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.

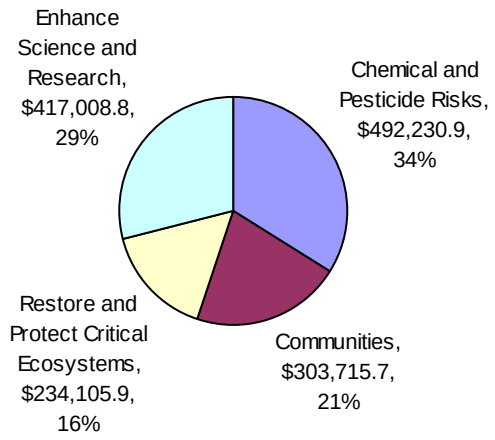
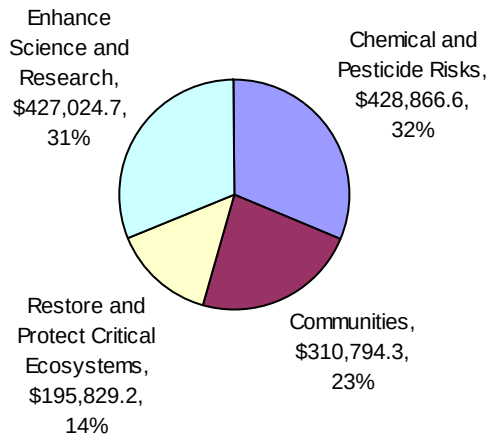
Many of our programs to achieve and sustain healthy communities are designed to bring tools, resources, and approaches to bear at the local level. We encourage community redevelopment by providing funds to identify, assess, and clean up the estimated hundreds of thousands of properties that lie abandoned 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 Obligations: Goal 4, Objective 1 (in thousands)	FY 2007 Expenditures: Goal 4, Objective 1 (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 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-fever 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.

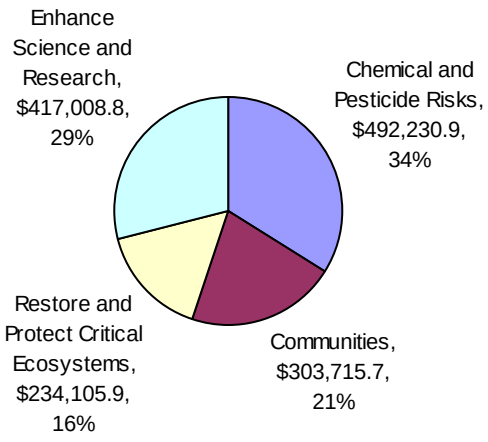
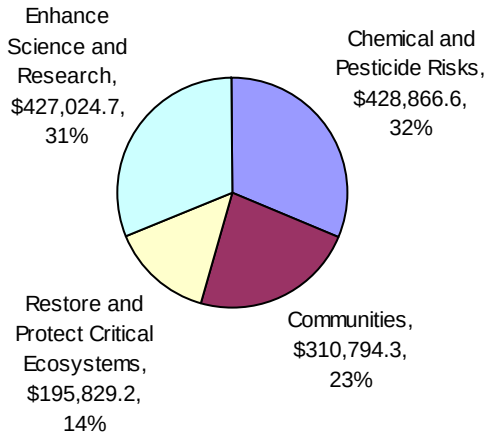
EDSP's priority setting activities in FY 2007 included implementation of the priority-setting methodology described in the September 2005 Federal Register notice, and publication of a draft list of 73 chemicals to undergo initial screening in a June 2007 Federal Register Notice.

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:	• 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:	• 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.

	• 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:	• 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 1,598[36] 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 polycholorinated biphyenyls (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.

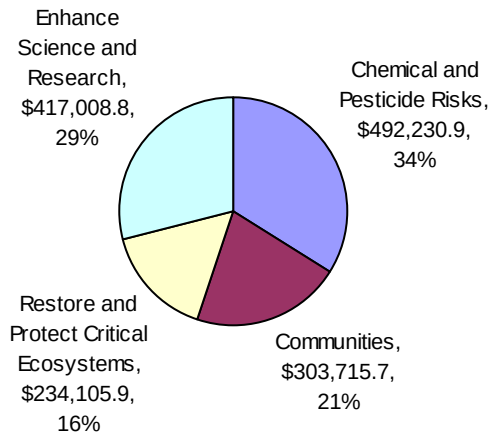
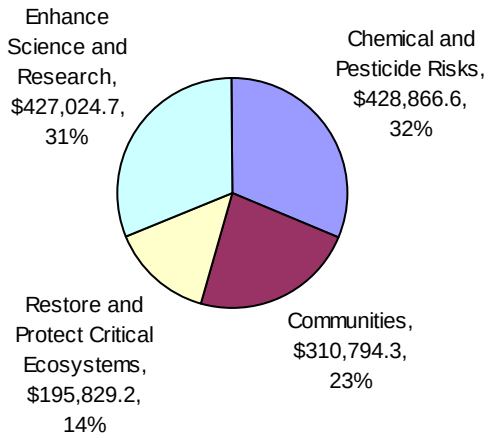
The Agency also began developing processes for assessing its effectiveness in addressing environmental justice concerns and identifying opportunities for improving its environmental justice program. An Agency-wide workgroup is leading "Environmental Justice Reviews" and creating protocols for reviewing 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:	• 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:	• 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 Obligations: Goal 4, Objective 3 (in thousands)	FY 2007 Expenditures: Goal 4, Objective 3 (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 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 ant 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.

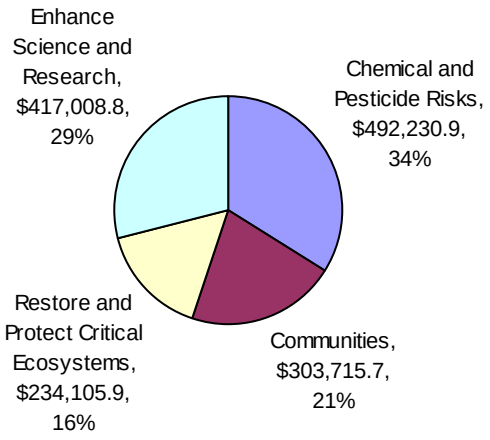
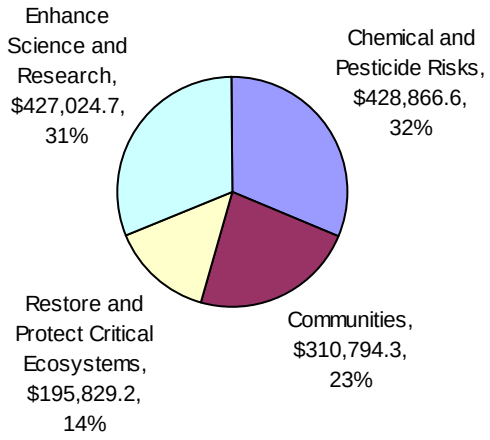
An important role for the Gulf Program in 2007 was co-leading with NOAA a federal workgroup of 13 agencies to help Gulf States identify and implement priority actions included in the Governors' Action Plan released by the five Gulf state governors in March 2006. These priority actions addressed such 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:	• 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-

	00004.pdf • 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:	• 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.

	• 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:	• 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:	Great Lakes National Program Office: http://www.epa.gov/glnpo/ Chesapeake Bay Grants: http://www.epa.gov/region03/chesapeake/grants.htm Sediment White Paper: http://www.ijc.org/php/publications/html/sedrem.html

Objective 4: Enhance Science and Research

FY 2007 Obligations: Goal 4, Objective 4 (in thousands)	FY 2007 Expenditures: Goal 4, Objective 4 (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 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 Assessmentfor 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:	• In FY 2007, EPA's BOSC conducted a mid-cycle review of the Ecological Research Program. The resulting report is entitled *Mid-Cycle Review of the Office of Research and Development's Ecological Research Program at the Environmental Protection Agency*. • In FY 2007, the Global Change Research Program took action to address recommendations resulting from BOSC FY 2006 review: *Review of the Office of Research and Development's Global Change 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. • In FY 2007, the Fellowships Program took action to address recommendations resulting from BOSC FY 2006 review: *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.* The program's response to the BOSC can be found on the BOSC Website. • In FY 2007, BOSC conducted a mid-cycle review of the Human Health Research Program. The resulting report is entitled *Mid-Cycle Review of the Office of Research and Development's Human Health Research Program*. • In FY 2007, BOSC conducted a mid-cycle review of the Pesticides and Toxics Research Program. The resulting report is entitled *Mid-Cycle Review of the Office of Research and Development's Safe Pesticides/ Safe Products (SP2) Research Program*.
Grants:	• EPA grantee research[41] 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[4243] 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

	Prevention Research, and (2) Centers for Children's Environmental Health and Disease Prevention Research. • 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 lifestyles[44]. (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 opportunities[45]. 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:	• 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"

	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. • 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:	Children's Research Center White Paper: http://yosemite.epa.gov/ochp/ochpweb.nsf/content/CEHRC_Findings.htm/$file/CEHRC%20Findings.doc Wilamette Ecosystem Marketplace Development: http://www.mwvcog.org/WillamettePartnership/WillamEcoMarket.asp Human Health Research Program: http://www.epa.gov/hhrp/ Climate Change Program: http://www.epa.gov/climatechange/index.html - Endocrine Disruptors Research Initiative: http://www.epa.gov/endocrine/ National Center for Environmental Research: http://www.epa.gov/ncer/fellow Board of Scientific Counselors: http://www.epa.gov/osp/bosc/subcomm-hhra.htm

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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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.					*100*	*100*	*100*	*100*	*Percent of HPV Chems.*
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Percent of chemicals or organisms introduced into commerce that do not pose unreasonable risks to workers, consumers, or the environment.			*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 is100%.									
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Safe Disposal of Transformers	*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.									
Safe Disposal of Capacitors	*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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
						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.									
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)					*8*	*6*	*9*	*14*	*Cumulative Number of Chemicals*
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Number of risk management plan audits completed.	*400*	*730*	*400*	*885*	*400*	*550*	*400*	*628*	*Audits*
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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	

	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.									
Register reduced risk pesticides, including biopesticides.	*14*	*49*	*14*	*14*	*14*	*15*	*14*	*14*	*Pesticides*
Baseline - Zero in 1996. Cumulative actuals in FY 2006 for reduced risk pesticides are 182 registrations.									
New Chemicals (Active Ingredients)	*8*	*7*	*8*	*3*	*8*	*19*	*8*	*16*	*Chemicals*
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.									
New Uses	*200*	*249*	*200*	*164*	*200*	*235*	*200*	*233*	*Actions*
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Product Reregistration					*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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Maintain timeliness of S18 decisions					*45*	*48*	*45*	*36*	*Days*

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Jobs leveraged from Brownfields activities.	*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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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.			*100,000*	*Data Avail. FY 2011*	*100,000*	*Data Avail. FY 2011*	*100,000*	*Data Avail. FY 2011*	*Acres/Year*
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.)									
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.									

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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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			*No Net Loss*	*Data Avail. FY 2008*	*No Net Loss*	*Data Avail. FY 2008*	*No Net Loss*	*Data Avail. FY 2008*	*Acres*
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									
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)									

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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Average annual percentage decline for the long-term trend in concentrations of PCBs in whole lake trout and walleye samples.			*5*	*6*	*5*	*6*	*5*	*6*	*Percent Annual Decrease*
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Average annual percentage decline for the long-term trend in concentrations of PCBs in the air in the Great Lakes Basin.			*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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Number of Areas of Concern in the Great Lakes Basin which are restored and de-listed. (cumulative)			*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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Cubic yards of contaminated sediment remediated (cumulative) in the Great Lakes.			*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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic systems.			*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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay. (cumulative)			*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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit

Annual Performance Measures and Baselines	FY 2004		FY 2005		FY 2006		FY 2007		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
Improve the overall health of coastal waters of the Gulf of Mexico on the "good/fair/poor" scale of the National Coastal Condition Report.			*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 aerially 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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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		
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Unit
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

Percentage of planned outputs delivered in support of efficient and effective clean-ups and safe disposal of contamination wastes.	*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.									
Percentage of planned outputs delivered in support of water security initiatives.	*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.									
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	*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.									
Percentage of planned outputs delivered in support of establishment of the environmental National Laboratory Response Network							*100*	*100*	*Percent*

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
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
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
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. 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. * 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).									
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.									