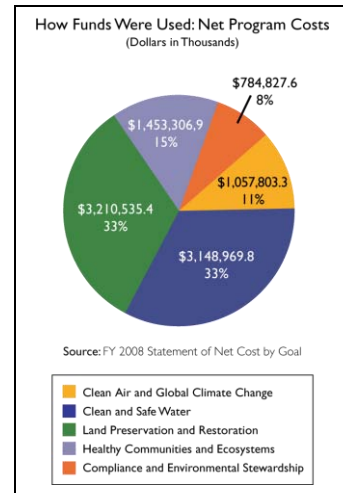
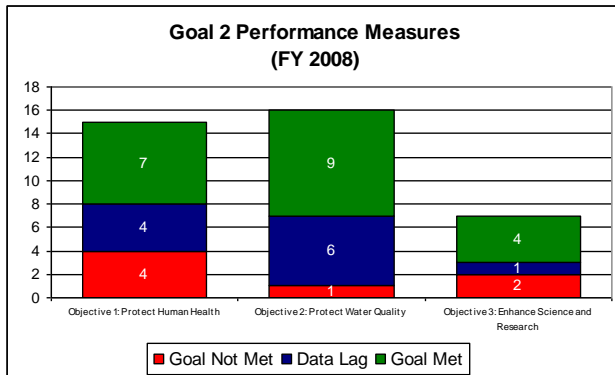


GOAL 2: CLEAN AND SAFE WATER

Goal at a Glance

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

Goal 2 FY 2008
Performance Measures
Met = 20 Not Met = 7 Data Available After November 17, 2008 = 11
(Total Measures = 38)



Goal 2 FY 2008 Performance and Resources		
Strategic Objective	FY 2008 Obligations (in thousands)	% of Goal 2 Funds
Objective 1 – Protect Human Health Protect human health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters.	\$1,339,331.9	43%
Objective 2 – Protect Water Quality Protect the quality of rivers, lakes, and streams on a watershed basis and protect coastal and ocean waters.	\$1,664,746.0	53%
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.	\$144,891.9	5%
Goal 2 Total	\$3,148,969.8	100%

“EPA has made significant progress in protecting the nation's water resources -- in FY 2008, over 2,165 waterbodies that were listed as impaired in 2002 are now fully attaining water quality standards.”

- Benjamin Grumbles, Assistant Administrator for Office of Water

Goal Purpose: Clean and Safe Water

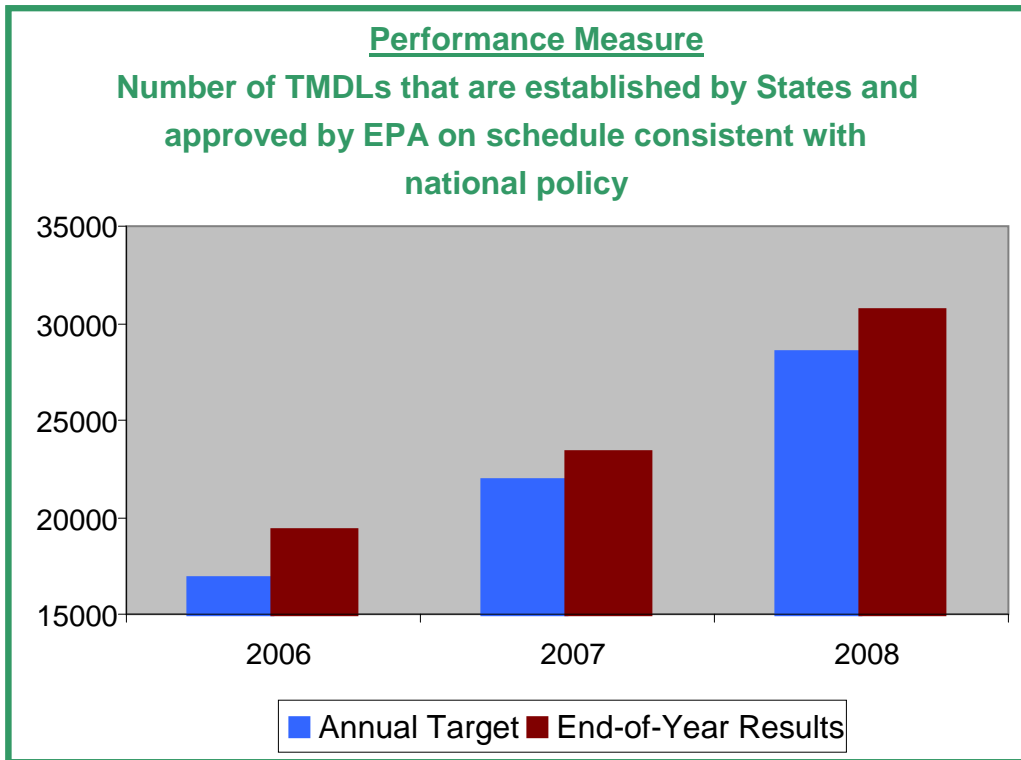
EPA, in coordination with its partners, ensures that drinking water is safe and restores and maintains the quality of the nation's surface waters.

To ensure that tap water is safe to drink, the Agency sets limits for drinking water contaminants; helps to sustain the network of pipes and treatment facilities that constitute the nation's water infrastructure; and works with water systems to plan for, prevent, detect, and respond to terrorist or other threats to drinking water supplies. EPA works with state and local partners to implement source water protection plans for the area surrounding drinking water sources. Also, the Underground Injection Control program regulates the subsurface injections of hazardous and nonhazardous substances in wells.

To protect surface waters, EPA works with state and tribal partners to implement core clean water programs to protect waters nationwide by strengthening water quality standards; improving water quality monitoring and assessment; implementing Total Maximum Daily Loads (TMDLs) and other watershed related plans; strengthening the National Pollutant Discharge Elimination System (NPDES) permit program, particularly through the issuance of high priority and stormwater permits; and implementing practices to reduce pollution from nonpoint sources. Furthermore, EPA's four pillars for sustainability and the Clean Water State Revolving Fund (SRF) are important tools for supporting sustainable water infrastructure.

While EPA continues to make progress toward clean and safe water, challenges remain. For example, drinking water systems and improvements in water quality are increasingly stressed due to aging infrastructure and expanding populations. In this goal section, EPA reports on accomplishments and challenges in addressing water quality issues—strengthening and improving drinking water standards, maintaining safe water quality at public beaches, restoring polluted water bodies, and improving the health of coastal waters.

Data Trends



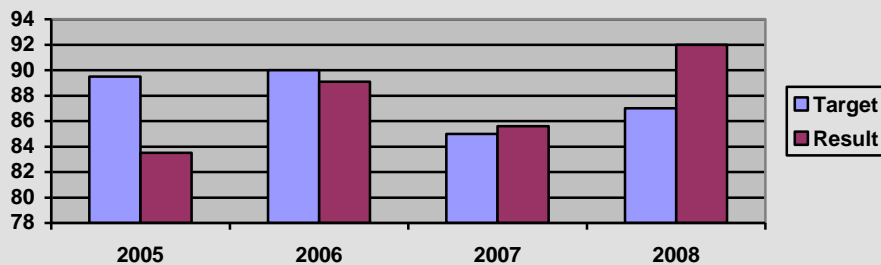
Development and implementation of Total Maximum Daily Loads for an impaired water body is a critical tool for meeting water restoration goals. Total Maximum Daily Loads focus on clearly defined environmental goals and establish a pollutant budget, which is then implemented via permit requirements and through local, state, and federal watershed plans/programs.

Data Quality

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

Performance Measure

Percentage of submissions of new or revised water quality standards from states and territories that are approved by EPA



What This Shows: EPA has gotten better at working with states and territories early in their standards development process to help them submit standards that EPA can approve. EPA also improved its ability to estimate the number and approvability of standards revisions that states and territories submit, making broader use of partial approvals so that the great majority of standards revisions can be immediately effective while unresolved issues are being elevated. In 2008 the results are particularly welcome, but might not be sustainable year after year. There is a trend toward states tackling more difficult environmental problems, which can increase the number of standards provisions that raise complex technical and policy issues.

Source: The underlying data sources for this measure are submissions from states and territories of water quality standards to EPA pursuant to the Clean Water Act and EPA's water quality standards regulation at 40 CFR Part 131. EPA regional office staff members compile information from each submission and enter it into the system.

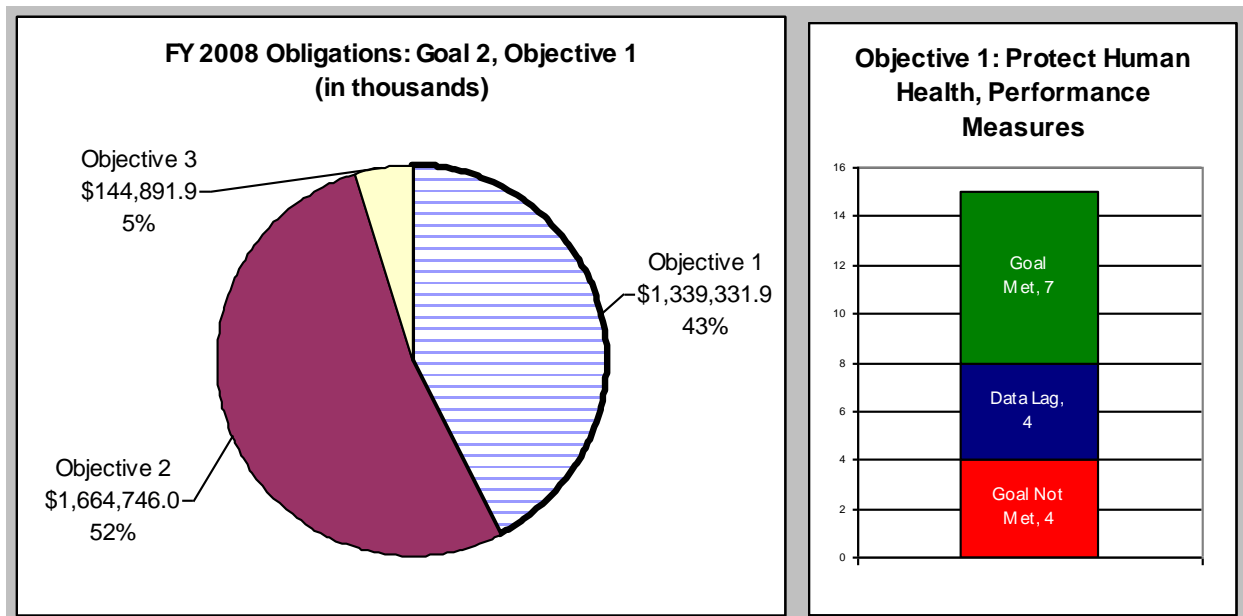
Data Limitations: Submissions may vary considerably in size and complexity. For example, a submission may include statewide water quality standards revisions, use attainability analyses for specific water bodies, site-specific criteria applicable to specific types of waters, general statewide policies, anti-degradation policies or procedures, and variances. Therefore, these measures—the number of submissions approved, and the number of jurisdictions with updated scientific information contained in adopted standards—do not provide an indicator of the scope, geographic coverage, policy importance, or other qualitative aspects of water quality standards. This information would need to be obtained in other ways, such as by reviewing the content of adopted and approved standards available at:

www.epa.gov/waterscience/standards/wqslibrary/.

Contributing Programs

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

Objective 2.1: Protect Human Health



In collaboration with states and tribes, EPA is working to protect human health by reducing contaminants in drinking water, fish and shellfish, and recreational waters.

EPA Exceeds Drinking Water Goal: EPA and its partners continue to make progress in providing the public with drinking water that meets health-based standards. Water systems across the country are working to meet standards for more than 90 contaminants to keep drinking water safe and secure. In FY 2008, 92 percent of Americans were served by community water systems that met applicable health-based drinking water standards. This percentage exceeded the National Drinking Water Program's commitment of 90 percent, despite the fact that water systems throughout the country are challenged daily with protecting public health by applying existing regulations and implementing new standards.

New Underground Injection Control Regulation Helps Address Climate Change: The EPA Underground Injection Control program for addressing significant violations for Class I, II, and III wells continued to make progress in identifying and closing or permitting high-priority wells, including motor vehicle waste disposal wells, in community water system source water protection areas. In FY 2008, EPA proposed regulations for the sequestration of carbon dioxide in a manner that protects underground sources of drinking water. Geologic sequestration is the process of injecting carbon dioxide from a source, such as a coal-fired electric generating power plant, through a well into the deep subsurface of the earth. With proper site selection and management, geologic sequestration could play a major role in reducing emissions of carbon dioxide. Future management challenges will include developing final regulations and cultivating underground injection control primacy program capacity, such as providing permit assistance, supporting analysis of risks associated with carbon sequestration, and developing technical assistance information.

EPA Expands Contaminant Warning Systems: In FY 2008, EPA expanded the contamination warning system pilot program by selecting four additional drinking water utilities to award cooperative agreements for establishing contamination water system pilots. Two of these pilots began in FY 2008. The pilot program is meant to demonstrate the concept of an early warning system to quickly detect and respond to contamination threats and incidents in drinking water distribution systems. EPA also developed and published two guidance documents to transfer knowledge gained from the pilot projects to water utilities and other stakeholders.

Agency Works Toward Development of a Water Laboratory Alliance: In FY 2008, EPA conducted 11 functional exercises to test the Regional Laboratory Response Plans using blind samples in all 10 EPA regions, including Hawaii. Regional Laboratory Response Plans provide regions with a structure for joint response by laboratories (e.g., EPA regional and state public health/environmental laboratories, larger drinking water utility laboratories) within each region.

EPA Works to Improve Water Quality to Protect Fish and Shellfish: Throughout FY 2008, EPA worked with states and other federal agencies to address poor water quality, including waters used for shellfish-growing areas. Through its surface water protection program, EPA addresses human-related activities that cause these closures, such as discharges from sewage treatment plants. States continue to monitor shellfishing waters and restrict harvesting if shellfish are deemed unsafe for consumption.

EPA Increases Public Access to Fish

Advisory Information: EPA works to reduce the release of contaminants into the nation's waters and conducts activities to expand information access about safe fish consumption. In FY 2008, EPA continued work with states and tribes in monitoring fish contaminants and issuing fish consumption advice. EPA also encouraged states to revisit existing advisories to evaluate whether contaminants levels in fish tissue have improved sufficiently to revise those advisories.

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

EPA Meets Goal on Limiting Beach Closures: Stormwater running off streets, fields, and forests, as well as other sources of contamination, including wastewater from sanitary sewer

Promoting Water Conservation Through Partnerships

- In partnership with EPA's Region 6 Office and the Texas AgriLife Extension, Tarrant County launched a successful water conservation campaign involving 1.7 million people, 33 cities, and 4,000 employees.
- This campaign was the first county-wide water conservation initiative, and featured Water Summits for elected officials, city facility managers, public works directors, independent school districts, and other large water users.
- A public education program coined, "Every Drop Counts" resulted in 900 county employees pledging to reduce water use at work and home, and prompted several newspaper articles promoting water conservation tips.
- At the conclusion of the campaign, 23 Tarrant County buildings installed automatic flush low-flow toilets, 18 buildings installed automatic "hands free" water faucets; an out-of-date cooling tower was replaced, which netted a water savings of 40 percent; and the largest water user, the Tarrant County Corrections Center recorded a 50 percent reduction in water use by installing 3-minute timers on shower facilities.

overflows, feed into coastal waters and can contaminate beaches. Under EPA's Beach Program, more than 3,600 beaches were monitored by 35 states and territories to ensure that beaches were safe for swimming. During calendar year 2007, coastal and Great Lakes beaches were open 95 percent of beach season days, meeting EPA's FY 2008 goal. Of the more than 663,164 beach season days during the year, fewer than 5 percent were restricted because of contamination-related closings. Most (94 percent) of beach notification actions reported during the 2007 swimming season lasted a week or less.

New Tools Help in Beach Management: In FY 2008, EPA worked to control pollution at beaches. The Office of Water and the Office of Research and Development combined efforts to create new software that predicts recreational water quality and allows for timelier decision-making on beach management and closure. The number of beaches in EPA's Beach Program continues its downward trend, due to consolidations and corrected state survey data. EPA and its state partners are improving data collection and reporting to provide a more complete picture of the nation's beaches.

FY 2008 Resources for Program Projects Supporting This Objective**

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

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

Goal 2: Objective 1 - Protect Human Health			
Program Project	FY 2006 Obligations	FY 2007 Obligations	FY 2008 Obligations
Categorical Grant: Public Water System Supervision (PWSS)	\$104,130.7	\$96,073.7	\$105,801.3
Categorical Grant: Underground Injection Control (UIC)	\$11,338.0	\$10,073.0	\$12,376.1
Categorical Grant: Pesticides Program Implementation	(\$223.8)	(\$45.4)	\$0.1
Categorical Grant: Beaches Protection	\$10,077.0	\$10,023.4	\$10,881.6
Categorical Grant: Homeland Security	\$3,974.1	\$3,705.7	\$5,528.5
Beach / Fish Programs	\$3,509.9	\$2,774.9	\$2,239.7
Congressionally Mandated Projects	\$126,261.1	\$73,346.0	\$42,670.4
Drinking Water Programs	\$94,884.5	\$105,061.2	\$112,121.7
Homeland Security: Communication and Information	\$280.3	\$436.9	\$346.2
Homeland Security: Critical Infrastructure Protection	\$14,188.7	\$14,578.9	\$34,416.8
Homeland Security: Protection of EPA Personnel and Infrastructure	\$838.2	\$680.0	\$591.0
Infrastructure Assistance: Drinking Water SRF	\$793,628.2	\$789,624.4	\$942,982.2
International Capacity Building	\$2,518.8	\$2,476.7	\$2,174.5
Pesticides: Field Programs	\$129.0	\$0.0	(\$0.9)
Administrative Law	\$200.4	\$233.2	\$266.6
Alternative Dispute Resolution	\$56.5	\$56.8	\$64.7
Central Planning, Budgeting, and Finance	\$3,778.9	\$3,924.8	\$5,409.7

Children and other Sensitive Populations	(\$52.3)	(\$13.2)	(\$4.8)
Civil Rights / Title VI Compliance	\$506.5	\$513.3	\$502.3
Congressional, Intergovernmental, External Relations	\$2,329.3	\$2,332.9	\$2,307.1
Exchange Network	\$1,481.9	\$1,621.5	\$1,121.4
Facilities Infrastructure and Operations	\$24,269.6	\$24,220.8	\$22,691.3
Acquisition Management	\$1,074.9	\$1,123.5	\$1,359.2
Human Resources Management	\$2,149.4	\$1,911.2	\$1,941.9
Information Security	\$182.9	\$197.3	\$300.5
IT / Data Management	\$13,222.6	\$13,971.0	\$12,811.3
Legal Advice: Environmental Program	\$2,052.0	\$2,209.0	\$2,254.2
Legal Advice: Support Program	\$727.4	\$692.2	\$741.7
Audits, Evaluations, and Investigations	\$9,190.3	\$8,463.5	\$11,779.1
Regional Science and Technology	\$196.5	\$170.8	\$172.4
Science Advisory Board	\$208.5	\$225.9	\$260.7
Small Minority Business Assistance	\$87.8	\$111.2	\$134.7
Financial Assistance Grants / IAG Management	\$1,962.5	\$1,734.9	\$2,298.0
Regulatory/Economic-Management and Analysis	\$762.0	\$817.7	\$790.9
Total	\$1,229,922.3	\$1,173,327.7	\$1,339,332.1

Additional Information Related to Objective 1

Grants:

Base program support grants include: Drinking Water State Revolving Fund, Public Water System Supervision Grant Program, Underground Injection Control Grant Program. In addition, over the past six years, EPA has provided a total of over \$59 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.

Web Links:

Ground Water and Drinking Water Program: www.epa.gov/safewater/

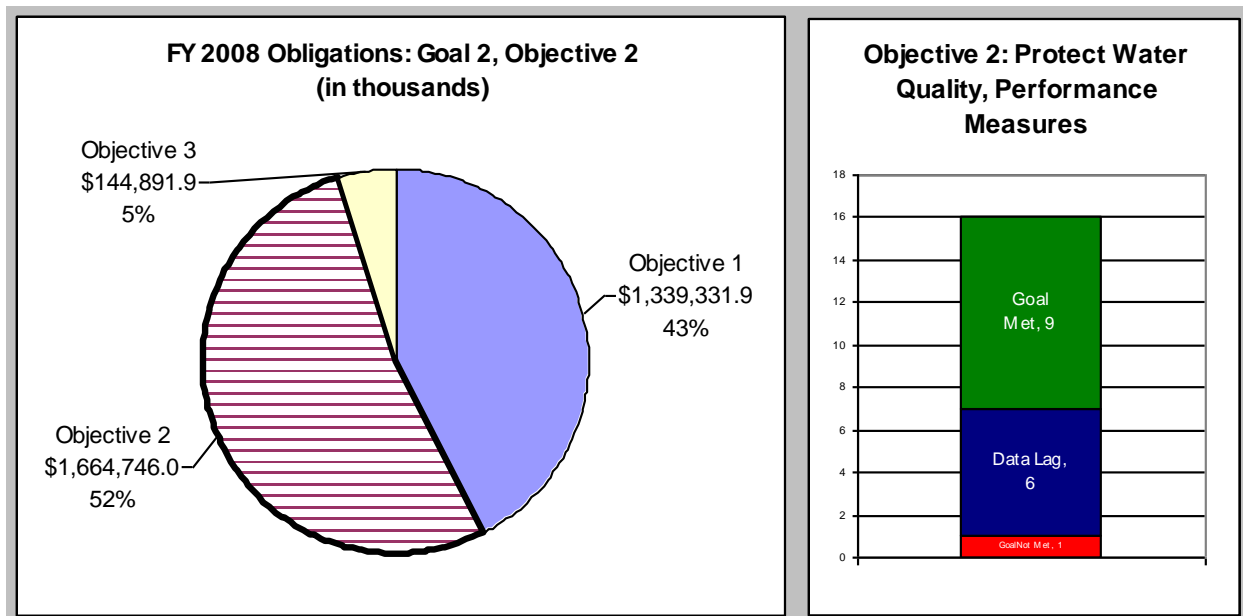
Shellfish Protection: www.epa.gov/waterscience/shellfish/

Water Science: www.epa.gov/waterscience/

Program Assessment Rating Tool:

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

Objective 2.2: Protect Water Quality



With its federal, state, and tribal partners, EPA is working to protect the quality of rivers, lakes, and streams on a watershed basis and to protect coastal and ocean waters.

Water Permits Prevented Discharge of 188 Billion Pounds of Pollution: Under the EPA National Pollutant Discharge Elimination System, permits that implemented standards for industrial sources, municipal treatment plants, and stormwater prevented the discharge of 188 billion pounds of pollutants into waterways in FY 2008. The original target of 40 billion pounds of pollutants removed was achieved. EPA and states exceeded their goal of issuing 95 percent of designated priority National Pollutant Discharge Elimination System permits. Also, in FY 2008, EPA approved 92 percent of the new or revised water quality standards that states submitted for the year, exceeding the performance goal of 87 percent. This accomplishment reflects EPA's and states' continuing efforts to work together more closely during states' formulation of new and revised standards.

EPA Collects Data for National Report on the Condition of Rivers and Streams: EPA is working with partners in the states and tribes on a series of statistically representative surveys of the aquatic resources of the U.S.—its streams, rivers, lakes, coastal waters, and wetlands (www.epa.gov/owow/monitoring/reporting.html). The surveys are designed to yield unbiased estimates of the condition of each resource, based on a representative sample of waters. During summer 2008, EPA and its partners began to conduct sampling of U.S. flowing waters for indicators of ecological, recreational, and physical habitat condition. Data collected will be used for a baseline assessment of U.S. rivers and a second assessment of wadeable streams to be included in a combined national report in 2012. A national assessment of the baseline condition of the nation's lakes will be completed in 2009; a report will be issued in 2010. An updated survey of the nation's coastal waters will begin in 2010, followed by a wetlands survey in 2011. These statistically representative surveys have begun providing EPA and the states with

information to help identify national priorities and evaluate the effectiveness of pollution control and prevention actions.

New Data Tool Supports Water Quality Management: In 2008, EPA continued to improve the quality, quantity, and accessibility of water quality data to provide decision-makers with better information they need to protect and restore the waters of the United States. The newly released ATTAINS database presents state-reported information on support of designated uses in assessed waters; identified causes and sources of impairment; identified impaired waters; and status of Total Maximum Daily Loads, or the permissible contaminant level, to restore impaired waters. These data are dynamic and continuously updated and can be sorted by state, EPA region, or the nation as a whole.

State Use of EPA Clean Water Revolving Fund Is Stable and Strong: In 2008, the Clean Water State Revolving Fund program showed strong performance in committing funds to protect, improve, and restore water quality in the nation's streams, river, and lakes. The Clean Water State Revolving Fund performance, as measured by the fund utilization rate, continues to be stable and strong at over 90 percent nationally. In partnership with EPA, over the last 20 years, the states have provided \$65 billion for low-cost loans for a variety of wastewater projects that help communities meet environmental standards and ensure public health.

Guide for Utility Companies Helps Keep Water Safe: One of the Agency's most important challenges is ensuring that the nation's vital water infrastructure is sustainable and that water remains clean and safe. In 2008, EPA and six of the major trade associations jointly released a guide for effective utility management. This guide included sample measures utilities can use to track their progress in achieving the 10 attributes of effectively managed utilities. Release of an Energy Management Guidebook, and subsequent training, is helping hundreds of utilities cut costs.

EPA Releases New Method to Test for Pharmaceuticals and Personal Care Products in Water: In FY 2008, the Agency developed two new state-of-the-art analytical methods to identify and measure pharmaceuticals, steroids, and hormones in water. These methods cover more than 100 chemicals (74 pharmaceuticals and personal care products and 27 steroids/hormones), as well as raw and treated sewage water and sludge.

FY 2008 Resources for Program Projects Supporting This Objective**

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

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

Goal 2: Objective 2 - Protect Water Quality			
Program Project	FY 2006 Obligations	FY 2007 Obligations	FY 2008 Obligations
Categorical Grant: Nonpoint Source (Sec. 319)	\$217,344.3	\$204,706.7	\$211,415.7
Categorical Grant: Water Quality Cooperative Agreements	\$11,227.6	\$303.8	(\$21.6)
Categorical Grant: Pollution Control (Sec. 106)	\$224,582.7	\$205,320.3	\$252,150.7

Categorical Grant: Wastewater Operator Training	\$1,491.0	\$786.3	\$678.9
Congressionally Mandated Projects	\$263,416.5	\$146,254.7	\$38,079.8
Homeland Security: Communication and Information	\$517.8	\$806.0	\$636.4
Homeland Security: Protection of EPA Personnel and Infrastructure	\$1,141.7	\$921.5	\$821.8
Infrastructure Assistance: Alaska Native Villages	\$33,791.4	\$47,745.0	\$21,193.7
Infrastructure Assistance: Clean Water SRF	\$897,523.3	\$1,033,490.9	\$818,164.1
International Capacity Building	\$474.3	\$480.0	\$347.7
Marine Pollution	\$11,233.5	\$13,703.4	\$13,557.4
Surface Water Protection	\$193,591.6	\$194,720.9	\$199,809.3
Administrative Law	\$370.2	\$430.2	\$490.1
Alternative Dispute Resolution	\$104.4	\$104.8	\$118.9
Central Planning, Budgeting, and Finance	\$7,262.3	\$7,155.5	\$7,908.5
Civil Rights / Title VI Compliance	\$1,013.6	\$1,036.8	\$1,003.2
Congressional, Intergovernmental, External Relations	\$4,752.8	\$4,869.8	\$4,779.5
Exchange Network	\$2,737.2	\$2,992.5	\$2,061.4
Facilities Infrastructure and Operations	\$45,445.6	\$44,877.9	\$40,726.4
Acquisition Management	\$1,585.1	\$1,595.4	\$1,902.3
Human Resources Management	\$3,417.2	\$2,957.6	\$2,990.9
Information Security	\$239.6	\$251.0	\$470.4
IT / Data Management	\$20,424.6	\$21,520.3	\$19,835.7
Legal Advice: Environmental Program	\$3,651.0	\$3,910.5	\$3,983.5
Legal Advice: Support Program	\$1,247.9	\$1,228.0	\$1,277.2
Audits, Evaluations, and Investigations	\$14,487.4	\$13,929.2	\$14,475.5
Regional Science and Technology	\$417.8	\$362.0	\$378.7
Science Advisory Board	\$385.2	\$416.8	\$479.3
Small Minority Business Assistance	\$162.2	\$205.2	\$247.7
Financial Assistance Grants / IAG Management	\$2,199.3	\$2,730.3	\$3,329.1
Regulatory/Economic-Management and Analysis	\$1,407.4	\$1,508.7	\$1,453.8
Total	\$1,967,646.5	\$1,961,322.0	\$1,664,746.0

Additional Information Related to Objective 2

Grants:

Clean Water Act Section 106 grants fund state water quality programs. Clean Water Act Section 319 nonpoint source grants also support this objective with grants for developing and implementing comprehensive watershed plans that function to restore impaired waters and protect healthy waters on a watershed basis. Additionally, the Targeted Watershed Grants Program encourages collaborative, community-driven approaches to meet clean water goals. The National Estuary Grant Program (Catalog of Federal Domestic Assistance 66.456) also supports this objective.

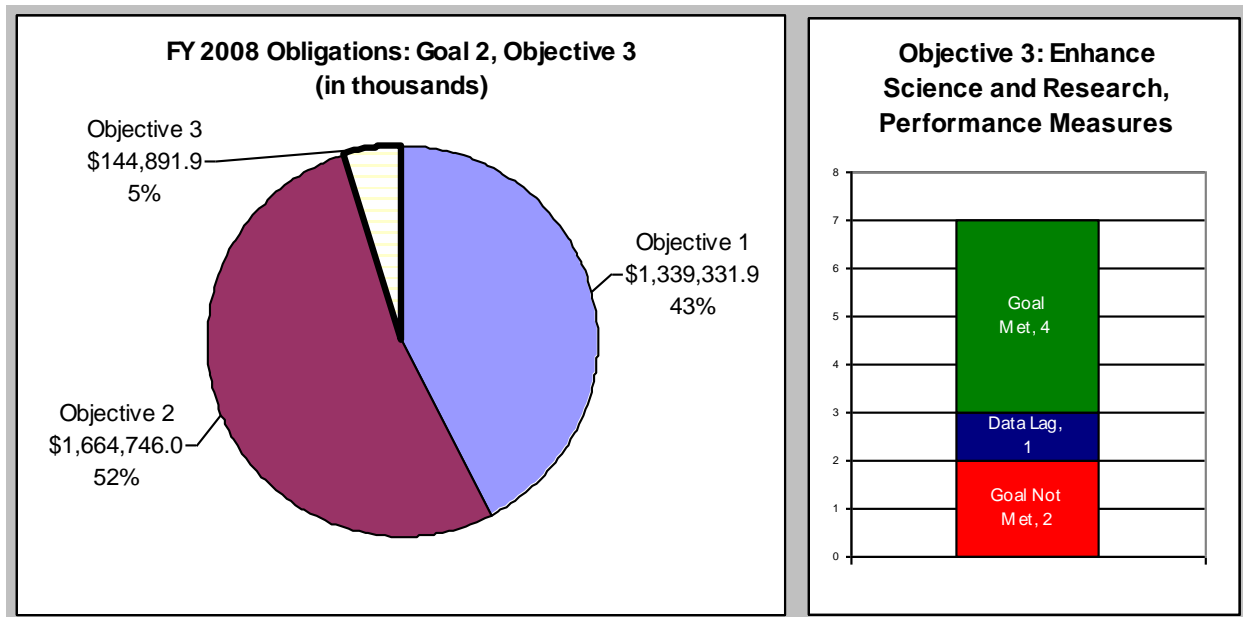
Web Links:

Monitoring and Assessing Quality: www.epa.gov/owow/monitoring/
National Stream Report: www.epa.gov/owow/streamsurvey/
National Coastal Condition Reports: www.epa.gov/owow/oceans/nccr/
Survey of the Nation's Lakes: www.epa.gov/owow/lakes/lakessurvey/
Watershed Monitoring: www.epa.gov/owow/watershed/
Oceans, Coasts, and Estuaries Program: www.epa.gov/owow/oceans/
National Estuary Program: www.epa.gov/owow/estuaries/
Coastal Watershed Factsheets: www.epa.gov/owow/oceans/factsheets/index.html
Wetlands Program: www.epa.gov/owow/wetlands/
National Wetlands Mitigation Action Plan: www.mitigationactionplan.gov/
Coastal America: www.coastalamerica.gov/
Total Maximum Daily Load Program: www.epa.gov/owow/tmdl

Program Assessment Rating Tool:

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

Objective 2.3: Enhance Science and Research



EPA's research programs support a sound scientific foundation for decisions to protect and improve drinking water and surface water quality.

EPA Develops Tools That Improve Safe Drinking Water: EPA's Drinking Water Research Program completed 100 percent of its planned research outputs, including several important milestones in support of regulatory decisions and their implementation. Three noteworthy milestones achieved in FY 2008 follow:

- In FY 2008, the Agency completed research on health risks associated with drinking water exposures to disinfection byproducts. This research provides scientific support for more robust health risk assessments of both regulated and unregulated disinfection byproducts, enabling water suppliers to make more informed treatment decisions that control exposure to disinfection byproducts while meeting disinfection requirements.
- EPA released an online Drinking Water Treatability Database, which provides decision support for determining appropriate drinking water treatment technologies to address regulated and emerging contaminants.
- The research program provided scientific support to help meet the challenges associated with simultaneous compliance of the Disinfection Byproduct Rule, the Lead and Copper Rule, and other components of National Primary Drinking Water Regulations. Water treatment systems must be designed and operated to consistently achieve compliance with all components of the Safe Drinking Water Act.

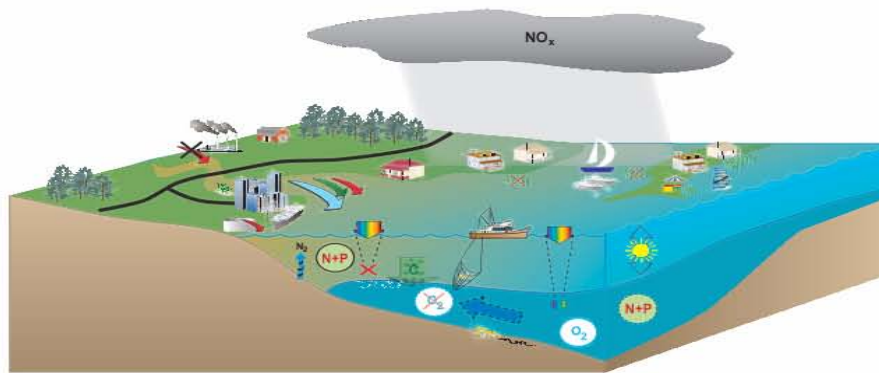
Water Quality Gets a Boost From New Studies and Models: In support of Clean Water Act regulatory and nonregulatory activities, EPA's Water Quality Research Program completed 100

percent of its planned research outputs. Three major accomplishments of the Water Quality Research Program, which supported Clean Water Act regulatory and nonregulatory activities, follow:

- EPA conducted a study on how wet weather impacts the disinfection processes in wastewater treatment plants. During extreme rain events, wastewater flows that are much larger than typical flows can alter the effectiveness of treatment processes. This study investigated the impact of a wet weather practice called “blending.” This practice, common at large wastewater treatment plants, involves blending partially treated effluent with fully treated effluent then disinfecting the combined flow prior to discharge. The primary objective of the study was to evaluate the effect of blending on the concentration of several microbiological indicators as well as total residual chlorine in final blended effluent. The results from this research will support policies for treating wastewater during severe wet weather to ensure adequate protection of human health and the environment.
- Agency researchers developed “Virtual Beach” and “Beach Advisor” modeling software programs, which utilize site-specific weather and other factors to predict the likelihood that recreational water criteria will be exceeded at a given beach location. Local beach managers can use “Virtual Beach,” and the more user friendly “Beach Advisor,” to make timelier, same-day beach closure or advisory decisions. These abilities are an improvement over the current approach of using fecal indicator analyses that require over 24 hours for results.
- Researchers updated the Automated Geospatial Watershed Assessment, a geographic information system (GIS) interface jointly developed with the U.S. Department of Agriculture and the University of Arizona. This landscape assessment software tool can save enormous monitoring resources by allowing environmental managers to quickly identify potential problem areas where additional monitoring or mitigation activities are needed. The software can also help identify relatively pristine areas where protection programs can be applied.

Agencies Work With States to Research Water Quality Factors

EPA scientists have made significant contributions in advancing the technical basis for setting water quality criteria and for providing accessible information to states and tribes. The Office of Water and the Office of Research and Development initiated a collaboration to produce case studies documenting the application of methods to obtain numeric nutrient criteria for U.S. estuaries. Case studies for Pensacola Bay, Florida, and Yaquina Bay, Oregon, derived hypothetical values for numeric nutrient criteria for nitrogen, phosphorus, chlorophyll *a*, water clarity, and dissolved oxygen, providing states and tribes with major new insights for assessing water quality.



Pensacola Bay

Legend

- Low-amplitude (<0.5 m) diurnal tide
- River inputs of freshwater, dissolved organic carbon and nutrients
- Atmospheric nitrogen deposition
- Nutrient inputs from municipal wastewater
- Industrial point sources mostly eliminated. Coal-fired power generation emits to atmosphere.
- Cross-pycnocline diffusive mixing is low
- 2-layer estuarine circulation, sometimes very weak
- Moderate light attenuation (upper estuary), high light transmittance (lower estuary)
- Macrobenthos degraded, most likely by hypoxia.
- High and low dissolved oxygen
- Medium and low dissolved nutrients
- Particulate C and N sinking
- Denitrification
- Recreational uses, including contact and non-contact uses
- Commercial fishing, principally shrimp trawling
- Large fraction of watershed is forested (but managed for timber production)
- Development along estuarine shorelines
- Seagrasses present in lower Bay, but largely lost elsewhere.



Yaquina Bay

- Ocean input of nutrients, phytoplankton, and hypoxic water associated with coastal upwelling
- Riverine input of freshwater (blue) & nutrients (red)
- Watershed primarily forested, nutrient inputs associated with Red Alder.
- Logging occurs in watershed
- Nutrient input from municipal wastewater
- Benthic input of nutrients & grazing control
- Intermittent high nutrients
- Intermittent phytoplankton blooms
- Intermittent low dissolved oxygen water
- Pulp mill adjacent to estuary; discharge offshore
- Shellfish aquaculture
- Recreational uses, including fishing, clamming, crabbing and boating.
- Development along estuary shoreline
- Seagrass primarily in lower estuary; occur at shallower depth in upper estuary.
- Macroalgal blooms primarily in lower estuary; fueled by oceanic nutrients.
- Water clearer in lower estuary; attenuation of light greater in upper estuary.
- Strong tidal forcing

FY 2008 Resources for Program Projects Supporting This Objective**

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

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

Goal 2: Objective 3 - Enhance Science and Research			
Program Project	FY 2006 Obligations	FY 2007 Obligations	FY 2008 Obligations
Congressionally Mandated Projects	\$8,128.6	\$2,924.7	(\$16.3)
Homeland Security: Communication and Information	\$200.5	\$321.8	\$250.4
Homeland Security: Protection of EPA Personnel and Infrastructure	\$1,120.5	\$856.1	\$618.9
Research: Drinking Water	\$52,087.4	\$44,628.3	\$48,421.8
Research: Water Quality	\$48,496.3	\$55,089.4	\$53,777.1
Surface Water Protection	\$866.9	(\$6.0)	\$0.0
Administrative Law	\$143.4	\$171.7	\$192.8
Alternative Dispute Resolution	\$40.4	\$41.8	\$46.8
Central Planning, Budgeting, and Finance	\$2,514.6	\$2,454.5	\$2,896.9
Civil Rights / Title VI Compliance	\$239.0	\$237.4	\$228.5
Congressional, Intergovernmental, External Relations	\$806.5	\$849.7	\$828.6
Exchange Network	\$1,059.9	\$1,191.0	\$810.8
Facilities Infrastructure and Operations	\$3,706.7	\$7,924.5	\$14,575.9
Acquisition Management	\$1,411.8	\$1,642.5	\$1,950.1
Human Resources Management	\$2,392.2	\$2,378.4	\$2,483.5
Information Security	\$299.3	\$336.1	\$465.9
IT / Data Management	\$13,017.4	\$13,955.4	\$12,442.1
Legal Advice: Environmental Program	\$1,407.4	\$1,627.1	\$1,646.2
Legal Advice: Support Program	\$630.5	\$564.9	\$637.8
Audits, Evaluations, and Investigations	\$857.0	\$780.9	\$941.5
Regional Science and Technology	\$37.6	\$47.4	\$5.3
Science Advisory Board	\$149.0	\$166.4	\$188.6
Small Minority Business Assistance	\$62.8	\$81.9	\$97.4
Financial Assistance Grants / IAG Management	\$318.5	\$895.5	\$829.4
Regulatory/Economic-Management and Analysis	\$545.0	\$602.3	\$571.9
Total	\$140,539.2	\$139,763.7	\$144,891.9

Additional Information Related to Objective 3

Grants:

- EPA STAR grantees developed methods to: 1) assess the extent to which current water and wastewater treatment practices are successful at removing pharmaceutical and personal

care products from water bodies, 2) fill important data gaps on the occurrence, fate, transport and ecological impacts of pharmaceutical and personal care products; and 3) inform risk assessments of pharmaceuticals and provide a model for the pharmaceutical monitoring commercialization process. (Supported by the following five grants: 1) “Impact of Residual Pharmaceutical Agents and their Metabolites in Wastewater Effluents on Downstream Drinking Water Treatment Facilities”; 2) “Pharmaceuticals and Antiseptics: Occurrence and Fate in Drinking Water, Sewage Treatment Facilities, and Coastal Waters”; 3) “Effectiveness of Ultraviolet Irradiation for Pathogen Inactivation in Surface Waters”; 4) “The Environmental Occurrence, Fate, and Ecotoxicity of Selective Serotonin Reuptake Inhibitors in Aquatic Environments”; and 5) “Environmental Toxicology Chemistry and The Environmental Occurrence, Fate, and Ecotoxicity of Selective Serotonin Reuptake Inhibitors in Aquatic Environments.”)

- EPA-funded research linked sewage disposal to the overgrowth destruction of some coral reefs in Southeast Florida. Florida’s Department of Environmental Protection, the Florida Wildlife Research Institute, and EPA are using these research results to assess alternatives for wastewater treatment and disposal in Southeast Florida. Additionally, scientists and resource managers in the Southeast Florida Coral Reef Initiative are using these results to improve knowledge of land-based sources of pollution in the region. (Supported by a grant entitled: Physiology and Ecology of Macroalgal Blooms on Coral Reefs off Southeast Florida.)

Web Links:

The Drinking Water Research and Water Quality Research Programs conduct leading-edge research in support of EPA’s goal of clean water. Additional information on the Drinking Water program can be found at www.epa.gov/ord/npd/dwresearch-intro.htm.

Program Assessment Rating Tool:

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

Goal 2: Clean and Safe Water

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

OBJECTIVE: 2.1: PROTECT HUMAN HEALTH

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

Performance Measures Met	Performance Measures Not Met	Data Available After November 17, 2008	Total Performance Measures
7	4	4	15

SUB-OBJECTIVE: 2.1.1: Water Safe To Drink

By 2011, 91 percent of the population served by community water systems will receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection. (2005 Baseline: 89 percent).

Strategic Target (1)

By 2011, 90 percent of community water systems will provide drinking water that meets all applicable health-based drinking water standards throughout the year. (2005 baseline: 89 percent).

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(aph) Percent of community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performance.)	94	94	95	94	95	92	95	87	Percent CWSs
Baseline - The baseline for this measure is 80 percent of community water systems in 2004.									
Explanation – Sanitary surveys are resource-intensive efforts, as state staff or contractors must physically visit the system. The costs of									

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
individual sanitary surveys have increased due to higher labor costs and higher gas prices. In addition, requirements on the states have increased with the promulgation of LT2/Stage2 and the Ground Water Rule.									
(apm) Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection.			93.5	89.3	94	89	89.5	89	Percent CWSs
Baseline - In 2002, 91.8 percent of community water systems met all applicable health-based standards through approaches that included effective treatment and source water protection.									
Explanation - New rules, such as arsenic and the ground water rule, pose greater challenges for small systems than for larger ones, which in turn affects this measure more than the population measure.									

Strategic Target (2)

By 2011, community water systems will provide drinking water that meets all applicable health-based drinking water standards during 96 percent person months (i.e., all persons served by community water systems times 12 months). (2005 baseline: 95.2 percent)

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(B) (SP-2) Percent of person-months during which community water systems provide drinking water that meets all applicable health-based standards.							95	97	Percent Person-months
Baseline – In 2005, 95.2 percent of goal achieved.									

Strategic Target (3)

By 2011, 86 percent of the population in Indian country served by community water systems will receive drinking water that meets all applicable health-based drinking water standards. (2005 baseline: 86 percent).

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(E) Percent of the population in Indian country served by community water systems that receive drinking water that meets all applicable health-based drinking water standards	86.3	86.3	90	86.60	93	87	87	83	Percent Population
Baseline - 91.1 percent of the population in Indian country was served by community water systems that received drinking water that met all applicable health-based standards in 2002.									
Explanation – When it comes to implementation of rules and new rules, smaller systems have a great challenge compared to larger systems. 93 percent of the population in Indian Country is served by a small system or very small system – population under 3,300.									

Strategic Target (4)

By 2011, minimize risk to public health through source water protection for 50 percent of community water systems and for the associated 62 percent of the population served by community water systems (i.e., "minimized risk" achieved by substantial implementation, as determined by the state, of actions in a source water protection strategy). (2005 baseline: 20 percent of community water systems; 28 percent of population).

Strategic Target (5)

By 2015, in coordination with other federal agencies, reduce by 50 percent the number of homes on tribal lands lacking access to safe drinking water.(2003 baseline: Indian Health Service data indicate that 12 percent of homes on tribal lands lack access to safe drinking water [i.e., 38,637 homes lack access]).

No Strategic Target

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(F1) (SDW-8a) Percentage of identified Class V motor vehicle waste disposal wells closed or permitted.							90	Data Available December 2008	Percent Class V Wells
(G) (SDW-7) Percentage of Class I, II, and III wells that maintain mechanical integrity without a failure that releases contaminants to underground sources of drinking water.							98	Data Available December 2008	Percent Class I, II, III Wells
(A) (SDW-8) Percentage of prohibited Class IV and high-priority, identified, potentially endangering Class V wells closed or permitted in ground-water based source water areas.							96	Data Available December 2008	Percent Class IV Wells
(aa) Percent of population served by community water systems that will receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.	88.5	88.5	93	89.4	94	92	90	92	Percent Population
<p>Baseline - In 2002, 93.6 percent of the population that was served by community water systems and 96 percent of the population served by non-community, non-transient drinking water systems received drinking water for which no violations of Federally enforceable health standards had occurred during the year. Year-to-year performance is expected to change as new standards take effect. Covered standards include: Stage 1 disinfection by-products, interim enhanced surface water treatment rule, long-term enhanced surface water treatment rule, arsenic.</p>									

(apc) Fund utilization rate for the Drinking Water State Revolving Fund (DWSRF).	81.9	84.7	83.3	86.9	85	88	86	90	Rate
Baseline - The baseline for this measure is a 79.2 percent fund utilization rate in 2003.									
(apd) Number of additional projects initiating operations.	415	439	425	431	433	438	440	556	Projects
Baseline - In 2002, 1,538 projects were initiating operations.									

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

By 2011, reduce public health risk and allow increased consumption of fish and shellfish, as measured by the strategic targets described.

Strategic Target (1)

By 2011, reduce the percentage of women of childbearing age having mercury levels in blood above the level of concern to 4.6 percent. (2002 baseline: 5.7 percent of women of childbearing age have mercury blood levels above levels of concern identified by the National Health and Nutrition Examination Survey [NHANES].)

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(H) (SP-6) Percent of women of childbearing age having mercury levels in blood above the level of concern.							5.5	Data Available 2009	Percent of Women
Baseline - 2002 baseline: 5.7 percent of women of childbearing age have mercury blood levels above levels of concern identified by the National Health and Nutrition Examination Survey.									
Explanation – The 4 th National Report on Human Exposure to Environmental Chemicals will be the Agency’s source of data but no firm date has been given for when the report will be released. The current expectation is that it will be published by the end of 2008.									

Strategic Target (2)

By 2011, maintain or improve the percentage of state-monitored shellfish-growing acres impacted by anthropogenic sources that are approved or conditionally approved for use. (2003 baseline: 65 to 85 percent of 16.3 million acres of state-monitored shellfish-growing acres estimated to be impacted by anthropogenic sources are approved or conditionally approved for use.)

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(fs2) Percent of state-monitored shellfish-growing acres impacted by anthropogenic sources that are approved or conditionally approved for use.	80	81.2	91	Data no longer available	81	Data no longer available	65-85	Measure no longer tracked	Percent Areas
Baseline - 2003 baseline: 65 to 85 percent of 16.3 million acres of state-monitored shellfish-growing acres estimated to be impacted by anthropogenic sources are approved or conditionally approved for use.									
Explanation - The Interstate Shellfish Sanitation Conference (ISSC) typically requests the data on approved acreages from shellfish producing states on a two-year cycle and prepares reports. Survey responses are voluntary. New data are not available for this measure and the ISSC has not yet issued a date for the next Report.									

SUB-OBJECTIVE: 2.1.3: Water Safe for Swimming

By 2011, improve the quality of recreational waters as measured by the strategic targets.

Strategic Target (1)

By 2011, the number of waterborne disease outbreaks attributable to swimming in or other recreational contact with coastal and Great Lakes waters will be maintained at two, measured as a 5-year average. (2005 baseline: an annual average of two recreational contact waterborne disease outbreaks reported per year by the Centers for Disease Control over the years 1998 to 2002; adjusted to remove outbreaks associated with waters other than coastal and Great Lakes waters and other than natural surface waters [i.e., pools and water parks].)

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(J1) (ss1) Number of waterborne disease outbreaks attributable to swimming in or other recreational contact with coastal and Great Lakes waters measured as a 5-							2	0	Number of Outbreaks

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
year average.									
Baseline - 2005 baseline: an annual average of two recreational contact waterborne disease outbreaks reported per year by the Centers for Disease Control over the years 1998 to 2002; adjusted to remove outbreaks associated with waters other than coastal and Great Lakes waters and other than natural surface waters [i.e., pools and water parks].									

Strategic Target (2)

By 2011, maintain the percentage of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming at 96 percent. (2005 baseline: Beaches open 96 percent of the 743,036 days of the beach season [i.e., beach season days are equal to 4,025 beaches multiplied by variable number of days of beach season at each beach]).

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(ss2) Percent of days of beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming.			94	97	92.6	95.2	92.6	95	Percent Days/Season
Baseline - 2005 baseline: Beaches open 96 percent of the 743,036 days of the beach season [i.e., beach season days are equal to 4,025 beaches multiplied by variable number of days of beach season at each beach									

OBJECTIVE: 2.2: PROTECT WATER QUALITY

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

Performance Measures Met	Performance Measures Not Met	Data Available After November 17, 2008	Total Performance Measures
9	1	6	16

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

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

Strategic Target (1)

By 2012, attain water quality standards for all pollutants and impairments in more than 2,250 water bodies identified in 2002 as not attaining standards (cumulative). (2002 Baseline: 37,978 water bodies identified by states and tribes as not meeting water quality standards. Water bodies where mercury is among multiple pollutants causing impairment may be counted toward this target when all pollutants but mercury attain standards, but must be identified as still needing restoration for mercury; [1,703 impaired water bodies are impaired by multiple pollutants including mercury, and 6,501 are impaired by mercury alone].)

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(L1) (L) Number of waterbody segments identified by states in 2002 as not attaining standards, where water quality standards are now fully attained (cumulative.)					1,166	1,409	1,550	2,165	Number of Segments
Baseline - In 2002, 0 percent of the 255,408 miles/and 6,803,419 acres of waters identified on 1998/2000 lists of impaired waters developed by states and approved by EPA under section 303(d) of the Clean Water Act.									
Explanation – Reasons for significantly exceeding the target include heightened efforts by states and EPA to document water quality successes; reducing backlogs of pending lists of impaired waters from 2004 and 2006 reporting cycles; increasing use of watershed approaches.									
(bpb) Fund utilization rate for the CWSRF.	90	95.4	93.3	94.7	93.4	96.7	93.5	98	Percent Rate
Baseline – In 2005, fund utilization rate for the CWSRF was 94.7 percent.									
(bpk) Number of Total Maximum Daily Loads (TMDLs) that are established by states and approved by EPA on schedule consistent with national policy (cumulative).	14,462	15,342	16,896	19,373	21,923	23,376	28,527	30,658	TMDLs
Baseline - The baseline for this measure is 2,677 TMDLs in 2000.									
Explanation - Reasons for significantly exceeding the target include TMDLs completed ahead of schedule for 2009 and 2011 consent decree deadlines; state collaboration with EPA to overcome significant technical and regulatory obstacles relating to the complex task of developing nutrient TMDLs within the Mississippi River Delta region; and additions of segments to an in-place state wide mercury TMDL									

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
effort. Note: A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms 'approved' and 'established' refer to the completion and approval of the TMDL itself.									
(bpl) Percentage of high priority state NPDES permits that are scheduled to be reissued.	95	104	95	96.4	95	111	95	120	Percent Permits
Baseline – 95 percent (measure is annual, Regions required to meet 95 percent of the universe).									
Explanation - When states establish their lists each year, they designate priority permits to be issued within the fiscal year as well as for two successive years. If a state is able to issue permits designated for a future fiscal year ahead of schedule, they receive credit toward the current fiscal year target, which may result in issuing more permits than originally targeted.									
(bpn) Percentage of major dischargers in Significant Noncompliance at any time during the fiscal year.	22.5	19.7	22.5	20.2	22.5	22.5	22.5	Data Available January 2009	Percent Dischargers
Baseline - The baseline for this measure is 22.5 percent of major dischargers in Significant Noncompliance in 2004.									
(bpo) Percent of states and territories that, within the preceding 3-year period, submitted new or revised water quality criteria acceptable to EPA that reflect new science info from EPA or other sources not considered in previous standard	62	62	66	66.1	67	66.1	68	62.5	Percent of States and Territories
Baseline - Not applicable because number of submissions changes on an annual basis.									
Explanation - Some states and tribes have insufficient technical expertise to deal with complex science and policy issues, including issues raised in litigation and in difficult Endangered Species Act consultations. EPA will continue to work with states and tribes to address those issues.									
(bpp) Percentage of submissions of new or revised water quality standards from states and territories that are approved by	89.5	83.5	90.9	89	85	85.6	87	92.5	Percent Submissions

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
EPA.									
Baseline - Not applicable because the number of submissions changes on an annual basis.									
(bps) Number of TMDLs that are established or approved by EPA on a schedule consistent with national policy (cumulative).	17,767	18,660	20,501	23,185	25,811	27,377	33,801	35,979	Number of TMDLs
Baseline - The baseline for this measure is 2,843 TMDLs in 2000.									
Explanation - Reasons for significantly exceeding the target include TMDLs completed ahead of schedule for 2009 and 2011 consent decree deadlines; state collaboration with EPA to overcome significant technical and regulatory obstacles relating to the complex task of developing nutrient TMDLs within the Mississippi River Delta region; and additions of segments to an in-place state wide mercury TMDL effort. . Note: A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms 'approved' and 'established' refer to the completion and approval of the TMDL itself.									
(bpt) Percentage of waters assessed using statistically valid surveys.	38	38	54	54	54	54	65	65	Percent Waters
Baseline - 2000 Baseline = 31percent.									
(bpv) Percent of high priority EPA and state NPDES permits that are reissued on schedule.	95	100	95	98.5	95	104	95	119	Percent Permits
Baseline – 95 percent (Measure is annual. Regions are required to meet 95percent of the universe.)									
Explanation - When states and regions establish their lists each year, they designate priority permits to be issued within the fiscal year as well as for two successive years. If a state is unable to issue permits designated for a future fiscal year ahead of schedule, they receive credit toward the current fiscal year target, which may result in issuing more permits than originally targeted.									
(O) (bpc) Percentage of all major publicly owned treatment works (POTWs) that comply with their permitted wastewater discharge standards.							86	Data Available January 2009	Percent POTWs

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline – In 2005, 3,670 (86.6 percent) publicly owned treatment works complied with their permitted wastewater discharge standards.									

Strategic Target (2)

By 2012, remove at least 5,600 of the specific causes of water body impairments identified by states in 2002 (cumulative). (2002 baseline: Estimate of 69,677 specific causes of water body impairments identified by states).

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(bpf) Reduction in phosphorus loadings (millions of pounds).	4.5	3.2	4.5	11.8	4.5	7.5	4.5	Data Available April 2009	Pounds in Millions
Explanation - Load reductions need to be estimated by applying models to data. EPA is estimating runoff into a waterbody from a land area. Field data from many projects around the watershed must be gathered, and then run through the model to come up with an estimation of load reductions.									
(bpg) Additional pounds (in millions) of reduction to total nitrogen loadings.	8.5	5.9	8.5	14.5	8.5	19.1	8.5	Data Available April 2009	Pounds in Millions
Explanation - Load reductions need to be estimated by applying models to data. We are estimating runoff into a waterbody from a land area. Field data from many projects around the watershed must be gathered, and then run through the model to come up with an estimation of load reductions.									
(bph) Additional tons of reduction to total sediment loadings.	700,000	1,500,000	700,000	1,200,000	700,000	3,900,000	700,000	Data Available April 2009	Tons
Explanation - Load reductions need to be estimated by applying models to data. We are estimating runoff into a waterbody from a land area. Field data from many projects around the watershed must be gathered, and then run through the model to come up with an estimation of load reductions.									

Strategic Target (3)

By 2012, improve water quality conditions in 250 impaired watersheds nationwide using the watershed approach (cumulative). (2002 Baseline: zero watersheds improved of an estimated 4,800 impaired watersheds with one or more water bodies impaired. The watershed boundaries for this measure are those established at the "12-digit" scale by the U.S. Geological Survey. Watersheds at this scale average between 22 square miles in size. "Improved" means that one or more of the impairment causes identified in 2002 are removed for at least 40 percent of the impaired water bodies or impaired miles/acres; or there is significant watershed-wide improvement, as demonstrated by valid scientific information, in one or more water quality parameters or related indicators associated with the impairments.)

Strategic Target (4)

Through 2012, the condition of the nation's wadeable streams does not degrade (i.e., there is no statistically significant increase in the percent of streams rated "poor" and no statistically significant decrease in the streams rated "good"). (2006 baseline: Wadeable Stream Survey identifies 28 percent of streams in good condition; 25 percent in fair condition; 42 percent in poor condition.)

Strategic Target (5)

By 2015, in coordination with other federal partners, reduce by 50 percent the number of homes on tribal lands lacking access to basic sanitation (cumulative). (2003 baseline: Indian Health Service data indicate that 8.4 percent of homes on tribal lands lack access to basic sanitation [i.e., 26,777 homes of an estimated 319,070 homes.]

Strategic Target (6)

By 2012, improve water quality in Indian country at not fewer than 50 baseline monitoring stations in tribal waters (i.e., show improvement in one or more of seven key parameters: dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, and turbidity). (2006 baseline: 185 monitoring stations on tribal waters located where water quality has been depressed and activities are underway or planned to improve water quality, out of an estimated 1,661 stations operated by tribes).

SUB-OBJECTIVE: 2.2.2: Improve Coastal and Ocean Waters

By 2011, prevent water pollution and protect coastal and ocean systems to improve national coastal aquatic ecosystem health by at least 0.2 points on the "good/fair/poor" scale of the National Coastal Condition Report. (2004 Baseline: national rating of "fair/poor," or 2.3, where the rating is based on a 4-point system ranging from 1.0 to 5.0 in which 1 is poor and 5 is good using the National Coastal Condition Report indicators for water and sediment, coastal habitat, benthic index, and fish contamination).

Strategic Target (1)

By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Northeast Region. (2004 Baseline: Northeast rating of 1.8.)

Strategic Target (2)

By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Southeast Region. (2004 Baseline: Southeast rating of 3.8)

Strategic Target (3)

By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the West Coast Region. (2004 Baseline: West Coast rating of 2.0)

Strategic Target (4)

By 2011, at least maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Puerto Rico Region. (2004 Baseline: Puerto Rico rating of 1.7)

Strategic Target (5)

By 2011, 95 percent of active dredged material ocean dumping sites will have achieved environmentally acceptable conditions (as reflected in each site's management plan and measured through onsite monitoring programs). (2005 Baseline: 94 percent)

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(P2) (CO5) Percent of active dredged material ocean dumping sites that will have achieved environmentally acceptable conditions (as reflected in each site's management plan).							95	99	Percent Sites
Baseline – In 2005, 94 percent active dredged material ocean dumping sites had achieved environmentally acceptable conditions.									

No Strategic Target

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(P2) (Opb) Percent of serviceable rural Alaska homes with access to drinking water supply and wastewater disposal.					87	92	94	Data Available March 2009	Percent Homes

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Baseline - In 2003, 77 percent of serviceable rural Alaska homes had access to drinking water supply and wastewater disposal.									

OBJECTIVE: 2.3: ENHANCE SCIENCE AND RESEARCH

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

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

OBJECTIVE-LEVEL MEASURES

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
(H37) Percentage of planned outputs delivered in support of Six Year Review decisions.	100	90	100	94	100	100	100	100	Percent
Baseline - In 2003, the program began measuring its planned actions in support of Six Year Review decisions and completed 100 percent of its actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in drinking water.									
(H38) Percentage of planned outputs delivered in support of Contaminate Candidate List Decisions.	100	60	100	100	100	100	100	100	Percent
Baseline - In 2003, the program began measuring its planned actions in support of the Contaminant Candidate List decisions and completed 73 percent of its planned actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in drinking water.									
(H66) Percentage of planned	100	100	100	100	100	100	100	100	Percent

Annual Performance Measures and Baselines	FY 2005		FY 2006		FY 2007		FY 2008		Unit
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
outputs (in support of the Water Quality Research Program [WQRP] long-term goal #1) delivered									
Baseline - In 2003, the program began measuring its planned actions in support of long-term goal one and completed 100% of its actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in fish, shellfish, and recreational waters, and to support the protection of aquatic ecosystems.									
Explanation - Percentage of planned outputs delivered in support of the protection of human health and ecosystems as related to designated uses for aquatic systems and the beneficial use of biosolids long-term goal.									
(H68) Percentage of planned outputs (in support of WQRP long-term goal #2) delivered	100	67	100	100	100	100	100	100	Percent
Baseline - In 2003, the program began measuring its planned actions in support of long-term goal two and completed 100 percent of its actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in fish, shellfish, and recreational waters, and to support the protection of aquatic ecosystems.									
Explanation - Percentage of planned outputs delivered in support of the diagnostics and forecasting techniques for the protection of human health and ecosystems as related to designated uses for aquatic systems and the beneficial use of biosolids long-term goal.									
(H70) Percentage of planned outputs (in support of WQRP long-term goal #3) delivered	100	71	100	92	100	100	100	Data Available 2008	Percent
Baseline - In 2003, the program began measuring its planned actions in support of long-term goal three and completed 100 percent of its actions on time. This measure contributes to EPA's goal of supporting the protection of human health through the reduction of human exposure to contaminants in fish, shellfish, and recreational waters, and to support the protection of aquatic ecosystems.									
Explanation - Percentage of planned outputs delivered in support of the 1) restore impaired aquatic systems, 2) protect unimpaired systems, 3) provide human health risk and treatment process information on the beneficial use of biosolids, and 4) forecast the ecologic, economic, and human health benefits of alternative approaches to attaining water quality standards long-term goal.									
(H96) Percentage of Water Quality research publications rated as highly cited publications	Baseline	14.2	biennial	biennial	biennial	biennial	15.7	15.2	Percent

Baseline - In 2005, EPA's Office of Research and Development obtained baseline data for the percentage of program publications rated as highly cited papers, finding that 14.2.percent of papers fit this criteria. In 2008, 15.2 percent of program publications were rated as highly cited papers.

Explanation - This metric provides a systematic way of quantifying research performance and impact by counting the number of times an article is cited within other publications. The "highly cited" data are based on the percentage of all program publications that are cited in the top 10% of their field, as determined by "Thomson's Essential Science Indicator." Each analysis evaluates the publications from the last ten year period, and is timed to match the cycle for independent expert program reviews by the Board of Scientific Counselors (BOSC). This "highly cited" metric provides information on the quality of the program's research, as well as the degree to which that research is impacting the science community. As such, it is an instructive tool both for the program and for independent panels—such as the BOSC— in their program evaluations.

(H92) Percentage of Water Quality publications in "high impact" journals	Baseline	13.2	biennial	biennial	biennial	biennial	14.7	13.8	Percent
<p>Baseline - In 2005, EPA's Office of Research and Development obtained baseline data for the percentage of program publications rated as high impact papers, finding that 13.2% of papers fit these criteria. In 2008, 13.8 percent of program publications were rated as high impact papers.</p>									
<p>Explanation - This measure provides a systematic way of quantifying research quality and impact by counting those articles that are published in prestigious journals. The "high impact" data are based on the percentage of all program articles that are published in prestigious journals, as determined by "Thomson's Journal Citation Reports." Each analysis evaluates the publications from the last ten year period, and is timed to match the cycle for independent expert program reviews by the Board of Scientific Counselors (BOSC). This "high impact" metric provides information on the quality of the program's research, as well as the degree to which that research is impacting the science community. As such, it is an instructive tool both for the program and for independent panels—such as the BOSC— in their program evaluations.</p>									