# **GOAL 5: COMPLIANCE AND ENVIRONMENTAL STEWARDSHIP**

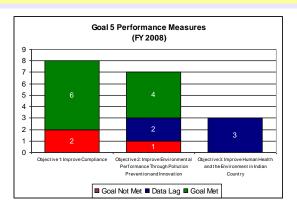
#### Goal at a Glance

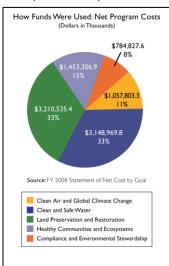
Protect human health and the environment through ensuring compliance with environmental requirements by enforcing environmental statutes, preventing pollution, and promoting environmental stewardship. Encourage innovation and provide incentives for government, business, and the public that promote environmental stewardship and long term sustainable outcomes.

Goal 5 FY 2008 Performance Measures

Met = 10 Not Met = 3 Data Available After November 17, 2008 = 5

(Total Measures = 18)





Goal 5 FY 2008 Performance and Resources							
Strategic Objective	FY 2008 Obligations (in thousands)	% of Goal 5 Funds					
Objective 1 – Improve Compliance By 2011, maximize compliance to protect human health and the environment through enforcement and other compliance assurance activities by achieving a 5% increase in the pounds of pollution reduced, treated, or eliminated by regulated entities, including those in Indian country.	\$526,596.0	67%					
Objective 2 – Improve Environmental Performance through Pollution Prevention and Innovation Improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption of results-based, innovative, and multimedia approaches.	\$119,226.7	15%					
Objective 3 – Build Tribal Capacity Assist all federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.	\$79,244.1	10%					
Objective 4 – Enhance Science and Research Strengthen the scientific evidence and research supporting environmental policies and decisions on compliance, pollution prevention, and environmental stewardship.	\$59,760.8	8%					
Goal 5 Total	\$784,827.6	100%					

<sup>&</sup>quot;In FY08, EPA concluded enforcement actions requiring polluters to spend at least \$11 billion on pollution controls, clean-up and environmental projects. These actions will keep at least an estimated 3 billion pounds of pollutants out of the environment each year. This year continues EPA's trend of record-setting results to protect the nation's air, water and land."

- Granta Nakayama, Assistant Administrator for the Office of Enforcement and Compliance Assurance

#### **Goal Purpose: Compliance and Environmental Stewardship**

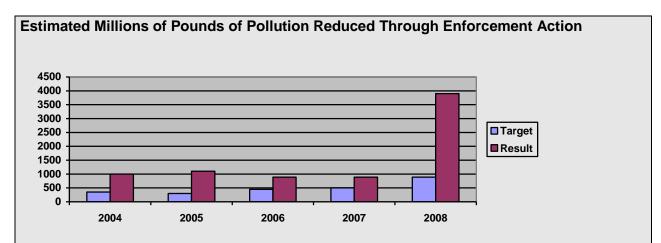
EPA ensures that government, business, and the public comply with federal laws and regulations by monitoring compliance and taking enforcement actions that result in reduced pollution and improved environmental management practices. To accelerate the nation's environmental protection efforts, EPA works to prevent pollution at the source, encourage other forms of environmental stewardship, and 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 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 as the first choice for environmental protection, striving for sustainable practices and helping businesses and communities move beyond compliance and become partners in protecting natural resources and improving the environment and public health. EPA promotes source reduction while working 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 are important components 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 the Agency's stewardship programs.

#### **Data Trends**



EPA secures commitments for future pollution controls to reduce, treat, or eliminate millions of pounds of pollution through enforcement actions. Pollution reduction totals show large variations from year to year because of the fact that reductions tend to be driven by the results from a few very large cases. For additional information, please visit EPA's Web site at: <a href="https://www.epa.gov/compliance/resources/cases/index.html">www.epa.gov/compliance/resources/cases/index.html</a>.

**Data Quality:** EPA uses data from its performance measurement to manage, and to ensure that the data are complete and reliable; data are subject to the Agency's Quality System policies and procedures. Every performance measure in this report has corresponding in-depth information to explain the data's source, limitations, and other factors. This report includes examples in each goal to better inform EPA's stakeholders. For a complete list of this information, visit: <a href="https://www.epa.gov/ocfo/budget/2008/verify\_validation.pdf">www.epa.gov/ocfo/budget/2008/verify\_validation.pdf</a>.

What This Shows: The estimated number of pounds of pollution reduced through enforcement has been approximately 1 billion pounds for each of the past four years, and a large increase in FY 2008, consistently exceeding target values for this measure. EPA believes our progress in this area is a result of the focus on nine National Priority areas, selected for their environmental significance and high noncompliance. These priorities include: air toxics, combined and sanitary sewer overflows, concentrated animal feeding operations, financial responsibility, Indian Country, mineral processing, new source review/prevention of significant deterioration. and stormwater. Each year a small number of big cases provide the majority of pollutant reductions, which makes setting targets highly uncertain. In FY 2008, the estimated pounds of pollution reduced saw a record increase, to an estimated 3.9 billion pounds, as a result of large settlements on six national cases, two addressing New Source Reviews under the Clean Air Act, and the other four addressing stormwater runoff and combined sewer overflows under the Clean Water Act. Future levels and types of pollutants reduced may fluctuate as EPA files different cases addressing other National Priorities. For example, air toxics cases tend to produce smaller amounts of pollution reduced, but those pollutants pose significant health and environmental risk, thus justifying air toxics as a national enforcement priority.

**Implications for human health and the environment:** Compliance with environmental laws is necessary to improve the environment in which we live and protect public health. Enforcement is a critical part of encouraging businesses, and other regulated entities to meet their environmental obligations. Some examples of the human health and environmental benefits resulting from fulfillment of environmental obligations include:

1) A settlement with American Electric Power addresses air pollution problems at 16 of American Electric Power's coal-fired plants. This settlement is EPA's single largest enforcement settlement in history, and will result in the largest amount of emission reductions from a Clean Air Act stationary source. Emissions from these plants include sulfur dioxide (SO<sub>2</sub>), particulate matter (PM), and nitrogen oxides (NO<sub>x</sub>) that can cause a range of human health and ecological effects ranging from increased asthma cases or premature deaths for people with existing respiratory problems, to acidification of lakes and streams. EPA estimates that there will be at least 1 billion pounds of air pollution reductions in the first year after facilities install the required pollution controls and the resulting health benefits are estimated to be \$34 billion in avoided health-related costs

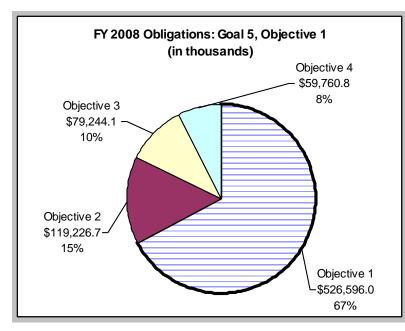
**Source:** Most of the essential data on environmental results in ICIS Federal Enforcement and Compliance is collected through the Case Conclusion Data Sheet, which Agency staff prepare after the conclusion of each civil, judicial and administrative enforcement action. In FY 2008, The Criminal Enforcement Program also collected information on pollution reductions on a separate case conclusion data form.

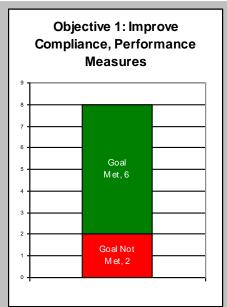
**Data Limitations:** Pollutants reduced or eliminated reported in Case Conclusion Data Sheet are projected estimates that will result over a one year time period if the defendant carries out the requirements of the settlement. (Information on expected outcomes of state enforcement is not available.) The estimates are based on information available at the time a case is settled or an order is issued.

# **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.

# **Objective 5.1: Improve Compliance**





EPA assists members of the regulated community in understanding and complying with environmental regulations and improving their environmental management practices 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 and environments. To increase compliance and improve environmental management practices, EPA encourages facilities to identify, disclose, and correct violations through incentives such as reduced or eliminated penalties. EPA's progress toward the objective of improving compliance can be demonstrated through a few key performance accomplishments.

#### EPA's Largest Injunctive Relief Settlement to Fund Cleaner Air From Power Plants

EPA, eight states, and 13 citizen groups reached a settlement agreement with American Electric Power under the Clean Air Act's New Source Review provisions. The funds from the settlement will be used to address pollution problems at 16 of American Electric Power's coal-fired plants located in Indiana, Kentucky, Ohio, Virginia, and West Virginia. This settlement is the largest environmental settlement in terms of injunctive relief for Clean Air Act stationary sources. It is estimated that American Electric Power will spend more than \$4 billion to comply with the agreement. This settlement is also the largest in terms of pollution reductions at a Clean Air Act stationary source(s). Upon full implementation, there will be at least 1 billion pounds of air pollution reductions from American Electric Power's 16 power plants in the first year after pollution controls are installed. EPA estimates that the annual benefits to public health will include approximately \$34 billion per year saved in avoided health-related costs associated with respiratory and cardiopulmonary illnesses, such as asthma and heart attacks.

**Pollution Avoided Because of Strong Enforcement:** In FY 2008, EPA secured commitments in enforcement actions for future pollution controls to reduce, treat, or eliminate an estimated 3.9 billion pounds of pollutants in the first year after pollution controls are installed. That is 3.01 billion pounds more than the amount of pollutants reduced last year and represents a significant contribution to environmental protection. For additional information on recent enforcement cases, please visit EPA's web site: <a href="http://www.epa.gov/compliance/resources/cases/index.html">http://www.epa.gov/compliance/resources/cases/index.html</a>.

EPA significantly exceeded the 890 million pound performance target for pollutant reductions from enforcement settlements due to particularly significant Clean Air Act New Source Review/Prevention of Significant Deterioration and Clean Water Act storm water enforcement settlements. The six most significant FY 2008 enforcement settlements, when fully implemented, will cumulatively reduce more than an estimated 2 billion pounds of pollutants, including: sulfur dioxide, nitrogen oxides, volatile organic compounds, pathogens, and storm water pollutants, such as suspended solids, over a one-year time period. The record American Electric Power Company settlement will reduce over 1 billion pounds of pollutants - meaning fewer cases of asthma and other respiratory illnesses. The KB Homes, Centex Homes, Pulte Homes, and Allegheny County Sewer Authority Clean Water Act settlements will reduce over 1 billion pounds of suspended solids, pathogens, and other storm water pollutants to promote healthy aquatic life and improve the quality of fish and shellfish. Pollution reduction totals normally 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.

EPA's compliance incentives policies that encourage facilities to self-audit, disclose and correct violations achieved 5.4 million pounds in pollutant reductions. The Agency surpassed the FY 2008 performance target of 0.4 million pounds through a particularly significant Clean Air Act mobile source disclosure of violations whose correction and other settlement conditions resulted in more than an estimated 3.5 million pounds of  $NO_x$  and hydrocarbon pollutants over a one year time period. Pollution reduction results achieved by EPA compliance incentive programs represent reductions that will occur over a one-year time period once facilities implement the steps required under audit agreements. Pollutant reductions from audit disclosures vary widely from case to case, resulting in total reduction levels that are also highly variable year to year.

The purpose of EPA's Audit Policy is to encourage regulated entities to voluntarily discover, disclose, correct, and prevent the recurrence of environmental violations, by offering incentives such as penalty mitigation. EPA is taking the Audit Policy in some new directions, with the goals of encouraging audits and disclosures that yield significant environmental and human health outcomes, and clarifying and streamlining implementation of the Policy. To further these goals, in August 2008, EPA launched (1) the "Interim Approach to Applying the Audit Policy to New Owners," which tailors incentives to motivate new owners to self-disclose and fix violations at recently acquired facilities, and (2) the "eDisclosure" pilot, a web-based system that allows companies to quickly, easily, and electronically self-disclose violations. For additional details please visit: http://www.epa.gov/compliance/incentives/auditing/index.html.

**EPA Drives Improvements to Environmental Management Practices:** As a result of concluded enforcement actions, violators have committed to spending \$11.8 billion to improve environmental performance or improve environmental management practices. Also, 82 percent of facilities receiving direct compliance assistance from EPA self reported improved environmental management practices. This includes actions that properly manage a waste stream or prevent a release or exposure, such as: plugging abandoned wells, installation of secondary containment around existing waste containers, improved waste labeling and disposal practices, and development of spill prevention plans.

Practices: EPA and the Department of Justice achieved landmark enforcement settlements in FY 2008 that require defendants to invest a record \$11.8 billion to achieve and maintain compliance with the nation's environmental laws. The Clean Air Act settlement with American Electric Power addressed alleged violations at 16 coal-fired power plants and requires an estimated investment of over \$4 billion to achieve compliance and install pollution control technologies. This settlement is EPA's single largest enforcement settlement in history, and will result in the largest amount of emission reductions from a Clean Air Act stationary source. Significant Clean Water Act enforcement settlements with the Allegheny County Sewer Authority and City of San Diego require more than an estimated \$2 billion to be invested in pollution controls and environmentally beneficial projects. These three cases account for approximately 60 percent of the total investments and will result in removing pathogens and fecal coliform from waterways, and reduce sulfur dioxide and nitrogen oxides air emissions.

**Compliance Assistance:** The Agency exceeded its current compliance assistance performance targets in FY 2008. EPA continues to explore ways to improve data collection methods from compliance assistance activities through a statistically-valid outcome measurement pilot project.

EPA poses a set of questions to compliance assistance recipients regarding their improvements in environmental practices and pollution 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.

## **Protecting Water Quality Near Construction Sites**

Improving compliance with the Clean Water Act at construction sites is one of EPA's national enforcement priorities. Construction projects have a high potential for environmental harm because construction disturbs large areas of land and significantly increases the potential for high volumes of sediment-laden runoff. Without onsite pollution controls, this polluted run-off may flow into nearby waterways and degrade water quality. In August 2008, the Department of Justice and EPA concluded settlements with four of the nation's largest home builders to resolve alleged violations of the Clean Water Act storm water requirements. The builders, Centex, Pulte, MDC Holdings/Richmond American Homes, and KB Homes agreed to implement company-wide compliance programs that will prevent more than 1 billion pounds of sediment from polluting our nation's waterways each year. The companies also paid more than an estimated \$3 million in civil penalties.

# **Explanation of the Missed Measures**

EPA missed the performance target for the percentage of concluded cases that require pollutant reductions by one percent in FY 2008. It is not possible to predict the number of enforcement actions that will be concluded in a given year or the percentage that will require pollutants to be reduced. The number of concluded enforcement cases increased over the last three years. However, during that same period, EPA exceeded targets for pounds of pollutants reduced. EPA achieved such high pollutant reductions despite missing the performance target for the percentage of cases requiring pollutant reductions due to the remarkable pollutant reductions from six large settlement agreements that combined will reduce, treat, or eliminate more than 2.5 billion pounds of air and water pollutants over a one year time period once facilities implement the legally required terms of the settlement.

EPA did not meet the 30 percent complying actions performance target in FY 2008. In FY 2009, EPA will improve documentation regarding deficiencies and complying actions by developing guidance that addresses counting complying actions that occur after the inspection which are not observed by the inspector and which describe the documentation required to assure verification of the actions and accurate results calculation.

## FY 2008 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 performance measurements and objectives. This table lists the Program Projects and associated resources that support this objective.

\*\*Resources associated with Program Projects might not match the goal and objective obligations exactly because of rounding.

Goal 5: Objective 1 - Achieve Environmental Protection through Improved								
Con	npliance							
	FY 2006	FY 2007	FY 2008					
Program Project	Obligations	Obligations	Obligations					
Categorical Grant: Pesticides								
Enforcement	\$21,110.5	\$18,404.5	\$20,550.0					
Categorical Grant: Toxics Substances								
Compliance	\$5,715.5	\$5,272.4	\$5,339.3					
Categorical Grant: Sector Program	\$1,905.2	\$1,161.1	\$1,690.9					
Civil Enforcement	\$119,478.2	\$124,038.2	\$133,066.8					
Compliance Assistance and Centers	\$27,861.0	\$28,404.6	\$28,206.1					
Compliance Incentives	\$8,557.8	\$9,699.4	\$10,412.7					
Compliance Monitoring	\$88,138.5	\$92,683.6	\$94,140.5					
Congressionally Mandated Projects	\$423.6	(\$7.2)	(\$28.1)					
Criminal Enforcement	\$51,194.3	\$49,136.1	\$50,325.7					
Enforcement Training	\$3,246.7	\$3,479.5	\$3,943.8					
Homeland Security: Communication and								
Information	\$928.2	\$1,463.3	\$1,163.6					
Homeland Security: Critical Infrastructure								
Protection	\$4,426.5	\$5,812.6	\$4,685.3					
Homeland Security: Protection of EPA								
Personnel and Infrastructure	\$2,216.9	\$1,794.9	\$1,568.4					
International Capacity Building	\$754.3	\$6.3	\$0.0					
Administrative Law	\$676.8	\$795.6	\$913.5					

Alternative Dispute Resolution	\$200.1	\$212.7	\$233.2
Central Planning, Budgeting, and Finance	\$9,294.2	\$10,216.9	\$11,969.0
Civil Rights / Title VI Compliance	\$1,825.2	\$1,877.6	\$1,850.7
Congressional, Intergovernmental,			
External Relations	\$9,426.1	\$9,771.7	\$9,873.2
Exchange Network	\$4,940.9	\$5,464.7	\$3,795.8
Facilities Infrastructure and Operations	\$82,940.0	\$82,270.8	\$74,560.6
Acquisition Management	\$4,809.0	\$5,265.1	\$5,919.4
Human Resources Management	\$6,412.6	\$5,827.0	\$5,839.5
Information Security	\$424.9	\$452.8	\$746.4
IT / Data Management	\$38,386.6	\$40,262.6	\$36,669.4
Legal Advice: Environmental Program	\$6,634.2	\$7,201.3	\$7,360.1
Legal Advice: Support Program	\$2,211.8	\$2,172.7	\$2,300.8
Audits, Evaluations, and Investigations	\$2,596.8	\$2,545.8	\$3,181.8
Regional Science and Technology	\$733.9	\$640.7	\$694.0
Science Advisory Board	\$704.2	\$770.9	\$893.5
Small Minority Business Assistance	\$296.6	\$379.5	\$461.7
Financial Assistance Grants / IAG			
Management	\$2,661.3	\$1,590.9	\$1,558.3
Regulatory/Economic-Management and			
Analysis	\$2,573.0	\$2,790.4	\$2,710.1
Total	\$513,705.4	\$521,859.0	\$526,596.0

## **Additional Information Related to Objective 1**

#### **Grants:**

Categorical Grants—Pesticides Enforcement; Toxic Substance Compliance.

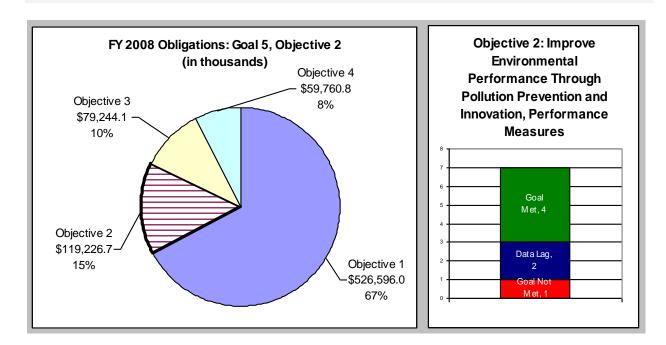
#### Web Links:

www.epa.gov/compliance, www.epa.gov/compliance/data/results/index.html www.epa.gov/ebtpages/complianceenforcement.html www.epa.gov/compliance/civil/index.html

# Program Assessment Rating Tool (PART):

In FY 2008, EPA developed and implemented an action plan for all Agency Program Assessment Rating Tool measures in response to a government-wide Program Assessment Rating Tool measure review. The plan leveraged ongoing strategic and annual planning and reflected measure improvements. The tables of measures and results provided in Section II of this report, "Performance Results," identify all Program Assessment Rating Tool measures, which make up more than two-thirds of EPA's performance measures. Please refer to <a href="https://www.expectmore.gov">www.expectmore.gov</a> for more detailed information.

Objective 5.2: Improve Environmental Performance Through Pollution Prevention and Innovation



During FY 2008, EPA made significant progress in preventing pollution at the source as businesses; institutions; and federal, state, and local governments participating in pollution prevention programs significantly reduced their use of hazardous materials, their generation and emission of greenhouse gases, and their use of water—and saved millions of dollars. As of early November 2008, 839 million pounds of hazardous materials were reduced, 1.5 million metric tons of carbon dioxide equivalent were conserved, and 21.4 billion gallons of water were conserved. These reductions, when added to others since FY 2000, boosted cumulative results toward the program's FY 2011 strategic targets to 3.2 billion pounds of hazardous materials reduced, 3.4 million metric tons of carbon dioxide equivalent conserved, and 32.9 billion gallons of water conserved. Those who prevent pollution also derive economic benefits--in FY 2008, Pollution Prevention Program participants saved \$187 million, bringing cumulative cost savings from pollution prevention to \$664 million since 2002.

Agency Pollution Prevention Program Achieves Success: The Agency's successes were achieved collectively through the Pollution Prevention Program's seven "Centers of Results," which interact with program participants using a variety of proven strategies to reduce pollution at the source, including: establishing voluntary consensus standards to identify green products for consumers; developing greener/safer chemical substitutes; developing greener technologies and processes; leveraging federal and state purchasing; marketing greener chemicals and products to consumers (e.g., through labeling); developing/marketing cleaner and more efficient energy sources; and promoting water conservation.

The Pollution Prevention Program has worked within the larger community with partners listed above to prevent pollution through technical assistance, develop pollution prevention capacity in

<sup>&</sup>lt;sup>1</sup> Pollution Prevention Programs: <a href="www.epa.gov/oppt/p2home/index.htm">www.epa.gov/oppt/p2home/index.htm</a>

states and tribes, recognize strong pollution prevention activities through awards, promote pollution prevention through federal procurement, promote green technology innovation and transfer, and develop "definitions of green" through voluntary consensus standards and safer substitutes. Noteworthy achievements from the seven Centers of Results are identified in the descriptions that follow.

Regional Grant Programs Prevent Pollution and Save Millions of Taxpayer Dollars: Pollution prevention programs in EPA's 10 regional offices generate source reduction results through two grant programs and through direct action. In FY 2008, regional pollution prevention programs managed 46 state and tribal Assistance Grants and 15 Source Reduction Assistance Grants. In FY 2008, the program finalized FY 2007 grants results, demonstrating 66 million pounds of hazardous materials reductions, 1.5 billion gallons of water, 2,100 billion British thermal units (Btu) of energy conservation, and \$38.5 million of cost savings.

Regions and States Benefit From Resource Exchange Centers: The Pollution Prevention Resource Exchange program provides national-level pollution prevention information directly to businesses and indirectly through a network of state and tribal technical assistance providers. In FY 2008 the exchange program centers interacted with 3,000 clients directly, while states and businesses accessed the program's online resources approximately 3 million times. These centers help state technical assistance providers avoid duplication of effort and enhance efficiency of services. These centers also manage a data collection system for states to enter their program results. To account for the value-added of the centers, and Pollution Prevention program research and products shared with states, the program takes credit for 10 percent of state results not attributable to Pollution Prevention program grants. The National Pollution Prevention Roundtable aggregates and presents these results. FY 2004 through FY 2006 results have recently become available and show that the Pollution Prevention community has reduced 7.6 billion pounds of waste, 4,800 billion British thermal units, and 4.1 billion gallons of water, and saved 6.5 billion dollars from the implementation of Pollution Prevention practices.<sup>2</sup>

The Federal Government Buys Green: Environmentally Preferable Purchasing is a federal government-wide program that implements Presidential executive orders requiring federal agencies to purchase environmentally preferable products and services and assists them in doing so. Specifically, the program has been active in the electronics sector, partnering with 16 federal agencies through the Federal Electronics Challenge. These agencies cover 209 facilities and over 650,000 federal employees. In addition, the program is working with the Green Electronics Council to promote the Electronic Product Environmental Assessment Tool. In FY 2008, EPA finalized FY 2007 data for the Federal Electronics Challenge Program and Electronic Product Environmental Assessment Tool programs and realized substantial energy savings. Through EPA's Federal Electronics Challenge, the federal government conserved 670 billion British thermal units of energy, and saved \$17 million. FY 2007 results, which became available in 2008, showed that the purchase of Electronic Product Environmental Assessment Tool computer products conserved 3,292 billion British thermal units and saved \$83.6 million. In FY 2008, EPA commenced work to develop similar voluntary consensus standards for televisions and other electronics products. EPA also made significant progress in completing its strategy for green buildings to better integrate efforts across the Agency, including facilitating the development of and response to voluntary consensus standards for green buildings products.

<sup>&</sup>lt;sup>2</sup> National Pollution Prevention Roundtable Pollution Prevention results: <u>www.p2.org/wp-content/04-06-p2-results-system-report-final-draft.pdf</u>

Green Suppliers Network Helps Industry on Environment and Economics: The Green Suppliers Network is a collaboration among EPA, the U.S. Department of Commerce, and industry to help all levels of the manufacturing supply chain achieve environmental and economic benefits. The Green Suppliers Network leverages the Department of Commerce partnership centers and state pollution prevention experts to offer manufacturers clean technical assistance to improve their productivity, efficiency, and environmental performance. In FY 2008, the Green Suppliers Network completed 23 partner reviews, with 17 reviews currently in process and 76 partner leads identified. Each Green Suppliers Network Lean and Clean review identifies, on average, \$543,090 in cost savings.

Another supply chain effort focuses on EPA's partnership with the automobile industry. The Suppliers Partnership for the Environment has established a successful model of promoting information exchange, training and assessments of human health and environmental issues using an energy and materials management framework. For example, the group is conducting a detailed assessment of potential risks associated with chemicals used in auto interior components and will expand the use of this methodology to the rest of the vehicle. With the assistance of both EPA and the Commission for Environmental Cooperation, the benefits of such cooperative efforts throughout the automobile supply chain have led to the creation of sister organizations in both Mexico and Canada.

Presidential Green Chemistry Challenge Program Awards Innovation: The Presidential Green Chemistry Challenge Awards Program recognizes innovations in greener chemical product and process design, development, and implementation. Each year EPA celebrates innovative, award-winning technologies developed by high-quality nominees. In FY 2008, the 13<sup>th</sup> year of the program, EPA received more than 100 nominations from businesses and academia in three focus areas: 1) greener synthetic pathways, 2) greener reaction conditions, and 3) the design of greener chemicals. The five winning entries were nationally recognized on June 24, 2008, at an awards ceremony. One 2008 award winner, the Nalco Company, introduced a three-dimensional Trasar technology that continuously monitors the condition of cooling water, adding chemicals only when needed rather than on a fixed schedule. This technology resulted in the conservation of 21 billion gallons of water. Through FY 2008, award winners collectively account for close to 1 billion pounds of hazardous materials reduction, 2 million dollars saved, and 22 billion gallons of water conserved.

Healthcare Practices Are Going Green: The Partnership for Sustainable Healthcare is a program working with the healthcare industry to reduce the industry's environmental impact, including preventing pollution and reducing hazardous wastes, such as mercury. Initially called Hospitals for a Healthy Environment, the program was EPA's first voluntary program to become an independent nonprofit organization, in 2006. The partnership represents EPA's continued work with the newly independent organization, Practice Green Health, providing technical assistance and policy integration support. Newly available FY 2007 results released in FY 2008 show 45 million gallons of water conserved and 468 billion British thermal units conserved by hospitals and other healthcare operations throughout the United States.

**Design for the Environment Program Makes Financial and Environmental Gains:** The Design for the Environment Program is a partnership that collaborates with businesses and trade organizations to design or redesign products, processes, and environmental management systems that are cleaner, more cost-effective, and safer for workers and the public. In FY 2008, all active partnership projects within Design for the Environment reduced more than 200 million

pounds of chemicals of concern, more than any previous year.<sup>3</sup> In FY 2008, Design for the Environment recognized more than 300 products from 60 partners under the formulators program, finalized an information collection request for the Safer Detergents Stewardship Initiative, and held 31 workshops to reach 1,000 auto-refinishing professionals. Design for the Environment's Formulator Program labels products that Design for the Environment has reviewed and found to be safer for human health and the environment. Design for the Environment currently allows use of its label on more than 600 products and tens of millions of Design for the Environment products have been sold to consumers and institutional purchasers. Also in FY 2008, the program completed a calculator that estimates emission reductions as well as material use reductions and cost savings based on implementation of specific best practices. Based on this calculator, EPA estimates that 80 percent of those in attendance implemented best practices and reduced 100,000 pounds of emissions and saved \$2 million in operational costs. The majority of emissions reduced prevent the release of extremely toxic chemicals such as diisocyanates (the leading cause of occupational asthma) and chromium.

One Million Mercury Switches Are Recovered From Used Automobiles: The National Vehicle Mercury Switch Recovery Program has the potential to recover 80 to 90 percent of all available mercury switches from end-of-life automobiles. This recovery occurs before the scrap

autos are shredded and melted to make new steel in electric arc furnaces, the nation's fourth largest source of mercury air emissions. The program is made up of representatives from auto and steel manufacturing, scrap and auto recyclers, states, environmental groups, and EPA. The program celebrated the collection of the 1-millionth auto switch in February 2008. On June 30, 2008, an EPA rule regulating electronic arc furnaces became effective for the control of mercury emissions. The rule considers participation in the mercury switch program as one of three potential ways to

The Naval Institute for Dental and Biomedical Research Institute located in Great Lakes, Illinois, joined the National Partnership for Environmental Priorities in December, 2003, with the goal to install amalgam separation equipment in all Navy dental treatment facilities to remove mercury-containing amalgam debris from the wastewater leaving treatment facilities. Studies have estimated that up to 40 percent of the mercury entering wastewater treatment plants comes from dental sources.

comply with the mercury requirements. In July 2008, the program held its second annual assessment meeting. The program partners committed to perform additional outreach to increase switch recovery, to explore ways to more easily share data, and to pay an incentive fee of \$4.00 per light switch and \$6.00 for anti-lock brake systems that contain mercury switches. Program partners believe that these actions, along with the new rule, will work together to continually improve the mercury switch recovery program. Data show that through FY 2008, nearly 7,222 participants have collected 1.8 million switches, which represents about 3,866 pounds of mercury prevented from entering the atmosphere.

**EPA Exceeds Target for Reducing Hazardous Chemical Release:** The National Partnership for Environmental Priorities, a key component of the Resource Conservation Challenge, is a partnership to reduce potentially hazardous chemicals throughout the life cycle of products that otherwise might be released into the environment. Under EPA's Strategic Plan, this program has committed to reducing 4 million pounds of priority chemicals from FY 2007 to FY 2011.

To submit comments or questions on the FY 2008 PAR, please e-mail: ocfoinfo@epa.gov.

<sup>&</sup>lt;sup>3</sup> Design for the Environment (Design for the Environment): <a href="www.epa.gov/opptintr/Design for the Environment/">www.epa.gov/opptintr/Design for the Environment/</a>

In FY 2008, actual reductions reported by National Partnership for Environmental Priorities partners and verified by EPA total 5.6 million pounds, against the 2008 target of 1 million pounds. This target was exceeded as the result of one partner's successful project to remove and recycle a large quantity of lead-sheathed electrical cable. Lead's resistance to corrosion makes it useful in this application; however, alternatives are becoming more popular. A manufacturer of lead-sheathed cable also joined the National Partnership for Environmental Priorities to increase its process efficiency and reduce the use of lead in making this product for users that still require it. Since program inception, National Partnership for Environmental Priorities partners have reduced more than 9.2 million pounds of priority chemicals through both source reduction and recycling activities. The National Partnership for Environmental Priorities currently has more than 215 partners from various industry sectors, including many federal and state facilities.

Lead Wheel Weights Phased Out in Favor of Steel: Tire companies, big box stores, wheel weight manufacturers, tire manufacturers, automobile trade associations, federal agencies, state agencies, and environmentalists are helping to put the brakes on the use of lead wheel weights. Through EPA's National Lead-Free Wheel Weight Initiative, launched in 2008, partners have agreed to phase-in the use of lead-free (steel) wheel weights to reduce the amount of lead released into the environment by 2011. Eliminating lead wheel weights is a significant step toward reducing the overall amount of lead released into the environment. EPA estimates that 50 million pounds of lead per year are used for wheel weights in cars and light trucks.

## FY 2008 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 performance measurements and objectives. This table lists the Program Projects and associated resources that support this objective.

<sup>\*\*</sup>Resources associated with Program Projects might not match the goal and objective obligations exactly because of rounding

Goal 5: Objective 2 - Improve Environmental Performance through Pollution Prevention and Other Stewardship Practices							
	FY 2006	FY 2007	FY 2008				
Program Project	Obligations	Obligations	Obligations				
Categorical Grant: Pollution Prevention	\$4,079.1	\$6,010.3	\$5,138.6				
Categorical Grant: Environmental							
Information	\$19,574.5	\$15,194.4	\$14,525.9				
Congressionally Mandated Projects	\$5,679.4	\$2.2	(\$13.0)				
Homeland Security: Communication and							
Information	\$154.6	\$241.4	\$180.8				
Homeland Security: Protection of EPA							
Personnel and Infrastructure	\$639.4	\$521.5	\$398.2				
NEPA Implementation	\$13,680.7	\$14,790.2	\$15,800.7				
Pollution Prevention Program	\$17,506.5	\$17,606.3	\$15,549.9				
RCRA: Waste Minimization & Recycling	\$2,446.6	\$2,971.3	\$3,540.6				
Regulatory/Economic-Management and							
Analysis	(\$278.1)	(\$86.3)	(\$145.0)				
Regulatory Innovation	\$20,040.0	\$19,510.1	\$19,686.8				
Administrative Law	\$110.5	\$128.9	\$139.2				
Alternative Dispute Resolution	\$31.2	\$31.4	\$33.8				
Central Planning, Budgeting, and Finance	\$2,052.9	\$2,001.4	\$2,368.1				

Civil Rights / Title VI Compliance	\$257.7	\$263.6	\$248.6
Congressional, Intergovernmental,			
External Relations	\$1,171.8	\$1,188.6	\$1,172.9
Environmental Education	\$8,434.5	\$7,678.4	\$9,098.5
Exchange Network	\$817.2	\$896.4	\$585.6
Facilities Infrastructure and Operations	\$15,777.0	\$15,662.0	\$12,857.6
Acquisition Management	\$681.8	\$736.4	\$786.1
Human Resources Management	\$1,344.8	\$1,220.7	\$1,125.1
Information Security	\$134.5	\$142.0	\$197.4
IT / Data Management	\$9,377.5	\$9,831.7	\$7,881.7
Legal Advice: Environmental Program	\$1,110.7	\$1,213.9	\$1,183.4
Legal Advice: Support Program	\$411.8	\$393.0	\$397.2
Audits, Evaluations, and Investigations	\$733.6	\$674.4	\$803.1
Regional Science and Technology	\$92.8	\$83.9	\$79.9
Science Advisory Board	\$115.0	\$124.9	\$136.1
Small Minority Business Assistance	\$48.4	\$61.5	\$70.4
Financial Assistance Grants / IAG			
Management	\$1,346.4	\$1,076.6	\$1,213.2
Small Business Ombudsman	\$2,499.2	\$3,768.0	\$3,772.5
Regulatory/Economic-Management and			
Analysis	\$420.2	\$452.0	\$413.0
Total	\$130,492.2	\$124,391.1	\$119,226.9

# Additional Information Related to Objective 2

#### Grants:

There are three components of Pollution Prevention grants: State and Tribal Assistance Grants Source Reduction Grants, and a portion of Pollution Prevention State and Tribal Assistance grants which fund Pollution Prevention Resource Exchange Centers through the Pollution Prevention Information Grant Program These grants collectively contribute directly and significantly to Pollution Prevention Environmental Results. In FY 2008, performance results from FY 2007 Regional Pollution Prevention State and Tribal Assistance Grants and SRA grants were finalized and collectively show that grantees reduced 65 million pounds, conserved 1.5 billion gallons of water, conserved 6450 billion British thermal units, and saved \$38.5 million. These grants have continued to contribute significantly to the overall environmental results for the Pollution Prevention program.

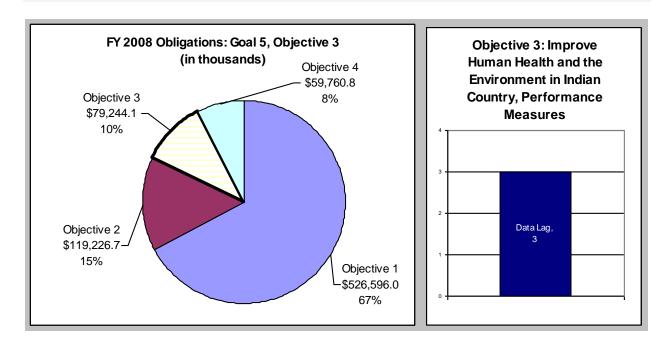
#### Web Links:

www.epa.gov/p2/, www.epa.gov/p2/pubs/grants/index.htm, www.p2rx.org/, www.epa.gov/oppt/dfe/, www.federalelectronicschallenge.net/, www.epa.gov/oppt/greenchemistry/, www.epa.gov/p2/pubs/psh.htm, www.epa.gov/greensuppliers/, www.p2.org/

# Program Assessment Rating Tool:

In FY 2008, EPA developed and implemented an action plan for all Agency Program Assessment Rating Tool measures in response to a government-wide Program Assessment Rating Tool measure review. The plan leveraged ongoing strategic and annual planning and reflected measure improvements. The tables of measures and results provided in Section II of this report, "Performance Results," identify all Program Assessment Rating Tool measures, which make up more than two-thirds of EPA's performance measures. Please refer to <a href="https://www.expectmore.gov">www.expectmore.gov</a> for more detailed information.

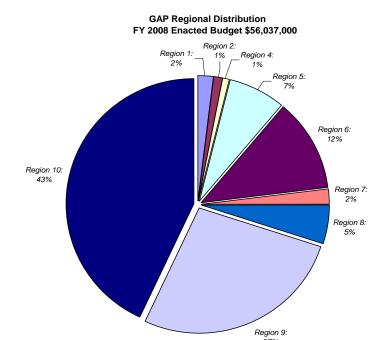
Objective 5.3: Improve Human Health and the Environment in Indian Country



In 2008, EPA demonstrated improvements in core tribal environmental program capacity, which is critical to protecting human health and the environment in Indian Country. EPA met its overall annual performance goal under this objective. EPA considers the Indian General Assistance Program its core component for achieving the objective of building tribal capacity. The Agency provides funds to federally recognized tribes to plan, develop, and establish environmental protection programs. EPA demonstrated efforts to improve human health and the environment in Indian Country through the following achievements.

Targets for Environmental Programs in Indian Country: In 2008, EPA has a target establishing environmental programs in 6 percent of tribes in Indian country. This target is a result of the Agency implementing a strategy called "treatment in the Same Manner as a State," which streamlined the approval process. EPA also has a 2008 target of 21 percent of tribes conducting EPA approved environmental monitoring and assessment activities in Indian country. This measure counts the number of tribes with EPA- approved Quality Assurance Plans.

EPA has set a cumulative target of 57 percent of tribes to have an environmental program. This measure counts tribes that have acquired an environmental office or coordinator in the most current year and that have met at least one of the following indicators: completed Tier III Tribal Environmental Agreements; established laws, codes, regulations, or ordinances as evidenced by a document signed by the tribal government; completed solid and/or hazardous waste implementation activities; or completed an inter-governmental environmental agreement with EPA and the tribal government. The measure also counts tribes that have developed environmental programs and those that are building environmental capacity to administer environmental programs to address environmental concerns specific to their needs. A reporting system, the Tribal Program Management System that captures this information is expected to be available for reporting in FY 2009.



Regarding the number of environmental programs implemented in Indian Country per million dollars, EPA has set a target of 14.1 programs and is on track to meet this efficiency measure. The efficiency measure is calculated annually by summing up the number of tribes receiving the following: General Assistance Program grants, "Treatment in the Same Manner as a State" approvals or primacies, Direct Implementation Tribal Cooperative Agreements, and General Assistance Program grants that have provisions for the implementation of solid and hazardous waste programs. That sum is then divided by the annual General Assistance Program appropriation (less rescissions and annual set-asides). Multiple environmental programs within one tribe are counted individually.

## FY 2008 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 performance measurements and objectives. This table lists the Program Projects and associated resources that support this objective.

\*\*Resources associated with Program Projects might not match the goal and objective obligations exactly because of rounding.

Goal 5: Objective 3 - Improve Human Health and the Environment in Indian Country								
	FY 2008							
Program Project	Obligations	<b>Obligations</b>	Obligations					
Categorical Grant: Tribal General								
Assistance Program	\$61,096.5	\$57,758.3	\$59,726.2					
Congressionally Mandated Projects	\$396.8	(\$282.6)	\$282.6					
Homeland Security: Communication and								
Information	\$34.6	\$56.2	\$43.0					
Homeland Security: Protection of EPA								
Personnel and Infrastructure	\$58.0	\$46.8	\$37.8					
Tribal - Capacity Building	\$11,834.6	\$11,048.5	\$12,276.6					

Administrative Law	\$24.7	\$30.0	\$33.1
Alternative Dispute Resolution	\$7.0	\$7.3	\$8.0
Central Planning, Budgeting, and Finance	\$412.4	\$408.8	\$497.4
Civil Rights / Title VI Compliance	\$68.1	\$76.4	\$67.9
Congressional, Intergovernmental,			
External Relations	\$304.0	\$325.7	\$316.8
Exchange Network	\$182.8	\$208.5	\$139.2
Facilities Infrastructure and Operations	\$2,955.2	\$2,980.0	\$2,627.4
Acquisition Management	\$80.7	\$82.2	\$97.6
Human Resources Management	\$214.1	\$169.7	\$187.8
Information Security	\$12.2	\$12.8	\$46.9
IT / Data Management	\$1,204.8	\$1,285.4	\$1,114.7
Legal Advice: Environmental Program	\$244.5	\$270.9	\$280.8
Legal Advice: Support Program	\$72.2	\$81.3	\$83.1
Audits, Evaluations, and Investigations	\$564.2	\$555.5	\$654.8
Regional Science and Technology	\$33.1	\$29.5	\$29.7
Science Advisory Board	\$25.7	\$29.0	\$32.4
Small Minority Business Assistance	\$10.8	\$14.3	\$16.7
Financial Assistance Grants / IAG			
Management	\$266.9	\$352.8	\$545.6
Regulatory/Economic-Management and			
Analysis	\$94.0	\$105.1	\$98.2
Total	\$80,197.9	\$75,652.4	\$79,244.3

## **Additional Information Related to Objective 3**

#### Grants:

Categorical Grant—Tribal General Assistance Program, authorized by the Indian Environmental General Assistance Program Act, 42 U.S.C. § 4368b (1992), as amended.

#### Web Links:

Evaluation of the Tribal General Assistance Program (GAP):

www.epa.gov/evaluate/GAPFinalReport.pdf

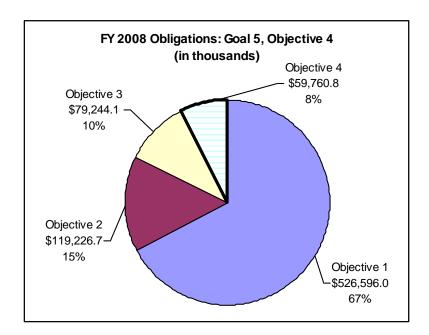
The American Indian Environmental Office: <a href="https://www.epa.gov/indian/">www.epa.gov/indian/</a>

American Indian Tribal Portal: www.epa.gov/tribalportal

## Program Assessment Rating Tool:

In FY 2008, EPA developed and implemented an action plan for all Agency Program Assessment Rating Tool measures in response to a government-wide Program Assessment Rating Tool measure review. The plan leveraged ongoing strategic and annual planning and reflected measure improvements. The tables of measures and results provided in Section II of this report, "Performance Results," identify all Program Assessment Rating Tool measures, which make up more than two-thirds of EPA's performance measures. Please refer to <a href="https://www.expectmore.gov">www.expectmore.gov</a> for more detailed information.

Objective 5.4: Enhance Society's Capacity for Sustainability through Science and Research



EPA's research programs support a sound scientific foundation for decisions to promote environmental stewardship and long-term sustainable outcomes.

*EPA Publishes Draft Biofuels Strategy:* In 2008, the Agency developed the *Draft EPA Biofuels Strategy* to promote policies and practices that can lead to the sustainable production of biofuels. The energy efficiency and environmental soundness of the country's biofuels system determines the degree to which biofuels reduce reliance on fossil fuels. In 2008, EPA supported 14 new biofuel-related research projects and is working with other federal agencies to define a set of criteria and indicators for sustainable biofuel production. This interagency effort requires clearly identifying critical elements of the biofuel system and identifying relevant indicators to measure progress toward sustainability.

New Projects Pave the Way for New Approaches to Environmental Protection: In FY 2008, EPA's Collaborative Science and Technology Network for Sustainability, a testing ground for scientifically based tools and approaches that promote sustainable outcomes at the regional level, provided funding for projects related to "Communities and the Built Environment" and "Industrial Ecology and Organizational Behavior." These projects will generate new approaches to environmental protection that are systems-oriented, forward-looking, preventive, and collaborative.

EPA's Sustainability Research Program brought a holistic, system-based analysis based on sustainability principles to demonstrate how a local government, including the regional metropolitan sewer district, could reduce storm water runoff in their watershed by using a "reverse auction," with one buyer and multiple sellers, to make planting rain gardens and installing rain barrels more attractive to local property owners.



Project staff is now providing technical support to EPA's regional office as it begins to review the sewer district request to implement this approach. Collaborators include Hamilton County Engineer, Hamilton County Soil & Water Conservation District, Cincinnati Metropolitan Sewer District, Cincinnati Parks Board, Ohio EPA, and EPA Region 5.

Student Competition Brings New Designs to Market: In FY 2008, EPA also continued to support its "People, Prosperity, and the Planet" student design competition and Design Expo. This year's competition demonstrated a wide array of innovative new technologies. Winning designs included the development of technology to produce plastic from wastewater, construction of a laboratory to produce biodiesel from a cafeteria's vegetable oil waste, and development of a hand-held water sanitizer useful for disinfecting drinking water in households of poor communities around the world.

EPA provided financial assistance to help award winners move their conceptual designs to market. Since 2005, several award winners have successfully made this transition. For example, Appalachian State University's "Collaborative Biodiesel Project," a 2007 award winner, created a closed-loop biodiesel processing facility that recycled its wastes and generated its own energy. This project ultimately contributed to the town of Boone, North Carolina's decision to transition to biodiesel fuel for its buses.

#### FY 2008 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 performance measurements and objectives. This table lists the Program Projects and associated resources that support this objective.

\*\*Resources associated with Program Projects might not match the goal and objective obligations exactly because of rounding.

Goal 5: Objective 4 - Enhance Societies Capacity for Sustainability through Science and Research								
Program Project FY 2006 FY 2007 FY 2008 Obligations Obligations Obligation								
Congressionally Mandated Projects	\$10,101.1	\$3,577.6	(\$209.5)					
Forensics Support	\$16,850.4	\$17,542.9	\$17,670.0					
Homeland Security: Communication and Information	\$82.6	\$121.3	\$91.6					

Homeland Security: Protection of EPA			
Personnel and Infrastructure	\$520.2	\$358.1	\$260.0
Research: Environmental Technology	Ψ0=0:=	ψοσο	Ψ=00:0
Verification (ETV)	\$2,775.5	\$1,405.3	(\$10.9)
Research: Pollution Prevention	\$7,477.3	(\$403.5)	(\$141.0)
Administrative Law	\$63.8	\$68.6	\$75.2
Alternative Dispute Resolution	\$21.2	\$21.7	\$21.3
Central Planning, Budgeting, and Finance	\$1,305.9	\$1,136.1	\$1,124.2
Civil Rights / Title VI Compliance	\$106.3	\$94.8	\$89.1
Congressional, Intergovernmental,		·	·
External Relations	\$361.0	\$348.9	\$332.9
Exchange Network	\$449.0	\$457.3	\$303.8
Facilities Infrastructure and Operations	\$2,478.8	\$3,566.5	\$5,789.6
Acquisition Management	\$1,254.5	\$1,221.6	\$1,363.1
Human Resources Management	\$1,084.0	\$1,009.5	\$1,047.0
Information Security	\$120.3	\$125.3	\$168.5
IT / Data Management	\$6,069.3	\$5,722.5	\$4,986.6
Legal Advice: Environmental Program	\$590.4	\$623.8	\$609.6
Legal Advice: Support Program	\$245.3	\$204.8	\$225.8
Audits, Evaluations, and Investigations	\$470.3	\$370.7	\$375.4
Regional Science and Technology	\$16.7	\$18.9	\$2.1
Science Advisory Board	\$66.3	\$66.4	\$73.5
Small Minority Business Assistance	\$27.9	\$32.7	\$38.0
Financial Assistance Grants / IAG			
Management	\$330.0	\$562.3	\$396.2
Research: Economics and Decision			
Science(EDS)	\$491.3	\$2,290.3	\$1,879.8
Research: Sustainability	\$22,009.5	\$25,468.1	\$22,976.0
Regulatory/Economic-Management and			
Analysis	\$242.4	\$240.5	\$223.0
Total	\$75,611.3	\$66,253.0	\$59,760.9

# Additional Information Related to Objective 4

# Grants:

Recipients of EPA project-specific grants found for which there are no significant sustained improvements in environmental performance, even though companies are willing to participate in voluntary programs that target changes in production processes. Of the industry-led programs, only the adoption of a formal Environmental 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."

## Web Links:

Sustainability Research Program: <a href="https://www.epa.gov/sustainability/">www.epa.gov/sustainability/</a>

#### Program Assessment Rating Tool:

In FY 2008, EPA developed and implemented an action plan for all Agency Program Assessment Rating Tool measures in response to a government-wide Program Assessment Rating Tool measure review. The plan leveraged ongoing strategic and annual planning and reflected measure improvements. The tables of measures and results provided in Section II of this report, "Performance Results," identify all Program Assessment Rating Tool measures, which make up more than two-thirds of EPA's performance measures. Please refer to <a href="https://www.expectmore.gov">www.expectmore.gov</a> for more detailed information.

# **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. (Baseline: 3-year rolling average FYs 2005-2007: 960,000,000 pounds.)

Performance Measures Met	Performance Measures Not Met	Data Available After November 17, 2008	Total Performance Measures
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.

# **No Strategic Target**

Annual Performance Measures	FY 2	2005	FY 2	2006	FY 2	2007	FY 2	2008	
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(988) Percentage of regulated	50	51	50	74	50	91	50	82	Percentage
entities receiving direct compliance assistance from EPA reporting that they improved environmental management practices as a result of EPA									

Annual Performance Mea	easures	FY 2	FY 2005 FY 2006		FY 2007 FY		FY 2	2008		
and Baselines		Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
assistance.										

Baseline - The FY2007 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 91%. 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

Explanation - The Agency exceeded this performance target in FY 2008, in part due to changes made in FY2007 in how it calculates results. Based on two years of data with an improved calculation method, EPA will re-evaluate the targets for these measures. In addition, EPA continues to explore ways to improve data collection methods from compliance assistance activities through a statistically-valid outcome measurement pilot project.

(992) Percentage of regulated	25	13	15	28	15	50	15	49	Percentage
entities receiving direct assistance									
from EPA reporting that they									
reduced, treated, or eliminated pollution, as a result of EPA									
assistance.									
assistatioc.									

Baseline - The FY2007 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 50%. 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.

Explanation - The Agency exceeded this performance target in FY 2008, in part due to changes made in FY2007 in how it calculates results. Based on two years of data with an improved calculation method, EPA will re-evaluate the targets for these measures. In addition, EPA continues to explore ways to improve data collection methods from compliance assistance activities through a statistically-valid outcome measurement pilot project.

#### **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	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(176) Pounds of pollutants estimated to be reduced, treated, or eliminated, as a result of audit agreements.	0.25 million	1.9 million	0.4	0.05	0.4	1.20	0.5	5.4	Million Pounds

Baseline - The FY2007 baseline for pounds of pollutants estimated to be reduced, treated, or eliminated as a result of audit agreements is 1.2 million pounds of pollutants.

Explanation - The Agency surpassed the FY 2008 performance target of 0.5 million pounds through a particularly significant Clean Air Act mobile source disclosure of violations whose correction and other settlement conditions resulted in more than an estimated 3.5 million pounds of NO<sub>x</sub> and hydrocarbon pollutants over a one year time period. Pollution reduction results achieved by EPA compliance incentive programs represent reductions that will occur over a one-year time period once facilities implement the steps required under audit agreements. Pollutant reductions from audit disclosures vary widely from case to case, resulting in total reduction levels that are also highly variable year to year.

# **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; and a 5 percentage point increase in the percent of enforcement actions requiring improvement of environmental management practices.

# **No Strategic Target**

Annual Performance Measures	FY 2	FY 2005		FY 2006		FY 2007		FY 2008	
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(178) Pounds of pollution estimated to be reduced, treated, or eliminated as a result of concluded enforcement actions. (civil enforcement)	300	1,100.00	450	890.00	500	890.00	890	3,900	Million Pounds

Baseline - The FY 2005-2007 rolling average baseline for pounds of pollution estimated to be reduced, treated, or eliminated is 960,000,000 pounds of pollutants.

Explanation - EPA significantly exceeded the 890 million pound performance target for pollutant reductions from enforcement settlements due to particularly significant Clean Air Act New Source Review/Prevention of Significant Deterioration and Clean Water Act storm water enforcement settlements. The six most significant FY 2008 enforcement settlements, when fully implemented, will cumulatively reduce more than an estimated 2 billion pounds of pollutants.

(179) Percentage of concluded	30	28.8	30	Data	30	27	30	26	Percentage
enforcement cases requiring that				Available					
pollution be reduced, treated, or				Late					
eliminated.				2008					

Baseline - The FY 2007 baseline for the percentage of concluded enforcement cases requiring that pollutants estimated to be reduced, treated, or eliminated is the FY2007 result which is 27 percent.

Explanation - EPA missed the performance target for the percentage of concluded cases that require pollutant reductions by four percent in FY 2008. Although EPA exceeded targets for pounds of pollutants reduced, the number of concluded enforcement cases increased over the last three years. EPA achieved such high pollutant reductions despite missing the performance target for the percentage of cases requiring pollutant reductions in FY 2008 due to the remarkable pollutant reductions from six large settlement agreements that combined will reduce, treat, or eliminate more than an estimated 2 billion pounds of air and water pollutants over a one year time period once facilities implement the legally required terms of the settlement.

(180) Percentage of concluded enforcement cases requiring implementation of improved environmental management practices.	60	72.5	65	82	70	70	70	70	Percentage
Baseline - The FY 2007 bas environmental management				ed enforceme	ent cases re	quiring impl	ementation	of improved	
(182) Percentage of regulated entities taking complying actions as a result of on-site compliance inspections and evaluations.	10	19	25	16	30	18	30	23	Percentage
Baseline - The FY 2007 bas inspections and evaluations			of regulated	d entities tak	ing complying	ng actions a	s a result of	on-site con	pliance
Explanation - EPA did not m regarding deficiencies and c inspection which are not obs and accurate results calcula	complying ac served by the	tions by dev	eloping gui	dance that a	ddresses co	ounting comp	olying action	s that occu	r after the
(183) Dollars invested in improved environmental performance or improved environmental management practices as a result of concluded enforcement actions (i.e., injunctive relief and SEPs)	4	10	4.1	5	4.2	10.6	4.3	11.8	Billion Dollars
Baseline - The FY 2005-200 environmental management				s invested in	improved e	environment	al performar	nce or impro	ved

Explanation - EPA and the Department of Justice achieved landmark enforcement settlements in FY 2008 that require defendants to invest a record \$11.8 billion to achieve and maintain compliance with the nation's environmental laws due three cases that account for approximately 60 percent of the total investments. These investments reported are estimates of expenditures that will occur over a one

year time period once facilities implement the legally required terms of the settlement.

# 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.

Performance Measures Met	Performance Measures Not Met	Data Available After November 17, 2008	Total Performance Measures
4	1	2	7

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	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(264) Pounds of hazardous materials reduced by pollution prevention (P2) program participants.	290M	501.7M	401M	528.5M	414M	456.9M	429M	839.6M	Pounds

Baseline - The baseline for the Pollution Prevention Program hazardous material reduced was 44 million pounds in FY 2000.

Explanation - In FY 2008, the P2 program exceeded its targets due to significant contributions from regional grant results, Green Chemistry, and Design for the Environment projects. Increasing collaboration across the P2 program is encouraging the development of new projects funded through P2 grants which have begun to may in the future realize large reductions in pounds of hazardous materials.

# **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	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(261) Blus of energy reduced, conserved or offset by P2 program participants.			906.7B	4,749B	1,106.8B	2,100B	1,217.4B	Data Not Available	Btus

Baseline - The baseline reference point for reductions of pollution and conservation of Btus and water is zero for 2002.

Explanation - In FY 2007, the Environmentally Preferable Purchasing Center of results and the regional center of results both produced significant energy savings. FY 2008 results are incomplete. Full results from both regions and the EPP center of results will enable the program to exceed its FY 2008 target. Full results will be available for Spring 2009 PART update.

# **Strategic Target (3)**

By 2011, reduce water use by 19 billion gallons cumulatively compared to the 2000 baseline amount of 220 million gallons reduced.

Annual Performance Measures	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(262) Gallons of water reduced by P2 program participants.			329M	2,329M	1,790M	1,619M	1,640M	21,602M	Gallons

Baseline - The baseline for the Pollution Prevention Program gallons of water was 220 millions gallons in FY 2000.

Explanation - In FY 2007, the P2 program may still meet its target after receiving additional data from states that have not yet reported. These state data are an important part of overall P2 results, but water conservation results have been less than expected in recent years which are the primary reason that 07 results are lower than the 07 target. However, substantial water savings were realized by regional grantees including those grants that fund state leadership programs that encourage water conservation. Less than expected state, nongrant, data is the primary reason that 07 results are lower than 07 target.

In FY 2008, a Green Chemistry award winning technology (Nalco's 3D-TRASAR technology) has had a huge impact on water savings from industrial and commercial cooling systems (e.g. heating, ventilating, and air conditioning). The technology reduces the need to flushing and refilling the cooling water as well as reducing the amount of treatment chemicals needed to keep systems running efficiently.

# **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	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(263) Business, institutional and government costs reduced by P2 program participants.	30.4M	172.9M	38.2M	209.7M	44.3M	186.7M	45.9M	Data Not Available	Dollars Saved

Baseline - The baseline for the Pollution Prevention Program cost savings was 0 dollar in FY 2002.

Explanation - Only partial data are available for FY08.

# **No Strategic Target**

Annual Performance Measures	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(279) Annual reductions of Design for the Environment (DfE) chemicals of concern per federal dollar invested in the DfE program.	N/A		Baseline	72	N/A		90	116	Pounds/\$

Baseline - The baseline for percent change for pounds of chemicals reduced from the Design for the Environment Program is 72 lbs/\$ for FY 2006.

Explanation – Target was exceeded due to sustained and increased performance from formulators program within the Design for the Environment Program. Products recognized with DfE label as including safer formulations were produced in record numbers for FY 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	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(PB5) Number of pounds (in millions) of priority chemicals reduced, as measured by National Partnership for Environmental Priorities members.					0.5	1.3	1	5.7	Pounds

Baseline - In FY 2006, 1.28 million pounds of priority list chemicals were reduced.

**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 MTCO<sub>2</sub>E of greenhouse gases; 186 tons of toxic discharges to water; and 3,533 tons of combined NOx, SOx, VOC, and PM emissions.)

## **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. (Baseline and normalization factors to be developed by December 2006.)

# **No Strategic Target**

Annual Performance Measures	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(195) 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.							4	0	Media Reduction

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 million gallons of water conserved, 0.24 million Btus (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.

The goal for FY08 was to meet 3 of the strategic targets for reducing environmental impacts in 5 priority areas. The targets, normalized for changes in production or activity level at a facility, were not met this year. Performance Track is currently in the process of changing the methodology for calculating results to a method consistent with the 3-year membership cycle of member facilities. The current method of calculating all members' results during the calendar year yields program-wide results that fluctuate heavily from year to year and thus are not a meaningful indicator of program progress. The new method calculates members' environmental improvements once the three-year membership term has been completed. This methodology puts annual fluctuations in a facility's results in the context of the facility's performance over the entire three-year membership term. Performance Track plans to modify the strategic targets for future years to make them consistent with the new methodology.

The current targets were set based on 2004 results. An assumption was made at the time that results would increase linearly from year to year. Additional years of data have revealed that annual results fluctuate heavily and are not a good indicator of member performance. For example, this year's toxic discharges to water result is negative due to one facility's discharge of salt. Over the facility's three-year membership term, the discharge of salt greatly decreased and the facility surpassed its goal. However, from 2006 to 2007, the discharge of salt increased although still remaining well below the baseline level in 2004. This annual increase caused the overall program-wide result for the toxics discharges to water indicator to be negative.

# **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. (Each project's achievement will be measured by the goals established in the grantee's proposal. Baselines for ambient conditions or pollutant discharges or costs of compliance will be developed at the beginning of each project, and improvements for each project will be measured after full implementation of the innovative

#### **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.

Performance Measures Met	Performance Measures Not Met	Data Available After November 17, 2008	Total Performance Measures
0	0	3	3

# **Strategic Target (1)**

By 2011, increase the percent of tribes implementing federal environmental programs in Indian country to 9 percent.

Annual Performance Measures	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(5pg) Percent of tribes implementing federal regulatory programs in Indian country.							6	Data Available in FY 2009	Percent of 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, we will be reporting new measures approved by OMB during our re-PART that are more specific and accurately capture criteria to be measured. The Agency developed a reporting system that captures information for the strategic plan measures and data is expected for these measures in FY 2009.

# **Strategic Target (2)**

By 2011, increase the percent of tribes conducting EPA-approved environmental monitoring and assessment activities in Indian country to 26 percent.

FY 2005		FY 2006		FY 2007		FY 2008		
Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
						21	Data	Percent of
							Available	Tribes
							in FY	
							2009	
							Target Actual Target Actual Target Actual Target	Target Actual Target Actual Target Actual Target Actual  21 Data Available in FY

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, we will be reporting new measures approved by OMB during our re-PART that are more specific and accurately capture criteria to be measured. The Agency developed a reporting system that captures information for the strategic plan measures and data is expected for these measures in FY 2009.

# **Strategic Target (3)**

By 2011, increase the percent of tribes with an environmental program to 67 percent.

Annual Performance Measures	FY 2005		FY 2006		FY 2007		FY 2008		
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
(5pl) Percent of tribes with an environmental program.							57	Data Available in FY 2009	Percent of 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, we will be reporting new measures approved by OMB during our re-PART that are more specific and accurately

Annual Performance Measures	FY 2005		FY 2006		FY 2007		FY 2008			
and Baselines	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit	
capture criteria to be measured. The Agency developed a reporting system that captures information for the strategic plan measures and										
data is expected for these measures in FY 2009.										

#### **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 polices and decisions and solving problems for the Agency and its partners and stakeholders