On Scene Coordinators are notified of all improper payments discovered. In January 2003, EPA implemented a monthly Improper Contracts Payment Report. The report captures the number of improper payments per month and provides information on each improper payment including the reason and recovery status. In FY 2006, the Agency received final Recovery Audit Report – the audit reviewed 376,000 small purchase and contract payment transactions worth \$6.5 billion. The Audit Recovery contractor reviewed 100,471 contract payments totaling \$4.3 million and found only 4 erroneous payments (a 0.01 percent error rate). EPA has addressed all audit recommendations cited in the Recovery Audit Report.

Results of EPA's Improper Contract Payments Report

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
2006	25 (of 28,098)	\$406.5	0.03 percent
2007	14 (of 29,828)	\$65.3	0.01 percent

- * FY 2003 only included data from January through September.
- For all five years, all erroneous payments were fully recovered.

Based on EPA's excellent performance and effective controls, the Agency does not plan future externally conducted recovery audits – a formal Recovery Audit is not cost effective for the contractor who is paid based on erroneous payments found/recovered. The Agency will continue using the monthly Improper Contracts Payment Report as the tool for monitoring contract payments.

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 commodity payments were included in the FY 2006 completed Recovery Audit described above in Section III. B. Contracts. The Recovery Audit contractor

reviewed 275,185 invoices paid totaling \$2.2 million and found 31 improper payments (less than 0.01 percent error rate). The improper commodity payments were attributed to product returns not deducted, duplicate payments due to keypunch errors and vendor number errors, cash discounts not taken, and state and local tax exemptions not taken. As of January 2006, the Agency consolidated its commodity payments operation to one Finance Center. The consolidation achieves a higher degree of internal control, consistency and oversight. The consolidation plus several other corrective actions addressed the Recovery Audit Report recommendations. In preparation for replacing the core financial system, EPA reviewed the vendor file to ensure the accuracy of all vendor codes.

The Agency implemented a commodities payment tracking mechanism in January 2004 to gather improper payment data. This tracking system provides the data for a monthly Improper Commodities Payment Report which includes information on each improper payment. Given the low rate of erroneous payments, EPA does not plan future externally conducted recovery audits – a formal Recovery Audit is not cost effective for the contractor who is paid based on erroneous payments found/recovered. The Agency will continue using the monthly Improper Commodities Payment Report as the tool for monitoring these payments.

Results of EPA’s Improper Commodity Payments Report

Fiscal Year	Number of Erroneous Payments	Erroneous Payments (Dollars in Thousands)	Error Rate for Dollars
2005	40 (of 42,698)	\$416.0	0.17 percent
2006	102 (of 50,665)	\$695.5	0.23 percent
2007	63 (of 45,859)	\$176.5	0.06 percent

D. Payroll: By December 31, 2004, the Payroll Workgroup completed a comprehensive review of internal controls and submitted recommendations to reduce improper payments. Additionally, in FY 2005, the workgroup developed a corrective action plan/best practices. EPA implemented these corrective actions before the Agency transferred the payroll disbursement function to the Department of Defense in May 2006. EPA now benefits from the combination of both agencies’ internal controls.

E. Travel Card/Purchase Card: The Agency continues to monitor the travel and purchase charge card transactions in accordance with the Agency policies and procedures. In addition, EPA monitors the issuance of purchase cards to ensure that spending limits and span of control are kept to a minimum. The Agency implemented a monitoring program that requires each of the Senior Resource Officials to perform biennial reviews of the purchases made within their program offices. These reviews ensure the integrity of the purchase card program. EPA continues to use the additional controls implemented under the FY 2006 Katrina Stewardship plan:

- Notify card holder’s approving official via email for each purchase – daily;
- Conduct reviews within 60 days of transactions; and
- Review Agency Atypical Report which identifies airline ticket purchase without authorizations.

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)	0.49	\$10.3	\$1,963 (actual)	0.45 target 0.15 actual	\$3.0	\$2,303 (actual)	0.40 target 0.15 actual	\$3.5	\$2,344 (est.)	.035 target 0.07 actual	\$1.6	\$1,565 (est.)	0.30	\$4.7 (est.)

V. RECOVERY AUDIT PROGRAMS: The Agency hired a contractor, Business Strategy, Inc (BSI), to conduct the recovery audit. BSI provided their final report and recommendations in FY 2006. As reported above in the Contracts and Commodities sections, BSI did not uncover any material transactions that were erroneously paid.

During FY 2006, EPA implemented cost effective corrective actions to address BSI recommendations. These actions strengthened payment processes and internal controls to help prevent further occurrences.

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 semi-annually 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. Similar monitoring through reports is done for the contracts and commodities payment areas.

VII. INFORMATION SYSTEMS AND INFRASTRUCTURE: The Agency's information systems are sufficient to reduce improper payments to targeted levels.

VIII. STATUTORY AND REGULATORY BARRIERS: None.

IX. CONCLUSIONS: EPA met all of the requirements and received a Green Status on Eliminating Improper Payments as of June 30, 2006. In FY 2006, the Agency demonstrated a low level of risk for the SRF programs through statistical sampling of direct payments, targeted state reviews, statistical sampling of subrecipient payments in two states, and analysis of subrecipient payments in Texas Single Audit Act report. In FY 2007, based on the guidelines contained in Appendix C to OMB Circular A-123, Part I, Section K (program has documented a minimum of two consecutive years of improper payments that are less than \$10 million annually), EPA requested relief from the annual statistical sampling and reporting requirements of the IPIA for the Clean Water and Drinking Water SRFs. On October 5, 2006, OMB granted the Agency's request to waive statistical testing of SRF transactions for fiscal years 2007-2009. EPA will be required to resume statistical assessment and report on the SRF programs in the FY 2010 PAR. OMB's approval of the three-year waiver is contingent on no significant legislative or programmatic changes, significant funding increases and/or any change that would result in substantial program impact. If such changes occur, the Agency must reinstate risk assessments and comply with IPIA reporting requirements if there is significant risk of improper payments occurring.

For FY 2008, EPA committed to the following activities:

- Report on improper payments in the PAR;
- Continue to monitor commercial payments to ensure accuracy and characterize monitoring efforts annually in the PAR; and
- Brief OMB, as needed, depending on program changes, legislative and/or funding revision, or anything that development from EPA's monitoring.

¹ This completion date is based on various assumptions about the future and, therefore, any changes to the assumptions would impact the schedule. For example, OECA is assuming that no major changes to the design of ICIS will be required for the batch states. This scenario assumes FY 2008 and FY 2009 extramural funding for ICIS at the President's budget level of \$6.7 million. For FY 2010 and beyond it is assumed that annual funding will rise to \$7.5 million. If the Agency assumes the President's budget level of \$6.7 million continues in FY 2010 and beyond, the schedule will likely move five or more quarters into the future, with a shut down date for PCS delayed until 2015. Further, as with any project, extended timelines for completion add risk to the project, and predictions about when the project will be completed become more speculative.

² PART results – Source OMB Website Expect More.Gov and OIG analysis of PART results.

³ PART results – Source OMB Website Expect More.Gov and OIG summary of PART results.

⁴ OIG conclusion based on PART results.

⁵ PART results – Source OMB Website Expect More.Gov and OIG analysis of PART results.

⁶ EPA, OPEI, ESD website, Developing Program Evaluation Capacity <http://www.epa.gov/evaluate/about_environe.htm>

⁷ Office of Administrator Functional Statement, 14-16.

⁸ Information provided by OPEI in response to an OIG questionnaire on EPA's program evaluation activities, w/p J-6.2a-1 (question 9) for the Macro Risk Assessment Assignment 2007-520.

⁹ Information provided by OPEI in response to an OIG questionnaire on EPA's program evaluation activities, w/p J-6.2a-1 (question 9) for the Macro Risk Assessment Assignment 2007-520.

¹⁰ OIG conclusion.

¹¹ *2006-2011 EPA Strategic Plan, Charting Our Course.*

¹² OIG Conclusion based on PART analysis and program evaluation analysis.

¹³ Office of Environmental Information (OEI) FY 2005 Integrity Act Report, *Implementation of Data Standards*, Attachment 2, Page 2, regarding OEI's weaknesses for an October 5, 2005, Management Integrity Meeting.

¹⁴ U.S. Environmental Protection Agency *Performance and Accountability Report*, Fiscal Year 2005, Appendix C, Data Quality, C18.

¹⁵ *Promising Techniques to Improve Drinking Water Laboratory Integrity and Reduce Public Health Risk*, OIG Report No. 2006-P-00036, September 21, 2006.

¹⁶ U.S. Environmental Protection Agency *Performance and Accountability Report*, Fiscal Year 2005, Appendix C, Data Quality, C18.

¹⁷ U.S. Environmental Protection Agency *Performance and Accountability Report*, Fiscal Year 2005, Appendix C, Data Quality, C18.

¹⁸ *Lessons Learned: EPA's Response to Hurricane Katrina*, OIG Report No 2006-P-00033, September 14, 2006.

¹⁹ *EPA Summary of Emissions Factors Improvements Projects Fact Finding Survey*, June 2004, 1.

²⁰ GAO Report No. GAO-01-46 *EPA Should Improve Oversight of Emissions Reporting by Large Facilities*, April 2001, 3.

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- ²¹ EPA *Summary of Emissions Factors Improvements Projects Fact Finding Survey*, June 2004, table 2.
- ²² EPA *Can Improve Emissions Factors Development and Management*, At a Glance.
- ²³ OIG Report No. 2006-P-00017, 15-24.
- ²⁴ OIG Report No. 2006-P-00017, 15-24; Memorandum: Inspector General’s Candidates for Fiscal 1996 Weaknesses, To: Sallyanne Harper, Acting Chief Financial Officer, Attachment 2.
- ²⁵ EPA *Can Improve Emissions Factors Development and Management*, OIG Report No. 2006-P-00017, At a Glance.
- ²⁶ OIG Report No. 2006-P-00017, At a Glance.
- ²⁷ OIG Report No. 2006-P-00017, At a Glance.
- ²⁸ “Procedures for Preparing Emission Factor Documents,” EPA-454/R-95-015 revised, Office of Air Quality Planning and Standards, Office of Air and Radiation, U.S. Environmental Protection Agency, November 1997,.8; Introduction to AP-42, Volume 1, Fifth Edition – January 1995, 4-5.
- ²⁹ *3.0 Options for Revising Factor Quality Assessment* prepared by MACTEC for Emission Factors and Policy Application Group, EMAD, OAQPS, OAR, August 2004, 2-4.
- ³⁰ E-mail Response from Indiana Department of Environmental Management, September 22, 2005.
- ³¹ E-mail Response from Indiana Department of Environmental Management, September 22, 2005.
- ³² EPA *Can Improve Emissions Factors Development and Management*, OIG Report No. 2006-P-00017, 32.
- ³³ Document prepared for OIG, by Emission factors and Policy Application Group, EMAD, OAQPS, OAR, January 6, 2005; OIG Report No. 2006-P-00017, 35.
- ³⁴ OIG Report No. 2006-P-00017, 35, note 1.
- ³⁵ EPA Science Advisory Board “Minutes from the EPA Science Advisory Board Risk and Technology Review Consultative Panel Public Teleconference”, December 19, 2006 3; http://www.epa.gov/sab/panels/consul_risk_and_tech_assessment_plan.htm>.
- ³⁶ OIG Report No. 2006-P-00017, 26, 35, note 1.
- ³⁷ OIG Report No. 2006-P-00017, 25.
- ³⁸ OIG Report No. 2006-P-00017, 25.
- ³⁹ EPA’s Office of Air Quality Planning & Standards, *The OAQPS Quality Management Plan*, October 2006; <<http://oaqpswww.epa.gov/oaqpsprograms/oaqpsqual.html>>.
- ⁴⁰ EPA’s Office of Air Quality Planning & Standards, *The OAQPS Quality Management Plan*, October 2006, section 1, fifth paragraph; <<http://oaqpswww.epa.gov/oaqpsprograms/oaqpsqual.html>>.
- ⁴¹ Emissions Factors and Policy Applications Center, *Emissions Factors and Policy Application Center Highlights for 2006*, January 2007; <<http://www.epa.gov/ttn/chief/efpac/efpachilites.html>>.
- ⁴² OIG Report No. 2006-P-00017, At a Glance.
- ⁴³ OIG Report No. 2006-P-00017, 17-19, 23–25: OIG opinion.
- ⁴⁴ U.S. EPA Strategic Workforce Plan FY 2006, March 2006.
- ⁴⁵ The President’s Management Agenda, Fiscal Year 2002, 11-15.
- ⁴⁶ EPA Performance Accountability Report,205-206.

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- ⁴⁷ EPA Performance Accountability Report, 205-206.
- ⁴⁸ E-mail correspondence from OARM/OHR/HCMD/HCPB, March 14, 2007, March 19, 2007, March 20, 2007, and March 26, 2007; EPA Human Capital Management FY07 Q2 Scoring Preliminary Summary; EPA Human Capital FY01 Q1 Summary (Talent/Strategic Alignment, Item #4a); EPA Mission Critical Occupations Selection Report, September 2006.
- ⁴⁹ E-mail correspondence from OARM/OHR/HCMD/HCPB, March 21, 2007; Strategic Workforce Planning Handout from OARM's October 24, 2006 Human Resource Council Meeting; Human Capital PMA Talking Points for the Deputy Administrator December 7, 2006.
- ⁵⁰ EPA Performance Accountability Report, 205-206.
- ⁵¹ EPA Performance Accountability Report, 205-206.
- ⁵² EPA Everyday Choices: Opportunities for Environmental Stewardship, December 2005.
- ⁵³ EPA [Innovating for Better Environmental Results: A Strategy to Guide the Next Generation of Innovation at EPA](#), April 2002.
- ⁵⁴ *Partnership Programs May Expand EPA's Influence*, OIG Report No. 2007-P-00003, At a Glance.
- ⁵⁵ *Performance Track Could Improve Program Design and Management to Ensure Value*, OIG Report No. 2007-P-00013, At a Glance.
- ⁵⁶ Environmental Protection Agency 2008 Annual Performance Plan and Congressional Justification, <<http://www.epa.gov/ocfo/budget/2008/stag.pdf>>
- ⁵⁷ *Much Effort and Resources Needed to Help Small Drinking Water Systems Overcome Challenges*, OIG Report No. 2006-P-00026.
- ⁵⁸ *EPA's Allowing States to Use Bonds to Meet Revolving Fund Match Requirements Reduces Funds Available for Water Projects*, OIG Report No. 2007-P-00012.
- ⁵⁹ E-mail from OEI, *Total Dollars for Major IT Investments in the Development Phase of the System Life Cycle*, March 31, 2006.
- ⁶⁰ GAO Report No.06-184, *Financial Systems Modernization*, March, 2006, 3.
- ⁶¹ GAO Report No. GAO/AIMD-96-64, *Information Technology Investment - Agencies Can Improve Performance, Reduce Costs, and Minimize Risks*, September 1996, 4-5.
- ⁶² *EPA Needs to Improve Oversight of Its Information Technology Projects Report*, OIG Report No. 2005-P-00023, September 14, 2005, 4-5.
- ⁶³ EPA Operational Analysis Guidance, Version 1.0, April 21, 2006 <<http://intranet.epa.gov/cpic/evm/cpic-oa-guidance-o42106.doc>>.
- ⁶⁴ System Life Cycle Management (SLCM) Policy <<http://intranet.epa.gov/oei/imitpolicy/qic/ciopolicy/2100.5.pdf>>.
- ⁶⁵ E-mail from EPA official, April 7, 2007, responding to OIG 2006 management challenge memo.
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- ⁶⁷ E-mail from EPA representative, March 29, 2007, with attached EPA FY07 2nd Qtr High Risk Report.
- ⁶⁸ E-mail from EPA representative, March 29, 2007, with attached EPA FY07 2nd Qtr High Risk Report.
- ⁶⁹ OIG Interview with EPA Program Office on March 15, 2007.
- ⁷⁰ System Life Cycle Management Procedure <http://intranet.epa.gov/otop/policies/Extended_DraftProcedures.pdf>.
- ⁷¹ System Life Cycle Management Procedure.

⁷² *Audit of EPA's Fiscal 2006 and 2005 Consolidated Financial Statements*, OIG Report No. 2007-1-00019, November 15, 2006, Attachment 3.

⁷³ EPA Earned Value Management Procedures < <http://intranet.epa.gov/cpic/evm/evm-procedures-draft.doc>>.

⁷⁴ E-mail from OEI official, April 7, 2007, responding to OIG 2006 management challenge memo.

⁷⁵ *Improved Management Practices Needed to Increase Use of Exchange Network (Discussion Draft Audit Report)* OIG Audit Report Assignment No. 2006-000212, dated April 2007.

⁷⁶ *Opportunities to Improve Data Quality and Children's Health through the Food Quality Protection Act*, OIG Report No. 2006-P-00009, January 10, 2006.

⁷⁷ *Monitoring Needed to Assess Impact of EPA's Clean Air Mercury Rule on Potential Hotspots*, OIG Report No. 2006-P-00025, May 15, 2006.

⁷⁸ *EPA's Management of Interim Status Permitting Needs Improvement to Ensure Continued Progress*, OIG Report No. 2007-P-00005, December 4, 2006.

⁷⁹ *EPA's Responses to Major Management Challenges 08 CJ, Final*, February 2, 2007.

⁸⁰ Office of Management and Budget Memorandum M-06-15, *Safeguarding Personally Identifiable Information*, May 22, 2006.

⁸¹ Office of Environmental Information Functional Statement, Office of Information Collection, Records, FOIA, and Privacy Branch.

⁸² Review of EPA's Protection of PII & Privacy Program, Audit No. 2007-175, Working Paper M-3, regarding *Summarization of Macro-Risk Assessment Objective-3 Policy – Privacy*.

⁸³ Review of EPA's Protection of PII & Privacy Program, Audit No. 2007-175, Working Paper I-1, regarding *Privacy Program--Policy Evaluation*.

⁸⁴ Review of EPA's Protection of PII & Privacy Program, Audit No. 2007-175, Working Paper K-1, regarding *Privacy Program--Monitoring Evaluation*.

⁸⁵ Review of EPA's Protection of PII & Privacy Program, Audit No. 2007-175, Working Paper K-1, regarding *Privacy Program--Monitoring Evaluation*.

⁸⁶ Review of EPA's Protection of PII and Privacy Program, Audit No. 2007-175, Working paper M-2, regarding Documentation of Privacy Interview Responses.



*EPA's FY 2007
Performance and Accountability Report*

**Appendix A – Program Evaluations Completed in
FY 2007**

This document is one chapter from the "Fiscal Year 2007 Performance and Accountability Report, U.S. Environmental Protection Agency," (EPA-190-R-07-001), published on November 15, 2007. This document is available at: <http://www.epa.gov/ocfo/par/2007par>.

APPENDIX A – PROGRAM EVALUATION

EPA relies on program evaluations and analyses to inform decisions, design effective strategies, and adjust approaches to improve results. Appendix A lists and summarizes information for each program evaluation completed in FY 2007. It includes evaluations that apply to a specific goal and objective, which are presented in the *Performance Results* section. Appendix A lists evaluations by goal and objective, and provides information on the evaluator; scope of the evaluation; relevant findings; and recommendations.

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
1	ENERGY STAR Program Can Strengthen Controls Protecting the Integrity of the Label/U.S. EPA Office of Inspector General/The evaluation sought to determine how effectively EPA is managing the ENERGY STAR product labeling program. Specific questions were whether EPA ensures consumer product specifications are sufficient, the extent EPA verifies ENERGY STAR label is properly earned.	The criteria for revising specifications were unclear and not documented. It was not evident when or what factors would trigger a specification revision. Furthermore, EPA does not have reasonable assurance that the self-certification process is effective. EPA relies on some alternative verification mechanisms, but lacks any quality assurance or review of reported results. The Agency's verification testing also lacks a clear documented methodology governing products selected for verification tests and does not test for statistically valid results. Consequently, product efficiency and energy savings reported by manufacturers are, for the most part, unverified by EPA review. The IG found little oversight in using the ENERGY STAR label in retail stores, which is commonly the purchase point for consumers. Manufacturers may label and sell products as ENERGY STAR qualified prior to submitting test results to the Agency.	The IG recommended that EPA should strengthen management controls to protect the integrity of the ENERGY STAR label. EPA should : (1) clarify and document the criteria for product specification revisions; (2) establish a quality assurance program for its verification program; (3) improve its oversight of the ENERGY STAR label by establishing a systematic methodology and procedures for monitoring, resolving and following up on label misuse.
1	EPA's Oversight of the Vehicle Inspection and Maintenance Program Needs Improvement/U.S. EPA Office of Inspector General/The evaluation's objective was to determine whether selected Inspection and Maintenance	A nation-wide survey of all 10 regions covering 34 I/M programs indicate that EPA has not been obtaining sufficient information to ensure that states are meeting their I/M program commitments. In the last five years (1999-2004), 11 of the 34 I/M programs	Obtain and evaluate all required I/M reports to ensure that the programs are operating effectively, and follow up with States on significant issues identified. Provide more technical assistance and guidance to States, and work with State

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
	(I/M) programs have been effective in identifying poorly performing vehicles, ensuring they are adequately repaired and achieving emissions reductions. Also, has EPA oversight resulted in I/M programs achieving their goals in a timely manner?	submitted timely reports, 14 programs had either never submitted the required reports or the regions were unsure whether the submission had occurred and 4 programs submitted reports 1-2 years late. The remaining 5 programs had mixed reports. Also EPA regions only audited/evaluated 9 of the 34 I/M programs and EPA reduced resources for overseeing and assisting I/M programs. As a result, EPA does not have reasonable assurance that emission reductions claimed by some I/M programs have been achieved.	I/M programs to follow up on vehicles with no known final outcome to a degree proportional with the problem. State I/M programs should share databases to help verify the outcome of vehicles that failed their I/M tests.
2	Better Enforcement Oversight Needed for Major Facilities with Water Discharge Permits in Long-Term Significant Noncompliance/U.S. EPA Office of Inspector General / The review assessed oversight of major facilities in long-term significant noncompliance (SNC) with National Pollutant Discharge Elimination (NPDES) permits. The review was conducted to determine how well EPA is ensuring timely and appropriate enforcement actions are taken against NPDES facilities in long-term SNC and what excess pollutant loads could be minimized if facilities in long-term SNC achieved compliance.	EPA did not provide effective enforcement oversight of major facilities with National Pollutant Discharge Elimination System permits in long-term significant noncompliance. While flexibility is required in a national program, EPA inconsistently applied guidance defining timely formal actions. In addition, EPA and States also did not maintain complete and accurate records of National Pollutant Discharge Elimination System compliance and enforcement activities. Many region and State files were incomplete, and data in EPA's information systems were incomplete and inaccurate. Further, regions and States did not report inspection-related violations in EPA's Permit Compliance System.	The Assistant Administrator for the Office of Enforcement and Compliance Assurance should clarify and implement guidance regarding facilities in significant noncompliance, implement a quality assurance program, and establish controls allowing EPA leadership to identify significant noncompliance by bacteria-only violators.
2	Total Maximum Daily Load Program Needs Better Data and Measures to Demonstrate Environmental Results/ U.S. EPA Office of Inspector General (OIG)/The review was conducted to	EPA does not have comprehensive information on the outcomes of the Total Maximum Daily Load (TMDL) program nationwide, nor national data on TMDL implementation activities. EPA's lack of	The OIG recommends that the Assistant Administrator for the Office of Water: (1) require EPA's Regional offices to ensure that the National TMDL Tracking System is complete; (2) report information on

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
	<p>identify areas ripe for evaluation in the Total Maximum Daily Load (TMDL) program. The TMDL's program data and performance measures were the focus of this preliminary evaluation.</p>	<p>information prevents the Agency from determining if TMDL implementation activities are occurring in a timely manner, and the extent to which TMDL effluent limits are restoring impaired waters. EPA needs to provide more management direction to improve its ability to assess how well this critical program is functioning. The TMDL and surface water quality performance measures the OIG reviewed do not provide clear and complete metrics of the program's accomplishments.</p>	<p>TMDL implementation activities and on the water quality improvements associated with TMDLs; (3) clarify terminology, and activities included in TMDL development, and the surface water program's efficiency and effectiveness measures.</p>
2	<p>Great Lakes: EPA and States Have Made Progress in Implementing the BEACH Act, but Additional Actions Could Improve Public Health Protection /U.S. Government Accountability Office/The purpose was to assess: (1) the status of BEACH Act implementation by EPA, (2) the status of monitoring and notification programs developed by Great Lake states, and (3) the effect of the BEACH Act on water quality monitoring and contamination at Great Lakes beaches.</p>	<p>GAO found that EPA has taken steps to implement most of the provisions of the BEACH Act but has missed statutory deadlines for two critical requirements: (1) completing pathogen and human health studies required by 2003, and (2) publishing new or revised water quality criteria for pathogens required by 2005. Moreover, GAO believed that the formula EPA uses to distribute the BEACH Act grants does not accurately reflect the monitoring needs of the states.</p>	<p>GAO recommends that EPA distribute grant funds in a way that reflects states' monitoring needs and help states improve the consistency of their monitoring and notification activities. In addition, Congress should consider providing EPA more flexibility to allow states to use BEACH Act grants to investigate and remediate contamination sources.</p>
2	<p>Mid-cycle Review of the Office of and Research and Development's Drinking Water Research Program at the Environmental Protection Agency/EPA's Board of Scientific Counselors (BOSC)/Questions to the panel included: (1) Does the proposed structure for the revised Drinking Water Multi-year Plan (MYP) provide a</p>	<p>The Drinking Water Mid-cycle subcommittee members unanimously agree that the DWRP exceeds expectations in meeting its goals, Its science is more than competent and of high quality. Products are timely and milestones are largely met. The subcommittee is supportive and favorably impressed the the DWRP revisions of the Long-term goals (LTGs) and the formation of</p>	<p>Recommendations are to (1) finale the MYP as soon as possible; (2) pursue strategic planning on several levels, including: research prioritization; resource procurement and allocation; maintaining and promoting a leadership agenda; integration of emerging environmental concerns; (3) facilitate intra-agency communication and</p>

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
	coherent framework for addressing priority research needs?; (2) How meaningful are the program's performance metrics for assessing the impacts of the program's research?; (3) What has been the progress made by the Drinking Water Research Program in moving the program forward in response to recommendations from previous comprehensive BOSC review?	5 Multi-year plan (MYP) thematic areas to direct research critical to the regulatory drivers of the LTGs. The DWRP has been very responsive to the majority of concerns and comments expressed in the 2005 BOSC program review.	evaluation; (4) Investigate, refine and apply bibliometric and client analyses and surveys.
2	EPA's Allowing States to Use Bonds to Meet Revolving Fund Match Requirements Reduces Funds Available for Water Projects/U.S. EPA Office of Inspector General/The purpose was to determine how EPA policies have impacted State Revolving Funds (SRF) and the related water infrastructure funding gap. Also, the study was to determine the financial impact of EPA's policy allowing states to use bonds repaid from SRF interest to meet the SRF match requirement.	The IG found 20 states used the match bond authority at some time during the history of the SRF program. This has reduced the total amount of funding available for water projects.	The IG recommends EPA to revise its policy allowing states to use bonds repaid from SRF to meet the match requirement.
2	Voluntary Programs Could Benefit from Internal Policy Controls and a Systematic Management Approach/U.S. EPA Office of Inspector General (OIG)/The purpose of the evaluation was to identify current voluntary program management challenges and determine whether: (1) EPA has consistent Agency-wide policies that govern voluntary	EPA has no Agency-wide policies that require voluntary programs to collect comparable data or conduct regular program evaluations. Therefore, there can be no determination of overall environmental impact. EPA lacks internal controls that outline specific ways to determine the success or failure of EPA's overall voluntary program effort. Recent changes to voluntary program definitions, thereby expanding the	The OIG recommends that the Deputy Administrator provide the Associate Administrator for the Office of Policy, Economics, and Innovation with the authority to develop, implement, and oversee mandatory Agency-wide management policies for voluntary programs. Further, those mandatory policies should implement a systematic management approach similar to a

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
	<p>programs; (2) EPA's definitions of voluntary programs are understood by its staff and the public; and (3) EPA has the necessary processes to consistently develop, test, and review these programs.</p>	<p>scope of the population, has caused confusion and difficulty for EPA program offices. EPA does not have a system to develop, test, and market new programs. EPA also lacks a system to evaluate existing programs. Further, EPA lacks a systematic method to design, evaluate, and model programs that are effective at achieving environmental results.</p>	<p>research and development model, and develop specific definitions or criteria that outline the general intent and function for the groups or categories of EPA voluntary programs that are currently implemented.</p>
3	<p>Comprehensive Procurement Guidelines (CPG) Program Evaluation/OSW/MISWD/MIAB with contractor support (Indtai, Inc.)/The evaluation reports on the effectiveness of the Comprehensive Procurement Guidelines (CPG) program in: (1) promoting the use of recovered materials and recycled products in government procurement; and (2) increasing demand and expanding markets for these products. The evaluation identified what the government buys to identify gaps or potential areas for future product designation. It explored the impact CPG has had on stimulating the marketplace for a few high-profile, early-designated products, and identified factors that influenced market dynamics.</p>	<p>Overall, the CPG program has been effective at promoting the availability of recycled content products.</p>	<p>Much has changed within the Federal government and the marketplace since the program first began. Now may be the time to reconsider the role of CPG in "green procurement," waste minimization, and reduction. However more can be done by: Targeted promotion of awareness of the CPG program for Federal Agencies; reviewing and streamlining EPA's CPG database of suppliers; simplifying access and program information on CPG products; working with other Agencies to create clear priorities in procurement requirements.</p>
3	<p>EPA Has Improved Five Year Review Process for Superfund Remedies, But Further Steps Needed/U.S. EPA Office of Inspector General /The purpose of the evaluation was to</p>	<p>EPA has taken actions to improve the five-year review process, including issuing the Comprehensive Five-Year Review Guidance, providing training, and reducing the review backlog. While these actions</p>	<p>EPA should: (1) expand the scope of quality assurance reviews of five-year review reports; (2) revise guidance to clearly define short- and long-term protectiveness determinations and to</p>

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
	<p>determine whether EPA has improved the quality, completeness, and timeliness of the five-year review and what impact the review process has had on remedies at Superfund sites. The IG evaluated a random sample of 39 five-year review reports issued between FYs 2002-2004</p>	<p>have resulted in improvements, EPA needs to take additional steps to better support and communicate conclusions, continue to improve review timeliness, and provide fuller assurance that cleanup actions are protective of human health and the environment. The random sample showed that 21% of the reviews did not fully support their protectiveness conclusions, 21% did not provide complete protectiveness conclusions, 21% did not have sufficient information to implement recommendations, and 23% did not meet public notification requirements.</p>	<p>include specific requirements for conducting and documenting quality assurance reviews of FYRs; (3) communicate to the regions the need for public notification for the commencement and completion of FYRs and protectiveness conclusions that address each operable unit at a site; (4) evaluate annual FYR workloads and available resources as part of the annual planning process with the regions; (5) monitor the status of FYRs and recommended corrective actions established by completed reviews using the CERCLIS module and ensure they are completed by the specified due dates; (6) Use the CERCLIS to measure the effectiveness and impacts of the FYR program, such as measuring timeliness of review, number of reviews with and without protectiveness issues, timeliness of implementing corrective actions addressing protectiveness issues and actual/potential results from implementing corrective actions.</p>
3	<p>EPA Needs to Take More Action in Implementing Alternative Approaches to Superfund Cleanups/U.S. EPA Office of Inspector General/The purpose was to evaluate EPA's Superfund Alternative approach to clean-up hazardous waste sites.</p>	<p>EPA has not implemented effective management tools or controls for the SA approach. The OIG found that EPA has not finalized the universe of SA sites, does not have controls over designating SA sites in Superfund information systems or documenting hazard assessments for SA sites, and only measures results at SA sites for one of six Superfund cleanup measures.</p>	<p>EPA should track and report cleanup progress at SA sites, and improve its communications, information, and transparency about the SA approach.</p>

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
3	EPA's Management of Interim Status Permitting Needs Improvement to Ensure Continued Progress/U.S. EPA Office of Inspector General /The purpose of the evaluation was to evaluate the effectiveness of granting "interim status" in regulating hazardous waste units under RCRA and of the information management system (RCRA) in tracking permit information for interim status units.	The OIG found that Interim Status is a temporary designation, but some units have existed for as many as 25 years without formal issuance or denial of a permit, or other regulatory controls. Under the Government Performance and Results Act (GPRA), EPA has a RCRA National Permitting Goal to ensure that all units at hazardous waste facilities have "controls in place." EPA includes Interim Status units in this goal, and the Agency's data indicate that it has made progress in ensuring controls are in place at interim status units. As of 2005, EPA had attained the "controls in place" designation for 89 percent of RCRA hazardous waste facilities. However, EPA's continued progress may be compromised because (1) the Agency has not sufficiently documented some changes to the baseline it uses to measure progress; (2) EPA does not prioritize its National Permitting Goal activities according to the potential risks posed by hazardous waste facilities or units, including the amount of time a unit may have been operating without required controls; (3) EPA does not monitor the creation of "new" interim status units in its reporting and tracking system (RCRAInfo); and (4) RCRAInfo lacks other system controls to protect data integrity and data quality, which may lead to the loss of historical information needed to track permit status. Despite data quality problems, RCRAInfo data are available for public use without appropriate disclaimers.	To ensure valid progress in achieving "controls in place" at interim status units, the Assistant Administrator for Solid Waste and Emergency Response should implement a process to document changes to the GPRA National Permitting Goal baseline; review State GPRA National Permitting Goal projections for 2008 and 2011 to identify opportunities for prioritizing facilities based on risk, including time in interim status; oversee the designation of "new" interim status units in RCRAInfo; implement RCRAInfo system controls to ensure data integrity and improve data quality; and provide a disclaimer on data released publicly from RCRAInfo until data quality controls are in place.

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
3	<p>Leaking Underground Storage Tanks: EPA Should Take Steps to Better Ensure the Effective Use of Public Funding for Cleanups/Government Accountability Office/In FY 2005 Congress asked GAO to conduct a study of the (1) states' estimates of the public costs to clean up known releases; (2) states' primary sources of cleanup funding; (3) federal monetary sources to address releases. GAO conducted the study from 6/2005 through 12/2006, surveying state officials responsible for the underground storage tank program, or where applicable, managers of state cleanup funds, in the 50 states and the District of Columbia. Only one state did not respond to the survey.</p>	<p>States estimated that fully cleaning up about 54,000 of the approximately 117,000 releases (leaks) known to them as of September 30, 2005, will cost about \$12 billion in public funds. EPA estimates that it costs an average of about \$125,000 to fully clean up a release. State officials said that tank owners or operators will pay to clean up about 63,000 releases. However, an unknown number of releases lack a viable owner, and the full extent of the cost to clean them up is unknown. Furthermore, 43 states expect to confirm about 16,700 new releases in the next 5 years that will require at least some public funds for cleanup. States reported that they primarily use financial assurance funds to pay the costs of cleaning up leaks. States reported that they spent an estimated \$1.032 billion from financial assurance funds to clean up tank releases in 2005. Overall, fund revenues totaled about \$1.4 billion in 2005, of which about \$1.3 billion came from state gasoline taxes. The assurance funds in the 39 states for which GAO has information held an estimated \$1.3 billion as of September 30, 2005, according to state officials. However, many states also use these funds to clean up releases from sources other than underground tanks. Several state assurance funds may lack sufficient resources to ensure timely cleanups. While EPA monitors the status of state funds, its method of monitoring the soundness of these funds has limitations. Furthermore, there are concerns that, by</p>	<p>Ensure that states verify, on a regular basis, that tank owners and operators are maintaining adequate financial responsibility coverage, as required by the Resource Conservation and Recovery Act (RCRA). Improve the Agency's oversight of the solvency of state assurance funds to ensure that they continue to provide reliable coverage for tank owners. Assess, in coordination with the states, the relative effectiveness of public and private options for financial responsibility coverage to ensure that they provide timely funding for the cleanup of releases. Better focus how EPA distributes program resources to states, including LUST Trust Fund money, by ensuring that states are reporting information in their semi-annual activity reports that is consistent with EPA definitions, encouraging states to review their databases to ensure that only data on the appropriate universe of underground storage tanks are being reported in their semi-annual activity reports, and gathering available information from states on releases attributed to tanks without a viable owner [abandoned LUST sites] and taking this information into account in distributing LUST Trust Fund money to states.</p>

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
		<p>paying the bulk of the cleanup costs, state financial assurance funds may provide disincentives for tank owners—who pay only a relatively small deductible—to prevent releases. In addition to their own funds, states employ resources from the LUST Trust Fund, the primary federal source of funds for cleaning up releases from underground storage tanks. As of September 30, 2005, the fund balance was about \$2.5 billion. For fiscal year 2005, the Congress appropriated about \$70 million from the fund to help EPA and the states clean up releases and to oversee cleanup activities. EPA distributed about \$58 million of this amount to the states to investigate and clean up releases and conduct enforcement efforts, among other actions. To distribute LUST Trust Fund money among the states, EPA uses a formula that includes a base amount for each state and factors to recognize states’ needs and past cleanup performance. However, although the LUST Trust Fund provides funds to states to assist in addressing releases from tanks without a viable owner, EPA has not incorporated this factor into its formula. Furthermore, EPA’s information on states’ performance comes from state reports; however, GAO found that some of the information in these reports is inaccurate and inconsistent.</p>	
3	Strategic Agricultural Initiative Needs Revisions to Demonstrate Results/U.S. EPA Office of Inspector	The SAI program does not have performance measurement tools nor performance measures in place to	OIG recommends that EPA develop a needs assessment for the SAI program to demonstrate how it fulfills its role in

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	<p>General (OIG) The purpose was to evaluate if EPA's Strategic Agricultural Initiative (SAI) uses performance measurement tools and efficiency measures that demonstrate results and provide for continuous program improvement.</p>	<p>demonstrate how it fulfills its unique role of helping growers transition away from Food Quality Protection Act high-risk pesticides or to facilitate continuous improvement. The program does not have a strategic plan or similar documents that link project mission and goals, logic model, performance measures, and the data collected by the program. Headquarters and the regions have inconsistent priorities for implementing the program. This lack of structure makes it difficult to measure and validate results. The SAI databases, which are used to gather data on project performance, lack definitions and structure, and thus contain incomplete and extraneous information.</p>	<p>meeting Food Quality Protection Act requirements. If the need is demonstrated, the Program Office should create a strategic plan which sets clear priorities for the direction of the program. For the SAI Projects database, the Agency should create guidance documents and establish standards and procedures for data collection and entry into these databases. SAI data and results should be accessible to grantees and other interested stakeholders.</p>
3	<p>Superfund's Board of Directors Need to Evaluate Actions to Improve the Superfund Program/U.S. EPA, Office of Inspector General (OIG)/The purpose of the evaluation was to determine EPA's progress in responding to three recommendations in the <i>120 Day Study</i> of the Superfund program. The OIG evaluated EPA's management controls over completing recommendations 10, 11, and 12.</p>	<p>The OIG found that EPA completed its work to determine the financial impact of RCRA-regulated facilities on the Superfund program. The Agency is still assessing the financial impacts of non-RCRA facilities on the program. Some of EPA's planned actions to address its <i>Study</i> recommendations were different than the actions recommended.</p>	<p>(1) The Superfund Board of Directors are to coordinate with appropriate lead offices to modify the <i>Study</i> Action Plan to correctly state Recommendation 10 as it appears in the final <i>Study</i>. (2) The Superfund Board of Directors are to review a sample of completed actions on the <i>Study</i> recommendations to confirm that actions are complete and responsive to the <i>Study</i> recommendation(s).</p>
3	<p>EPA Can Improve Its Managing of Superfund Interagency Agreements (IAG) with U.S. Army Corps of Engineers /U.S. EPA, Office of Inspector General (OIG)/The purpose of the evaluation was to answer: (1) What is the effectiveness of EPA's</p>	<p>OIG has found EPA needs to better justify and support its decisions to enter into Superfund IAGs with the Corps. Decision memorandums used to justify awarding Superfund IAGs to the Corps did not contain comparisons of alternatives considered, nor did EPA develop independent cost</p>	<p>Specific Recommendations include: (1) Require that regional offices develop an EPA independent cost estimate for the Corp's oversight of IAGs; (2) Require that regional offices conduct a cost analysis of alternatives when determining whether to award an IAG</p>

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	<p>analysis and selection of the Corps to perform cleanup versus an EPA contractor, a State, or the Bureau of Reclamation? (2) What is the effectiveness of EPA's activity to ensure cleanups conducted by the Corps are accomplished on time, within budget, and to quality standards? The OIG reviewed and analyzed financial assurance regulations, documents, reports and data.</p>	<p>estimates. This occurred because EPA generally believes the Corps has more construction and contracting expertise to manage Superfund projects than its own personnel. The Agency has limited assurance, therefore, Superfund IAGs awarded to the Corps are based on sound decisions. EPA regions have initiated some corrective actions, but further steps are needed.</p>	<p>and evaluate the analysis against an EPA-developed cost estimate; (3) Develop a process for holding regional offices and RPMs accountable for complying with OSWER's 2003 policy for assigning remedial work, and the Office of Administration and Resources Management's (OARM) 2002 guidance to document in Decision memorandums justifications for IAGs based on an analysis of alternatives and EPA-developed cost estimates; (4) Require the Corps to improve the format of its monthly reports so that costs and activities correlate and can be clearly understood; (5) Use the Intra-governmental Payment and Collection (IPAC) system to reimburse the Corps for work accomplished under IAGs; (6) Develop a specific plan for using the \$2.5 million in Management and Support (M&S) fees held by the Corps or require the Corps to refund these fees to EPA, and continue to develop plans on an annual basis to address future fees; (7) Require future IAGs awarded to the Corps to include terms and conditions that will enable RPMs to monitor the Corps' costs, quality, and timeliness; and (8) Develop a policy on how and when the feedback reports will be used as an oversight tool to monitor and improve the cost, quality, and timeliness of the Corps' performance.</p>

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3	EPA Needs to Plan and Complete a Toxicity Assessment for the Libby Asbestos Cleanup/U.S. EPA, Office of Inspector General (OIG)/ The OIG evaluated whether EPA and Region 8 personnel developed and executed an effective cleanup process based upon federal requirements that protect human health. This evaluation was performed through interviews with EPA's OSWER staff and Region 8 personnel, and obtained documents related to the issues dated from 1990 to 2006.	(1) EPA has not completed a toxicity assessment of amphibole asbestos necessary to determine the safe level for human exposure; therefore, EPA cannot be sure that the Libby cleanup sufficiently reduces the risk that humans may become ill or, if ill already, get worse; (2) EPA's public information documents <i>Living with Vermiculite</i> and <i>Asbestos in Your Home</i> are inconsistent about safety concerns.	Recommendations include: (1) Fund and execute a comprehensive amphibole asbestos toxicity assessment (including assessment of affects of asbestos on children) to determine the effectiveness of the Libby removal actions, and to determine whether more actions are necessary. The EPA Science Advisory Board should review the toxicity assessment and report to the Office of the Administrator and the Libby Community Advisory Group whether the proposed toxicity assessment can sufficiently protect human health. (2) Review and correct any statements that cannot be supported in any documentation mailed or made available to Libby residents regarding the safety of living with or handling asbestos until EPA confirms those facts through a toxicity assessment.
4	Review of the Office of Research and Development's Safe Pesticides/ Safe Products (SP2) Research Program/EPA's Board of Scientific Counselors/This evaluation assessed the SP2 research program's relevance, structure, performance, quality, scientific leadership, coordination/communication, and outcomes.	The overall impression of the Subcommittee is that the SP2 is a very successful program. Its relevance to the Agency's mission is clear and apparent. It is well managed throughout all levels, from senior management through data collection and analysis. The SP2 Program fills a unique niche within the Agency. EPA needs more advanced scientific approaches to identify chemical risks and assess those risks, while informing risk management to reduce risks. This is a scientifically difficult task, requiring state-of-the-science solutions. SP2 is supplying these solutions. The Subcommittee believes	Follow-up recommendations resulting from this evaluation include suggestions to: Improve interaction between health scientists working under Long-Term Goals (LTGs) 1 and 2.; develop a process by which to verify/ validate methods; develop a more focused communication program to disseminate research to EPA Offices and Regions; pursue collaborative relationships to advance methods and techniques in the area of high-performance computing.

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		that the program is of great value now and will continue to be so well into the future.	
4	U.S. Chemical Safety and Hazard Investigation Board Should Track Adherence to Closed Recommendations/U.S. EPA Office of Inspector General/The purpose of the evaluation was to determine the extent to which recipients adhere to closed safety recommendations issued by the U.S. Chemical Safety and Hazard Investigation Board (CSB)	Recipients have continued to adhere to closed recommendations issued by CSB. Recipients cited various reasons for doing so. Most said they addressed closed recommendations because they made sense and it was the right thing to do. Although CSB has continued to increase its investigative productivity, it does not conduct follow-up on closed recommendations to track adherence. As a result, CSB may be unaware of whether report recipients continue to adhere to recommended safety procedures or return to prior practices.	The CSB should revise its guidance, Board Order 022, to include followup on closed recommendations and follow up on a sample of closed recommendations every 3 years and analyze whether adherence and/or recipient conditions have changed.
4	Development Growth Outpacing Progress in Watershed Efforts to Restore the Chesapeake Bay/U.S. EPA Office of Inspector General /Questions addressed: 1) Can the goals for reducing nutrient and sediment loads from developed and developing lands be accomplished and sustained to restore the ecological health of the Chesapeake Bay by 2010? 2) To what extent is EPA supporting the Chesapeake Bay Program partners in their efforts to implement and sustain load reduction practices on developed and developing lands within the watershed? 3) What challenges must be overcome to effectively implement management practices to meet and sustain reduction goals for nutrient	The OIG found that EPA and its Chesapeake Bay watershed partners will not meet load reduction goals for developed lands by 2010 as established in the Chesapeake 2000 Agreement. Developed lands contribute less than 1/3 of Bay loads but require about 2/3 of overall estimated restoration costs. Challenges impeding progress include lack of community-level loading caps; shortage of up-to-date information on development patterns; ineffective use of regulatory program to achieve reductions; limited information and guidance on planning and applying environmentally sensitive development practices; and limited funding available for costly practices.	The EPA Chesapeake Bay Program Office Director should prepare and implement a strategy to reverse the trend of increasing nutrient and sediment loads from developed and developing lands. The strategy should include a set of environmentally sensitive design practices. The Chesapeake Bay Program Office Director should also work with Bay partners to set realistic, community-level goals for reducing loads from developed and developing lands. In addition, the EPA Region 3 Water Protection Division Director should establish a stormwater permitting approach that achieves greater nutrient and sediment reductions.

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	and sediment loads from developed and developing lands within the Chesapeake Bay watershed?		
4	EPA Relying on Existing Clean Air Act Regulations to Reduce Atmospheric Deposition to the Chesapeake Bay and its Watershed/U.S. EPA Office of Inspector General/ The purpose is to determine the impact air pollution control activities have had in cleaning up the Bay.	EPA estimates that CAA regulations already issued will reduce nitrogen that falls directly into the Bay, as well as nitrogen deposited in the Bay watershed, by 19.6 million pounds annually by 2010. EPA believes these CAA-related activities will provide sufficient nitrogen deposition reduction to enable the Bay to meet its overall nitrogen cap load, assuming non-air activities achieve planned reductions. One potentially significant source of deposition not currently controlled is ammonia emissions from animal feeding operations. Many State activities being implemented to meet national air quality standards should have the co-benefit of reducing nitrogen deposition in the Bay watershed, including the adoption of legislation and/or regulations by four Chesapeake Bay watershed States that go beyond EPA's air regulations. EPA acknowledges that its goal of cleaning up the Bay by 2010 will not be met. EPA plans to meet with its Chesapeake Bay Program partners in 2007 to re-visit their strategy for cleaning up the Bay.	The EPA Region 3 Regional Administrator should instruct the Chesapeake Bay Program Office to use the results of animal feeding operations emissions monitoring studies to determine what actions and strategies are warranted to address nitrogen deposition to the Bay from such operations.
4	Federal Facilities in Chesapeake Bay Watershed Generally Comply with Major Clean Water Act Permits/U.S. EPA Office of Inspector General/The purpose of the evaluation was to determine whether federal facilities in the Chesapeake watershed are in	EPA and the States are doing well managing how major Federal facilities comply with their NPDES permits. In EPA's last reporting period (2004), major Federal facilities in the Chesapeake Bay watershed had a lower rate of Significant Noncompliance than other Federal and non-Federal major-permit	None

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	compliance with Clean Water Act permitted levels, what tools are available to identify permit noncompliance and enforce compliance, and whether EPA actions are improving compliance at these facilities.	facilities nationwide. EPA and states have a variety of formal and informal tools available to enforce federal facility compliance with NPDES permits.	
4	Saving the Chesapeake Bay Watershed Requires Better Coordination of Environmental and Agricultural Resources/U.S. EPA, Office of Inspector General	<p>Despite significant efforts to improve water quality in the Chesapeake Bay watershed, excess nutrients and sediment continue to be a problem. Improving water quality conditions in the Bay is necessary to support living resources throughout the ecosystem, which in turn supports commercial and recreational uses, such as fishing/shell fishing. EPA must improve its coordination and collaboration with its Bay partners and the agricultural community to better reduce nutrients and sediment entering the Chesapeake Bay watershed.</p> <p>USDA, a Bay partner at the Federal level, could significantly assist EPA in implementing the needed conservation practices within the agricultural community. However, USDA has not coordinated a Department-wide strategy or policy to address its commitment as a Bay partner.</p>	EPA should execute a new Memorandum of Agreement with USDA that specifically identifies tasks and timeframes for meeting mutually shared goals in the cleanup of the Bay. Further, the two agencies should agree to a method to track progress. Also, EPA, USDA, and the States, with assistance from land grant universities and agricultural organizations, should revisit State tributary strategies to ensure that an effective and cost-efficient combination of conservation practices are adopted and implemented. In addition, USDA should assign a senior level official to coordinate with EPA's Chesapeake Bay Program and review the feasibility of targeting USDA funds geographically. Although these steps will not by themselves solve the Bay's problems, they will significantly assist the Bay partners in cleaning up the Bay.
4	Taking Environmental Protection to the Next Level: An Assessment of the U.S. Environmental Services Delivery System/National Academy of Public Administration/The Chesapeake Bay clean-up approach was examined and	The report concluded that Chesapeake Bay Program had created a solid framework for restoration, but that EPA and the rest of the country needed to be aware of the increasing problems from non-point sources. The report predicts that these non-point	EPA should strengthen its position as a partnering agency for purposes of enhancing all its programs, both regulatory and non-regulatory. This is especially important for nonregulatory programs. Also, EPA should establish a

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	then compared with relevant cases elsewhere in the U.S.	source problems will overtake the gains from point and other sources within the next decade.	<p>more systematic and holistic intergovernmental approach to cleaning up the ever-increasing number of listed impaired waters throughout the nation. This approach should bring nonpoint programs up to par with point-source programs. EPA should encourage and support the intergovernmental coordinating bodies needed to ensure that regional initiatives can effectively accomplish established water pollution reduction outcomes. The Agency should preserve its commitment to scientific research and data as a basis for policymaking and evaluation. EPA should work with the state and local governments, and others, to put the financing of environmental services on a more adequate and sustainable path, by: Broadening the purposes and revenue sources of the State Revolving Fund program; developing models and guidelines for dedicated fee-based systems; providing leadership for pollution credit-trading; partnering with other federal agencies; and working with Congress. Innovative programs should be made available more quickly to policymakers, program directors, and implementation organizations. EPA should continue to improve its outcome-oriented performance management systems for inputs, outputs and outcomes provided by both traditional and non-traditional partners. EPA and</p>

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			other federal agencies should re-evaluate the alignment of partners, tools, and coordinating mechanisms within their partnership programs, using the analytical framework developed for this study.
4	Mid-Cycle Review of the Office of and Research and Development's Ecological Research Program at the Environmental Protection Agency/EPA's Board of Scientific Counselors/Questions included: (1) How responsive has the program been to recommendations from its 2005 review?; (2) Are there performance metrics the program should be using in addition to the current indicators for regularly assessing research progress; (3) what progress has the Ecological Research Program made in moving the program forward in response to recommendations from the previous comprehensive BOSC review?	A rating of "Meets Expectations" was assessed for work completed to date. ORD has met most of the goals set after the initial program review. ORD has been responsive to most of the recommendations developed during the 2005 BOSC program review and to all of the higher priority recommendations. The evolving emphasis on ecosystems services and value is appropriately laid out and justified.	Additional performance metrics should be considered to supplement the current indicators used for regularly assessing research progress. Expanded partnerships and interactions with stakeholder communities should assist emerging research on ecosystem services and related economic and human health endpoints. Achieving needed partnerships to conduct future research will come from collaborations that involve ongoing, two-way communication.
4	Mid-Cycle Review of the Office of Research and Development's Human Health Research Program/EPA's Board of Scientific Counselors/Questions to the BOSC subcommittee include: (1) How responsive has the program been to recommendations resulting from the 2005 BOSC review?; (2) How meaningful are the program's current performance metrics?; What has been the program's progress?	A rating of "Meets Expectations" was assessed for work completed to date. The Subcommittee noted that ORD invested substantial effort in assessing the BOSC comments and recommendations, revising program scope and direction, and developing point-by-point documentation of programmatic changes in response to BOSC recommendations.	Follow-up recommendations resulting from this evaluation include suggestions to: Continue to follow through on the plans and strategies that will make the Human Health Research Program a premier contributor in assessing environmental risks for human populations; develop performance-based measures that link directly to publications and measure impact of ORD's research.; develop an

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			evaluative mechanism that would allow for an assessment of how well goals have been met and appropriately document the plan in future revisions to the multiyear plan.
5	Assessment of EPA's Projected Pollutant Reductions Resulting from Enforcement Actions and Settlements/U.S. EPA Office of Inspector General (OIG)/OIG assessed: (1) the accuracy and reliability of EPA's Office of Enforcement and Compliance Assurance's (OECA) pollution reduction projections for enforcement actions and settlements, and (2) whether the reported projected pollution reductions were achieved.	The reliability of estimated pollutant reductions is dependent on the specific program in which the enforcement action takes place. Projected pollutant reductions have been or are being achieved in most of the cases reviewed. Due to the length of time needed for required corrective actions, it is not possible to make a determination in all cases. There have been improvements in the internal control process EPA uses to generate pollutant reduction estimates. The accuracy and reliability of pollutant reduction estimates have likely improved as a result of changes to EPA's quality assurance process.	None.
5	Evaluation of the Tribal General Assistance Program (GAP)/ Industrial Economics, Incorporated for EPA's Office of Environmental, Economics and Policy Innovation/The evaluation is designed to answer the following questions: (1) Is the GAP accessed by all federally-recognized tribes? If not, why?; (2) Are tribal governments using the resources provided and how?; (3) What are indicators of tribal environmental capacity?; What factors contribute to the achievement of environmental capacity and what is the impact of these factors?; (4) What	The results of this evaluation clearly establish that GAP has been effective in building the foundation of environmental capacity among tribes, defined as capability in one or more of the five indicator areas – technical, legal, enforcement, administrative, and communications. This capability, in turn, has allowed tribes to achieve an environmental presence, i.e., the ability to respond promptly and effectively to tribal environmental concerns as they arise, as the overarching indicator of environmental capacity.	Recommendations for ways EPA can enhance GAP to further support tribes' ability to establish and sustain their environmental program include: 1) consider developing a mechanism to support tribal program implementation; 2) consider working with tribes and regions to enhance administrative, legal, and enforcement capacity; 3) raise awareness of innovative environmental policy approaches to complement traditional codes and standards; 4) acknowledge cross-cultural differences, and continue working with tribes to maintain a respectful dialog; and 5) track

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	is the relative contribution of GAP toward achieving capacity; Is the GAP process providing adequate outputs to achieve tribal goals and priorities?		progress toward achievement of the new 2006-2011 strategic goals and targets.
5	Promoting Tribal Success in EPA Programs/U.S. EPA Office of Inspector General & U. S. Department of Interior (DOI), Office of Inspector General/The purpose of the evaluation was to identify positive tribal practices	The OIG found that Tribes have made progress in overcoming barriers to successful management of environmental programs. Innovation is the key for Tribes to maximize the effectiveness of their programs and overcome barriers. The 14 visited Tribes provided examples of innovative practices, including: (1) <i>Collaboration and Partnerships</i> . Many of the successful projects result from efforts to foster good communication and positive relationships with others. Tribes work cooperatively with Federal agencies, other Tribes, State and local governments, educational institutions, and the private sector. (2) <i>Education and Outreach</i> . Tribes educate the community regarding environmental programs. Further, Tribes value community input and understand that project success often depends on community support. (3) <i>Expanding Resources</i> . Based on its size, capacity, and structure, each of the visited Tribes has its own processes for finding alternative sources of revenue to ensure sustainability of natural resource and environmental programs.	To further help Tribes build on successful practices, the OIG recommends that the EPA Assistant Administrator for Water: (1) work with Tribes to promote collaboration and partnerships; (2) identify and make available relevant education and outreach materials; (3) work with Tribes to identify economic resources and funding alternatives.
5	Performance Track Could Improve Program Design and Management to Ensure Value/U.S. EPA Office of Inspector General/The purpose of the evaluation was to determine how	Performance Track did not have clear plans that connect activities with its goals, and did not include performance measures that show if it achieves anticipated results.	The OIG recommends the program: Design a comprehensive strategic plan to connect activities with goals and to encourage staff and management to focus on program goals and member

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	EPA's National Environmental Performance Track program achieves environmental goals, recognizes and encourages environmental leadership and tracks member performance.		commitments; the program should measure and report on performance related to activities and goals; maintain centralized databases for compliance screening and program member information to readily demonstrate that members meet program criteria.; encourage member facilities to set and achieve commitments so that the public has a clear idea of what results members will actually produce; include assessing member leadership in compliance and toxic releases according to program criteria.
5	Overcoming Obstacles to Measuring Compliance: Practices in Selected Agencies/U.S. EPA, Office of Inspector General (OIG)/ The purpose of the evaluation was to collect successful practices from Federal agencies similar to EPA's Office of Enforcement and Compliance Assurance (OECA) that extensively use statistical methods, including random sampling, to measure and ensure compliance and to monitor regulatory programs.	The OIG found that Federal regulatory agencies with missions and obstacles similar to EPA use statistical methods to generate compliance information. These Federal programs extensively use statistical methods to identify and analyze risk, set goals, develop strategies to manage the most significant risks, and report their accomplishments. The programs we reviewed used practical approaches to overcome similar obstacles as those in OECA, and could potentially apply to OECA's programs.	The OIG recommends the Assistant Administrator for Enforcement and Compliance Assurance establish a plan of action, with milestones, to incorporate statistical methods to demonstrate the results of EPA's enforcement and compliance strategies. Additionally, OECA can coordinate with the in-house statistical expertise in EPA's Office of Research and Development and Office of Environmental Information to help develop statistical models and evaluate external proposals.
5	Interagency Agreements to Use Other Agencies' Contracts Need Additional Oversight/U.S. EPA, Office of Inspector General (OIG)/The evaluation was to determine whether EPA effectively follows interagency	The OIG found while EPA has improved some interagency contracting processes, the Agency entered into some contracts without meeting all requirements, like without conducting cost reasonableness assessments, or identifying alternatives,	The OIG recommends the Assistant Administrator for the Office of Administration and Resources Management: <ul style="list-style-type: none"> • Provide guidance to project officers on conducting cost

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	contracting requirements by ensuring products and services meet quality, cost, and timeliness requirements.	such as determining whether EPA's in-house acquisition staff should acquire the services or products for them.	<p>reasonableness assessments and identifying alternatives before using IAG contracts.</p> <ul style="list-style-type: none"> • Strengthen training to include how to develop independent government cost estimates or other appropriate cost information, conduct cost reasonableness assessments, and identify alternatives. • Ensure that the Grants Administration Division requires that the IAG decision memorandum better explains why an IAG is more cost effective, and include an evaluation of cost reasonableness assessments in reviews.
ESP	Review of the Office of Research and Development's Science to Achieve Results (STAR) and Greater Research Opportunities (GRO) Fellowship Programs at the Environmental Protection Agency/EPA's Board of Scientific Counselors/The charge to the Subcommittee consisted of 3 specific questions concerning (1) the fellowship recipient selection process and decision criteria; (2) the utility of the fellows' research to EPA and others for decision-making and policy; (3) practices, resources and effectiveness of outreach; and (4)	Overall, the fellows funded by the STAR and GRO programs have made excellent contributions in environmental science and engineering, and a number of them continue to be employed in the environmental field in academia, consulting, and government (EPA and other agencies).	Follow-up recommendations resulting from this evaluation include suggestions to: Develop an overall information collection strategy, which includes design of an appropriate database; require fellows to submit an up-to-date resume annually for at least 5 years from the conclusion of the fellowship; consider as potential metrics as data become available: (1) the number of minority students who obtain advanced degrees in environmental disciplines; (2) the distribution or dispersion of students across eligible institutions, i.e., the

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	resources, information management, and communication processes and procedures.		concentration of fellowship recipients among colleges and universities; and (3) the number of awards to students pursuing master's degrees relative to the number of awards to students pursuing doctoral degrees; work effectively to communicate awards, results, and successes to a variety of audiences, including Congress and sponsoring institutions; consider eliminating both GRO Fellowship programs, while at the same time improving marketing of the STAR Fellowship Program to minority-serving institutions to encourage applications for graduate support from underrepresented groups.
ESP	Improved Management Practices Needed to Increase Use of Exchange Network/U.S. EPA Office of Inspector General /The evaluation is to determine: (1) what barriers prevent the National Environmental Information Exchange Network from achieving maximum usage, and steps EPA can take to overcome them; (2) if EPA has developed Network performance measures that align with its Strategic Plan; (3) how EPA could improve key system development processes for analyzing costs and ensuring Network use for new systems and upgrades; (4) how EPA could assist the Network governance bodies in accomplishing their missions.	EPA has established a partnership with the Exchange Network's governance bodies to assist them with accomplishing Network initiatives. To ensure partners fully utilize the Network EPA could: (1) improve its methods for selecting and prioritizing which data flows to implement; (2) complete measurements of Network initiatives to ensure investments are delivering expected results; (3) improve its internal system development practices to ensure EPA offices perform cost benefit analyses for new or upgraded environmental systems; and (4) strengthen its policies to define when offices should utilize the Network for receiving environmental information.	The Office of Environmental Information (OEI) should execute the Exchange Network Marketing and Communications plan and evaluate data flows for Network implementation; develop a new plan for completing the Exchange Network performance measures project; develop policies and procedures to guide program offices to use the Network and conduct Exchange Network Cost Benefit Analysis; and include the Exchange Network in the Enterprise Architecture.

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ESP	EPA Can Improve Its Oversight of Audit Follow-up/U.S. EPA Office of Inspector General/The purpose of the evaluation was to determine the status of corrective actions in response to OIG report recommendations for selected water reports, and how complete and up-to-date is the Management Audit Tracking System (MATS) for selected OIG water reports.	The Agency is generally undertaking actions for the nine water-related reports in our review— seven directed to the Office of Water (OW) and two directed to the Office of Enforcement and Compliance Assurance (OECA). However, several actions in response to individual recommendations were delayed past milestone dates agreed to by the OIG. Implications from these results and opportunities for improvement are wide spread across the Agency’s audit follow-up action process.	OW and OECA should implement EPA Order 2750 and biannually review audit management information for accuracy and completeness. Those offices should follow the certification process for closing out reports, maintain a list of corrective actions taken, and obtain OIG approval for significant changes to corrective action plans. The Chief Financial Officer should take several steps, including monitoring EPA Order 2750 compliance throughout the Agency; reporting to Congress the report names and reasons for delay past 365 days for completing corrective actions as required under EPA Order 2750 and the IG Act; and ensuring the validity and reliability of data in MATS by documenting a quality assurance plan, issuing necessary guidance, and providing refresher training to Audit Follow-up Coordinators.
ESP	EPA Needs to Strengthen Its Privacy Program Management Controls/U.S. EPA Office of Inspector General/The purpose of the evaluation was to determine what steps EPA took to protect Personally Identifiable Information (PII). The OIG investigated the extent to which EPA implemented a management structure for the Agency’s privacy program.	Although EPA has made progress toward establishing its Privacy Program, EPA needs to set up a more comprehensive management control structure to govern and oversee the program by establishing goals and activities, and measuring progress. Further, EPA needs to update its Privacy Program policies and establish processes to manage and make these policies available to responsible EPA personnel.	The Office of Environmental Information’s Director should establish goals and performance measures for the program. Further, the Director should update the Agency’s Privacy Program policies and procedures, and establish a process for managing and monitoring compliance. We also recommended that the Director work with the Office of Administration and Resources Management to develop sample cascading goals and objectives that

Goal	Evaluation Title/Evaluator/Scope	Findings	Recommendations
			managers can use to establish Privacy Program accountability processes.
ESP	Number of and Cost to Award and Manage EPA Earmark Grants, and the Grants' Impact on the Agency's Mission/U.S. EPA Office of Inspector General/The purpose was to determine the total number and dollar amount of earmark grants, including EPA's associated costs and what impact earmarks have on advancing EPA's mission and goals.	Between January 1, 2005, and March 31, 2006, EPA awarded 444 earmark grants totaling \$454 million accounting for about 13 percent of EPA grant dollars awarded. EPA also spent about \$4.9 million to award and manage the 444 grants. The review of work plans for 86 earmark grants found that 82 were for projects aimed at contributing to EPA's Strategic Plan mission and goals. Grant work plans for the other four grants did not demonstrate how the projects would promote EPA goals.	None
ESP	Using the Program Assessment Rating Tool as a Management Control Process/U.S. EPA Office of Inspector General/The purpose of the evaluation was to examine EPA management controls by using OMB's Program Assessment Rating Tool (PART) to determine how EPA scored overall, and if there are areas that require management attention.	The OIG found that PART is a good diagnostic tool and management control process to assess program performance and focus on achieving results. However, as currently designed, programs can be rated "adequate" with a passing PART score of just 50 percent. Low passing scores heightens the risk that actual program results may not be achieved, and detracts from PART's overall focus on program results.	OMB should modify the Performance Improvement Initiative criteria to provide incentives for program managers to raise Program Results/Accountability PART scores. In addition, OMB needs to increase the transparency of PART results to demonstrate the relationship between results and the overall PART ratings. The EPA Deputy Administrator should: (1) increase the use of program evaluation to improve program performance by establishing policy/procedures requiring program evaluations of EPA's programs; (2) designate a senior Agency official responsible for conducting and supporting program evaluations; and, (3) allocate sufficient funds/resources to conduct systematic evaluations on a regular basis.



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Appendix B – Data Quality

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<http://www.epa.gov/ocfo/par/2007par>.

APPENDIX B - DATA QUALITY

This section addresses performance data completeness and reliability in compliance with the Office of Management and Budget's (OMB's) Circular A-11. For a fuller explanation of data limitations, data quality reviews and audits as well as improvements to data systems and collection activities, please refer to the on-line Data Quality Appendix at www.epa.gov/ocfo/par/2007par (see "Supplemental Information"). This information is organized by 2007 performance measure (as presented in the FY 2007 Performance and Accountability Report) and supporting database.

Completeness

In its Circular A-11 (Section 230), the Office of Management and Budget (OMB) defines performance data as complete when actual or preliminary performance is reported for every performance goal and measure, and, in cases where data are not currently available, the Agency notes the year when actual performance data will be reported.

According to this OMB definition, EPA's performance data for 2007 are complete. We have provided actual performance data for each 2007 performance target or the date when actual performance data will be reported. EPA prefers not to publish preliminary data because early results may significantly differ from end-of-year results.

Data Gaps

EPA has made significant progress moving from program activity and output measures to outcome measures of environmental condition, risk, or health effects. However, a consequence of this conversion is that end-of-year results tend to be delayed for outcome measures. In this year's PAR, 31% of measures do not yet report actual results, but provide the date when data will be available.

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In addition, representative environmental monitoring on an annual basis is not always cost-effective. Data processing, including quality assurance and control, is generally more time-consuming and resource intensive for outcome data than for outputs. This is exemplified by data on blood-lead levels of women of child-bearing age, which the Centers for Disease Control collect every calendar year by, but release to the public in 2-year sets. The most current data set for 2001-2002 was not available to EPA until early 2005.

EPA does utilize projections when there is a reliable empirical or computer model to project results using prior year data. For example, the National Emissions Inventory of Hazardous Air Pollutants is compiled every 3 years and off-year results are projected using an emissions modeling system. Information on modeled results is contained in this appendix.

Real-time Data

As environmental monitoring in continuous “real-time” becomes more widespread, we can expect data gaps to be significantly reduced or eliminated. The use of distributed sensor networks and other advanced sensor systems, including “smart” monitors which can automate responses, is leading the way to obtaining better and more cost-effective environmental monitoring data.

Reliability

In accordance with OMB’s definitions, the performance data supporting the 2007 PAR are reliable and not materially inadequate. Agency managers and decision-makers use these data on an ongoing basis in the normal course of their duties.

All of EPA’s data are subject to the Agency’s “Quality System,” formal and compulsory policies and procedures that ensure environmental programs and decisions are supported by quality-assured data. Data collected using environmental technology, for example, must comply with appropriate engineering standards and practices. Quality Management Plans and Quality Assurance Project Plans (QAPP) are required under EPA’s Quality System. For definitions and additional information, see EPA’s Quality System website at <http://www.epa.gov/quality>.

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The discussion of “Management Accomplishments and Challenges,” included in Part 3 of this report, “Other Accompanying Information,” presents key management challenges identified by EPA’s Office of Inspector General in FY 2007 and the Agency’s response. A number of challenges are related to data quality and performance measures, as well as the Agency’s need to better demonstrate program results (e.g., data standards/data quality, emissions factors, managing for results). EPA is working to address these challenges, setting priorities for improving its performance measures and finding new and innovative ways to improve the quality of the data it uses for decision-making. For example, to address OIG concerns regarding emission factors, in FY 2007 EPA created a new, streamlined emission factors development process that will provide

clearer guidance on the regulatory and environmental risk of using emission factors. For a more detailed discussion of EPA's response to OIG's key management challenges, refer to "Other Accompanying Information."



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Appendix C – PUBLIC ACCESS

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APPENDIX C – PUBLIC ACCESS

EPA invites the public to access <http://www.epa.gov> to obtain the latest environmental news, browse EPA topics, learn about environmental conditions in their communities, obtain information on interest groups, research laws and regulations, search specific program areas, or access EPA's historical database.

Some of the most interesting and frequently used sites are listed below:

EPA Newsroom: <http://www.epa.gov/newsroom/>

- News releases: <http://www.epa.gov/newsroom/newsreleases.htm>
- Regional Newsrooms: <http://www.epa.gov/newsroom/newsrooms.htm>

Laws, Regulations, and Dockets: <http://www.epa.gov/epahome/lawregs.htm>

- Major Environmental Laws: <http://www.epa.gov/epahome/laws.htm>
- Regulations and Proposed Rules: <http://www.epa.gov/epahome/rules.html#proposed>

Where You Live: <http://www.epa.gov/epahome/whereyoulive.htm>

- Search Your Community: <http://www.epa.gov/epahome/commsearch.htm>
- EPA Regional Offices: <http://www.epa.gov/epahome/whereyoulive.htm#regiontext>

Information Sources: <http://www.epa.gov/epahome/resource.htm>

- Hotlines and Clearinghouses: <http://www.epa.gov/epahome/hotline.htm>
- Publications: <http://www.epa.gov/epahome/publications.htm>

Education Resources: <http://www.epa.gov/epahome/educational.htm>

- Teachers: <http://www.epa.gov/teachers/>
- Office of Environmental Education: <http://www.epa.gov/enviroed/>

About EPA: <http://www.epa.gov/epahome/aboutepa.htm>

- History: <http://www.epa.gov/epahome/aboutepa.htm#history>
- Organization: <http://www.epa.gov/epahome/aboutepa.htm#org>

Programs: <http://www.epa.gov/epahome/programs.htm>

- List of All Programs and Projects: <http://www.epa.gov/epahome/abcpgram.htm>
- Programs with a Geographic Focus: <http://www.epa.gov/epahome/places.htm>

Partnerships: <http://www.epa.gov/epahome/partnerships.htm>

- Central Data Exchange: <http://www.epa.gov/cdx/>
- Industry Partnerships: <http://www.epa.gov/epahome/industry.htm>

Business Opportunities: <http://www.epa.gov/epahome/doingbusiness.htm>

- Small Business Opportunities: <http://www.epa.gov/osdbu/>
- Grants and Environmental Financing: <http://www.epa.gov/epahome/finance.htm>

Careers: <http://www.epa.gov/careers/>

- EZ Hire: <http://www.epa.gov/ezhire/>
- Student Opportunities: <http://www.epa.gov/careers/stuopp.html>

EPA en Español: <http://www.epa.gov/espanol/>

Environmental Kids Club: <http://www.epa.gov/kids/>



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Appendix D – ACRONYMS AND DEFINITIONS

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APPENDIX D – ACRONYMS AND DEFINITIONS

ACS	Annual Commitment System
AEGL	Acute Exposure Guideline Levels
AFO	Animal Feeding Operation
AOC	Area of Concern
APG	Annual Performance Goal
AQCD	Air Quality Criteria Document
AQI	Air Quality Index
AQS	Air Quality System
BMPs	Best Management Practices
BOSC	Board of Scientific Counselors
BTU	British Thermal Unit
CAMR	Clean Air Mercury Rule
CARE	Community Action for a Renewed Environment
CASTNet	Clean Air Status and Trends Network
CCMPs	Comprehensive Conservation and Management Plans
CCSP	Climate Change Science Program
CDC	Centers for Disease Control
CDX	Central Data Exchange
CEMS	Continuous Emission Monitoring System
CFCs	Chlorofluorocarbons
CFO	Chief Financial Officer
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CRTs	Cathode Ray Tubes
CWA	Clean Water Act
CY	Calendar Year
DDT	Dichloro-Diphenyl-Trichloroethane
DE	Design for the Environment
DHS	Department of Homeland Security
DOE	Department of Energy
DST	Decision Support Tool
DWSRF	Drinking Water State Revolving Fund
ECOS	Environmental Council of the States
EDSP	Endocrine Disruptor Screening Program
EHPV	Extended High Production Volume
EIA	Energy Information Agency
EMPs	Environmental Management Practices
EMS-HAP	Emissions Modeling System for Hazardous Air Pollutants
EPA	Environmental Protection Agency
EPEAT	Electronics Products Environmental Assessment Tool
ET	Evapotranspiration
ETS	Emissions Tracking System
ETV	Environmental Technology Verification Program
FEMA	Federal Emergency Management Agency
FFMIA	Federal Financial Management Improvement Act of 1996
FFRRO	Federal Facilities Restoration and Reuse Office
FISMA	Federal Information Security Management Act
FMFIA	Federal Managers' Financial Integrity Act of 1982
FQPA	Food Quality Protection Act
FTE	Full Time Equivalent
FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GAO	Government Accountability Office
GAP	General Assistance Program
GIS	Geographical Information System
GM	Genetically Modified
GMRA	Government Management Reform Act
GPRA	Government Performance and Accountability Act of 1993
GSN	Green Suppliers Network
GWP	Global Warming Potential
H ₂ E	Hospitals for Healthy Environment
HABs	Harmful Algal Blooms
HCFCs	Hydrochlorofluorocarbons
HFCs	Hydrofluorocarbons
HPV	High Production Volume
HPVIS	High Production Volume Information System
HUC	Hydrologic Unit Code
IAQ	Indoor Air Quality
IAQTS	Indoor Air Quality Tools for Schools

ICIS	Integrated Compliance Information System
IPIA	Improper Payments Information Act
IRIS	Integrated Risk Information System
ISSC	Interstate Shellfish Sanitation Conference
LoB	Line of Business
LUSTs	Leaking Underground Storage Tanks
MACT	Maximum Achievable Control Technology
MCO	Mission Critical Occupation
MD&A	Management's Discussion and Analysis
MMBTUs	Million Metric British Thermal Units
MMTCE	Million Metric Tons of Carbon Equivalent
MNA	Monitored Natural Attenuation
MSW	Municipal Solid Waste
NAAQS	National Ambient Air Quality Standards
NAPL	Non-aqueous Phase Liquids
NAS	National Academy of Sciences
NATA	National-Scale Air Toxics Assessment
NEI	National Emissions Inventory
NEP	National Estuary Program
NESHAP	National Emission Standard for Hazardous Air Pollutants
NO ₂	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
Non Road CI	Non Road Compression Ignition
NO _x	Nitrogen Oxides
NPAP	National Performance Audit Program
NPEP	National Partnership for Environmental Priorities
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
NSR	New Source Review
NTI	National Toxics Inventory
NWI	National Wetlands Inventory
ODS	Ozone-Depleting Substances
OECD	Organization for Economic Cooperation and Development
OEI	Office of Environmental Information
OFM	Office of Financial Management
OIG	Office of the Inspector General
OMB	Office of Management and Budget
OPAA	Office of Planning, Analysis and Accountability
ORD	Office of Research and Development
P2RX	Pollution Prevention Resource Exchange
P3	People, Prosperity and the Planet
PAR	Performance and Accountability Report
PARS	Performance Appraisal and Recognition System
PART	Program Assessment Rating Tool
Pb	Lead
PBDEs	Polybrominated Diphenyl Ethers
PCBs	Polychlorinated Biphenyls
PCFV	Partnership for Clean Fuels
PFC	Perfluorocarbons
PFOA	Perfluorooctanoic Acid
PM	Particulate Matter
PM	Performance Measure
PMA	President's Management Agenda
PMN	Pre-Manufacture Notice
PMO	Program Management Office
PPM	Parts Per Million
PPRTVs	Provisional Peer Reviewed Toxicity Values
PRP	Potential Responsible Parties
PWSS	Public Water System Supervision
QA/QC	Quality Assurance/Quality Control
R&D	Research and Development
RA	Remedial Action
RCA	Reports Consolidation Act of 2000
RCRA	Resource Conservation and Recovery Act
RCRA CA	Resource Conservation and Recovery Act Corrective Action
RED	Registration Eligibility Decision
RERT	Radiological Emergency Response Team
RfC	Reference Concentrations
RFS	Renewable Fuels Standard
RSEI	Risk Screening Environmental Indicators
RTP	Research Triangle Park
SAB	Science Advisory Board

SAV	Submerged Aquatic Vegetation
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SEMARNAT	Secretariat of Environment & Natural Resources
SEPs	Supplemental Environmental Projects
SES	Senior Executive Service
SIDS	Screening Information Data Sets
SIMS	Shellfish Information Management System
SIP	State Implementation Plans
SITE	Superfund Innovative Technology Evaluation
SLAMS	State and Local Air Monitoring Stations
SO2	Sulfur Dioxide
SOC	Significant Operational Compliance
SOL	Statute of Limitations
SPCC	Spill Prevention, Control and Countermeasures
SRF	State Revolving Fund
TAGs	Technical Assistance Grants
TASWER	Tribal Association of Solid Waste and Emergency Response
TMDL	Total Maximum Daily Load
TOSC	Technical Outreach Services for Communities
TPEA	Tribal Program Enterprise Architecture
TRI	Toxic Release Inventory
TRI-ME	Toxic Release Inventory Made Easy
TSCA	Toxic Substances Control Act
TSE	Technology for a Sustainable Environment
TWG	Targeted Watershed Grants
UIC	Underground Injection Control
UNEP	United Nations Environment Programme
URE	Unit Risk Estimate
USTs	Underground Storage Tanks
UV	Ultra Violet
VCCEP	Voluntary Children's Chemical Evaluation Program
VOC	Volatile Organic Compound
WHAT If	Watershed Health Assessment Tools Investigating Fisheries
WIPP	Waste Isolation Pilot Plant
WPDG	Wetland Program Development Grants

WE WELCOME YOUR COMMENTS!

Thank you for your interest in the Environmental Protection Agency's FY 2007 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

This report is available on OCFO's homepage at:
www.epa.gov/ocfo/par/2007par



EPA 190-R-07-001

U.S. Environmental Protection Agency
Fiscal Year 2007 Performance and Accountability Report
November 15, 2007

Data Quality Supplemental Information

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This appendix includes the metadata behind the performance measures. It presents details of data limitations, along with a discussion of methods, data audits, and recent data or database improvements for every performance measure in this report.

2007 PAR DATA QUALITY APPENDIX
GOAL 1: Clean Air and Global Climate Change

Objective: Healthier Outdoor Air

- **Cumulative percent reduction in the number of days with Air Quality Index (AQI) values over 100 since 2003, weighted by population and AQI value. (PART measure)**

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.

AIRNow DMC —The AIRNow Data Management System (DMC) stores real-time ambient air quality data used for the sole purpose of reporting real-time AQI and air quality forecasting.

Data Sources:

AQS/DMC: State & local agency data from State and Local Air Monitoring Stations (SLAMS) and National Air Monitoring Stations (NAMS).

Methods, Assumptions, and Suitability: Data are gathered from monitors using EPA-approved federal reference and/or equivalent methods, all of which are published via the Federal Register. EPA assumes the collecting agency has properly maintained each monitor and that the data sent to EPA have passed at least an automated QA/QC check. The monitoring networks have been providing data for decades and the data are considered highly reliable. In addition these data form the basis of EPA's attainment decisions, trend analysis, and health impact assessments.

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 (Available on the Internet: www.epa.gov/ttn/amtic/npaplist.html). 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: <http://www.epa.gov/cludygxb/programs/namslam.html> and through United States EPA's Quality Assurance Handbook (EPA-454/R-98-004 Section 15)

DMC: The QA/QC procedures at each State, local, Tribal, or Federal agency are the same as documented above. Because the DMC handles real-time data, additional QA/QC data checks are built into the data flow process to further guard against erroneous values being passed through the system. Data in the DMC are not considered final and are not used for any regulatory purpose. Data in the AQS system are the official values used for regulatory analyses.

Data Quality Review:

AQS: No external audits have been done in the last 3 years. However, internal audits are regularly conducted.

DMC: No external audits have been done in the last 3 years. However, internal audits are regularly conducted and data are routinely processed by external users where applicable.

Data Limitations:

AQS: None known

DMC: None known

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.

DMC: AIRNow Data Management Center was redesigned in 2004 to more efficiently handle additional pollutants and provide for easier access to real-time data. In addition, automated QA/QC procedures were updated and increased flexibility for state/local agencies to update information was included.

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: <http://www.epa.gov/airtrends/>. For more information on the monitoring network, as well as reference and equivalent methods, see the Ambient Monitoring Technology Information Center (AMTIC) at: <http://www.epa.gov/ttn/amtic> . For information on the AIRNow real-time program, see: <http://www.airnow.gov/>.

- **Millions of tons of volatile organic compounds (VOCs) reduced since 2000 from mobile sources. (PART measure)**
- **Millions of tons of nitrogen oxide (NOx) reduced since 2000 from mobile sources. (PART measure)**
- **Tons of particular matter (PM 10) reduced since 2000 from mobile sources (PART measure)**
- **Tons of particular matter (PM 2.5) reduced since 2000 from mobile sources (PART measure)**
- **Limit the increase of CO Emissions (in tons) from mobile sources (PART measure)**

Performance Database: National Emissions Inventory Database. See: <http://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 <http://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 available 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 <http://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). <http://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 on the Internet: <http://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:
<http://www.epa.gov/otaq/ngm.htm>

References: For additional information about mobile source programs see:
<http://www.epa.gov/otaq/>.

- **Cumulative percent reduction in population-weighted ambient concentration of fine particulate matter (PM 2.5) in all monitored counties from 2003 baseline (PART measure)**
- **Cumulative percent reduction in population-weighted ambient concentration of ozone in monitored counties from 2003 baseline (PART measure)**

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: Design values are calculated for every county with adequate monitoring data (for more information on and a definition for design values, see www.epa.gov/ttn/oarpg/t1/memoranda/cdv.pdf). Air quality levels are evaluated relative to the baseline level and the design value. The change in air quality concentrations is then multiplied by the number of people living in the county. 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 (Available on the Internet: www.epa.gov/ttn/amtic/npaplist.html). 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: <http://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.

FREDS: No formal QA/QC procedures.

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.

FREDS: None

Data Limitations:

AQS: None known

Populations: Not known

FREDS: None known

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.

Population: None

FREDS: None

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: <http://www.epa.gov/airtrends/>.

- **Tons of SO₂ emissions from electric power generation sources (tons/yr from 1980 baseline) (PART measure)**
- **Percent change in average sulfur deposition and mean ambient sulfate concentrations reduced (% from baseline) (PART measure)**
- **Percent change in average nitrogen deposition and mean ambient nitrate**

concentrations reduced (% from baseline) (PART measure)

Performance Databases:

Emissions Tracking System (ETS) - SO₂ 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 SO₂, NO_x, volumetric flow, CO₂, 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 µeq/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 µeq/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 µeq/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 <http://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: <http://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 <http://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 Oceanic 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 $\mu\text{eq/L}$ 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.

Error Estimate: None

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 <http://www.epa.gov/castnet.html> and for NADP, see <http://nadp.sws.uiuc.edu/>.

For a description of EPA's Acid Rain program, see <http://www.epa.gov/airmarkets/arp/index.html/> and in the electronic Code of Federal Regulations at <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-C.html> (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.

- **Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics from 1993 baseline (PART measure)**
- **Cumulative percentage reduction in tons of toxicity-weighted (for noncancer risk) emissions of air toxics from 1993 baseline (PART measure)**

Performance Databases:

- National Emissions Inventory (NEI) for Hazardous Air Pollutants (HAPs)
- EPA's Health Criteria Data for Risk Characterization

Data Source: To better measure the percentage change in cancer and noncancer risk to the public, a toxicity-weighted emission inventory performance measure has been developed. This measure utilizes data from the NEI for air toxics along with data from EPA's Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html), which is a compendium of cancer and noncancer health risk criteria used to develop a risk metric. This compendium includes tabulated values for long-term (chronic) inhalation for many of the 188 hazardous air pollutants. These health risk data were obtained from various data sources including EPA, the U.S. Agency for Toxic Substances and Disease Registry, California Environmental Protection Agency, and the International Agency for Research on Cancer. The numbers from the health risk database are used for estimating the risk of

contracting cancer and the level of hazard associated with adverse health effects other than cancer.

The NEI for HAPs includes emissions from large and small industrial sources inventoried as point sources, smaller stationary area and other sources, such as fires inventoried as non-point sources, and mobile sources. Prior to 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 and cannot be used for modeling because it does not contain facility specific data.

The 1996 NTI and the 1999 NEI for HAPs contain stationary and mobile source estimates. These inventories also 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 inventories are 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.

For more information and references on the development of the 1996 NTI, please go to the following web site: 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: As the NEI is only developed every three years, EPA utilizes an emissions modeling system to project inventories for “off-years” and to project the inventory into the future. This model, the EMS-HAP (Emissions Modeling System for Hazardous Air Pollutants), 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.

Once the EMS-HAP process has been performed, the EPA would tox-weight the inventory by “weighting” the emissions for each pollutant with the appropriate health risk criteria. This would be accomplished through a multi-step process. Initially, pollutant by pollutant values would be obtained from the NEI for the current year and the baseline year (1990/93). Conversion of actual tons for each pollutant for the current year and the baseline year to “toxicity-weighted” tons would be accomplished by multiplying the appropriate values from the health criteria database such as the unit risk estimate (URE) or lifetime cancer risk (defined at www.epa.gov/ttn/atw/nata/gloss.htm#rfc) to get the noncancer tons. These toxicity-weighted values act as a surrogate for risk and allow EPA to compare the toxicity-weighted values against a 1990/1993 baseline of toxicity-weighted values to determine the percentage reduction in risk on an annual basis

Complete documentation on development of the NEI for HAPs can be found at <http://www.epa.gov/ttn/chief/net/index.html>. For more information and references on

EMS-HAP, go to the following web sites: <http://www.epa.gov/scram001/tt22.htm#aspen> and <http://www.epa.gov/ttn/chief/emch/projection/emshap.html>. The growth and reduction information used for the projections are further described at <http://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 has developed 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. This guidance is available at the following web site:

http://www.epa.gov/ttn/chief/emch/invent/qaaugmentationmemo99nei_60603.pdf

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 al.

www.epa.gov/ttn/chief/conference/ei11/ga/pope.pdf

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/chief/conference/ei12/dm/pope.pdf The 2002 NEI for HAPs will undergo scientific peer review in early 2005.

The tables used in the EPA's Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html) are compiled assessments from various sources for many of the 188 substances listed as hazardous air pollutants under the Clean Air Act of 1990. Because different sources developed these assessments at different times for purposes that were similar but not identical, results are not totally consistent. To resolve these discrepancies and ensure the validity of the data, EPA applied a consistent priority scheme consistent with EPA risk assessment guidelines and various levels of scientific peer review. These risk assessment guidelines can be found at <http://www.epa.gov/ncea/raf/car2sab/preamble.pdf>.

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.

The EMS-HAP has been subjected to the scrutiny of leading scientists throughout the country in a process called "scientific peer review". This ensures that EPA uses the best available scientific methods and information. 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. Additional information is available on the Internet: www.epa.gov/ttn/atw/nata/peer.html.

The data compiled in the Health Criteria Data for Risk Characterization (found at www.epa.gov/ttn/atw/toxsource/summary.html) are reviewed to make sure they support hazard identification and dose-response assessment for chronic exposures as defined in the National Academy of Sciences (NAS) risk assessment paradigm (www.epa.gov/ttn/atw/toxsource/paradigm.html). Because the health criteria data were obtained from various sources they are prioritized for use (in developing the performance measure, for example) according to 1) conceptual consistency with EPA

risk assessment guidelines and 2) various levels of scientific peer review. The prioritization process is aimed at incorporating the best available scientific data.

Data Limitations and Error Estimates: 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/reports/2004/20040331-2004-p-00012.pdf). 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 ways 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.

While the Agency has made every effort to utilize the best available science in selecting appropriate health criteria data for toxicity-weighting calculations there are inherent limitations and errors (uncertainties) associated with this type of data. While it is not practical to expose humans to chemicals at target doses and observe subsequent health implications over long periods of time, most of the agencies health criteria is derived from response models and laboratory experiments involving animals. The parameter used to convert from exposure to cancer risk (i.e. the Unit Risk Estimate or URE) is based on default science policy processes used routinely in EPA assessments. First, some air toxics are known to be carcinogens in animals but lack data in humans. These have been assumed to be human carcinogens. Second, all the air toxics in this assessment were assumed to have linear relationships between exposure and the probability of cancer (i.e. effects at low exposures were extrapolated from higher, measurable, exposures by a straight line). Third, the URE used for some air toxics compounds represents a maximum likelihood estimate, which might be taken to mean the best scientific estimate. For other air toxics compounds, however, the URE used was an “upper bound” estimate, meaning that it probably leads to an overestimation of risk if it is incorrect. For these upper bound estimates, it is assumed that the URE continues to apply even at low exposures. It is likely, therefore, that this linear model over-predicts the risk at exposures encountered in the environment. The cancer weighting-values for this approach should be considered “upper bound” in the science policy sense.

All of the noncancer risk estimates have a built-in margin of safety. All of the Reference Concentrations (RfCs) used in toxicity-weighting of noncancer are conservative, meaning that they represent exposures which probably do not result in any health effects, with a margin of safety built into the RfC to account for sources of uncertainty

and variability. Like the URE used in cancer weighting the values are, therefore, considered “upper bound” in the science policy sense. Further details on limitations and uncertainties associated with the agencies health data can be found at: www.epa.gov/ttn/atw/nata/roy/page9.html#L10

New/Improved Data or Systems: The 1996 NTI and 1999 NEI for HAPs are a significant improvement over the baseline 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

Beginning in 2006, the toxicity-weighted emission inventory data will also be used as a measurement to predict exposure and risk to the public. This measure will utilize ambient monitoring of air toxics as a surrogate for population exposure and compare these values with health benchmarks to predict risks.

References:

The NTI and NEI data and documentation are available at the following sites:

- Emissions Inventory Data: <ftp://ftp.epa.gov/EmisInventory/>
Available inventories: 1996 NTI, 1999 NEI for HAPs
Contents: Modeling data files for each state
Summary data files for nation
Documentation
README file
Audience: individuals who want full access to NTI files
- NEON: <http://ttnwww.rtpnc.epa.gov/Neon/>
Available inventories: 1996 NTI and 1999 NEI for HAPs
Contents: Summary data files
Audience: EPA staff
- CHIEF: www.epa.gov/ttn/chief
1999 NEI for HAPs data development materials
1999 Data Incorporation Plan - describes how EPA compiled the 1999 NEI for HAPs
QC tool for data submitters
Data Augmentation Memo describes procedures EPA will use to augment data
99 NTI Q’s and A’s provides answers to frequently asked questions
NIF (Input Format) files and descriptions
CDX Data Submittal Procedures - instructions on how to submit data using CDX

Training materials on development of HAP emission inventories
Emission factor documents, databases, and models
Audience: State/local/Tribal agencies, industry, EPA, and the public

Information on the Emissions Modeling System for Hazardous Air Pollutants:
EMS-HAP: <http://epa.gov/scram001/tt22.htm#aspen>
<http://www.epa.gov/ttn/chief/emch/projection/emshap.html>
Contents: 1996 NTI and 1999 NEI for HAPs
Audience: public

Information on EPA's Health Criteria Data for Risk Characterization:
Health Criteria Data: <http://www.epa.gov/ttn/atw/toxsource/summary.html>
Contents: Tabulated dose response values for long-term (chronic) inhalation and oral exposures; and values for short-term (acute) inhalation exposure
Audience: public

- **Percent of major NSR permits issued within one year of receiving a complete permit application. (PART measure)**

Performance Databases: RBLC (RACT (Reasonably Available Control Technology) BACT (Best Available Control Technology) LAER (Lowest Achievable Emissions Rate) Clearinghouse)

Data Sources: Permitting Agencies (State and Local)

Methods, Assumptions, and Suitability: The performance measure is calculated by determining the time period between the date of complete permit application and permit issuance. The percentage represents the number of major NSR permits issued within one year of complete application to the total number of permits issued within that same period. There are no underlying assumptions in the development of this performance measure.

QA/QC Procedures: Some data quality checks include: 1) making sure the permit issuance dates are after the complete permit application dates and appear reasonable, 2) ensuring the permit processing times are similar for comparable permits in previous reporting periods and 3) making sure the time period does not restart when additional information is submitted after the application is received.

Data Quality Review: Same as QA procedures

Data Limitations: None

Error Estimate: There is no estimate on the number of errors that could have been made during data entry.

New/Improved Data or Systems: N/A

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: <http://www.epa.gov/airtrends/>.

- **Percent of significant Title V operating permit revisions issued within 18 months of receiving a complete permit application. (PART measure)**
- **Percent of new Title V operating permits issued within 18 months of receiving a complete permit application. (PART measure)**

Performance Databases: TOPS (Title V Operating Permit System).

Data Sources: Permitting Agencies (State and Local) via EPA Regional Offices

Methods, Assumptions, and Suitability: The performance measure is calculated by comparing the number of new permits or significant permit modifications issued during past 18 months to the total number of new permits or significant permit modifications received during the same period. Data are collected every 6 months. There are no underlying assumptions in the development of this measure.

QA/QC Procedures: Some data quality checks include: 1) making sure the number of permits issued in 18 months is equal to or less than the total number of permits received. 2) ensuring the percentages seem reasonable compared to previous reporting periods, and 3) making sure clock does not restart when additional information is submitted after the application is received.

Data Quality Review: Same as QA procedures

Data Limitations: None

Error Estimate: There is no estimate on the number of errors that could have been made during data entry.

New/Improved Data or Systems: TOPS has been revised and improved for 2006 to ensure better consistency between states and to specifically track PART measures.

References: For additional information about criteria pollutant data, non-attainment areas, and other related information, see: <http://www.epa.gov/airtrends/>.

Objective: Healthier Indoor Air

- **Number of additional homes (new and existing) with radon reducing features (PART measure)**
- **Total cost (public and private) per future premature lung cancer death prevented through lowered radon exposure (PART efficiency measure)**

Performance Database: Annual industry survey data of home builders provided by the National Association of Home Builders and internal database of fan sales.

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.

Radon fan manufacturers report fan sales to the Agency. EPA assumes one fan per radon mitigated home, and 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.

To estimate the reduced number of lung cancer deaths resulting from lowered radon exposure, EPA applies risk reduction estimates from its 2003 radon risk assessment to the number of existing homes mitigated for elevated radon levels and the number of new homes built with radon resistant new construction. Cost estimate includes both public and private sector costs, using EPA's 2003 estimate as a baseline.

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.

This measure is a combination of data that includes additional number of homes built with radon resistant new construction (RRNC), reported by industry on an annual basis, as well as additional radon mitigations which are estimated from annual radon fan sales.

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 include QA/QC by the vendor that is utilized for key entry of data. Because fan sales data are obtained from an external organization, EPA relies on the business practices of radon fan manufacturers for reporting the 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. Fan sales data are obtained from an external organization and EPA reviews the data to ascertain their reliability and discusses any irregularities with the relevant manufacturer.

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.

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.

Error Estimate: See Data Limitations

New/Improved Data or Systems: None

References: The results are published by the NAHB Research Center in annual reports of radon-resistant home building practices. See <http://www.nahbrc.org/> last accessed 7/25/2007 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.

See <http://www.epa.gov/iaq/radon/pubs/index.html> last accessed 7/25/2007 for National performance/progress reporting (National Radon Results: 1985-to 2003) on radon, measurement, mitigation and radon-resistant new construction.

- **Number of people taking all essential actions to reduce exposure to indoor environmental asthma triggers (PART measure)**
- **Annual cost to EPA per person with asthma taking all essential actions to reduce exposure to indoor environmental asthma triggers (PART efficiency measure)**

Performance Database: The *National Survey on Environmental Management of Asthma and Children's Exposure to ETS* (NSEMA) provides information about the measures taken by people with asthma, and parents of children with asthma, to minimize exposure to indoor environmental asthma triggers, including environmental tobacco smoke (ETS). Additional information about asthma morbidity and mortality in the US is obtained from surveys conducted by the Centers for Disease Control and Prevention (CDC), including the National Health Interview Survey, the National Health and Nutrition Examination Survey, and the Behavioral Risk Factor Surveillance Survey. 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/04_chtbk.pdf. last accessed 7/25/2007.

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. In addition to NSEMA, information about ETS is obtained periodically from the CDC studies cited above

Data Source: The *NSEMA* (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 7/25/2007). Data on annual expenditures for health and lost productivity due to asthma are obtained from the NHLBI Chartbook. (www.nhlbi.nih.gov/resources/docs/04_chtbk.pdf. last accessed 7/25/2007). EPA will gather asthma trigger data through questions that are being integrated into a CDC survey. Essential actions address mold, dust mites, secondhand smoke, cockroaches, pets, nitrogen dioxide, and chemical irritants. Cost includes EPA full cost of implementing the asthma program.

Methods, Assumptions and Suitability: End-of-year performance for the asthma program is a best professional estimate using all data sources (including information on annual measures on partner performance and advertising awareness outlined below). The estimate of the number of people with asthma who have taken steps to reduce their exposure to indoor environmental asthma triggers as of 2007 will be based on a projection from previous surveys, and this estimate will be verified using a national survey instrument in 2009. EPA is collaborating with CDC to integrate questions on environmental management of asthma into an existing CDC national survey mechanism to provide performance results data in the future. Also, data provided for the annual measures are used to support progress towards the long term performance measure.

The *NSEMA* (OMB control number 2060-0490) 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.

QA/QC Procedures: The *NSEMA* was designed in accordance with approved Agency procedures. Additional information is available on the Internet: <http://www.epa.gov/icr/players.html>. 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: 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 cotinine (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 three years old, the portion of children most susceptible to the effects of ETS.

Error Estimate: In 2003 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: EPA is collaborating with CDC to integrate questions on environmental management of asthma into an existing CDC national survey mechanism to provide performance results data in the future. The 2003 NSEMA estimates, and the integration of the CDC survey population, will provide consistent tracking measures at a reduced cost, while reducing the burden to the public. This collaboration will improve national asthma surveillance efforts.

References:

Asthma

National Center for Health Statistics, Centers for Disease Control and Prevention (www.cdc.gov/nchs/ last accessed 7/25/2007)

EPA Indoor Environments Division (www.epa.gov/iaq/ last accessed 7/25/2007)

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 (<http://www.cdc.gov/nchs/> last accessed 7/25/2007)

Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Prevention (<http://www.cdc.gov/brfss/index.htm> last accessed 7/25/2007),

US Surgeon General's report on tobacco (<http://www.cdc.gov/tobacco/sgr/index.htm/> last accessed 7/25/2007),

National Cancer Institute's (NCI) *Tobacco Monograph Series* (<http://cancercontrol.cancer.gov/tcrb/monographs/> last accessed 7/25/2007),

NCI funded *Tobacco Use Supplement* portion of the US Census Bureau's *Current Population Survey* (<http://riskfactor.cancer.gov/studies/tus-cps/> last accessed 7/25/2007),

Healthy People 2010 (<http://www.healthypeople.gov/> last accessed 7/25/2007).

- **Percent of public that is aware of the asthma program's media campaign (PART measure)**

Performance Database: A media tracking study used to assess behavior change within that sector of the public viewing the public service announcements.

Data Source: An independent initiative of the Advertising Council provides media tracking of outcomes of all their public service campaigns and this is publicly available information.

Methods, Assumptions and Suitability: Methods are those of the Advertising Council, and not controlled by EPA.

QA/QC Procedures: Methods are those of the Advertising Council, and not controlled by EPA.

Data Quality Review: Methods are those of the Advertising Council, and not controlled by EPA.

Data Limitations: Methods are those of the Advertising Council, and not controlled by EPA.

New/Improved Data or Systems: Methods are those of the Advertising Council, and not controlled by EPA.

References: Advertising Council Reporting. EPA Assistance Agreement number X-82820301.

For additional information see the Ad Council web site <http://www.adcouncil.org/> last accessed 7/25/07.

- **Additional health care professionals trained annually by EPA and its partners on the environmental management of asthma triggers (PART measure)**

Performance Database: The performance database consists of quarterly Partner status reports used to document the outcomes of individual projects.

Data Source: Partner status reports are generated by those organizations receiving funding from EPA and are maintained by individual EPA Project Officers.

Methods, Assumptions and Suitability: On an annual basis, EPA requires (programmatic terms and conditions of the award) all funded organizations to provide reports identifying how many health care professionals are educated about indoor asthma triggers.

QA/QC Procedures: It is assumed that organizations report data as accurately and completely as possible; site-visits are conducted by EPA project officers.

Data Quality Review: Project officers review data quality.

Data Limitations: N/A

New/Improved Data or Systems: EPA is exploring the development of a centralized data base.

References: N/A

- **Estimated annual number of schools establishing Indoor Air Quality programs based on EPA's Tools for Schools guidance (PART measure)**
- **Average cost to EPA per student per year in a school that is implementing an effective indoor air quality plan. (PART efficiency measure)**

Performance Database: EPA collects national data by conducting a survey of indoor air quality management practices in schools approximately every three 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. The SHPPS survey is conducted at 6 year intervals so the next nationally representative data would be collected in 2012 and would measure progress against the long term 2012 program goal.

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.

On a 6 year basis, EPA collaborates with CDC to determine the number of schools implementing an IAQ plan. Effectiveness is defined as a plan that is consistent with EPA's Tool for Schools guidance and scores a 70 or higher on EPA's IAQ management index.

Total Number of students is derived from the number of schools multiplied by the nationwide average of 525 students, faculty and staff. Effectiveness is defined as a plan that is consistent with EPA's Tool for Schools guidance and scores a 70 or higher on EPA's indoor air quality (IAQ) management index. Cost includes EPA full cost of implementing IAQ programs.

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. Key portions of EPA's 2006 survey will be included as part of CDC's 2006 School Health Policies and Programs Study, which is conducted every six 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.

Error Estimate: Not relevant for this year.

New/Improved Data or Systems: Prior to the 2002 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 has integrated key portions of the 2002 survey into 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, <http://nces.ed.gov/> last accessed 7/26/2007. See also Indoor Air Quality Tools for Schools Kit (402-K-95-001) at <http://www.epa.gov/iaq/schools> last accessed 7/26/2007 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.

Objective: Protect the Ozone Layer

- **Remaining US consumption of HCFCs, measured in tons of ozone depleting potential (ODP) (PART measure)**

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: <http://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 that 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.

Error Estimate: None.

New/Improved Data or Systems: The Stratospheric Protection Division is developing a system to allow direct electronic reporting.

References: See <http://www.epa.gov/ozone/desc.html> for additional information on ODSs. See <http://www.unep.ch/ozone/montreal.shtml> for additional information about the Montreal Protocol. See <http://www.unmfs.org/> for more information about the Multilateral Fund. Quality Assurance Plan, USEPA Office of Atmospheric Programs, July 2002

- **Cumulative federal dollars spent per cumulative number of schools joining the SunWise program**

Performance Database: Not applicable

Data Source: Cumulative federal dollars spent is estimated from annual program budget tracking documents. The number of schools joining the SunWise program is measured by counting the number of schools that register to join the SunWise program in each year, which is collected at <http://www.epa.gov/sunwise/becoming.html>. Schools also have the option of sending in a paper registration, which EPA then enters at this website. EPA tracks the data at http://intranet.epa.gov/sunwise/track/trac_teacher.html.

Methods, Assumptions and Suitability: The cumulative number of schools joining the SunWise program is measured by counting the number of schools that register to join the SunWise program in each year, which is collected at <http://www.epa.gov/sunwise/becoming.html>, and adding the incremental number of schools joining the program to the prior year's cumulative total. The efficiency measure is calculated by dividing the cumulative number of dollars EPA has spent on the SunWise program by the cumulative number of schools that have joined the program.

QA/QC Procedures: All registrations by schools are reviewed by EPA staff for completeness and to assure there is no double counting of entries. EPA updates the registration information during the course of program implementation.

Data Quality Reviews: Each year researchers at an independent contractor contact a statistical sample of schools in the program database in order to evaluate the effectiveness of the program. EPA updates the website based on the contractor's findings as appropriate.

Data Limitations: The number of participating schools is probably underestimated since schools that fail to provide full registration information are not entered into the database, even if they participate in the program. Note that additional organizations besides schools may also register and provide the SunWise curriculum. These organizations include scout troupes, camps, and 4-H groups, for example. Therefore, counting only schools underestimates the program's reach and efficiency.

Error Estimate: None

New/Improved Data or Systems: N/A

References:

For more information about the SunWise School program, see:

<http://www.epa.gov/sunwise/> and

<http://www.epa.gov/sunwise/becoming.html> Data collection regarding schools that participate in SunWise is authorized by OMB Control No. 2060-0439.

Objective: Reduce Greenhouse Gas Intensity

- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the building sector (PART measure)**
- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the industry sector (PART measure)**
- **Million metric tons of carbon equivalent (mmtce) of greenhouse gas emissions reduced in the transportation sector (PART measure)**

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-CO₂ 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 (CO₂) emissions, including

nitrous oxide and other high global warming potential gases, are maintained by EPA. The non-CO2 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.

Objective: Enhance Science and Research

- **Percent progress toward completion of a hierarchy of air pollutant sources based on the risk they pose to human health (PART Measure)**
- **Percent of planned actions accomplished toward the long-term goal of reducing uncertainty in the science that supports the standard-setting and air quality management decisions (PART Measure)**

Performance Database: Integrated Resources Management System (internal database) and list of recommendations from the Board of Scientific Counselors (BOSC)

Data Source: Data are generated based on self-assessments of: 1) overall progress toward completing research goals, and 2) completion of distinct planned program outputs.

Methods, Assumptions and Suitability: To provide an indication of progress towards achievement of the Clean Air Research Program's long-term goals, the program annually develops a list of key research milestones and outputs in support of the Multi-Year Plan that are scheduled for completion by the end of each fiscal year. This list is finalized by the start of the fiscal year, after which no changes are made. The program then tracks quarterly the progress towards completion of these key outputs against pre-determined schedules and milestones. The final score is the percent of key outputs from the original list that are successfully completed on-time. Additionally, Clean Air research program "planned" actions include the completion of follow-up recommendations resulting from external peer reviews.

QA/QC Procedures: Procedures are now in place to require that all annual milestones be clearly defined and mutually agreed upon within ORD by the start of each fiscal year. Progress toward completing these activities is monitored by ORD management.

Data Quality Reviews: N/A

Data Limitations: Data do not capture the quality or impact of the research milestones and outputs being measured. However, long-term performance measures and independent program reviews are used to measure research quality and impact. Additionally, completion rates of research outputs are program-generated, though subject to ORD review.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: Air Toxics Multi-Year Plan, available at: <http://www.epa.gov/osp/myr/airtox.pdf> (last accessed July 20, 2007)
Particulate Matter Multi-Year Plan, available at: <http://www.epa.gov/osp/myr/pm.pdf> (last accessed July 20, 2007)
National Ambient Air Quality Standards (NAAQS) Research PART Program Assessment, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10001137.2005.html> (last accessed August 16, 2007)

- **Percentage of NAAQS research program publications rated as highly cited papers (PART Measure)**

Performance Database: No internal tracking system

Data Source: The source of data will be a contractor-produced bibliometric analysis of NAAQS program publications.

Methods, Assumptions and Suitability: The analysis will be completed using Thomson's Essential Science Indicators (ESI) and Journal Citation Reports (JCR) as benchmarks. ESI are a comprehensive compilation of essential science performance statistics and science trends data derived from Thomson's databases. The chief indicator of output, or productivity, is journal article publication counts. For influence and impact measures, ESI employs both total citation counts and cites per paper scores. The

former reveals gross influence while the latter shows weighted influence, also called impact. JCR presents quantifiable statistical data, which provide a systematic, objective way to evaluate the world's leading journals and their impact and influence in the global research community.

QA/QC Procedures: Source data will be used in comparing program publications to field benchmarks, Essential Science Indicators (ESI) and Journal Citation Report (JCR).

Data Quality Reviews: Additional benchmarks will be used to determine the number of self-citations of articles by the same author in order to reduce the self-citation rate.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:

Essential Science Indicators®. Thomson Scientific. 2003.

Journal Citation Reports®. Thomson Scientific. 2003.

Citation Analysis. EPA's Endocrine Disruptors Chemicals (EDCs) Research Program, publication list. BOSC Program Review. December 2004.

GOAL 2: Clean And Safe Water

Objective: Protect Human Health

- **The percentage of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection**
- **Percent of the population in Indian country served by community water systems that receive drinking water that meets all applicable health-based drinking water standards [PART measure]**
- **Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection [PART measure]**
- **The percentage of community water systems that have undergone a sanitary survey within the past three years (five years for outstanding performance). [PART measure]**

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 health-based drinking water regulations. The performance measures are based on the population served by community water systems and the number of 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 ten 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:

- (1) SDWIS/FED edit checks built into the software to reject erroneous data.
- (2) 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).
- (3) Training to states on reporting requirements, data entry, data retrieval, and error correction.
- (4) 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, <http://www.epa.gov/safewater/>. System and user documents are accessed via the database link <http://www.epa.gov/safewater/databases.html>, and specific rule reporting requirements documents are accessed via the regulations, guidance, and policy documents link <http://www.epa.gov/safewater/regs.html>.
- (5) 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.
- (6) User support hotline available 5 days a week.

The SDWIS/FED equivalent of a quality assurance plan is the data reliability action plan¹

¹ *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)*

(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 centered 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.

The first two issues are being addressed over a three-year period (2004-2007) through two (2000 and 2003) Data Reliability Action Plans. OGWDW is now working with the states to complete a 2006 data quality review and plan. An information strategic plan² (ISP) was developed and implemented to address the last three issues, which deal primarily with technology (hardware and software) concerns. Implementation of the ISP, which ended in 2005, documents ways to improve tools and processes for creating and transferring data to EPA and 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.

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 more accurately quantifying data quality and should be able to better calculate the impact these data quality issues have on the estimate of national compliance with health-based drinking water standards. OGWDW is also working with states to develop a data quality objective for these data to better gauge progress toward data quality improvement. 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 by the states 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

² 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 <http://www.epa.gov/safewater/data/informationstrategy.html>

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, 2006 results, the first year of the improved audit process will be reported in 2007.

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 (as of January 2007, 53 States, Tribes, and territories are using SDWIS/STATE) will use SDWIS/STATE,³ 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 or data systems on other drinking water programs: 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. Plans have now been developed for design of systems to address these data flows. Developing the systems to receive the data is scheduled for 2007.

References:

³ SDWIS/STATE (Version 8.1) is an optional Oracle data base application available for use by states and EPA regions to support implementation of their drinking water programs.
U.S. EPA, Office of Ground Water and Drinking Water. Data and Databases. Drinking Water Data & Databases – SDWIS/STATE, July 2002. Information available on the Internet: http://www.epa.gov/safewater/sdwis_st/current.html

Plans*

- 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 <http://www.epa.gov/water/info.html>
- Enterprise Architecture Plan

Reports*

- 1999 SDWIS/FED Data Reliability
- 2003 SDWIS/FED Data Reliability Report - contains the Data Reliability Action Plan and status 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

<http://www.epa.gov/safewater/sdwisfed/sdwis.htm>

Regulation-Specific Reporting Requirements Guidance. Available on the Internet at <http://www.epa.gov/safewater/regs.html>

Web site addresses

OGWDW Internet Site <http://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:

<http://www.epa.gov/safewater/data/getdata.html> contains information for users to better analyze the data, and

<http://www.epa.gov/safewater/sdwisfed/sdwis.htm> contains reporting guidance, system and user documentation and reporting tools for the SDWIS/FED system.

- **Percentage of source water areas (both surface and ground water) for community water systems will achieve minimized risk to public health**

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).⁴ EPA issued guidance to implement these programs in

* These are internal documents maintained by EPA’s Office of Ground Water and Drinking Water. Please call 202-564-3751 for further information.

⁴ *Safe Drinking Water Act Amendments of 1996*. P.L. 104-182. (Washington: 6 August 1996). Available on the Internet at <<http://www.epa.gov/safewater/sdwa/sdwa.html>>

1997, *State Source Water Assessment and Protection Programs Guidance*.⁵ 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 Community Water System 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)⁶ (GIS data). These data will be compatible with the inventory data States are currently reporting to the Safe Drinking Water Information System (SDWIS).⁷ 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. As noted above, states can report to EPA’s Regional Offices using a spreadsheet approach. EPA has also 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 three 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

⁵ 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 <<http://www.epa.gov/safewater/swp/swappg.html>>

⁶ Watershed Assessment, Tracking & Environmental Results (WATERS). Available only on the Internet at <<http://www.epa.gov/waters/>>

⁷ Safe Drinking Water Information System (SDWIS). Information available on the Internet at <http://www.epa.gov/safewater/databases.html>

state-level database. While state reporting will be based on definitions and procedures found in the *“State and Federal Source Water Assessment and Protection Program Measures: Final Reporting Guidance,”* and even with the state flexibilities built into the definitions for substantial implementation strategies, 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. That is, 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’ definition for substantial implementation of strategies, 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.

Error Estimate: There is no basis for making an error estimate for this performance measure given the data limitations of state-level summary reporting described above.

New/Improved Data or Systems: The source water reporting 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 <<http://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.
<<http://www.epa.gov/safewater>>
 - For more detailed information on Source Water topics, US EPA Office of Ground Water and Drinking Water, Source Water site.
<<http://www.epa.gov/safewater/protect.html>>
 - US EPA Office of Water (OW) Reach Access Database (RAD). Watershed Assessment, Tracking & Environmental Results (WATERS).
<<http://www.epa.gov/waters/>>
 - Safe Drinking Water Information System (SDWIS).
<http://www.epa.gov/safewater/databases.html>
- **Number of households on tribal lands lacking access to safe drinking water**

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 health 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:

1. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Criteria for the Sanitation Facilities Construction Program, June 1999, Version 1.02, 3/13/2003. http://www.dsfc.ihs.gov/Documents/Criteria_March_2003.cfm
2. 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. <http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf>

- **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 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 24% of river miles and 35% of 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 2002⁴, 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 has also begun tracking recommended "meal frequencies" in the state and tribal advisories to account for the instances where advisories are modified to allow greater consumption.

References:

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2. 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 <http://www.epa.gov/waterscience/fishadvice/volume1/>.
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4. U.S. EPA. Office of Water. "Quality Management Plan." EPA 821-X-02-001. Washington, DC: EPA, July 2002. Available at http://www.epa.gov/water/programs/qmp_july2002.pdf

- **Percent of state-monitored shellfish-growing acres impacted by anthropogenic sources that are approved or conditionally approved for use.**

Performance Database: There is no database currently available, although one is under development (see below)². To date, data to support this measure have come from surveys of States that are members of the Interstate Shellfish Sanitation Conference (ISSC), conducted by NOAA at 5-year intervals and periodic updates requested from the Interstate Shellfish Sanitation Conference (most recent, 2005 data released in 2006³).

Data Source: The ISSC requests the data on approved acreages from shellfish producing states and prepares reports. Survey responses are voluntary.

Methods and Assumptions: The methods used by the state programs to produce the 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 FDA⁴.

Suitability: As water quality conditions are maintained or improved, "approved" or "conditionally approved" shellfish growing acres impacted by anthropogenic sources should not decrease. This measure is not suitable for annual comparison, but as reports

are issued periodically by the ISSC, updates on progress can be provided. There is no other suitable surrogate.

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.

Error Estimate: No estimates are available.

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 1995⁵ and the states' baseline (the ISSC is considering the most appropriate baseline year) and most current year data. State summary information can then be used to track trends relevant to the performance measure, with the 1995 data as against 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.

Currently, no long-term database management plan exists.

References:

1. U.S. Environmental Protection Agency. 2006 - 2011 EPA Strategic Plan. Washington, D.C. Pre-publication Copy, September 29, 2006. <http://www.epa.gov/ocfo/plan/plan.htm>
2. Kracker, L.M., Comar P.G., Meaburn, G.M., and K Murugesan. 2005. SIMS: A Shellfish Information Management System for Molluscan Shellfish. NOAA Technical Memorandum NOS NCCOS 17. 53 pp.
3. Interstate Shellfish Sanitation Conference. Analysis of Classified Shellfish Waters 1985-2005. Columbia, South Carolina. September 2006. (Amended March 2007) <http://www.issc.org>
4. U.S. Food and Drug Administration. National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish 2005. Washington D.C. <http://www.cfsan.fda.gov/~ear/nss3-toc.html>
5. National Oceanic and Atmospheric Administration (NOAA), 1997. The 1995 National Shellfish Register of Classified Growing Waters. Silver Spring, MD: Office of Ocean Resources Conservation and Assessment, Strategic Environmental Assessments Division. 398 pp.

- **Fund Utilization Rate for the DWSRF [PART measure]**

- **Number of additional projects initiating operations [PART measure]**

Performance Database: Drinking Water State Revolving Fund National Information Management System (DWNIMS.)

Data Sources: Data are entered by state regulatory agency personnel and by EPA's Regional staff; they are collected and reported once yearly.

Methods, Assumptions and Suitability: Data entered into DWNIMS directly represent the units of performance for the performance measure. These data are suitable for year-to-year comparison and trend indication.

QA/QC Procedures: EPA's headquarters and Regional offices are responsible for compiling the data and querying states as needed to assure data validity and conformance with expected trends. States receive data entry guidance from EPA headquarters in the form of annual memoranda (e.g., "2005 DWNIMS Data Collection.")

Data Quality Reviews: EPA's headquarters and Regional offices annually review the data submitted by the states. State data are publicly available at <http://www.epa.gov/safewater/dwsrf/dwnims.html> in individual state reports. Headquarters addresses significant data variability issues directly with states or through the appropriate EPA Regional office. Additionally, EPA's contractor tests the data for logical consistency. An annual EPA headquarters' "DWNIMS Analysis" provides detailed data categorization and comparison. This analysis is used during:

1. Annual EPA Regional office and state reviews to identify potential problems with the program's pace which might affect the performance measure.
2. Reviews by EPA's headquarters of regional oversight of state revolving funds.
3. Annual reviews by EPA's Regional offices of their states' revolving funds operations.

State data quality is also evaluated during annual reviews performed by EPA Regions. Any inconsistencies that are found in need of correction are incorporated into future DWNIMS reports. These adjustments are historically rare and very minor.

Data Limitations: There are no known limitations in the performance data, which states submit voluntarily. Erroneous data can be introduced into the DWNIMS database by typographic or definitional error. Typographic errors are controlled and corrected through data testing performed by EPA's contractor. Definitional errors due to varying interpretations of information requested for specific data fields have been largely reduced. These definitions are publicly available at: <http://www.epa.gov/safewater/dwsrf/nims/dwdatadefs.pdf>. There is typically a lag of approximately two months from the date EPA asks states to enter their data into the DWNIMS database, and when the data are quality-checked and available for public use.

New/Improved Data or Systems: This system has been operative since 1999. It is updated annually, and data fields are changed or added as needed.

References:

State performance data as shown in NIMS are available by state at:

<http://www.epa.gov/safewater/dwsrf/dwnims.html>

Definitions of data requested for each data field in NIMS is available at:

<http://www.epa.gov/safewater/dwsrf/nims/dwdatadefs.pdf>

2005 DWNIMS Data Collection – memo from Jeff Bryan, 7/12/05

DWNIMS analysis

- **Percent of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming**

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., 2008 calendar year data are used to report against FY 2009 commitments). For the 2006 swimming season, States and Territories monitored for pathogens at 3,771 coastal and Great Lakes beaches. In re-evaluating their beach programs, several states combined small beaches into larger beaches during 2006, reducing the total number of beaches monitored (from 4,025 in 2005 to 3,771 in 2006), but maintaining the scope of their programs.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 Act². 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 and Assumptions: 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.

Suitability: This indicator is suitable as a performance measure because it captures the frequency of beach closings primarily due to poor water quality conditions. Controlling sources of contamination would result in water quality improvement at beach thereby leading to fewer closures.

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 2002³). 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 was voluntary. While the voluntary response rate has been high, it did not capture 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, with information now available for 3,771 of approximately 6,000 coastal and Great Lakes beaches. All coastal and Great Lakes states and territories utilize the implementation grants.

Error Estimate: Not all coastal and Great Lakes beaches are monitored. In 2006, States and Territories reported that they monitored at 3,771 of the approximately 6,000 coastal and Great Lakes beaches. This monitoring varies between States. For example, North Carolina monitors all its 243 beaches whereas South Carolina monitors 23 of 299 beaches it identified. 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 less⁴. Studies in southern California found that weekly sampling missed 75% of the pathogen exceedances⁵, and that 70% of the exceedances lasted for only one day⁶. 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 days⁷. 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. The amount, quality, and consistency of available data will improve to the extent that state governments apply for and receive these grants. In FY 2009, EPA expects all 35 coastal and Great Lakes states to again apply for grants to implement monitoring and notification programs.

References:

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Objective: Protect Water Quality

- **Percentage of waters assessed using statistically valid surveys [PART Annual Measure]**

Performance Database: Data generated from the national assessment will be housed in the EPA Office of Water's STORET (STORage and RETrieval) data warehouse. Prior to entering the STORET warehouse, all datasets are housed in a temporary facility, such as ORD's SWIM database, where they are examined for QA purposes and undergo statistical analysis. Finalized datasets transferred to the STORET warehouse will include all water quality, physical and biological data and associated metadata for each survey. The STORET warehouse is available on the web at <http://www.epa.gov/STORET/index.html>.

Data Source: Data are collected, processed and analyzed through EPA-State collaboration to assess and report on the condition of the nation's waters with documented confidence. Under this partnership, samples are collected across the country during a specified index period for each resource. Sites are sampled one time, with additional repeat samples collected at 10 percent of the sites to determine precision of methods. Surveys collect a suite of indicators relating to the biological, physical habitat and water quality of the resource in order to assess the resource condition and determine the percentage meeting the goals of the CWA. Surveys will collect information on biological and abiotic factors at 30-50 sites on an ecoregion level II scale for each resource. Prior to sampling, field crews will undergo intensive training by EPA personnel on field sampling and collection techniques. Laboratory analysis will be conducted at either a state lab or contract lab following specified protocols for the survey. Data collection follows a Quality Assurance Project Plan (QAPP), with subsequent testing and auditing to ensure its application.

Methods, Assumptions and Suitability: The surveys are conducted using a probabilistic survey design, which allows extrapolation of results to the target population (specified water resource, e.g., wadeable streams, lakes, rivers, etc.). The collection design maximizes the spatial spread between sites, located by specific latitude and longitude combinations. The survey utilizes an indexed sampling period to increase the probability of accurately assessing condition and identifying any problems in water quality, physical or biological indices if they exist. Based on the QAPP and field protocol documents, a site is located by the sampling crew via Global Positioning System (GPS). Data are collected for each parameter following the protocols outlined in the field operations manual. Indices for the probabilistic surveys relate to the condition of the resource and the extent that the waters are supporting the fishable and swimmable goals of the Clean Water Act. Samples taken from the field are stored in accordance with field manual instructions and shipped to the processing laboratory. Laboratories will follow quality assurance (QA) plans and complete analysis and provide electronic information to the state or EPA. EPA and the state exchange data to ensure that each has a complete set. EPA and states analyze the data to assess regional and national condition of the water resource surveyed. Results of the analyses on a national and regional basis will be published in a publicly accessible peer reviewed report released within two years of sample collection. The overall change in condition of the water body type will be assessed on a five year cycle.

Assumptions: (1) The underlying target population (water resource sampled for the survey) 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) a combination of data into indices is completed in a statistically rigorous manner.

Suitability: By design, all data are suitable to be aggregated up to the regional and national level to characterize the ecological condition of the waterbody resource and the associated stressors. Samples provide site specific point-in-time data and excellent representation of the entire resource (extrapolation to the entire resource supportable). Data will be used to characterize populations and subpopulations of waterbody resources through time and space. Data analysis and interpretation will be peer reviewed prior to completion of final report. The data are suitable for individual reports and to establish a baseline for subsequent surveys to evaluate trends.

QA/QC Procedures: Collection and processing of all samples are described in QAPP and Field Protocols documents associated with each survey. In addition, the QAPP will contain specific Data Quality Objectives (DQOs) and Measurement Quality Objectives (MQOs) associated with each survey. To ensure that the survey is obtaining the DQOs and MQOs, there are several QA steps built into each survey. Training for all crew members is required before sampling begins. Field evaluations are conducted for all crews to ensure methods are being followed. Each laboratory involved in the sample processing will adhere to the specified laboratory protocols and undergo a thorough and documented quality assurance/quality control (QA/QC) process. Submitted data will undergo a final QC check before analysis begins.

Data Quality Reviews: A peer review and public comment period will be held for each survey. During this time, the draft report will be posted on the web for interested parties to review and submit comments. An independent group of experts will be selected to

serve on a peer review panel for the report. In house audits will also be conducted over the course of the survey.

Data Limitations: Because the data are collected in a manner to permit calculations of uncertainty and designed to meet specific Data Quality Objectives (DQOs), the results at the regional level are within about 2-4% of true values dependent upon the specific sample type. Detailed QA/QC checks throughout the survey reduce the data limitations and errors in sampling. The scale of the reporting units is limited by the number of samples taken in a specific region. To make a statistically valid statement about the condition of the resource, sample size should minimally include 30-50 sites per region. Since samples are collected one time at each site per survey, trends analysis will depend on future survey work. Lag time between sample collection and reporting will be between 1-2 years.

Error Estimate: The estimation of condition will vary for the national condition and the regional condition for each survey. The condition estimates are determined from the survey data using cumulative distribution functions and statistically-based uncertainty estimates.

New/Improved Data or Systems: Additional indicators, addressing regional specific needs can be added to the survey over time. QA requirements will be met by all laboratories participating in the surveys. Probabilistic surveys repeated on the same water body type utilizing a similar sample design will show condition trends for the resource on a broad geographic scale.

References:

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U.S. Environmental Protection Agency. 2004. *National Coastal Condition Report II*. EPA-620/R-03/002

- **Annual percentage of water body segments identified by States in 2000 as not attaining standards, where water quality standards are now fully attained (PART measure)**
- **Restore water quality to allow swimming in stream miles and lake acres identified by states**
- **Cost per water segment restored (PART measure)**

Performance Database: The Watershed Assessment Tracking Environmental Results System (WATERS— found at <http://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 Total Maximum Daily Load (TMDL) Tracking System. This information (found at <http://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: the number of impaired waters in 1998/2000. As 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 1998/2000 impaired totals. Changes will be recorded in reports, scheduled every six years (e.g. 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/wqm/. 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 five years, was

approved in July 2001⁸. 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: Recent 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*⁹, the March 15, 2000 Government Accounting Office report *Water Quality: Key Decisions Limited by Inconsistent and Incomplete Data*¹⁰, the 2001 National Academy of Sciences Report *Assessing the TMDL Approach to Water Quality Management*¹¹ and EPA's *Draft Report on the Environment*.¹²

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 integrates 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 guidance. The 2006 Integrated Report Guidance (released August 3, 2005 at <http://www.epa.gov/owow/tmdl/2006IRG>)¹³ provides comprehensive direction to states on fulfilling reporting requirements of Clean Water Act

⁸ National Research Council, Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction, Water Science and Technology Board, *Assessing the TMDL Approach to Water Quality Management* (Washington, DC: National Academy Press, 2001).

⁹ USEPA, National Advisory Council for Environmental Policy and Technology, *Report of the Federal Advisory Committee on the Total Maximum Daily Load Program*. EPA 100-R-09-8006 (1998).

¹⁰ GAO. *Water Quality: Key EPA and State Decisions Limited by Inconsistent and Incomplete Data* (Washington, DC: 2000), RCED-00-54 and *Water Quality: Inconsistent State Approaches Complicate Nation's Efforts to Identify Its Most Polluted Waters*, GAO-02-186 (Washington, DC: 2002)

¹¹ *Assessing the TMDL Approach to Water Quality Management*. 2001. Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction, Water Science and Technology Board, National Research Council

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¹³ USEPA, Office of Water, *2006 Guidance for Assessment, Listing, and Reporting Requirements Pursuant to Sections, 303(d), 305(b), and 314 of the Clean Water Act* (2005). Available at <http://www.epa.gov/owow/tmdl/2006IRG> (accessed 12 December 2005)

sections 305 (b) and 303(d). Also, the *Consolidated Assessment and Listing Methodology – Toward a Compendium of Best Practices*¹⁴ (released on the Web July 31, 2002 at www.epa.gov/owow/monitoring/calm.html) 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*, (March, 2003).¹⁵ This guidance describes ten elements that each state water quality monitoring program should contain and proposes time-frames for implementing all ten elements.

In addition, a recent evaluation by the EPA Office of the Inspector General¹⁶ recommended that EPA focus on improving its watershed approach by:

- Facilitating stakeholder involvement in this approach
- Better integrating the watershed approach into EPA core programs,
- Refining the Agency strategic plan to better evaluate key programs and activities, and
- Improving the measurement system by which watershed progress is assessed.

EPA is engaged in many activities to strengthen its footprint in above four foci. Specific examples, as noted in Assistant Administrator Grumbles' December 2005 reply to the Inspector General's evaluation, follow:

First, examples of how the EPA Office of Water is working to facilitate stakeholder involvement in this approach are monthly Webcasts (topics have included strategies, tools, and techniques for sustainable watersheds) and plans to release a Watershed Planning Handbook in 2006.

Second, EPA core program activities are focusing more heartily on watershed initiatives. EPA is preparing 2006 guidance on watershed TMDLs and guidance for using Clean Water State Revolving funds for state watershed activities.

Third, EPA is working to refine its strategic planning process with the April 2005 inception of the Watershed Managers Forum, a channel of communication between EPA Regional offices and Headquarters on issues, planning, and organizational steps to successfully implement watershed initiatives of EPA's *Strategic Plan*¹⁷. The Office of Water is also strengthening linkage of its information technology capabilities and monitoring efforts to meet goals of EPA's strategic planning.

¹⁴ U.S. EPA, Office of Water, *Consolidated Assessment and Listing Methodology- Toward a Compendium of Best Practices*. (Washington, DC: 2002) Available at www.epa.gov/owow/monitoring/calm.html (accessed 12 December 2005)

¹⁵ USEPA, Office of Water, *Elements of a State Water Monitoring and Assessment Program*, EPA 841-B-03-003 (Washington, DC: 2003). Available at <http://www.epa.gov/owow/monitoirng/repguide.html> (accessed 12 December 2005)

¹⁶ USEPA Office of the Inspector General, *Sustained Commitment Needed to Further Advance the Watershed Approach* (2005). Available at <http://www.epa.gov/oig/reports/2005/20050921-2005-P-00025.pdf>.

¹⁷ USEPA, Office of the Chief Financial Officer, *2003-2008 Strategic Plan: Direction for the Future*, (2003). Available at <http://www.epa.gov/ocfo/plan/2003sp.pdf>_(accessed 16 December 2005).

Fourth, EPA is working to improve measurement of its progress by conducting detailed analysis of options for measuring performance. Areas of general interest in this effort include tracking improvements short of full restoration, and measures for the extensive work the Office of Water does to maintain water quality.

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.

Error Estimate: No error estimate is available for this data.

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 entitled *Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act* during summer 2005. The Guidance is a comprehensive compilation of relevant guidance EPA has issued to date regarding the Integrated Report. There are a few specific changes from the 2004 guidance. For example, the 2006 Integrated Report Guidance provides greater clarity on the content and format of those components of the Integrated Report that are recommended and required under Clean Water Act sections 303(d), 305(b), and 314. The guidance also gives additional clarity and flexibility on reporting alternatives to TMDLs for attaining water quality standards (e.g., utilization of reporting Category 4b).

References:

USEPA, Office of the Inspector General. 2005. *Sustained Commitment Needed to Further Advance the Watershed Approach*. Available at <http://www.epa.gov/oig/reports/2005/20050921-2005-P-00025.pdf>.

USEPA, Office of Water. 2005. *Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act*. Available at http://www.epa.gov/owow/tmdl/2006IRG_

USEPA, Office of the Chief Financial Officer. 2003. *2003-2008 Strategic Plan: Direction for the Future*. Available at <http://www.epa.gov/ocfo/plan/2003sp.pdf>.

USEPA. 2003. *Draft Report on the Environment 2003*. EPA 260-R-02-006. Available at http://www.epa.gov/indicators/roe/index.htm_

USEPA, Office of Water. 2003. *Elements of a State Water Monitoring and Assessment Program*. EPA 841-B-03-003. Washington, DC. Available at <http://www.epa.gov/owow/monitoring/repguid.html>.

USEPA, National Advisory Council for Environmental Policy and Technology. 1998. *Report of the Federal Advisory Committee on the Total Maximum Daily Load Program*. EPA 100-R9-8006.

USEPA. 2002. *Consolidated Assessment and Listing Methodology – Toward a Compendium of Best Practices*. Washington, DC. Available at <http://www.epa.gov/owow/monitoring/calm.html>.

Government Accountability Office. 2002. *Water Quality: Inconsistent State Approaches Complicate Nation's Efforts to Identify its Most Polluted Waters*. GAO-02-186. Washington, DC.

Government Accountability Office. 2000. *Water Quality: Key EPA and State Decisions Limited by Inconsistent and Incomplete Data*. GAO-RCED-00-54. Washington, DC.

National Research Council, Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction. 2001. *Assessing the TMDL Approach to Water Quality Management*. Washington, DC: National Academy Press.

- **Number of TMDLs required that are established or approved by EPA on a schedule consistent with national policy (cumulative) [PART Annual measure]**
- **Number of TMDLs that are established by States and approved by EPA on a schedule consistent with national policy (cumulative) [PART Annual measure]**

Performance Database: The Assessment and Total Maximum Daily Load (TMDL) Tracking And Implementation System (ATTAAINS) is a database which will capture water quality information related to this measure. This database is an upgrade to the existing National TMDL Tracking System (NTTS). ATTAAINS will be an integrated system capable of documenting and managing the connections between state assessment and listing decisions reported under sections 305(b) and 303(d) (i.e., integrated reporting) and completed TMDL information. This system will allow seamless access to all information about assessment decisions and restoration actions across reporting cycles and over time until water quality standards are attained. Watershed Assessment Tracking Environmental Results System (WATERS– found at <http://www.epa.gov/waters/>) is EPA's approach for viewing water quality information related to this measure. TMDL information (found at http://oaspub.epa.gov/waters/national_rept.control) is used to generate reports that identify waters for which EPA has approved state-submitted TMDLs and for which EPA has established TMDLs. Annual TMDL totals, spanning 1996 to the present, are available from ATTAAINS on a fiscal year basis. As TMDLs and other watershed-related activities are developed and implemented, water bodies which were once impaired will meet water quality standards. Thus these TMDL measures are closely tied to the PART measure, "Number of water body segments identified by States in 2002 as not attaining standards, where water quality standards are now fully attained." Newly attaining water bodies will be removed from the list of impaired water segments.

Data Source: State-submitted and EPA-approved TMDLs and EPA-established TMDLs are the underlying data for this measure. Electronic and hard copies are made available by states and often linked to EPA Web sites. More specifically, WATERS allows search for TMDL documents at http://www.epa.gov/waters/tmdl/tmdl_document_search.html.

Methods, Assumptions, and Suitability: State and EPA TMDLs are thoroughly and publicly reviewed during their development. Upon approval by EPA, relevant information from each TMDL is entered into the ATTAINS by EPA Regional staff.

QA/QC Procedures: QA/QC of data is provided by EPA Regional staff and through cross-checks of WATERS information regarding impaired water listings, consistent with the Water Quality Management Plan (QMP). EPA requires that organizations prepare a document called a 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: Internal reviews of data quality have revealed some inconsistencies in the methodology of data entry between EPA Regional Offices. In 2005 and 2006, EPA convened a meeting of NTTs users to discuss how to improve the database. As a result, data field definitions were clarified, the users' group was reinstated, several training sessions were scheduled, and an ATTAINS design team is currently directing the database upgrades. One of the issues raised included the methodology used to count TMDLs. Previous methodology generated a TMDL "count" based on the causes of impairment removed from the 303(d) impaired waters list as well as the TMDL pollutant. EPA proposed to change the counting methodology to directly reflect only the pollutants given allocations in TMDLs. During a recent EPA Office of the Inspector General review they concurred with this recommendation. This proposed change was vetted during the TMDL Program's annual meeting in March 2007 and implemented in August 2007. This modification has decreased the number of TMDLs developed historically by about 7%. Current realization of targets shows the TMDL Program continues to make sizable steps in meeting Clean Water Act goals despite the challenges.

Data Limitations: To meet the increasing need for readily accessible CWA information, EPA is both upgrading the current database and overseeing quality review of existing data. In the process of developing the new database existing data entry requirements and procedures are being reevaluated and communicated with data entry practitioners. Data quality has been improving and will continue to improve during this overhaul.

Error Estimate: No error estimate is currently available for this data.

New/Improved Data Systems: See above.

References:

USEPA, Office of the Inspector General. 2005. *Sustained Commitment Needed to Further Advance the Watershed Approach*. Available at <http://www.epa.gov/oig/reports/2005/20050921-2005-P-00025.pdf>.

USEPA, Office of the Inspector General, September 19, 2007, *Total Maximum Daily Load Program Needs Better Data and Measures to Demonstrate Environmental Results*, Report No. 2007-P-00036.

National Research Council, Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction. 2001. *Assessing the TMDL Approach to Water Quality Management*. Washington, DC: National Academy Press.

Link to TMDL report data can be found at: <http://www.epa.gov/owow/tmdl/>

Link to the Watershed Assessment Tracking Environmental Results System (WATERS) can be found at: http://www.epa.gov/waters/tmdl/expert_query.html

- **Percentage of States and Territories that within the preceding three year period submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other sources not considered in the previous standards. [PART measure]**
- **Percentage of submissions of new or revised water quality standards from States and Territories that are approved by EPA [PART measure]**

Performance Database: The Water Quality Standards Action Tracking Application (WATA), an internal tracking application managed by the Office of Science and Technology described at <http://intranet.epa.gov/ost/div/shpd/wata-manual.pdf>, is the performance database for these measures. The information in this system provides the baseline and performance data for these measures.

Data Source: The underlying data sources for this measure are submissions from states and territories of water quality standards to EPA pursuant to the Clean Water Act and EPA's water quality standards regulation at 40 CFR Part 131. States and territories are required to review their water quality standards at least once every three years and submit any new or revised water quality standards to EPA for review and approval. Each submission is accompanied by a letter from an appropriate official, and includes a certification by the state or territorial attorney general that the standards were duly adopted pursuant to state or territorial law.

EPA Regional Office staff members compile information from each submission and enter it into the WATA system. The information includes identifying data (name of jurisdiction, date of submission), data concerning components of the submission, and data concerning EPA's action on the submission. EPA has delegated approval and disapproval decisions to the Regional Administrator; the Regional Administrator may re-delegate the decisions to the appropriate Division Director, but no further. Approval decisions are judicially reviewable, and are accompanied by an appropriate administrative record.

Methods and Assumptions: The Office of Science and Technology has established computation metrics in the Water Quality Standards Action Tracking Application (WATA) system to produce the baselines and performance data for both measures. These metrics are as follows:

- Percentage of State and Territorial water quality standards submissions (received in the 12 month period ending April 30th of the fiscal year) that are approved by EPA. Partial approvals receive fractional credit.

This metric considers all new or revised submissions from May 1 of the previous year through April 30 of the current year. This reporting period provides regions at least five months to reach and document a valid approval decision. EPA management believes this is an adequate time for processing submissions. A “submission” is determined by the submitting jurisdiction, as described above. The metric then searches for whether the Regional Office has made any approval decision concerning the submission. If EPA approves the submission in full by the end of the reporting period, it will be counted with an approval value of 1. If EPA disapproves all provisions of the standards, it will be counted with an approval value of 0 (zero). In some cases the Regional decision official may decide to approve some portions of the standards provisions, disapprove some portions, or defer actions on some portions. To accommodate these possibilities, and to reflect the complex nature of some submissions, the WATA system allows Regional staff to track portions of a submission as separate parts with weights corresponding to the number of actual provisions involved. When different decisions are reached on different parts or provisions of a submission, the metric calculates a fractional approval value. The fractional approval value is a number between 0 and 1, equal to the number of provisions approved, divided by the total number of provisions in the original submission. For example, if a submission contains 10 provisions and EPA approves 8 and disapproves 2, then the metric would count this as 0.8 submissions. The final performance metric is the sum of full or fractional approval values divided by the total number of submissions during the reporting period.

- Number of States and Territories that within the preceding three year period submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other sources not considered in the previous standards

This measure utilizes a Regional Office entry in the WATA system which indicates whether a submission or submission part includes one or more new water quality criteria or revised criteria that reflect new scientific information from EPA or other sources not considered in the previous criteria. Biological criteria that are reflected explicitly in designated uses would count under this entry. If a state or territory has not adopted any such criteria, the jurisdiction can nevertheless be counted under this measure if (a) EPA has issued new or revised water quality criteria, including revisions to the published table of EPA recommended criteria at <http://www.epa.gov/waterscience/criteria/wqcriteria.html>, but the state has determined through a scientific assessment that such a change is not relevant for its waters, or (b) the jurisdiction could certify to EPA that it has completed a defensible scientific review of the new scientific information EPA has issued and has determined that no changes are needed to their existing water quality criteria. The metric searches for one or more qualifying submissions or submission parts for each jurisdiction during the three-year period ending five months before the end of the reporting period, and that have been approved by EPA by the end of the reporting period. For example, for FY 2009 any qualifying submissions from May 1, 2005, through April 30, 2009, that were approved by September 30, 2009, would enable the jurisdiction to be counted. Note the overlap from one reporting year to the next: a state that last made such a submittal, in, say, February

2005, would be counted in FY 2005, FY 2006, and FY 2007 but not in FY 2008 or FY 2009.

Suitability: These two performance measures provide important information about how well EPA and states/territories are carrying out their respective roles and responsibilities for establishing and approving up-to-date scientifically defensible WQS. The first measure describes how well EPA and states/territories are working together to set revised WQS that EPA can approve in a timely fashion. The second measure provides an indicator of how well states' WQS reflect latest scientific data.

QA/QC Procedures: States and territories conduct QA/QC of water quality standards submissions pursuant to individual state procedures. Because such submissions are subject to judicial review, the attorney general's certification described above provides assurance of the content of each submission. EPA regional staffs provide support to and interact with the jurisdictions as they develop, review, and adopt water quality standards. Each Regional Office provides data quality review of its entries in the WATA system. For example, Regional Offices generally assure that each entry is reviewed by the water quality standards coordinator, usually a senior scientist or environmental protection specialist with extensive experience in water quality standards actions. Data validation algorithms built into each entry screen also help improve data quality. In addition, a sample of entries is spot-checked by Headquarters' Office of Science and Technology staff. The Regions and Headquarters have been able to conduct the data quality reviews fairly easily because the number of submissions has averaged about 50 submissions per year in recent years, well within their available resources to provide adequate review.

Data Quality Review: No external reviews of the data have been conducted.

Data Limitations: Submissions may vary considerably in size and complexity. For example, a submission may include statewide water quality standards revisions, use attainability analyses for specific water bodies, site-specific criteria applicable to specific types of waters, general statewide policies, antidegradation policies or procedures, and variances. Therefore, these measures – the number of submissions approved, and the number of jurisdictions with updated scientific information contained in adopted standards – do not provide an indicator of the scope, geographic coverage, policy importance, or other qualitative aspects of water quality standards. This information would need to be obtained in other ways, such as by reviewing the content of adopted and approved standards available at <http://www.epa.gov/waterscience/standards/wqslibrary/>, or contacting the appropriate Regional Office or state/territorial personnel.

Error Estimate: No error estimate is available for this data.

New/Improved Data Systems: The Office of Science and Technology is planning to enhance the existing WATA system to improve its capabilities and data quality.

References:

USEPA. September 13, 2006. *Water Quality Standards Acting Tracking Application: Users Manual*. Available at <http://intranet.epa.gov/ost/div/shpd/wata-manual.pdf>.

USEPA. 2000. *Water Quality Standards Regulation*. Code of Federal Regulations, 40 CFR part 131. Available at http://www.access.gpo.gov/nara/cfr/waisidx_05/40cfr131_05.html.

USEPA. August 1994. *Water Quality Standards Handbook*, 2nd edition. <http://www.epa.gov/waterscience/standards/handbook/>.

- **Estimated annual reduction of nitrogen (reported in millions of pounds), phosphorous (millions of pounds), and sediment (tons) from nonpoint sources to waterbodies. [PART Annual Measure]**

Performance Database: The Section 319 Grant Reporting and Tracking System (GRTS) is used by grant recipients (State agencies) to supply information about State NPS Management Programs and annual Section 319 funded work programs, which include watershed-based BMP implementation projects. GRTS includes information about Best Management Practices (BMPs) implemented under 319-funded watershed projects, and the NPS load reductions achieved as a result of implementation. EPA uses GRTS to compile and report information about state section 319 program projects, including load reductions for nitrogen, phosphorus, and sediment to waterbodies.

State reporting via GRTS in part fulfills requirements of the Clean Water Act (CWA) Sections 319(h)(11) and 319(m)(1); however, GRTS also provides EPA and other stakeholders greater and more efficient access to data, information, and program accomplishments than would otherwise be available. Besides load reduction information, GRTS, in conjunction with WATERS (see below) provides detailed georeferencing (i.e., National Hydrography Dataset – or “NHD”-- reach addresses) for 319-funded projects, project cost information, and a host of other elements.

GRTS is also part of the Watershed Assessment, Tracking, and Environmental Results System (WATERS), which is used to provide water program information and display it spatially using a geographic information system integrated with several existing databases. These databases include the STORage and RETrieval (STORET) database, the National Assessment Database (NAD), the TMDL Tracking System (NTTS), the Water Quality Standards Database (WQSDB), and GRTS.

Data Source: States enter load reduction data for individual 319-funded projects into GRTS. Various watershed models are used in the States to estimate the load reductions resulting from implementation of BMPs. Two models used by many states, and directly supported by EPA, are the Spreadsheet Tool for Estimating Pollutant Loads (STEPL) model, and the “Region 5” model. States, at their discretion, may use other models or methods (e.g., AGNPs, SWAT, GWLF, etc), or may use actual water monitoring data to generate estimates of pollutant load reduction resulting from BMP implementation. The load reduction data generated by modeling and/or monitoring efforts are entered by State staff directly into the appropriate GRTS data fields.

Methods, Assumptions and Suitability: States employ two main methods to make pollutant load reduction estimates for the purpose of entering information into GRTS: 1) watershed models to estimate load reductions after watershed project BMPs are implemented, and 2) direct sampling over time of pollutants using targeted site selection. Even direct sampling methods, however, usually involve some type of modeling to separate BMP effects from other variables when determining load reductions.

EPA aggregates the load reduction data entered into GRTS to generate the national load reduction number for each pollutant. With each successive time period – each of which includes load reduction estimates from projects funded under more than one fiscal year grant (since BMPs are still “working” for some time after initial installation) -- the total from the previous period is subtracted from the total of the current time period to get the incremental total. For example, our first report on national load reduction numbers in the PART included projects funded from FY 2002 and most of FY 2003 (FY 2002 was the first grant year for which load reduction information was mandated). For the next report in PART, we totaled load reductions for projects from FY 2002 through 2004, with a smattering of projects for FY 2005 for which information was available in GRTS. The total from the first time around was subtracted from this latter total to give us the increment. This increment is what we reported in OMB’s Program Assessment Rating Tool (PART) in November 2005.

This method of determining the increment has been necessary because of the particular structure and previous software used for GRTS, which houses projects by grant year. A project funded in a single grant year is usually implemented over several years. Within a single project form, the load reduction number (or numbers if more than one watershed is being addressed by the project) is updated at least annually, but there is no requirement to keep the “original” load reduction number in the system. Therefore, we did not always have a record of how load reductions have increased over time for a given project; hence, we use the method described above to estimate the national load reduction increment from one time period to the next.

QA/QC Procedures: QA/QC of load reduction estimates generated by states is dependent on individual state procedures, such as state Quality Management Plans (QMPs), which are periodically reviewed and approved by EPA Regions.

EPA provides user support and training to states in the use of the STEPL and Region 5 models. EPA emphasizes that Quality Assurance Project Plans (QAPPs) should be developed (in accordance with EPA approved State QMPs) for watershed projects, especially where water quality models are being used or where monitoring is being conducted. EPA also stresses that site-specific parameters be used whenever possible for input to water quality models, as opposed to default input values provided by some modeling tools.

States have continual access and opportunity to review the information in GRTS to ensure it accurately reflects the data they entered (according to their QA procedures). EPA periodically reviews GRTS and reminds states of the critical importance of their completing mandated data elements in a timely, high-quality manner.

Data Quality Review: Data entered in GRTS are periodically reviewed by EPA Regions and Headquarters. Regional personnel also maintain hardcopies of the states work programs, watershed project implementation plans, and Annual Progress Reports. Verification of data in GRTS can be cross-checked with these documents to ensure quality, consistency, and reliability in progress reporting on an incremental (such as, year-to-year) basis, or to note any problems in data quality in GRTS. EPA frequently reviews various aggregation(s) of all the data in GRTS by our use of “ad-hoc” and standard reports available in the GRTS reporting system.

In the past, Nonpoint Source Program reporting under Section 319 had been identified as an Agency-level weakness under the Federal Managers Financial Integrity Act. The Agency's establishment and subsequent enhancements of GRTS has served to mitigate this problem by requiring states to identify the activities and results of projects funded with Section 319(h). In response to the FMFIA evaluation, EPA has been working with states and other stakeholders to improve data input and quality. We sponsor national GRTS-users group meetings each year. These meetings serve not only to meet the training needs of the user community, but also provide a forum for discussing needed enhancements to GRTS. These enhancements range from better capturing environmental results to improving consistency of data entry to facilitate state-by-state comparisons.

The CWA Sections 319(h)(11) and 319(m)(1) require States to report their Nonpoint Source Management Program (NPSMP) milestones, nonpoint source pollutant load reductions, and water quality improvements. These sections provide the EPA Office of Water (OW) authority to require water quality monitoring and/or modeling, and to require reporting by states to demonstrate their success in reducing nonpoint source pollutant loads and improving water quality. OW has issued several guidance documents designed to improve state NPSMPs, watershed-based projects, and consistency in state progress reporting, including their use of GRTS. In September 2001, EPA issued ["Modifications to Nonpoint Source Reporting Requirements for Section 319 Grants."](#) This memorandum outlines the process for reporting in GRTS load reductions for nutrients and sediment (for applicable Section 319(h) funded projects). Our current "National Nonpoint Source Program and Grants Guidelines" (October, 2003) includes sections on all nonpoint source grant reporting requirements, including GRTS reporting. Furthermore, EPA, in consultation with the States, has established the nonpoint source program activity measures (PAMs) -- including nonpoint load reductions -- which are now part of EPA's Strategic Plan and the PART. We have also communicated (e.g., via email) to states further detailed explanations of the NPS program activity measures, expected reporting sources and dates, and results of our reviews of data input to GRTS by the States.

Data Limitations: State NPSMP work to model (and monitor) watersheds is often not integrated or coordinated with state water quality monitoring and assessment strategies, and therefore use of the data may be rather limited. Load reduction data are typically generated from the use of water quality models, and there is a great deal of uncertainty in model inputs and outputs. States generally do not apply model results to decision-making for implementing and/or revising their NPS Management Programs.

State assessments of load reductions and water quality typically include uncertainties associated with any measuring or modeling tools. Variability in the environment, as well as in state methods and application of tools limit the accuracy of data for describing load reductions and water quality at the project level. Aggregating the load reduction data up to the national measure compounds the level of uncertainty, thereby preventing the Agency from assigning a reasonable numerical confidence level to it.

Error Estimate: No error estimate is available for these data.

New/Improved Data or Systems: GRTS has recently been converted to an Oracle database. Oracle is the standard database used by Federal agencies. Conversion to Oracle will allow GRTS to seamlessly connect with WATERS, as well as facilitate

potential linkages to a variety of other databases, models, and watershed planning tools. The Oracle-based GRTS will greatly improve reporting capabilities for all end users, and make it easier to quickly answer questions for stakeholders. Questions which will be easier to answer include, “Where are watershed projects being developed and implemented? Are they concurrent with impaired waters and established TMDLs? Do they pursue actions necessary to reduce pollutant loads and attain water quality standards?”

Oracle provides users the capability of customizing data entry screens to facilitate various reporting needs of the States and EPA. We can customize screens to reflect various programmatic needs of Regional offices and States, such as to view only the mandated elements, or a mix of mandated elements and other Regionally-required data fields.

Training on STEPL and the Region 5 model are ongoing in hopes of minimizing operational mistakes for State staff utilizing one or both of these models to estimate section 319 project load reductions.

- **Percentage of major dischargers in Significant Noncompliance at any time during the fiscal year (PART measure)**

Performance Databases: The Permit Compliance System, (PCS) tracks permit compliance and enforcement data for sources permitted under the Clean Water Act National Pollutant Discharge Elimination System (NPDES). Data in PCS include major permittee self reported data contained in Discharge Monitoring Reports (DMR), data on permittee compliance status, data on state and EPA inspection and enforcement response.

Data Source: Permittee self reported DMR data are entered into PCS by either state or EPA Regional offices. PCS automatically compares the entered DMR data with the pollutant limit parameters specified in the facility NPDES permit. This automated process identifies those facilities which have emitted effluent in excess of permitted levels. Facilities are designated as being in Significant Noncompliance (SNC) when reported effluent exceedances are 20% or more above permitted levels for toxic pollutants and/or 40% or more above permitted levels of conventional pollutants. PCS contains additional data obtained through reports and on-site inspections, which are used to determine SNC, including: non-effluent limit violations such as unauthorized bypasses, unpermitted discharges, and pass through of pollutants which cause water quality or health problems; permit schedule violations; non-submission of DMRs; submission of DMRs 30 or more days late; and violation of state or federal enforcement orders.

Methods, Assumptions and Suitability: There are established computer algorithms to compare DMR effluent data against permitted effluent levels. The algorithms also calculate the degree of permitted effluent exceedance to determine whether toxic/conventional pollutant SNC thresholds have been reached.

QA/QC Procedures: Quality Assurance/Quality Control procedures [See references] are in place for PCS data entry. State and regional PCS data entry staff are required to take PCS training courses [See references]. 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 PCS information. 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.

Data Quality Review: Information contained in PCS is required by policy to be reviewed by regional and headquarters= staff for completeness and accuracy. SNC data in PCS are reviewed quarterly.

Data Limitations: Legal requirements for permittees to self report data on compliance with effluent parameters in permits generally results in consistent data quality and accuracy. EPA monitors and measures the timeliness of DMR submissions and data entry quality. National trends over the past several years show an average of 94% of DMRs are entered timely and complete. Where data entry problems are observed, OECA works directly with regions and states to improve performance, and in limited circumstances has dedicated supplemental grant resources to help regions and states correct problems. As part of ICIS-NPDES implementation OECA is working to deploy an electronic DMR process to save resources on data entry workload and reduce data input errors.

Error Estimate: Not available

New & Improved Data or Systems: PCS was developed during the 1980s and has undergone periodic revision and upgrade since then. OECA is currently developing a modernized data system to replace PCS, utilizing modern data entry, storage, and analytical approaches. The replacement of PCS with ICIS-NPDES (Integrated Compliance Information System – NPDES), a modernized and user-friendly NPDES data system, began in June 2006 when eleven states began using the system; seven other states will be migrated to the new system in August. During phased implementation of ICIS-NPDES across the states a combination of PCS and ICIS-NPDES will be used to generate SNC data. Once fully implemented, ICIS-NPDES will be the sole source of NPDES SNC data.

References:

PCS information is publicly available at:

<http://www.epa.gov/compliance/planning/data/water/pcssys.htm>

- **Percentage of high priority EPA and State NPDES permits that are reissued on schedule (PART Measure)**
- **Percentage of high priority state NPDES permits that are scheduled to be reissued (PART Measure)**

Performance Database:

- U.S. EPA. Permit Compliance System (PCS). [database]. Washington, DC [Office of Enforcement and Compliance Assurance]
- U.S. EPA Integrated Compliance Information System (ICIS-NPDES). [database]. Washington, DC [Office of Enforcement and Compliance Assurance]
- Electronic Permit Issuance Forecasting Tool (E-PIFT) [database]. Washington, DC [Office of Water]

- Priority Permits Data Base. [web-based database]. Washington, DC [Office of Water]

EPA has carried out detailed permit renewal backlog tracking with PCS data since November 1998. The Permit Compliance System (PCS) and the Integrated Compliance Information System (ICIS-NPDES) are used to determine which individual permits are current through date fields for permit issuance and expiration. To supplement the individual permit data from PCS, EPA uses the Electronic Permit Issuance Forecasting Tool (E-PIFT) to track the current or expired status of facilities covered under non-storm water general permits. E-PIFT has been used to track non-storm water general permit facilities since January 2001.

In March 2004 a new priority permit issuance strategy was initiated under the Permitting for Environmental Results (PER) program. The priority permits issuance strategy focuses permitting activities on environmentally and administratively significant expired permits. The Priority Permits Database is a web-based system that tracks the specific permits that each State and Region has identified as priority. States and Regions enter the permits, and EPA HQ uses PCS/ICIS-NPDES to track permit issuance status of these permits.

Data Source: EPA's Regional offices and NPDES authorized states enter data into PCS and/or ICIS-NPDES and EPA's Regional offices are responsible for entering data to the E-PIFT. EPA's Regional offices and States also enter permit identification information into the Priority Permits database.

Methods, Assumptions and Suitability: Annually, Office of Wastewater Management (OWM) provides State and Regional authorities with a list of candidate priority permits, defined as permits that have been expired for two years or more. States and Regions then use several programmatic and environmental criteria to select which of those candidate permits should be prioritized for issuance. They then commit to issue these permits over the next two fiscal years, with the goal of achieving a 95% issuance rate. Regions enter their commitments into the Priority Permits Data Base. Results are confirmed using PCS/ICIS-NPDES reports.

QA/QC Procedures: The PCS and ICIS-NPDES databases are managed by the Office of Enforcement and Compliance Assurance (OECA); E-PIFT and Priority Permits Database are web-based systems that are managed by the Office of Water (OW). EPA Headquarters (HQ) staff in OECA review data submitted by states as part of the QA/QC process. In addition, OW continues to work with States and Regions to improve the quality and completeness of the data. EPA generates state-by-state reports that list PCS/ICIS-NPDES key data fields, including permit issuance and expiration dates, as well as compliance and enforcement data, and provides these lists to NPDES states and Regions for review and cleanup. EPA also created a spread sheet comparing latitude/longitude (lat/long) data for municipal treatment systems collected by the Clean Water Needs Survey to the lat/long data in PCS. This spread sheet is provided to States and Regions so that, where discrepancies exist between state and PCS/ICIS-NPDES data, EPA and States can make corrections in PCS/ICIS-NPDES. EPA will continue to focus on improving the lat/long data in PCS/ICIS-NPDES, especially at the pipe level.

Additionally, where States maintain key permit data in separate state-level systems, EPA is providing support to upload these data to PCS.

Data Quality Review: The Office of Inspector General (OIG) has issued several findings regarding poor PCS data quality, and PCS has been listed as an Agency-Level Weakness under the Federal Managers Financial Integrity Act since 1999. This weakness affects EPA=s ability to obtain a true picture of the status of the NPDES program. Fortunately, permit event data such as the permit issuance and expiration data needed for this performance measure are generally better populated than other ~~akey@~~ data elements. As noted previously, OW is offering support to States for data upload, data entry, and, if necessary, data compilation to improve data quality. This has resulted in improved tracking of data, particularly industrial permits.

The replacement of PCS with ICIS-NPDES, a modernized and user-friendly NPDES data system, began in June 2006 and nineteen states and several territories have successfully migrated to the new system. Use of ICIS-NPDES should greatly increase state participation and data quality. Batch states (those states with their own data systems) will not be migrated to ICIS-NPDES until appropriate mechanisms are in place to transfer the data.

Data Limitations: Priority Permits data are verified and reliable. We are aware of data gaps in PCS in general, particularly for minor facilities, and of discrepancies between state databases and PCS; however, EPA=s data clean-up over the past five years has significantly improved data quality. E-PIFT has enabled EPA to report on inventories and status of non-storm water facilities covered by NPDES general permits, but the data are not as comprehensive as those tracked in PCS. In addition, to date, there has been no national-level data system to track permit issuance and expiration status of facilities covered by *stormwater* general permits. In 2007, OWM is planning to improve E-PIFT to enable tracking of stormwater general permits and facilities covered under them.

Error Estimate: We believe that the permit renewal backlog data for major facilities is accurate within 2 percent based on input from EPA=s Regional offices and states through a quarterly independent verification. For minor facilities, however, the confidence interval is less precise and probably overestimates the permit renewal backlog for minor facilities by 5 percent based on anecdotal information from EPA=s Regional offices and states.

New/Improved Data or Systems: EPA headquarters has been providing contractor assistance to improve the data quality in PCS and will continue to do so. The new modernized ICIS-NPDES was rolled out in June 2006, with nineteen states and several territories now using the system. ICIS –NPDES will be easier to use and will improve the quality of data needed to manage the NPDES program.

References: Information for PCS and ICIS-NPDES is publicly available at: <http://www.epa.gov/compliance/data/systems/modernization/index.html>

- **Loading (pounds) of pollutants removed per program dollar expended (PART efficiency measure)**

Performance Database: Data for this measure are derived using different methods for industries subject to effluent guidelines, Publicly Owned Treatment Works (POTWs), municipal storm water and construction storm water (industrial storm water is not included nor are reductions from water quality based effluent limits). The values derived

from these methods are summed to obtain the total pollutant load reductions achieved under the surface water program.

To calculate the PART efficiency measure, the total cumulative pollutant reductions are divided by the total number of dollars devoted to the EPA Surface Water Program (SWP), grants to States under Clean Water Act (CWA) section 106, plus State 'match' dollars, annually. SWP and CWA Section 106 budget is pulled from EPA's Integrated Financial Management System (IFMS). State 'match' dollars are reported to EPA by States.

Data Sources: For industry sectors subject to **effluent guidelines**, estimated loading reductions are taken from reductions estimated in the Technical Development Document (TDD) when the effluent guideline is developed. The common components for such analyses include wastewater sampling, data collection from the regulated industry, and some amount of estimation or modeling. TDDs are available for: Pulp & Paper, Pharmaceuticals, Landfills, Industrial Waste Combustors, Centralized Waste Treatment, Transportation Equipment Cleaning, Pesticide Manufacturing, Offshore Oil & Gas, Coastal Oil & Gas, Synthetic Based Drilling Fluid, Concentrated Animal Feeding Operations, Meat and Poultry, Metal Products and Machinery, Aquaculture. States and EPA's Regional offices enter data into PCS and ICIS.

For **Publicly Owned Treatment Works (POTWs)**, trend data is taken from a detailed analysis for BOD and TSS loadings from POTWs in *Progress in Water Quality: An Evaluation of the National Investment in Municipal Wastewater Treatment*, USEPA, June 2000, EPA-832-R-00-008. The report provides flow estimates, loading estimates and a distribution of treatment class for every 2 to 4 years from 1968 through 1996. In addition, the report uses data from the Clean Watershed Needs Survey (CWNS) to provide projections for 2016. EPA has also prepared a *2004 Update to Progress in Water Quality* that uses data from the 2004 CWNS to provide flow and loading estimates for the year 2000 and projections for 2025. The 2004 CWNS is currently at OMB for clearance.

For **Municipal Stormwater**, estimates were derived from EPA models of the volume of storm water discharged from municipal separate storm sewer systems (MS4s) developed as part of a 1997 EPA draft report. The methodology and results of the 1997 draft report are described in *Economic Analysis of the Final Phase II Storm Water Rule*, EPA, October 1999.¹⁸

Estimates of the sediment load present in **Construction Stormwater** is derived using a model developed by the US Army Corps of Engineers. The model uses the construction site version of the Revised Universal Soil Loss Equation (RUSLE). Uncontrolled (i.e. prior to implementation of Best Management Practices (BMPs)) and controlled (i.e. after the implementation of BMPs) sediment loadings were estimated for 15 climatic regions with three site sizes (one, three, and five acres), three soil erodability levels (low, medium, and high), three slopes (3%, 7%, and 12%), and various BMP combinations.

¹⁸ Economic Analysis of the Final Phase II Storm Water Rule, Oct. 1, 1999, US EPA. Available at: <http://www.epa.gov/npdes> or http://cfpub.epa.gov/npdes/docs.cfm?program_id=6&view=allprog&sort=name

The methodology and results are described in “Economic Analysis of the Final Phase II Storm Water Rule.”

Combined Sewer Overflow (CSO) loadings are estimated based on data obtained from the Clean Watershed Needs Survey and from the “Report to Congress on the Impacts and Control of Combined Sewer Overflows and Sanitary Sewer Overflows.” States and EPA’s Regional offices provide data for the CSO Report to Congress and the Clean Watershed Needs Survey.

Data for the PART denominator, i.e. the total number of dollars devoted to the EPA Surface Water Program (SWP), are assembled and updated as new data becomes available. EPA Surface Water Program funds and CWA Section 106 budget are initially based on the President’s Budget until a final budget is adopted; it is then pulled from EPA’s Integrated Financial Management System (IFMS). State ‘match’ dollars are reported to EPA by States; where updated data is not available, the last year of confirmed data is carried forward.

Methods, Assumptions and Suitability: EPA uses the spreadsheet described above to estimate loadings. The data are aggregated across different sources to determine loading reductions at the national level. Loadings appear to be the best surrogate for determining the environmental impacts of point sources. Pollutant load reductions, along with some of the water quality improvement measures, tell the story about environmental outcomes. Pollutant reductions per dollar spent provides a snapshot of the effectiveness and efficiency of the surface water program, and comparing this over time helps to delineate a trend.

QA/QC Procedures: The loadings spreadsheets are based on information from rulemakings and policies that have undergone extensive review. The effluent guidelines follow EPA quality assurance/quality control (QA/QC) procedures.

Data Quality Reviews: The methodology for this measure was submitted to OMB for review during the PART process.

Data Limitations: Loadings data must be modeled rather than measured as there is inconsistent and poor data quality in the PCS data base with respect to flow and discharge monitoring, including missing data for minor facilities which has not been required to be entered. Neither monitoring nor flow data are required for certain categories of general permits. The Agency, therefore, is not able to measure actual loadings reductions for all of the approximately 550,000 facilities that fall under the NPDES program. As a result, loadings estimates are based upon models.

When the ICIS-NPDES Policy Statement is issued, the quality and quantity of Discharge Monitoring Report (DMR) data is expected to improve. This will enable development of improved methods for estimating and validating loading reductions.

Error Estimate: At this time we are unable to estimate error due to the lack of actual national level data to compare to estimates based on models.

New/Improved Data or Systems: EPA continues to evaluate and explore improved methods for calculating loadings reductions nation-wide from all sources.

References:

Clean Watershed Needs Survey 2000 [Electronic data base]. (2000). Washington, D.C. U.S. Environmental Protection Agency [Office of Wastewater Management].

Effluent guidelines development documents are available at:
<http://www.epa.gov/waterscience/guide>.

Modeling databases and software being used by the Office of Water are available at:
<http://www.epa.gov/water/soft.html>

SWP PART Efficiency Measure Spreadsheet [Excel Spreadsheet]. Washington, D.C. U.S. Environmental Protection Agency [Office of Wastewater Management].

- **Fund utilization rate for the CWSRF [PART annual measure]**

Performance Database: Clean Water State Revolving Fund National Information Management System (NIMS.)

Data Sources: Data are from reporting by municipal and other facility operators, state regulatory agency personnel and by EPA's regional staff. Data are collected and reported once yearly.

Methods, Assumptions and Suitability: Data entered into NIMS are the units of performance. These data are suitable for year-to-year comparison and trend indication.

QA/QC Procedures: EPA's headquarters and regional offices are responsible for compiling the data and querying states as needed to assure data validity and conformance with expected trends. States receive data entry guidance from EPA headquarters in the form of annual memoranda. A generic memorandum would be titled: "Request for Annual Update of Data for the Clean Water State Revolving Fund National Information Management System, July 1, 200X through June 30, 200X."

Data Quality Reviews: EPA's headquarters and regional offices annually review the data submitted by the states. These state data are publicly available at <http://www.epa.gov/owm/cwfinance/cwsrf> in individual state reports. EPA's headquarters addresses significant data variability issues directly with states or through the appropriate EPA regional office. An annual EPA headquarters' "NIMS Analysis" provides detailed data categorization and comparison. This analysis is used during annual EPA regional office and state reviews to identify potential problems which might affect the performance measure, biennial reviews by EPA's headquarters of regional oversight of state revolving funds and, annual reviews by EPA's regional offices of their states' revolving funds operations.

State data quality is also evaluated during annual audits performed by independent auditors or by the appropriate regional office of the EPA Inspector General. These audits are incorporated into EPA headquarters' financial management system.

Data Limitations: There are no known limitations in the performance data, which states submit voluntarily. Erroneous data can be introduced into the NIMS database by typographic or definitional error. Typographic errors are controlled and corrected through

data testing performed by EPA's contractor. Definitional errors due to varying interpretations of information requested for specific data fields have been virtually eliminated in the past two years as a result of EPA headquarters' clarification of definitions. These definitions are publicly available at: <http://www.epa.gov/owm/cwfinance/cwsrf>. There is typically a lag of approximately two months from the date EPA asks states to enter their data into the NIMS database, and when the data are quality-checked and available for public use.

Error Estimate: Due to the rapid growth of this program, past estimates of annual performance (relative to a target), compared to actual performance data received two years later, have been accurate to an average of approximately plus or minus 2 percentage points.

New/Improved Data or Systems: This system has been operative since 1996. It is updated annually, and data fields are changed or added as needed.

References:

State performance data as shown in NIMS are available by state at:

<http://www.epa.gov/owm/cwfinance/cwsrf>

Definitions of data requested for each data field in NIMS is available at:

<http://www.epa.gov/owm/cwfinance/cwsrf>

The Office of Water Quality Management Plan, July 2001 (approved September 28, 2001) addresses the quality of data in NIMS. Not publicly available.

- **Reduction in the number of homes on tribal lands lacking access to basic sanitation**

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 health 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. PDS has been modified to meet 40CFR31.40 reporting requirements. In 2006 STARS is being modified to include rural communities that are not Alaska Native Villages but has a substantial Alaska Native population.

References:

1. Indian Health Service (IHS), Division of Sanitation Facilities (DSFC). Criteria for the Sanitation Facilities Construction Program, June 1999, Version 1.02, 3/13/2003.
http://www.dsfc.ihs.gov/Documents/Criteria_March_2003.cfm
2. 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.
<http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf>

- **National Coastal Condition Report (NCCR) score for overall aquatic ecosystem health of coastal waters nationally (1-5 scale) [PART Long-term outcome measure tracked annually]**

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. The final data are then migrated to the STORET data warehouse for integration with other water quality data with metadata documenting its quality.

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 two-year period 2000-2002.

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 eight year period will be necessary for the Regional estimate to meet the performance measurement goal (+0.2 over an eight 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 next NCCR (NCCRIII) representing trends between 1990-2002.

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 two years. All participants received training in year 2000 and retraining sessions are scheduled every two 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 one 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. Beginning in 2005, ORD began assisting OW, as requested, with expert advice, but discontinued its financial support of the program.

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:

- (1) 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.
- (2) 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.

- (3) 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 (#1). These “new” results for the baseline (re-calculated scores) are reported in Appendix C of the 2005 report.

References:

1. Environmental Monitoring and Assessment Database (1990-1998) and National Coastal Assessment Database (2000- 2004) websites: www.epa.gov/emap and www.epa.gov/emap/nca (NCA data for 2000 is only data available at present)
2. 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)
3. National Coastal Assessment. 2001. Quality Assurance Project Plan. EPA/620/R-01/002.(Available through John Macauley above)
4. 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)
5. U.S. Environmental Protection Agency. 2001. National Coastal Condition Report. EPA-620/R- 01/005.
6. U.S. Environmental Protection Agency. 2004. National Coastal Condition Report II. In review Assigned Report Number EPA-620/R-03/002.

Objective: Enhance Research to Support Clean and Safe Water

- **Report on the conditions and seasonal trends of water quality in the Gulf of Mexico hypoxic zone**

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

- **Percentage of planned outputs delivered in support of Six Year Review decisions (PART Measure)**
- **Percentage of planned outputs delivered in support of Contaminated Candidate List decisions (PART Measure)**
- **Percentage of planned outputs (in support of WQRP long-term goal #1) delivered on time (PART Measure)**
- **Percentage of planned outputs (in support of WQRP long-term goal #2) delivered on time (PART Measure)**
- **Percentage of planned outputs (in support of WQRP long-term goal #3) delivered on time (PART Measure)**

Performance Database: Integrated Resources Management System (internal database)

Data Source: Data are generated based on self-assessments of completion of planned program outputs.

Methods, Assumptions and Suitability: To provide an indication of progress towards achievement of a program's long-term goals, each program annually develops a list of key research outputs scheduled for completion by the end of each fiscal year. This list is finalized by the start of the fiscal year, after which no changes are made. The program then tracks quarterly the progress towards completion of these key outputs against pre-determined schedules and milestones. The final score is the percent of key outputs from the original list that are successfully completed on-time.

QA/QC Procedures: Procedures are now in place to require that all annual milestones and outputs be clearly defined and mutually agreed upon within ORD by the start of each fiscal year. Progress toward completing these activities is monitored by ORD management

Data Quality Reviews: N/A

Data Limitations: Data do not capture the quality or impact of the research milestones and outputs being measured. However, long-term performance measures and independent program reviews are used to measure research quality and impact. Additionally, completion rates of research outputs are program-generated, though subject to ORD review.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: Drinking Water Multi-Year Plan, available at: <http://epa.gov/osp/mydw/dw.pdf> (last accessed July 20, 2007).
 Water Quality Multi-Year Plan, available at: <http://epa.gov/osp/mydw/wq.pdf> (last accessed July 20, 2007).
 Drinking Water Research Program PART Assessment, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10004371.2005.html> (last accessed August 16, 2007)

Water Quality Research Program PART Assessment, available at:
<http://www.whitehouse.gov/omb/expectmore/summary/10004306.2006.html>
(last accessed August 16, 2007)

GOAL 3: Land Preservation and Restoration

Objective: Preserve Land

- **Percentage of Construction and Demolition debris that is reused or recycled**

Performance Database: EPA does not maintain a database for this information.

Data Sources: The baseline numbers for construction and demolition (C&D) debris generation and recycling in the United States rely on data from two recent draft EPA studies characterizing generation and management of building-related and road-related C&D debris: (1) "Characterization of Building-Related Construction and Demolition Debris in the United States," and (2) "Characterization of Road and Bridge-Related Construction and Demolition Debris in the United States." The building-related report is an update of EPA's 1998 report by the same name. It includes additional sampling data published after 1998 to strengthen the source category database. The purpose of the reports is to characterize the various components of the C&D waste stream and estimate the total amount of debris generated and recycled nationally. It is important to note that the data and information provided in these reports are preliminary and are currently undergoing review.

Methods, Assumptions and Suitability: *Building-Related C&D:* The methodology used to estimate the amount of building-related C&D debris generated nationally combines national Census Bureau data on construction industry activities (e.g., construction permits and the value of new private and public residential construction from the Department of Commerce Current Construction Reports) with point source waste assessment data (i.e., waste sampling and weighing at a variety of construction and demolition sites). Recycling estimates are based on data from national industry surveys and local communities.

Road- and Bridge-Related C&D: A model is used to estimate the amount of road-related C&D generation. The model is a series of steps applied to road statistics published by the Federal Highway Administration to determine, in 12-foot lane widths, the number of lane-miles in the U.S. This area measurement is then combined with assumptions on pavement type, maintenance time frames, reconstruction and resurfacing depths, and weight factors to estimate road C&D generation on a tons per year basis. Assumptions pertaining to asphalt and cement concrete debris generation include: "Asphalt roads are reconstructed on the average every 30 years," and "the cement concrete layer on reconstructed roads averages eight inches." Recycling estimates are based on limited data obtained from state highway departments as well as industry surveys.

To support attainment of the 65% C&D recycling goal, EPA is currently developing program objectives and strategic tasks focused on increasing the recycling rate of five materials that comprise the majority of the C&D waste stream: concrete pavement, asphalt pavement, gypsum wallboard, wood, and asphalt shingles.

QA/QC Procedures: Quality Assurance and Quality Control are provided by internal procedures and systems of the Department of Commerce and the Federal Highway

Administration, the sources of data on which the EPA reports are based. The reports prepared by the Agency are reviewed by industry experts for accuracy and soundness.

Data Quality Review: The 1998 edition of the building-related report underwent extensive review. Due to the general acceptance of this methodology and data sources by the reviewers, the 2005 report follows the original study to the extent possible. However, comments received on the latest revision raised concerns about the validity of the data and repeatability of the methodology. EPA is interacting with reviewers to address their concerns.

Data Limitations: The limited point source waste assessment data used in the building-related C&D analysis is a source of uncertainty. Additional limitations stem from the fact that in both studies, the baseline statistics and annual rates of C&D debris generation and recycling are based on a series of assumptions and extrapolations and, as such, are not an empirical accounting of national C&D debris generated or recycled.

Error Estimate: N/A. Currently, the Office of Solid Waste does not collect data on estimated error rates.

New/Improved Data or Systems: The need for further efforts to improve the data and the methodology has been expressed by peer reviewers. The agency is undertaking action to secure additional sources of information to bolster the data and fill identified data gaps, including trade associations from specific industry sectors and additional governmental entities.

References: *Characterization of Building-Related Construction and Demolition Debris in the United States*, EPA, June 1998 (EPA530-R-98-010), <http://www.epa.gov/epaoswer/hazwaste/sqg/c&d-rpt.pdf>

Characterization of Building-Related Construction and Demolition Debris in the United States, Franklin Associates, draft dated December 2005.

Characterization of Road and Bridge-Related Construction and Demolition Debris in the United States, EPA, draft dated December 2005.

- **Daily per capita generation of municipal solid waste [PART performance]**
- **Millions of tons municipal solid waste diverted [PART performance]**

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.

Error Estimate: N/A. Currently, the Office of Solid Waste (OSW) does not collect data on estimated error rates.

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), <http://www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm>

- **Percentage of coal combustion product ash that is used rather than disposed**

Performance Database: Data to support this measure are provided by the Department of Energy and American Coal Ash Association (ACAA). EPA collects data on generation of materials (Toxic Release Inventory), but it does not maintain a database for utilization.

Data Source: The ACAA conducts a voluntary survey on coal ash generation and recycling practices of its membership, which comprises approximately 35% of the electricity generating capacity of the United States. The ACAA survey information is compared to the other sources of utilization data, including the Department of Energy's Energy Information Agency (EIA), the Portland Cement Association and other publicly available trade association data. A limited amount of data relevant to recycling has been

reported on EIA Form 767, which was discontinued in 2007. These data will likely be collected on a different EIA form in the future.

Methods, Assumptions and Suitability: The CCP recycling rate is defined as the tonnage of coal ash recycled divided by the tonnage of coal ash generated nationally by coal-fired electric utilities. Data on domestic production of materials and products are compiled using published data series. U.S. Department of Energy sources are used, where available; but for specific utilization data more detailed information on the production of CCPs is available from trade associations. The goal is to obtain a consistent historical data series for products and materials. Data on average production as compared to utilization may provide estimates as to the effectiveness of beneficial use outreach.

QA/QC Procedures: Quality assurance and quality control for production numbers reported on EIA 767 are provided by the Department of Energy's internal procedures and systems. Data on utilization are reviewed by CCP industry experts for accuracy.

Data Quality Review: The reporting of utilization data is voluntary and requires extrapolation and integration with several sources of data. TRI data does not track end-use and does not require reporting of materials by their utilization

Data Limitations: Data limitations stem from the fact that the baseline statistics and annual rates of utilization are collected from different sources and are not mandated by statute or regulation. New data sources may be compared to historic data to determine if trends are reasonable and expected.

Error Estimate: N/A. Currently, the Office of Solid Waste (OSW) does not collect data on estimated error rates.

New/Improved Data or Systems: New or additional measurement techniques will need to be developed for 2007 data and beyond based on the development of new EIA forms to track generation and recycling.

References: The American Coal Ash Annual Survey is located at <http://www.aaa-usa.org/>.

- **Number of tribes covered by an adequate and recently-approved integrated solid waste management plan**
- **Number of closed, cleaned-up or upgraded open dumps in Indian Country and on other Tribal lands**

Performance Database: EPA's regional offices, in collaboration with the Indian Health Service (IHS), report annually the performance data to the WSTARS database.

Data Source: EPA and the Indian Health Service are co-sponsors of the Tribal Solid Waste Management Assistance Project. The formation of this workgroup resulted from the 1998 *Report to Congress* on open dumps on Indian Lands. The Indian Health Service was tasked to identify the high threat sites in need of upgrade or closure, and report the information to the WSTARS Database. The IHS WSTARS data are reported voluntarily by federally recognized tribal members. The member tribal data are extrapolated to generate national estimates, per the request from Congress.

Methods, Assumptions and Suitability: The Tribal Solid Waste Management Assistance Project is a national program that began in 2001 to increase the number of tribes covered by an adequate and recently-approved integrated waste management plan, and to close, clean-up, or upgrade open dumps in Indian country and on other tribal lands.

The latest EPA and IHS annual data show that an annual, incremental rate will allow the tribes to reach the goals established by 2011.

QA/QC Procedures: The IHS WSTARS data are reported voluntarily by federally recognized tribal members. Quality assurance and quality control are provided by internal procedures of the IHS WSTARS reporting process.

Data Quality Review: The data are reviewed by the EPA and IHS for data quality. The data are considered to be accurate on a national scale.

Data Limitations: The WSTARS contains data pertaining to the open dumps and solid waste management plans of the federal recognized tribal members. The WSTARS membership comprises all of the 562 federally recognized tribes of the United States. Because accurate assumptions can be made about the numbers of open dumps and the solid waste management plans generated, the data may be extrapolated to estimate the total open dumps and solid waste management plans for the federally recognized tribes within the United States. The data, however, may be limited in certain regions of the country, making extrapolations to a national statistic inaccurate.

Error Estimate: N/A. Currently, the Office of Solid Waste (OSW) does not collect data on estimated error rates.

New/Improved Data or Systems: No new efforts to gather different or additional data are contemplated at this time.

References: The IHS, WSTARS data are available from the HIS website at www.ihs.gov.

- **Annual increase in the percentage of RCRA hazardous waste management facilities with permits or other approved controls**

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program.

Data Source: Data are mainly entered by the states and can be entered directly into RCRAInfo, although some choose to use a different program and then "translate" the information into RCRAInfo. Supporting documentation and reference materials are maintained in Regional and state files.

Methods, Assumptions and Suitability: RCRAInfo, the national database which supports EPA's RCRA program, 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 <http://www.epa.gov/rcrainfo/>, provides guidance to facilitate the generation and interpretation of data. 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 facility has approved controls in place is based primarily 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. Accomplishment of updated controls is based on the permit expiration date code. We have discussed the need for correct entry with the Regions.

During 2008, we plan to update the baseline for tracking in FY09 and beyond. The updates are anticipated to be minimal. New reports should be developed in RCRAInfo in FY08 in order to better track FY09 goals.

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, <http://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.

The U.S. EPA Office of the Inspector General issued on December 4, 2006 a report titled, "EPA's Management of Interim Status Permitting Needs Improvement to Ensure Continued Progress." The report discusses "Interim Status" as a designation for hazardous waste units regulated under the Resource Conservation and Recovery Act. Although such a status is meant to be temporary, some units have existed for as many as 25 years as "Interim Status" without formal issuance or denial of a permit or other regulatory controls. This may have implications for measuring the Agency's progress in attaining "controls in place" for all RCRA facilities, including "Interim Status" facilities. Recommendations have been made to identify opportunities for prioritizing facilities based on risk, and time in interim status and to adjust the baseline based on "new" designation of interim status. In response, EPA incorporated a new element within the FY2008 National Program Guidance (NPG) which encouraged regions and states to

consider risk in determining the prioritization of facilities to be addressed in the multi-year strategies. EPA is committed to reducing the number of facilities in interim status by getting them permitted or clean closed. EPA believes, however, that permitting activities have been generally prioritized based on risk, and the Agency does not believe “time in interim status” by itself is a meaningful criterion for prioritizing which units present the highest risks, but it can be part of the overall risk evaluation.

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 updated controls are intended to apply to the facilities that are “due for permit renewals,” but we anticipate that there will be some facilities that cease to be “due for permit renewals” because of a change in facility status.

Error Estimate: N/A. Currently OSW does not collect data on estimated error rates.

New/Improved Data or Systems: 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. New reporting capabilities have been added in FY07.

References: RCRAInfo documentation and data (<http://www.epa.gov/rcrainfo/>).

The 1995 GAO report *Hazardous Waste: Benefits of EPA's Information System Are Limited* (AIMD-95-167, August 22, 1995, <http://www.gao.gov/archive/1995/ai95167.pdf>).

“EPA’s Management of Interim Status Permitting Needs Improvement to Ensure Continued Progress,” U.S. EPA Office of Inspector General, Report No. 2007-P-00005 December 4, 2006.

Objective: Restore Land

- **Refer to DOJ, settle, or write off 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 taken before the start of a remedial action (RA)**

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: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund Program 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, data owners, and data input personnel; 4) Quick Reference Guides (QRG), which are available in the CERCLIS Documents Database and provide detailed instructions on data entry for nearly every module in CERCLIS; 5) Superfund Comprehensive Accomplishment (SCAP) Reports within CERCLIS, which serve as a means to track, budget, plan, and evaluate progress towards meeting Superfund targets and measures; (6) a historical lockout feature in 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 2008/2009 (<http://www.epa.gov/superfund/action/process/spim08.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 2100.5 (<http://www.epa.gov/irmpoli8/ciopolicy/2100.5.pdf>); 2) the Office of Superfund Remediation and Technology Innovation Quality Management Plan (http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf) 3) Agency platform, software and hardware standards (<http://basin.rtpnc.epa.gov/ntsd/itroadmap.nsf>); 4) Quality Assurance Requirements in all contract vehicles under which CERCLIS is being developed and maintained (<http://www.epa.gov/quality/informationguidelines>); and 5) Agency security procedures(<http://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 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.

Data Limitations: None

Error Estimate: NA

New/Improved Data or Systems: None

References: Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001. [OSRE submitted an updated QMP to the OEI Quality staff in August 2006. In response to comments from OEI, OSRE submitted a revised draft QMP in March 2007. The revised draft awaits OEI approval or further comment.]

- **No more than 10,000 confirmed releases per year**
- **Increase the rate of significant operational compliance by 1% over the previous year's rate (target)**

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. For the PART Efficiency Performance Measure, OUST will estimate the value of this efficiency measure based on data that EPA and state agencies currently collect and maintain. The data includes the states' semi-annual activity reports, which track the number of releases confirmed each year and the number of active underground storage tanks; the State and Tribal Assistance Grant (STAG) funding for leak prevention and matching expenditure of 25 percent for every dollar of STAG funding the states receive; and EPA's prevention program administration costs, such as salary, travel expenses, contracts and working capital funds.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: For the semi-annual activity report data, EPA's Regional offices verify and then forward the data in an Excel spreadsheet to OUST. OUST staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in an Excel spreadsheet on a region-by-region basis, which is a way regional staff can check their data. For the PART Efficiency Measure, FY 2007 will serve as the baseline for implementation and QA/QC procedures are not yet in place.

Data Quality Review: None.

Data Limitations: For the semi-annual activity report, percentages reported are sometimes based on estimates and extrapolations from sample data. Data quality depends on the accuracy and completeness of state records.

Error Estimate: N/A

New/Improved Data or Systems: None.

References: *FY 2007 Mid-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division Directors, Regions 1-10, dated May 7, 2007 (updated semiannually); http://www.epa.gov/OUST/cat/ca_07_12.pdf

- **Number of cleanups that meet state risk-based standards for human exposure and groundwater migration. (Tracked as: Number of leaking underground storage tank cleanups completed.) [PART performance]**
- **Number of cleanups that meet 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.) [PART performance]**

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.

Methods, Assumptions and Suitability: The cumulative number of confirmed releases where cleanup has been initiated and where the state has determined that no further actions are currently necessary to protect human health and the environment, includes sites where post-closure monitoring is not necessary as long as site specific (e.g., risk based) cleanup goals have been met. Site characterization, monitoring plans and site-specific cleanup goals must be established and cleanup goals must be attained for sites being remediated by natural attenuation to be counted in this category. (See <http://www.epa.gov/OUST/cat/pm032603.pdf>.)

QA/QC Procedures: EPA's regional offices verify and then forward the data in an Excel spreadsheet to OUST. OUST staff examine the data and resolve any discrepancies with the regional offices. The data are displayed in an Excel spreadsheet on a region-by-region basis, which is a way regional staff can check their data.

Data Quality Review: None.

Data Limitations: Data quality depends on the accuracy and completeness of state records.

Error Estimate: N/A

New/Improved Data or Systems: None

References: *FY 2007 Mid-Year Activity Report*, from Cliff Rothenstein, Director, Office of Underground Storage Tanks to UST/LUST Regional Division Directors, Regions 1-10, dated May 7, 2007 (updated semiannually); http://www.epa.gov/OUST/cat/ca_07_12.pdf

- **Percentage of RCRA CA facilities with current human exposures under control**
- **Percentage of RCRA CA facilities with migration of contaminated groundwater under control**
- **Percentage of RCRA construction completions**
- **Percent increase of final remedy components constructed at RCRA CA facilities per federal, state, and private sector dollars per year [PART efficiency]**

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. For the efficiency measure, federal and state cost data are assembled from their respective budgets. Private sector costs are derived from data published in the Environmental Business Journal.

Methods, Assumptions and Suitability: 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. Within RCRAInfo, the Corrective Action Module tracks the status of facilities that require, or may require, corrective actions, including information related to the four measures outlined above. Performance 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 Corrective Action Program's progress in getting highest-priority contaminated facilities under control. Known and suspected facility-wide conditions 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, but 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 measure are used to track the RCRA program's progress in getting its highest-priority contaminated facilities moving towards final cleanup. Like with the environmental indicators determination, the lead regulators for the facility select the remedy and determine when the facility has completed construction of that remedy. Construction completions are collected on both an area-wide and site-wide basis for sake of the efficiency measure.

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.

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 EPA's 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 the 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 for the performance measures. 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. For the efficiency measure, private sector costs are not publicly available. Estimates of these costs are derived from Environmental Business Journal data.

Error Estimate: N/A. Currently, the Office of Solid Waste does not collect data on estimated error rates.

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 the waste management practices of 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 (http://www.access.gpo.gov/su_docs/fdlp/pubs/study/studyhtm.html).

- **Facilities under control (permitted) per total permitting cost [PART efficiency]**

Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program and provides information on facilities under control.

Costs by the permittee are estimated through the annual cost estimates contained in the Information Collection Requests (ICR) supporting statements relevant to the RCRA Base Program. ICRs are contained in the Federal Docket Management System. Base program appropriation information is maintained in the Budget Automation System (BAS).

Data Source: The Office of Solid Waste develops ICRs and ensures they have active ICRs approved by the OMB for all of their RCRA permitting and base program information collection activities. The Budget Automation System (BAS) automates EPA's budget processes, including planning, budgeting, execution, and reporting. Budget data is entered at a general level by offices and regions or by the Office of the Chief Financial Officer (OCFO).

Methods, Assumptions and Suitability: Numerator – Facilities under control is an outcome based measure as permits or similar mechanisms are not issued until facilities have met standards or permit conditions that are based on human health or environmental standards. Under the corresponding performance measure, 95% of facilities are to be under control by 2008.

Denominator – The denominator is the sum of two costs. The first is permitting costs based on Information Collection Requests for the base RCRA program. The costs will take into account recent rulemakings, including the Burden Reduction Rulemaking (published April 2006), which will impact program expenditures. The costs will also take into account one time costs associated with first year implementation.

The second program cost in the denominator is the input of a 3 year rolling average appropriation for Environmental Programs and Management (EPM) and State Tribal and Grant (STAG) program. Corrective action programs costs will not be included but will be addressed in a separate efficiency measure. A rolling average of appropriations is more appropriate since some of the facility controls depend upon past resources. Issuance time for a permit, for example, can exceed one year with public hearings and appeals. The cumulative number of facilities with controls in place is appropriate (rather than a single year's increment) because the appropriations are used to maintain facilities that already have controls in place (e.g. inspections and permit renewals) as well as to extend the number of facilities with controls.

QA/QC Procedures: QA/QC of the ICR costs is based on internal and external review of the data. BAS data undergoes quality assurance and data quality review through the Chief Financial Officer.

Data Quality Review: None.

Data Limitations: The data sources for the program costs identified in the denominator of the measure include all of the RCRA base program appropriations (e.g. RCRA Subtitle D program implementation) and not just costs for permitting. Accordingly, the measure cannot be compared with other similar government programs.

Error Estimate: N/A. Currently OSW does not collect data on estimated error rates.

New/Improved Data or Systems: No new efforts to improve the data or methodology have been identified

References: Federal Document Management System www.regulations.gov; Budget Automation Management System

- **Superfund final site assessment decisions completed [PART performance]**
- **Number of Superfund sites with human health protection achieved (exposure pathways are eliminated or potential exposures are under health-based levels for current use of land or water resources) [PART performance]**
- **Number of Superfund sites with contaminated groundwater migration under control [PART performance]**
- **Annual number of Superfund sites with remedy construction completed [PART performance]**
- **Number of Superfund sites ready for reuse site-wise**
- **Program dollars expended annually per operable unit completing cleanup activities [Federal Facilities PART efficiency measure].**
- **Voluntary removal actions overseen by EPA and completed [PART performance]**
- **Superfund-lead removal actions completed annually [PART performance]**
- **Superfund-lead removal actions completed annually per million dollars [PART efficiency]**
- **Number of Superfund sites with human exposures under control per million dollars obligated [PART efficiency]**
- **Number of Federal Facility Superfund sites where all remedies have completed construction [PART]**
- **Number of Federal Facility Superfund sites where the final remedial decision for contaminants at the site has been determined [PART]**

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. The Integrated Financial Management System (IFMS) is EPA's financial management system and the official system of record for budget and financial data.

Methods and Assumptions: Except for financial information, each performance measure is a specific variable entered into CERCLIS following specific coding guidance and corresponding supporting site-specific documentation.

IFMS contains records of all financial transactions (e.g., personnel, contracts, grants, other) of Superfund appropriation resources, as distinguished by U.S. Treasury schedule codes. Procurement data are entered manually into IFMS by Funds Control Officers throughout the Agency. Site-specific obligations are distinguished through the Site/Project field of the IFMS account number that is assigned to every financial transaction.

Total annual obligations include current and prior year appropriated resources, excluding Office of Inspector General (OIG) and Science and Technology transfers. Site-specific

obligation data are derived using query logic that evaluates the Site/Project field of the IFMS account number.

Suitability: The Superfund Remedial Program's performance measures for FY 2009 are the result of several years of refinement with OMB as follow-up to the Program's 2004 PART Review. The measures currently used to demonstrate program progress reflect several major milestones that reflect site cleanup progress from start (final assessment decision) to finish (sites ready for anticipate use). Each measure marks a significant step in ensuring human health and environment protection at Superfund sites. OMB has accepted these measures for monitoring program performance on an annual basis.

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund Program 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, data owners, and data input personnel; 4) Quick Reference Guides (QRG), which are available in the CERCLIS Documents Database and provide detailed instructions on data entry for nearly every module in CERCLIS; 5) Superfund Comprehensive Accomplishment (SCAP) Reports within CERCLIS, which serve as a means to track, budget, plan, and evaluate progress towards meeting Superfund targets and measures; (6) a historical lockout feature in 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 2008/2009 (<http://www.epa.gov/superfund/action/process/spim08.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 2100.5 (<http://www.epa.gov/irmpoli8/ciopolicy/2100.5.pdf>); 2) the Office of Superfund Remediation and Technology Innovation Quality Management Plan (http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf) 3) Agency platform, software and hardware standards (<http://basin.rtpnc.epa.gov/ntsd/itroadmap.nsf>); 4) Quality Assurance Requirements in all contract vehicles under which CERCLIS is being developed and maintained (<http://www.epa.gov/quality/informationguidelines>); and 5) Agency security procedures (<http://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.

The financial data are compliant with the Federal Managers Financial Integrity Act (FMFIA) of 1982 and received FY 2005 FMFIA certification.

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 is available at <http://www.epa.gov/oigearth/eroom.htm>. 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 <http://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 concurred 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 <http://www.epa.gov/oigearth/eroom.htm>.

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 That supports 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 (http://www.epa.gov/swefrr/pdf/oswer_qmp.pdf).

EPA received an unqualified audit opinion by the OIG for the annual financial statements, and the auditor recommended several corrective actions. All recommendations have been implemented by Office of the Chief Financial Officer in IFMS.

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 disagreed with the study design and report conclusions; however, the report provided 11 recommendations with which EPA concurred and either implemented or continues to implement. These include: 1) FY 02/03 SPIM Chapter 2 update was improved to define the Headquarters’ and Regional roles and responsibilities for maintaining planning and accomplishment data in ERCLIS; 2) language was added to the FY 04/05 SPIM Appendix A, Section A.A.5 ‘Site Status Indicators’ to clarify the use of the non-NPL status code of “SX”; 3) a data quality section was added to the FY 04/05 SPIM Appendix A, Section A.A.6 ‘Data Quality’; 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 the FY04/05 SPIM. For changes implemented due to this OIG audit, see the Change Log for

this SPIM at <http://www.epa.gov/superfund/action/process/pdfs/changelog6.pdf>); The development and implementation of a quality assurance process for CERCLIS data continues. This process includes delineating data quality objectives for GPRA targets, program measures, and regional data. The Agency has begun reporting compliance with the current data quality objectives.

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 improved some controls over CERCLIS data, the Agency disagreed and strongly objected to the study design and report conclusions.

New/Improved Data or Systems: As a result of a modernization effort completed in 2004, CERCLIS has standards for data quality and each EPA Region's CERCLIS Data Entry Control Plan, which identifies policies and procedures for data entry, is reviewed annually. EPA Headquarters has developed data quality audit reports and provided these reports to the Regions. These reports document data quality for timeliness, completeness, and accuracy as determined by the Superfund data sponsors to encourage and ensure high quality. Information developed and gathered in the modernization effort is being used as a valuable resource for scoping the future redesign of CERCLIS. The redesign is necessary to bring CERCLIS into alignment with the Agency's mandated Enterprise Architecture. The first major step in this effort was the migration of all 10 Regional databases and the Headquarters database into one single national database at the National Computing Center in RTP. The Superfund Document Management System (SDMS) has also migrated to RTP to improve efficiency and storage capacity. During this migration the SDMS was linked to CERCLIS which enable users to easily transition between programmatic accomplishments as reported in CERCLIS and the actual document that defines and describes the accomplishments. EPA Headquarters is also evaluating the need and increased functionality of an integrated SDMS-CERCLIS system. Tentatively that system is called the Superfund Enterprise Management System (SEMS). Work on SEMS has started in FY 2007 and will continue through FY 2009.

In an effort to better facilitate and capture important Superfund data, a new Five-Year Review Module was released in CERCLIS in June 2006. In addition, a new Reuse/Acreage Module was released in CERCLIS in June of 2007 to support two new performance measures.

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, <http://www.epa.gov/oigearth/eroom.htm>); and the GAO report, *Superfund Information on the Status of Sites* (GAO/RCED-98-241, <http://www.gao.gov/archive/1998/rc98241.pdf>). The Superfund Program Implementation Manuals for the fiscal years 1987 to the current manual (<http://www.epa.gov/superfund/policy/guidance.htm>). The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (August 2003,

http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf). Office of Environmental Information Interim Agency Life Cycle Management Policy Agency Directive 2100.5 (<http://www.epa.gov/irmpoli8/ciopolicy/2100.5.pdf>). The Office of Superfund Remediation and Technology Innovation Quality Management Plan (http://www.epa.gov/swerffrr/pdf/oswer_qmp.pdf). EPA platform, software and hardware standards (<http://basin.rtpnc.epa.gov/ntsd/itroadmap.nsf>). Quality Assurance Requirements in all contract vehicles under which CERCLIS are being developed and maintained (<http://www.epa.gov/quality/informationguidelines>). EPA security procedures (<http://basin.rtpnc.epa.gov/ntsd/ITRoadMap.nsf/Security?OpenView>).

FY 2005 FMFIA Certification 2004 Audited Financial Statements, see <http://www.epa.gov/oig/reports/financial.htm> OIG Audit "EPA Needs to Improve Change Controls for Integrated Financial Management System" dated August 24, 2004 (2004-P-00026)

All referenced internet addresses were last accessed on 07/31/07.

- **Average state of emergency response readiness as determined by readiness criteria**

Performance Database: No specific database has been developed. Data from evaluations from each of the 10 Regions are tabulated and stored using standard software (e.g., Word spreadsheets).

Data Source: Data are collected through detailed surveys of all Regional programs, as well as HQ offices and Special Teams of responders; the process includes 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 2009 Core ER target is to improve emergency response and homeland security readiness by 10 points from the FY 2008 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, Special Teams, and Headquarters using a systematic, objective process. Each evaluation team consists of managers and staff, from Headquarters and possibly 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, Special Teams 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 have 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, Special Teams, 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: None.

- **Number of inspections and exercises conducted at oil storage facilities required to have Facility Response Plans**
- **Percentage of inspected facilities subject to SPCC regulations found to be in compliance. [PART performance]**
- **Percentage of inspected facilities subject to FRP regulations found to be in compliance. [PART performance]**

Performance Database: The EPA Annual Commitment System (ACS) in BAS is the database for the number of inspections/exercises at SPCC and FRP facilities. Using data submitted directly by Regional staff as well as data in ACS, Office of Emergency Management (OEM) tracks in a spreadsheet national information about Regional activities at FRP facilities. Data about gallons of oil spilled are maintained in a National Response Center (NRC) database that reflects information reported to the NRC by those responsible for individual oil spills. Prevention and preparedness expenditures are tracked in the Integrated Financial Management System (IFMS), the Agency's financial database.

Data Source: Data concerning inspections/exercises at FRP and SPCC facilities are provided by Regional staff. Data concerning gallons of oil spilled to navigable waters are gathered from the publicly available National Response Center database. Data about program expenditures are extracted by EPA HQ from IFMS.

Methods, Assumptions and Suitability: The spill/exercise data are entered by Regional staff experienced in data entry. In every case, direct data (rather than surrogates open to interpretation) are entered.

QA/QC Procedures: Data are regularly compared to similar data from the past to identify potential errors.

Data Quality Reviews: EPA regularly reviews recent data, comparing them to data gathered in the past at similar times of year and in the same Regions. Any questionable data are verified by direct contact with the Regional staff responsible for providing the data.

Data Limitations: The NRC data will reflect the extent to which those responsible for oil spills accurately report them to the NRC.

Error Estimate: Data reported by the Regions should be relatively free of error. There may be some error in the NRC data, due to the fact that some spills might not be reported and/or some spills might be reported by more than one person. NRC and EPA procedures should identify multiple reports of the same spill, but it is not usually possible to identify an unreported spill.

New/Improved Data or Systems: There are no current plans to develop a dedicated system, to manage the various data.

References: For additional information on the Oil program, see www.epa.gov/oilspill

Objective: Enhance Science and Research

- **Percentage of planned outputs delivered in support of the manage material streams, conserve resources and appropriately manage waste long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support of the mitigation, management and long-term stewardship of contaminated sites long-term goal (PART Measure)**

Performance Database: Integrated Resources Management System (internal database).

Data Source: Data are generated based on self-assessments of completion of planned program outputs.

Methods, Assumptions and Suitability: To provide an indication of progress towards achievement of the Land Preservation and Restoration Research Program's long-term goals, the Land program annually develops a list of key research outputs scheduled for completion by the end of each fiscal year. This list is finalized by the start of the fiscal year, after which no changes are made. The program then tracks quarterly the progress towards completion of these key outputs against pre-determined schedules and milestones. The final score is the percent of key outputs from the original list that are successfully completed on-time.

QA/QC Procedures: Procedures are now in place to require that all annual outputs be clearly defined and mutually agreed upon within ORD by the start of each fiscal year. Progress toward completing these activities is monitored by ORD management

Data Quality Reviews: N/A

Data Limitations: Data do not capture the quality or impact of the research outputs being measured. However, long-term performance measures and independent program reviews are used to measure research quality and impact. Additionally, completion rates of research outputs are program-generated, though subject to ORD review.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: Contaminated Sites Multi-Year Plan, available at: <http://www.epa.gov/osp/myc/csites.pdf> (last accessed on July 20, 2007)
Resource Conservation and Recovery Act (RCRA) Multi-Year Plan, available at: <http://www.epa.gov/osp/myc/rcra.pdf> (last accessed on July 20, 2007)
Land Protection and Restoration Research PART Program Assessment, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10004305.2006.html> (last accessed August 16, 2007)

- **Average time (in days) for technical support centers to process and respond to requests for technical document review, statistical analysis and evaluation of characterization and treatability study plans. (Efficiency Measure)**

Performance Database: No internal tracking system.

Data Source: Data are generated based on technical support centers' tracking of timeliness in meeting customer needs.

Methods, Assumptions and Suitability: The dates of requests, due dates, response time, and customer outcome feedback are tabulated for the Engineering, Ground Water, and Site Characterization Technical Support Centers.

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: Land Protection and Restoration Research PART Program Assessment, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10004305.2006.html> (last accessed August 16, 2007)

GOAL 4: Healthy Communities and Ecosystems

Objective: Chemical and Pesticide Risks

- **Percent reduction in concentrations of pesticides detected in general population (PART measure)**

Performance Database: The Agency will use the Centers for Disease Control's (CDC's) National Health and Nutrition Examination Survey (NHANES) data from 1999-2002 as the baseline. For this measure, the Agency intends to report on the changes in levels of organophosphate pesticides at the 50th percentile (or median.) This group of chemicals was selected for a number of reasons. A large proportion of data collected from the general population are detectable residues (or their metabolites) for the organophosphate pesticides. In addition, the metabolites for which the analyses are performed are derived exclusively from the OP pesticides. The Agency selected a measure based on central tendency because it provides an overall picture of trends and is not distorted by anomalies in the data. However, the Agency intends to follow a range of metrics to more fully understand trends in the data. The annual targets will change every two years because each survey is performed over a two year period.

Data Sources: NHANES (see above)

Methods, Assumptions and Suitability: The NHANES data were selected because the surveys provide a statistically representative data set for the entire U.S. population. It is an ongoing program, with funding from numerous cooperating Federal agencies. The data are based on measurement of chemical levels in blood and urine.

QA/QC Procedures: This large scale survey is performed in strict compliance with CDC QA/QC procedures.

Data Quality Review: The measure will utilize NHANES data. NHANES is a major program of the National Center for Health Statistics (NCHS). NCHS is part of the Centers for Disease Control and Prevention (CDC), U.S. Public Health Service, and has the responsibility for producing vital and health statistics for the Nation. The National Center for Health Statistics (NCHS) is one of the Federal statistical agencies belonging to the Interagency Council on Statistical Policy (ICSP). The ICSP, which is led by the

Office of Management and Budget (OMB), is composed of the heads of the Nation's 10 principal statistical agencies plus the heads of the statistical units of 4 nonstatistical agencies. The ICSP coordinates statistical work across organizations, enabling the exchange of information about organization programs and activities, and provides advice and counsel to OMB on statistical activities. The statistical activities of these agencies are predominantly the collection, compilation, processing or analysis of information for statistical purposes. Within this framework, NCHS functions as the Federal agency responsible for the collection and dissemination of the Nation's vital and health statistics. Its mission is to provide statistical information that will guide actions and policies to improve the health of the American people.

To carry out its mission, NCHS conducts a wide range of annual, periodic, and longitudinal sample surveys and administers the national vital statistics systems.

As the Nation's principal health statistics agency, NCHS leads the way with accurate, relevant, and timely data. To assure the accuracy, relevance, and timeliness of its statistical products, NCHS assumes responsibility for determining sources of data, measurement methods, methods of data collection and processing while minimizing respondent burden; employing appropriate methods of analysis, and ensuring the public availability of the data and documentation of the methods used to obtain the data. Within the constraints of resource availability, NCHS continually works to improve its data systems to provide information necessary for the formulation of sound public policy. As appropriate, NCHS seeks advice on its statistical program as a whole, including the setting of statistical priorities and on the statistical methodologies it uses. NCHS strives to meet the needs for access to its data while maintaining appropriate safeguards for the confidentiality of individual responses.

Three web links to background on data quality are below:

<http://www.cdc.gov/nchs/about/quality.htm>

http://www.cdc.gov/nchs/data/nhanes/nhanes_01_02/lab_b_generaldoc.pdf#search=%22quality%20control%20NHANES%22

http://www.cdc.gov/nchs/data/nhanes/nhanes_03_04/lab_c_generaldoc.pdf#search=%22quality%20NHANES%22

Data Limitations: Some limitations include that not all pesticides are included, it is a measure of exposure instead of risk, and there is a time-lag between EPA actions and the CDC's analysis of the data.

Error Estimate: There is the potential of identifying metabolites that comes from both a pesticide and another source.

New/Improved Data or Systems: Not known at this time.

References: Third National Report on Human Exposure to Environmental Chemicals 2005, CDC/National Center for Environmental Health/Environmental Health Laboratory
<http://www.cdc.gov/nchs/about/nhanes>

- **Average cost and average time to produce or update an Endangered Species Bulletin (PART efficiency)**

Performance Database: The Bulletins Live! application is enabled by a multi-user relational database system that maintains a permanent archive with dates of the draft and final content for each endangered species protection Bulletin that is created or updated in the system. When the Bulletins Live! application is made available to the public, EPA will take over the complete Bulletin production process, which is currently carried out by the United States Geological Survey (USGS) staff through an Interagency Agreement (see below). Additionally, tracking and summary reporting of all endangered species mitigation actions including the time between which a decision is made to issue a Bulletin and its availability to the public will be made available as a part of the OPP "PRISM" information system that is planned for development in FY 2007. This system will track the staff working on mitigation development and bulletin production, and the time spent on these activities, allowing for a calculation of the cost per bulletin issued with Bulletins Live!

Data Source: The data necessary to track progress towards the targets for this measure are currently being collected by EPA. The Bulletins are being developed for EPA by the U.S. Geological Survey (USGS) Cartography and Publishing Program under an Interagency Agreement (IAG) with OPP. The data will be collected annually through the end-of-year report under the Interagency Agreement (IAG). The baseline year will be 2004 cost and time averages (\$4000.00 and 100 hours per Endangered Species Bulletin production or update).

Methods, Assumptions and Suitability: These Bulletins are a critical mechanism for ensuring protection of endangered and threatened species from pesticide applications. Bulletins are legally enforceable extensions to pesticide labels that include geographically specific use limitations for the protection of endangered species. The faster the Bulletins can be developed, the earlier the protections are available to endangered and threatened species. Similarly, the less it costs to produce the Bulletins, the more Bulletins can be produced within available budget and the greater the impact on saving endangered and threatened species.

This measure is calculated as follows:

$100 - \left[\frac{\text{Sum of the costs to produce or update Endangered Species Bulletins in current 12 month period}}{\text{Sum of the costs to produce or update Endangered Species Bulletins in previous 12 month period}} \times 100 \right]$ This is intended to be a measure that captures improvements in current year cost per bulletin vs. previous year cost per bulletin.

$100 - \left[\frac{\text{Sum of the time in hours to produce or update Endangered Species Bulletins in current 12 month period}}{\text{Sum of the time in hours to produce or update Endangered Species Bulletins in previous 12 month period}} \times 100 \right]$

QA/QC Procedures: EPA adheres to its approved Quality Management Plan to ensure the overall quality of data in the Bulletins Live! system. Bulletins pass through a multi-level quality control and review process before being released to the public. After the initial Bulletin is created by trained staff in the Endangered Species Protection Program, the draft is automatically routed in the system to a senior staff member who reviews the

information in the Bulletin as a quality control check. After this Agency review, Bulletins are then subject to review and comment by Regional and State regulatory partners responsible for different aspects of the field implementation program and Bulletin enforcement.

Data Quality Reviews: Data quality reviews for the Bulletins themselves are ongoing through the QA/QC methodology described above. Data quality reviews for components of the measure (time per bulletin and cost per bulletin) will be carried out by the Project Officers who manage the Bulletins Live! and PRISM systems.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: The web-based Bulletins Live! system will facilitate the expedited production and delivery of endangered species protection Bulletins as compared to the 2004 baseline.

References:

Endangered Species Protection Program website and Bulletins Live!
<http://www.epa.gov/espp>; QMP: Quality Management Plan for the Office of Pesticides Program, February 2006; Endangered Species Act.

- **Cumulative number of assays that have been validated. (PART Measure)**

Performance Database: Performance is measured by the cumulative number of assays validated. The completion of the validation process for an assay can take several years. Excel spreadsheets are used to capture and track various steps within the validation process in order to better show progress. These steps within the validation process include: detailed review papers completed, prevalidation studies completed, validation by multiple labs completed, peer reviews, and the cumulative number of assays that have been validated.

Data Source: 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).

Methods, Assumptions and Suitability: The measure is a program output which when finalized, helps to ensure that EPA meets The Food Quality Protection Act of 1996 (FQPA) requirement that EPA validate assays to screen chemicals for their potential to affect the endocrine system. The measure represents the ultimate objective of this program (e.g., validating assays for use in screening and testing chemicals for potential endocrine effects, as required by FQPA.)

QA/QC Procedures: EDSP's contractors operate independent quality assurance units (QAUs) to ensure that all studies are conducted under appropriate QA/QC programs. Two levels of QA/QC are employed. First, the contractors operate under a Quality Management Plan designed to ensure overall quality of performance under the

contracts. Second, prevalidation and validation studies are conducted under a project-specific Quality Assurance Project Plans (QAPPs) developed by the contractor and approved by EPA. These QAPPs are specific to the study being conducted. Most validation studies are conducted according to Good Laboratory Practices (GLPs). In addition, EPA or its agent conducts an independent lab/QA audit of facilities participating in the validation program.

Data Quality Review: All of the documentation and data generated by the contractor, OECD and ORD, as it pertains to the EDSP, are reviewed for quality and scientific applicability. The contractor maintains a Data Coordination Center which manages information/data generated under EDSP. The contractor also conducts statistical analyses related to lab studies, chemical repository, and quality control studies.

Data Limitations: There is a data lag of approximately 9-24 months due to the variation in length and complexity of the lab studies, and for time required for review, analysis and reporting of data.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: EPA Website; EPA Annual Report; Endocrine Disruptor Screening Program Proposed Statement of Policy, Dec. 28, 1998; Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC) Final Report (EPA/743/R-98/003); EPA Contract # 68-W-01-023.

- **Register reduced risk pesticides including biopesticides**
- **New Chemicals (Active Ingredients)**
- **New Uses**
- **Reduce registration decision times for reduced risk chemicals**
- **Maintain timeliness of Section 18 Decisions**

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. S18 timeliness was 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, and as long as 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 standards. 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.

Error Estimate: N/A

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.

- **Percentage of agricultural acres treated with reduced risk pesticides (PART measure)**

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

New/Improved Data or Systems: These are not EPA databases; thus improvements are not known in any detail at this time.

References: EPA Website; EPA Annual Report; Annual Performance Plan and Annual Performance Report, <http://www.ams.usda.gov/science/pdp/download.htm>; Doane Marketing Research, Inc.: <http://www.doanemr.com>; <http://www.usda.gov/nass/pubs> and <http://www.usda.nass/nass/nassinfo>; FFDCa Sec 408(a)(2); EPA Pesticide Registration Notice 97-3, September 4, 1997; Endangered Species Act.

- **Cumulative percent of Reregistration Eligibility Decisions (REDs) completed (PART measure)**
- **Product Reregistration**
- **Reduction in time required to issue Reregistration Eligibility Decisions (PART efficiency measure)**

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. Reduction in cost per RED will be reported in FY 2008.

For this measure, the number of FTEs is the surrogate for cost. The baseline is 11.5 FTEs per reregistration decision completed. The measure is derived by taking the total FTE devoted to reregistration activities, as reported in OPP's Time Accounting Information System (TAIS), divided by the number of reregistration decisions completed.

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 standards. 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.

Data Limitations: None known.

Error Estimate: N/A. There are no errors associated with count data.

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.

- **Annual percentage of lead-based paint certification and refund applications that require less than 20 days of EPA effort to process (PART efficiency measure)**

Performance Database: The National Program Chemicals Division (NPCD) in the Office of Pollution Prevention and Toxics (OPPT) maintains the Federal Lead-Based Paint Program (FLPP) database, an electronic database of applications for certification by individuals and firms and applications for accreditation by training providers in states and tribal lands administered by a Federal lead program. The database provides a record of all applications for certification or accreditation for Federally-managed lead programs and the actions on those applications including final decisions and the multiple steps in the process used for measurement. The database is augmented by hard copy records of the original applications. EPA uses an Oracle Discoverer application to query the database to collect measurable performance data.

Data Source: The FLPP database is available internally to EPA Headquarters and Regional lead program staff who process the applications or oversee the processing. The database is maintained on an EPA Research Triangle Park (RTP), North Carolina server. Access to the database is granted by the Lead, Heavy Metals, and Inorganics Branch (LHMIB) in NPCD. Overall maintenance of the database and periodic improvements are handled by a contractor, currently ICF Consulting, located in Fairfax, Virginia. Data entry of application data is conducted by a second contractor, currently Optimus Corporation, located in Silver Spring, Maryland. Optimus Corporation maintains the file of the original applications. Each EPA Regional office maintains a file of copies of the original applications for that region.

Methods and Assumptions: Each complete application for certification or accreditation in Federally-managed states and tribal lands is processed (approximately 3000 per year). Certification is issued if all criteria are met. Some applications may be returned to the applicant or withdrawn by the applicant. For the applications that are fully processed, the length of time for EPA processing can be determined from date fields in the FLPP database. Accordingly, a census of all the fully processed applications for certification is periodically conducted, and the percentage of applications that took more than the prescribed number of days (e.g., 20) of EPA effort to process is computed based on this census. The census is conducted every six months, and the annual percentage calculated appropriately from the six month percentages. The data used to estimate this

performance measure directly reflect all information that has been recorded pertaining to certification applications and are the most acceptable for this requirement. The data meet the standards in the QMP and the outcomes are reviewed by senior management.

Suitability: This measure tracks EPA Headquarters and Regional effort in processing lead-based paint certification and refund applications. This measure reflects an integral part of the Lead Program and ensures proper training for lead-based professionals. Data are available mid-year and end-of-year and enable the program to demonstrate program efficiencies and enhance accountability.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan (“Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances,” June 2003) and will ensure that those standards and procedures are applied to this effort. In addition, NPCD has an approved Quality Management Plan in place, dated January 2005. Applications and instructions for applying for certification and accreditation are documented and available at the Web site <http://www.epa.gov/lead/pubs/traincert.htm>. Documentation for the FLPP database is maintained internally at EPA and is available upon request.

Data Quality Reviews: The FLPP database is an internal EPA database, maintained for the purpose of processing and tracking applications. The database is interactive, and operational usage in processing applications by Headquarters and the Regional offices provides ongoing internal quality reviews. Further, EPA periodically checks contractors’ data entry quality.

Data Limitations: Applications that were returned to the applicant or withdrawn by the applicant are not captured in the database and are out of scope for this performance measure. While the report is based on a census, it generates some duplicative data, which must be removed manually. Efforts are made to remove all duplicative data, while preserving valid data. However, because this is a non-automated process, a small amount of human error is possible. Some variability occurs due to unique conditions that vary by Region. Some Regions consistently process applications in less time than others. This variability may be due to factors such as badge printing capabilities and economies of scale.

Error Estimate: There is little or no sampling error in this performance measure, because it is based on a census of all applicable records.

New/Improved Data or Systems: The FLPP database is scheduled to undergo improvements in the next few years after the renovation, remodeling and painting rule is finalized. The performance measurement system will help determine if there is a change in timeliness after the improvements are implemented.

References: 1) Quality Management Plan for National Program Chemicals Division, January 2005; 2) FLPP database documentation; 3) URL for Applications and Instructions, <http://www.epa.gov/lead/pubs/traincert.htm>.

- **Number of cases of children aged 1-5 years with elevated blood lead levels (> 10 ug/dL) (PART measure)**

- **Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old. (PART measure)**

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 are currently released to the public in two year sets. Blood lead levels are measured for participants who are at least one 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 Report on Human Exposure to Environmental Chemicals was released July 2005, and is available at the Web site <http://www.cdc.gov/exposurereport/>. The Fourth National Exposure report is expected in the summer of 2008.

Methods and Assumptions: 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 <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm>). Analytical guidelines issued by NCHS provide guidance on how many years of data should be combined for an analysis. The NHANES data directly estimate the values included in the two performance measures and are nationally recognized as the best source of this data. This data source measures blood levels in the same units (i.e., ug/dL) and at standard detection limits.

Suitability: The first measure supports the long-term goal of eliminating childhood lead poisoning as a public health concern by the year 2010. Data are collected on a calendar year basis and released to the public in two-year data sets. Data as of May 2005 reflecting 1999-2002 results, demonstrate progress towards the EPA's long-term target.

The second measure examines the disparities of blood lead levels in low-income children compared to non low-income children and uses this measure to track progress towards EPA's long-term goal of eliminating childhood lead poisoning in harder to reach vulnerable populations.

QA/QC Procedures: Background documentation is available at the NHANES Web site at <http://www.cdc.gov/nchs/nhanes.htm>. The analytical guidelines are available at the Web site http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/analytical_guidelines.htm.

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. Additional information on the interview and examination process can be found at the NHANES web site at <http://www.cdc.gov/nchs/nhanes.htm>.

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 approaches are addressed in the analytical guidelines provided at the NHANES Web site http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/analytical_guidelines.htm.

New/Improved Data or Systems: NHANES has moved to a continuous sampling schedule, scheduled release of data, and scheduled release of National Exposure reports by CDC.

References: 1) the NHANES Web site, <http://www.cdc.gov/nchs/nhanes.htm>; 2) the Third National Report on Human Exposure to Environmental Chemicals Web site, <http://www.cdc.gov/exposurereport/>; 3) Morbidity and Mortality Weekly Report (MMWR) article with the most recent estimate of the number of children with elevated blood lead levels, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a5.htm>; 4) NHANES Analytical Guidelines, http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/analytical_guidelines.htm.

- **Annual number of chemicals with proposed, interim and/or final values for Acute Exposure Guideline Levels (AEGs). (PART measure)**

Performance Database: There is no database. Performance is measured by the cumulative number of chemicals with "Proposed", "Interim", and/or "Final" AEGs 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, have 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. AEGLs represent threshold exposure limits for the general public and are applicable to emergency exposures ranging from 10 min to 8 h. Three levels—AEGL_1, AEGL_2, and AEGL_3—are developed for each of five exposure periods (10 min, 30 min, 1 h, 4 h, and 8 h) and are distinguished by varying degrees of severity of toxic effects (detection, disability, and death respectively). They provide a high degree of flexibility for their use in chemical emergency response, planning, and prevention for accidental or terrorist releases of chemicals. The AEGL Program pools the resources of US and international stakeholders with needs for this information in a cost effective program which develops one set of numbers for use by all stakeholders (DOD, DOT, DOE, States, The Netherlands and others in the international community).

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.

Data Quality Review: N/A

Data Limitations: N/A

Error Estimate: N/A

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 (<http://www.nap.edu/books/030907553X/html/>). NRC (National Research Council). 1993. Guidelines for Developing Community Emergency Exposure Levels for Hazardous Substances. Washington, DC: National Academy Press. AEGL Program website at <http://www.epa.gov/oppt/aegl>

- **Percent reduction from baseline year in total EPA cost per chemical for which Proposed AEGL value sets are developed (PART efficiency measure)**

Performance Database: OPPT maintains records on AEGL program income, expenditures and carryover from one year to the next, and on the number of FTEs allocated to the program. Information from these records is aggregated to determine total EPA cost per chemical for which a proposed AEGL data set is tracked through a GPRA and Budget Accomplishment Word document. The denominator of the measure – number of proposed AEGL value sets – is tracked using the AEGL Chemical Status sans Structure Access 2000 database containing the approval dates for proposed AEGL values.

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 and then referred to the National Academies of Science (NAS) for further review and action. Although proposed AEGLs are not considered final until so designated by the NAS, the proposed values are suitable for many purposes. This performance measure is tied to proposed values rather than to final ones because actions through the proposal stage of the AEGL process are largely under EPA's control whereas subsequent action to finalize the AEGL values is largely a matter within NAS jurisdiction.

Methods and Assumptions: The methods involved in developing and reporting on this performance measure consist of simple computational steps performed on data relating to AEGL cost and accomplishment. For these computational steps it is necessary to track the number of FTEs assigned to the AEGL program and then find the associated labor cost by multiplying by standard cost-of-living factors. Likewise, the extramural cost associated with managing the program is determined by pulling cost and budgetary data from the relevant files, multiplying an appropriate percentage estimating the proportion of staff and contractor resources devoted to proposed AEGL development, summing as needed, and adjusting for inflation. One assumption underlying these computations is that the appropriate percentage is used to reasonably estimate the proposal stage's share of total cost devoted to AEGLs. Targets are based on what is considered reasonable and achievable.

The data used to estimate this performance measure represent all the costs for developing a proposed AEGL value set and are the most acceptable for this requirement. The data meet the standards in the QMP and the outcomes are reviewed by senior management.

Suitability: The indicators used for this measure are suitable because reductions in cost per AEGL value are expected to result from improvements in program implementation. These cost reductions will enable EPA to achieve the goals of the AEGL program with greater efficiency.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan (“Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances,” June 2003) and will ensure that those standards and procedures are applied to this effort. Specific QA/QC procedures for AEGL development 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. AEGL documents are formally reviewed for QC purposes by designated contractors and EPA staff at critical junctures utilizing detailed checklists. Cost information from available records is also subjected to QA/QC controls.

Data Quality Review: Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes and to provide quality oversight.

Data Limitations: No specific data limitations have been identified with respect to the information relied upon in developing or reporting this measure.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error.

New/Improved Data or Systems: Access databases, spreadsheets and other files are maintained and improved on an ongoing basis. A new database is being developed to document rationales used to develop AEGL values. Once completed, this new database should enhance the efficiency of AEGL development.

References: Standing Operating Procedures for Developing Acute Exposure Guideline Levels for Hazardous Chemicals, National Academy Press, Washington, DC 2001 (<http://www.nap.edu/books/030907553X/html/>). NRC (National Research Council). 1993. Guidelines for Developing Community Emergency Exposure Levels for Hazardous Substances. Washington, DC: National Academy Press. AEGL Program website at <http://www.epa.gov/oppt/aegl>

- **Percent of chemicals or organisms introduced into commerce that do not pose unreasonable risks to workers, consumers or environment**

Performance Database: Implementation of this measure will require the use of several EPA databases: Confidential Business Information Tracking System (CBITS), pre-manufacture notice (PMN) CBI Local Area Network (LAN), 8(e) database for new chemicals called ISIS, and the Focus database. The following information from these databases will be used collectively in applying this measure:

- CBITS: Tracking information on Pre-Manufacture Notices (PMNs) received;
- PMN CBI LAN: Records documenting PMN review and decision, assessment reports on chemicals submitted for review. In addition, the information developed for each PMN is kept in hard copy in the Confidential Business Information Center (CBIC);
- ISIS: Data submitted by industry under the Toxic Substances Control Act (TSCA) Section 8(e). TSCA 8(e) requires that chemical manufacturers, processors, and

distributors notify EPA immediately of new (e.g. not already reported), unpublished chemical information that reasonably supports a conclusion of substantial risk. TSCA 8(e) substantial risk information notices most often contain toxicity data but may also contain information on exposure, environmental persistence, or actions being taken to reduce human health and environmental risks. It is an important information-gathering tool that serves as an early warning mechanism;

- Focus Database: Rationale for decisions emerging from Focus meeting, including decisions on whether or not to drop chemicals from further review.

Measurement results are calculated on a fiscal-year basis and draw on relevant information received over the 12-month fiscal year.

Data Source: The Office of Pollution Prevention and Toxics (OPPT) is responsible for the implementation of the TSCA. The office will compare data submitted under TSCA Section 8(e) with previously-submitted new chemical review data (submitted under TSCA Section 5 and contained in the PMN). This comparison will determine the number of instances in which EPA's current PMN review practices would have failed to prevent the introduction of new chemicals or microorganisms into commerce which pose an unreasonable risk to workers, consumers or the environment. Inconsistencies between the 8(e) and previously-submitted new chemical review data will be evaluated by applying the methods and steps outlined below to determine whether the inconsistencies signify an "unreasonable risk."

Methods and Assumptions: EPA's methods for implementing this measure involve determining whether EPA's current PMN review practices would have failed to prevent the introduction of chemicals or microorganisms into commerce that pose an unreasonable risk to workers, consumers or the environment, based on comparisons of 8(e) and previously-submitted new chemical review data. The "unreasonable risk" determination is based on consideration of (1) the magnitude of risks identified by EPA, (2) limitations on risk that result from specific safeguards applied, and (3) the benefits to industry and the public expected to be provided by the new chemical substance. In considering risk, EPA looks at anticipated environmental effects, distribution and fate of the chemical substance in the environment, patterns of use, expected degree of exposure, the use of protective equipment and engineering controls, and other factors that affect or mitigate risk. The following are the steps OPPT will follow in comparing the 8(e) data with the previously-submitted new chemical review data:

1. Match all 8(e) submissions in the 8(e) database with associated TSCA Section 5 notices. TSCA Section 5 requires manufacturers to give EPA a 90-day advance notice (via a pre-manufacture notice or PMN) of their intent to manufacture and/or import a new chemical. The PMN includes information such as specific chemistry identity, use, anticipated production volume, exposure and release information, and existing available test data. The information is reviewed through the New Chemicals Program to determine whether action is needed to prohibit or limit manufacturing, processing, or use of a chemical.
2. Characterize the resulting 8(e) submissions based on the PMN review phase. For example, were the 8(e) submissions were received: a) before the PMN notice was received by EPA, b) during the PMN review process, or c) after the PMN review was completed?

3. Review of 8(e) data focusing on 8(e)s received after the PMN review period was completed.
4. Compare hazard evaluation developed during PMN review with the associated 8(e) submission.
5. Report on the accuracy of the initial hazard determination
6. Revise risk assessment to determine if there was an unreasonable risk based on established risk assessment and risk management guidelines and whether current PMN Review practices would have detected and prevented that risk.

Suitability: The databases used and the information retrieved are directly applicable to this measurement and therefore suitable for measurement purposes. This measure supports the New Chemical program's goal to ensure that new chemicals introduced into commerce do not pose unreasonable risks to workers, consumers, or the environment. This measure provides a suitable year to year comparison against this goal because supporting data and analysis are conducted on an annual basis, directly linking to this long-term goal.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan ("Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances;" June 2003) and will ensure that those standards and procedures are applied to this effort.

Data Quality Reviews: Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes and to provide quality oversight. In addition, the National Pollution Prevention and Toxics Advisory Council (NPPTAC), which consists of external experts providing independent review and direction to OPPT, has provided comment on this measure.

Data Limitations: There are some limitations of EPA's review which result from differences in the quality and completeness of 8(e) data provided by industry; for example, OPPT cannot evaluate submissions that do not contain adequate information on chemical identity. The review is also affected in some cases by a lack of available electronic information. In particular the pre-1996 PMN cases are only retrievable in hard copy and may have to be requested from the Federal Document Storage Center. This may introduce some delays to the review process.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error. OPPT will review all 8(e) submissions received in the year with corresponding previously-submitted new chemical review data, and not a sample of such submissions.

New/Improved Data or Systems: OPPT is currently developing the integrated, electronic Manage Toxic Substances (MTS) system that will provide real time access to prospective PMN review.

References: OPPT New Chemicals Program
<http://www.epa.gov/opptintr/newchems/>, TSCA Section 8(e) – Substantial Risk
"Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances;" June 2003.

- **Percentage of High Production Volume (HPV) chemicals identified as priority concerns through assessment of Screening Information Data Set (SIDS) and other information with risks eliminated or effectively managed**

Performance Database: EPA will track the number of agency actions (e.g., regulatory, voluntary), targeting risk elimination or management of high production volume chemicals, using internal program databases or the Agency's Regulation and Policy Information Data System (RAPIDS). Many types of Agency actions qualify as risk management or elimination actions. Issuance of a Significant New Use Rule (SNUR) under TSCA is an example of regulatory action that can be tracked by the RAPIDS Promulgation Data field. An example of a non-regulatory risk management/elimination action is a written communication from EPA to chemical manufacturers/users indicating the Agency's concerns and suggesting but not requiring actions to address chemical risks (chemical substitution, handling protections, etc.). These actions would be tracked by monitoring internal communications files. The results are calculated on a calendar-year basis.

Data Source: RAPIDS stores official Agency data on progress of rule-making and other policy program development efforts. Data are supplied by EPA programs managing these efforts. For voluntary actions not tracked in RAPIDS, performance data are tracked internally by program managers.

Methods, Assumptions and Suitability: As EPA identifies HPV chemicals that are priorities for risk management action, following protocols currently under development, the Agency will commence regulatory or non-regulatory actions to address identified risks. All such actions will be recorded for the HPV chemical(s) subject to those actions, enabling EPA to report on progress in responding to the risks on a chemical- or chemical-category-specific basis. This annual performance measures (APM) commits the Agency to eliminate or effectively manage all such risks. Using data contained in RAPIDS, in the case of regulatory risk management action, EPA's progress towards meeting this APM will be documented by the sequence of formal regulatory development steps documented in that system. Where risk management action takes nonregulatory form, such as issuance of advisory communications to chemical manufacturers or users, progress toward meeting this APM will be tracked by internal files documenting such actions. The definition of risk is being addressed in the development of the protocols used in the HPV screening/prioritization process.

QA/QC Procedures: RAPIDS entries are quality assured by senior Agency managers.

Data Quality Reviews: RAPIDS entries are reviewed by EPA's Regulatory Management Staff.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Performance Data or Systems: N/A

References: None

- **Percent increase from baseline year in cost savings due to new chemical pre-screening (PART efficiency measure)**

Performance Database: Implementation of this measure will require the use of several EPA databases, all of which play a role in tracking Premanufacture Notices (PMNs) and the action EPA decides to take on such notices. The principal databases involved in PMN tracking, with separate identification of prescreened chemicals, are:

- The PMN Status web page <http://www.epa.gov/opptintr/newchems/tools/dropstat.htm>, which provides the regulatory status of TSCA Pre-Manufacture Notices (PMNs) and Low Volume Exemptions (LVE) as determined at EPA's Focus Meeting: Contains information on the decisions reached at Focus meetings, including whether to drop chemical from further review, to pursue regulation under the Toxic Substances Control Act (TSCA) Section 5(e) to prohibit or limit activities associated with the new chemical or to pursue regulation under a non-5(e) Significant New Use Rule (SNUR) to require manufacturers, importers and processors to notify EPA at least 90 days before beginning any activity that EPA has designated as a "significant new use," or, alternatively, to refer the chemical for full-scale standard review. It is critical to know the number and percentage of PMNs going to each of these outcomes in order to perform base year cost savings calculations in support of the cost savings measure.
- Sustainable Futures prescreening tracking databases: Contain information on PMNs which display evidence of chemical prescreening using OPPT screening methods, including data on the types of assessments and model evaluations performed by the submitter.
- Measurement results are calculated on a fiscal year basis and draw upon relevant information collected over the 12-month fiscal year.

Data Source: The major data sources involved in this measurement are fully described under "Performance Database," above. No external data sources play a significant role in the calculation of measurement results.

Methods and Assumptions: EPA measures percent change in cost savings as a result of chemical prescreening relative to a base year by: 1) determining the base year prescreening rate and base year cost savings from prescreening; 2) calculating the current year prescreening rate (prescreened PMNs as a percentage of total PMNs); and 3) determining the actual percent change in cost savings resulting from prescreening by multiplying the base year cost savings by the ratio of the current year prescreening rate to the base year prescreening rate. This procedure assumes that cost savings from prescreening will change in proportion to the change in the prescreening rate. Targets are based on what is considered reasonable and achievable.

Prescreening rate is determined by:

- Checking the data systems described above to obtain the number of new prescreened chemicals going through the PMN review process and the total number of chemicals undergoing prescreening review. The

prescreening rate is simply the ratio of prescreened chemicals to total chemicals undergoing PMN review.

Cost savings are determined by:

- Checking the relevant databases to determine the number and percentage of PMNs that are (a) prescreened PMNs and (b) non-prescreened PMNs;
- Estimating the number of prescreened PMNs that would have gone to regulation or standard review if there were no prescreening program (this is done by multiplying the number of prescreened PMNs by the percentage of non-prescreened PMNs that go to one of the “post-Focus meeting outcomes” of standard review, regulation under TSCA Section 5(e), or issuance of a non-5(e) SNUR;
- Subtracting the number of actual prescreened PMNs going to one of the post-Focus meeting outcomes from the projected number derived in the previous step gives the estimated number of PMNs avoiding a post-Focus meeting outcome. The rationale is that some pre-screened PMNs still end up requiring post-Focus action, but at a lower rate than for PMNs which are not pre-screened. The number estimated in this step, the difference between the projected and actual numbers of pre-screened PMNs requiring a post-Focus meeting outcome, represents the number of cases to have avoided post-Focus action as a result of pre-screening;
- Multiplying the number of cases estimated to have avoided post-Focus action as a result of pre-screening by unit cost factors to obtain estimates of the cost savings realized by avoidance of post-Focus meeting outcomes resulting from prescreening (unit cost factors are generated separately from information/estimates maintained by EPA on the labor hours (Agency and contractor) associated with each post-Focus meeting outcome and the EPA cost per labor hour); and
- Summing the cost savings realized by avoidance of specified post-Focus meeting outcomes to arrive at total cost savings for the base year.

Suitability: Pre-screening decreases the number of chemicals that EPA must regulate and reduces the percentage of chemicals that require resource-intensive standard review after the Focus meeting. The indicator is suitable to show progress toward the goal because fewer chemicals going into standard review reduces costs, thereby improving the efficiency of the New Chemical review program. The data used to estimate this performance measures are the most acceptable, because they capture costs and pre-screening rates within the program. Unit costs are calculated to calibrate to the base year. The data are collected under OPPT’s QMP and the outcomes are reviewed by senior management.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan (“Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances,” June 2003) and will ensure that those standards and procedures are applied to this effort.

Data Quality Reviews: Information developed in the course of measurement will be presented to senior management within OPPT to address potential concerns related to technical outcomes and to provide quality oversight.

Data Limitations: No specific data limitations have been identified with respect to the measure presented here, except to the extent that the measure requires certain assumptions, discussed above, in addition to inputs of hard data.

Error Estimate: Not applicable. This measure does not require inferences from statistical samples and therefore there is no estimate of statistical error.

New/Improved Data or Systems: None planned.

References: Additional information on EPA's New Chemicals program for TSCA Section 5 can be found at <http://www.epa.gov/oppt/newchemicals/index.htm>. Information on the Sustainable Futures Initiative is available at <http://www.epa.gov/opptintr/newchemicals/pubs/sustainablefutures.htm>.

- **Cumulative number of chemicals for which VCCEP data needs documents are issued by EPA in response to industry-sponsored Tier I risk assessments.**

Performance Database: Internal VCCEP program activity tracking database. Data needs documents are issued by EPA to conclude work on all Tier I submissions. Documents may indicate data are sufficient to reasonably demonstrate that children are not subject to significant risks. Documents also may indicate that additional assessment and associated data development are required, commencing Tier 2 work. The results are calculated on a calendar-year basis.

Data Source: Formal EPA files of VCCEP Tier I data needs communications. Data needs are also subject to peer review, results of which are posted and made public on the Toxicology Excellence for Risk Assessment website found at <http://www.tera.org/peer/MeetingReports.html>

Methods, Assumptions and Suitability: Information is tracked directly through internal record-keeping systems. No models or assumptions or statistical methods are employed.

QA/QC Procedures: The VCCEP program operates under Information Quality Guidelines as found at <http://www.epa.gov/quality/informationguidelines/>

Data Quality Reviews: The VCCEP program operates under Information Quality Guidelines as found at <http://www.epa.gov/quality/informationguidelines/>

Data Limitations: None known

Error Estimate: N/A

New/Improved Performance Data or Systems: None

References: <http://www.epa.gov/chemrtk/vccep/index.htm>

- **Reduction in the current year production-adjusted risk-based score of releases and transfers of toxic chemicals from manufacturing facilities (PART measure)**

Performance Database: The Risk Screening Environmental Indicators (RSEI) Model feeds these measures and 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 two year TRI data lag, most recent performance data are only available for FY 2005 and earlier. 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 IRIS; facility location data from EPA's Facility Registry System (FRS); 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; stream discharge data from EPA's Permit Compliance System (PCS) and Integrated Compliance Information System (ICIS); 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 and Assumptions: The RSEI Model generates unique, unitless, numerical values, known as "Indicator Elements" using the factors pertaining to surrogate dose, toxicity and exposed population for each release-exposure event. Indicator Elements are risk-related measures generated for every possible combination of reporting facility, chemical, release medium, and exposure pathway (inhalation or ingestion). Together these values form the building blocks to describe exposure scenarios of interest. Indicator Elements are like index numbers that can be compared to one-another but do not reflect *actual* risk, and are proportional to the modeled relative risk of each release (incrementally higher numbers reflect greater estimated risk). 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 are only meaningful when compared to other scores produced by RSEI. These data are acceptable for use in performance measurement as they are national data reflecting releases and transfers of chemicals from manufacturing facilities, including a number of high production volume chemicals i.e., the data of interest for this measure.

Suitability: The first measure supports the Chemical Risk Review and Reduction program's goal to reduce risk from new and existing chemicals. This measure provides a suitable year to year comparison against a long term goal of 26% reduction in the RSEI index. The second measure supports the long term goal to reduce the RSEI index for HPV chemicals 30% by 2011. This measure provides a suitable year to year comparison against this goal and looks specifically at the reduction of risk for the subset of TRI chemicals that are also HPV chemicals. The year to year comparison can reveal trends in the risk from HPV chemicals over time. Despite a two year lag in TRI data, annual comparisons of overall RSEI results (first measure) and RSEI HPV results

(second measure) can reveal trends in chemical risk over time. Further, depending on how the user wishes to aggregate data, RSEI can also address trends nationally, regionally, by state or smaller geographic areas.

QA/QC Procedures: OPPT has in place a signed Quality Management Plan (“Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances,” June 2003) and will ensure that those standards and procedures are applied to this effort. Additionally because TRI facilities self-report release data and occasionally make errors. TRI has quality control functions and an error-correction mechanism for reporting such mistakes. Finally during each RSEI update, the output data are checked against TRI data for consistency, and the results are compared against previous years’ RSEI results.

Data Quality Reviews: RSEI depends upon a broad array of data resources, each of which has completed a data-specific quality review process managed by the providers of the data sources. RSEI includes data from the many sources listed in “Data Sources”, above. All data are 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 (SAB). 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 facility-specific data (for parameters such as stack height, discharge stream reach, location) from EPA data sources. Where such data are not available, default assumptions are used, or in some cases, the release is not modeled. Offsite releases (from transfers of toxic chemicals) are particularly affected by a lack of reported TRI data, and while RSEI addresses this through a process that optimizes the available data, the data are limited and of uneven quality. In addition, toxicity data are not available for some of the less-toxic TRI chemicals. Releases to water are not available for Alaska, Hawaii, Puerto Rico and U.S. territories, and some releases to water (for reporting facilities and offsite facilities) may not be modeled because of inadequate coverage in the stream reach data. It should also be noted that TRI data include releases only from TRI-reportable facilities for TRI-reportable chemicals. It does not include all releases from reporting facilities or all releases of TRI-reportable chemicals. TRI data may also have errors that are not corrected in the standard TRI QC process.

Error Estimate: In developing the RSEI methodology, both sensitivity analyses and groundtruthing studies have been used to address model accuracy (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., Safe Drinking Water Information System and Reach File databases) and incorporates updated 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 to the RSEI model databases. EPA is now using data from the FRS to assign geographic locations to TRI facilities.

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.

U.S. EPA Office of Pollution Prevention and Toxics, Risk Screening Environmental Indicators Model (RSEI) Home Page. Internet: <http://www.epa.gov/opptintr/rsei/>

U.S. EPA Office of Pollution Prevention and Toxics, Risk Screening Environmental Indicators Model, Peer Reviews. Internet: <http://www.epa.gov/oppt/rsei/pubs/faqs.html>

U.S. EPA Office of Pollution Prevention and Toxics, RSEI Methodology Document. Internet: <http://www.epa.gov/opptintr/rsei/pubs/method2004.pdf>

U.S. EPA Office of Pollution Prevention and Toxics, RSEI User's Manual. Internet: http://www.epa.gov/opptintr/rsei/pubs/users_manual.pdf

U.S. EPA Office of Pollution Prevention and Toxics, RSEI Fact Sheet,. Internet: http://www.epa.gov/opptintr/rsei/pubs/factsheet_v2-1.pdf

- **Number of risk management plan audits completed**

Performance Database: The EPA Annual Commitment System (ACS) is the database for the number of risk management plan audits.

Data Source: OSWER's Office of Emergency Management implements the Risk Management Program under Clean Air Act section 112(r). Facilities are required to prepare Risk Management Plans (RMPs) and submit them to EPA. In turn, EPA Headquarters (HQ) provides appropriate data to each Region and delegated State so that they have the RMP data for their geographical area. The Regions and delegated States conduct audits. About ten States have received delegation to operate the RMP program. These delegated States report audit numbers to the appropriate EPA Regional office so it can maintain composite information on RMP audits.

Methods, Assumptions and Suitability: Regions enter data into the Agency's Annual Commitment System. HQ prepares an annual report. Data are count data and not open to interpretation.

QA/QC Procedures: Data are collected from states by EPA's Regional offices, and reviewed at the time of Regional data entry. Data are regularly compared to similar data from the past to identify potential errors.

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 and the EPA Regional offices.

Error Estimate: Not calculated.

New/Improved Data or Systems: N/A

Reference: N/A

Objective: Communities

- **Number of Brownfields properties assessed [PART performance]**
- **Number of jobs leveraged from Brownfields activities**
- **Billions of dollars of cleanup and redevelopment funds leveraged at Brownfields properties. [PART performance]**

Performance Database: The Assessment Cleanup and Redevelopment Exchange System (ACRES) tracks the performance information for the above measures.

Key fields related to performance measures include, but are not limited to:

Property Acreage, Assessment Completion Date, Cleanup Required, Cleanup Completion Date, Funding Leveraged, Jobs Leveraged, Number of Participants, Completing Training, Number of Participants Obtaining Employment

Performance measure data is tracked by fiscal year and will not be available for the FY 2009 PAR; data will be available for the FY 2010 PAR.

Data Source: Data are extracted from quarterly reports and property profile forms (<http://www.epa.gov/brownfields/pubs/rptforms.htm>) 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 recipients report performance data in quarterly reports and property profile forms. Data are reviewed by Regional EPA grant managers to verify activities and accomplishments. Given the reporting cycle and the data entry/QA period, there is typically a six month data lag for ACRES 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 grant managers for accuracy and to ensure appropriate interpretation of performance measure definitions. Reports are produced monthly with detailed data trends analysis.

Data Quality Reviews: No external reviews.

Data Limitations: All data provided voluntarily by grantees.

Error Estimate: NA

New/Improved Data or Systems: The Brownfields Program updated the Property Profile Form in FY 2006 to improve data collection and to expand the community of grantees completing the form. The Program launched an online reporting form in FY 2007; this system will be phased in over the next several years.

References: For more information on the Brownfields program, see *Investing in Partnership, Possibility and People: A Report to Stakeholders from the US EPA Brownfields Program* (http://www.epa.gov/brownfields/news/stake_report.htm); assessment demonstration pilots and grants (http://www.epa.gov/brownfields/assessment_grants.htm); cleanup and revolving loan fund pilots and grants (<http://www.epa.gov/brownfields/rflst.htm>); job training pilots and grants (<http://www.epa.gov/brownfields/job.htm>); and cleanup grants (http://www.epa.gov/brownfields/cleanup_grants.htm).

Objective: Restore and Protect Critical Ecosystems

- **Acres of habitat protected or restored in National Estuary Program (NEP) study areas [PART annual measure]**
- **Program dollars per acre of habitat protected or restored [PART annual efficiency measure]**

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 2000 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 <http://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.

The NEP "Habitat Acres Protected or Restored" efficiency measure will be calculated by dividing the total ocean and coastal protection program dollars by the total NEP acres protected or restored. The measure is based on the habitat data collected by the NEPs, as described above and reported in the annual habitat measure, and the total program dollars, which is the sum of the NEP/Coastal budget (including the additional funds for Long Island Sound), the Marine Pollution budget, and the program match as reported by the NEPs.

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. EPA actions are consistent with data quality and management policies.

Data Quality Review: No audits or quality reviews conducted yet.

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.

Error Estimate: No error estimate is available for this data.

New/Improved Data or Systems: NEPs provide 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—NEPORT-- has been developed for the NEPs= use that will assist in tracking habitat projects. EPA has taken steps to align NEPORT data fields with those of the National Estuarine Restoration Inventory (NERI) and with the President’s Wetlands Initiative, developed for interagency use.

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 <http://www.epa.gov/owow/estuaries/pivot/overview/intro.htm>. The Office of Water Quality Management Plan (July 2002) is available on the Intranet at <http://intranet.epa.gov/ow/informationresources/quality/qualitymanage.html>

- **Improve the overall health of coastal waters of the Gulf of Mexico on the “good/fair/poor” scale of the National Coastal Condition Report.**
- **Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico**

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 are 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: National Oceanic 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 <http://www.gsmfc.org/sis.html>

- **Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic systems**

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, <http://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 generally 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

Area of Concern Sediment Contamination (*This component is not included in SOLEC. Information from reports of contaminated sediment remediation is collected by USEPA-GLNPO and is used by GLNPO to evaluate the contaminated sediment index component of this Index.*)

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, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition), and an indicator for Area of Concern (AOC) sediment contamination. Each component of the Index is based on a 1 to 5 rating system, where 1 is poor and 5 is good. Authors 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, other than the AOC sediment contamination component, 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 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.

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.” Contaminated sediment remediation information is collected in conformance with GLNPO’s Great Lakes Sediment Remediation Project Summary Support QAPP² (see reference #2 below).

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.

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 <http://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 <http://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.” 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: 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. Documentation regarding SOLEC is available on the Internet and from GLNPO⁴ (see reference # 4 below).

References:

1. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.
2. "Great Lakes Sediment Remediation Project Summary Support QAPP." March 2006. Unpublished – in USEPA GLNPO files.
3. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.
4. a. "State of the Lakes Ecosystem Conference 2004 QAPP." Unpublished. Prepared as part of Cooperative Agreement between USEPA and Environment Canada.

b. Canada and the United States. "State of the Great Lakes 2003." ISBN 0-662-34798-6, Environment Canada, Burlington, Ontario, Cat. No. En40-11/35-2003E, and U.S.

c. Environmental Protection Agency, Chicago, EPA 905-R-03-004. 2003. Available on CD and online at <www.binational.net>.

d. Canada and the United States. "Implementing Indicators 2003 - A Technical Report." ISBN 0-662-34797-8 (CD-Rom), Environment Canada, Burlington, Ontario, Cat. No. En164-1/2003E-MRC (CD-Rom), and U.S. Environmental Protection Agency, Chicago, EPA 905-R-03-003. 2003. Available on CD from U.S. EPA/Great Lakes National Program Office, Chicago. Available online at <http://epa.gov/glnpo/solec/index.html>

e. Canada and the United States. "State of the Great Lakes 2005." Environment Canada, Burlington, Ontario (Cat No. En161-3/0-2005E-PDF) and U.S. Environmental Protection Agency, Chicago (EPA 905-R-06-001), 2006 Available online at <<http://epa.gov/glnpo/solec/index.html>>

f. 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 <http://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.

- **Cubic yards of contaminated sediment remediated (cumulative from 1997) in the Great Lakes**

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 one year after the completion of work, thus, results from calendar year 2008 remediation will be reported in FY 2009.

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 quality system documentation 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. (see reference # 5 below). Specific highlights from this review relative to this indicator include: *"Across GLNPO, assessment of the quality of existing data and documentation of the quality of existing data for intended use is a standard practice. This is commendable as the Agency is still attempting to define requirements for usability existing data."* 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 Basin. 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:

1. Giancarlo Ross, M.B. Quality Assurance Project Plan for "Great Lakes Sediment Remediation Project Summary Support." Unpublished – in Great Lakes National Program Office files.
2. Giancarlo Ross, M.B. "*Sediment Remediation Matrix*". Unpublished - in Great Lakes National Program Office files.
3. Giancarlo Ross, M.B. "*Sediment Remediation Pie Charts*". Unpublished - in Great Lakes National Program Office files.
4. Giancarlo Ross, M.B. "Compilation of Project Managers Informational Sheets". Unpublished - in Great Lakes National Program Office files
5. "*GLNPO Management Systems Review of 2006.*" Available at <http://www.epa.gov/glnpo/qmp/qualitysystemsassessment.pdf>.

- **Average annual percentage decline for the long-term trend in concentrations of PCBs in whole lake trout and walleye samples**

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 FY09, the database will contain quality reviewed field data from fish collected in 2007 and all quality reviewed analytical data for fish collected between 1972 and 2006. A new grantee was selected for this program in 2005, thus delaying the release of analytical data collected in 2004 and 2005 until 2007. Data collected in 2007 is expected to be able to be used for reporting in 2009. 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.

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 400 – 500 mm walleye (*Stizostedion vitreum vitreum*) are used for that Lake.

All GLFMP data are independently reviewed for quality consideration prior to loading into the Great Lakes Environmental Database (GLENDa). Included in GLENDa are flags for each data point that can be used to evaluate the quality of the data. Each Great Lake is a unique environment with a distinct growth rate, food web, and chemical integrity. For this reason, a direct comparison of annual concentrations between basins is not appropriate. However, an average annual basin-wide percent decrease can be determined using an exponential decrease function, and the 1990 data as the baseline. The percent decrease of Element 1 can be calculated and compared to the 5% reduction target to determine if the target has been met. All years of data from all lakes are plotted on the same graph, with each year containing 5 data points. An exponential decrease is then found for the entire data set and the percent decrease is calculated from the best fit line. The Lake Michigan data set represents the worst case scenario in the Great Lakes Basin for the Open Lakes Trend Monitoring Program.

QA/QC Procedures: GLNPO has an approved Quality Management System in place² (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 online³ (see reference #3 below). The revised draft field sampling Quality Assurance Project Plan (QAPP) and draft Quality Management

Plan has been submitted to the GLNPO QA Officer for review and approval. Approval of the revised sampling objectives are subject to peer review, scheduled for Fall 2007.

Data Quality Review: GLNPO's Quality Management System has been evaluated as "outstanding" in previous peer and management reviews⁴ (see reference #4 below). Specific highlights relative to this indicator include: *"QA requirements are systematically planned using the DQO process. Major programs such as the Open Lakes Monitoring (Lake Guardian sampling activities), Open Lakes Organics Monitoring, the Biology Monitoring, the Great Lakes Fish Monitoring and the Legacy Act program were exemplary in systematic planning and documenting QA requirements."* (4) GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

Data Limitations: Great Lakes Fish Monitoring Program data are 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. A recent review of the odd year Open Lake Trend Monitoring in Lake Erie data indicate an increased variability in the data between the years of 1999 and 2003 because during those years several individual samples (fish) fell outside of the desired size range leading to a higher or lower than average mean sample size for the composite.

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 tentatively revised to have an 80% probability to detect a 10% change per year, over three to four sampling periods, at the 95% confidence level. An official outside peer review of this new data quality objective and associated data is tentatively scheduled for the 4th quarter 2007. This peer review will also assist in providing a data quality objective for Element 2.

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. GLNPO has awarded a new consortium grant for these analyses that allows researchers from three different universities to specialize in their individual areas of analytical expertise and provide more timely data of a higher quality.

References:

Supporting Program Documentation: All journal publications relevant to the Great Lakes Fish Monitoring Program, final project reports, and quality documentation can be found at the GLFMP website, <http://www.epa.gov/glnpo/glindicators/fish.html>.

"The Great Lakes Fish Monitoring Program - A Technical and Scientific Model For Interstate Environmental Monitoring." September, 1990. EPA503/4-90-004.

"Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003. <http://www.epa.gov/glnpo/qmp/>

“Great Lakes Fish Monitoring Program – Quality Assurance Project Plan for Sample Collection Activities”, Great Lakes National Program Office. Available at http://www.epa.gov/glnpo/glindicators/fishtoxics/GLFMP_QAPP_082504.pdf

“GLNPO Management Systems Review of 2006.” Available at <http://www.epa.gov/glnpo/qmp/qualitysystemsassessment.pdf>.

- **Average annual percentage decline for the long-term trend in concentrations of PCBs in the air in the Great Lakes basin**

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 2007 will be reported in 2009. Data are reported on a calendar year basis the second year after collection.

Data Source: GLNPO and Environment Canada are the principal sources of the data for IADN. Data also come through in-kind support and information sharing with other Federal agencies and Canada. Only data from US stations in IADN are being used for this measure.

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 5 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 officer 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 reviews³ (see reference #3 below). GLNPO has implemented all recommendations from these external audits and complies with Agency Quality Standards⁴ (see reference #3 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. There are common performance standards for PCBs, organochlorine pesticides, and PAHs. A common calibration standard for PCBs is now used. A jointly-funded QA officer 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 was partially addressed through the recent implementation by GLNPO of the Great Lakes Aquatic Contaminant Surveillance (GLACS) program, which had water contaminant data collected in Lakes Michigan and Superior.

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 two years after it is collected (i.e., 2004 data was reported in 2006); the Canadian data may not be available on this schedule; consequently only US data is being used to report on this measure.

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, and recent inter-comparison site data reflect this.

New/Improved Data or Systems: Joint data that has passed quality review will be available from Canada's National Atmospheric Chemistry (NAtChem) Database and Analysis System, which includes atmospheric data from many North American networks and is linked from IADN's website at:

http://www.msc.ec.gc.ca/iadn/data/form/form_e.html The IADN homepage can be found at www.msc.ec.gc.ca/iadn/. Copies of IADN data are now held in U.S. and Canadian databases. 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." Available at <http://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 <http://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.

3. "GLNPO Management Systems Review of 2006". Available at <http://www.epa.gov/glnpo/qmp/qualitysystemsassessment.pdf>.

4. "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.

- **Cumulative total of Areas of Concern within the Great Lakes Basin that have been restored and delisted**

Performance Database: USEPA's Great Lakes National Program Office will track the cumulative total Areas of Concern (AOC) and post that information <http://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. On June 19, 2006, the Oswego River, NY AOC became the first U.S. AOC to be officially removed from the list of U.S. AOCs. 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 (<http://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.

Data Limitations: None known.

Error Estimate: None.

New/Improved Data or Systems: NA

References: GLNPO will develop and maintain the appropriate tracking system for de-listed U.S. or binational Areas of Concern. Information regarding Areas of Concern is currently available online at: <http://www.epa.gov/glnpo/aoc/index.html>

1. "Quality Management Plan for the Great Lakes National Program Office." EPA905-R-02-009. October 2002, Approved April 2003.
2. "*GLNPO Management Systems Review of 1999.*" Unpublished - in USEPA Great Lakes National Program Office files.

- **In partnership with the Corps of Engineers, states and tribes, achieve no net loss of wetlands each year under the Clean Water Act Section 404 regulatory program**

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.

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:

1. Inability to separate restoration, creation, enhancement and preservation acreage from the aggregate "mitigation" acreage reported;
2. Lack of data regarding how much designated mitigation acreage was actually undertaken, and how much of that total was successful;
3. Lack of data regarding how much of the permitted impacts actually occurred; and
4. 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.

Error Estimate: Not applicable

New/Improved Data or Systems: The EPA and the Corps have acknowledged the need for improved 404 tracking. Between 2000-2002, the Corps developed a new national permit tracking database called ORM (Operation and maintenance business information link, Regulatory Module) to replace its existing database (RAMS). ORM1, as it was called, was deployed in most of the Corps' 38 districts by Fall 2006, but in 2004 the Corps began partnering with EPA on a set of comprehensive upgrades to ORM1 to spatially enable the data management system and improve data sharing capabilities. By July 2007, the upgraded version of ORM known as ORM2 had been deployed in 37 of the Corps' 39 districts. This should enable national reporting in 2008. Unlike ORM1, ORM2 will have expanded GIS capabilities and additional mandatory data fields for impact and mitigation data. EPA, other federal and state agencies, as well as the public will also have expanded access to data in ORM2 via a system of web-services and web-mapping tools. EPA's interface with ORM2 (tentatively named the Wetlands Information Layer (WIL)) is currently under development and will provide EPA with the ability to access and manage the data available in ORM2 to help meet business needs in the Section 404 program.

ORM2 is being designed to provide improved tracking regarding:

- Type of impacts (i.e., work type)
- Type, quantity and location of aquatic resources impacted (Using Cowardin classification system)
- Type, quantity and location of aquatic resource mitigation (Using Cowardin classification system)
- Type and quantity of mitigation by method (i.e., restoration, creation, enhancement, or preservation)
- Differentiating stream mitigation (in linear feet) from wetlands mitigation (in acres)
- Spatial tracking via GIS enhancements 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
- Mitigation banks via the inclusion of a comprehensive module for tracking and managing mitigation banks known as the Regional Internet-based Bank Information Tracking System (RIBITS). With EPA's assistance RIBITS has been piloted in 4 Corps districts to date.

References: Regulatory Analysis and Management System (RAMS) website:
<http://www.cecer.army.mil/td/tips/product/details.cfm?ID=265&TOP=1>

Regional Internet-based Bank Information Tracking System (RIBITS) website:
http://www.erd.usace.army.mil/pls/erdcpub/WWW_WELCOME.NAVIGATION_PAGE?mp_next_page=114145

National Academy of Sciences (2001). *Compensating for Wetland Losses Under the Clean Water Act*. Washington DC. Available at: <http://www.epa.gov/wetlandsmitigation/>

- **Working with partners, achieve a net increase of acres of wetlands per year with additional focus on biological and functional measures and assessment of wetland condition.**

Performance Database: The U.S. Fish and Wildlife Service produces information on the type and extent of the Nation's wetlands and deepwater habitats. The Emergency Wetland Resources Act of 1986 requires the Service to conduct status and trend studies of the Nation's wetlands, and report the results to Congress each decade. To date the Fish and Wildlife Service has produced four such documents. On Earth Day 2004, President Bush announced a wetlands initiative that established a federal policy beyond "no net loss" of wetlands. As part of that same Earth Day message, the President directed the Fish and Wildlife Service to accelerate the completion of the status and trends and to undertake this study at more frequent intervals. This information is used by Federal, State, and local agencies, academic institutions, U.S. Congress, and the private sector.

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 report¹⁹ 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 1998 to 2004. In calendar year 1997, there were an estimated 105.5 million acres of wetlands in the conterminous United States. In calendar year 2004 107.7 million acres of wetlands were estimated. Of this total, approximately 102.4 million acres (95 percent) are freshwater wetlands and 5.3 million acres (5 percent) are saltwater wetlands. Although the report shows that overall gains in wetland acres exceeded overall losses from 1998 through 2004 (approximately 32,000 acres/yr), this gain is primarily attributable to an increase in unvegetated freshwater ponds, some of which (such as aquaculture ponds) may not function as wetlands and others of which may have varying functional value. The Report also notes the following trends in other wetland categories: freshwater vegetated wetlands declined by 0.5%, a smaller rate of loss than in preceding years; and estuarine vegetated wetlands declined by 0.7%, an increased rate of loss from the preceding years. The Status and Trends Report does not assess the quality or condition of wetlands. EPA will continue working with FWS and other federal agencies to refine the methodology used in preparing future reports, to subdivide current wetland categories, to provide further clarity and information on the types of wetlands that are found on the landscape and to describe the functions and values they provide. In addition EPA is preparing to undertake a National wetland condition study that is scheduled for completion in 2013.

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,

¹⁹ Dahl, T.E. 2006. Status and trends of wetlands in the conterminous United States 1998 to 2004. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 112pp.

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 published in 2000. 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 4,682 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 Quality Reviews: Not Applicable

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:

<http://wetlands.fws.gov/index.html>

<http://wetlands.fws.gov/bha/SandT/SandTReport.html>

http://wetlands.fws.gov/Pubs_Reports/publi.htm

- **Percent of goal achieved for implementation of nitrogen reduction practices (expressed as progress meeting the nitrogen reduction goal of 162.4 million pounds reduced) [PART annual output measure-Chesapeake Bay Program]**
- **Percent of goal achieved for implementation of phosphorus reduction practices (expressed as progress meeting the phosphorus reduction goal of 14.36 million pounds) [PART annual output measure-Chesapeake Bay Program]**
- **Percent of goal achieved for implementation of sediment reduction practices (expressed as progress meeting the sediment reduction goal of 1.69 million tons reduced) [PART annual output measure-Chesapeake Bay Program]**
- **Total nitrogen reduction practices implementation achieved as a result of agricultural best management practice implementation per million dollars to implement agricultural BMPs [PART annual efficiency measure]**

Performance Database: Reducing Pollution Summary (Controlling Nitrogen, Phosphorus and Sediment.) Implementation of point & nonpoint source nitrogen and phosphorus reduction practices throughout the Bay watershed, expressed as % of reduction goal achieved. The nitrogen goal is a 162.4 million pound reduction from 1986 levels to achieve an annual cap load of 175 million lbs (based on long-term average hydrology simulations). The phosphorus goal is a 14.36 million pound reduction from FY1986 levels to achieve an annual cap load of 12.8 million lbs (based on long-term average hydrology simulations). Achieving the cap loads is expected to result in achievement of the long-term restoration goals for submerged aquatic vegetation and dissolved oxygen. Point source loads are monitored or estimated based on expert evaluation of treatment processes. Nonpoint source loads are simulated based on reported implementation of best management practices (BMPs) that reduce nitrogen and phosphorus pollution. The simulation removes annual hydrological variations in order to measure the effectiveness of BMP implementation and converts the numerous BMPs, with various pollution reduction efficiencies – depending on type and location in the watershed – to a common currency of nitrogen and phosphorus reduction.

Implementation of sediment reduction practices throughout the Bay watershed, expressed as % of land-based sediment reduction goal achieved. The sediment reduction goal is a 1.69 million ton reduction from FY 1986 levels to achieve an annual cap load of 4.15 million tons (based on average hydrology simulations). Achieving this cap load is expected to result in achievement of the long-term restoration goals for submerged aquatic vegetation and dissolved oxygen. Loads are simulated based upon reported implementation of best management practices (BMPs) that reduce sediment pollution. The simulation removes annual hydrological variations in order to measure the

effectiveness of BMP implementation and converts the numerous BMPs, with various pollution reduction efficiencies – depending on type and location in the watershed – to a common currency of sediment reduction.

Agricultural BMP costs include all capital and O&M costs assumed by both landowners and government agencies. This measure focuses on agricultural BMPs because they are the most cost effective way to reduce nutrient loading in the watershed.

The Bay data files used in the indicator are located at <http://www.chesapeakebay.net/pubs/statustrends/186-data-2003.xls>. Data have been reported for calendar years 1985, 2000, 2001, 2002, 2003, 2004, 2005 and are expected on an annual basis after 2005. 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 is based on the results of the 2006 data collection. We received the results for 2006 in October 2007.

Data Source: Each jurisdiction (NY, MD, PA, VA, WV, DE, and DC) tracks and approves annual point source effluent concentrations, flows data as well as non-point source BMP data. It submits the data to the Chesapeake Bay Program Office. Contact Jeff Sweeney, jsweeney@chesapeakebay.net.

Agricultural practice costs used in the PART efficiency measure are in the guidance document "Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability" (Technical Support Document) found at <http://www.chesapeakebay.net/ecoanalyses.htm> under "Part I: Documentation of Estimated Costs of the Tier Scenarios". The direct address is <http://www.chesapeakebay.net/pubs/doc-ecoanal-PartI.pdf>. Specific cost information for agricultural practices begins on electronic page 59 and a summary table of unit BMP costs is on electronic page 93.

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 ten-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 crop and modified by the application of nutrient management BMPs. Manure applications 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 Chesapeake Bay Program (CBP).

<http://www.chesapeakebay.net/pubs/1127.pdf>

<http://www.chesapeakebay.net/pubs/114.pdf>

<http://www.chesapeakebay.net/pubs/112.pdf>

<http://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 of 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 (2008)

Input assumptions are documented in the above publications. Assumptions of the actual model code are in the HSPF documentation:

ftp://water.usgs.gov/pub/software/surface_water/hspf/doc/hspfhelp.zip

Input data are collected from states and local governments programs. Methods are described at <http://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 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 (NY, MD, PA, VA, WV, DE, and DC) 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 are 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. Cost share programs include state and federal grant programs that require a recipient match. 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 2008. 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 <http://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 Reducing Pollution Summary (Controlling Nitrogen, Phosphorus and Sediment) indicators are published at <http://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 <http://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 <http://www.chesapeakebay.net/pubs/777.pdf>. See USDA NRCS Field Office Technical Guide available at <http://www.nrcs.usda.gov/technical/efotg/>. The indicator and data survey is published at <http://www.chesapeakebay.net/pubs/2007reports/IndicatorSurveyReducingPollution032906.doc>. See "Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability" (Technical Support Document) found at <http://www.chesapeakebay.net/ecoanalyses.htm> under "Part I: Documentation of Estimated Costs of the Tier Scenarios". The direct address is <http://www.chesapeakebay.net/pubs/doc-ecoanal-PartI.pdf>. Specific cost information for agricultural practices begins on electronic page 59 and a summary table of unit BMP costs is on electronic page 93.

- **Percent of point source nitrogen reduction goal of 49.9 million pounds achieved [PART annual outcome measure- Chesapeake Bay Program]**
- **Percent of point source phosphorus reduction goal of 6.16 million pounds achieved [PART annual outcome measure-Chesapeake Bay Program]**

Performance Database: Point source nitrogen and phosphorus reductions are reported as % of goal achieved and pounds. The goal for point source nitrogen reductions is 49.9 million pound reduction from FY 1986 levels. The goal for point source phosphorus reductions is 6.16 million pound reduction from FY 1986 levels. Point source nitrogen and phosphorus data is reported based upon monitored results from the previous calendar year.

The Bay data files used in the indicator are located at <http://www.chesapeakebay.net/pubs/statustrends/127-data-2002.xls>. Data have been collected 1985-2005 and are expected on an annual basis after 2005.

The FY 2007 Annual Performance Report for these measures is based on the results of the 2006 data collection. We received the results for 2006 in October 2007.

Data Source: Each jurisdiction (NY, MD, PA, VA, WV, DE, and DC) tracks and approves annual point source effluent concentrations and flow data. It submits the data to the Chesapeake Bay Program Office. Contact; Ning Zhou, zhou.ning@epa.gov.

Methods, Assumptions and Suitability: Point source loads are calculated from measured or estimated values of effluent flows and concentrations. The Chesapeake Bay Program Phase 4.3 Watershed Model is the tool used to transform calculated point source discharge loads (generally, from monitored flow and concentration data) to nutrient loads delivered to Chesapeake Bay tidal waters.

Peer-reviewed methods are employed to estimate point source discharges where measured data are not available. Refer to: “Chesapeake Bay Watershed Model Application & Calculation of Nutrient & Sediment Loadings - Appendix F: Phase IV Chesapeake Bay Watershed Model Point Source Loads” at <http://www.chesapeakebay.net/pubs/114.pdf>; Quality Assurance Project Plan (QAPP) “Standard Operating Procedures for Managing Point Source Data – Chesapeake Bay Program” on file for the EPA grant (contact: Quality Assurance Officer, Mary Ellen Ley, mley@chesapeakebay.net).

The following methods/assumptions pertain to discharge data:

- Monitored discharge data are generated from the EPA-approved standard sampling and analysis methods and documented in the Data Monthly Reports from facilities to jurisdictions.
- Discharge data which date to the earlier years of the record are inadequate for many regions in the Bay watershed; however, the 1986 baseline is consistent throughout the record.
- Facilities have been added to the point source database over the years, not necessarily because they physically came on-line, but because they were previously untracked. In addition, facilities have been turned inactive in the point source database over time because they went off line or combined with other facilities as new plants.
- Protocols of calculating discharges from measured or estimated flows and effluent concentrations have been adjusted throughout the data record to better reflect actual end-of-pipe loads.
- Tributary-specific pollution reduction and habitat restoration plans (“Tributary Strategies”) for some jurisdictions are not final so the goals will be adjusted in the future as jurisdictions update implementation plans that better reflect projected point source discharges.

QA/QC Procedures: Jurisdictions (NY, MD, PA, VA, WV, DE, and DC) providing point source effluent data to the Bay Program office are expected to submit documentation of their quality assurance and quality control policies, procedures, and specifications in the form of Quality Assurance Management Plans and Quality Assurance Project Plans. Jurisdictional documentation, however, is limited and it is unknown if protocols follow EPA-approved objectives as established in the “Chesapeake Bay Program Quality Assurance Guidelines and Requirements” section of the CBP Grant and Cooperative Agreement Guidance, which is relevant to projects involving the collection of environmental data.

Procedures for compiling and managing point source discharge data at the Chesapeake Bay Program office are documented in the following EPA-approved Quality Assurance Project Plan: “Standard Operating Procedures for Managing Point Source Data – Chesapeake Bay Program” on file for the EPA grant (contact: Quality Assurance Officer, Mary Ellen Ley, mley@chesapeakebay.net).

Data Quality Reviews: Point source data sets from seven jurisdictions are merged at the Chesapeake Bay Program office. Continual peer-review of the thoroughness of discharge data and methods of managing the information by the Point Source Workgroup promotes consistency and completeness among the jurisdictions of calculated end-of-pipe loads.

Data Limitations: The CBP relies on information submitted and approved by the jurisdictions (NY, MD, PA, VA, WV, DE, and DC).

Error Estimate: The CBP tries to trace significant variability in the data and limit its impact.

New/Improved Data or Systems: N/A

References:

Study/survey design procedures for point source discharges can found at:

- “Chesapeake Bay Watershed Model Application & Calculation of Nutrient & Sediment Loadings - Appendix F: Phase IV Chesapeake Bay Watershed Model Point Source Loads” at <http://www.chesapeakebay.net/pubs/114.pdf>
- Quality Assurance Project Plan (QAPP) “Standard Operating Procedures for Managing Point Source Data – Chesapeake Bay Program” on file for the EPA grant (contact: Quality Assurance Officer, Mary Ellen Ley, mley@chesapeakebay.net).

The Point Source Nitrogen Loads Delivered to the Bay indicator is published at <http://www.chesapeakebay.net/status.cfm?sid=127>.

The Point Source Phosphorus Loads Delivered to the Bay indicator is published at <http://www.chesapeakebay.net/status.cfm?sid=128>.

The Wastewater Pollution Controls indicator is published at <http://www.chesapeakebay.net/status.cfm?sid=226>.

The indicator and data survey are published at <http://www.chesapeakebay.net/pubs/2007reports/IndicatorSurveyReducingPollution032906.doc>

- **Percent of forest buffer planting goal of 10,000 miles achieved [PART annual outcome measure-Chesapeake Bay Program]**

Performance Database: Forest buffer planting is reported as % of goal achieved. The long term goal is to plant 10,000 miles of forest buffers. The information is based on cumulative acres planted since FY 1997 provided by the states for the previous calendar year.

The Bay data files used in the indicator are located at <http://www.chesapeakebay.net/pubs/statustrends/83-data-2002.xls>. Data have been collected 1996-2006 and are expected on an annual basis after 2006.

The FY 2007 Annual Performance Report for this measure is based on the results of the 2006 data collection. We received the results for 2006 in March 2007.

Data Source: Sampling design is formulated by the USDA for tracking projects and funds. Data and metadata are sent to the Forestry Work Group (state-level Departments of Forestry) by participating state coordinators and field personnel. Geographic Information System maps are produced by the UMD Center for Environmental Science. Contacts: Sally Claggett, sclaggett@fs.fed.us and Judy Okay, jokay@chesapeakebay.net

Methods, Assumptions and Suitability: Data collected for tracking linear ft, miles, and acres of forest buffers are measured directly. State data are merged to get cumulative miles. Submission criteria have been set and agreed to by State agencies. The data are summarized in a spreadsheet by geographic location with related extent of project sites. A Geographic Information System (GIS) is used to help generate the indicator data.

Data Quality Reviews: The data are collected by state field personnel and submitted to the state-level Departments of Forestry for QA/QC checks.

Data Limitations: The data are only as good as the data originally submitted by the states. This information passes through many hands before being merged into the annual cumulative miles. Human error enters into this type of record. The data are compiled and released with utmost attention to accuracy and validation of locations and extents of riparian forest buffers.

Error Estimate: none calculated.

New/Improved Data or Systems: N/A

References: The indicator is published at <http://www.chesapeakebay.net/status.cfm?sid=83>.

The indicator and data survey are published at <http://www.chesapeakebay.net/pubs/2007reports/ForestBuffersRestoredIndicator030607.doc>.

- **Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay**

Performance Database: SAV acres in Chesapeake Bay. Total acres surveyed and estimated additional acres from 1978 through 2006, excluding the years 1979-1983 and 1988 when no surveys were conducted. The FY 2007 Annual Performance Report for this measure is based on the results of the survey conducted the previous calendar year (2006). We received the 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 (<http://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 <http://www.vims.edu/bio/sav/> provides this information as well. Metadata are included with the data set posted at the VIMS web site (<http://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.

Error Estimate: No error estimate is available for this data.

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 <http://www.vims.edu/bio/sav/savreports.html> and bibliography at <http://www.vims.edu/bio/sav/savchespublish.html>. The SAV distribution data files are located at <http://www.vims.edu/bio/sav/savdata.html> and also at <http://www.chesapeakebay.net/pubs/statustrends/88-data-2002.xls>. The SAV indicator is published at <http://www.chesapeakebay.net/status.cfm?sid=88>.

Objective: Enhance Science and Research

- **Improved protocols for screening and testing (PART Measure)**
- **Effects and exposure milestones met (PART Measure)**
- **Assessment milestones met (PART Measure)**
- **Risk management milestones met (PART Measure)**

Performance Database: N/A

Data Source: Data are generated based on self-assessments of completion of planned program outputs.

Methods, Assumptions and Suitability: Annual milestones in support of the Multi-Year Plan for Endocrine Disruptors research are developed and revised during the annual budget and performance planning process. Self-assessments of progress toward completing these activities are based on the pre-defined goals.

QA/QC Procedures: Procedures are now in place to require that all annual milestones be clearly defined and mutually agreed upon within ORD by the start of each fiscal year. Progress toward completing these activities is monitored by ORD management.

Data Quality Reviews: N/A

Data Limitations: Data do not capture the quality or impact of the research milestones and outputs being measured. However, long-term performance measures and independent program reviews are used to measure research quality and impact. Additionally, completion rates of research outputs are program-generated, though subject to ORD review.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: Endocrine Disruptors Multi-Year Plan, available at: <http://www.epa.gov/osp/myep/edc.pdf> (last accessed on July 20, 2007)

Endocrine Disruptors PART Program Review, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10002280.2004.html> (last accessed August 16, 2007)

- **Number of states using a common monitoring design and appropriate indicators to determine the status and trends of ecological resources and the effectiveness of national programs and policies (PART measure)**

Performance Database: Internal Regional EPA tracking system.

Data Source: Data are derived from internal assessments of state activities.

Methods, Assumptions and Suitability: Data for this measure are collected based on assessments of the number of states using Environmental Monitoring and Assessment Program (EMAP) data to monitor the condition of ecological resources. EMAP data are generated, in part, by a cooperative agreement with twenty-three states to conduct the National Coastal Assessment Monitoring survey, which introduces a standard protocol for monitoring the ecological condition of estuaries; including, probabilistic sampling designs, response designs for indicators, laboratory analyses, statistical analyses and reporting formats.

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: EPA anticipates by 2007 all states will have adopted and implemented the National Coastal Assessment Monitoring survey. Improvements in the management of contracts, coordination of the shipment of samples, and distribution of resulting data are now performed by EPA to give states without capability the opportunity to partner with the agency.

References: EMAP data, available at: <http://www.epa.gov/docs/emap/index.html> (last accessed on July 20, 2007) US EPA. 2001. Environmental Monitoring and Assessment Program (EMAP): National Coastal Assessment Quality Assurance Project Plan, 2001-2004. EPA/620/R-01/002. Office of Research and Development, National Health and Environmental Effects Research Laboratory, Gulf Ecology Division, Gulf Breeze, FL. Ecological Research PART Program Review, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10001135.2005.html> (last accessed August 16, 2007)

- **Average cost to produce Air Quality Criteria/Science Assessment documents (Efficiency Measure)**

Performance Database: N/A

Data Source: Data are generated based on self-tracking of cost per Air Quality Criteria/Science Assessment document.

Methods, Assumptions and Suitability: The HHRA Program's efficiency measure tracks the cost to produce AQCDs for use by the Office of Air and Radiation in developing their policy options for the NAAQS. Total FTE and extramural dollar costs are cumulated over a five year period and divided by the number of AQCDs produced in this time period, to create a moving annual average \$/AQCD.

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: Data do not capture the quality or impact of the program activities. However, other performance measures and independent program reviews are used to measure the quality and impact of the program.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: Human Health Risk Assessment PART Assessment: <http://www.whitehouse.gov/omb/expectmore/summary/10004308.2006.html> (last accessed August 16, 2007)

- **Average time (in days) to process research grant proposals from RFA closure to submittal to EPA's Grants Administration Division, while maintaining a credible and efficient competitive merit review system (as evaluated by external expert review) (Efficiency Measure)**

Performance Database: N/A

Data Source: Data are generated based on self-tracking of grants processing time.

Methods, Assumptions and Suitability: The Human Health Program's efficiency measure tracks the average time to process and award grants.

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: Data do not capture the quality or impact of the program activities. However, other performance measures and independent program reviews are used to measure the quality and impact of the program.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

- **Percentage of planned outputs delivered in support of public health outcomes long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support of mechanistic data long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support of the aggregate and cumulative risk long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support of the susceptible subpopulations long-term goal (PART Measure)**
- **Percentage of planned outputs delivered in support efficient and effective clean-ups and safe disposal of contamination wastes.**
- **Percentage of planned outputs delivered in support of water security initiatives**
- **Percentage of planned outputs delivered in support of risk assessors and decision-makers in the rapid assessment of risk and the determination of cleanup goals and procedures following contamination.**
- **Percentage of planned outputs delivered on time in support of establishment of the environmental National Laboratory Response Network**
- **Percentage of planned outputs delivered in support of HHRA health assessments. (PART Measure)**
- **Percentage of planned outputs delivered in support of Air Quality Criteria/Science Assessment documents (PART Measure)**
- **Percentage of planned outputs delivered in support of HHRA Technical Support Documents (PART Measure)**
- **Percentage of planned outputs delivered. (PART Measure)**
- **Percent progress toward completion of a framework linking global change to air quality. (PART Measure)**

Performance Database: Integrated Resources Management Systems (internal database) or other internal tracking system.

Data Source: Data are generated based on self-assessments of completion of planned program outputs.

Methods, Assumptions and Suitability: To provide an indication of progress towards achievement of a program's long-term goals, each program annually develops a list of key research outputs scheduled for completion by the end of each fiscal year. This list is finalized by the start of the fiscal year, after which no changes are made. The program then tracks quarterly the progress towards completion of these key outputs against pre-determined schedules and milestones. The final score is the percent of key outputs from the original list that are successfully completed on-time.

QA/QC Procedures: Procedures are now in place to require that all annual outputs be clearly defined and mutually agreed upon within ORD by the start of each fiscal year. Progress toward completing these activities is monitored by ORD management

Data Quality Reviews: N/A

Data Limitations: Data do not capture the quality or impact of the research outputs being measured. However, long-term performance measures and independent program reviews are used to measure research quality and impact. Additionally, completion rates of research outputs are program-generated, though subject to ORD review.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: Human Health Multi-Year Plan, available at: <http://epa.gov/osp/myph/hh.pdf> (last accessed July 20, 2007).

Global Change Research Multi-Year Plan, available at: <http://epa.gov/osp/myph/global.pdf> (last accessed July 20, 2007)

Human Health Risk Assessment Multi-Year Plan, available at: <http://epa.gov/osp/myph/hhra.pdf> (last accessed July 20, 2007).

Safe Pesticides/Safe Products Multi-Year Plan, available at: <http://epa.gov/osp/myph/sp2.pdf> (last accessed July 20, 2007)

Ecological Research Multi-Year Plan, available at: <http://epa.gov/osp/myph/eco.pdf> (last accessed July 20, 2007)

Human Health Research PART Program Assessment, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10004373.2005.html> (last accessed August 16, 2007)

Global Change Research PART Program Assessment, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10004307.2006.html> (last accessed August 16, 2007)

Human Health Risk Assessment PART Program Assessment, available at: <http://www.whitehouse.gov/omb/expectmore/summary/10004308.2006.html> (last accessed August 16, 2007)

GOAL 5: Compliance and Environmental Stewardship

Objective: Achieve Environmental Protection through Improved Compliance

- **Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions [PART]**
- **Percentage of concluded enforcement cases requiring that pollution be reduced, treated, or eliminated [PART]**
- **Percentage of concluded enforcement cases requiring implementation of improved environmental management practices [PART]**
- **Dollars invested in improved environmental performance or improved environmental management practices as a result of concluded enforcement actions (i.e., injunctive relief and SEPs)**
- **Pounds of pollutants estimated to be reduced, treated, or eliminated as a result of audit agreements [PART]**

Performance Databases: The Integrated Compliance Information System Federal Enforcement & Compliance (ICIS FE&C) database tracks EPA judicial and administrative civil enforcement actions. Criminal enforcement cases are tracked by the Criminal Case Report System (CCRS) which became operational in FY 2006.

Data Source: Most of the essential data on environmental results in ICIS FE&C is collected through 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. Information from the CCDS is used to track progress for several of the performance measures. The CCDS form consists of 22 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 defendant/respondent, in response to an order for injunctive relief or otherwise in response to the enforcement action, will: (1) implement controls that will reduce pollutants; and/or (2) improve environmental management practices to curtail, eliminate or better monitor and handle pollutants in the future.

The Criminal Enforcement Program also collects annual information on pollution reductions for concluded criminal prosecutions on a separate case conclusion data form.

Methods, Assumptions and Suitability: For enforcement actions which result in pollution reductions, staff estimate the amount of pollution reduced for an immediately implemented improvement, or for an average year once a long-term solution is in place. There are established procedures to be used by EPA staff to calculate, by statute, e.g., Clean Water Act (CWA), the pollutant reductions or eliminations. The calculation determines the difference between the current amount of compliance quantity of pollutants released and the post enforcement action amount in compliance quantity of pollutants released. This difference is then converted into standard units of measure.

QA/QC Procedures: QA/QC procedures [See references] are in place for both the CCDS and ICIS FE&C data entry. There is a CCDS Training Booklet [See references] and a CCDS Quick Guide [See references], both of which have been updated and distributed throughout regional and headquarters offices. The criminal enforcement

program has prepared a companion guide for use by its field agents. Separate CCDS Calculation and Completion Checklists [See references] are required to be filled out when the CCDS is completed. Criminal enforcement 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's (OC) 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. 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, OECA instituted a requirement for semiannual executive certification of the overall accuracy of ICIS information. In addition, in FY 2003, OC established a quarterly data review process to ensure timely input, data accuracy, and reliability of EPA's enforcement and compliance information.

Data Quality Review: Information contained in the CCDS and ICIS FE&C are required by policy to be reviewed by regional and headquarters= staff for completeness and accuracy. ICIS data are quality-reviewed quarterly, and reviewed and certified at mid-year and end-of-year.

Data Limitations: Pollutant reductions or eliminations reported in CCDS are projected estimates of pollutants to be reduced or eliminated 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 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 the overall amount of pollutants to be reduced or eliminated will be prudently underestimated based on CCDS information.

Error Estimate: Not available

New & Improved Data or Systems: In November 2000, EPA completed a comprehensive guide on the preparation of the CCDS estimates. This guide, issued to headquarters and regional staff, was made available in print and CD-ROM, was supplemented in FY 2002 and updated in FY 2004. The guide contains work examples to ensure better calculation of the amounts of pollutants reduced or eliminated through concluded enforcement actions.

ICIS FE&C became operational in June 2006. This new data system has all of the functionality of old ICIS (ICIS 1.0) but also has an added feature for tracking EPA enforcement and compliance activities. In addition, another component of ICIS, "ICIS-NPDES" is being phased-in as the database of record for the CWA National Pollutant Discharge Elimination System (NPDES) program and it includes all federal and state enforcement, compliance and permitting data. States are currently being migrated to ICIS NPDES from the legacy data system, the Permit Compliance System (PCS). States are being phased-in to ICIS-NPDES in accordance with their current data and system capabilities and the completed migration process is projected to be completed in

FY2009. As a state's data is migrated from PCS to ICIS-NPDES, so too is its NPDES federal compliance and enforcement data. ICIS-NPDES will have a new feature that did not exist in the legacy system and that is the capability to accept electronic data directly from facilities. This new data reporting function is expected to increase data accuracy and timeliness. To date ICIS-NPDES has become the national system of record for 21 states, 2 tribes, and 9 territories.

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). CCDS: CCDS, Training Booklet, issued November 2000; Quick Guide for CCDS, issued November 2000, and "Guide for Calculating Environmental Benefits of Enforcement Cases: FY2005 CCDS Update" issued August 2004 available: <http://intranet.epa.gov/oeca/oc/resources/ccds/ccds.pdf>. Information Quality Strategy and OCS 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, OECA, ICIS Phase I, implemented June 2002. Internal EPA database; non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA). Criminal Enforcement Division Case Conclusion

- **Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations**

Performance Databases: ICIS FE&C and manual reporting by regions.

Data Sources: EPA regional offices, Office of Civil Enforcement - Air Enforcement Division (Mobile Source program), Office of Compliance - Agriculture Division (Good Laboratory Practices), and the Compliance Assessment and Media Programs Division (Wood Heaters).

Methods, Assumptions and Suitability: The Inspection Conclusion Data Sheet, (ICDS) is used to record key activities and outcomes at facilities during on-site inspections and evaluations. Inspectors use the ICDS form while performing inspections or investigation to collect information on on-site complying actions taken by facilities, deficiencies observed, and compliance assistance provided. The information from the completed ICDS form is entered into ICIS or reported manually. This measure was selected because it directly counts the complying actions taken by the facility to address deficiencies communicated by the inspector during on-site inspections/evaluations. ICDS data can be used to identify trends and generate targeting strategies.

QA/QC Procedures: The ICIS FE&C data system has been developed per Office of Environmental Information 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: The information in the CCDS, ICDS and ICIS FE&C is required by policy to be reviewed by regional and headquarters staff for completeness and accuracy. In FY2003, to satisfy the GPRA, the Agency's information quality guidelines, and other significant enforcement and compliance policies on performance

measurement, OECA instituted a requirement for semiannual executive certification of the overall accuracy of information. ICIS FE&C data are reviewed quarterly and certified at mid-year and end of year.

Data Limitations: ICIS FE&C is the official database of record for all inspections not reported into the legacy data bases (with the exception of some regions participating in the Underground Injection Control (UIC) database pilot who must still report manually). Legacy databases still operational include Air Facility System (AFS), RCRAInfo, and PCS for those states not migrated over to ICIS-NPDES.

New & Improved Data or Systems: In June FY 2006, a new version of the ICIS data system, ICIS FE&C became operational. The new data system has all of the functionality of old ICIS (ICIS 1.0) but adds functionality for tracking EPA enforcement and compliance activities. Further, ICIS-NPDES is beginning to replace the PCS as the database of record for the NPDES program, including all federal and state enforcement, compliance and permitting data. States are being phased-in to ICIS-NPDES in accordance with their current data and system capabilities and the completed migration process is projected to be completed in FY 2009.

References:

- ICIS: U.S. EPA, OECA, ICIS FE&C, implemented June 2006
- ICIS: U.S. EPA, OECA, ICIS-NPDES, implemented June 2006
- Memo dated October 11, 2005: Entering Manually Reported Federal Inspections into ICIS in FY 2006
- Internal EPA database
- Non-enforcement sensitive data available to the public through the Freedom of Information Act (FOIA).

- **Percentage of regulated entities receiving direct compliance assistance from EPA reporting that they improved environmental management practices 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 Database: EPA headquarters and regions 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.

Methods, Assumptions and Suitability: Compliance Assistance (CA) measures are automatically produced in the ICIS database which records the number of entities that received direct assistance from EPA and report that they improved an environmental management practice and/or report that they reduced, treated or eliminated pollution as a result of EPA assistance. The Compliance Assistance Conclusion Data Sheet (CACDS) was created to facilitate entry of data in ICIS on the on-site CA visits. ICIS

produces the percentage by dividing the number of respondents to each of two follow-up survey questions by the number of respondents for each question who answered affirmatively. The figure is aggregated nationally from the regional data. A percentage measure was chosen to track the goal for year to year comparability as opposed to a direct number which varies year to year.

QA/QC: 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.

Data Limitations: At the request of OMB, OECA has agreed to add language to caveat CA results in EPA's annual *Performance and Accountability Report*. The language will explain that our GPRA performance measures are not calculated from a representative sample of the regulated entity universe. The percentages are based, in part, on the number of regulated entities that answer affirmatively to questions on our voluntary surveys and do not account for the number of regulated entities who chose not to answer these questions or a survey.

Error Estimate: None

New & Improved Data or Systems: EPA continues to improve and/or modify elements of the compliance assistance module in ICIS based on use of the system. OECA will conduct a study and develop a strategy to use statistically valid techniques to tie outcomes to EPA-provided compliance assistance activities. Beginning with a pilot survey in FY 2008, EPA will conduct a survey every three years of a statistically-valid sample of compliance assistance recipients to measure behavior changes resulting from compliance assistance.

References: US EPA, ICIS Compliance Assistance Module, February 2004; US EPA, Compliance Assistance in the Integrated Compliance Information System Guidance, February 20, 2004. US EPA, 2005 Guidance Addendum for Reporting Compliance Assistance in the ICIS, March 2005.

Objective: Improve Environmental Performance through Pollution Prevention and Innovation

- **Pounds of hazardous materials reduced by P2 program participants (PART measure)**
- **BTUs of energy reduced, conserved or offset by P2 program participants**
- **Gallons of water reduced by P2 program participants**
- **Business, institutional and government cost reduced by P2 program participants (PART measure)**

The Agency's Pollution Prevention programs, or results centers, include Green Chemistry (GC), Design for the Environment (DfE), Green Engineering (GE), Regional

Offices for Results, Pollution Prevention Resource Exchange (P2Rx), Environmentally Preferable Purchasing (EPP), Partnership for Sustainable Healthcare (PSH), and Green Suppliers Network (GSN). Each of these program/results centers operates under the principles of the Pollution Prevention Act and works with others to reduce waste at the source, before it is generated. The 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. Each program/results center contributes outcome results which are added to the combined flow of results. Data is rolled up into a single tracking tool: "P2 Program 2011 Strategic Targets -Contributions by Program.xls," which aggregates annual progress toward the goals.

Performance Database:

Green Chemistry (GC): EPA has developed an electronic metrics database ("matrix") that allows organized storage and retrieval of green chemistry data submitted to EPA on alternative feedstocks, processes, and safer chemicals. The database was 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 was also designed to track the quantity of hazardous chemicals and solvents eliminated as well as water and energy saved 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. The database currently has information on all technologies received through 2006. In addition, approximately one third of the 2007 nominations are already entered.

Design for the Environment (DfE): DfE has an evaluation spreadsheet that is populated for all its programs (i.e., Alternatives to Lead Solder in Electronics, Furniture Flame Retardant 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 varies by project, and generally includes measures comparing baseline technologies or products to safer ones, as well as information on partner adoption and/or market share of safer alternatives. For example, the DfE Formulator Program tracks the move to safer chemicals (such as pounds of chemicals of concern no longer used by partners, and conversely pounds of safer ingredients), and reductions in water and energy use, where such outcomes are available.

Green Engineering (GE): GE will be developing an electronic database to keep track of environmental benefits of GE projects including pounds of hazardous chemicals prevented and/or eliminated, gallons of water, British Thermal Units (BTUs) and dollars saved and pounds of carbon dioxide (CO₂) emissions eliminated.

Regional Offices: EPA's Regional Offices' (Regions) P2 results come primarily through grants they award, and results from projects managed by EPA Regional staff. Regional Offices use the GranTrack database to collect and organize information on the P2 and Source Reduction grants they award. GranTrack includes multiple information fields covering administrative and financial aspects of the grants as well as results reported by grantees. The database can be searched and reports developed in numerous ways, including by Region, type of grant, year grant awarded, and year of results. Data may be displayed for individual grants or in aggregate covering multiple grants. While GranTrack

has been used for a number of years it has some limitations. This year the program is exploring options for upgrading GranTrack and/or using additional tools to simplify and improve results reporting.

Pollution Prevention Resource Exchange (P2Rx): There are 8 regional P2 Information centers which coordinate and supply information, training and conferences for local and state technical assistance providers as well as businesses. These centers report to EPA through grant reports. The centers have received Information Collection Rule (ICR) approval to survey for customer satisfaction (with the P2Rx information and services) and changes in customer awareness and understanding of P2 approaches. In subsequent years these centers will collect case study information to document the success of their intervention in motivating changes and achieving environmental outcomes. These 8 P2Rx centers also host regional modules that contribute to the National P2 Results system that was developed under a grant from the EPA National Environmental Information Exchange Network (NEIEN) program. Any program can enter measures of outputs and outcomes into this data system. Over 30 state-level P2 organizations have signed Memoranda of Agreements to provide data. The P2Rx centers have trained and assisted organizations in entering their data. EPA is funding an evaluation of P2Rx services to estimate the portion of potential customers these centers reach. EPA support of these regional centers and the technical assistance, publications, training, and information supplied by the P2Rx centers contributes to national P2 progress. To capture this indirect effect of EPA's role, 10% of the results reported through the P2Rx center will be counted in EPA performance measurement systems.

Partnership for Sustainable Healthcare (PSH) Program: The Partnership for Sustainable Healthcare (PSH) program is the new name for EPA's continued effort with the health care sector, as the former "Hospitals for a Healthy Environment" (H2E) program (now the H2E organization has become a fully independent non-profit organization.). PSH works, in collaboration with the National Center for Manufacturing Sciences (NCMS), and H2E, as NCMS' sub-grantee, in providing technical assistance to the health care sector. H2E maintains its own electronic program database. Data are collected voluntarily from Partners on an ongoing and continuous basis. Data are requested on mercury and waste reduction information broken down by types of waste. Information on BTUs, gallons of water, and dollar savings are only requested in award applications.

Green Suppliers Network (GSN): GSN utilizes a Customer Relationship Management database (CRM) in partnership with the National Institute of Standards and Technology's Manufacturing Extension Partnership Program (NIST MEP) to collect performance metrics for the program. The CRM was originally configured to collect economic information from companies receiving services through the NIST MEP system. The CRM has been modified to capture the environmental metrics collected during a GSN review at a company, such as the value of environmental impact savings identified, energy conserved (BTU, kwh/year), water conserved (gal/year), water pollution reduced (lbs/year), air emissions reduced (lbs/year), hazardous waste reduced (lbs/year), solid waste reduced (lbs/year), and toxic/hazardous chemical use reduced (lbs/year).

Environmentally Preferable Products (EPP): Results for Environmentally Preferable Purchasing (EPP) come from the Federal Electronics Challenge (FEC), the Electronic Product Environmental Assessment Tool (EPEAT), and Green Janitorial Products. FEC uses the FEC Administrative Database for storage and retrieval of annual reporting

information from FEC partners. EPP staff run these reporting data through the Electronics Environmental Benefits Calculator to calculate pounds of hazardous and non-hazardous pollution reduced, units of energy conserved, and costs saved (among other benefits) on an annual basis. EPEAT-registered manufacturers provide reporting data via the Green Electronics Council, which collects and organizes EPEAT reporting data. As with FEC, the EPP team runs these reporting data through the Electronics Environmental Benefits Calculator to calculate pounds of hazardous and non-hazardous pollution reduced, units of energy conserved, and costs saved (among other benefits) on an annual basis. For Janitorial Products, the EPP team will collect annual reporting data from various EPA contacts for EPA's Environmental Management System (EMS), and then run these data through the Green Cleaning Calculator to calculate pounds of hazardous pollution reduced. FY 2007 data will be collected in January 2008.

Data Sources :

GC: Industry and academia submit nominations annually to the Office of Pollution Prevention and Toxics (OPPT) in response to the annual Presidential Green Chemistry Challenge Awards. Environmental and economic benefit information is included in the nomination packages. Qualitative and quantitative benefit information is pulled from the nominations and entered in the metrics database. The metrics database pulls this public benefit information from the nominations. The database currently has information on all technologies nominated through 2006.

DfE: The source of DfE's evaluation information varies by the project and the partner industry. For example, in DfE's Formulator Recognition Program, partners provide proprietary information on the production volume of their improved formulations. For other partnerships, data sources typically include technical studies (e.g., Alternatives Assessments and Life-Cycle Assessments) and market/sales/adoption information from sources such as industry associations.

GE: Data will come from various sources and partners including the regions, academia and industry. For example, for GE projects related to the pharmaceutical industry, data will be directly reported by the project leaders. Some information may also come from profiles of recognized projects taken from 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.

Regional Offices: P2 Grant and Source Reduction grant data are secured from grant applications, grant reports and supplemental forms and entered into the current P2 Grant Database, Gran Track. In addition, over the coming year the program is piloting the use of a new tool to assist grantees in projecting and determining grants results and to assist regional project officers in compiling and analyzing those results.

P2Rx: P2Rx center data will be secured through grant reports, web-based surveys of customers, pre and post testing of training attendees and case studies following long term impact of the use of P2Rx services and information.

PSH: Because the PSH program is a voluntary program, the information collected is voluntarily submitted by hospital Partners. The PSH program maintains an ICR for the collection of data which allows EPA to collect data from third parties under the Paperwork Reduction Act.

GSN: Data are collected by the GSN Review Team during a GSN review at the company's facility. This team consists of a "lean" manufacturing expert from the NIST MEP system and an environmental expert usually from the state environmental agency or its designee. Lean manufacturing is a business model and collection of methods that help eliminate waste while delivering quality products on time and at least cost. NIST MEP has a system of lean experts who assist businesses through the process of becoming more efficient and cost effective. The metrics are recorded in the final report generated for the company's use and also are entered into the CRM database by the NIST MEP center. All MEP centers are grantees to the Department of Commerce and must adhere to DOC's requirements for the collection and handling of data. These requirements are reinforced by the terms of the "Request for Proposals" to which each center (e.g., grantee) responds and which must be followed during a GSN review.

EPP: For FEC, the data source is federal partners. For EPEAT, the data source is EPEAT-registered manufacturers of electronic products. For Janitorial Products, the data source is EPA EMS contacts for procuring janitorial products.

Methods and Assumptions:

GC: The public information is tracked directly through internal record-keeping systems. Annual benefits are assumed to reoccur. The performance data, while collected by individual centers, is acceptable for the purpose of performance measurement for the program, as it addresses the specific measures and reflects an aggregated and quality reviewed dataset.

DfE: Each DfE partnership identifies and focuses on a unique set of chemicals and industrial processes. For DfE's Formulator Recognition Program, partner-provided data on production volumes is aggregated to determine the total reductions of hazardous chemicals achieved through the program. For Lead-Free Solder and Furniture Flame Retardants, market data for the production volume of the chemical of concern provides the measure for reduction. DfE's Data Program Tracking Spreadsheet includes the methods and assumptions for each project's measures.

GE: The information will be supplied directly by project leaders and/or academic-industry-region partners. The information will be tracked directly through EPA record keeping systems. GE's Data Program Tracking spreadsheet includes methods and assumptions.

Regional Offices: The data will come from state and other P2 grantees and other sources as described above. No models or assumptions or statistical methods are employed by EPA. The program is developing a new data collection tool (methodology) for grantees that is designed to increase the consistency of their data collection methods and to offer a consistent set of costing assumptions.

P2Rx: Data reported by state and local programs in the National P2 Results system will be collected and compiled by the regional centers. Some portion of these results, based on an evaluation of the portion of the customer base reached by the center in each region, will be attributed to the P2Rx center for that region. The ability to attribute environmental outcomes to Web-based information and training will rely on customer survey information and Web site user statistics.

PSH: The data comes directly from program Partners, specifically hospitals. No models or assumptions or statistical methods are employed.

GSN: Data are entered by the NIST MEP. The data are collected using the standard procedures normally utilized by the environmental agency participating in the GSN review. A standard set of metrics has been defined by the GSN program and is collected at each review, and includes the value of environmental impact savings identified, energy conserved (BTU, kwh/year), water conserved (gal/year), water pollution reduced (lbs/year), air emissions reduced (lbs/year), hazardous waste reduced (lbs/year), solid waste reduced (lbs/year), and toxic/hazardous chemical use reduced (lbs/year). The data are aggregated by NIST MEP headquarters and reported to EPA on a quarterly basis in September, December, March, and June. The data can also be aggregated by sector. The data are aggregated to maintain confidentiality for all companies participating in the program. No models or statistical methods are employed.

EPP: For FEC, the program assumes that partners report accurate data. The assumptions needed for the Calculator to translate environmental attributes and activities into environmental benefits are relatively extensive and are laid out in the Calculator's inputs (e.g., the average lifecycle of a computer, the weight of packaging for a computer, etc.). The assumptions were reviewed when the Calculator underwent the peer review process. The Electronics Environmental Benefits Calculator assists institutional purchasers in: 1) measuring the environmental and economic benefits of purchasing environmentally preferable electronics; 2) enabling energy efficiency features on electronics during use; 3) extending the useful life of electronics; and 4) disposing of old electronics in an environmentally sound manner through reuse or recycling. For Janitorial Products, the method involves reporting the types of products and work practices used during routine cleaning activities in office buildings. The Green Cleaning Calculator assists in calculating pounds of hazardous pollution reduced.

Suitability: Hazardous pounds reduced, dollars saved, BTUs of energy reduced conserved or offset, and gallons of water reduced represent the four Pollution Prevention measures. These annual measures have corresponding long term goals identified in EPA's 2006-2011 strategic plan and are suitable for year to year comparisons due to the program's ability to show annual progress towards reaching these long term goals.

QA/QC Procedures: All Pollution Prevention and Toxics programs operate under the Information Quality Guidelines as found at <http://www.epa.gov/quality/informationguidelines>, as well as under the Pollution Prevention and Toxics Quality Management Plan (QMP) ("Quality Management Plan for the Office of Pollution Prevention and Toxics; Office of Prevention, Pesticides and Toxic Substances," June 2003), and the programs will ensure that those standards and procedures are applied to this effort. The Quality Management Plan is for internal use only.

GC: Data undergo a technical screening review by the Agency before being uploaded to the database to determine if the data adequately support the environmental benefits described in the Green Chemistry Challenge Awards application. Subsequent to Agency screening, nominations 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. Quantitative benefits are periodically reviewed to be sure they were accurately captured from the nominations.

DfE: Data undergo a technical screening review by DfE before being added to the spreadsheet. DfE determines whether data submitted adequately support the environmental benefits described.

GE: Data will be reviewed by the partners including industry, academia, and the regions. Data will also be reviewed by GE to ensure transparency, reasonableness and accuracy.

Regional Offices: Data will undergo technical screening review by EPA Regional and Headquarters staff and their contractor before being placed into GranTrack. Data for projects managed directly by EPA Regional staff will be reviewed by Regional personnel. Additional QA/QC steps to be developed, as appropriate. The program has been working with the regional offices this past year to develop consistent QA procedures, which can be applied at the beginning of the grant and throughout the life of the grant.

P2Rx: Data entered into the National P2 Results system will undergo technical screening review by P2Rx centers and EPA regional and Headquarters staff.

PSH: Data undergo technical screening review by the grantee (National Center for Manufacturing Sciences, which administers the program through a cooperative agreement) before being placed in the database. QA/QC plan is a part of the requirement of the cooperative agreement.

GSN: Data are collected and verified under NIST MEP's QA/QC plan. Each NIST MEP Center must follow QA/QC requirements as grantees to the Department of Commerce. Additionally, the environmental data are collected under the specific requirements of the state environmental agency participating in each GSN review. Each state agency utilizes their own QA/QC plan for data collection because they utilize the data for purposes in addition to the GSN program.

EPP: Regarding FEC, EPEAT, and Janitorial Products, the calculators of environmental benefits (e.g., the Electronics Environmental Benefits Calculator and the Green Cleaning Calculator) underwent internal and external review during their development phases. Regarding FEC and EPEAT, instructions and guidelines are provided to partners on how to report data. Reporting forms are reviewed by EPA management when they are submitted. For EPEAT, EPEAT-registered manufacturers sign a Memorandum of Understanding in which they warrant the accuracy of the data they provide. For Janitorial Products, contractors sign a contract stating that they are providing janitorial products according to certain specifications. For FEC, EPEAT, and Janitorial Products, data undergo an internal technical review before these data are run through the calculators.

Data Quality Review: All Office of Pollution Prevention and Toxics (OPPT) programs operate under EPA's Information Quality Guidelines as found at <http://www.epa.gov/quality/informationguidelines> and under the OPPT's Quality Management Plan (QMP).

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 <http://www.epa.gov/opptintr/greenchemistry/>

DfE: Data collected includes those from industry associations and government reports. Source data is compared with industry trends and examined by industry and NGO partners.

GE: Data collected will be reviewed to meet data quality requirements.

Regional Offices: The GranTrack metrics and data system incorporate ideas and system features from the National Pollution Prevention Results System, developed with EPA support by such organizations as the Northeast Waste Management Officials Association, Pacific Northwest Pollution Prevention Resource Center, and National Pollution Prevention Roundtable. Data for projects managed directly by EPA Regional staff will be reviewed by Regional personnel. Data will undergo technical screening review by EPA Regional and Headquarters staff and their contractor before being placed into GranTrack. The P2 program has been working with the regional offices this past year to develop consistent QA procedures which can be applied at the beginning of the grant and throughout the life of the grant.

P2Rx: 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.

PSH: Not applicable

GSN: Not applicable.

EPP: For FEC, data are entered on-line with an additional error-checking function on the online form. FEC staff also review the data to ensure that it is sensible, given the context. The mechanism by which the EPP program is receiving data from the Green Electronics Council is still being determined. For Janitorial Products, data quality review steps (as of 4th quarter 2006) are still under development.

Data Limitations:

GC: Nominations sometimes omit data for a given technology due to confidential business information. Nominations for the Presidential Green Chemistry Challenge Awards Program are in the public domain.. 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.

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.

GE: There may be instances in which environment benefits are not clearly quantified and/or available due to various reasons including CBI. In those instances, the data have to be carefully evaluated and considered for reporting. If the information is included, the uncertainties/limitations will be noted

Regional Offices: Limitations arise from the reliance on individual state and other P2 grantees and other sources 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 changes described below to add consistent metrics and definitions, some differences exist. EPA is attempting to address these concerns by strengthening reporting requirements in its P2 grants, focusing on outcomes, and standardizing GranTrack metrics with those in the National P2 Results System. EPA is also in the process of adding a P2 component to the EPA Information Exchange Network (which provides financial support and a comprehensive data system to link state data with EPA). In addition, the program is working this year on developing and integrating new tools to assist grantees in projecting and determining results and to assist project officers in interpreting and reporting those results.

P2Rx: Limitations arise from variability in individual state and local P2 programs and their reporting sources, QA/QC procedures, and what is reported. Differences may arise in how programs quantify environmental benefits, based on state or local legislative requirements.

PSH: Not all hospital Partners have turned in their facility assessment information. However, in order to be considered for an award under the program, hospital Partner MUST submit facility information; therefore, the program has a very complete set of information for hospital Partners who have applied for awards. This introduces self-selection bias to the reported data as the hospitals with the best track records are those that apply for the awards. The program has roughly 10% of all Partner facilities' assessment data. An internal assessment conducted of data collected from Partners revealed some calculation errors and data inconsistencies regarding how waste data is captured by the hospital Partners. The program has gone back to correct some of those errors.

GSN: Limitations arise from the reliance on individual programs to gather data. These programs vary in attention to data collection from sources within their jurisdictions, data verification and other QA/QC procedures. The GSN program has attempted to address these concerns by strengthening the data collection requirements in the Request for Proposals that MEP centers must be respond to in order to perform a GSN review.

EPP: FEC and EPEAT have a built-in reliance on partners for data reporting.

Error Estimate:

GE: There may be instances in which environmental benefits are not clearly quantified. In those instances, the data will be excluded.

DfE: The program simply compiles data and does not conduct statistical analysis. Error estimates are not available.

P2Rx: The program simply compiles data and does not conduct statistical analysis. Error estimates are not available.

Regional Offices: Any errors detected during internal technical review of performance data submitted would be addressed, either through correction of data or elimination of data.

PSH: The program does not use a statistical approach to collect the data and therefore does not have confidence intervals for the performance estimates.

GSN: Not applicable.

GC: The program simply compiles data and does not conduct statistical analysis. Error estimates are not available.

EPP: Any errors detected during internal technical review of performance data submitted would be addressed, either through correction of data or elimination of data.

New/Improved Data or Systems:

Regional Offices: EPA recently updated and expanded GranTrack, both to improve usability and to add a much greater level of detail regarding results reported by grantees. In regard to reporting of results, GranTrack includes activity measures, behavioral measures, and outcome measures. The metrics chosen and their definitions generally are consistent with those used in the National Pollution Prevention Results System, described in the P2Rx center. Also, EPA is planning to grant the public restricted access to GranTrack. The following fields will be accessible: general information, projects and results data, status of grant, funding, keywords, partners, and sectors. The program's system for estimating and reporting results will undergo further change and improvement this coming year. We anticipate working to improve the process of projecting and reporting results through the development of new tools and methodologies. We anticipate that these changes will simplify results reporting for grantees and will improve the credibility and predictability of those results.

P2Rx: This center's survey and data collection systems are under initial implementation. Improvements will be based on the outcome of the pending evaluation

PSH: The H2E organization is in the process of commercializing a new facility assessment software which will help hospital Partners collect and compute facility environmental improvement data. The software automatically converts units and tabulates information from the hospital's source data, as well as calculating costs for different waste streams. Anticipated roll-out for the software will be in 2008. The H2E organization has agreed to share the consolidated information with EPA when data collection begins.

References:

GC: <http://www.epa.gov/opptintr/greenchemistry/>
DfE: <http://www.epa.gov/opptintr/dfe/>
GE: <http://www.epa.gov/opptintr/greenengineering/>
P2 Programs: <http://www.epa.gov/oppt/p2home/index.htm>
<http://www.p2.org/workgroup/Background.cfm>
<http://www.epa.gov/Networkg/>
PSH: <http://www.epa.gov/p2/pubs/psh.htm>
GSN: www.greensuppliers.gov
EPP: Information about FEC's annual reporting is on the FEC web site at:
<http://www.federalelectronicschallenge.net/report.htm>
Information about the Electronics Environmental Benefit Calculator is on the FEC web site at:
<http://www.federalelectronicschallenge.net/resources/bencalc.htm>
The EPEAT Subscriber and License Agreement is available on the EPEAT web site at: <http://www.epeat.net/docs/Agreement.pdf>
Regional: <http://www.epa.gov/p2/pubs/local.htm>

- **Reductions of hazardous chemicals per federal dollar spent (lbs/dollar) [PART efficiency measure]**

EPA measures the accomplishments of the Design for the Environment's (DfE) Formulator Recognition Program by comparing reductions in hazardous chemicals achieved to program resources, including FTE, overhead and extramural dollars spent. The Formulator Recognition Program works with formulators of chemical-intensive products to reduce the use of hazardous chemicals through green chemistry innovations. DfE partners provide information on levels of reduction.

Performance Database: The DfE formulator program collects confidential data each year from a sample of partner companies and enters the information into the formulator program tracking component of the DfE program evaluation spreadsheet. Key data elements used to calculate the efficiency measure are the quantity of hazardous chemicals reduced through reformulation by product type, and spending information obtained from the OPPT Finance Central database. The efficiency measure numerator is the sum of the average pounds of hazardous chemicals reduced per formulation multiplied by the annual quantity of each formulation. The denominator is the annual program resources expended.

Data Source: Partners voluntarily provide information on the pounds of hazardous chemicals reduced per formulation and the annual production of those formulations. Resource data is from OPPT internal sources.

Methods, Assumptions and Suitability: Data on reductions of chemicals are averaged with information from previous years to create an average annual quantity of hazardous chemical reduced per formulation and multiplied by the total number of formulations recognized by the program. The result is the total annual reduction in pounds of hazardous chemicals. The method aggregates across all formulators and assumes that the entire quantity of recognized formulations is reformulated. Program resources are calculated directly from EPA figures. The efficiency measure corresponds directly to the program goal of cost-effectively reducing hazardous chemical use and can compare cost effectiveness year-to-year.

QA/QC Procedures: Design for the Environment operates under EPA's Information Quality Guidelines as found at <http://www.epa.gov/oei/qualityguidelines/index.html> and under the OPPT Quality Management Plan.

Data Quality Reviews: Data undergo a technical screening review by DfE staff before being added to the program tracking spreadsheet.

Data Limitations: The data submitted voluntarily by partners is confidential. The information made public information is limited to aggregated values. In addition, only nine formulators are represented in each annual sample to reduce reporting burden, which may contribute to sampling error.

Error Estimate: Due to the sampling methodology, no error estimate is possible.

New/Improved Data or Systems: Each year additional data is added to the program tracking spreadsheet and averaged with preceding years. Cumulative data will provide a more stable estimate of total pounds of hazardous chemicals reduced through the DfE formulator program.

References:

<http://www.epa.gov/oei/qualityguidelines/index.html>

The DfE Program Tracking Spreadsheet for chemical formulators contains Confidential Business Information.

- **Reduce 3.7 billion gallons of water use; 16.3 million MMBTUs of energy use; 1,050 tons of materials use; 460,000 tons of solid waste; 66,000 tons of air releases; & 12,400 tons of water discharges**

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 three-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 2007 corresponds most closely with members' calendar year 2006. That data will be reported to the Performance Track program by April 1, 2007. The data will then be reviewed, aggregated, and available for external reporting in September 2007. (Calendar year 2005 data will become available in September 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 three-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 two years of performance at certain facilities, i.e., the baseline will be two years prior rather than one 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 non-standard 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 Quality Reviews: N/A.

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.

Error Estimate: Not calculated.

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 <https://yosemite.epa.gov/opei/ptrack.nsf/faMembers?readform>. *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.

- **Number of pounds of reduced (in millions) of priority chemicals as measured by National Partnership for Environmental Priorities members.**
- **Number of pounds of priority list chemicals removed from or reduced in waste streams per cost to perform such actions. [PART efficiency measure]**

Performance Database: Under Information Collection Request no. 2050-0190 ("Reporting Requirements Under EPA's National Partnership for Environmental Priorities", renewed April 2006) the National Partnership for Environmental Priorities

(NPEP) program collects information on partner (mostly from the industrial sector, and one municipal facility) priority chemical reduction commitments, technical solutions proposed to achieve reductions, and actual reduction achievements. Achievements are verified through discussions between EPA waste minimization national experts and partner technical personnel, and further verified using the Toxics Release Inventory system where possible.

NPEP efficiency measure: The denominator of the efficiency measure, or the cost to perform such actions, equals program cost minus quantifiable benefit per pound of reduction. Program cost is calculated to be the cost for Federal program implementation (FTE + grant and contract funding). Industry cost is neutral. Quantifiable benefits include information collected through NPEP success stories on resource savings (e.g. water, energy) resulting from implementation of waste minimization technologies and processes.

Data Source: As part of their partnership agreement, NPEP partners provide information concerning what priority list chemicals they commit to reduce, the process through which the reduction will be achieved, and the time frame for achieving the commitment. When the commitment is achieved they provide EPA with a “success story” which identifies the actual achievement, confirms the process used to achieve the reduction, and provides additional information of interest to the general public and other technical personnel concerning how the achievement was met. Information is reviewed by EPA waste minimization national experts for reasonableness based on best professional judgment. An internal tracking system is used to track pounds committed, achievement date, and actual achievement. NPEP partner achievement data is further verified against TRI reporting when the partner is a TRI regulated facility. The Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), Section 313 (Toxics Release Inventory) and expanded by the Pollution Prevention Act of 1990 (40 CFR Part 13101; www.epa.gov/tri) requires that regulated facilities report facility-specific, chemical-specific release, waste and recycling data to EPA.

Methods and Assumptions: Regional targets are calculated to meet the national total goal. This is a new measure which does not have comparable historical data. EPA does not intend to reconcile FY 08 results with prior years.

Additionally, when the partner is also a TRI regulated facility, achievement data are verified against TRI reporting

Suitability: EPA waste minimization national experts are trained in industrial or chemical engineering and have significant experience in evaluating industrial processes for waste minimization potential and efficiency. Their professional judgment forms the basis for accepting the applicants’ waste minimization commitment and achievement.

QA/QC Procedures:

Internal tracking: EPA engineers review commitment information. In cases where commitment information is initially incomplete or lacks substantiation, EPA engineers may conduct site visits in order to make a determination that the commitment is reasonably achievable. Information on number of pounds committed for reduction, achievement date and actual achievement is reported by NPEP partners and stored in an internal NPEP tracking system. Tracking system data are periodically reviewed by

EPA regional coordinators to ensure that they accurately reflects partner commitments. Corrections are made to tracking system data when they are identified.

TRI Database verification: 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. 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:

Internal Tracking data: Tracking system data are periodically reviewed by EPA regional coordinators to ensure that they accurately reflect partner commitments. Corrections are made to tracking system data when they are identified.

TRI data: 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 data reviews help assure data quality. The GAO Report Environmental Protection: EPA Should Strengthen Its Efforts to Measure and Encourage Pollution Prevention (GAO - 01 – 283, February, 2002, <http://www.gao.gov/new.items/d01283.pdf>), recommends that EPA strengthen the rule on reporting of source reduction activities. Although EPA agrees that source reduction data are valuable, the Agency has not finalized regulations to improve reporting of source reduction activities by TRI-regulated facilities.

Data Limitations: For both internal tracking system and TRI data, 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.

Error Estimate:

Internal Tracking: This is a new measurement tool, implemented with the 2006 – 2011 strategic plan. No error estimate is available at this time. However, EPA is developing an error tracking process for use in 2007 and should have an error estimate for fiscal year 2007 in early 2008.

TRI data: 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 non-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: Use of internal tracking data allows EPA to measure direct progress resulting from the NPEP program. Historically EPA has measured trends using TRI. Because TRI data are influenced by a variety of factors, including multiple EPA and State regulations, voluntary programs, and national economic trends, use of TRI did not allow EPA to directly measure program results. The internal tracking system is a limited data set and is 100% reviewed by expert engineers, is a reasonably accurate data set.

References: <http://www.epa.gov/epaoswer/hazwaste/minimize/index.htm>;
www.epa.gov/tri/ and additional citations provided above. (EPA-745-F-93-001;EPA-745-R-98-012;<http://www.epa.gov/tri/report/index.htm>;
www.epa.gov/tri/tridata/data_quality_reports/index.htm;
www.epa.gov/tri/report/index.htm
Bureau of Economic Analysis (BEA) indices are available at
<http://www.bea.gov/bea/regional/gsp/>.

- **Percent of tribes with delegated and non-delegated programs (PART measure)**
- **Percent of tribes with EPA-reviewed monitoring and assessment occurring (PART measure)**
- **Percent of tribes with EPA-approved multimedia work plans (PART measure)**
- **Number of environmental programs implemented in Indian country per million dollars (PART efficiency measure)**

Performance Database: 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 secure Internet-based applications that track environmental conditions and 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 performance targets under Goal 5 Objective 3 of EPA's National Strategic Plan –“Improve Human Health and the Environment in Indian Country.” EPA staff use the Objective 5.3 Reporting System to establish program performance commitments for future fiscal years and to record actual program performance for overall national program management. The Objective 5.3 Reporting System serves as the performance database for all of the annual performance measures and PART measures.

Data Source: Data for the Objective 5.3 Reporting System are input on an ongoing basis by Regional tribal program project officers, as designated by the Regional Indian Coordinators. All persons authorized to input data have individual passwords.

The original documents for the statements and data entered into the fields of the Objective 5.3 Reporting System can be found in the files of the Regional Tribal Project Officers overseeing the particular programs that are being reported on. For example, documents that verify water quality monitoring activities by a particular tribe will be found in the files of the Regional Water 106 Project Officer for the tribe.

The performance measure, “Percent of tribes with delegated and non-delegated programs,” tracks the number of: Treatment in a manner similar to a State (TAS)

approvals or primacies; implementations of a tribal program; executions of Direct Implementation Tribal Cooperative Agreements (DITCA); and GAP (General Assistance Programs) grants that have provisions for the implementation of solid waste or hazardous waste programs.

EPA Regional project officers managing Tribes with delegated and non-delegated environmental programs input data, classified by tribe, into the Objective 5.3 Reporting System to derive a national cumulative total.

The performance measure, “Percent of tribes with EPA-reviewed monitoring and assessment occurring (cumulative),” reports the number of active Quality Assurance Project Plans (QAPPs). All ongoing environmental monitoring programs are required to have active QAPPs. Regional tribal program liaisons obtain the information from Regional Quality Assurance Officers and input it into the Objective 5.3 Reporting System. The data are updated continuously and summed at the end of the fiscal year.

The performance measure, “Percent of Tribes with EPA approved multi-media workplans,” tracks the number of tribes with: Performance Partnership Grants (PPGs); Tribal Environmental Agreements (TEAs), Tier I, Tier II, and Tier III; Memoranda of Agreement (MOAs); and Memoranda of Understanding (MOUs), which demonstrate Tribe building. EPA Regional tribal program liaisons input data, which are summed annually. It is possible a tribe will contribute to the measure in more than one way.

The performance measure, “Number of environmental programs implemented in Indian Country per million dollars,” is calculated annually by summing the number of tribes receiving General Assistance Program (GAP) grants, the number of TAS approvals or primacies, the number of DITCAs, and the number of GAP grants that have provisions for the implementation of solid or hazardous waste programs and dividing that sum by the annual GAP appropriation (less rescissions and annual set-asides.)

Methods, Assumptions and Suitability: The Objective 5.3 Reporting System contains all the information for reporting on performance. The measure that tracks delegated and non-delegated programs can be cross-referenced and verified with records from the Integrated Grants Management System. The measure that tracks monitoring and assessment programs can be verified from databases maintained by the Regional Quality Assurance Officers. The measure that tracks multimedia work plans 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. Because the information in the Tribal Program Enterprise Architecture is used for budget and strategic planning purposes, AIEO requires adherence to the Agency’s Information Quality Guidelines. (www.epa.gov/quality/informationguidelines/index.html)

Data Quality Reviews: The certifying official for the information submitted by EPA’s Regional offices to AIEO through the Objective 5.3 reporting System is the Regional Administrator. However, in some cases the Regional Administrator may wish to delegate the signatory authority to some other official such as the Regional Indian Coordinator. The Regional Administrator or his/her designee will be responsible for

certifying that the information in the Objective 5.3 Reporting System, and hence the information which supports the performance measures and proposed PART measures is accurate. This procedure generally follows guidance provided in EPA Information Quality Guidelines. (http://www.epa.gov/quality/information_guidelines/index.html)

Data Limitations: Because data are input by EPA's Regional Project Officers on an ongoing basis, there may be slippages between the time a tribal program status has been achieved and the entering of that data into the Objective 5.3 Reporting System. Even though the Regional Project Officer may enter data on an ongoing basis, at the end of the reporting cycle the Objective 5.3 Reporting System will be "locked down," with the locked dataset reported for the fiscal year. EPA's Regional Administrator certifies the accuracy of the locked information

Error Estimate: For the Objective 5.3 Reporting System, errors could occur by mis-entering data or neglecting to enter data. However, the data from each region will be certified as accurate at the end of each reporting cycle; error is estimated to be low, about 1-2 percent.

New/Improved Data or Systems: The Objective 5.3 Reporting System, is a part of the AIEO Tribal Program Enterprise Architecture, and is a part of the same Life Cycle milestones of that system. Presently, plans are to focus on Operations and Maintenance activities for the Tribal Program Enterprise Architecture beginning FY08.

References:

Objective 5.3 Reporting System: https://iasint.rtpnc.epa.gov/TATS/tats_prv/entry_page
OCFO Information Quality Guidelines: <http://intranet.epa.gov/ocfo/policies/iqg/index.htm>

ENABLING SUPPORT PROGRAMS

- **Average time to hire non-SES positions from date vacancy closes to date offer is extended, expressed in working days.**

Performance Database: Data is derived from EZ-Hire, EPA's implementation of Monster Inc.'s Quickhire system used for application development, posting, application submission, and screening. These data is tracked internally and reported on a fiscal year and quarterly basis. The data are reported by the servicing human resources offices and rolled up into Agency-wide averages.

Data Source: The Office of Human Resources (OHR) EZ-Hire System.

Methods, Assumptions and Suitability: Data on new hires are collected by OHR using the EZ-Hire system. OHR uses EZ-Hire to generate a raw data report on a quarterly basis (after the quarter has been completed). The data is downloaded as an Excel spreadsheet and is tracked by vacancy announcement number and formatted into the various components of the Office of Personnel Management's (OPM) 45-day Hiring Model. OHR staff review the results, and identify any anomalies that may need further investigation. The draft report is then sent to the servicing HR Offices so the data can be validated, corrected, and ultimately transferred to the OHR to be finalized. HR Offices also work with the Selecting Officials to develop explanatory justifications for those vacancies which exceeded the 45-day timeframe.

QA/QC Procedures: EZ-Hire tracks vacancy announcement activity from the time the announcement opens until a job offer is made to a candidate by the Selecting Official.

Data Quality Reviews: OHR staff review and analyze the raw data, prior to it being provided to the HR Offices for validation. Local HR Offices review and validate the data, identify anomalies or data-entry errors, make corrections, and provide the updated information to OHR so that the report can be finalized. Questions about the data or resolution of issues of concern are frequently resolved through discussion and consultation with OHR.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: In November 2006, EPA upgraded to the web-based *Hiring Management* version of *Monster Inc.'s Quickhire* hiring management system. This represents a significant milestone building on EPA's early adoption of this system.

References: EZ-Hire

- **Average time to hire SES positions from date vacancy closes to date offer is extended, expressed in working days.**

Performance Database: Data is manually maintained by the Executive Resources Staff (ERS) in a Word format. Data is updated thorough-out the various stages of the hiring process.

Data Source: The Office of Human Resources' Executive Resources Staff.

Methods, Assumptions and Suitability: Data from the weekly report is tracked and reported quarterly. ERS staff reviews the results and further investigates any data anomalies prior to finalizing the quarterly report. These data are tracked manually on a weekly basis and reported on a quarterly basis. The data are reported by servicing human resources office and are expressed as an average number of days (where the time to extend an offer for each vacancy is averaged for that servicing HR office.)

QA/QC Procedures: Data are added as vacancy status changes. The weekly report is reviewed by the ERS Team leader. Questions about the data or resolution of issues of concern are frequently resolved through discussion and consultation within the team.

Data Quality Reviews: ERS staff review and analyze the raw data, prior to it being provided to the Team leader for validation. The Team leader reviews the data, identifies anomalies or data-entry errors, and provides the updated information to OHR so that the report can be finalized.

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: The current system is sufficient for tracking the SES hiring activities, given the small number of positions filled annually, about 12 per year.

References: Executive Resources Staff

- **Percent to which competency/skill gaps are reduced (beginner to intermediate) in mission critical occupations**
- **Percent to which competency/skill gaps are reduced (intermediate to expert) in mission critical occupations**

Database: Database populated with competency/skills of employees obtained from a self-assessment survey, and competency/skills deemed necessary within each occupation.

Methods, Assumptions and Suitability: Survey data will be used to provide current competency/skills of the present mission critical occupation (MCO) employees. These data will be compared to what competency/skills EPA feels is necessary for mission accomplishment within each MCO to arrive at a baseline assessment.

Yearly surveys of the MCO employee base will be completed and compared to the baseline.

QA/QC Procedures: The Office of Human Resources will be conducting a survey of EPA's MCO workforce to reflect competency/skills possessed within each MCO grouping.

Data Quality Reviews: N/A

Data Limitations: Employees will self-assess their competency/skills. If they over-inflate or under-inflate this assessment, analysis of the information may not correctly identify gaps.

Error Estimate: N/A

New/Improved Data or Systems: This is a new competency/skills database.

References: This is a new competency/skills database.

- **Number of new hires recruited through EPA's Environmental Intern Program (EIP) in Mission Critical Occupations (MCO)**

Data Source: The Office of Human Resources (OHR) PeoplePlus system.

Methods, Assumptions and Suitability: Data on new hires through the EIP is collected by OHR and maintained by the National EIP Manager. Using the information from the PeoplePlus New Hire Report and consulting with the headquarters National EIP Manager, a determination can be made if the new hire in an MCO was recruited through the EIP.

QA/QC Procedures: PeoplePlus contains nature of action codes (NOAC) designating the type of personnel action taken and the appointing authority. Efforts are underway to

establish an EIP designation code. The NOAC and an EIP identifier will more readily identify new hires in MCOs recruited through the EIP.

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: The establishment of an EIP designation code in PeoplePlus will provide an integrated approach to identifying new hires through the EIP.

References: PeoplePlus.

- **Cumulative percentage reduction in energy consumption**

Performance Database: The Agency's contractor provides energy consumption information quarterly and annually. The Agency keeps the energy consumption data in the "Energy and Water Database," which is a collection of numerous spreadsheets. The contractor is responsible for reviewing and quality assuring/quality checking (QA/QCing) the data.

Data Source: The Agency's contractor requests and collects quarterly energy and water reporting forms, utility invoices, and fuel consumption logs from energy reporters at each of EPA's "reporting" facilities (the facilities for which EPA pays the utility bills directly to the utility company). The reported 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). In instances when data are missing and cannot be retrieved, reported data are based on a proxy or historical average.

Methods, Assumptions, and Suitability: N/A

QA/QC Procedures: EPA's contractor performs an exhaustive review of all invoices and fuel logs to verify that reported consumption and cost data are correct. EPA's Sustainable Facilities Practices Branch compares reported and verified energy use at each reporting facility against previous years' verified data to see if there are any significant and unexplainable increases or decreases in energy consumption and costs.

Data Quality Reviews: N/A

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.

New/Improved Data or Systems: N/A

References: N/A

- **Number of major EPA environmental systems that use the CDX electronic requirements enabling faster receipt, processing, and quality checking of data.**
- **Number of users from states, tribes, laboratories, and others that choose CDX to report environmental data electronically to EPA.**

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. The records of registration provide an up-to-date, accurate count of users. Users identify themselves with several descriptors and use a number of CDX security mechanisms for ensuring the integrity of individuals' identities.

QA/QC Procedures: QA/QC have been performed in accordance with a CDX Quality Assurance Plan ["Quality Assurance Project Plan for the Central Data Exchange," 10/8/2004] 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. Automated edit checking routines are performed in accordance with program specifications and the CDX Quality Assurance Plan. This Plan is currently being updated in conjunction with a re-competition of the CDX contract. The re-compete, and performance under the resulting contract will incorporate significantly improved quality assurance processes. The current plan is to complete the re-compete in FY 2008. [contact: Sana Hamady, 202-566-1674]. In FY 2008, CDX will develop robust quality criteria, which will include performance metric results, for the upcoming CDX contract re-compete scheduled to be awarded in FY 2009.

Data Quality Reviews: CDX completed its last independent security risk assessment in January 2005, and all vulnerabilities are being reviewed or addressed. In addition, routine audits of CDX data collection procedures, statistics 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 collects, 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. In addition, environmental data collected by CDX is delivered to National data systems in the Agency. Upon receipt, the National systems often conduct a more thorough data quality assurance procedure based on more intensive rules that can be continuously changing based on program requirements. As a result, CDX and these National systems appropriately share the responsibility for ensuring environmental data quality.

Error Estimate: CDX incorporates a number of features to reduce errors in registration data and that contribute greatly to the quality of environmental data entering the Agency.

These features include pre-populating data either from CDX or National systems, conducting web-form edit checks, implementing XML schemas for basic edit checking and providing extended quality assurance checks for selected Exchange Network Data flows using Schematron. The potential error in registration data, under CDX responsibility has been assessed to be less than 1 %.

New/Improved Performance Data or Systems: CDX assembles the registration/submission requirements of many different data exchanges with EPA and the States, Tribes, local governments and the regulated community into a centralized environment. This system improves performance tracking of external customers and overall management by making those processes more consistent and comprehensive. 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 additional automated quality assurance procedures for the system and reduce human error.

References: CDX website (www.epa.gov/cdx).

- **Percent of Federal Information Security Management Act reportable systems that are certified and accredited**

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.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References:

Annual Information Security Reports to OMB: Annual Information Security Reports to OMB: <http://intranet.epa.gov/itsecurity/progreviews/>; OMB guidance memorandum: <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-19.pdf>; ASSERT web site <https://cfint.rtpnc.epa.gov/assert/index.cfm>; NIST Special Publication 800-53, Recommended Security Controls for Federal Information Systems. February 2005: <http://csrc.nist.gov/publications/nistpubs/index.html>; and, Federal Information Security Management Act, PL107-347: http://csrc.nist.gov/policies/FISMA_final.pdf

- **Environmental and business actions taken for improved performance or risk reduction; environmental and business recommendations or risks identified for corrective action; and return on the annual dollar investment, as a percentage of the OIG budget, from audits and investigations**
- **Criminal, civil, administrative, and fraud prevention actions**

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. OIG performance measures are designed to demonstrate value added by promoting economy, efficiency and effectiveness; and preventing and detecting fraud, waste, and abuse as described by the Inspector General Act of 1978 (as amended). Because intermediate and long-term results may not be realized for several years, only verifiable results are reported in the year completed. Database measures include numbers of: 1) recommendations for environmental and management improvement; 2) legislative, regulatory policy, directive, or process changes; 3) environmental, program management, security and resource integrity risks identified, reduced, or eliminated; 4) best practices identified and implemented; 5) examples of environmental and management actions taken and improvements made; 6) monetary value of funds questioned, saved, fined, or recovered; 7) criminal, civil, and administrative actions taken, 8) public or congressional inquiries resolved; and 9) certifications, allegations disproved, and cost corrections.

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 General²⁰, and regularly reviewed by OIG management, an independent OIG Management Assessment Review Team, and external independent peer reviews. Each Assistant Inspector General certifies the completeness and accuracy of performance data.

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 and difficulty in verifying a nexus between our work and subsequent actions and impacts beyond our control. 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 constantly revises the clarity and quality of the measures as well as system improvements for ease of use. During FY 2007, the OIG implemented an Audit Follow-up Policy to independently verify the status of Agency actions on OIG recommendations, which serve as the basis for OIG intermediate outcome results reported in the OIG Performance Measurement and Results System. The quality of the data will continue to improve as staff gain greater familiarity with the system and measures, and as OIG performs follow-up verification reviews to identify and track actions and impacts. The OIG is also implementing full costing of OIG products to measure relative return on investment from the application of OIG resources.

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.²¹

²⁰ Government Auditing Standards (2007 Revision), General Accounting Office, GAO-07-162G, January 2007; Available on the Internet at www.gao.gov/govaud/ybk01.htm, last updated January 2007.

²¹ U.S. EPA, Office of Inspector General, Audits, Evaluations, and Other Publications; Available on the Internet at www.epa.gov/oig, last updated June 26, 2007.

Management Audit Tracking System (MATS)

Audits With Management Decisions But No Final Action After 1 Year
Audits in Appeal excluded For the Period Ending 2007-09-30

ADMINISTRATOR'S OFFICE

[2006-P00001-001](#) Industrial Wipes Congressional Request

Past Due Comments: The Office of the Administrator, Office of Policy, Economic and Innovation (OPEI) and OSWER has formed a workgroup to examine the questions on the RAPIDS Action Initiation Form. OPEI has submitted their comments to the workgroup and OPEI is waiting to see if the workgroup adopts their changes. Also, OPEI has developed a new guidance document that defines rulemaking docketing requirements and the document is expected to be release within two months. Final action is expected by December 2007.

OFFICE OF THE CHIEF FINANCIAL OFFICER

[2006-100015-130](#) 2005 AGENCY F/S - GENERAL (MASTER)

Past Due Comments: OCFO has two remaining corrective actions on this audit. The OIG is requesting further supporting documentation regarding our People Plus default payment procedures for recommendation 3. For recommendation 25, OCFO needs to provide the OIG with additional documentation in support of continuity plans for several small stand alone systems. OCFO expects final certification of this audit by December 15, 2007.

[2006-P00005-130](#) IS Service Continuity & Physical Access Controls at NCC

Past Due Comments: OCFO has one open corrective action on this audit. Due to miscommunication with the OIG on which systems were included in recommendation 19, OCFO still needs to provide documentation to the OIG on several small stand alone systems. We expect final certification on this audit by December 14, 2007.

[2006-P00027-130](#) Undistributed Superfund Costs

Past Due Comments: As of Quarter 4 FY 2007, OCFO's Office of Financial Management (OCFO) has not updated Chapter 4 (Direct Site Charging) of RMDS 2550D. As a result of the conflicting organizational priorities, we have focused our efforts on revising RMDS Chapter 9--Superfund State Contracts and Cooperative Agreements. Chapter 9 now includes language that addresses some of the issues that were identified in the audit findings related to the backlog and timeliness issues for Grants and Cooperative Agreements which were the main focus of the WQ audit. The Chapter 9 policy document is ready for the final policy review process. Our current Comptroller Policy Announcement--OCFO 96-01--is still in place. OFM will continue to update all RMDS 2550 chapters and the OCFO 96-01 language will be incorporated into all relevant chapters of 2550 D including Chapter 4. OFM estimates that we will have a draft Chapter 4 revised by March 31, 2008.

OFFICE OF AIR AND RADIATION

[2005-P00010-140](#) Evaluation of CAA Title V Operating Permit Quality

Past Due Comments: EPA has been reevaluating the benefits and most effective action based on current circumstances. EPA provided the IG an update on progress of all recommendations as of September 2007 with targeted completion dates of August 2008. EPA has requested a meeting in October 2007 to discuss remaining recommendations 2.1 and 3.2 to amend or add rules as the EPA disagrees with those recommendations and suggest they provide little or no potential derived benefit.

[2006-P00024-140](#) IFOSEC SERIES: SECURITY PRACTICES OAR

Past Due Comments: OAR/OAP Ran Technical Vulnerability Scan Results conducted on Clean Air Markets Division Business System (CAMDBS). OAR has presented: (1) an up-to-date risk assessment and (2) effective practices to ensure that all production servers were monitored for known security vulnerabilities. This robust risk data was sent to NCC. OAR developed and is implementing adequate security practices. OAR will provide a system-wide computer security plan review by April 01, 2008.

OFFICE OF ADMINISTRATION AND RESOURCES MANAGEMENT – HQ

[2000-P00029-150](#) Interagency Agreements Follow-up

Past Due Comments: The Resource Management Directive System (RMDS) 2540-13.1, Economy Act Funds-In IAG Indirect Billing Rates, was sent out for Agency review via the Directives Clearance Review Process in July, 2007. Office of Financial Management (OFM) is currently reviewing the comments. We expect to issue this directive by February 28, 2008.

[P00005-150](#) CFDA Program 66.606

Past Due Comments: OARM has resolved the major aspects of proper use of amendments for assistance agreements with the Competition Policy and will issue additional procedural guidance in December 2007. The additional procedural guidance will more clearly outline the proper use of amendments for assistance agreements. Expected resolution by December 2007.

[2004-P00026-150](#) FINANCIAL APPLICATION DEVELOPMENT AND CHANGE CONTROL

Past Due Comments: The Homeland Security Presidential Directive (HSPD12) Implementation Plan when complete will identify proofing, registration, and card issuance as part of the process. Federal background investigations on non-federal workers being issued smart cards will be completed. This will include on-site contractors and those needing access to EPA high risk IT networks, systems or infrastructures -- such as IFMS. The expected date of completion is September 30, 2008.

[2005-P00019-150](#) PEOPLEPLUS SECURITY CONTROLS NEED IMPROVEMENT

Past Due Comments: This audit has been overtaken by changing and expanding security requirements within the Federal Government -- i.e., Homeland Security Presidential Directive (HSPD) 12, FIPS 201-1, and OMB Guidance -- which mandates a

National Agency Check with Inquiries and Credit (NACIC) Investigation be initiated and favorably adjudicated for non-federal workers needing access to EPA's physical and logical infrastructures (which IFMS falls under). The expected completion date for this action is September, 30, 2008.

OFFICE OF PREVENTION, PESTICIDES & TOXIC SUBSTANCES

[1991-101378-164](#) PESTICIDES INERTS

Past Due Comments: For the past ten (10) years, program resources were focused on tolerance reassessment in compliance with the statutory mandate of the Food Quality Protection Act of 1996 (FQPA). As part of tolerance reassessment, all of the eligible food-use inert ingredients were reassessed. Therefore, they were reclassified. Tolerance exemption expressions that were not reclassified were revoked due to lack of reliable data. The revocation takes effect August 2008 unless reliable data are submitted to the Agency. The Office of Pesticide Programs (OPP) will take the steps necessary to officially close out the four (4) open corrections actions related to reclassification of inerts in the MATS database. Final Action expected August 2008.

[2006-P00009-164](#) Impact of Data Gaps on EPA's Implementation of FQPA

Past Due Comments: This OIG report entitled "Opportunities to Improve Data Quality and Children's Health through the Food Quality Protection Act" is the second in a series of three reports reviewing the Office of Pesticide Program's implementation of the Food Quality Protection Act (FQPA). The final Jan. 10, 2006 report contained eleven (11) recommendations. The Program provided OIG a Corrective Action Plan in an April 20, 2006 memo and is actively working on closing all of the recommendations. Expect final action in 2008. An Audit Management Decision Agreement was provided by Jeffrey Harris (OIG) to Jim Jones (Director, Office of Pesticide Programs) in a June 15, 2006 memo.

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

[2000-P00028-167](#) RCRA CORRECTIVE ACTION

Past Due Comments: This effort involves a cross-office workgroup within OSWER. There are a large number of program components involved in this effort that need to reach agreement. We are currently working with OSWER offices to get their comments on the guidance. We have completed 34 of the 36 corrective action milestones for this audit. We expect the remaining two milestones to be completed by October 30, 2007.

[2004-P00005-167](#) Mega Financial Responsibilities at Superfund Mine Sites

Past Due Comments: The corrective action milestones have been delayed because the National Mining Team has taken the lead for the Deputy Administrator's new mining initiative and they have been reconsidering these milestones are part of a larger mining strategy. OSWER staff met with the Office of Inspector General (OIG) on August 7, 2007 to discuss the DA's new mining initiative and the impact of the new initiative on the remaining corrective action milestones. We are awaiting feedback from the OIG.

[2003-P00010-167](#) Mega EPA's National Hardrock Mining Framework

Past Due Comments: The remaining corrective action milestone has been delayed because the National Mining Team has taken the lead for the Deputy Administrator's (DA) new mining initiative and has been reconsidering this recommendation and corrective action as part of a larger mining strategy. OSWER staff met with the Office of

Inspector General (OIG) on August 7, 2007 to discuss the DA's new mining initiative and the impact of the new initiative on the remaining corrective action milestone. We are awaiting feedback from the OIG.

2005-P00026 RCRA Financial Responsibility Requirements

Past Due Comments: The milestone dates were agreed upon by OSWER and the OIG in our 12/22/2005 response to the audit report. We have completed seven of the nine corrective action milestones. We expect the remaining two milestones to be completed by December 31, 2008.

2006-P00013-167 SF Mandate: Program Efficiencies

Past Due Comments: We have completed eight of the eleven corrective action milestones for this audit. The remaining three corrective action milestones are expected to be completed by April 30, 2008.

2006-P00016-167 EPA's Management Strategy for Contaminated Sediments

Past Due Comments: The remaining corrective action milestone and date were agreed upon by OSWER and the Office of Inspector General in our August 7, 2006 response to the audit. We have completed one of the two corrective action milestones. The remaining corrective action milestone is expected to be completed by December 30, 2007.

2006-P00027-167 Undistributed Superfund Costs

Past Due Comments: OCFO has the lead on the corrective action milestones for this audit. As of Quarter 4 FY 2007, OCFO's Office of Financial Management (OCFO) has not updated Chapter 4 (Direct Site Charging) of RMDS 2550D. As a result of the conflicting organizational priorities, we have focused our efforts on revising RMDS Chapter 9--Superfund State Contracts and Cooperative Agreements. Chapter 9 now includes language that addresses some of the issues that were identified in the audit findings related to the backlog and timeliness issues for Grants and Cooperative Agreements which were the main focus of the WQ audit. The Chapter 9 policy document is ready for the final policy review process. Our current Comptroller Policy Announcement--OCFO 96-01--is still in place. OFM will continue to update all RMDS 2550 chapters and the OCFO 96-01 language will be incorporated into all relevant chapters of 2550 D including Chapter 4. OFM estimates that we will have a draft Chapter 4 revised by the second quarter of FY 2008.

2006-P00007-167 MORE INFORMATION IS NEEDED ON TOXAPHENE DEGRADATION PRODUCTS

Past Due Comments: The corrective action milestone date was agreed upon by OSWER and the Office of Inspector General in our March 22, 2006 response to the audit. We expect the one corrective action milestone to be complete by December 31, 2008.

OFFICE OF WATER

2002-P00012-168 Controlling and Abating Combined Sewer Overflows

Past Due Comments: All of the Recommendations have been completed with the exception of the Implementation Guidance for Ambient Water Quality Criteria for Bacteria noted in 6.2. The guidance has been put on hold pending the resolution of

several key issues with stakeholders. We expect a resolution of the issues by December 2007.

2003-P00018-168 DRINKING WATER CAPACITY

Past Due Comments: Corrective Action 1: The final plan is undergoing final management review and is expected to be released by the end of October 2007. Corrective Action 2: The capacity development tool described under Recommendation #3 will be issued as final by the end of October 2007. The memo announcing its release will note that the intent of the tool is to help regional staff evaluate state capacity development programs for the purposes of making determinations on withholding. Corrective Action 3: Beta-testing for the Tool has been completed and it will be formally released to regions by the end of October 2007. Data entry is expected to start in November. Corrective Action 4: The final strategy will be released by the end of October 2007. Initial goals and measures will be refined over the next few years. Corrective Action 5: See Response for Corrective Action 4.

2004-P00030-168 EPA's Pretreatment Program

Past Due Comments: Corrective Actions 3.1, 3.2, 3.3, 4.2 and 4.3: Water Permits Division issued the strategy, "Oversight of SIUs Discharging to POTWs without Approved Pretreatment Programs" by memorandum from Linda Boornazian, Director of Water Permits Division, to Regional Division Directors, dated May 18, 2007. Document was reviewed and discussed during the EPA-States Pretreatment Coordinators National Meeting in July 2007, during which industrial user survey assistance, permit writing tools, and other implementation methods were brainstormed. Corrective Action 3.4: Promotion of Training Opportunities Training will continue to be an ongoing effort. Water Permits Division (WPD) honored its commitment to work with partner Water Environment Federation to offer pretreatment training in a classroom format, which was conducted in Hartford, CT in February 2007.

WPD committed contract funds and staff to conduct the following local training with Region 4:

- KY, TN, NC Tri-State Pretreatment Conference on May 2-3, 2007, in Gatlinburg, TN;
- FL, GA, SC Tri-State Pretreatment Conference on June 13-14, 2007, in Jacksonville, FL;
- Pretreatment Training for Alabama Department of Environmental Management staff to occur on October 30-31, 2007, in Montgomery, Alabama;
- Pretreatment Training for Mississippi Department of Environmental Quality staff to occur on November 1, 2007, in Jackson, MS.

WPD is currently evaluating proposals to conduct similar training for Region 5 in 2008. As WEF has only scheduled one course for 2008 (St. Louis, MO, in April), WPD has allocated funding within its strategic plan for developing web-based and self-directed courses.

Corrective Action 4.1: Pilot Study was conducted in Spring/Summer 2007 which evaluated 9 draft results-based measures from which final GPRA measures may be proposed for selection. For each of the draft results-based measures tested, data availability and data sources were evaluated. Preliminary Pilot Study results were discussed at the EPA-States Pretreatment Coordinators National Meeting in July 2007, and selection criteria for a "good" measure was brainstormed (e.g., direct linkage of environmental results to pretreatment regulation, minimal new burden to collect data/data already being collected or reported, etc.). Pilot Study report currently being

finalized. Draft Measures Implementation Handbook is also being developed to assist Regions and States when they begin wide scale testing of the options. Wide scale testing, is to begin in 2008, will test the viability of the measures and refine their description, source, and reporting factors.

Corrective Action 4.2: This is the same as topic 3.1, 3.2, 3.3. See Answer above.

Corrective Action 4.3: Part of this contained with the Strategy of topics 3.1, 3.2, 3.3, and 4.2. Another part will be determined by the results of topics 4.1 and 4.3.

[2005-P00021-168](#) SDWA Tools

Past Due Comments: Corrective Action 4.1: EPA met with the pilot states and Regions in June 2007. Based on the feedback provided by participants, the Agency plans to begin rolling the logic model out more for use in additional states in all 10 EPA Regions, starting April 2008. The capacity development strategic plan should be released by the end of October 2007. Corrective Action 4.2: EPA is issuing final changes to the Lead and Copper Rule (LCR) that incorporate recommendations made by the NDWAC on public education and CCR. The final LCR changes include a revision to CCR, which requires all reports contain a short informational statement about lead in drinking water and its effects on children. The new language is intended to help consumers understand the health effects associated with lead, that lead levels can vary from home to home, that they can take steps to reduce their exposure, and where to get more information. The Agency plans to release revised guidance on public education by the end of 2007. The focus of the November 2007 NDWAC meeting will be on communication issues. This will include discussions about the CCR and related public education materials.

[2006-P00021-168](#) INFORMATION SECURITY SERIES: SECURITY PRACTICES – SDWIS

Past Due Comments: Corrective Action 1: The security categorization for SDWIS was changed to “moderate” and reported in ASSERT in June 2007. Corrective Action 2: The security assessment was completed and reported in ASSERT in June 2007. Corrective Action 3: The SDWIS entry in ASSERT was updated in June 2007. Corrective Action 4: The review of the information security oversight process with OW is on-going. The review process is proceeding with system owner, user and manager interviews and expected to be complete in December 2007. Upon completion of the interview process and feedback, a formal OW oversight process will be developed and implemented in February 2008.

[2006-P00007-168](#) MORE INFORMATION IS NEEDED ON TOXAPHENE DEGRADATION PRODUCTS

Past Due Comment: Corrective Action 1: Neither OSWER, OSW, nor ORD has approached OW about the method for which OSWER took the lead. OW is in a position where we are available to consult on the method, should such consultation be needed. b)Once an Agency-approved method is available, OSRTI will alert site managers that they should apply the new method at sites where toxaphene was disposed. Corrective Action 2: No OW action needed.

[2006-P00016-168](#) EPA's Management Strategy for Contaminated Sediments

Past Due Comments: For Recommendations 2, 4, 8 and 9, an action plan is being developed and is expected to be complete by September 2008. The dates for when commitments under these recommendations will be met will be determined once the action plan is completed. Recommendation 3 is complete, there is no more action required. On recommendation 5, the coordination continues but, not certain if the MOU was renewed. Hopefully OSWER addressed the issue of coordination specifically on CERCLA sites since they would know best.

OFFICE OF ENFORCEMENT & COMPLIANCE ASSURANCE

[2001-P00006-180](#) ENF AGREEMENT COMPLIANCE

Past Due Comments: In mid-2006 OECA developed a final draft performance measure related to the monitoring of compliance with judicial consent decrees and submitted it to the Agency's Measures Review Board for approval, which is required prior to implementation. The Measures Review Board requested additional information regarding how the necessary information will be captured in the agency's enforcement data systems and monitored before approving the proposal. When developing Guidance for the entry and tracking of this information in the ICIS data system it became apparent that not all of the information which should be captured is capable of being monitored using the existing data system.

In March 2006 OECA sought to develop interim performance measures to be used pending modifications to the data system necessary to fully implement the final draft performance measure. OECA staff determined in September 2007 that implementation of the interim performance measures would be overly cumbersome for enforcement staff, not likely to result in useful information for enforcement managers, and would not advance the goals of greater accountability with respect to consent decree implementation. Therefore, OECA has established a goal of securing approval of the final draft performance measure by the Agency's Measures Review Board by March 31, 2008. This approval will constitute the final step in establishing the performance measure that OECA committed to in response to the IG Report.

[2001-P00013-180](#) STATE ENFORCEMENT EFFECTIVENESS - NATIONAL AUDIT

Past Due Comments: There are a total of 17 corrective actions for this report. Five (5) corrective actions have been fully implemented/completed, and the required documentation for all actions are maintained in the official files. The remaining 12 corrective actions are pending completion of rule making and activity to develop a compliance monitoring strategy. All corrective actions will be completed no later than October 31, 2008.

[2004-P00021-180](#) Evaluation of EPA's Petroleum Refinery Enforcement and Compliance

Past Due Comments: This report had 17 corrective actions. TO date, OECA has completed 16 actions. The single corrective action will require OECA to develop a lessons learned initiative. This effort is currently underway, and completion is expected no later than March 2008.

[2005-P00024-180](#) Priority Enforcement and Compliance Assurance Universe

Past Due Comments: There are a total of seven corrective actions for this report. OECA completed five corrective actions, and a copy of the supporting documentation is maintained in the OECA official files. There are two (2) corrective actions pending which

OECA will need to work collaboratively with states to develop a policy for data to be collected and tracked by states, and to update the performance based strategy. All actions are planned for completion no later than September 2008.

[2006-P00006-180](#) Performance Measurement and Reporting for Enforcement and Compliance

Past Due Comments: The contractor was late in submitting the draft report, but expects to deliver it by the end of October 2007. This will also delay submission of the final report and OECA's review process.

Revised Projected completion dates:

May 15, 2007 Final Methodology:

May 30, 2007 Field Test Plan

July 15, 2007 Field Test Completion

October 31, 2007 Draft Report (revised)

November 30, 2007 Final Report (revised)

All recommendations are planned for completion by 12/31/2007.

REGION 5

[2005-300114-350](#) North Lawrence Water Authority, FY 2003

Past Due Comments: The Grantee's response states that to correct the finding (i.e. must fund a reserve fund) requires a rate increase. The Grantee further states that it expects to fully fund its debt service reserve within four years from the date the increase in rates becomes effective. Target date for resolution is June 1, 2010.

REGION 9

[2005-300212-390](#) Yavapai Apache Nation FY 2003

Past Due Comments: The corrective action in the FDL set January 31, 2006 as the original target date and was later revised to July 31, 2007 to complete the tribe's Accounting policies and procedures. The tribe has been working with its CPA firm to make revisions to a "best-fit" "real world model". However, the Chief Financial Officer had a severe health event that has delayed the final corrective action. The new target date is December 31, 2007.

[2005-300211-390](#) Yavapai Apache Nation FY 2002

Past Due Comments: The corrective action in the FDL set January 31, 2006 as the original target date and was later revised to July 31, 2007 to complete the tribe's Accounting policies and procedures. The tribe has been working with its CPA firm to make revisions to a "best-fit" "real world model". However, the Chief Financial Officer had a severe health event that has delayed the final corrective action. The new target date is December 31, 2007.

REGION 10

[2003-300117-410](#) Stevens Village Council

Past Due Comments: This audit cannot be closed until disallowed costs of \$46,614 are collected. Collection on this audit has been combined with collection on audit 2003-300047 (one billing document covers both audit collections) and the grantee has entered into a monthly repayment agreement with EPA. Final payment is expected by July 30, 2012.

[2002-300009-410](#) Iliama Village Council

Past Due Comments: This audit cannot be closed until funds of \$45,481 are collected. On March 8, 2006 collection on this audit has been combined with collection on audit 2002-3-00042 (one billing document which covers both audits. Region 10 appeal board reduced amount due on both audit actions to \$60,449.59. The amount due from this audit has been reduced by \$18,063.14, to \$27,417.86. The grantee was billed for revised amount. Grantee may: a) elect to pay the full amount; b) request a repayment agreement; c) appeal to the Asst. Administrator for the appropriate program. On May 3, 2006, the grantee has been issued a payment agreement: \$503.75 per month for 120 months (10 years). The final payment is due on April 30, 2016.

[2002-300042-410](#) Lliamna Village Council

Past Due Comments: This audit cannot be closed until funds of \$37,559 are collected from the grantee. On March 8, 2006 collection on this audit has been combined with collection on audit 2002-3-00009 (one billing document which covers both audits. Region 10 appeal board reduced amount due on both audit actions to \$60,449.59. The amount reduced on this audit is \$4,527.75, revising the collectable total to \$33,031.75. The grantee was billed for revised amount. Grantee may: a) elect to pay the full amount; b) request a repayment agreement; c) appeal to the Assistant Administrator for the appropriate program. On March 3, 2006 The grantee has been issued a payment agreement: \$503.75 per month for 120 months (10 years) With final payment due April 30, 2016

[2003-300047-410](#) Stevens Village Council

Past Due Comments: This audit cannot be closed until disallowed costs of \$52,365 are repaid. Collection on this audit has been combined with collection on audit 2003-300117 (one billing document which covers both audits) and a monthly repayment agreement was signed by the grantee. Final payment is expected by July 30, 2012.

[2003-300145-410](#) CIRCLE VILLAGE COUNCIL

Past Due Comments: This audit cannot be closed out until all repayment amounts have been received. On May 10, 2004 Circle Village entered into a yearly repayment agreement with EPA. Final payment was expected by May 31, 2006. On August 31, 2006 the grantee defaulted on payment agreement. Collection via Treasury Offset has been requested by the region.

[2004-300011-410](#) Northway Village Council

Past Due Comments: This audit cannot be closed until the \$75,000 is collected from the grantee. On January 25, 2004 the billing was referred to the Headquarters Finance Office for collection via Treasury offset. Region 10 is working with HQ to find out about collection via Treasury offset. Expected final action March 15, 2005. On April 3, 2006 a Collection via Treasury Offset was requested by the region. No further action can be taken by EPA at this time. If Treasury is able to collect, funds will be remanded to EPA. At that time, EPA will be able to record a final action.

[2005-300084-410](#) Hoonah Indian Association - FY 2002

Past Due Comments: Even though the OIG entered this audit into the system on February 9, 2005, we did not actually receive a copy of the audit until July 6, 2005. Since

that time, the Region has been working with the grantee to resolve this audit. As of September 6, 2005, having received no response from the grantee regarding the audit issues, the Region declared them High Risk and their grant has been suspended. They have until October 6, 2005 to appeal the Region's actions & furnish us with a status of corrective action. We expect to resolve this audit by Oct. 30, 2005. On September 19, 2005, the Region requested OIG close this audit, as enforcement action is planned. On January 10, 2006, the Region issued a demand letter for repayment of entire grant amount of \$238,648. On June 13, 2006, this debt was referred for collection by treasury offset.

[2005-300218-410](#) Chalkyitsik Village Council

Past Due Comments: Collection of amount due has been referred to Treasury.

[2005-300239-410](#) Chalkyitsik Village Council

Past Due Comments: Payment agreement calls for payments of \$331.15 per month, for a term of three years, beginning on December 31, 2005. However, agreement and payment has not received. Referring this to Treasury.

[2006-300085-410](#) Stevens Village Council FY 2003

Past Due Comments: September 19, 2007 - Because of the numerous audit-related enforcement actions pending against this grantee, Region 10 is waiting collection action on the disallowed amount from this audit pending resolution of the appeal of the collection action for audit 2006-3-00014. This has been delayed due to administrative issues. Resolution is expected within the next 90 days. In the meantime no further awards are being made to this grantee.