

US EPA ARCHIVE DOCUMENT

National Water Program Best Practices and End of Year Performance Report—Executive Summary

Fiscal Year 2011



This report is based primarily on FY 2011 end of the year performance data reported by states, tribes, and EPA regional and headquarters offices. The report presents materials and analysis developed in December 2011 and January 2011 by headquarters and EPA regional staff working together on Subobjective Teams. These materials provided data concerning progress toward environmental and public health goals of key program activities, along with management challenges in meeting or not meeting program commitments. Much of this work is accomplished through grants, and this report serves as the Office of Water's primary summary of progress under the Environmental Results Grants Order.

This report includes three key elements:

- Overview of performance for all 2011 National Water Program measures.
- Description of innovative approaches and best practices in program implementation.
- An appendix of national commitments and results for environmental and program-related measures.

Additional information concerning performance highlights and management challenges for each subobjective is available on the Internet at: http://water.epa.gov/resource_performance/performance/. The website includes an overview of the National Water Program measure universe and a detailed appendix with historical data on national and regional commitments and results for all performance measures.

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INTERNET ACCESS: This *FY 2011 National Water Program Best Practices and End of Year Performance Report* and supporting documents are available at: http://water.epa.gov/resource_performance/performance/index.cfm.

Table 1: National Water Program: Goal, Objectives, and Subobjectives



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National Water Program FY 2010 Performance Results

Executive Summary

Overview

EPA met 64% of its commitments for all National Water Program performance measures in FY 2011. Twenty-two percent (22%) were not met, and for 14%, either not enough data were available to assess progress or no reporting was expected by the end of the fiscal year. The FY 2011 results represented a decrease in the number of measures met from the FY 2010 results (70%). Other highlights include:

- Sixty-three percent (63%) of the outcome-based Strategic Targets met their FY 2011 commitments. This was a slight decrease from the percentage of Strategic Targets met in 2010 (67%).
- Sixty-four percent (64%) of the output-oriented Program Activity Measures (PAMs) met their commitments in 2011. After a gradual increase in the percentage of PAMs that met their commitments over the previous four years, this was a significant decrease from the FY 2010 result of 74%.
- The core water programs were more successful than the geographic-based programs in meeting their commitments in 2011 (70% vs. 56%). Geographic-based programs saw a significant decrease in measures met in 2011 compared with FY 2010.
- The Wetlands, U.S.–Mexico Border, Drinking Water, Coastal and Oceans, and Gulf of Mexico subobjectives were most successful in meeting FY 2011 commitments.
- On average, 83% of performance commitments set by the EPA regional offices for activities in their geographic areas were met in 2011, while 17% of commitments were missed. This was a noticeable decline over the FY 2010 result of 87% met.

Protect Public Health

EPA met 80% of its commitments for all drinking water measures in 2011. Of these, the highlights were:

- Approximately 93% of the population was served by community water systems (CWSs) with drinking water that met all applicable health-based drinking water standards (commitment 91%).
- Ninety percent (90%) of the cumulative amount of Drinking Water State Revolving Funds (DWSRFs) available had loan agreements in place (commitment 88%). EPA has met its commitments for this measure five years in a row.
- Ninety-two percent (92%) of community systems received a sanitary survey in FY 2011, meeting the Agency's annual goal of 88% for the first time in five years.

EPA did not meet 20% of its drinking water commitments in 2011. Challenges confronted by EPA and states include:

- Eighty three percent (83%) of Class I and 86% of Class II underground injection wells maintained their mechanical integrity, thereby reducing the impact of contaminants on underground sources of drinking water. Both results fell just below the annual 2011 goals.

EPA was successful in meeting two of three of its commitments under the Water Safe for Swimming subobjective in 2011. For coastal and Great Lakes beaches monitored by state-based beach safety programs, EPA found that 96% of days of the beach season were open and safe for swimming (FY 2011 commitment 91%). EPA has consistently met this commitment over the past five years.



Restore and Improve Fresh Waters, Coastal Waters, and Wetlands

EPA and states met 63% of their commitments under the Water Quality subobjective in FY 2011 and fell short on 16%; data were not available for 22%. The percentage of commitments met rose slightly in FY 2011 over the FY 2010 results, but the percentage of measures with data unavailable or not reporting was at a five-year high. Highlights include:

- Over 3,100 of the waters listed as impaired in 2002 met water quality standards for all the identified impairments in FY 2011 (commitment 2,973). Out of a universe of 39,503 impaired waterbodies, 8% were achieving attainment by the end of FY 2011.
- For the third year in a row, states and territories met regional commitments for submitting new or revised water quality criteria acceptable to EPA that reflect new scientific information.
- EPA approved 92% of water quality standards revisions submitted by states and territories (FY 2011 national commitment 85%).
- For the fifth consecutive year, EPA and states achieved the national goal of having current National Pollutant Discharge Elimination System (NPDES) permits in place for 89.3% of non-tribal facilities (FY 2011 commitment 88.4%). In addition, EPA and authorized states have exceeded their annual commitments for issuing high-priority permits for the past five years.
- EPA and states made significant gains in documenting the full or partial restoration of waterbodies that are impaired primarily by nonpoint sources. Nationally, EPA and states exceeded their commitment (251), with 358 waterbodies that were partially or fully restored.
- The Clean Water SRF utilization rate reached 98% in 2011. Of the \$91.2 billion in funds available for projects through 2011, \$89.5 billion have been committed to more than 30,000 loans. In 2011, project assistance reached \$5.3 billion, which funded 1,803 loans in a single year.

EPA faced several management challenges in restoring and improving freshwater quality in FY 2011. These include:

- State and territories adopted, and EPA approved or promulgated, 45 numeric nitrogen and phosphorus

standards, and 52 standards were proposed. Both of these results were one standard short of EPA's FY 2011 commitments. Adoption of approvable nitrogen and phosphorus criteria is challenging due to their scientific, programmatic, and policy complexities.

The 28 National Estuary Programs (NEPs) and their partners protected or restored more than 62,000 acres of habitat within the NEP study areas—38,000 short of EPA's goal of 100,000 acres. Key factors contributing to the shortfall include the reduction in state and local budgets, which makes matching funds more difficult to obtain and the relatively smaller—and often more costly—parcels available for protection or restoration. In FY 2011, the 28 NEPs played the primary role in directing nearly \$662 million in additional funds toward Comprehensive Conservation and Management Plan (CCMP) implementation (leveraged from approximately \$29 million in EPA Section 320 and earmark funds), which is a ratio of \$23 raised for every \$1 provided by EPA. This is a significantly higher ratio compared to the 14:1 leveraging ratio in FY 2011.

EPA, in partnership with the U.S. Army Corps of Engineers, states, and tribes, was able to report “no net loss” of wetlands under the Clean Water Act Section 404 regulatory program. More than 154,000 acres have been restored and enhanced since 2002. As of FY 2011, 54 states and tribes have built capacities in wetlands monitoring, regulation, restoration, water quality standards, mitigation compliance, and partnership building.

Improve Drinking Water and Water Quality on American Indian Lands

Safe drinking water and water quality on tribal lands continues to be a concern for the water program. Some key highlights and challenges include:

- For the second consecutive year, EPA achieved its national target of 80% in FY 2011 by ensuring that 81% of the population in Indian Country is served by CWSs that receive drinking water meeting all applicable health-based standards. This accomplishment is especially important considering that 93% of the population in Indian Country is served by small systems.
- In its first year of reporting, EPA, in coordination with other federal agencies, fell just short of reaching its FY 2011 commitment of providing 100,700 American Indian

and Alaska Native homes with access to safe drinking water.

- EPA, in coordination with other federal agencies, provided access to basic sanitation to nearly 57,000 American and Alaskan Native homes, exceeding the FY 2011 commitment by 9%.

Improve the Health of Large Aquatic Ecosystems

EPA implements collaborative programs with other federal agencies, states, and local communities to improve the health of large aquatic ecosystems. Highlights and challenges for each program include

- **U.S.–Mexico Border.** Infrastructure construction project completions through FY 2011 resulted in the removal of 108.5 million pounds of biochemical oxygen demand (BOD) loadings annually from the U.S.–Mexico Border area, slightly more than its commitment of 108.2 million pounds. EPA provided access to safe drinking water for 2,604 additional homes along the U.S.–Mexico Border, which was above the FY 2011 commitment of 2,080 additional homes. EPA provided adequate wastewater sanitation to an additional 259,371 homes over the past year, which was well above the FY 2011 goal of 207,000 additional homes.
- **U.S. Pacific Island Waters.** In 2011, 87% of the population in the U.S. Pacific Island Territories was served by community drinking water systems that meet all applicable health-based drinking water standards throughout
- the year, compared with the commitment of 75%. Fifty percent (50%) of sewage treatment plants in the U.S. Pacific Island Territories complied with permit limits for BOD and total suspended solids (TSS). This was below the FY 2011 commitment of 63%.
- **Great Lakes.** Average long-term total PCB concentrations in whole Great Lakes top predator fish at sites on each Great Lake declined 44% between 2000 and 2008, meeting the target for declines in concentration trends. EPA, states, and other partners remediated a cumulative 8.4 million cubic yards of contaminated sediments through 2010, including more than 1.1 million cubic yards in FY 2011.
- **Chesapeake Bay.** The Chesapeake Bay Program reported 79,550 acres of submerged aquatic vegetation (SAV) in the bay. This represents approximately 43% of the program's long-term goal of 185,000 acres. EPA was unable to report on five of its six commitments in FY 2011. Performance measure language and the FY 2011 commitments are no longer applicable due to changes in the calculation of annual results following the establishment of a new Total Maximum Daily Load (TMDL) for the Chesapeake Bay watershed in December 2010. EPA expects to begin reporting on three new nutrient measures in FY 2012.
- **Gulf of Mexico.** With the support of numerous federal, state, local, and private partners, EPA has restored water and habitat quality to 286 impaired waterbodies in 13 priority coastal areas of the Gulf of Mexico since 2007. This exceeded the 2011 goal of 128 impaired waterbodies and was an increase of 116 segments restored (or 40%) over FY 2010's results. The size of the hypoxic, or "dead," zone in the Gulf of Mexico decreased from 8,000 mi² at the end of FY 2010 to 6,764 mi² at the end of FY 2011. There are a number of hydrological, climate, and monitoring factors that impact the hypoxic zone from year to year.
- **Long Island Sound.** The Long Island Sound Program significantly exceeded its 2011 commitment (221 acres) by restoring or protecting 361 acres of coastal habitat, including tidal wetlands, dunes, riparian buffers, and freshwater wetlands. In 2011, the duration of hypoxia in Long Island Sound was 54 days and the area affected was 130 square miles, both well below average. This was a



decline from end-of-year hypoxic conditions over the past three years.

- **South Florida.** EPA's South Florida Program maintained the health and functionality of the sea grass beds in the Florida Keys National Marine Sanctuary (FKNMS) in 2011. The Agency did not meet the water quality measure of 10 ppb of total phosphorus in the Everglades ecosystem. However, progress is being made in determining the necessary next steps towards restoring water quality.
- **Puget Sound Basin.** Over 14,600 acres of tidally and seasonally influenced estuarine wetlands have been restored in the Puget Sound Basin since FY 2006. The program significantly exceeded its 2011 goal due to a considerable number of habitat projects receiving funds—particularly those that were supporting salmon recovery
- needs under the Endangered Species Act. A net loss of 2,928 harvestable acres of shellfish beds resulted in an end of the year cumulative total of 1,525 acres. This was short of the Agency's annual goal of maintaining 4,953 acres of harvestable shellfish beds.
- **Columbia River Basin.** Working with EPA and other partners, the Lower Columbia River Estuary Partnership protected, enhanced, or restored an additional 600 acres of wetland and upland habitat in the Lower Columbia River watershed in FY 2011, for a total of 16,661 acres since FY 2006. These restored wetlands are a tremendous success story for overall Columbia River Basin ecosystem health and have provided significant benefits for salmon recovery, toxics reduction, and overall water quality and habitat restoration.



Introduction

The *FY 2011 National Water Program Best Practices and End of the Year Performance Report* describes the progress made in 2011 by EPA, states, tribes, and others toward the objectives and subobjectives described in the *FY 2011 National Water Program Guidance* and the *FY 2011–2015 EPA Strategic Plan*. The *Strategic Plan* and the *FY 2011 Guidance* are available on the Internet at: <http://www.epa.gov/water/waterplan>.

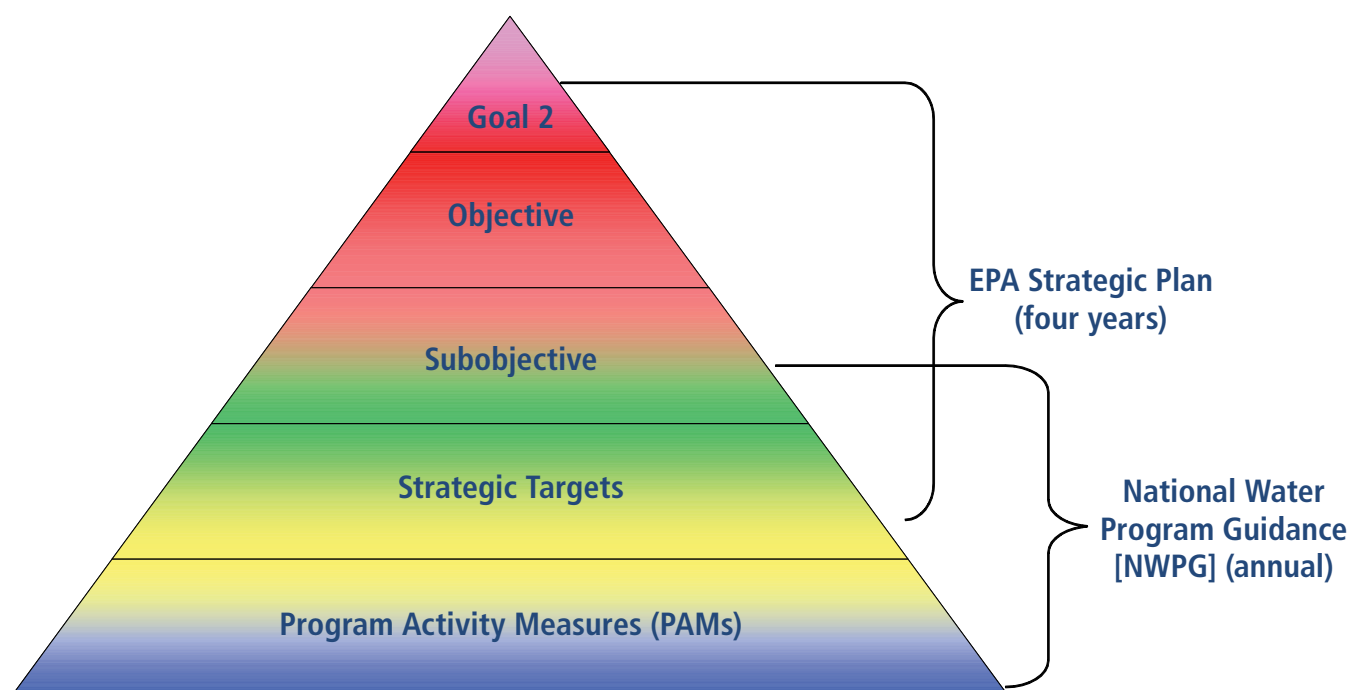
EPA's *FY 2011–2015 Strategic Plan* is divided into five goals. The National Water Program is addressed in Goal 2, "Clean and Safe Water." Each goal is divided into objectives and subobjectives, which include a limited number of targeted areas, or "Strategic Targets," where the Agency believes new or significant changes in strategies or performance measurement are most critical to helping EPA better achieve and measure environmental and human health. Each Strategic Target includes a long-range quantitative goal.

In April 2010, the National Water Program published guidance that described the program strategies to be used to implement the *2011–2015 EPA Strategic Plan* in FY 2011,

including specific measures to be used to assess program implementation. The *FY 2011 National Program Guidance* is divided into 15 subobjectives (see Table 1, National Water Program: Goal, Objectives, and Subobjectives) and includes Strategic Target measures and national Program Activity Measures (PAMs) to assess progress toward the goals in the *Strategic Plan*:

- **Strategic Target Measures:** Measures of environmental or public health changes (i.e., outcomes) that include long-range and, in most cases, annual commitments in the *FY 2011 National Water Program Guidance*.
- **National PAMs:** Core water PAMs (i.e., output measures) address activities implemented by EPA, states, and tribes that administer national programs. They are the basis for monitoring progress in implementing programs to accomplish the environmental goals in the Agency's *Strategic Plan*. Most of these measures had national and regional commitments for FY 2011.

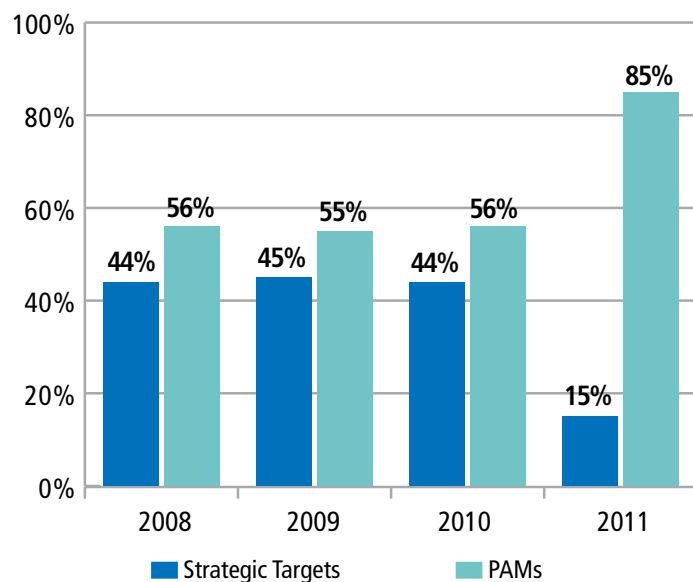
Performance Measure Architecture



What's New in FY 2011

Fiscal year 2011 was the first year for reporting under the EPA's *FY 2011–2015 Strategic Plan*. The Agency's *FY 2011–FY 2015 Strategic Plan* differs in several significant ways from the *FY 2006–2011 Strategic Plan*. In an effort to streamline the Plan and focus only on the most important goals, the Agency significantly reduced the number of Strategic Targets in the new Plan. The number of outcome-based Strategic Targets under the Clean and Safe Water Goal dropped from 59 under the 2009 Plan to 22 under the 2011 Plan. Almost all of these Strategic Targets became PAMs and were included in the *FY 2011 National Program Guidance*. As can be seen in Figure 1, the reduction in the number of Strategic Targets shifted the balance heavily toward PAMs.

Figure 1: FY 2008–FY 2011 Strategic Targets and PAMs Trends



The *FY 2011 National Water Program Guidance* consisted of a number of changes in performance measures from the *FY 2010 Guidance* and *End of the Year Performance Report*. Some of these key changes were:

- Seven new measures were added to track changes in the universe of small community water systems. The new measures track the number of Drinking Water State Revolving Fund (DWSRF) projects, dollars, and loans for small systems and disadvantaged communities; the number of small systems with violations; and the number of schools and childcare centers meeting safe drinking water standards (SDW-11–17).
- The most significant changes to the Water Quality subobjective were the deletion of two measures on state and territory nutrient criteria (WQ-1a/b) and the addition of three new measures tracking the number of numeric nutrient water quality standards approved and proposed, as well as associated milestones (WQ-1a/b/c).
- The Great Lakes National Program saw the largest increase in the number of new performance measures, with an increase from 11 measures in FY 2010 to 19 measures in FY 2011. Most of the new measures were developed by the Great Lakes National Program Office to track the more than \$300 million in projects under the Great Lakes Restoration Initiative (GL-6–16).
- The other significant change in FY 2011 was the modification of two existing measures for the South Florida subobjective from commitments to indicators (SP-45 and SP-46). In addition, EPA modified an existing measure to break it out into two measures—one on water quality (SP-47a/b) and another on advanced sewage treatment.

Overall, the Office of Water added 28 new measures, deleted 15 measures, and modified seven measures in its *FY 2011 National Program Guidance*. The number of commitment measures increased from 101 in FY 2010 to 105 in FY 2011. More information about measure changes can be found in Appendix B of this report.