

Strategic Goal 2:

Clean *and* Safe Water

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

Goal Purpose

Under this goal, EPA works to protect and improve the quality of the nation's drinking and surface waters. To ensure that tap water is safe to drink, we set limits for drinking water contaminants; help to sustain the network of pipes and treatment facilities that constitute the nation's water infrastructure; and work with water systems to plan for, prevent, detect, and respond to terrorist or other threats to our water supplies. EPA also protects underground and above ground sources of drinking water by implementing source water protection plans to protect the area surrounding drinking water sources and effectively implementing the Underground Injection Control program to regulate what is injected into wells to ensure safe ground water supplies. In addition, EPA monitors surface water quality and works with state partners to strengthen water quality standards, approve discharge permits, and reduce pollution from diffuse or

nonpoint sources. EPA is restoring polluted waters across the country by implementing cleanups and promoting innovative, cost-effective practices, such as water quality trading and permitting on a watershed basis.

While EPA continues to make progress toward safe and secure drinking water, challenges remain. Population growth, for example, is generating higher levels of water pollution. Expanding populations also increase demands on aging infrastructures and on drinking water systems when sufficient planning has not occurred. In the chapter that follows, we report on our accomplishments and challenges in addressing water quality issues—strengthening and improving compliance with drinking water standards, maintaining safe water quality at public beaches, restoring polluted waterbodies, and improving the health of coastal waters.

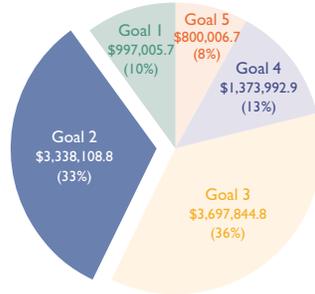
CONTRIBUTING PROGRAMS:

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

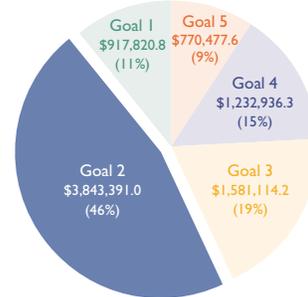
Goal 2 At a Glance

FY 2006
ANNUAL PERFORMANCE
GOALS (APGs)
Met = 6 Not Met = 1
Data Available After
November 15, 2006 = 13
(Total APGs = 20)

EPA FY 2006 Obligations
(in thousands)



EPA FY 2006 Costs
(in thousands)



GOAL 2 FY 2006 PERFORMANCE AND RESOURCES

STRATEGIC OBJECTIVE	APG STATUS	OBLIGATIONS	COSTS
 OBJECTIVE 1—PROTECT HUMAN HEALTH Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.	11 Data Available After 11/15/06 1 Goal Met	\$1,229,922.6	\$1,334,571.8
 OBJECTIVE 2—PROTECT WATER QUALITY Protect the quality of rivers, lakes, and streams on a watershed basis and protect coastal and ocean waters.	2 Data Available After 11/15/06 3 Goals Met 1 Goal Not Met	\$1,967,646.9	\$2,382,589.0
 OBJECTIVE 3—ENHANCE SCIENCE AND RESEARCH Provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 2.	2 Goals Met	\$140,539.3	\$126,230.2
GOAL 2 TOTAL	20 APGs	\$3,338,108.8	\$3,843,391.0

IN THE YEARS AHEAD. . .

EPA's annual performance goals are stepping stones to longer-range results. These results are specified in a series of "Strategic Targets" that lay out the work we intend to accomplish over the next several years to achieve our objectives under Goal 2. Meeting our annual performance goals moves us closer to such Strategic Targets as:

By 2011, 90 percent of community water systems will provide drinking water that meets all applicable health based drinking water standards through approaches including effective treatment and source water protection.

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

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

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

By 2011, maintain the percentage of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming at 96 percent.

For a complete list of strategic targets, see EPA's new 2006–2011 Strategic Plan, available at <http://www.epa.gov/ocfo/plan/htm>.



Strategic Objective I— Protect Human Health

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

SAFE DRINKING WATER

In FY 2006, the cooperative efforts of EPA, states, tribes, and others contributed to safe drinking water and cleaner surface waters. Significant accomplishments towards the safe drinking water effort included EPA's continued work in the aftermath of Hurricane Katrina. Local water systems, state environmental agencies and health departments, and EPA took extraordinary efforts to restore drinking water and wastewater services under difficult circumstances. EPA provided technical and logistical support to Alabama, Mississippi, and Louisiana. This support included assessing the operational status of public drinking water and wastewater systems, as well as laboratory analysis assistance.

EXPLANATION OF MISSED GOALS (SEE SECTION II.2 FOR PERFORMANCE RESULTS AND TREND INFORMATION):

APG 2.1, 2.2: By the end of the third quarter FY 2006, 89 percent of the population served by community water systems received drinking water that met all applicable health-based drinking water standards, falling short of the target of 93 percent. In FY 2005, 88.5 percent of the population

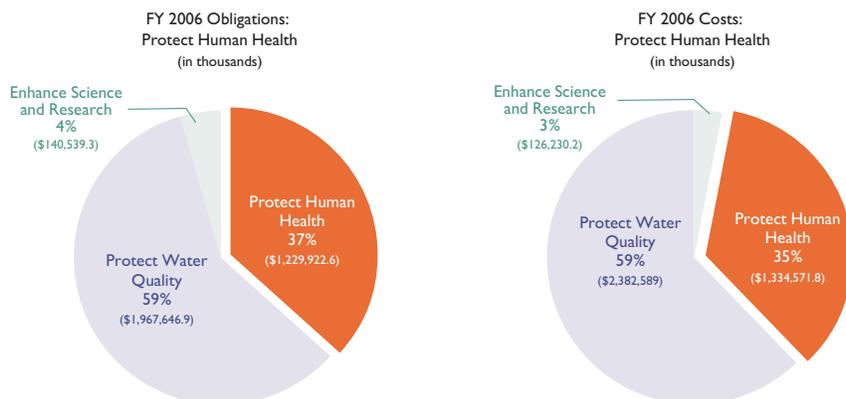
STRATEGIC OBJECTIVE I—HEALTHIER OUTDOOR AIR		
APG #	APG Title	APG Status
2.1	Safe Drinking Water Meeting All Standards—Population	FY 2006 Data Available in 2007
		✓ Goal Met for FY 2005
2.2	Safe Drinking Water Meeting Existing Standards—Population	FY 2006 Data Available in 2007
		✓ Goal Met for FY 2005
2.3	Safe Drinking Water Meeting New Standards—Population	FY 2006 Data Available in 2007
		✓ Goal Met for FY 2005
2.4	Safe Drinking Water Meeting Existing Standards—Systems	FY 2006 Data Available in 2007
		✗ Goal Not Met for FY 2005
2.5	Safe Drinking Water Meeting New Standards—Systems	FY 2006 Data Available in 2007
		✓ Goal Met for FY 2005
2.6	Safe Drinking Water—Systems in Tribal Communities	FY 2006 Data Available in 2007
		✗ Goal Not Met for FY 2005
2.7	Safe Drinking Water—Tribal Household Access	FY 2006 Data Available in 2007
2.8	Safe Drinking Water—Source Water Protection	FY 2006 Data Available in 2007
		✓ Goal Met for FY 2005
2.9	River/Lake Assessments for Fish Consumption	FY 2006 Data Available in 2009
2.10	Shellfish Growing Acres Approved for Use	FY 2006 Data Available in 2007
		FY 2005 Data Available in 2007
2.11	Restore Stream/Lake Water Quality for Swimming	FY 2006 Data Available in 2007
		FY 2005 Data Available in 2007
2.12	Coastal/Great Lakes Beaches Safe for Swimming	✓ Goal Met for FY 2006

Detailed information on these APGs is provided in Section II.2 – Annual Performance Goals and Measures: Detailed Results FY 2003–FY 2006, pages 149–155. Additionally, the data that EPA has used to measure its performance are described in the “Supplemental Information” to this report, provided on the Internet. See pages B-34–B-53 at <http://www.epa.gov/ocfo/finstatement/2006PAR>.

served by community water systems received drinking water that met this standard, falling short of the target of 93 percent. For both periods, although the vast majority of the nation's

community water systems supplied drinking water that met all health-based standards, some very large systems serving a large number of people (e.g., New York City and San Antonio in

GOAL 2: OBJECTIVE I—PROTECT HUMAN HEALTH—FY 2006 RESOURCES



FY 2006 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 foundation for the Agency's budget. Frequently, program/projects support multiple APGs and objectives. This table lists the program/projects and associated resources that support this objective.

PROGRAM PROJECT	FY 2006 OBLIGATIONS	FY 2006 COSTS
Categorical Grant: Public Water System Supervision (PWSS)	\$104,130.7	\$90,322.2
Categorical Grant: Underground Injection Control (UIC)	\$11,338.0	\$11,169.3
Categorical Grant: Pesticides Program Implementation	(\$223.8)	\$2,265.6
Categorical Grant: Beaches Protection	\$10,077.0	\$9,822.7
Categorical Grant: Homeland Security	\$3,974.1	\$3,209.3
Beach / Fish Programs	\$3,509.9	\$2,942.1
Congressionally Mandated Projects	\$126,261.1	\$93,491.4
Drinking Water Programs	\$94,884.5	\$98,484.8
Homeland Security: Communication and Information	\$280.3	\$259.3
Homeland Security: Critical Infrastructure Protection	\$14,188.7	\$24,665.1
Homeland Security: Protection of EPA Personnel and Infrastructure	\$838.2	\$1,071.0
Infrastructure Assistance: Drinking Water SRF	\$793,628.2	\$936,266.5
International Capacity Building	\$2,518.8	\$2,880.8
Pesticides: Field Programs	\$129.0	\$182.3
Administrative Law	\$200.4	\$198.7
Alternative Dispute Resolution	\$56.5	\$67.4
Central Planning, Budgeting, and Finance	\$3,778.9	\$3,520.5
Children and other Sensitive Populations	(\$52.3)	\$6.7
Civil Rights / Title VI Compliance	\$506.5	\$545.6
Congressional, Intergovernmental, External Relations	\$2,329.3	\$2,477.3
Exchange Network	\$1,481.9	\$690.7
Facilities Infrastructure and Operations	\$24,269.6	\$23,954.2
Acquisition Management	\$1,074.9	\$1,072.1
Human Resources Management	\$2,149.4	\$2,095.1
Information Security	\$182.9	\$164.0
IT / Data Management	\$13,222.6	\$6,867.8
Legal Advice: Environmental Program	\$2,052.0	\$2,105.5
Legal Advice: Support Program	\$727.4	\$762.5
Audits, Evaluations, and Investigations	\$9,190.3	\$9,852.1
Regional Science and Technology	\$196.5	\$189.2
Science Advisory Board	\$208.5	\$221.7
Small Minority Business Assistance	\$87.8	\$107.2
Financial Assistance Grants / IAG Management	\$1,962.5	\$1,956.0
Regulatory/Economic-Management and Analysis	\$762.0	\$685.1
TOTAL	\$1,229,922.3	\$1,334,571.8

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

FY 2006) reported short-term violations during the year. These violations had a similar impact on the annual goal for the percentage of the population served by community water systems receiving drinking water that met health-based standards with which systems needed to comply as of December 2001. As a result, this goal also had not been met as of the end of the third quarter FY 2006, nor was it met for FY 2005 when 92 percent of the population served by community water systems receiving drinking water that met health-based standards that were in effect as of December 2001. This fell short of the target of 94 percent. The Agency has developed a new performance measure that accounts for the time-limited nature of these kinds of non-compliance events; it will be included in EPA's 2006-2011 Strategic Plan.

By the end of the third quarter FY 2006, 97 percent of the population served by community water systems received drinking water that met health-based drinking water standards with a compliance date of January 2002 or later. The measure tracks newer standards such as the Cryptosporidium Rule.

For FY 2005, 92 percent of community water systems provided drinking water that met health-based standards with which systems needed to comply as of December 2001, falling short of

the target of 94 percent. Additionally, 86.3 percent of the population served by community systems in Indian country received drinking water that met all applicable health-based standards, which fell short of the target of 90 percent. For both of these goals, small drinking water systems, including those supplying drinking water to tribes, were particularly challenged by the need to obtain infrastructure improvements and the capacity to meet new and existing standards.



SAFE FISH AND SHELLFISH

The data to report progress on maintaining shellfish growing acres are still based on 2003 results. When the measure was proposed, EPA anticipated that the Shellfish Information Management System (SIMS) developed by the Interstate Shellfish Sanitation Conference (ISSC) would be the data source for this measure. However, states have not fully utilized the system as quickly as expected. To help fill the data gap, EPA has asked the ISSC to conduct a survey to

provide the data needed to report on the measure. The survey is underway and we expect final survey results in December 2006. We are also continuing to encourage states to adopt SIMS so that in the future we will be able to report annually on this measure.

Data to report progress on the increased consumption of fish in waters identified by states and tribes as having fish consumption advisories in 2002 will not be available until spring of 2007. In the interim, we continue to take actions that we believe will result in fewer fish advisories in waters for which advisories were issued in 2002. These activities include encouraging states to revisit existing advisories to evaluate whether water quality has improved sufficiently to revise them and allow more safe consumption of fish.

For its new strategic plan, EPA has developed a measure that will track improvements in blood mercury levels of women. The measure will rely on data published every 2 years by the Centers for Disease Control through their National Health and Nutrition Examination Surveys. Because the primary source of mercury in women's blood is consumption of fish containing mercury, this measure will allow EPA to track improvements in human health resulting from our fish advisory program.

SAFE SWIMMING

The data to report progress on restored water quality to allow swimming in streams miles and lake acres identified by states in 2000 as having unsafe water quality for swimming are not currently available. These data are provided by states every 2 years. We expect to be able to report on this measure in EPA's FY 2007 *Performance and Accountability Report*. Limited monitoring information makes it difficult to aggregate data on individual stream segments into a meaningful watershed scale assessment that can be used to report progress. EPA continues to work toward developing better measures for documenting environmental improvement on a watershed basis. Such measures will track incremental progress toward full restoration and document the results of the considerable effort EPA and its partners devote to maintaining water quality.

For the past swimming season (CY 2005), coastal and Great Lake beaches were open and safe for swimming 97 percent of beach season days. These results exceed EPA's FY 2006 goal of 94 percent and also exceed the 2008 target of 96 percent.

For its 2006-2011 *Strategic Plan*, EPA is instituting a measure to track waterborne disease outbreaks resulting from swimming in recreational waters with pathogens. This new measure should provide a sound basis for measuring the effectiveness of EPA and state beach monitoring and advisory programs.

ADDITIONAL INFORMATION RELATED TO OBJECTIVE 1:

PROGRAM EVALUATIONS:

EPA Should Strengthen Ongoing Efforts to Ensure that Consumers are Protected from Lead Contamination. Additional information on this report is available in the Program Evaluation Section, Appendix A, page A-6.

Promising Techniques Identified to Improve Drinking Water Laboratory Integrity and Reduce Public Health Risks; Lessons Learned: EPA's Response to Hurricane Katrina; and Much Effort and Resources Needed to Help Small Drinking Water Systems Overcome Challenges. Additional information on these reports is available in the Program Evaluation Section, Appendix A, pages A-6–A-8.

GRANTS: Drinking Water State Revolving Fund, Public Water System Supervision (PWSS) Grant Program, Underground Injection Control (UIC) Grant Program. Over the past 5 years, EPA has provided a total of almost \$42 million in grants to 35 coastal and Great Lakes states and territories that support state and local government beach monitoring and notification programs that provide the public with information on the safety of water for swimming.

PART: The PWSS Grant Program was assessed in the 2004 PART process and received a rating of "adequate." In response to the PART process, the program is conducting follow-up actions which include developing a new long-term outcome performance measure to assess the impact of drinking water compliance on public health.

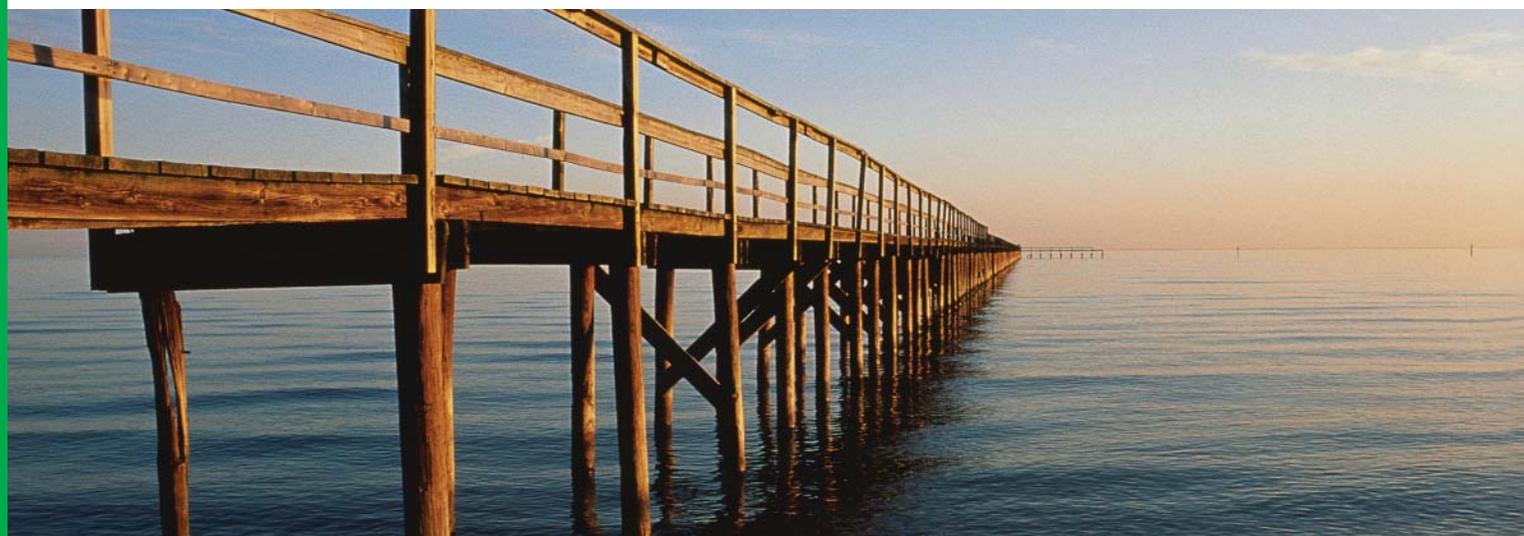
The Drinking Water State Revolving Fund Program was first assessed in the 2002 PART process and initially received a rating of "results not demonstrated." The program was reassessed in the 2004 PART process and received a rating of "adequate." In response to the PART process, the program is conducting follow-up actions, including implementing recommendations from the second triennial drinking water data quality review, which are designed to improve the overall quality of the data in EPA's drinking water compliance reporting system.

The UIC Grant Program was assessed in the 2004 PART process and received a rating of "adequate." In response to the PART process, the program is conducting follow-up actions which include developing an outcome-based annual performance measure and an efficiency measure, which demonstrate the protection of source water quality.

The Drinking Water Protection Program is being assessed in the 2006 PART process and results will be included in the FY 2008 President's Budget.

WEB LINKS:

<http://www.epa.gov/safewater/>
<http://www.epa.gov/waterscience/shellfish/>
<http://www.epa.gov/waterscience/>





Strategic Objective 2— Protect Water Quality

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

EPA continued to exceed its interim targets for restoring 25 percent of the nation's impaired water bodies by 2012. By the end of FY 2006, states and EPA restored 12.1 percent of the waters identified in 2000 as impaired, compared to the interim target for 2006 of 10.3 percent. Restoring impaired water bodies is a tremendous challenge and involves coordinating state and EPA efforts and using a variety of tools available under the Clean Water Act. EPA and states were able to meet the 2006 targets in several programs. A total of 66.1 percent of states and territories kept their water quality standards up to date within the past 3 years with the latest scientific information (against a target of 66 percent). With the 2006 completion of the *Wadeable Streams Assessment*, the first statistically valid report on the ecological condition of all wadeable, perennial streams within the conterminous United States, EPA met its target of assessing a cumulative total of 54 percent of the nation's waters using statistically valid surveys. EPA and states were able to complete 24,131 EPA-approved watershed pollutant reduction budgets (total maximum daily loads, or TMDLs) by the end of 2006, compared to the target of 20,501. EPA and states exceeded targets

STRATEGIC OBJECTIVE 2—PROTECT WATER QUALITY		
APG #	APG Title	APG Status
2.13	Watershed Protection—Meeting Water Quality Standards in Water Segments	FY 2006 Data Available in 2007
2.14	Watershed Protection—Attainment and Restoration	FY 2006 Data Available in 2007
2.15	Tribal Water Quality Standards—Monitoring	FY 2006 Data Available in 2007
		X Goal Not Met for FY 2005
2.16	Tribal Household Access to Basic Sanitation	✓ Goal Met for FY 2006
2.17	Coastal Aquatic Health—Ecological Health	✓ Goal Met for FY 2006
2.18	Coastal Health—Use Attainment	✓ Goal Met for FY 2006

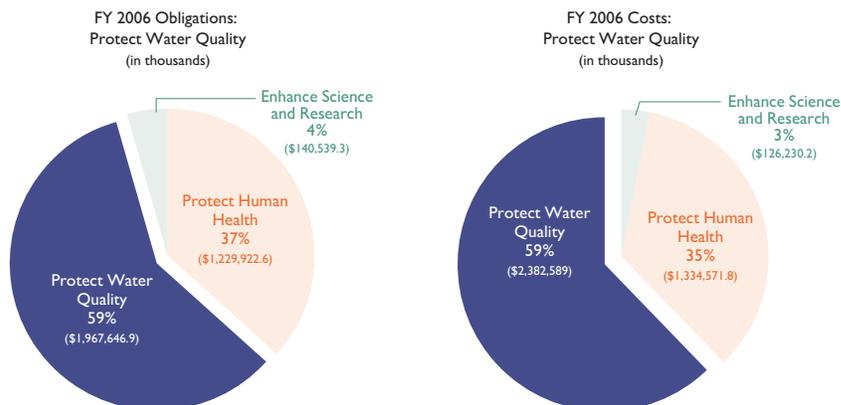
Detailed information on these APGs is provided in Section II.2 – Annual Performance Goals and Measures: Detailed Results FY 2003–FY 2006, pages 155–158. Additionally, the data that EPA has used to measure its performance are described in the “Supplemental Information” to this report, provided on the Internet. See pages B-53–B-78 at <http://www.epa.gov/ocfo/finstatement/2006PAR>.

to issue 95 percent high-priority NPDES permits. EPA and states also met the target for utilizing 93.3 percent of the available funds in Clean Water State Revolving Funds to provide low interest loans to help finance wastewater treatment facilities and other water quality projects. These projects are critical for continuing the public health and water quality gains of the past 30 years.

Although 2006 data indicate that the waterbodies listed in 2000 as impaired are being quickly removed from the list, EPA recognizes that waterbodies that are more easily restored are often the

first to be removed. Also, some of the restorations to date represent waters where improved assessments have found that the waters were in fact already meeting water quality standards. Thus we anticipate that the number of these “easier” restorations will soon decline, as states and EPA begin tackling waters with such complex problems as non-point sources or issues related to increasing population growth and changing land use. EPA is addressing these issues squarely. Many of the answers lie in improving efficiency through the watershed approach—dealing with water pollution problems holistically

GOAL 2: OBJECTIVE 2—PROTECT WATER QUALITY—FY 2006 RESOURCES



FY 2006 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 foundation for the Agency's budget. Frequently, program/projects support multiple APGs and objectives. This table lists the program/projects and associated resources that support this objective.

PROGRAM PROJECT	FY 2006 OBLIGATIONS	FY 2006 COSTS
Categorical Grant: Nonpoint Source (Sec. 319)	\$217,344.3	\$219,137.8
Categorical Grant: Water Quality Cooperative Agreements	\$11,227.6	\$14,131.2
Categorical Grant: Pollution Control (Sec. 106)	\$224,582.7	\$204,015.5
Categorical Grant: Wastewater Operator Training	\$1,491.0	\$781.5
Congressionally Mandated Projects	\$263,416.5	\$271,381.2
Homeland Security: Communication and Information	\$517.8	\$478.9
Homeland Security: Protection of EPA Personnel and Infrastructure	\$1,141.7	\$1,475.9
Infrastructure Assistance: Alaska Native Villages	\$33,791.4	\$24,788.6
Brownfields Projects	\$0.0	(\$1.9)
Infrastructure Assistance: Clean Water SRF	\$897,523.3	\$1,338,196.1
International Capacity Building	\$474.3	\$1,078.1
Marine Pollution	\$11,233.5	\$10,784.9
Surface Water Protection	\$193,591.6	\$194,548.8
Administrative Law	\$370.2	\$366.9
Alternative Dispute Resolution	\$104.4	\$124.5
Central Planning, Budgeting, and Finance	\$7,262.3	\$6,791.9
Civil Rights / Title VI Compliance	\$1,013.6	\$1,084.6
Congressional, Intergovernmental, External Relations	\$4,752.8	\$5,014.2
Exchange Network	\$2,737.2	\$1,275.8
Facilities Infrastructure and Operations	\$45,445.6	\$44,943.3
Acquisition Management	\$1,585.1	\$1,587.5
Human Resources Management	\$3,417.2	\$3,333.3
Information Security	\$239.6	\$207.4
IT / Data Management	\$20,424.6	\$12,078.8
Legal Advice: Environmental Program	\$3,651.0	\$3,715.9
Legal Advice: Support Program	\$1,247.9	\$1,293.1
Audits, Evaluations, and Investigations	\$14,487.4	\$15,529.7
Regional Science and Technology	\$417.8	\$388.9
Science Advisory Board	\$385.2	\$409.6
Small Minority Business Assistance	\$162.2	\$198.0
Financial Assistance Grants / IAG Management	\$2,199.3	\$2,183.5
Regulatory/Economic-Management and Analysis	\$1,407.4	\$1,265.3
TOTAL	\$1,967,646.5	\$2,382,588.8

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

with stakeholder involvement, rather than piecemeal waterbody-by-waterbody or permit-by-permit. On Earth Day 2005, the Assistant Administrator for Water established an internal EPA Watershed Managers Forum to promote implementation of watershed approaches in EPA's own programs and with its external partners, especially states, to help effect watershed protection. The Forum played a critical role in developing the water quality portion of EPA's *2006-2011 Strategic Plan*, which for the first time includes challenging but realistic targets for restoring 250 full-scale watersheds by 2012; for removing 5,600 specific impairments to waterbodies by 2012; and for maintaining good water quality in wadeable streams and other waters. The Forum has also developed a comprehensive capacity-building strategy to aid states and local organizations as they address water pollution problems at the watershed level. Additionally, EPA is investing in data systems to allow more accurate tracking of impaired waters and restoration activities.

EXPLANATION OF MISSED ANNUAL PERFORMANCE GOALS (SEE SECTION II.2 FOR PERFORMANCE RESULTS AND TREND INFORMATION):

APG 2.13, 2.14: Some specific water programs are also facing increased challenges. EPA was able to approve 89 percent of state water quality standards revisions in the past year, an increase over 83.5 percent in 2005. Nevertheless, the Agency fell short of its goal of approving 90.9 percent.

States are required to review water quality standards every 3 years and revise them if necessary. EPA must approve the standards for them to take effect under the Clean Water Act. This measure evaluates how well EPA and states work together to enable timely approval of revised standards. In FY 2006, states submitted an unusually high number of revisions that presented complex technical and policy issues. Some revisions also involve nationally significant issues that require policy-level review before EPA can approve or disapprove them. Although EPA was able to approve some of those provisions, the Agency was not able to resolve the remaining issues in time to be counted under this measure for FY 2006. EPA has adjusted its targets for FY 2007 and 2008 to reflect more realistic, yet challenging, goals.

APG 2.15: EPA also did not meet its goal for improving water quality in Indian country for FY 2005 and FY 2006 due to limitations in data collection. The amount of data collected from monitoring stations was insufficient for analysis. As a result, EPA revised this measure during the development of its *2006-2011 Strategic Plan*.

ADDITIONAL INFORMATION RELATED TO OBJECTIVE 2:

PROGRAM EVALUATIONS: Clean Water—How States Allocate Revolving Loan Funds and Measure Their Benefits. Additional information on this report is available in the Program Evaluation Section, Appendix A, page A-8.

Sustained Commitment Needed to Further Advance Watershed Approach; EPA Can Better Implement Its Strategy for Managing Contaminated Sediments. Additional information on these reports is

Clean Water: Alaska Native Villages

Ouzinkie, Alaska is a community of 191 residents located on the ocean shoreline of a small island near Kodiak Island. As in many Alaska Native Villages, the population depends on fishing and hunting for subsistence and supplements these activities with commercial fishing to survive in the harsh climate and remote location. Along the ocean shoreline—the site of fishing and other activities—wastewater discharged from the existing community system as well as from many individual homes represented a direct health threat to local residents. Through cooperative funding from EPA's Clean Water Indian Set-Aside Program, the Indian Health Service, and the State of Alaska, Ouzinkie completed a \$928,000 project to replace and relocate the community ocean outfall pipe and to connect more residents to an expanded wastewater system, helping safeguard the health of Ouzinkie residents and protect water resources.



available in the Program Evaluation Section, Appendix A, page A-9.

GRANTS: Clean Water Act (CWA) Section 106 grants which fund state water quality programs. CWA Section 319 grants also support this objective by reserving \$100 million for developing and implementing comprehensive watershed plans that function to restore impaired waters on a watershed basis while protecting healthy waters. Additionally, the Targeted Watershed Grants (TWG) Program encourages collaborative, community-driven approaches to meet clean water goals. The National Estuary Grant Program (CFDA 66.456) also supports this objective.

PART: The Surface Water Protection Program was assessed in the 2005 PART process and received a rating of “moderately effective.” In response to the PART process, the program is conducting follow-up actions which include working with states and other partners to assess 100 percent of rivers, lakes, and streams in the lower 48 states using statistically-valid surveys by 2010.

The Pollution Control (106) Grants Program was assessed in the 2005 PART process and received a rating of “adequate.” In response to the PART process, the program is conducting follow-up actions which include providing incentives for states to implement or improve their permit fee programs, increasing the resources available for water quality programs.

The Oceans and Coastal Program was assessed in the 2005 PART process and received a rating of “adequate.” In response to the PART process, the program is conducting follow-up actions which include developing an annual performance measure for the Ocean Dumping Program.

The Non-Point Source Program was assessed in the 2004 PART process and received a rating of “adequate.” In response to the PART process, the program is conducting follow-up actions which include contracting for an independent evaluation for the program that can serve as the basis for further improvements.

The CWSRF Program was assessed in the 2004 PART process and received a rating of “adequate.” In response to the PART

process, the program is conducting follow-up actions which include focusing on improving the quality and breadth of CWSRF performance data.

The Alaska Native Village Program was first assessed in the 2004 PART process and initially received a rating of “ineffective.” The program is currently being reassessed in the 2006 PART process and results will be included in the FY 2008 President’s Budget.

Web Links:

- <http://www.epa.gov/owow/monitoring/>
- <http://www.epa.gov/owow/streamsurvey/>
- <http://www.epa.gov/owow/oceans/nccr/>
- <http://www.epa.gov/owow/lakes/lakessurvey/>
- <http://www.reo.gov/monitoring/watershed/index.htm>
- <http://www.epa.gov/owow/oceans/>
- <http://www.epa.gov/owow/estuaries/>
- <http://www.epa.gov/owow/oceans/factsheets/index.html>
- <http://www.epa.gov/owow/tmdl>
- <http://www.epa.gov/owow/wetlands/>
- <http://www.mitigationactionplan.gov/>
- <http://www.coastalamerica.gov/>



Strategic Objective 3— Enhance Science and Research

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

EPA’s research programs continue to conduct leading-edge research and develop a better understanding and characterization of water-related environmental outcomes to support the Agency’s work toward clean and safe water.

For example, to promote stewardship in the handling of pharmaceuticals and minimize their introduction into the environment, EPA’s water quality research program produced a

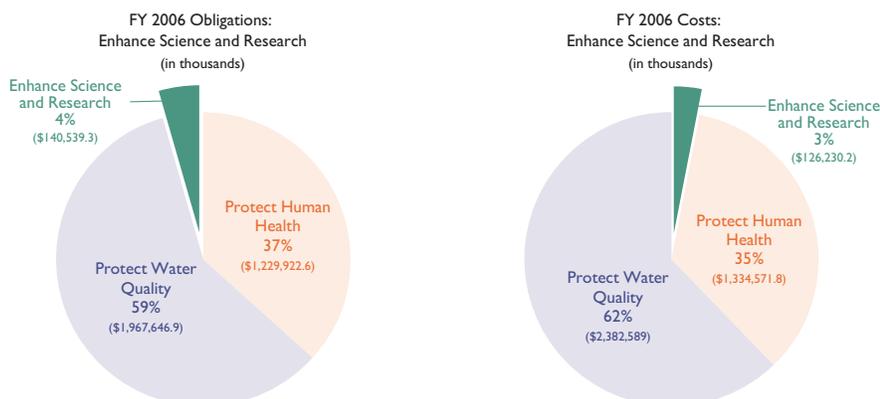
STRATEGIC OBJECTIVE 2—PROTECT WATER QUALITY		
APG #	APG Title	APG Status
2.19	Scientific Rationale for Surface Water Criteria	✓ Goal Met for FY 2006
2.20	Drinking Water Research	✓ Goal Met for FY 2006

Detailed information on these APGs is provided in Section II.2 – Annual Performance Goals and Measures: Detailed Results FY 2003–FY 2006, pages 158–159. Additionally, the data that EPA has used to measure its performance are described in the “Supplemental Information” to this report, provided on the Internet. See pages B-78 at <http://www.epa.gov/ocfo/finstatement/2006PAR>.

comprehensive review as a roadmap for related research and other actions. This overview has even broader implications, as a

generalized application of this approach could be used in the future to develop Superfund risk assessments and cleanup decisions.

GOAL 2: OBJECTIVE 3—ENHANCE SCIENCE AND RESEARCH—FY 2006 RESOURCES



FY 2006 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 foundation for the Agency's budget. Frequently, program/projects support multiple APGs and objectives. This table lists the program/projects and associated resources that support this objective.

PROGRAM PROJECT	FY 2006 OBLIGATIONS	FY 2006 COSTS
Congressionally Mandated Projects	\$8,128.6	\$10,830.7
Homeland Security: Communication and Information	\$200.5	\$185.4
Homeland Security: Protection of EPA Personnel and Infrastructure	\$1,120.5	\$1,328.9
Research: Drinking Water	\$52,087.4	\$46,053.3
Research: Water Quality	\$48,496.3	\$48,889.5
Surface Water Protection	\$866.9	\$1,181.8
Administrative Law	\$143.4	\$142.1
Alternative Dispute Resolution	\$40.4	\$48.2
Central Planning, Budgeting, and Finance	\$2,514.6	\$2,312.7
Civil Rights / Title VI Compliance	\$239.0	\$259.8
Congressional, Intergovernmental, External Relations	\$806.5	\$918.8
Exchange Network	\$1,059.9	\$494.0
Facilities Infrastructure and Operations	\$3,706.7	\$3,170.5
Acquisition Management	\$1,411.8	\$1,405.2
Human Resources Management	\$2,392.2	\$2,369.9
Information Security	\$299.3	\$312.9
IT / Data Management	\$13,017.4	\$2,090.3
Legal Advice: Environmental Program	\$1,407.4	\$1,506.6
Legal Advice: Support Program	\$630.5	\$688.5
Audits, Evaluations, and Investigations	\$857.0	\$918.9
Regional Science and Technology	\$37.6	\$77.3
Science Advisory Board	\$149.0	\$158.4
Small Minority Business Assistance	\$62.8	\$76.7
Financial Assistance Grants / IAG Management	\$318.5	\$319.6
Regulatory/Economic-Management and Analysis	\$545.0	\$490.0
TOTAL	\$140,539.2	\$126,230.0

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

Also in 2006, EPA developed methods for the sampling and biological assessment of non-wadeable rivers, providing the basis for EPA's Survey of Non-Wadeable Streams and Rivers, as well as the scientific framework for developing

bioassessment and biocriteria for establishing water quality standards and meeting other Agency water quality goals. Additionally, EPA conducted research to develop more cost-effective means of controlling storm water runoff pollution, particularly in urban

areas. This work supports state and local governments in making watershed decisions to protect and restore water bodies more effectively to meet Clean Water Act goals.

EPA's drinking water research program also completed a substan-

tial body of work in 2006. For instance, the program assisted in implementing the Arsenic Rule by publishing treatment design manuals based on laboratory studies and conducting full-scale demonstrations of treatment technologies in more than 40 small communities in more than

20 states. The program also provided leading-edge research to inform the Agency's mandated 6-year reviews of existing regulations, concluding a series of studies and review papers on cancer and non-cancer effects and on *in utero* and food-borne exposure that will support the risk assessment associated with the planned 2008 review of the Arsenic Rule.

To fulfill SDWA requirements, the drinking water research program worked extensively with the Office of Water in publishing a series of papers summarizing the research conducted on waterborne disease in the last 10 years. Improved models on *Cryptosporidium* dose-response and methods for measuring levels of *Cryptosporidium* in water supported the Enhanced Surface Water

Treatment Rule. Finally, research evaluated various combinations of microfiltration and ultrafiltration systems to develop filtration credits for protozoan removal following conventional package plant systems.



the public, natural resource agencies need to be able to rapidly detect the presence of an HAB before it leads to health concerns. However, in the late 1990s when massive fish kills and unusual health symptoms among fishermen were reported in North Carolina and Maryland, the algae causing the problem could not be readily identified using light microscopy.

Researchers turned to molecular techniques for a solution. They developed a real-time test, a polymerase chain reaction assay that made it possible to identify *Pfiesteria piscicida* rapidly. Using this assay in waterways in Maryland and Delaware, the researchers determined in which rivers and which seasons *Pfiesteria* bloom events were most likely to occur. To further aid resource managers, the team also developed assays for other species of concern. These tests are now used by the Maryland Department of Natural Resources for routine monitoring and rapid response evaluation of possible HAB events.

ADDITIONAL INFORMATION RELATED TO OBJECTIVE 3:

PROGRAM EVALUATIONS:

Board of Scientific Counselors (BOSC): Subcommittee on Drinking Water Research: Review of ORD's Drinking Water Research Program; Subcommittee on Water Quality Research: Review of ORD's Water Quality Research Program. Additional information on these reports is available in the Program Evaluation Section, Appendix A, pages A-10-A-11.

GRANTS: Example of Ecohab-Supported Research: The Development of Molecular Probes for Faster Detection of Harmful Algal Blooms (HABs). To protect

PART: *The Drinking Water Research Program was assessed in the 2005 PART process and received a rating of "adequate." In response to the PART process, the program is conducting follow-up actions which include developing baselines and targets for long-term and annual performance measures. Specifically, the program is participating in a workgroup comprising representatives from OMB, ORD, and the BOSC to develop long-term measures derived from an independent panel review process.*

The Water Quality Research Program is being assessed in the 2006 PART process and results will be included in the FY 2008 President's Budget.

Web Links: <http://www.epa.gov/ord/>