EPA

Office of Water

National Water Program

Best Practices and End of Year Performance Report

Fiscal Year 2012

April 2013

This report is based primarily on FY 2012 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 2012 and January 2013 by EPA headquarters and regional staff working together on Subobjective Teams. These materials provided data on 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 2012 National Water Program measures.
- Description of innovative approaches and best practices in program implementation.
- An appendix of FY 2012 national commitments and results for environmental and program-related measures.

Additional information on the performance highlights and challenges for each subobjective under the National Water Program Goal of EPA's Strategic Plan (see Table 1) is available on the Internet at: http://water.epa.gov/resource_performance/performance/. In addition, 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.

Program Contacts

For additional information concerning this report and supporting measures, contact:

- Michael Shapiro, Deputy Assistant Administrator for Water
- Tim Fontaine, Senior Budget Officer, Office of Water
- Michael Mason, Evaluation and Accountability Team Leader, Office of Water

INTERNET ACCESS: This *FY 2012 National Water Program Best Practices and End of the 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

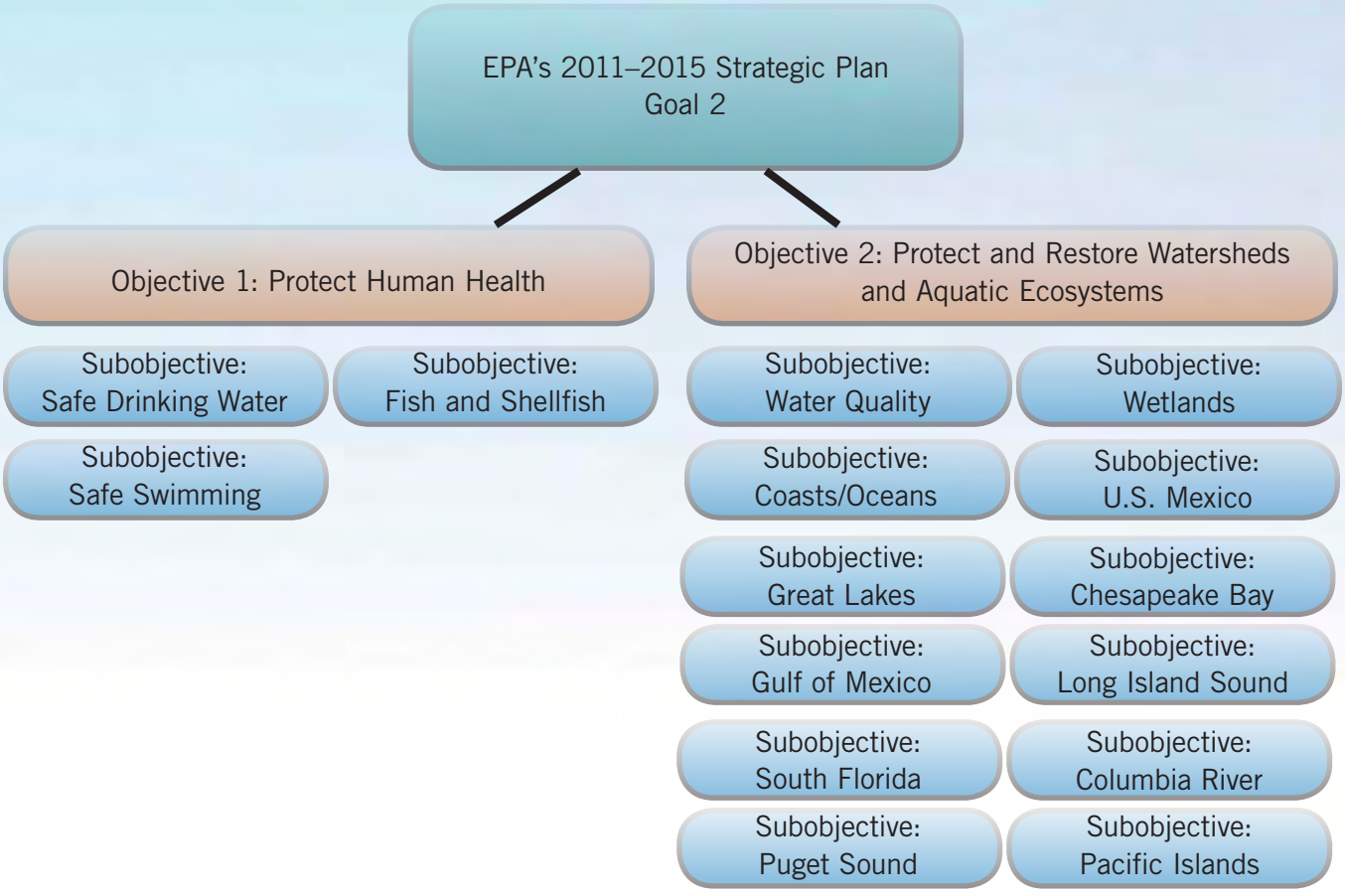


Table of Contents

National Water Program FY 2012 Performance Results

Executive Summary

Overview

EPA met 78% of its commitments for all National Water Program performance measures in FY 2012. Approximately 17% were not met, and 5.2% either did not have enough data available to assess progress or no reporting was expected by the end of the fiscal year. The FY 2012 results represented an increase in the number of measures met from the previous year's results (69%). Other overarching highlights include:

- The geographic-based aquatic programs were more successful than the national core drinking water and water quality water programs in meeting their commitments in 2012 (87% vs. 72%). This was the reverse of the previous year's results, where 77% of the core program measures met their annual commitments compared to 57% of the geographic-based programs.
- The Mexico Border, Coastal and Ocean, Gulf of Mexico, Fish and Shellfish, Chesapeake Bay, Long Island Sound, and Pacific Island subobjectives were most successful in meeting their commitments.
- On average, 87% of performance commitments set by the EPA regional offices were met in 2012, while 12% of commitments were missed. This was a noticeable improvement over the previous year's results of 83% met.

Protect Public Health

EPA met 62% of its commitments for all drinking water measures in 2012. Of these:

- Approximately 95% 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-one percent (91%) of the cumulative amount of Drinking Water State Revolving Funds (DWSRFs) available had loan agreements in place (commitment 89%). EPA has met its commitments for this measure six years in a row.

EPA did not meet 38% of its drinking water commitments in 2012. Challenges confronted by EPA and states include:

- Eighty-nine percent (89%) of community systems received a sanitary survey last year, falling short of the Agency's stretch goal of 95%.
- Eighty-five percent (85%) of Class I, II, and III underground injection wells maintained their mechanical integrity, thereby reducing the impact of contaminants on underground sources of drinking water. This was below the annual goal of 90%.

For coastal and Great Lakes beaches monitored by state-based beach safety programs, EPA is reporting that 95% of days of the beach season were open and safe for swimming (FY 2012 commitment 95%). EPA has consistently met this commitment over the past six years.

Restore and Improve Fresh Waters, Coastal Waters, and Wetlands

EPA met 72% of its commitments under the Water Quality subobjective in FY 2012 and fell short on 15%; data were not available for 12%. The percentage of commitments met declined in FY 2012 over the FY 2011 results (77%). Performance highlights include:

- More than 3,500 of the waters listed as impaired in 2002 met water quality standards for all the identified impairments in FY 2012 (commitment 3,324). Of a universe of 39,503 waterbodies, 9% were attaining water quality standards by the end of FY 2012.
- For the fourth consecutive year, states and territories met regional commitments for submitting new or revised water quality criteria acceptable to EPA that reflect new scientific information.
- EPA approved 89% of water quality standard revisions submitted by states and territories (FY 2012 national commitment 85%).
- For the sixth consecutive year, EPA and states achieved the national goal of having current National Pollutant Discharge Elimination System (NPDES) permits in place for 90% of non-tribal facilities (FY 2012 commitment 88%). In addition, EPA and authorized states have exceeded their annual commitments for issuing high-priority permits for the past six 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 exceeded its commitment (394), with 433 waterbodies that were partially or fully restored.
- The Clean Water SRF utilization rate reached 98% in 2012. Of the $97.4 billion in funds available for projects through 2012, $95.4 billion have been committed to nearly 32,000 loans. In 2012, project assistance reached $5.8 billion, which funded 1,947 loans in a single year.

EPA faced several management challenges in restoring and improving freshwater quality in FY 2012. These include:

- EPA did not meet its commitment for state and territories supplying performance milestones to EPA on the development, proposal, and adoption of numeric water quality standards for total nitrogen and phosphorus. Many states have not provided complete information due to the scientific, programmatic, and policy complexities of developing nitrogen and phosphorus criteria.

The 28 National Estuary Programs (NEPs) and their partners protected or restored almost 115,000 acres of habitat within the NEP study areas—15,000 acres above the goal of 100,000 acres. The 28 NEPs played the primary role in directing $324 million in additional funds toward Comprehensive Conservation and Management Plan (CCMP) implementation (leveraged from approximately $22 million in EPA Section 320 and earmark funds).This represents a ratio of $15 raised for every $1 provided by EPA, which matches the historic ratio measures over the 2003–2012 period.

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 180,000 acres have been restored and enhanced since 2002. As of FY 2012, 44 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:

- EPA failed to achieve its national stretch goal of 87% of the population in Indian Country served by CWSs that receive drinking water meeting all applicable health-based standards (84% in FY 2012). This challenge is especially important considering that 93% of the population in Indian Country is served by small systems.
- EPA, in coordination with other federal agencies, fell just short of reaching its annual commitment of providing 110,000 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 over 63,000 American and Alaskan Native homes, exceeding the FY 2012 commitment.

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. The following are highlights and challenges for each Large Aquatic Ecosystem or place-based program with performance measures in the National Water Program Guidance:

- **U.S.–Mexico Border.** Infrastructure construction project completions through FY 2012 resulted in the removal of 119 million pounds of biochemical oxygen demand (BOD) loadings annually from the U.S.–Mexico border area, slightly more than its commitment of 115.2 million pounds. EPA provided access to safe drinking water for 5,135 additional homes along the U.S.–Mexico border, which was above the annual goal of 1,000 additional homes. EPA provided adequate wastewater sanitation to an additional 31,000 homes over the past year, which was well above the FY 2012 goal of 10,500 additional homes.
- **U.S. Pacific Island Waters.** Last year, 80% 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. Sixty-four percent (64%) of sewage treatment plants in the U.S. Pacific Island Territories complied with permit limits for BOD and total suspended solids (TSS). This was above the previous year's result of 50%.
- **Great Lakes.** Average long-term total PCB concentrations in whole Great Lakes top predator fish at sites on each Great Lake declined 43% between 2000 and 2009, meeting the target for declines in concentration trends. EPA, states, and other partners remediated a cumulative 9.7 million cubic yards of contaminated sediments through 2011, including more than 1.3 million cubic yards in FY 2011.
- **Chesapeake Bay.** The Chesapeake Bay Program reported 63,074 acres of submerged aquatic vegetation (SAV) in the bay. This represents approximately 34% of the program's long-term goal of 185,000 acres, which is the amount necessary to achieve Chesapeake Bay water quality standards. EPA expects enhanced implementation of nitrogen, phosphorus, and sediment pollution control measures as a result of the Total Maximum Daily Load (TMDL) that was established in December 2010.
- **Gulf of Mexico.** With the support of numerous federal, state, local, and private partners, EPA has restored water and habitat quality to 316 impaired waterbodies in 13 priority coastal areas of the Gulf of Mexico since 2007. This exceeded the 2012 goal of 290 impaired waterbodies. The size of the hypoxic, or "dead," zone in the Gulf of Mexico decreased from 17,520 km2 in FY 2011 to 7,483 km2 at the end of FY 2012. A number of hydrological, climate, and monitoring factors impact the hypoxic zone from year to year.
- **Long Island Sound.** The Long Island Sound Program significantly exceeded its 2012 commitment (218 acres) by restoring or protecting 537 acres of coastal habitat, including tidal wetlands, dunes, riparian buffers, and freshwater wetlands. The size of the hypoxic zone in Long Island Sound increased from 130 to 289 square miles, which was above the five-year rolling average.
- **South Florida.** The health and functionality of the sea grass beds in the Florida Keys National Marine Sanctuary (FKNMS) were not maintained in 2012. 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 toward restoring water quality.
- **Puget Sound Basin.** More than 23,000 acres of tidally and seasonally influenced estuarine wetlands have been restored in the Puget Sound Basin since FY 2006. The program significantly exceeded its 2012 goal due to a considerable number of habitat projects receiving funds over the past few years. The Puget Sound program improved water quality and lifted harvest restrictions for 964 additional acres of shellfish bed growing areas. Unfortunately, this was not enough to reach the program's cumulative goal of 3,878 acres of unrestrictive commercial and recreational harvesting area in the Sound.
- **Columbia River Basin.** The Columbia River Program cleaned up an additional 16 acres of contaminated sediment at the Zidell cleanup site in the Lower Columbia River in FY 2012. These cleanups provide a significant contribution to reducing toxics in the Columbia River. Due to limited finding, EPA was unable to complete its monitoring for contaminants of concern in fish and the water in the Columbia River.

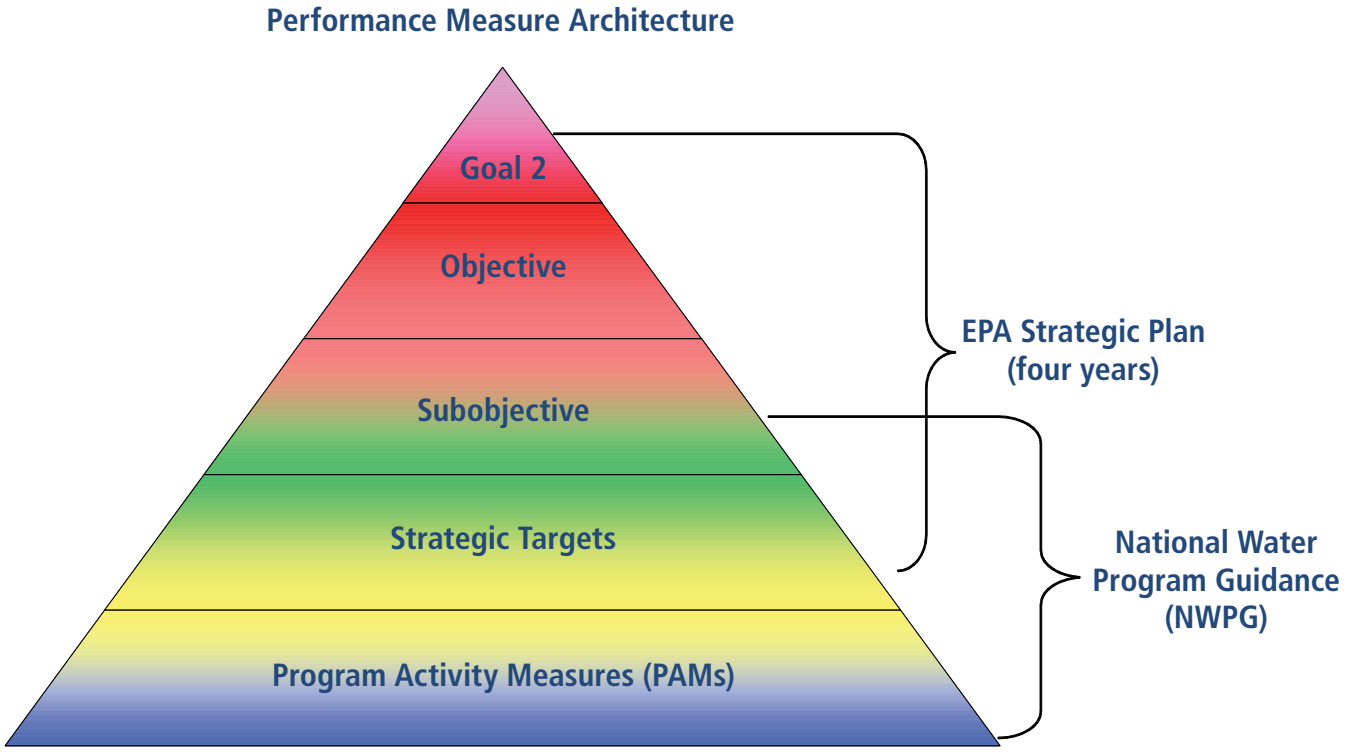
Introduction

The *FY 2012 National Water Program Best Practices and End of the Year Performance Report* describes the progress made in 2012 by EPA, states, tribes, and others toward the objectives and subobjectives described in the *FY 2012 National Water Program Guidance (NWPG)* and the *FY 2011–2015 EPA Strategic Plan* (Table 1, "National Water Program—Key Subobjectives"). The *Strategic Plan* and the *FY 2012 NWPG* 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 2011, the National Water Program published guidance that described the program strategies to be used to implement Goal 2 of the *2011–2015 EPA Strategic Plan* in FY 2012, including specific measures to be used to assess program implementation. The *FY 2012 NWPG* is divided into 15 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 2012 NWPG.*
- **National Program Activity Measures (PAMs):** Core water PAMs (i.e., output measures) address activities implemented by EPA and states/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 2012.



What's New in FY 2012

The *FY 2012 NWPG* consisted of a number of changes in performance measures from the *FY 2011 Guidance and End of the Year Performance Report*. Some of these key changes were:

- Several performance measures for the Underground Injection Control program under the Water Safe to Drink subobjective were revised in FY 2012 in order to consolidate the universe of Class I, II, and III salt solution mining wells (SDW-7a/b/c). The Agency also created two new measures that track the sequestration of carbon dioxide in underground injection wells (SDW-19a/b).
- EPA added two new performance measures under the Water Quality subobjective on the national Urban Waters program, one of the Administrator's priorities in FY 2012 (WQ-25a/b).
- EPA deleted six measures under the Coastal and Oceans subobjective pertaining to the ecosystem health of six regions (Northeast, Southeast, West Coast, Puerto Rico, Hawaii, and Central Alaska) (CO-SP-16, CO-SP-17, CO-SP-18, CO-SP-19, CO-7, CO-8). Environmental results for these regions can be found in the National Coastal Condition Reports published on EPA's website.[1] The measure that captures national results is still included (CO-222.N11).
- Three measures tracking changes in nitrogen, phosphorus, and sediment reduction were modified (CB-SP-35, CB-SP-36, CB-SP-37) and two were deleted (CB-1a, CB-1b) under the Chesapeake Bay subobjective. These changes reflect the adoption in December 2010 of the Bay-wide TMDL and the use of a new watershed model for calculating annual nutrient reductions

Overall, the Office of Water added five new measures, deleted 15 measures, and modified 12 measures in its *FY 2012 NWPG*. As a result, the number of commitment measures decreased from 105 in FY 2011 to 96 in FY 2012. More information about measure changes can be found in Appendix B of this report.

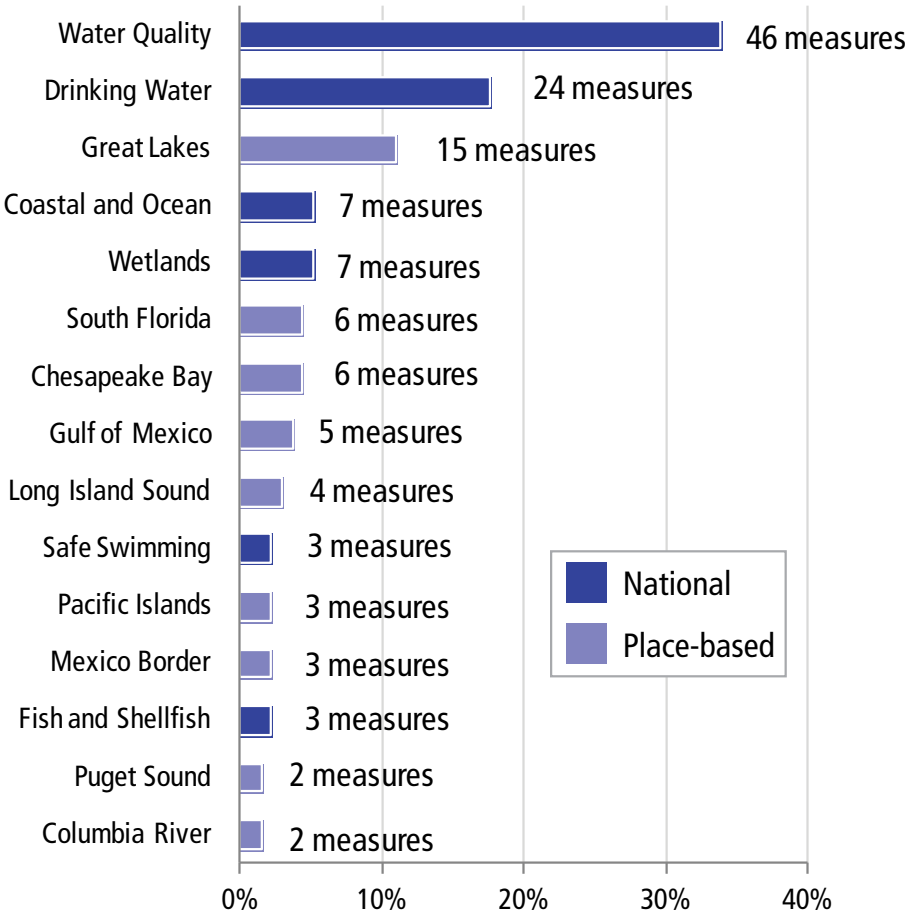
[1] National Coastal Condition Report IV (May 2012).

Overview of Performance Results and Recent Trends

Total Measures by Subobjective

Among the 15 subobjectives outlined in the *FY 2012 NWPG*, Water Quality had the largest share of performance measures at 34%; Drinking Water was next with 18%; and the Great Lakes was third with 11%. The remaining 37% of the measures were spread among the other 12 subobjectives (Figure 1).

Figure 1: Total FY 2012 Measures by Subobjective



Total Commitment Measures

Overall, the National Water program had a successful year in FY 2012. Of 96 National Water Program measures with commitments, more than three-fourths (78.1%) met their commitments. About seventeen percent (16.7%) were not met, and for 5.2%, either not enough data were available to assess progress or no reporting was expected for 2012 (Figure 2).[2] Long-term trend data shows that the percentage of commitment measures met has remained fairly consistent over the past six years, averaging about 70% (Figure 3).

[2] Data for FY 2012 is what has been reported as of March 2013. Due to a lag in reporting, several measures will not have FY 2012 end of year data until later in FY 2013. It is important to note that when reviewing trend data for previous years in this report, the results will include data for measures that routinely report late. As a result, this year's trend charts may not reflect the same results as shown in previous end of year reports.

Figure 2: FY 2012 Commitment Measures Met & Not Met

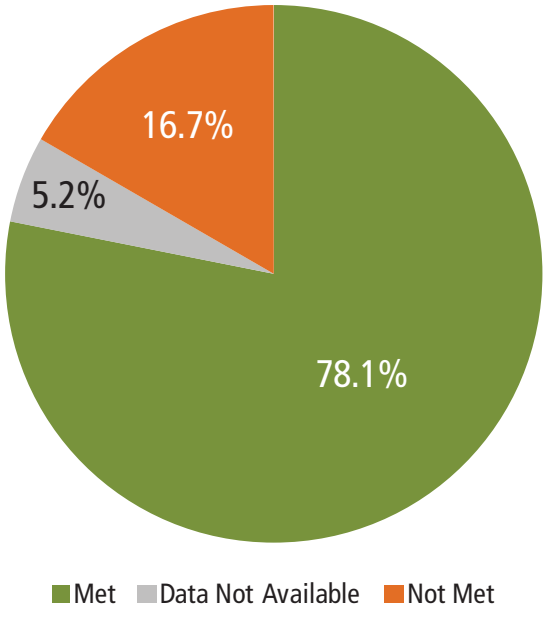
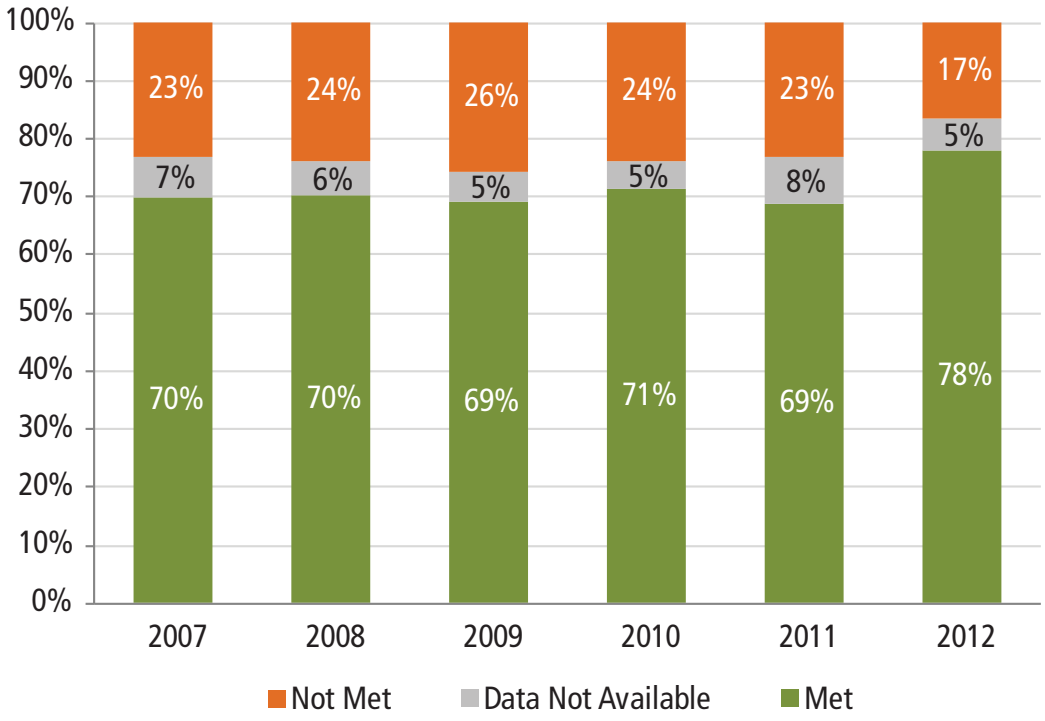


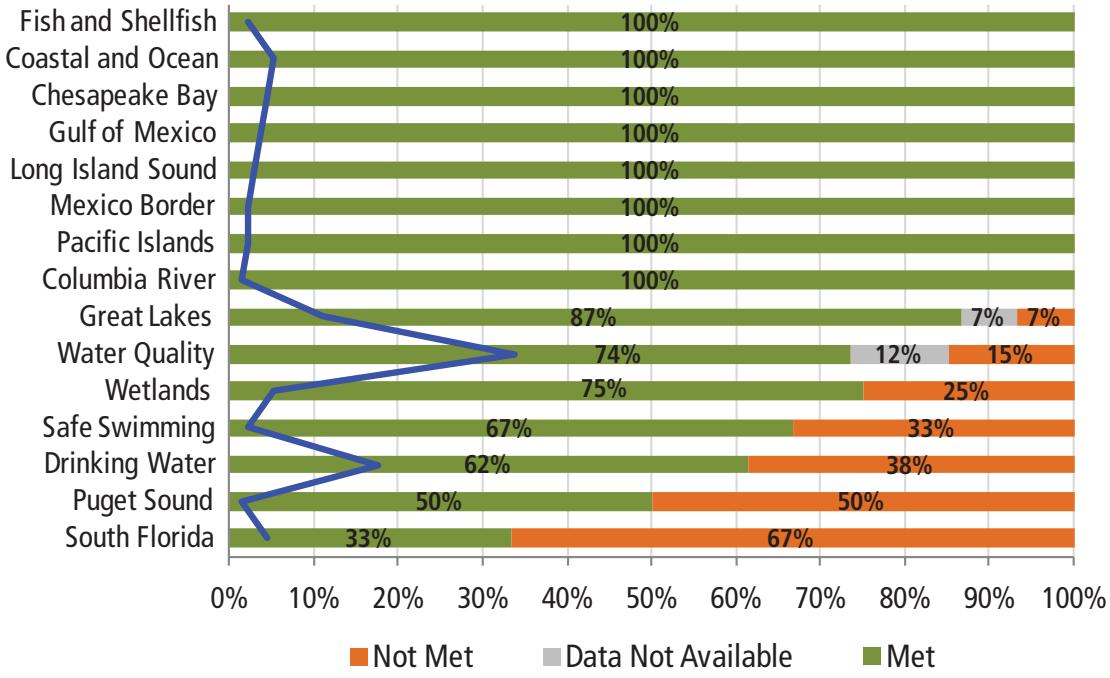
Figure 3: FY 2007–FY 2012 Commitment Measures Trend



Commitment Measures by Subobjective

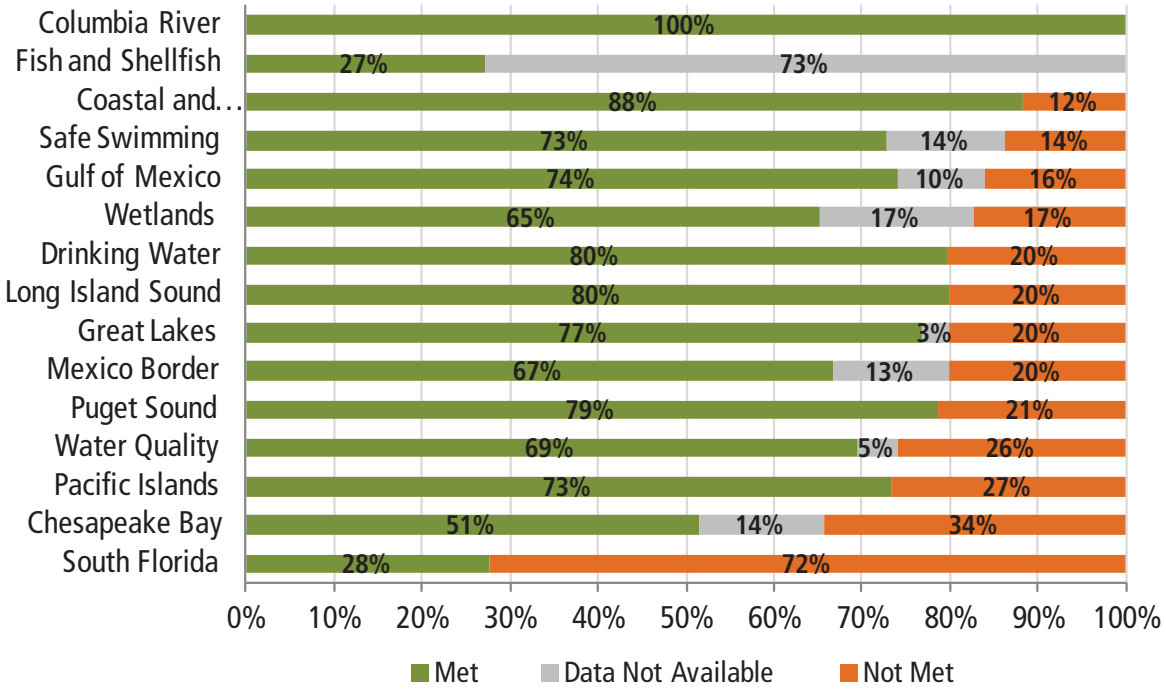
When the FY 2012 results are presented by subobjective, eight of 15 subobjectives (Fish and Shellfish, Coastal and Ocean, Mexico Border, Pacific Island, Chesapeake Bay, Columbia River, Gulf of Mexico, and Long Island Sound) were successful in meeting 100% of their commitments. Five subobjectives fell below the national average of commitments met (78%): Wetlands, (75%), Water Quality (74%), Drinking Water (62%), Puget Sound (50%), and South Florida (33%). Note, however, that some subobjectives have more commitment measures than others. The dark blue line in Figure 4 represents the percentage of the total number of commitment measures that each subobjective encompasses. The Water Quality subobjective has the most measures, representing about 34% of all commitment measures.

Figure 4: FY 2012 Percent Measures Met & Not Met by Subobjective



When comparing the FY 2012 results from Figure 4 with the long-term averages of commitments met for each subobjective (Figure 5), 11 subobjectives did better in FY 2012 compared with their long-term average. Only the Puget Sound and the Drinking Water subobjectives fell below their long-term averages in FY 2012. The Fish and Shellfish subobjective has traditionally had the greatest problems with data availability.

Figure 5: FY 2008–FY 2012 Average Commitments Met & Not Met by Subobjective

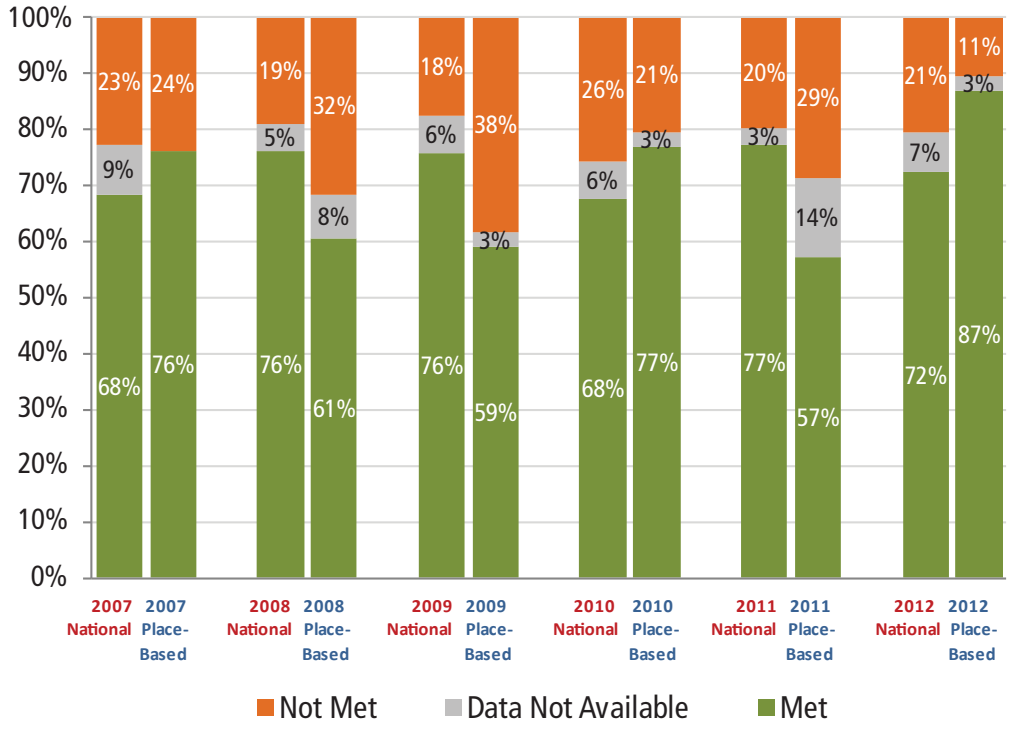


Commitments by National Core Water Program vs. Geographic Programs

The National Water Program comprises core drinking water and water quality programs and large aquatic ecosystem (LAEs) or place-based programs.[3] Sixty-six percent (66%) of all commitment measures pertain to core water programs, and 34% track progress in LAE and place-based programs. The LAEs and place-based programs improved significantly in FY 2012, with 87% of commitments met (up from 57% in FY 2011). National core programs declined from 77% of commitments met in FY 2011 to 72% in FY 2012. This was the reverse of the previous year, with core programs at 77% commitments met and LAE and placed-based programs at 57%. The geographic programs' improvement was primarily due to an increase in measures met for the Great Lakes (four) and Chesapeake Bay (three) from data not available to commitments met (Figure 6).

[3] EPA defines "place-based programs" in this report as those programs that may not include an ecosystem focus. For example, U.S.–Mexico Border and the Pacific Islands programs may be considered place-based.

Figure 6: FY 2007–FY 2012 National and Place-Based Programs Trend



National Water Program Long-Term Performance Trends

One way to look at long-term performance trends is through a "heat map." The charts in Figure 7 below represent a history of the status of annual results of all the core drinking water and water quality program measures over a six-year period (FY 2007 to FY 2012). The colors on the map represent the status (green for commitments met, orange for not met, gray for data unavailable or not reporting, and white for measures not in existence or not applicable in a given year). Although the status of the results does not take into account the level of ambitiousness of the commitments from measure to measure, there are some interesting patterns in the trends. For example, about one-third (36%) of all core program measures have met their commitments every year for the past five to six years. These include:

- Population served by CWS (SDW-211)
- CWS meeting safe standards (SDW-SP1.N11)
- Person-Months with CWSs safe standards (SDW-SP2)
- CWS and source water protection (SDW-SP4a)
- Tribal CWSs with sanitary survey (SDW-01b)
- DWSRF fund utilization rate (SDW-04)
- DWSRF projects initiated (SDW-05)
- Beach days safe for swimming (SS-SP9.N11)
- Improve coastal aquatic system health (CO-222.N11)
- Wetland acres restored and enhanced (WT-01)

- Impaired waterbodies attaining water quality standards (WQ-SP10.N11)
- Improve water quality with watershed approach (WQ-SP12.N11)
- Tribes submitted water quality criteria (WQ-03b)
- States/territories water quality standards submissions (WQ-04a)
- Tribes providing water quality data (WQ-06b)
- Total TMDLs (WQ-08a)
- Reduction in nonpoint source nitrogen (WQ-09a)
- Reduction in nonpoint source sediment (WQ-09c)
- Current NPDES permits (WQ-12a)
- CWSRF utilization rate (WQ-17)
- High-priority state NPDES permits (WQ-19a

A number of measures have had a history of problems meeting targets. These include:

- Indian Country population meeting drinking water standards (SDW-SP3.N11)
- State sanitary survey (SDW-01a)
- Net increase in wetlands (WT-SP21.N11)
- Tribal WQS (WQ-02)
- State/tribal monitoring strategies (WQ-05)
- State/territories using assessment database (WQ-07)
- Estimated reduction in pounds of phosphorus from nonpoint sources (WQ-9b)
- Tribal NPDES permits (WQ-12b)
- Percent major NPDES dischargers in Significant Noncompliance (WQ-15a)

Figure 7: FY 2007–FY 2012 Core Water Program End of Year Status History

Subobjective	ACS Code	Commitment Status: = Met; = Not Met; = Data Not Available; = Measure Did Not Exist Or Not Applicable					
		2007	2008	2009	2010	2011	2012
Drinking Water	SDW-211	Met	Met	Met	Met	Met	Met
	SDW-SP1.N11	Measure Did Not Exist Or Not Applicable	Met	Met	Met	Met	Met
	SDW-SP2	Measure Did Not Exist Or Not Applicable	Met	Met	Met	Met	Met
	SDW-SP3.N11	Met	Not Met	Not Met	Met	Met	Not Met
	SDW-SP4a	Met	Met	Met	Met	Met	Met
	SDW-SP4b	Measure Did Not Exist Or Not Applicable	Met	Met	Met	Met	Not Met
	SDW-18.N11	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Not Met	Not Met
	SDW-01a	Not Met	Not Met	Not Met	Not Met	Met	Not Met
	SDW-01b	Met	Met	Met	Met	Met	Met
	SDW-04	Met	Met	Met	Met	Met	Met
	SDW-05	Met	Met	Met	Met	Met	Met
	SDW-07	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Not Met
	SDW-08	Measure Did Not Exist Or Not Applicable	Not Met	Met	Met	Met	Met
Fish and Shellfish	FS-SP6.N11	Measure Did Not Exist Or Not Applicable	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Met
Safe Swimming	SS-SP9.N11	Met	Met	Met	Met	Met	Met
	SS-1	Met	Met	Met	Met	Not Met	Not Met
	SS-2	Met	Met	Not Met	Met	Met	Met
Coastal and Ocean	CO-222.N11	Met	Met	Met	Met	Met	Met
	CO-SP20.N11	Measure Did Not Exist Or Not Applicable	Met	Met	Not Met	Not Met	Met
	CO-432.N11	Met	Met	Met	Not Met	Not Met	Met
Wetlands	WT-SP21.N11	Not Met	Not Met	Data Not Available	Data Not Available	Measure Did Not Exist Or Not Applicable	Not Met
	WT-SP22	Data Not Available	Data Not Available	Met	Met	Met	Met
	WT-01	Met	Met	Met	Met	Met	Met
	WT-04	Not Met	Met	Met	Met	Met	Met

Subobjective	ACS Code	Commitment Status: = Met; = Not Met; = Data Not Available; = Measure Did Not Exist Or Not Applicable					
		2007	2008	2009	2010	2011	2012
Water Quality	WQ-SP10.N11	Met	Met	Met	Met	Met	Met
	WQ-SP11	Measure Did Not Exist Or Not Applicable	Met	Met	Not Met	Met	Met
	WQ-SP12.N11	Measure Did Not Exist Or Not Applicable	Met	Met	Met	Met	Met
	WQ-SP13.N11	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Not Met
	WQ-SP14aN11	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Met
	WQ-24.N11	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Met	Met
	WQ-01a	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Not Met	Met
	WQ-01b	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Not Met	Met
	WQ-01c	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Met	Not Met
	WQ-02	Not Met	Met	Not Met	Not Met	Not Met	Met
	WQ-03a	Not Met	Not Met	Met	Met	Met	Met
	WQ-03b	Met	Met	Met	Met	Met	Met
	WQ-04a	Met	Met	Met	Met	Met	Met
	WQ-05	Not Met	Not Met	Met	Not Met	Not Met	Not Met
	WQ-06a	Met	Met	Met	Not Met	Met	Met
	WQ-06b	Met	Met	Met	Met	Met	Met
	WQ-07	Met	Met	Met	Not Met	Not Met	Not Met
	WQ-08a	Met	Met	Met	Met	Met	Met
	WQ-08b	Met	Met	Met	Not Met	Met	Met
	WQ-09a	Met	Met	Met	Met	Met	Met
	WQ-09b	Met	Not Met	Not Met	Not Met	Met	Not Met
	WQ-09c	Met	Met	Met	Met	Met	Met
	WQ-10	Not Met	Met	Met	Met	Met	Met
	WQ-12a	Met	Met	Met	Met	Met	Met
	WQ-12b	Not Met	Not Met	Not Met	Met	Met	Met
	WQ-14a	Not Met	Met	Met	Not Met	Met	Met
	WQ-15a	Not Met	Not Met	Not Met	Not Met	Not Met	Data Not Available
	WQ-16	Met	Met	Met	Data Not Available	Met	Data Not Available
	WQ-17	Met	Met	Met	Met	Met	Met
	WQ-19a	Met	Met	Met	Met	Met	Met
	WQ-19b	Not Met	Met	Met	Met	Met	Met
	WQ-23	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Data Not Available	Data Not Available
	WQ-25a	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Met
	WQ-25b	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Measure Did Not Exist Or Not Applicable	Data Not Available

Figure 8 shows that 21% of all placed-based program measures have met commitments every year for five to six years. These include:

- Reduce PCBs in Great Lakes fish (GL-SP-29)
- Remediate cubic yards of contaminated sediment in Great Lakes (GL-SP-32)
- Impaired Gulf water segments and habitat restored (GM-SP-38)
- Gulf acres restored or enhanced (GM-SP-39)
- Restore Long Island Sound coastal habitat (LI-SP-43)
- Restore acres of Puget Sound estuarine wetlands (PS-SP-51)
- Pacific Island population served by CWS (PI-SP-26)
- Clean up Columbia River contaminated sediments (CR-SP-53)

Several placed-based measures have missed commitments at least four times in the past six years:

- Great Lakes AOC (GL-SP-31)
- Chesapeake Bay nitrogen reduction practices (CB-SP-35)
- Everglades water quality—total phosphorus (SFL-SP-48)

Figure 8: FY 2007–FY 2012 LAE and Place-Based Programs End of Year Status History

Commitment Status: = Met; = Not Met; = Data Not Available; = Measure Did Not Exist Or Not Applicable

Subobjective	ACS Code	2007	2008	2009	2010	2011	2012
Great Lakes	GL-433.N11	Met	Met	Met	Not Met	Not Met	Met
	GL-SP29	Met	Met	Met	Met	Met	Met
	GL-SP31	Met	Not Met	Not Met	Not Met	Met	Not Met
	GL-SP32.N11	Met	Met	Met	Met	Met	Met
	GL-05			Not Met	Not Met	Met	Met
	GL-06					Met	Met
	GL-07					Met	Met
	GL-08					Not Met	Met
	GL-09					Met	Met
	GL-10					Not Met	Met
	GL-11					Met	Met
	GL-12					Not Met	Met
	GL-13					Met	Met
	GL-15					Data Not Available	Data Not Available
	GL-16					Met	Met
Chesapeake Bay	CB-SP35	Not Met	Not Met	Not Met	Not Met	Data Not Available	Met
	CB-SP36	Not Met	Not Met	Met	Met	Data Not Available	Met
	CB-SP37	Met	Met	Not Met	Met	Data Not Available	Met
	CB-2	Met	Not Met	Met	Met	Met	Met

Subobjective	ACS Code	2007	2008	2009	2010	2011	2012
Gulf of Mexico	GM-435	Met	Not Met	Not Met	Data Not Available	Not Met	Met
	GM-SP38	Met	Data Not Available	Met	Met	Met	Met
	GM-SP39	Met	Met	Met	Met	Met	Met
	GM-1	Met	Met	Not Met	Met	Met	Met
Long Island Sound	LI-SP41		Not Met	Not Met	Met	Met	Met
	LI-SP43		Met	Met	Met	Met	Met
	LI-SP44		Met	Met	Met	Not Met	Met
Puget Sound	PS-SP49.N11		Met	Met	Met	Not Met	Not Met
	PS-SP51		Met	Met	Met	Met	Met
Mexico Border	MB-SP23		Data Not Available	Data Not Available	Met	Met	Met
	MB-SP24.N11		Met	Met	Not Met	Met	Met
	MB-SP25.N11		Met	Not Met	Not Met	Met	Met
Pacific Islands	PI-SP26		Met	Met	Met	Met	Met
	PI-SP27		Met	Met	Not Met	Not Met	Met
	PI-SP28		Not Met	Met	Met	Not Met	Met
South Florida	SFL-SP47a					Met	Not Met
	SFL-SP47b					Not Met	Met
	SFL-SP48		Not Met	Not Met	Not Met	Not Met	Not Met
Columbia River	CR-SP53		Met	Met	Met	Met	Met

Changes in Measure Performance Status from FY 2011 to FY 2012

The performance status of 21 of the 96 commitment measures changed between FY 2011 and FY 2012. Fifteen measures switched from not meeting to meeting their annual commitments, whereas six previously met measures did not meet their commitments in the past year. Half of the measures that changed their commitment status from met to not met were under the Drinking Water subobjective. More than half (60%) of the measures that upgraded their commitment status from not met to met were from the geographic program subobjectives (Great Lakes had four and Pacific Islands had two) (Table 1).

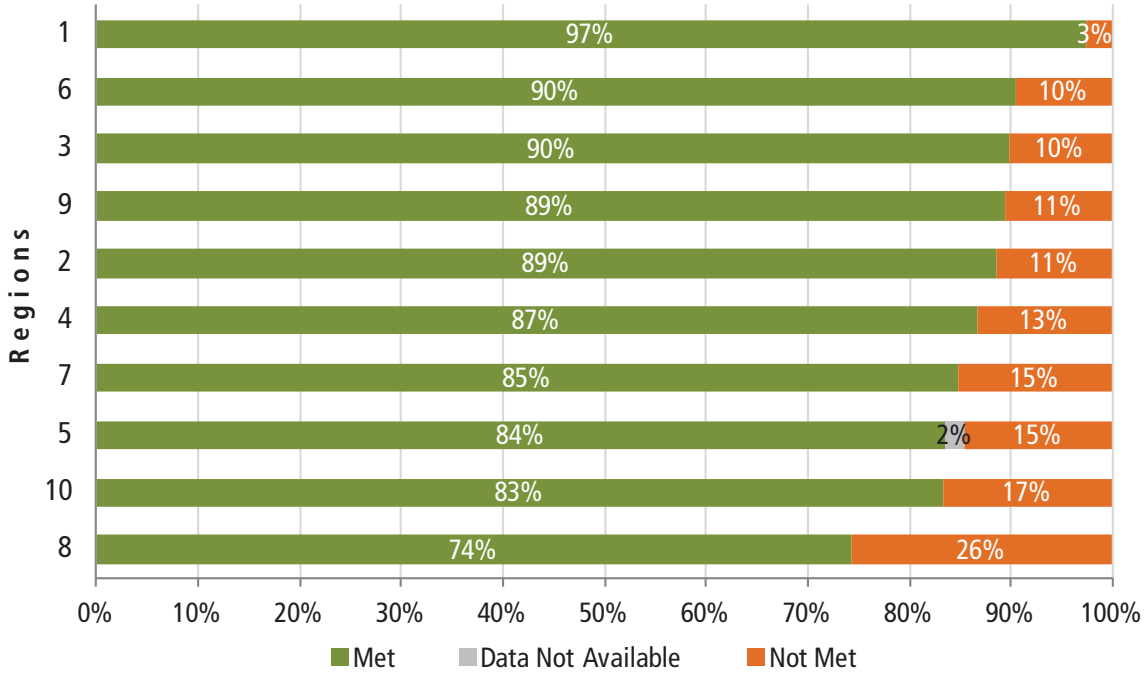
Table 2: Measures With Changes in Performance Status

Subobjective	ACS Code	Abbreviated Measure Description	Performance Status	
			2011	2012
2.1.1 Water Safe to Drink	SDW-SP3.N11	Population served by CWSs Indian Country	Met	Not Met
2.1.1 Water Safe to Drink	SDW-SP4b	Population and source water protection	Met	Not Met
2.1.1 Water Safe to Drink	SDW-01a	CWSs with sanitary survey	Met	Not Met
2.2.1 Water Quality	WQ-01a	Numeric nutrient water quality standards approved	Not Met	Met
2.2.1 Water Quality	WQ-01b	Numeric nutrient water quality standards proposed	Not Met	Met
2.2.1 Water Quality	WQ-01c	State/territories providing nutrient water quality standards milestones	Met	Not Met
2.2.1 Water Quality	WQ-02	Tribes with approved water quality standards	Not Met	Met
2.2.2 Coastal and Ocean Waters	CO-SP20.N11	Percent of active ocean dumping sites with environmentally acceptable conditions	Not Met	Met
2.2.2 Coastal and Ocean Waters	CO-432.N11	NEP acres habitat protected or restored	Not Met	Met
2.2.4 Great Lakes	GL-433.N11	Improve health–Great Lakes ecosystem	Not Met	Met
2.2.4 Great Lakes	GL-SP31	Restore Areas of Concern (AOCs)	Met	Not Met
2.2.4 Great Lakes	GL-08	Percent of days of the beach season that monitored Great Lakes beaches are open and safe for swimming	Not Met	Met
2.2.4 Great Lakes	GL-10	Percent of populations of native aquatic non-threatened and endangered species self-sustaining in the wild	Not Met	Met
2.2.4 Great Lakes	GL-12	Number of acres of coastal, upland, and island habitats protected, restored, and enhanced	Not Met	Met
2.2.6 Gulf of Mexico	GM-435	Improve health–Gulf of Mexico ecosystem	Not Met	Met
2.2.7 Long Island Sound	LI-SP44	Re-open river and streams for fish passage	Not Met	Met
2.2.10 Pacific Islands	PI-SP27	Pacific Islands treatment plans w/ BOD limits	Not Met	Met
2.2.10 Pacific Islands	PI-SP28	Pacific Islands beach days open for swimming	Not Met	Met
2.2.11 South Florida	SFL-SP47a	Maintain South Florida coastal water quality–chlorophyll a	Met	Not Met
2.2.11 South Florida	SFL-SP47b	Maintain South Florida coastal water quality–nitrogen/phosphorus	Not Met	Met

Commitment Measures by EPA Region

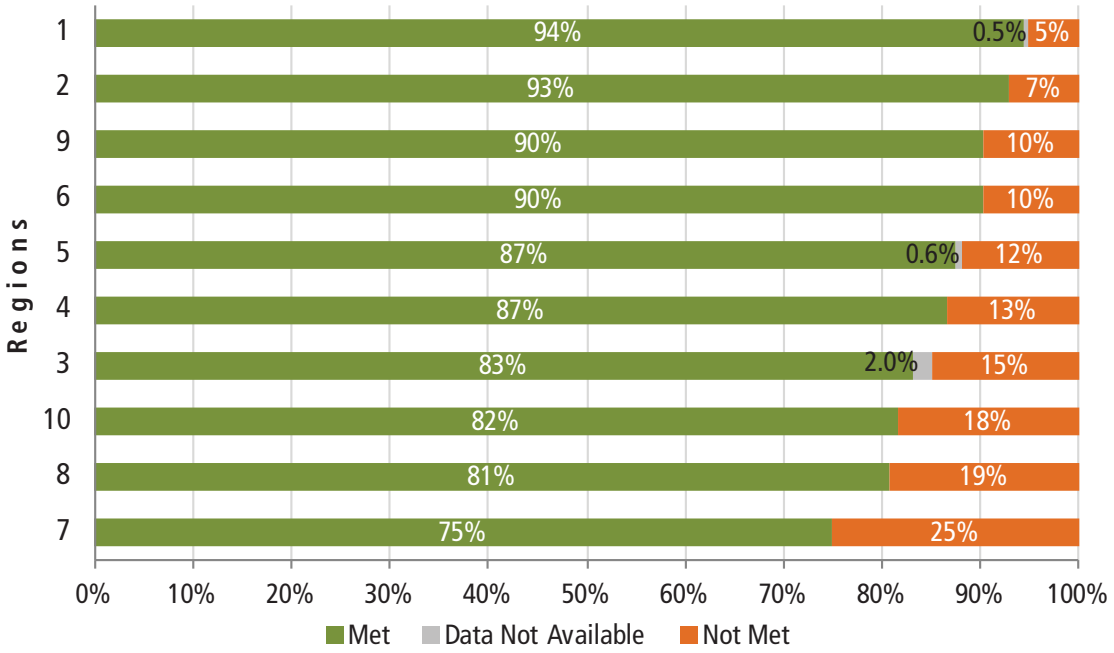
The 10 EPA regional offices, the states, and tribes are primarily responsible for implementing the programs under the Clean Water and Safe Drinking Water Acts. On average, 87% of performance commitments set by the EPA regional offices for activities in their geographic areas were met in 2012, while an average of 12% of commitments were missed. This was a 4% increase over the FY 2011 average of 83% of commitments met. Five regions (1, 2, 5, 9, and 10) showed a decline in the percentage of commitments met in FY 2012 compared to seven regions showing a decline in FY 2011. Region 1 had the highest (97%) percentage of measures met in FY 2012, and Region 8 had the lowest (74%) (Figure 9).

Figure 9: FY 2012 Commitments Met & Not Met by Region



Over the past six years, Regions 1, 2, 9, and 6 have had the highest percentages of commitments met. Regions 7, 8, and 10 have had the highest percentages of commitments not met (Figure 10).

Figure 10: FY 2007–FY 2012 Average Commitments Met & Not Met by Region

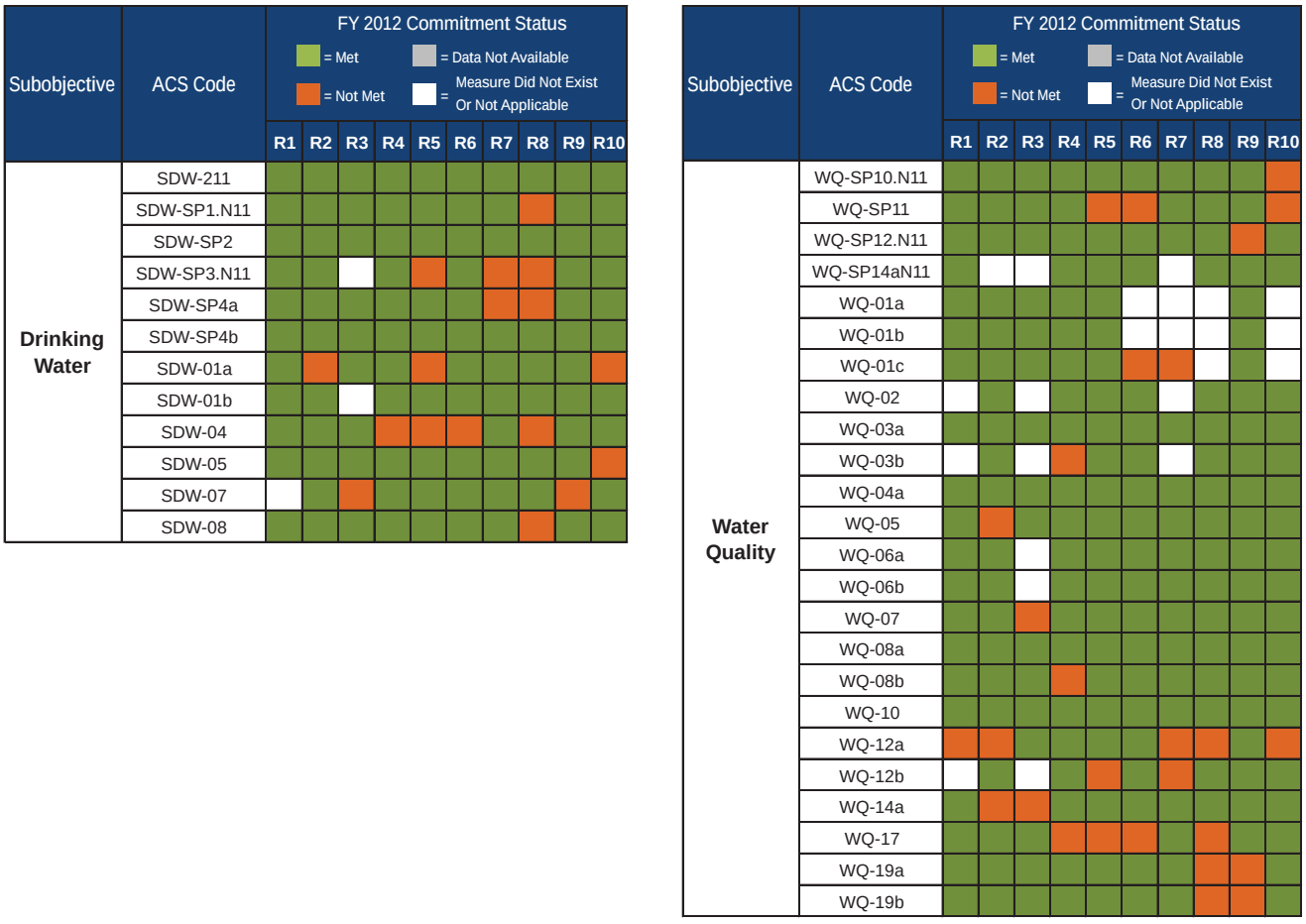


A trend analysis of regional performance over the past six years reveals that EPA Regions 7 and 3 have exhibited the most improvement in meeting their annual commitments between FY 2007 and FY 2012. Region 7 increased its performance by 18% (67% to 85% commitments met), and Region 3 raised its performance by 24% (66% to 90%). Region 1 also experienced an improvement in performance, with an increase of 14% of commitments met over the past six years. EPA Regions 2 and 5 showed the most decline in commitments met between FY 2011 and FY 2012. Region 2 declined by 6% (95% to 89%), and Region 5 dropped by 4% (88% to 84%). Region 3 exhibited the greatest variability in percent commitments met over the past six years, with a range of 24%. Regions 7, 4, and 1 had ranges of 18%, 17%, and 14%, respectively, in commitments met. The region with the least variability in performance over the past six years was Region 6, with a range of only 7% (Figure 11). **Note that these regional trend analyses do not factor in the level of ambitiousness of individual regional commitments, which may or may not contribute to success.**

Figure 11: FY 2007–FY 2012 Regional Performance Trends

Another way to look at regional performance is to focus on the status of end of year results of individual measures. This works best when the focus is on the core drinking water and water quality measures, as almost all regions set annual commitments and report on these measures. Figure 12 displays the end of year regional status for core program measures for FY 2012. As the chart shows, all regions met almost 40% (14/36) of all core program commitment measures in FY 2012. Some measures are problematic, with three or more regions not meeting annual commitments (SDW-01a, SDW-SP-3, SDW-04, WQ-12a, WQ-17, WQ-SP-11). For several measures, such as the national numeric nutrient measures WQ-1a and WQ-1b, a few regions do not set commitments or report annual results. Also, because Region 3 has a limited tribal population, it does not report on national tribal measures (SDW-SP-3, SDW-01b, WQ-SP-14a, WQ-02, WQ-03b, WQ-06b, and WQ-12b). Additional information about these measures can be found in the subobjective chapters and Appendix D on the Office of Water performance website.

Figure 12: FY 2012 Regional Commitment Performance Status



Measuring the Ambitiousness of Regional Commitments

For many years, EPA has published the percentage of commitments met and not met nationally and by region in its annual *National Water Program Best Practices and End of Year Performance Report*. Although this information can be useful in determining to what extent regions are setting and meeting realistic goals, it is limited in that it does not account for the level of ambitiousness or number of "stretch goals" a specific region attempts to undertake in a given year. In an effort to provide some context to the measure results, the Office of Water has developed a method that attempts to assess the ambitiousness of regional commitments, regardless of whether those commitments were met or not met.

EPA employed three methods to evaluate the relative ambitiousness of regional commitments for a set of 32 performance measures.[4] The method or methods utilized depended on whether the commitment is expressed as a percentage or as a numeric value.

For each commitment expressed as a percentage, EPA computed both:

- The difference between FY 2012 regional commitments and FY 2012 national commitments, and
- The difference between FY 2012 regional commitments and FY 2011 regional end of year results.

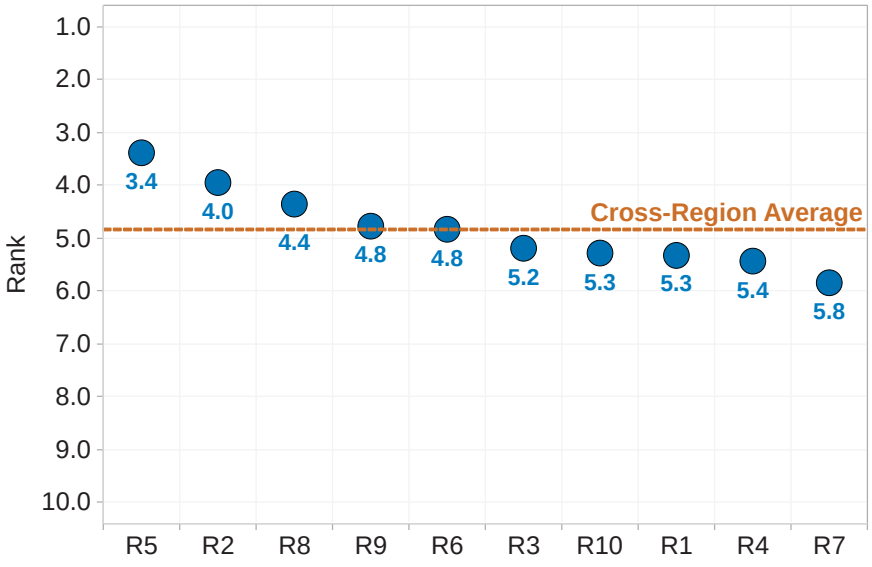
For each commitment expressed in numeric units, EPA computed:

- FY 2012 regional commitments as a percentage of FY 2012 **regional universes**.

For each measure, within each of the analyses above, each region was assigned a rank based on its result relative to other regions (1 = most ambitious, 10 = least ambitious). For instance, for a particular numeric measure, the region committing to the greatest share of its universe would be ranked #1 for that measure. These measure-level rankings were combined to generate an average weighted rank per region. These average weighted ranks are shown in Figure 13, with regions sorted from high to low based upon the overall average weighted rank. Regions 5, 2, and 8 appear to have developed the most ambitious commitments based on this analysis. (The underlying methodology is described in more detail in Appendix C.)

Figure 13: Regional Ambitiousness *Average Weighted Rank (FY 2012)*

Regions Sorted From Highest to Lowest Rank

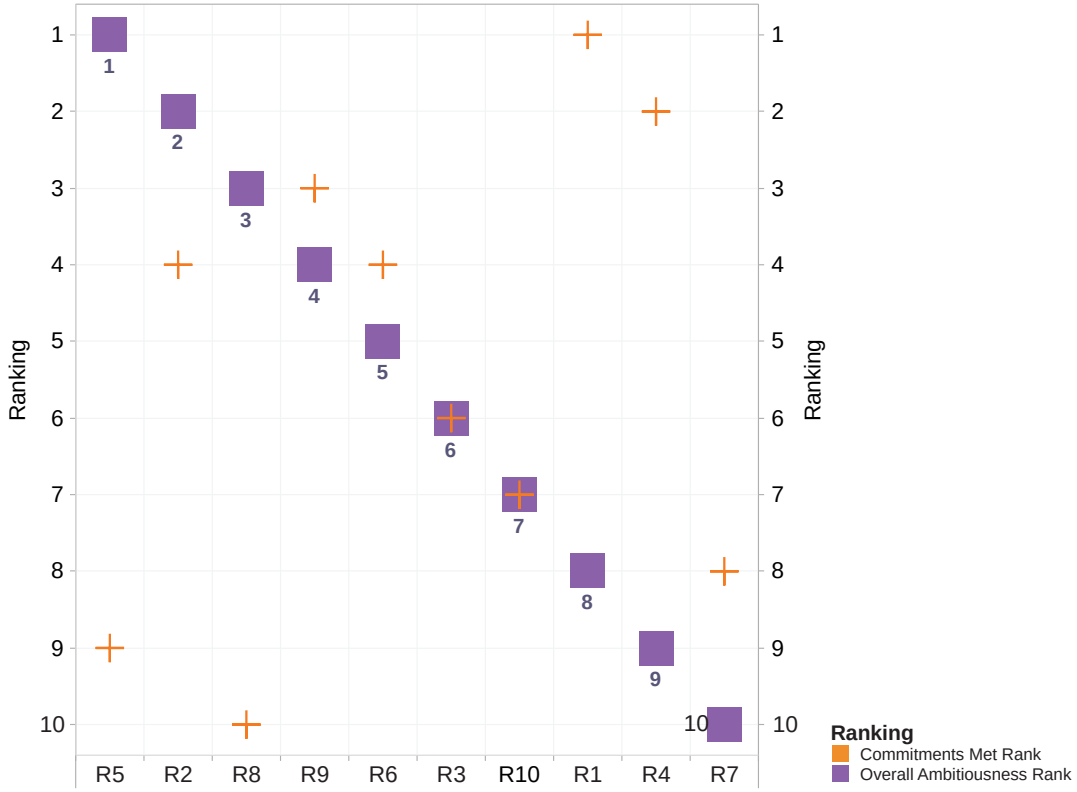


[4] OW focused only on those measures with eight or more regions setting commitments and reporting results, so that the meaning of different ranks would remain fairly constant across measures. This choice excluded measures for large aquatic ecosystems and placed-based programs, which are often reported by only one or two regions.

EPA also explored the relationship between each region's level of ambitiousness for commitments and the degree to which commitments are met. To do so, EPA gave each region two overall rankings: one based upon its overall ambitiousness, using the average weighted rank discussed above, and one based upon its rate of commitments met for the same set of measures. EPA then compared the rankings for ambitiousness and commitments met across all 10 regions for FY 2012 (Figure 14).5 As the figure illustrates, two of the three regions with the highest ranking for ambitiousness, Regions 5 and 8, tended to rank lower than average in the percentage of annual commitments met in FY 2012. The regions ranked in the middle on ambitiousness (4th, 5th, 6th, and 7th) generally ranked about the same in commitments met (3rd, 4th, 6th, and 7th, respectively). The regions ranked 8th and 9th in ambitiousness are ranked 1st and 2nd in commitments met.

Figure 14: FY 2012 Regional Rank of Ambitiousness vs. Commitments Met

Regions Sorted by Ambitiousness Rank



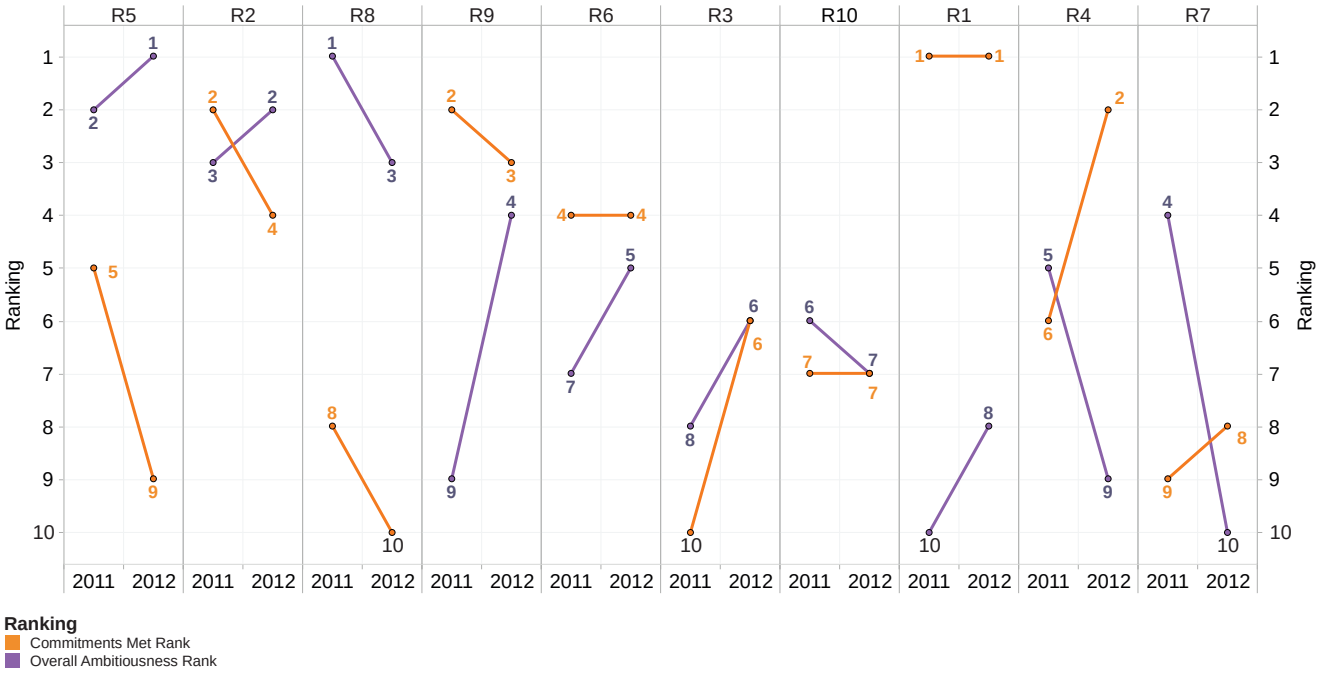
Another way to examine the impact of ambitiousness on the ability to meet commitments is to compare changes in regional rank between FY 2011 and FY 2012 (Figure 15).[6] In terms of ranking on commitments met, four regions declined (Regions 5, 2, 8, and 9), three regions increased (Regions 3, 4, and 7), and three regions stayed the same in their rank in commitments met (Regions 6, 10, and 1). Six regions ranked higher in commitment ambitiousness between 2011 and 2012 (Regions 5, 2, 9, 6, 3, and 1), and four ranked lower (Regions 8, 10, 4, and 7). Of the six regions that increased in commitment ambitiousness (Regions 5, 2, 9, 3, 6, and 1), all but Region 3 declined or remained the same in commitments met rankings. Alternately, of the four regions that showed declines in relative ambitiousness between 2011 and 2012, three regions' rankings on commitments met went up or stayed the same (Regions 4, 7, and 10) and one region's ranking on commitments met declined (Region 8).

[5] Because this ambitiousness analysis focused only on a subset of OW's measures, the rankings for commitments met may be different than those presented earlier in this document (Figure 9). This approach helps ensure appropriate comparability, in this analysis, between the ambitiousness ranks and commitments-met ranks.

[6] The FY 2011 rankings for ambitiousness and commitments met were calculated in the same manner as described earlier for the FY 2012 rankings.

Figure 15: Change in Regional Rank of Ambitiousness & Commitments Met

Regions Sorted by FY 2012 Ambitiousness Rank

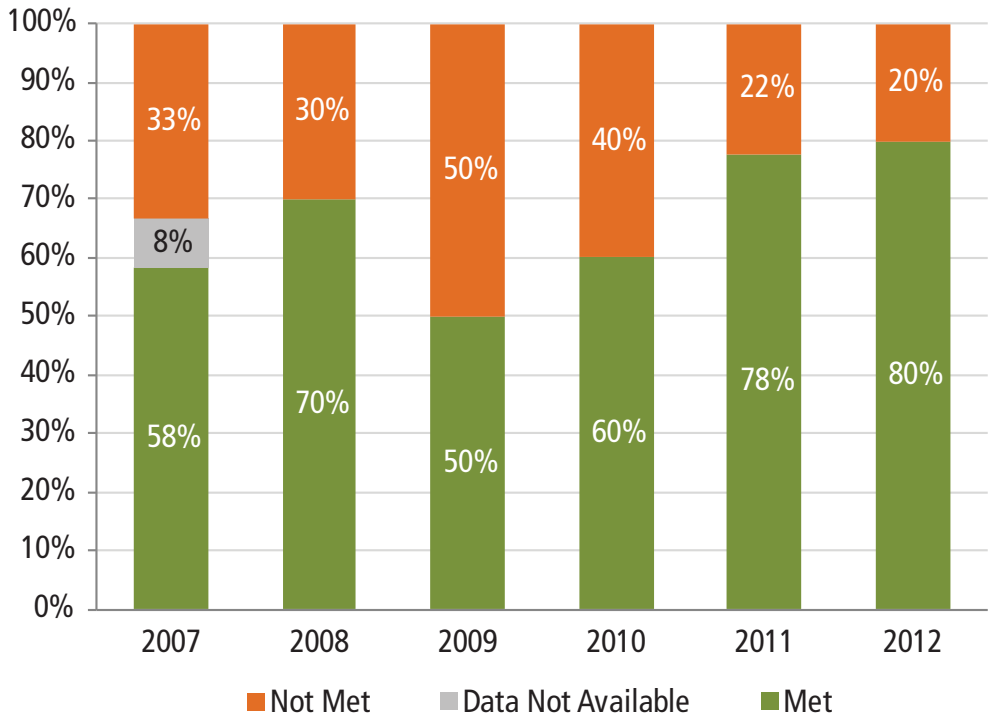


The analysis suggests that there may be a relationship between the level of ambitiousness in setting commitments and the percentages of commitments met at end of year. It is important to note, however, that there are several key caveats in interpreting the results of this analysis. It is based on a relatively small set of measures (32) and focuses on only two years of data. Other methodological approaches probably could be used and might produce different results. And finally, a multitude of factors influence regions in terms of setting commitments for individual measures (e.g., resource availability, size of measure universe, region-specific priorities, region-state oversight relationships). All of these factors are important in the ultimate outcome to negotiations among headquarters, regions, and states in setting annual commitments. The purpose of EPA's analysis in assessing ambitiousness is not intended to "punish" or embarrass any region whose rankings might be lower than other regions. The goal is simply to provide additional benchmarking information for headquarters and regions to use during commitment negotiations.

Tribal Commitment Measures

Ten of the National Water Program measures focus specifically on drinking water and water quality on American Indian lands. There was a slight increase in the number of commitments met (eight) in 2012 over the results in 2011 (Figure 16). End of the year results indicate that management of water quality and access to sanitation on tribal lands showed some improvement over the past year. The drinking water program, however, fell short of meeting both its tribal commitments in FY 2012 (tribal populations in compliance with safe drinking water standards and tribal access to drinking water). For more information on tribal performance results, see the chapter on "American Indian Drinking Water and Water Quality FY 2012 Performance" on EPA's Water Program Performance Page at http://water.epa.gov/resource_performance/performance/index.cfm.

Figure 16: FY 2007–FY 2012 Tribal Commitments Met & Not Met



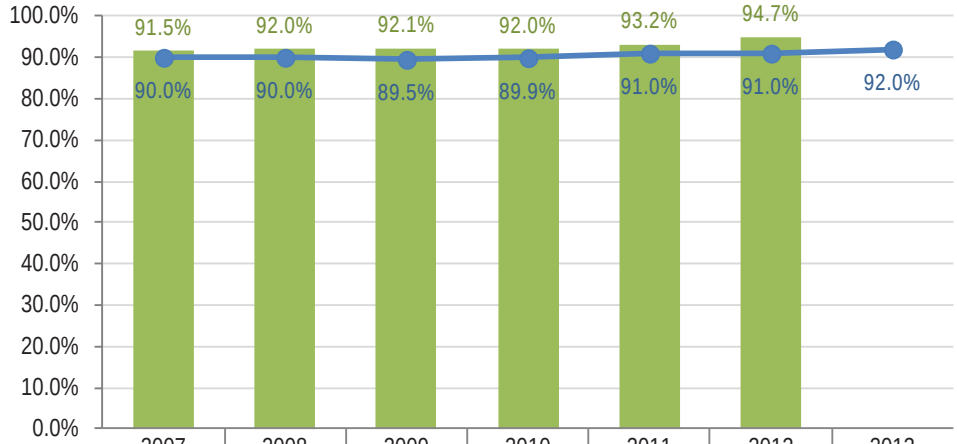
FY 2012 Performance Highlights

The National Water Program tracks the performance of more than 90 commitment measures for a diverse set of individual programs. Programs can be national or regional in scale and can produce a multitude of outputs and outcomes. The following section provides trend data for annual commitments and results for many of the key measures for the National Water Program. For more in-depth information about any of the measures or charts in this section, please refer to the specific subobjective chapter contained in the comprehensive End of Year Performance Report on EPA's website (http://water.epa.gov/resource_performance/performance/index.cfm).

Water Safe to Drink

Approximately ninety-five percent (94.7%) of the population was served by CWSs with drinking water that met all applicable health-based drinking water standards. This was above the annual commitment of 91%.

Figure 17: Percent Population with Drinking Water Meeting Standards by Fiscal Year (SDW-211)



	2007	2008	2009	2010	2011	2012	2013
Result	91.5%	92.0%	92.1%	92.0%	93.2%	94.7%	
Commitment	90.0%	90.0%	89.5%	89.9%	91.0%	91.0%	92.0%

Improve Water Quality on a Watershed Basis

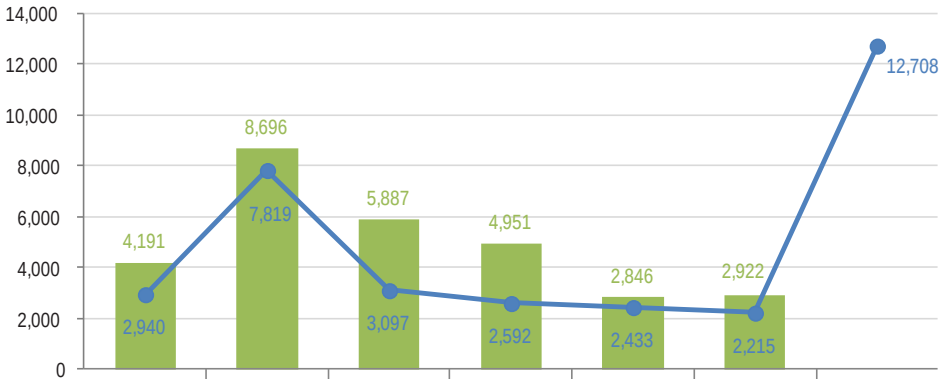
More than 3,500 of the waters listed as impaired in 2002 met water quality standards for all the identified impairments (commitment 3,324).

Figure 18: Formerly Impaired Waterbodies Meeting Water Quality Standards by Fiscal Year (WQ-SP10.N11)

	2008	2009	2010	2011	2012	2013
Result	2,165	2,505	2,909	3,119	3,527	
Commitment	1,552	2,272	2,809	2,973	3,324	3,608

EPA established and approved 2,922 TMDLs. More than 52,000 TMDLs have been completed since 1996.[7]

Figure 19: TMDLs Established or Approved on a Schedule Consistent with National Policy by Fiscal Year (WQ-08a)



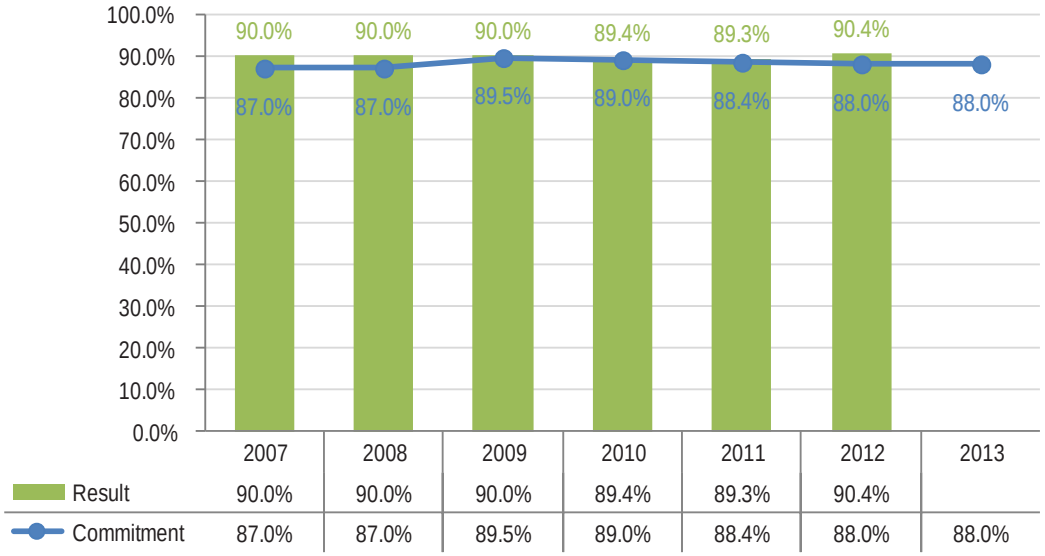
	2007	2008	2009	2010	2011	2012	2013
Result	4,191	8,696	5,887	4,951	2,846	2,922	
Commitment	2,940	7,819	3,097	2,592	2,433	2,215	12,708

[7] 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.

Improve Water Quality on a Watershed Basis *(continued)*

For the fifth consecutive year, EPA and states achieved the national goal of having current NPDES permits in place for 88% of non-tribal facilities.

Figure 20: Non-Tribal NPDES Permits Considered Current by Fiscal Year (WQ-12a)

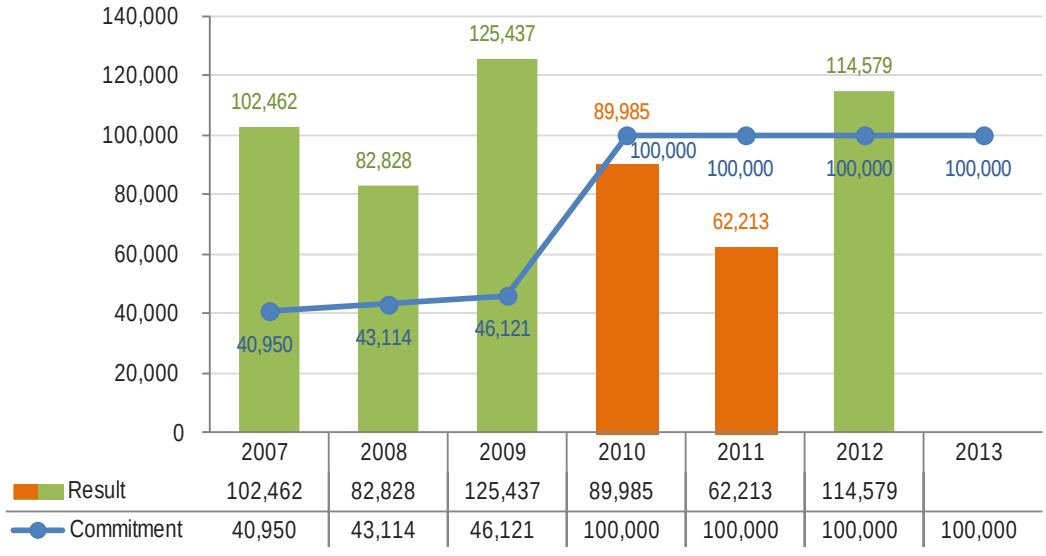


	2007	2008	2009	2010	2011	2012	2013
Result	90.0%	90.0%	90.0%	89.4%	89.3%	90.4%	
Commitment	87.0%	87.0%	89.5%	89.0%	88.4%	88.0%	88.0%

Improve Coastal and Ocean Waters

The 28 NEPs and their partners protected or restored almost 115,000 acres of habitat within the NEP study areas—exceeding EPA's goal of 100,000 acres. Since 2002, the NEPs and their partners have protected or restored more than 1 million habitat acres within the NEP study areas.

Figure 21: NEP Acres Protected or Restored by Fiscal Year (CO-432.N11)

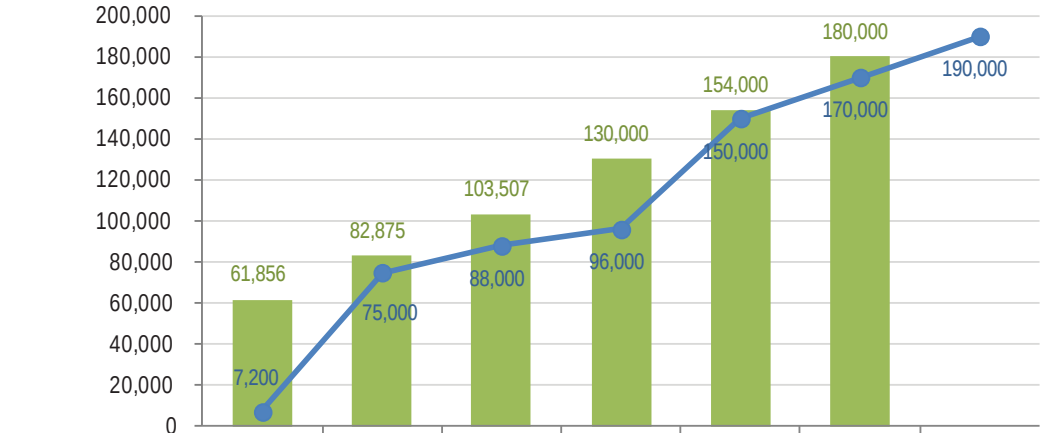


	2007	2008	2009	2010	2011	2012	2013
Result	102,462	82,828	125,437	89,985	62,213	114,579	
Commitment	40,950	43,114	46,121	100,000	100,000	100,000	100,000

Increase Wetlands

EPA continues to exceed expectations in the number of acres of wetlands restored and enhanced, with 180,000 acres restored and enhanced since 2002 (WT-1).

Figure 22: Wetland Acres Restored and Enhanced by Fiscal Year (WT-01)

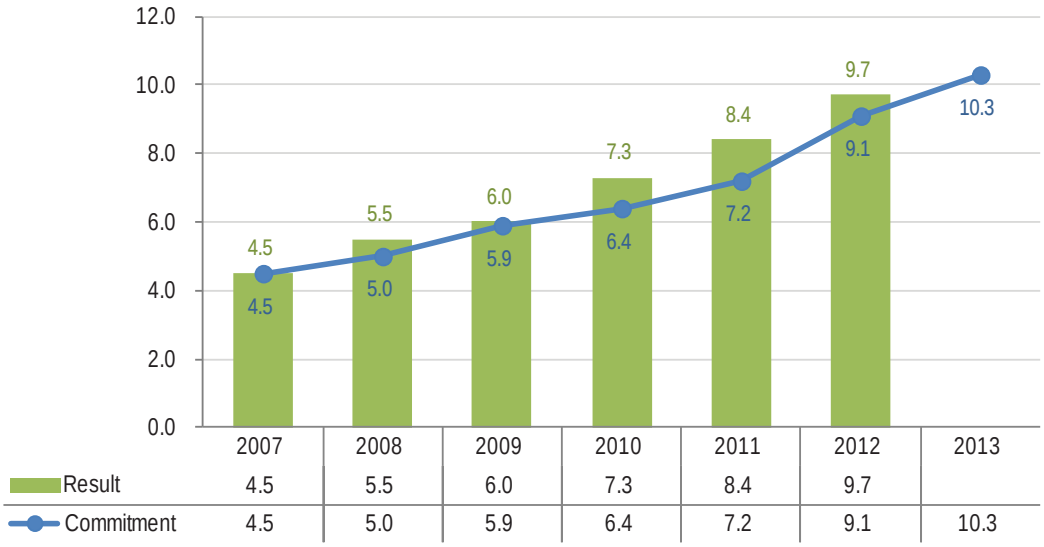


	2007	2008	2009	2010	2011	2012	2013
Result	61,856	82,875	103,507	130,000	154,000	180,000	
Commitment	7,200	75,000	88,000	96,000	150,000	170,000	190,000

Improve the Health of the Great Lakes

EPA, states, and other partners remediated 9.7 million cubic yards of contaminated sediments in the Great Lakes through 2011, including more than 1.3 million cubic yards for the most recent year reported.

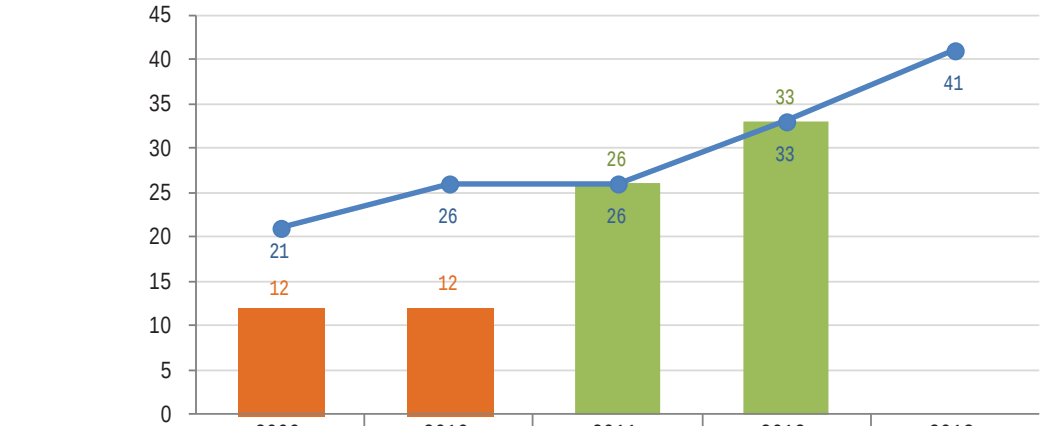
Figure 23: Cubic Yards of Remediated Sediment by Fiscal Year (GL-SP32.N11)



	2007	2008	2009	2010	2011	2012	2013
Result	4.5	5.5	6.0	7.3	8.4	9.7	
Commitment	4.5	5.0	5.9	6.4	7.2	9.1	10.3

The Great Lakes Program met its commitment to reduce seven additional Beneficial Use Impairments (BUIs) at Great Lakes Areas of Concern. Examples of impairments removed include restrictions on drinking water consumption, eutrophication, added costs to agriculture and industry, and degradation of benthos.

Figure 24: Beneficial Use Impairments Restored by Fiscal Year (GL-05)

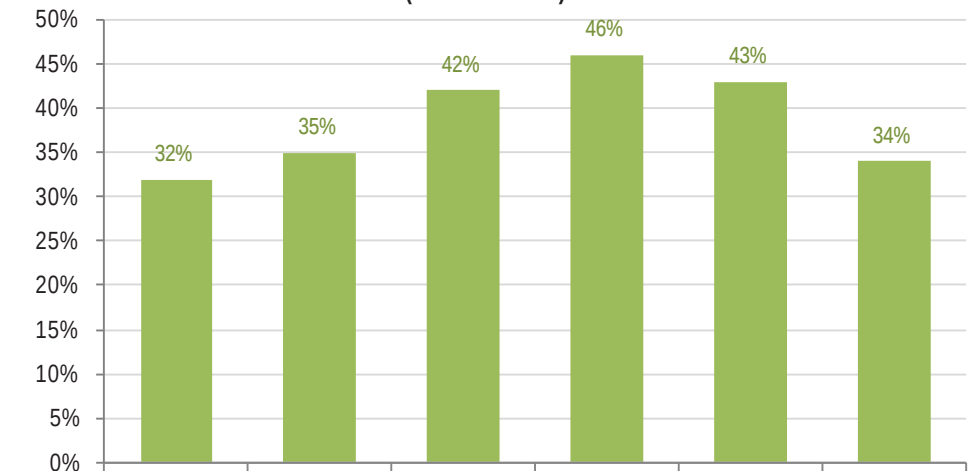


	2009	2010	2011	2012	2013
Result	12	12	26	33	
Commitment	21	26	26	33	41

Improve the Health of the Chesapeake Bay

Based on annual monitoring from the prior year, the Chesapeake Bay Program reported 62,900 acres of underwater grasses in the bay. This represents approximately 34% of the program's long-term goal of 185,000 acres.

Figure 25: Chesapeake Bay Submerged Aquatic Vegetation Restored by Fiscal Year (CB-SP33.N11)

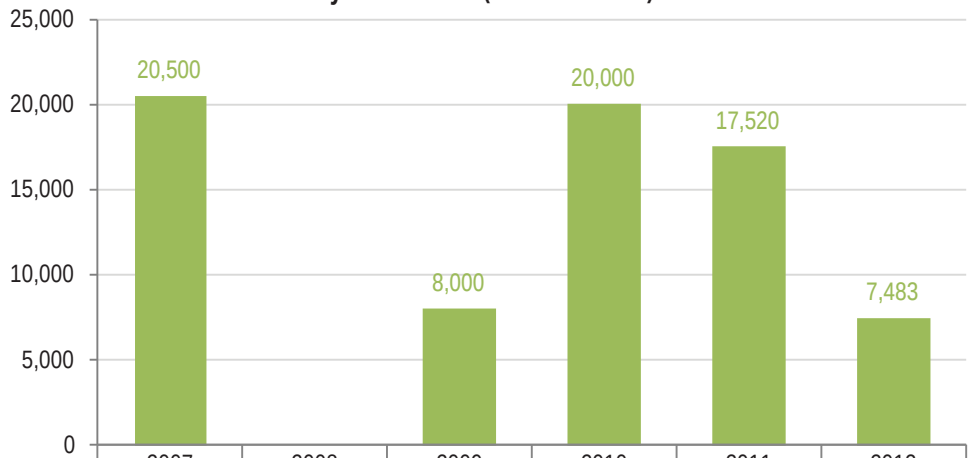


	2007	2008	2009	2010	2011	2012
Result	32%	35%	42%	46%	43%	34%

Restore and Protect the Gulf

The size of the hypoxic, or "dead," zone in the Gulf of Mexico decreased from 17,520 square kilometers in 2011 to 7,483 square kilometers in 2012. A number of hydrological, climate, and monitoring factors lead to variability in the size of the hypoxic zone from year to year.

Figure 26: Gulf of Mexico Hypoxic Zone 5-Year Average Size (Square Kilometers) by Fiscal Year (GM-SP40.N11)

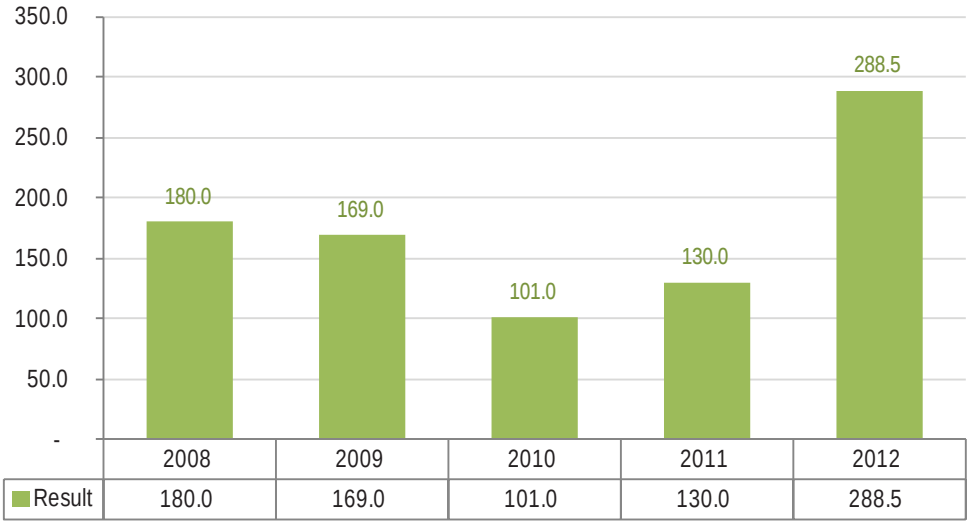


	2007	2008	2009	2010	2011	2012
Result	20,500		8,000	20,000	17,520	7,483

Restore and Protect the Long Island Sound

The maximum area of hypoxia in Long Island Sound measured 288 square miles. Warm weather conditions in the summer were partly responsible for the result exceeding the five-year rolling average maximum area of hypoxia of 174 square miles.

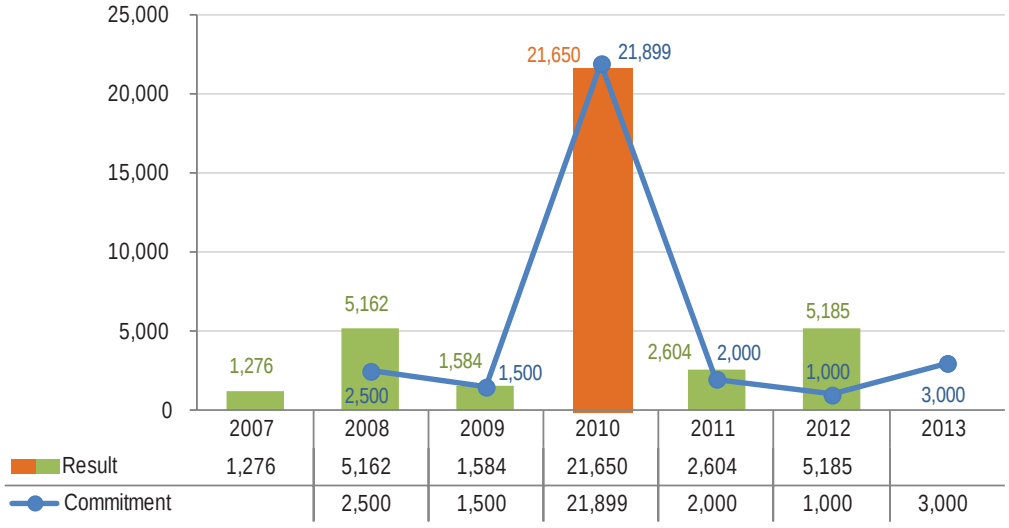
Figure 27: Reduction in Size (Square Miles) of Long Island Sound Hypoxic Zone by Fiscal Year (LI-SP42.N11)



Sustain and Restore the U.S.–Mexico Border Environmental Health

EPA provided adequate wastewater sanitation to an additional 31,092 homes over the past year, achieving its annual commitment (10,500 additional homes).

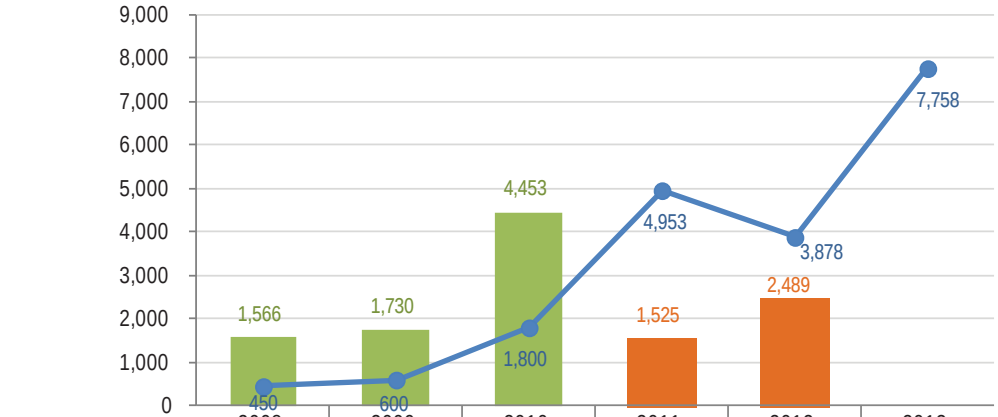
Figure 28: Homes with Safe Drinking Water in the U.S.–Mexico Border Area by Fiscal Year (MB-SP24.N11)



Restore and Protect the Puget Sound Basin

The Puget Sound program improved water quality and lifted harvest restrictions for 964 additional acres of shellfish bed growing areas. Unfortunately, this was not enough to reach the program's cumulative goal of 3,878 acres of unrestrictive commercial and recreational harvesting area in the Sound.

Figure 29: Increased Acres of Puget Sound Shellfish Areas by Fiscal Year (PS-SP49.N11)

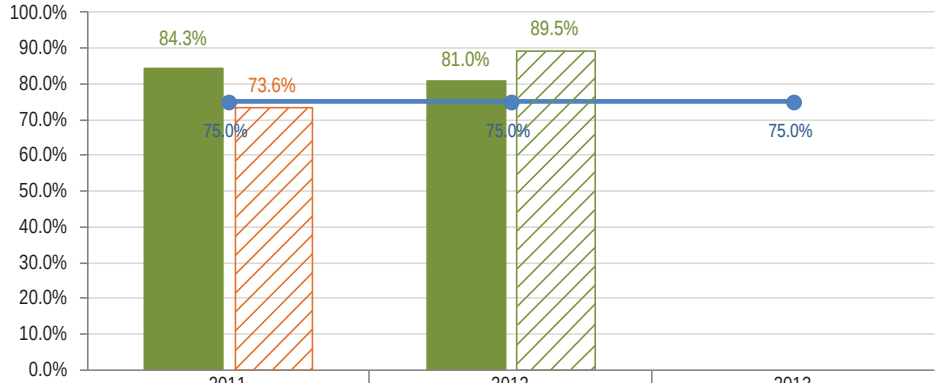


	2008	2009	2010	2011	2012	2013
Result	1,566	1,730	4,453	1,525	2,489	
Commitment	450	600	1,800	4,953	3,878	7,758

Restore and Protect the South Florida Ecosystem

Due to the implementation of upgraded wastewater management, water quality in the Florida Keys Marine Sanctuary improved, as measured by the percent of monitoring stations with dissolved nitrogen and total phosphorus at or below unhealthy levels.

Figure 30: Florida Keys National Marine Sanctuary Dissolved Inorganic Nitrogen (DIN) and Total Phosphorus (TP) Levels by Fiscal Year (SFL-SP47b)

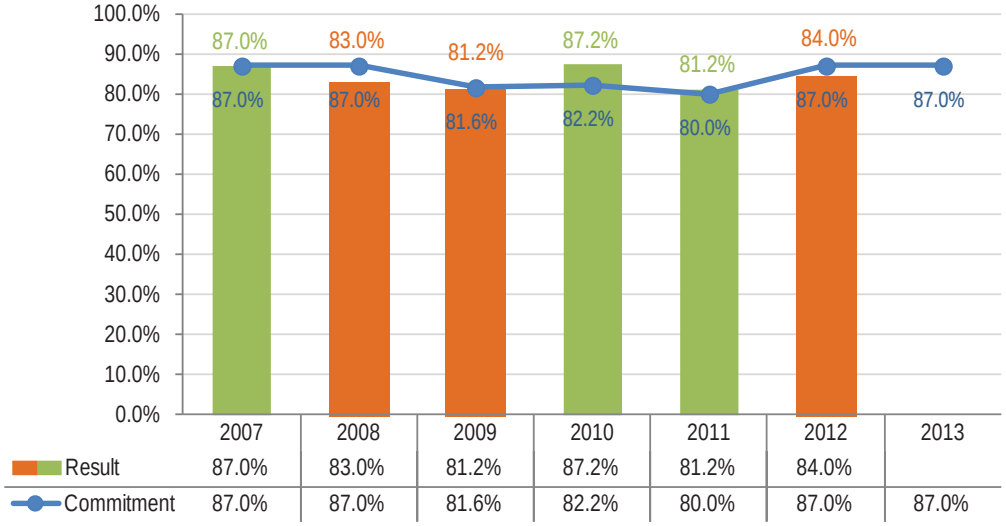


	2011	2012	2013
DIN Result	84.3%	81.0%	
TP Result	73.6%	89.5%	
Commitment	75.0%	75.0%	75.0%

Ensure Safe Drinking Water and Protect Water Quality on Tribal Lands

EPA set an ambitious commitment of 87% of the population in Indian Country served by CWSs that receive drinking water meeting all applicable health-based standards. The Agency fell short of this goal, mostly due to violations resulting from the Total Coliform, Stage 1 Disinfection Byproducts, and Nitrates Rules.

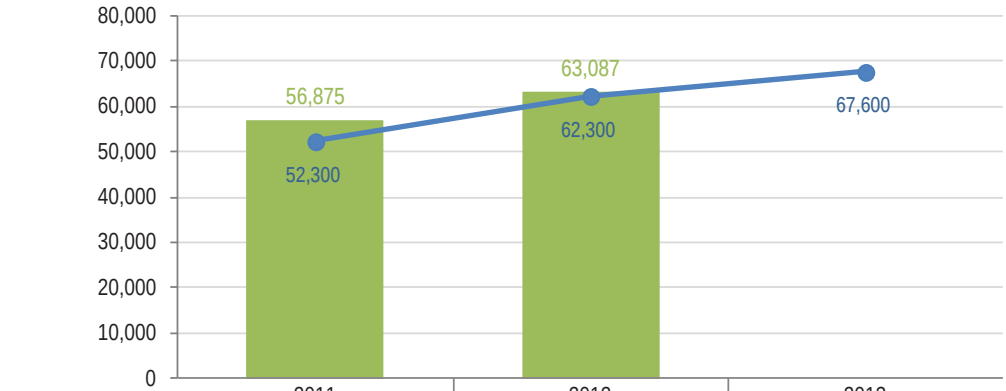
Figure 31: Population Served by CWSs In Indian Country by Fiscal Year (SDW-SP3.N11)



	2007	2008	2009	2010	2011	2012	2013
Result	87.0%	83.0%	81.2%	87.2%	81.2%	84.0%	
Commitment	87.0%	87.0%	81.6%	82.2%	80.0%	87.0%	87.0%

The Agency and its partners provided access to basic sanitation to more than 63,000 American Indian or Alaskan Native homes.

Figure 32: Number of American Indian and Alaska Native Homes with Access to Basic Sanitation by Fiscal Year (WQ-24.N11)



	2011	2012	2013
Result	56,875	63,087	
Commitment	52,300	62,300	67,600

National Water Program FY 2012 Best Practices

Introduction

Achieving continuous improvement in programmatic activities and environmental outcomes requires a process of planning, implementation, measurement, and analysis. This section highlights a number of best practices that have resulted in successful drinking water, surface water quality, wetlands, coastal and oceans, and large aquatic ecosystem programs. A best practice is defined as a process or methodology that consistently produces superior or innovative results. To propagate their impact widely and encourage their adoption, it is important to identify and analyze these approaches.

The six best practices highlighted in this section were selected from proposals submitted by the water divisions in EPA's headquarters or regional offices. The proposals were evaluated based on the following criteria:

- **Success Within the Program:** How has the activity resulted in improvements? Are the activity results clear? Does the activity have a direct or catalytic impact on program success?
- **Innovation:** How does the activity differ from existing approaches? Replicability: Can the activity be adopted by other regions/offices/states? Does it have the potential for expansion?
- **Direct Relation to the Administrator's Priorities**

The selected best practices do not represent a comprehensive list of the innovative activities that are being implemented. Rather, the selection is intended to provide examples of different types of activities taking place in different regions addressing different subobjectives. In selecting these best practices, special emphasis was placed on identifying activities or approaches that have resulted in measurable successful outcomes.

The vision for this report is to promote the widespread use of these successful activities and scale up the benefits of their implementation by sharing information on them among the program and regional offices.

Further activities will be identified and analyzed on a biannual basis. Furthermore, activities that have been selected will continue to be monitored to study their long-term effectiveness. This is part of a continuous learning process that is expected to yield even more innovation and successful outcomes.

Nonpoint Source Watershed-Based Plan Review Guide

Brief Description:

A cornerstone of the national guidelines is the requirement to develop and implement WBPs as a condition for eligibility of a large portion of Clean Water Act (CWA) Section 319 funding. WBPs require nine elements, including sufficient understanding of the water quality conditions, causes of NPS impairments, load reduction measures, funding sources, and implementation and monitoring to determine improvements to or restoration of water quality.

Region 6 reviews approximately 10 WBPs annually. The technical quality of these WBPs and the degree to which they meet national guidelines has differed because they are developed by many organizations with varying capacities. In addition, the states expressed a concern that different regional reviewers did not review WBPs in a consistent fashion (some being more critical than others). To clarify regional expectations for WBP acceptance and to improve the consistency of WBP reviews, a WBP review guide was developed. The review guide briefly explains the nine elements in the national guidelines and incorporates questions under each element on the types of data and information that may be appropriate. Reviewers can insert their comments and feedback into the guide itself. The resulting Word file can then be emailed to the originator. The Region 6 team worked together on the guide, allowed states the opportunity for input, and completed it in early 2010. To check reviewer consistency, the region conducted an exercise in which five program managers reviewed the same WBP and, afterwards, compared and discussed all written reviews. All participants felt this was enlighting and would likely help with review consistency in the future.

The WBP review guide is available at http://www.epa.gov/region6/water/ecopro/watershd/nonpoint/watershed-plan-review.pdf.

Subobjective:

Water Quality

Type:

Planning/Assessment

Highlights:

- **What:** EPA Region 6 developed a watershed-based plan (WBP) review guide to encourage consistency in its reviews of WBP, improve the quality of the plans, and increase the restoration of impaired waters.
- **Who:** EPA Region 6
- **Why:** Protecting America's waters and building strong state and tribal partnerships are two of the Administrator's priorities. At a biannual region/states nonpoint source (NPS) workshop in FY 2010, states indicated that the region needed to be more consistent in its reviews of submitted WBPs. The need for consistency was also pointed out in the General Accountability Office's review of EPA's NPS Program in 2011. The region developed the review guide to ensure that WBPs are in harmony with national nonpoint source program guidelines, to strengthen partnerships with states, and to better protect America's waters.

Current Status:

Currently, the WBP review guide is used routinely by Region 6 NPS program managers. Written comments embedded in the review guide are shared with the state or watershed group to aid in further developing or revising WBPs.

Outcomes:

As a result of the application of the WBP review guide, Region 6 is better equipped to achieve one of the Administrator's priorities: protecting America's waters. Staff reviews of WBPs have been more consistent. States are developing better WBPs as well. One state, New Mexico, now uses the

review guide for its own use prior to submitting their WBP to the region for acceptance. Arkansas uses the information provided from the region's review to improve in-house staff capacity on WBP reviews and shares the information with their own watershed partners.

Lessons Learned/Recommendations:

EPA Region 6 has learned that through the use of the review guide, the region's relationships with state and tribes can be improved if the evaluation of plans is conducted fairly and consistently. Having a follow up review exercise for staff is valuable. The review guide can be used by other regions and/or states. It is already being utilized by some Region 6 state partners.

Contact Information:

Brad Lamb, 214-665-6683

Tina Hendon 214-665-6619

Closing the Gap in Available and Obligated Funds for Clean Water and Drinking Water State Revolving Funds

Brief Description:

The key elements of the approach include 1) analyzing historical drawdown trends; 2) understanding and offering more efficient grants management practices; 3) negotiating with state partners' best management practices and optimistic stretch goals for drawing down funds; and 4) analyzing progress and revisiting management practices and targets.

In lieu of responding to drawdown reports, EPA established targets at the beginning of the fiscal year. This brought immediate attention to construction projects that were stalled or not being funded, suggestions for improving invoice payment processes, and efforts for revising application processes. As a result, several state SRF programs developed short- and/or long-term revisions that helped expedite drawdowns. Several states revised their rules to accommodate a greater amount of construction project applications. Additionally, webinars were offered to all entities on the draft SRF project priority list, and consultants were available to explain changes to invitation process and Intended Use Plans (IUPs).

In developing the stretch goals, the Region 6 SRF team met with each state at the beginning of the fiscal year to discuss the feasibility of the stretch goals. Staff from EPA and the state collaborated on determining the most realistic yet ambitious stretch goal. Once staff had agreed on the stretch goal, senior management from all parties was briefed, and then official correspondence documented the decision. A series of check-in meetings throughout the year ensured that the stretch goals received appropriate attention and provided forums for discussing program challenges.

Current Status:

Apart from the reductions in unliquidated funds that were seen in each of the SRF programs (in particular the Clean Water SRF program), states have continued focus on the need to draw down SRF funds expeditiously. The Region 6 SRF program continues to track progress toward goals quarterly and evaluate the revised management practices. Region 6 also emphasizes the unliquidated obligation (ULO) issue at annual state onsite evaluations and in Performance Evaluation Reports (PERs); during one-on-one meetings with the state agencies; in its comments on states' IUPs, set-aside work plans, and annual reports; and during all other opportunities for dialogue.

Subobjective:

Water Quality

Type:

Financial Management

Highlights:

- **What:** EPA establishes drawdown targets or "stretch goals" for states in reducing the amount of unobligated funds for Clean Water and Drinking Water State Revolving Fund (SRF) grant programs.
- **Who:** The EPA Region 6 SRF program worked with its state partners to negotiate stretch goals for each quarter.
- **Why:** To "close the gap" between amount obligated in the federal SRF capitalization awards and total amount of outlays against that obligation.

Outcomes:

The primary outcome of the region's effort has been an increase in the majority of states' expenditure rates, resulting in a reduction of the states' balances of ULOs. The region expects this practice to continue to positively impact the program by further reducing ULOs in the upcoming years as it continues to partner with the states on this issue. Some changes put in place by this effort, such as a revision to a state rule to accommodate a greater amount of construction project applications, were not able to be implemented this fiscal year and promise to show even further reduction in the near future.

Clean Water SRF Stretch Goal Impact for FFY 2012

State	3 Year Average Outlay	FY 2012 Outlays	% of 3 Year Average Outlay
Arkansas	$4,978,313	$13,674,503	275%
Louisiana	$15,816,864	$33,952,103	215%
New Mexico	$2,192,430	$10,661,768	486%
Oklahoma	$8,432,017	$22,635,548	268%
Texas	$20,725,824	$171,729,833	829%
Region 6	$52,145,447	$252,653,756	485%

Drinking Water SRF Stretch Goal Impact for FFY 2012

State	3 Year Average	Actual	% of 3 Year Average
Arkansas	$12,621,037	$11,606,021	92%
Louisiana	$19,778,726	$17,230,785	87%
New Mexico	$7,937,932	$8,156,518	103%
Oklahoma	$18,996,410	$10,681,173	56%
Texas	$63,900,044	$80,419,285	126%
Region 6	$123,234,147	$128,093,781	104%

Lessons Learned/Recommendations:

Region 6 believes that its approach can be replicated in other regions as long as it has strong management support from all parties. Collaboration with states on ULOs encouraged planning and dialogue at the beginning of the fiscal year as stretch goals were developed in consultation with the states. Region 6 SRF Project Officers keep a ULO tracking chart that is updated monthly, and they are familiar with the amount of federal money each agency is spending and from which grants and set-aside accounts are being drawn. This gives the Project Officer a more intimate connection with the financial activity of the state agencies that manage the SRF programs and enables the Project Officer to identify potential problems (e.g., no federal draws after the first fiscal year quarter) and counsel the states about these potential problems in their infant stages. This has proven to be tremendously beneficial in accelerating federal draws.

Contact Information:

Ashley Howard, 214-665-7597

3 Advancing Large-Scale Green Infrastructure Through Collaborative Partnership Agreements

Brief Description:

Regulated entities can be hesitant to adopt new environmental protection practices because they are unsure about how effectively these practices will work and how regulatory agencies like EPA will respond. They may also be reluctant to accept the risk of emerging practices even when these practices may provide additional environmental, economic, and social benefits. This has been the case with cities that wish to use green infrastructure practices as a key element of their Long Term Control Plan to address stormwater and reduce CSOs.

Shifting the relationship among EPA, states, and cities from regulator and regulated to a partnership—whereby EPA and the regulated entity mutually agree to work toward the desired outcome and share some risk, while maintaining regulatory responsibility and accountability—helps move the green infrastructure initiative forward more quickly; leverages additional support; and creates an atmosphere of cooperation, education, and success.

The partnership agreement approach:

1. Provides a framework that describes the working relationships between EPA and partner cities/jurisdictions implementing green stormwater infrastructure for achieving specified goals.
2. Demonstrates a joint commitment to green infrastructure and this emerging green economy.
3. Allows for "real-time" collaborative discussion about what each partner can do to support achievement of the desired outcome.
4. Does not eliminate environmental responsibilities and requirements under the CWA but demonstrates a willingness to approach those responsibilities and the associated risks in a collaborative, solutions-oriented fashion.

Subobjective:

Water Quality

Type:

Partnership Agreement

Highlights:

- **What:** The partnership agreements advance large-scale green infrastructure (GI)[8] implementation through an innovative Urban Retrofit Partnership "model" by aggressively addressing combined sewer overflows (CSOs) and water quality while demonstrating multiple sustainable benefits to impacted watersheds and communities.
- **Who:** EPA Mid-Atlantic Region 3 (Water Protection Division), Philadelphia Mayor's Office, and the Philadelphia Water Department.
- **Why:** To demonstrate EPA support for adoption and use of large-scale decentralized green stormwater management for addressing CSOs and wet weather, along with other urban impacts through the use of innovative collaboration and sustainable development.

This approach is best captured and demonstrated by the "Green City, Clean Waters Partnership Agreement" between the city of Philadelphia and EPA and the recent "Clean Rivers, Green District Partnership Agreement" between the District of Columbia, DC Water, and EPA (modeled after the Philadelphia agreement). While these partnership agreements are slightly different, they both represent a new approach to early adoption of green infrastructure and a best practice for building positive partnerships to protect human health and the environment.

[8] Green infrastructure refers to a range of soil-water-plant systems that intercept stormwater, infiltrate a portion of it into the ground, evaporate a portion of into the air, and in some cases, release a portion of it slowly back into the sewer system. The benefits of green infrastructure are particularly enhanced in urban areas where green space is limited and environmental damage may be more extensive.

Each agreement outlines the roles of each partner and the strategy for early adoption of green infrastructure, assessing the performance of green infrastructure, future adoption of green infrastructure, and ongoing communication between the partners. The agreements also identify specific collaborative actions, such as green design challenges, that will be used to build capacity and understanding around green infrastructure. These agreements are innovative because they provide an alternative to the strictly regulatory approach. They demonstrate the EPA's willingness to work with cities (and other regulated entities) that show good faith effort in protecting human health and the environment. For terms of the agreements, see Web links below.

Current Status:

Both partnership agreements have been signed, and the partners are moving forward with implementation. The Philadelphia partnership agreement was signed on April 10, 2012. The DC partnership agreement was signed on December 10, 2012. These partnership agreements are still in the early stages, yet they are already yielding positive results.

Outcomes:

The Philadelphia partnership agreement has served as a springboard for multiple activities in the Philadelphia area, including a green infrastructure design initiative, green infrastructure research, green streets,[9] and work to develop the "Next Generation Big Green Block". The Green City, Clean Waters Partnership Agreement (along with the leadership and staff in the Philadelphia Water Department and the efforts of the Region 3 Water Protection Division) has made Philadelphia a national model of green stormwater management. Philadelphia has also become the focus of an EPA Science To Achieve Results (STAR) grant, which will help support research and advance the science of green infrastructure.

Lessons Learned/Recommendations:

While each partnership agreement will necessarily have unique local variations, the partnership approach provides an alternative to the standard practice. Partnerships demonstrate a willingness to consider new ideas and new practices while maintaining accountability to regulatory requirements. While EPA maintains its responsibility as regulator, the partnership approach has changed the tone of the discussion and made it possible to establish shared goals and a clear path to collaborative success. The partnerships are bringing positive national attention to these cities and to the topic of green infrastructure, helping to leverage both expertise and funding.

Visual Diagram:

http://issuu.com/phillyh2o/docs/green-city-clean-waters-2012-year-in-review?mode=window&backgroundColor=%23222222

Contact Information:

Jon Capacasa, Director, Water Protection Division, 215-814-5421

Dominique Lueckenhoff, Associate Director, 215-814-5810

"Green City, Clean Waters Partnership Agreement" http://phillywatersheds.org/doc/EPA_Partnership_Agreement.pdf

"Clean Rivers, Green District Partnership Agreement" http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/GreenPartnshipAgreement.pdf

[9] The simplest definition of "Green Streets" is "combining multiple GI practices along a street corridor." http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_munichandbook_green_streets.pdf

Watershed Resources Registry—A Data-Driven, Integrated Decision Support Framework and Tool

Brief Description:

The WRR is a GIS-based mapping tool designed to address priority resources goals, identify watershed needs, and to facilitate the integration of multiple local, state, and federal environmental program goals at a watershed level. The WRR identifies ecological opportunity areas throughout the State of Maryland and scores each opportunity area with a score from one to five stars with five stars indicating the greatest ecological value. These scores are based upon eight suitability analyses including: wetland preservation, wetland restoration, upland preservation, upland restoration, riparian preservation, riparian restoration, stormwater natural infrastructure preservation, and stormwater compromised infrastructure restoration.

Current Status:

The WRR outreach website was recently released and made available to the public. The website provides information regarding the history of the WRR project, methodologies used, a guided WRR training video, contact information of TAC members, and frequently asked questions, along with other information and links to assist the user with the WRR. The outreach website serves as the platform to access the Web application. It is also where users can provide feedback on the usability of the application. The WRR is now available to the general public via the WRR outreach website and Web application found at www.watershedresourcesregistry.com.

Partner agencies, as well as other agencies that have recently become familiar with the WRR, are currently using it for an array of activities, such as targeting strategies for Total Maximum Daily Load (TMDL) implementation and CWA §404 NEPA-related projects, targeting ecological opportunities for preservation and restoration, and supporting MDE's In-Lieu Fee program for tidal and non-tidal wetland permitting activities, among other things. Additionally, EPA uses the WRR to gather information prior to conducting site visits and to provide supportive materials for briefings and other projects.

Subobjective:

Water Quality

Type:

Assessment-Database

Highlights:

- **What:** The Watershed Resources Registry (WRR) is an interactive, comprehensive geographic information systems (GIS) mapping tool and replicable framework that analyzes watersheds to find and score ideal opportunity areas for protecting high-quality resources; restoring impaired resources; and supporting sustainable, integrated watershed management and regulatory efficiencies.
- **Who:** Led by EPA Region 3 (Water Protection Division), current partner agencies include the U.S. Army Corps of Engineers (Baltimore District), the Federal Highway Administration, the U.S. Fish and Wildlife Service, and the Maryland Department of the Environment (MDE) (State Highway Administration, Environmental Services, and Department of Natural Resources). A Technical Action Committee (TAC) consisting of individuals from these partner agencies collaboratively strategizes the development, progress, and future of the WRR and uses it as a vehicle to discuss how to reduce cost and maximize environmental benefit.
- **Why:** The WRR was developed through the Mid-Atlantic Green Highways Partnership as an exercise in interagency collaboration to streamline information collection and preparation for permit processes; achieve program integration and watershed goals; prioritize watershed needs; and increase stakeholder efficiency in utilizing limited resources to achieve multiple goals within a watershed.

Members of the WRR TAC completed agency-specific training sessions within each partner agency to instruct their staffs on how to efficiently use the WRR in their daily project activities. Staff members were also shown how to provide feedback on their experiences with the WRR through a feedback page provided on the WRR outreach website. This feedback is being compiled into a tracking document to be used to improve the WRR.

Outcomes:

The WRR was recognized by the National Cooperative Highway Research Program, Transportation Research Board in its "Practitioner's Handbook: Optimizing Conservation and Improving Mitigation Through the Use of Progressive Approaches" as a model approach that "provides a publicly accessible platform that analyzes specific ecosystem functions and suggests priority restoration projects that accommodate multiple regulatory or non-regulatory programs."

Lessons Learned/Recommendations:

Aligning strongly with the goals set forth in President Obama's Executive Order for the Chesapeake Bay, the WRR is a powerful tool with the capability of assisting state, federal, and local entities in meeting the requirements of the bay's TMDL. However, the WRR provides a transferrable framework that could be employed in other regions as a means to overcome limitations of existing regulatory frameworks that often result in a stovepipe approach to managing resources. The framework requires that individuals from an array of agencies be proactively engaged up front in order to cooperatively identify shared, overlapping, or complementary goals of the traditionally competing regulations that govern their work. The comprehensive program coverage and buy-in during the development of the tool helped to ensure its functionality and utility in achieving synergistic ecological benefits within the scope of a diverse set of programs. The framework can therefore serve as a strategy to be used by entities as they move forward to develop unique registries tailored to the needs of their specific regions.

Contacts:

Dominique Lueckenhoff, 215-814-5810

Ralph Spagnolo, 215-814-2718

http://www.watershedresourcesregistry.com

5 Institutionalizing Green Infrastructure via Municipal Stormwater Permits

Brief Description:

This permit uses a 90th percentile rainfall performance standard approach to implement the onsite retention framework. Under natural conditions in the DC region, approximately 90% of the storms (those under about 1.2") will not generate runoff; in other words, all of the rainfall from small to medium-sized storms will stay on site, either soaking into the ground or taken up by vegetation. The performance standard in the permit seeks to mimic the natural hydrologic cycle by requiring the implementation of stormwater management measures that will handle 1.2" on site.

The permit also supports the framework, with specific implementation requirements for green roofs and tree plantings, a numeric drainage area retrofit requirements, a green landscaping incentive program provision, a manual to guide implementation of the new standard, and an offsite mitigation and payment-in-lieu program. Quantifiable, enforceable language is also a critical element to ensure that these provisions are implemented without exception by specific dates to meet robust standards.

Current Status:

The permit was issued in September 2011. The region successfully defended challenges to two aspects of the permit (not the ones outlined here), which pushed back the effective date of the permit but did not compromise its integrity. To date, the District of Columbia (the permittee) has proposed changes to stormwater ordinances to implement the performance standard and the offsite mitigation/payment-in-lieu program, has published the Stormwater Management Guidebook in a public notice, and has held numerous public training sessions on the new requirements.

Outcomes:

All development in the District of Columbia will soon be subject to this performance standard. The tree planting requirements are already being met, and the District of Columbia is on track to comply with the other elements as well. EPA

Subobjective:

Water Quality

Type:

Stormwater Management

Highlights:

- **What:** The District of Columbia's Municipal Separate Storm Sewer (MS4) permit requires onsite retention of 1.2" of rainfall from all 24-hour storms for all new and redevelopment projects 5,000 square feet or larger, as well as for most retrofit projects. Implementing the performance standard necessitates the use of green infrastructure—applying vegetation, soils, and natural processes to manage stormwater and create healthier urban environments. In addition, the permit includes an annual tree planting requirement and a square footage green roof installation requirement over the permit term.
- **Who:** EPA Region 3 issued this MS4 permit.
- **Why:** Most stormwater program water quality objectives cannot be met without onsite retention of the rainfall from all small to medium-sized storms. Simulations using the Chesapeake Bay Program watershed models indicate that timely attainment of the relevant wasteload allocations for nitrogen, phosphorus and sediment will result when performance standards and practices, as quantified in this MS4 permit, are applied to all development in the District of Columbia.

Region 3 believes this type of framework can be replicated elsewhere and has promoted it as a successful example for several Region 3 state programs reissuing MS4 permits. With adjustments for rainfall depth based on local or regional climate conditions, this framework can be used in any MS4 permit.

Lessons Learned/Recommendations:

This approach has been demonstrated to be "practicable." Permit writers should not be wary about setting clear, numeric, and enforceable provisions.

Contact Information:

Kaitlyn Bendik, 215-814-2709

http://www.epa.gov/reg3wapd/npdes/dcpermits.htm

6 Iowa's Expeditious Use of Clean Water State Revolving Funds

Brief Description:

Several milestones affect the CWSRF grant timeline

- When Congress finalizes appropriations and EPA announces funding availability.
- When the state submits a grant application.
- When EPA awards the grant funds.
- When the grant funds are fully disbursed.

The key features of the Iowa CWSRF program include:

- Improvements and streamlining in the wastewater construction permitting process, which reduced timelines for project review and approval.
- Allowing applicants to pursue a phased approach to projects to enable individual projects to proceed timely to construction instead of waiting for approval on a large project.
- Planning and design loans at 0% interest for three years to provide upfront capital to get projects started and ready for construction and loan closing.
- Year-round application process with quarterly updates to the Intended Use Plan, which keeps projects in the loan pipeline on a continual basis.
- Expansion of nonpoint source and green infrastructure programs to include loans for farmers, livestock producers, watershed organizations, and others.
- Extended term financing, based on project useful life, which allows more utilities to benefit from the CWSRF.
- Environmental review services to complete assessments of impacts to natural and cultural resources, reducing costs and barriers to participating in the loan program.
- Focus on marketing, customer and consultant education, and coordination with other funders.

Subobjective:

Water Quality

Type:

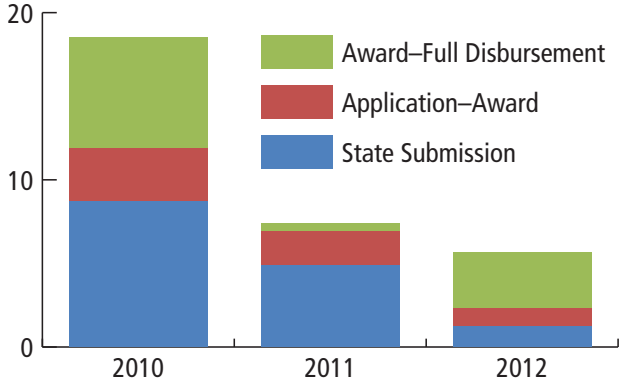
Financial Planning

Highlights:

- **What:** The state of Iowa's Clean Water State Revolving Fund (CWSRF) uses its federal capitalization grant funds as expeditiously as possible by implementing various innovative approaches, such as streamlining permitting processes, short-term low interest loans, expanding eligibility of nonpoint source loan programs, and coordinating marketing with other funders.
- **Who:** State of Iowa
- **Why:** The Iowa CWSRF is committed to improving and streamlining its program in order to generate more interest from potential borrowers, and to continue to use the CWSRF funds in a timely and expeditious manner.

Grant Timelines

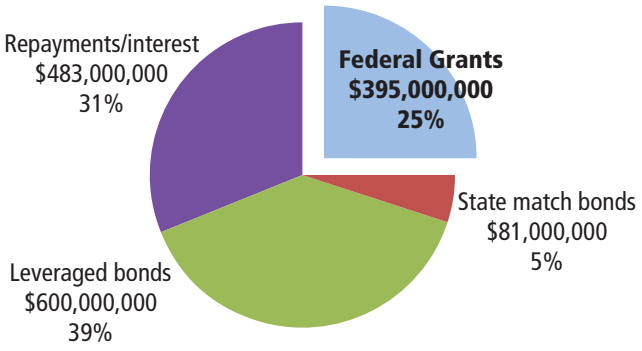
(number of months between milestones)



Financial management also contributes to the timely use of federal funds. The Iowa CWSRF program uses its principal and interest repayments to originate new loans. When additional funds are needed, the SRF program issues bonds, backed by those CWSRF loans, and uses the bond proceeds to replenish the equity fund.

Iowa's SRF program generally issues bonds annually. These bond issues include the state match for the next federal capitalization grants. After the bonds are issued, the state match is spent first so that the capitalization grant can be drawn down at 100% when it is received. Iowa chooses several large projects to receive grant disbursements, thus allowing the grant to be drawn down more quickly. Loan disbursements are made weekly. Iowa's CWSRF disbursements average about $14 million per month. Iowa's CWSRF capitalization grant in FY 2012 was $19,128,000.

CWSRF Sources–Iowa



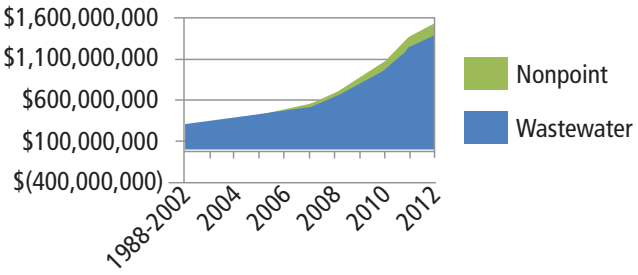
Iowa statute directs the Iowa Department of Natural Resources (DNR) and the Iowa Finance Authority (IFA) to jointly operate the CWSRF. DNR handles program prioritization, project permitting, environmental review, and EPA compliance. IFA covers financial management, issues bonds, and disburses loan funds. While each partner carries out its individual responsibilities, the two coordinate on programmatic and financial strategies to make the most effective use of the funding.

Outcome:

The timeline in Iowa has been reduced significantly over the last three grant cycles.

Iowa has been able to use its federal capitalization grant funds in a a timely manner due to a robust and sustained demand for loans. Iowa's annual loan commitment amounts have increased from an average of $30 million per year to an average of $190 million in recent years.

Growth in Loan Commitments, Iowa CWSRF



Lessons Learned/Recommendations:

Both the Iowa DNR and IFA are committed to continuous improvement and streamlining efforts to adapt to changes in the program requirements and needs. Many of the strategies for timely use of funds are also recommended by the Council of Infrastructure Financing Authorities (CIFA) in the white paper, "Potential State and Regional Best Practices to consider in Accelerating SRF Funds." As CIFA points out, not all practices are applicable to each state program, depending on program structure and state statutory requirements. The practices described above are currently working well for Iowa.

Contact Information:

Patti Cale-Finnegan
Department of Natural Resources
515-725-0498
Patti.cale-finnegan@dnr.iowa.gov

Lori Beary
Iowa Finance Authority
515-725-4965
lori.beary@iowa.gov

Going **Really** Green: *Sea Farming for Environmental and Economic Benefits*

Brief Description:

The key elements of this best practice are: 1) key partners' recognition of the need for a comprehensive approach that combines traditional water pollution control methods with innovative strategies in a cost-effective and economically sustainable manner; 2) the vision to foresee a different approach that combines science and business in synergistic partnerships to achieve mutual goals—clean water and economic benefits, including new jobs; 3) the willingness and ability to use limited resources to conduct on-the-ground scientific empirical experiments in cooperation with the business community; and 4) moving from practical experimentation to actual implementation and development.

This multi-partner project has shown that sea farming in highly urbanized waters is feasible and practical. Conflicts with recreation can be minimized or avoided. Farming seaweeds and shellfish species improves water quality while developing new consumable and nonconsumable products and markets that enhance the economic value of the waterbody. Sea farming can provide new jobs in a very vulnerable commodity sector, as well as new sources of revenue for local and state governments. Sea farming in urban coastal areas has demonstrated scientifically that seaweed and shellfish production is viable and sustainable, can provide safe and nutritious feedstock for both human and animal consumption, and can produce a stable source of stock for nonconsumable products such as biofuels.

Current Status:

The best practice consists of essentially three parts: Part 1, Seaweed Demonstration, which has been successfully implemented on a pilot-scale; Part 2, Shellfish Demonstration, which also has successfully undergone pilot-scale implementation; Part 3, Economic Analysis Modeling, or

[10] New York State Office of the Attorney General and the New York State Department of Environmental Conservation (NYSDEC), under the Bronx River Watershed Initiative Memorandum of Agreement, executed by and between the New York State Office of the Attorney General, the NYSDEC, and the National Fish & Wildlife Foundation, as of April 20, 2007.

Subobjective:

Long Island Sound

Type:

Nutrient Reduction—Ecological Services

Highlights:

- **What:** This best practice demonstrates the potential for sea farms, shellfish, and seaweeds to improve water quality in coastal areas of the United States. Pilot projects on Long Island Sound are evaluating the feasibility of sea farming in coastal waters, quantifying the potential for nutrient bioextraction, evaluating use conflicts, and researching new markets for products, considering suppliers and consumers. Enhancing sea farming can reduce nutrient pollution, have ancillary ecosystem benefits by creating habitat, support sustainable jobs, and potentially reduce the national seafood trade deficit.
- **Who:** EPA and its Regional Ecological Services (REServ) program; the University of Connecticut (UConn) Department of Ecology and Evolutionary Biology (School of Business and Stamford Learning Accelerator); NOAA's Small Business Innovation Research (SBIR) program (Aquaculture Program, National Marine Fisheries Service Northeast Fisheries Science Center Milford Laboratory, Center for Coastal Monitoring and Assessment, and Aquaculture Program); the Bronx River Watershed Initiative;[10] and the Connecticut Sea Grant College Program.
- **Why:** Nutrient pollution impairs coastal water quality. EPA is focused on reducing nutrient pollution through comprehensive and innovative strategies. This best practice focuses on restoring the assimilative capacity of coastal water bodies to nutrients that have been lost from changes in habitat and living resources, such as a reduction in shellfish populations. Enhancing sea farming of shellfish and seaweeds can complement nutrient control as part of a comprehensive strategy to attain water quality standards.

ecosystem-scale seaweed and shellfish modeling and economic benefits efforts, which are underway and ongoing.

Outcomes:

The annual nutrient-reduction capabilities of shellfish and seaweed aquaculture have been scientifically demonstrated; aquaculture techniques in general are well established, and these approaches are applicable in a wide range of aquatic environments in urban coastal waters throughout the U.S. Coastal Zone and its Exclusive Economic Zone. Economic incentives for aquaculture expansion still need to be develop (e.g., payment to sea farmers for ecosystem services created, sustained inclusion in nitrogen trading programs). For instance, in a nitrogen trading scheme, cultivated seaweeds and shellfish can increase the nitrogen carrying capacity of the waterbody, creating a new market source for trading credits. Currently, in the Connecticut nitrogen trading program, only sewage treatment plant nitrogen reductions qualify as credits for purchase. Projections for Long Island Sound show a potential for as much as 10,500 tons (dry weight) of annual seaweed *(Gracilaria)* production, with a 5% nitrogen capture rate at extraction. Using the Connecticut Nitrogen Credit Trading Board's 2011 price per pound of nitrogen of $5.42, there could be a potential market value in the nitrogen removed to operators of $5,691,000 annually. The total Connecticut nitrogen credit pool in 2011 was $6.8 million by comparison. The additional market and non-market benefits of seaweed and shellfish farming and bioextraction are being reviewed.

Lessons Learned/Recommendations:

Limits to aquaculture expansion come primarily from social sources rather than ecosystem carrying capacity, so informing the public and gaining acceptance and understanding is critical to this enterprise. It is important to engage the local communities in explaining both the physical processes and the environmental and social benefits of these initiatives. It is also important to engage federal, state, and local leaders, regulators, and, potentially, legislators.

Contact Information:

Mark A. Tedesco, Director, EPA Long Island Sound Office, 203-977-1541

http://www.longislandsoundstudy.net

Dr. Charles Yarish (center) with UConn and Bridgeport Center researchers and students collecting farmed kelp.

Shellfish and seaweed suspension raft off the Bronx River, New York Regional Aquaculture Science and Technology Education.

Mississippi Delta Partnership Use of Novel Low Technology Solutions for On-Farm Nutrient Removal

Brief Description:

Delta F.A.R.M., an association of growers and landowners that strives to implement recognized agricultural practices that will conserve, restore, and enhance the environment of northwest Mississippi (with expertise from MSU and several partners), has been implementing innovative low-cost and low-technology solutions for controlling on-farm water conservation. The strategies being implemented include slotted inlet pipes as an edge of field practice, vegetated drainage ditches that directly receive agricultural runoff, and low-grade weirs in ditches to enhance retention time and improve wetland-like conditions. Sediment accumulation behind the structures has been quantified, and these low-technology solutions have begun demonstrating the ability to mitigate nutrient and sediment loads to downstream aquatic systems.

In a recent semi-controlled field study, low-grade weirs implemented in drainage ditches were found to increase hydraulic residence times, which is an essential component to enhancing nutrient reduction. Research has shown that vegetated drainage ditches reduce agricultural runoff concentrations and loads of total inorganic nitrogen and phosphorus by 47% and 53%, respectively. Further manipulations of wetland-specific plant uptake within ditches have suggested that certain plants have greater nutrient assimilatory capacity than others. Experimentally, it has been shown that weirs significantly decrease nutrient concentrations and loads over conventionally drained fields. Data from weirs used in the field show 35 to 60% reductions for nitrogen (nitrate-N) from where the water enters the drainage until it exits the weir. As agriculture shifts and becomes more focused on sustainability, new best management practices (BMPs) that are integrated within the landscape will be needed that attain water quality improvements, but also are beneficial to production agriculture.

Current Status:

This Mississippi Delta Partnership is innovative because of its farmer-driven desire to simultaneously improve the environment and agriculture. The spark for this partnership began in the late 1990s when a group of Delta farmers got together to discuss growing environmental issues surrounding production agriculture. That initial group reached out to federal, state, and private partners to help develop what is now Delta F.A.R.M. Building on the meeting of those initial farmers more than 15 years ago, the Delta F.A.R.M. methods were expanded to extend outside the Mississippi Delta as a formal program called REACH (Research & Education to Advance Conservation and Habitat). REACH will be "steered" by MSU, with approximately 30 business, nonprofit, state, and federal partners. REACH is a farmer-driven and farmer-led program for farmers to proactively address on-farm and downstream resource concerns. Using the model that is already successful in the Mississippi Delta, volunteer farmers throughout Mississippi will use scientifically defensible data to document their water resource conservation and landscape stewardship, not only to improve their farms, but also to protect the livelihoods of their downstream neighbors.

Subobjective:

Gulf of Mexico

Type:

Nutrient Reduction—Partnership

Highlights:

- **What:** A four-year Mississippi Delta partnership to decrease nutrients and sediment leaving farm fields to help protect the Gulf of Mexico.
- **Who:** Mississippi State University (MSU), Delta F.A.R.M. (Farmers Advocating Resource Management), Mississippi Department of Environmental Quality (MDEQ); USDA Natural Resource Conservation Service (NRCS); U.S. EPA
- **Why:** This best practice partnership was implemented as a result of local farmers wanting to proactively protect on-farm water resources through voluntary means while generating scientific measures of success.

Outcomes:

These on-farm, low-tech solutions have already experimentally shown that both sediment and nutrients can be decreased from farm field drainage as compared to conventionally drained systems. This model partnership in the Mississippi Delta is being expanded throughout Mississippi through the REACH program. These solutions also create downstream benefits to the Mississippi River and the Gulf of Mexico while improving efficiencies for nutrient reductions within the agricultural landscape.

Lessons Learned/Recommendations:

Farmer-led and farmer-driven water conservation is a proactive solution for successful voluntary programs that are a staple in the agricultural community. Planning, developing, and measuring success of these farmer-led programs provides unique expertise and funding opportunities for partners with federal and state agencies, businesses, universities, and nonprofit organizations. A great lesson learned from this partnership is the need to have experts in natural resource conservation willing and able to provide hands-on support to the farming community on conservation ideas that are farmer led.

Contacts:

Robbie Kroger, MSU, 662-325-4731

Dan Prevost, Delta F.A.R.M., 662-686-3370

Kay Whittington, MDEQ, 601-961-5729

Kevin Kennedy, NRCS, 662-453-2762

Troy Pierce, EPA Gulf of Mexico Program, 228-688-3658

Credit: U.S. Geological Survey, Department of the Interior/USGS, U.S. Geological Survey/photo by K. L. McKee

9 Salmon Falls Watershed Collaborative

Brief Description:

This best practice was implemented as part of a pilot project selected by the national Source Water Collaborative (SWC) (http://www.sourcewatercollaborative.org/) Spearheaded by EPA and other key partners, the SWC was originally formed in 2006 with the goal of combining the strengths and tools of a diverse set of member organizations to act now and protect drinking water sources for generations to come. Currently consisting of 24 federal, state, and local partners, the SWC has come together to further the goals of protecting sources of drinking water—recognizing that resources are extremely limited, authorities are split, and the actors who can actually protect source waters are diffuse.

In October 2010, more than 80 stakeholders from Maine and New Hampshire collaborated to identify priority action areas for the SFWC. As a result, an action plan was developed covering five key principles: 1) conserving undeveloped lands; 2) employing low impact development and stormwater management practices; 3) applying state and local source water protection rules; 4) identifying and cleaning up potential sources of contamination; and 5) engaging and inspiring governments, organizations, and citizens in collaborative actions to sustain the Salmon Falls watershed. Each strategy in the action plan includes detailed information about 1) issues addressed, 2) lead organizations, 3) cooperators, 4) funding sources, and 5) metrics. This level of detail establishes expectations for task completion and incorporates accountability for all project partners. The action plan is available at http://www.prep.unh.edu/sfwc.htm.

Current Status:

The implementation of the project's action plan is ongoing and continues to produce results. The efforts include conserving forested lands; implementing low impact development ordinances and stormwater management practices; and targeting underground storage tanks, RCRA, and SPCC inspections in drinking water protection areas. The core group, consisting of EPA and state drinking water staff, a project manager from PREP (NH), and a facilitator from the Wells (Maine) Research Reserve programs, participates in monthly conference calls to update each other on action plan implementation. Other collaborative members stay informed via "Basecamp," an interactive tool that allows the group to communicate and post documents.

Subobjective:

Water Safe to Drink

Type:

Source Water Planning

Highlights:

- **What:** The Salmon Falls Watershed Collaborative (SFWC) demonstrates how to improve water quality in a river that is a source of drinking water for 47,000 people and serves as the headwaters of the Great Bay Estuary, an ecosystem of national importance.
- **Who:** EPA Region 1 Drinking Water staff; Maine and New Hampshire Drinking Water and Nonpoint Source Programs; New Hampshire and Maine Natural Resource Conservation Service (NRCS) state programs; Wells National Estuarine Research Reserve; Piscataqua Region Estuaries Partnership (PREP); Granite State and Maine Rural Water Associations; Acton Wakefield Watersheds Alliance; Berwick (Maine) Water Department; the City of Somersworth, NH; local land trusts; and County Soil and Water Conservation Districts.
- **Why:** Conceived by the Maine and New Hampshire drinking water protection programs, the SFWC brought together regional, state, and local stakeholders and experts to develop and implement an action plan to protect clean drinking water for current and future generations. The watershed is threatened by an increase in polluted stormwater runoff resulting from rapid population growth and conversion of forested land to developed areas.

Outcomes:

Through the partnership with Maine and New Hampshire NRCS, the project has leveraged more than $300,000 in Environmental Quality Incentives Program (EQIP), through funding of Forestry Conservation Activity Plans for private landowners, and Wildlife Habitat Incentives Program (WHIP). In FY 2012, Maine and New Hampshire NRCS staff targeted projects in this watershed and funded 22 EQIP applications for Forest Management Plans on 3,976 acres of private forest lands. In FY 2013, NRCS will fund more plans as well as conservation practices, including BMPs for riparian areas, logging roads, and stream crossings.

In 2012, key elements of the project were replicated by New Hampshire NRCS in the Merrimack River watershed, which provides drinking water to 500,000 people. This project could be replicated in other watersheds that are experiencing rapid population growth and development pressures. In particular, the 2009 U.S. Forest Service report, Private Forests, Public Benefits, provides a roadmap for prioritizing best practices in other watersheds. EPA also worked closely with NRCS to develop a toolkit for USDA/EPA collaboration: http://www.sourcewatercollaborative.org/swp-usda/.

Lessons Learned/Recommendations:

It is important to identify and include all partners, including EPA and state colleagues in the Drinking Water, Nonpoint Source, and National Estuary Programs, who have a stake in achieving project goals. EPA's regional office was instrumental in coordinating water quality data management between the two states and providing GIS support to ensure that the bi-state watershed data was consistent. The successful partnership with NRCS was also critical. Lastly, the timing of the project coincided with USDA's High Priority Performance Goal for Water (to improve water quality on 6 million acres nationwide), further incentivizing NRCS participation.

Contact Information:

Kira Jacobs, 617-918-1817
http://www.prep.unh.edu/sfwc.htm

Appendix A: National Water Program FY 2012 End of Year Performance Measure Commitments, Results, and Status

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
Subobjective 2.1.1: Water Safe to Drink				
SDW-211	Percent of population served by CWSs that will receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.	91%	94.7%	Measure Met
SDW-SP1.N11	Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection.	90%	91%	Measure Met
SDW-SP2	Percent of person months during which community water systems provide drinking water that meets all applicable health-based standards.	95%	97.8%	Measure Met
SDW-SP3.N11	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.	87%	84%	Measure Not Met
SDW-SP4a	Percent of community water systems where risk to public health is minimized through source water protection.	40%	43.3%	Measure Met
SDW-SP4b	Percent of the population served by community water systems where risk to public health is minimized through source water protection.	57%	55.9%	Measure Not Met
SDW-SP5	Number of homes on tribal lands lacking access to safe drinking water.	Indicator	Data Not Available	Indicator
SDW-18.N11	Number of American Indian and Alaska Native homes provided access to safe drinking water in coordination with other federal agencies.	110,000	104,266	Measure Not Met
SDW-01a	Percent of community water systems that have undergone a sanitary survey within the past three years (five years for outstanding performance).	95%	89%	Measure Not Met
SDW-01b	Number of tribal community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers), as required under the Interim Enhanced and Long-Term I Surface Water Treatment Rule.	76	82	Measure Met
SDW-03	Percent of the Lead and Copper Rule action level data for community water systems serving over 3,300 people that is complete in SDWIS-FED.	Indicator	Data Not Available	Indicator

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
SDW-04	Fund utilization rate for the DWSRF.	89%	90.7%	Measure Met
SDW-05	Number of Drinking Water State Revolving Fund (DWSRF) projects that have initiated operations.	6,080	6,781	Measure Met
SDW-07	Percent of Class I, II, and III salt solution mining wells that have lost mechanical integrity and are returned to compliance within 180 days, thereby reducing the potential to endanger underground sources of drinking water.	90%	85%	Measure Not Met
SDW-08	Number of Class V motor vehicle waste disposal wells (MVWDW) and large capacity cesspools (LCC) [approximately 23,640 in FY 2010] that are closed or permitted (cumulative).	22,853	25,225	Measure Met
SDW-11	Percent of DWSRF projects awarded to small PWS serving <500, 501–2,200, and 2,201–10,000 consumers.	Indicator	71%	Indicator
SDW-12	Percent of DWSRF dollars awarded to small PWS serving <500, 501–3,300, 3,301–10,000 consumers.	Indicator	37%	Indicator
SDW-13	Percent of DWSRF loans that include assistance to disadvantaged communities.	Indicator	32%	Indicator
SDW-14	Number and percent of CWS and NTNCWS, including new PWS, serving fewer than 500 persons. (New PWS are those first reported to EPA in last calendar year.)	Indicator	44,860 (64%)	Indicator
SDW-15	Number and percent of small CWS and NTNCWS (<500, 501–3,300, 3,301–10,000) with repeat health-based Nitrate/Nitrite, Stage 1D/DBP, SWTR, and TCR violations.	Indicator	1,230 (2.0%)	Indicator
SDW-16	Average time for small PWS (<500, 501–3,300, 3,301–10,000) to return to compliance with acute Nitrate/Nitrite, Stage 1 D/DBP, SWTR, and TCR health-based violations (based on state-reported RTC determination data).	Indicator	130	Indicator
SDW-17	Number and percent of schools and childcare centers that meet all health-based drinking water standards.	Indicator	6,991 (93%)	Indicator
SDW-19a	Volume of CO2 sequestered through injection, as defined by UIC Final Rule.	Indicator	40,380	Indicator
SDW-19b	Number of permit decisions during the reporting period that result in CO2 sequestered through injection, as defined by the UIC Final Rule.	Indicator	0	Indicator
Subobjective 2.1.2: Fish and Shellfish Safe to Eat				
FS-SP6.N11	Percent of women of childbearing age having mercury levels in blood above the level of concern.	4.90%	2.3%	Measure Met

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
FS-1a	Percent of river miles where fish tissue will be assessed to support waterbody-specific or regional consumption advisories or a determination that no consumption advice is necessary. (Great Lakes measured separately; AK not included.)	Indicator	Data Not Available	Indicator
FS-1b	Percent of lake acres where fish tissue will be assessed to support waterbody-specific or regional consumption advisories or a determination that no consumption advice is necessary. (Great Lakes measured separately; AK not included.)	Indicator	Data Not Available	Indicator
Subobjective 2.1.3 Water Safe for Swimming				
SS-SP9.N11	Percent of days of beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming.	95%	95.2%	Measure Met
SS-1	Number and national percent, using a constant denominator, of CSO permits with a schedule incorporated into an appropriate enforceable mechanism, including a permit or enforcement order, with specific dates and milestones, including a completion date consistent with Agency guidance, which requires: 1) implementation of a Long Term Control Plan (LTCP) that will result in compliance with the technology and water-quality-based requirements of the CWA; or 2) implementation of any other acceptable CSO control measures consistent with the 1994 CSO Control Policy; or 3) completion of separation after the baseline date (cumulative).	752 (88%)	748 (88%)	Not Met
SS-2	Percent of all Tier I (Significant) public beaches that are monitored and managed under the BEACH Act program.	95%	100%	Measure Met
Subobjective 2.2.1 Improve Water Quality on a Watershed Basis				
WQ-SP10.N11	Number of waterbody segments identified by states in 2002 as not attaining standards, where water quality standards are now fully attained (cumulative).	3,324	3,527	Measure Met
WQ-SP11	Remove the specific causes of waterbody impairment identified by states in 2002 (cumulative).	10,161	11,134	Measure Met
WQ-SP12.N11	Improve water quality conditions in impaired watersheds nationwide using the watershed approach (cumulative).	312	332	Measure Met
WQ-SP13.N11	Ensure that the condition of the nation's streams does not degrade (i.e., there is no statistically significant decrease in the streams rated "good").	Maintain or Improve Stream Conditions	Not Maintained	Not Met
WQ-SP14aN11	Improve water quality in Indian Country at 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 phosphorous, pathogen indicators and turbidity) (cumulative).	13	15	Measure Met
WQ-SP14bN11	Identify monitoring stations on tribal lands that are showing no degradation in water quality (meaning the waters are meeting uses) (cumulative).	Indicator	7	Indicator

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
WQ-SP15	By 2015, in coordination with other federal agencies, reduce by 50 percent the number of homes on tribal lands lacking access to basic sanitation (cumulative).	Indicator	Data Not Available	Indicator
WQ-24.N11	Number of American Indian and Alaska Native homes provided access to basic sanitation in coordination with other federal agencies.	62,300	63,087	Measure Met
WQ-01a	Number of numeric water quality standards for total nitrogen and total phosphorus adopted by states and territories and approved or promulgated by EPA for all waters within the state or territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries (cumulative, out of a universe of 280).	41	42	Measure Met
WQ-01b	Number of numeric water quality standards for total nitrogen and total phosphorus at least proposed by states and territories, or by EPA proposed rulemaking, for all waters within the state or territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries (cumulative, out of a universe of 280).	46	46	Measure Met
WQ-01c	Number of states and territories supplying a full set of performance milestone information to EPA concerning development, proposal, and adoption of numeric water quality standards for total nitrogen and total phosphorus for each waterbody type within the state or territory (annual). (The universe for this measure is 56.)	25	14	Measure Not Met
WQ-02	Number of tribes that have water quality standards approved by EPA (cumulative).	39	39	Measure Met
WQ-03a	Number and percent of states and territories that, within the preceding three-year period, submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or sources not considered in previous standards.	39 (69.6%)	39 (69.6%)	Measure Met
WQ-03b	Number and national percent of tribes that, within the preceding three-year period, submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other resources not considered in the previous standards.	14 (38%)	14 (38%)	Measure Met
WQ-04a	Percent of submissions of new or revised water quality standards from states and territories that are approved by EPA.	85%	88.90%	Measure Met
WQ-05	Number of states and territories that have adopted and are implementing their monitoring strategies in keeping with established schedules.	56	55	Measure Not Met
WQ-06a	Number of tribes that currently receive funding under Section 106 of the Clean Water Act and that have developed and begun implementing monitoring strategies that are appropriate to their water quality program, consistent with EPA Guidance (cumulative).	213	214	Measure Met

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
WQ-06b	Number of tribes providing water quality data in a format accessible for storage in EPA's data system (cumulative).	178	184	Measure Met
WQ-07	Number of states and territories that provide electronic information using the Assessment Database version 2 or later (or compatible system) and geo-reference the information to facilitate the integrated reporting of assessment data (cumulative).	48	46	Measure Not Met
WQ-08a	Number of TMDLs that are established or approved by EPA (total TMDL) on a schedule consistent with national policy (cumulative). (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.)	2,215 (60%)	2,922 (91%)	Measure Met
WQ-08b	Number of TMDLs that are established by states and approved by EPA (state TMDL) on schedule consistent with national policy (cumulative). (A TMDL is a technical plan for reducing pollutants in order to obtain water quality standards. The terms "approved" and "established" refer to the completion and approval of the TMDL itself.)	2,123 (67%)	2,702 (85%)	Measure Met
WQ-09a	Estimated additional reduction in million pounds of nitrogen from nonpoint sources to waterbodies. (Section 319 funded projects only.)	8.5	10.5	Measure Met
WQ-09b	Estimated annual reduction in millions of pounds of phosphorus from nonpoint sources to waterbodies. (Section 319 funded projects only.)	4.5	4.4	Measure Not Met
WQ-09c	Estimated additional reduction in thousands of tons of sediment from nonpoint sources to waterbodies. (Section 319 funded projects only.)	700	919	Measure Met
WQ-10	Number of waterbodies identified by states as being primarily nonpoint source imparied that are partially or fully restored.	394	433	Measure Met
WQ-11	Number and national percent of follow-up actions that are completed by assessed NPDES programs.	Indicator	344 (70.6%)	Indicator
WQ-12a	Percent of non-tribal facilities covered by NPDES permits that are considered current. (Measure will still set targets and commitments and report results in both % and #.)	88%	90%	Measure Met
WQ-12b	Percent of tribal facilities covered by NPDES permits that are considered current. (Measure will still set targets and commitments and report results in both % and #.)	85%	86.1%	Measure Met
WQ-13a	Number and national percent of MS4s covered under either an individual or general permit.	Indicator	6,888	Indicator
WQ-13b	Number of facilities covered under either an individual or general industrial stormwater permit.	Indicator	87,060	Indicator

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
WQ-13c	Number of sites covered under either an individual or general construction stormwater site permit.	Indicator	166,031	Indicator
WQ-13d	Number of facilities covered under either an individual or general CAFO permit.	Indicator	7,587	Indicator
WQ-14a	Number, and national percent, of Significant Industrial Users (SIUs) that are discharging to POTWs with Pretreatment Programs that have control mechanisms in place that implement applicable pretreatment standards and requirements.	20,814 (97.9%)	20,733 (98.4%)	Measure Met
WQ-14b	Number and national percent of categorical industrial users that are discharging to POTW's without pretreatment programs that have control mechanisms in place that implement applicable pretreatment standards and requirements.	Indicator	1,667 (94.1%)	Indicator
WQ-15a	Percent of major dischargers in Significant Noncompliance (SNC) at any time during the fiscal year.	<22.5%	Data Not Available	Data Not Available
WQ-16	Number and national percent of all major publicly owned treatment works (POTWs) that comply with their permitted wastewater discharge standards.	3,645 (86%)	Data Not Available	Data Not Available
WQ-17	Fund utilization rate for the CWSRF.	94.50%	98%	Measure Met
WQ-19a	Number of high-priority state NPDES permits that are issued in the fiscal year.	650	850	Measure Met
WQ-19b	Number of high-priority EPA and state NPDES permits (including tribal) that are issued in the fiscal year.	720	925	Measure Met
WQ-20	Number of facilities that have traded at least once, plus all facilities covered by an overlay permit that incorporates trading provisions with an enforceable cap.	Indicator	481	Indicator
WQ-21	Number of water segments identified as impaired in 2002 for which states and EPA agree that initial restoration planning is complete (i.e., EPA has approved all needed TMDLs for pollutants causing impairments to the waterbody or has approved a 303(d) list that recognizes that the waterbody is covered by a Watershed Plan [i.e., Category 4b or Category 5m]) (cumulative).	Indicator	14,985	Indicator
WQ-22a	Number of regions that have completed the development of a Healthy Watersheds Initiative (HWI) strategy and have reached an agreement with at least one state to implement its portion of the region's HWI strategy.	Indicator	7	Indicator
WQ-22b	Number of states that have completed a Healthy Watershed Protection Strategy or have completed at least two of the major components of a Healthy Watershed Initiative assessment.	Indicator	13	Indicator
WQ-23	Percent of serviceable rural Alaska homes with access to drinking water supply and wastewater disposal.	92.50%	Data Not Available	Data Not Available

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
WQ-25a	Number of urban water projects initiated that address water quality issues in the community.	3	46	Measure Met
WQ-25b	Number of urban water projects completed that address water quality issues in the community.	0	Data Not Available	Data Not Available
Subobjective 2.2.2 Improve Coastal and Ocean Waters				
CO-222.N11	Prevent water pollution and protect coastal and ocean systems to improve national and regional coastal aquatic system health on the good/fair/poor scale of the National Coastal Condition.	2.8	3	Measure Met
CO-SP20.N11	Percent of active dredged material ocean dumping sites that will have achieved environmentally acceptable conditions (as reflected in each site's management plan).	96%	97%	Measure Met
CO-02	Total coastal and noncoastal statutory square miles protected from vessel sewage by "no discharge zone(s)" (cumulative).	Indicator	58,929	Indicator
CO-04	Dollar value of "primary" leveraged resources (cash or in-kind) obtained by the NEP Directors and/or staff in millions of dollars, rounded to the nearest tenth of a percent	Indicator	$323	Indicator
CO-05	Number of dredged material management plans that are in place for major ports and harbors.	Indicator	37	Indicator
CO-06	Number of active dredged material ocean dumping sites that are monitored in the reporting year.	Indicator	35	Indicator
CO-432.N11	Acres protected or restored in National Estuary Program study areas.	100,000	114,579	Measure Met
Subobjective 2.2.3 Increase Wetlands				
WT-SP21.N11	Working with partners, achieve a net increase of wetlands nationwide, with additional focus on coastal wetlands, and biological and functional measures and assessment of wetland condition.	Net Increase and Maintain Coastal	62,300 Acres Lost Over Five Years	Measure Not Met
WT-SP22	In partnership with the U.S. Army Corps of Engineers, states, and tribes, achieve no net loss of wetlands each year under the Clean Water Act Section 404 regulatory program.	No Net Loss	No Net Loss	Measure Met
WT-01	Number of acres restored and improved, under the five-star, NEP, 319, and great waterbody programs (cumulative).	170,000	180,000	Measure Met
WT-02a	Number of states/tribes that have substantially built or increased capacity in wetland regulation, monitoring and assessment, water quality standards, and/or restoration and protection.	Indicator	44	Indicator
WT-02b	Number of core elements (regulation, monitoring and assessment, water quality standards, and restoration and protection) developed and implemented by (number) of states/tribes.	Indicator	33	Indicator

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
WT-03	Percent of Clean Water Act Section 404 standard permits, upon which EPA coordinated with the permitting authority (i.e., Corps or state), where a final permit decision in FY 2008 documents requirements for greater environmental protection* than originally proposed.	Indicator	85%	Indicator
WT-04	Number of states measuring baseline wetland condition—with plans to assess trends in wetland condition—as defined through condition indicators and assessments (cumulative).	28	31	Measure Met
Subobjective 2.2.4 Improve the Health of the Great Lakes				
GL-433.N11	Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic systems (using a 40-point scale).	21.9	23.9	Measure Met
GL-SP29	Cumulative percentage decline for the long-term trend in concentrations of PCBs in whole lake trout and walleye samples.	40%	42.80%	Measure Met
GL-SP31	Number of Areas of Concern in the Great Lakes where all management actions necessary for delisting have been implemented.	3	2	Measure Not Met
GL-SP32.N11	Cubic yards of contaminated sediment remediated (cumulative from 1997) in the Great Lakes.	9.1	9.7	Measure Met
GL-05	Number of Beneficial Use Impairments removed within Areas of Concern.	33	33	Measure Met
GL-06	Number of non-native species newly detected in the Great Lakes ecosystem.	0.8	0.8	Measure Met
GL-07	Number of multiagency rapid response plans established, mock exercises to practice responses carried out under those plans, and/or actual response actions (cumulative).	12	23	Measure Met
GL-08	Percent of days of the beach season that the Great Lakes beaches monitored by state beach safety programs are open and safe for swimming.	90%	93.50%	Measure Met
GL-09	Acres managed for populations of invasive species controlled to a target level (cumulative).	2,600	31,474	Measure Met
GL-10	Percent of populations of native aquatic nonthreatened and nonendangered species self-sustaining in the wild.	33%	33%	Measure Met
GL-11	Number of acres of wetlands and wetland-associated uplands protected, restored, and enhanced (cumulative).	11,000	65,639	Measure Met
GL-12	Number of acres of coastal, upland, and island habitats protected, restored, and enhanced (cumulative).	15,000	28,034	Measure Met
GL-13	Number of species delisted due to recovery.	1	1	Measure Met

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
GL-15	Five-year average annual loadings of soluble reactive phosphorus (metric tons per year) from tributaries draining targeted watersheds.	0.50%	Data Not Available	Data Not Available
GL-16	Acres in Great Lakes watershed with USDA conservation practices implemented to reduce erosion, nutrients, and/or pesticides.	8% increase	70%	Met
Subobjective 2.2.5 Improve the Health of the Chesapeake Bay				
CB-SP33.N11	Percent achieved of the 185,000 acres of submerged aquatic vegetation necessary to achieve Chesapeake Bay water quality standards.	Long-Term Measure	34%	Long-Term
CB-SP34	Percent achieved of the long-term restoration goal of 100% attainment of the dissolved oxygen water quality standards in all tidal waters of Chesapeake Bay.	Long-Term Measure	34%	Long-Term
CB-SP35	Percent of goal achieved for implementing nitrogen reduction actions to achieve the final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	21%	Measure Met
CB-SP36	Percent of goal achieved for implementing phosphorus reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	19%	Measure Met
CB-SP37	Percent of goal achieved for implementing sediment reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	30%	Measure Met
CB-2	Percent of forest buffer planting goal of 10,000 miles achieved.	73%	75%	Measure Met
Subobjective 2.2.6 Restore and Protect the Gulf of Mexico				
GM-435	Improve the overall health of coastal waters of the Gulf of Mexico on the good/fair/poor scale of the National Coastal Condition Report.	2.4	2.4	Measure Met
GM-SP38	Restore water and habitat quality to meet water quality standards in impaired segments in 13 priority coastal areas (cumulative starting in FY 2007).	290	316	Measure Met
GM-SP39	Restore, enhance, or protect a cumulative number of acres of important coastal and marine habitats.	30,600	30,796	Measure Met
GM-SP40.N11	Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico, as measured by the five-year running average of the size of the zone.	Deferred for FY 2012	7483	Long-Term
GM-1	Implement integrated bi-national (U.S. and Mexican Border States) early-warning system to support state and coastal community efforts to manage harmful algal blooms (HABs).	Complete taxonomy training in all 6 Mexican states	Training Complete	Measure Met

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
Subobjective 2.2.7 Restore and Protect the Long Island Sound				
LI-SP41	Percent of goal achieved in reducing trade-equalized (TE) point source nitrogen discharges to Long Island Sound from the 1999 baseline of 59,146 TE lbs/day.	74%	83.3%	Measure Met
LI-SP42.N11	Reduce the size (square miles) of observed hypoxia (Dissolved Oxygen <3 mg/l) in Long Island Sound.	Deferred for FY 2012	288.5	Long-Term
LI-SP43	Restore, protect, or enhance acres of coastal habitat from the 2010 baseline of 2,975 acres.	218	537	Measure Met
LI-SP44	Reopen miles of river and stream corridors to diadromous fish passage from the 2010 baseline of 177 river miles by removal of dams and barriers or by installation of bypass structures.	28	72.3	Measure Met
Subobjective 2.2.8 Restore and Protect the Puget Sound				
PS-SP49.N11	Improve water quality and enable the lifting of harvest restrictions in acres of shellfish bed growing areas impacted by degrading or declining water quality.	3,878	2,489	Measure Not Met
PS-SP51	Restore the acres of tidally and seasonally influenced estuarine wetlands.	19,063	23,818	Measure Met
Subobjective 2.2.9 Sustain and Restore the U.S.-Mexico Border Environmental Health				
MB-SP23	Loading of biochemical oxygen demand (BOD) removed (million pounds/year) from the U.S.–Mexico border area since 2003.	115	119	Measure Met
MB-SP24.N11	Number of additional homes provided with safe drinking water in the U.S.–Mexico border area that lacked access to safe drinking water in 2003 (cumulative).	1,000	5,185	Measure Met
MB-SP25.N11	Number of additional homes provided with adequate wastewater sanitation in the U.S.–Mexico border area that lacked access to wastewater sanitation in 2003 (cumulative).	10,500	31,092	Measure Met
Subobjective 2.2.10 Sustain and Restore the Pacific Island Territories				
PI-SP26	Percent of population in each of the U.S. Pacific Island Territories (served by community water systems) that meet all applicable health-based drinking water standards, measured on a four-quarter rolling average basis.	80%	80%	Measure Met
PI-SP27	Percentage of time sewage treatment plants in the U.S. Pacific Island Territories comply with permit limits for biochemical oxygen demand (BOD) and total suspended solids (TSS).	64%	64%	Measure Met
PI-SP28	Percent of days of the beach season that beaches in each of the U.S. Pacific Island Territories monitored under the Beach Safety Program will be open and safe for swimming.	82%	82%	Measure Met

FY12 ACS Code	FY 2012 National Water Program Guidance Measures	FY 2012 National Commitment	FY 2012 EOY Result	FY 2012 EOY Status
Subobjective 2.2.11 Restore and Protect the South Florida Ecosystem				
SFL-SP45	Achieve "no net loss" of stony coral cover (mean percent stony coral cover) in the Florida Keys National Marine Sanctuary (FKNMS) and in the coastal waters of Dade, Broward, and Palm Beach Counties, Florida, working with all stakeholders (federal, state, regional, and local).	Indicator	No Net Loss	Indicator
SFL-SP46	Annually maintain the overall health and functionality of sea grass beds in the FKNMS, as measured by the long-term sea grass monitoring project that addresses composition and abundance, productivity, and nutrient availability.	Indicator	Not Maintained	Measure Not Met
SFL-SP47a	At least 75% of the monitored stations in the near-shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain Chlorophyll a (CHLA) levels of less than or equal to 0.35 ugl-1 and light clarify (KD) levels of less than or equal to 0.20 m-1.	75%	CHLA-70.9% KD-72.5%	Measure Not Met
SFL-SP47b	At least 75% of the monitored stations in the near-shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain dissolved inorganic nitrogen (DIN) levels of less than or equal to 0.75 uM and total phosphorus (TP) levels of less than or equal to 0.25 uM.	75%	DIN-81% TP-89.5%	Measure Met
SFL-SP48	Improve the water quality of the Everglades ecosystem, as measured by total phosphorus, including meeting the 10 ppb total phosphorus criterion throughout the Everglades Protection Area marsh.	Maintain	Did not maintain or meet limits	Measure Not Met
SFL-1	Increase percentage of sewage treatment facilities and onsite sewage treatment and disposal systems receiving advanced wastewater treatment or best available technology as recorded by EDU—in Florida Keys, 2% (1,500 EDUs) annually.	Indicator	13.1%	Indicator
Subobjective 2.2.12 Restore and Protect the Columbia River Basin				
CR-SP53	Clean up acres of known contaminated sediments (cumulative starting in FY 2006).	63	79	Measure Met
CR-SP54	Demonstrate a reduction in mean concentration of certain contaminants of concern found in water and fish tissue (cumulative starting in FY 2006).	Deferred Until 2014	Data Not Available	Data Not Available

Appendix B: Performance Measurement Changes from FY 2011 to FY 2012

ACS Code	Abbreviated Measure Description	Change in FY 2012
Water Safe to Drink		
SDW-2	Percent of the data for drinking water violations in SDWIS-FED.	Deleted
SDW-07a, SDW-07b & SDW-07c.	Percent of Class I, II, III wells returned to compliance within 180 days.	Modified and combined into one measure, SDW-7.
SDW-08.	Number of high-priority Class V wells and cesspools closed or permitted.	Modified to include large-capacity cesspools.
SDW-19a	Volume of CO_2 sequestered through injection.	New measure
SDW-19b	Number of permit decisions that result in CO_2 sequestered through injection.	New measure
Improve Water Quality on a Watershed Basis		
WQ-SP13. N11	Ensure that nation's streams do not degrade.	Modified by deleting "wadeable."
WQ-SP14a. N11	Show improvement in tribal waters.	Modified
WQ-SP14b. N11	Identify tribal waters with no degradation in water quality.	New measure
WQ-15b	Reduce the number of homes on tribal lands lacking access to basic sanitation.	Deleted
WQ-22b	Number of states that completed Healthy Watersheds Protection Strategy or Assessment components.	Measure modified to include components of Healthy Watersheds assessment.
WQ-25a	Number of urban water projects that initiated addressing water quality issues in the community.	New measure
WQ-25b	Number of urban water projects completed that addressed water quality issues in the community.	New measure
Improve Coastal and Oceans Waters		
CO-3	Number of National Estuary Program priority actions in CCMPs completed.	Deleted
CO-SP16	Aquatic ecosystem health in Northeast.	Deleted
CO-SP17	Aquatic ecosystem health in Southeast.	Deleted
CO-SP18	Aquatic ecosystem health in West Coast.	Deleted
CO-SP19	Aquatic ecosystem health in Puerto Rico.	Deleted

ACS Code	Abbreviated Measure Description	Change in FY 2012
CO-7	Aquatic ecosystem health in Hawaii.	Deleted
CO-8	Aquatic ecosystem health in Central Alaska.	Deleted
Wetlands		
WT-SP21.N11	Net increase of wetlands achieved nationwide.	Measure modified
Improve the Health of the Great Lakes		
GL-08	Percent of days of the beach season that monitored Great Lakes beaches are open and safe for swimming.	Measure modified
Chesapeake Bay		
CB-SP35	Bay nitrogen reduction practices implemented.	Measures modified to reflect Bay-wide TMDL.
CB-SP36	Bay phosphorus reduction practices implemented.	Measures modified to reflect Bay-wide TMDL.
CB-SP37	Bay sediment reduction practices implemented.	Measures modified to reflect Bay-wide TMDL.
CB-1a	Point source nitrogen goal.	Deleted
CB-1b	Point source phosphorus goal.	Deleted
Long Island Sound		
LI-SP42.N11	Reduce Long Island Sound hypoxic zone.	Measure modified
LI-SP43	Restore Long Island Sound coastal habitat.	Measure modified
LI-SP44	Reopen river and stream for fish passage.	Measure modified
Puget Sound		
PS-SP50	Remediate acres of contaminated sediments in Puget Sound.	Deleted
Columbia River		
CR-SP52	Protect, enhance, or restore acres of habitat in Lower Columbia River watershed.	Deleted

Appendix C: Methodology for Measuring Ambitiousness of Regional Commitments

This methodological description supplements, but does not replace, the description provided in the Overview chapter of the report. EPA employed three methods to evaluate the relative ambitiousness of regional commitments for a set of 32 performance measures.[1] The method or methods utilized depended on whether the commitment is expressed as a percentage or as a numeric value.

For each commitment expressed as a percentage, EPA computed both:

1) The difference between FY 2012 regional commitments and FY 2012 national commitments.

2) The difference between FY 2012 regional commitments and FY 2011 regional results.

For each commitment expressed in numeric units, EPA computed:

3) FY 2012 regional commitments as a percentage of FY 2012 regional **universes**.

Then, for each measure, within each of the analyses above, each region was assigned a rank based on its result relative to other regions (1 = most ambitious, 10 = least ambitious). For instance, for a particular numeric measure, the region committing to the greatest share of its universe would be ranked #1 for that measure, using analysis #3. On the other hand, for a particular percentage measure, regions would each receive two different ranks—one each for analysis #1 and analysis #2. Then, each region was given a weighted ambitiousness rank for each measure, as follows: for percentage measures, this measure-level weighted rank was the sum of ranks for analysis #1 and analysis #2, divided by 2; for numeric measures, this measure-level weighted rank was just the value of the rank for analysis #3. This weighting approach was taken in order to avoid giving undue influence to the percentage measures in the overall comparison. EPA repeated this approach with FY 2011 data for the same set of measures.

Figure 1, below, shows the range and distribution of the FY 2012 measure-level weighted ranks within each region. This type of graphic is a variation on a traditional statistical box plot or "box and whiskers" plot, and is intended to help understand the range and distribution of measure-level rankings within each region, as follows:

- **Blue dots.** Each blue dot indicates that the particular region in question received a measure-level weighted ranking of that value for at least one measure. The size of each dot gives a rough indication of the number of measures within each region at that particular rank, ranging from one to nine measures. The larger the dot, the greater the number of measures.
- **Gray boxes.** The gray boxes in the chart represent where the middle 50% of each region's measures are ranked.[2] For example, by examining the gray box in the far right column in Figure 1, we see that the middle 50% of Region 7's measures had a ranking between 4 and 8. On the other hand, at the far left, we see that Region 5's middle 50% is higher, ranging from 1 to 5. (This also tells us that the top 25% of Region 5's measures all had a ranking of 1.)
- **Light gray lines.** The light gray lines represent the median rank within each region. 50% of all measures rank at or above the median.

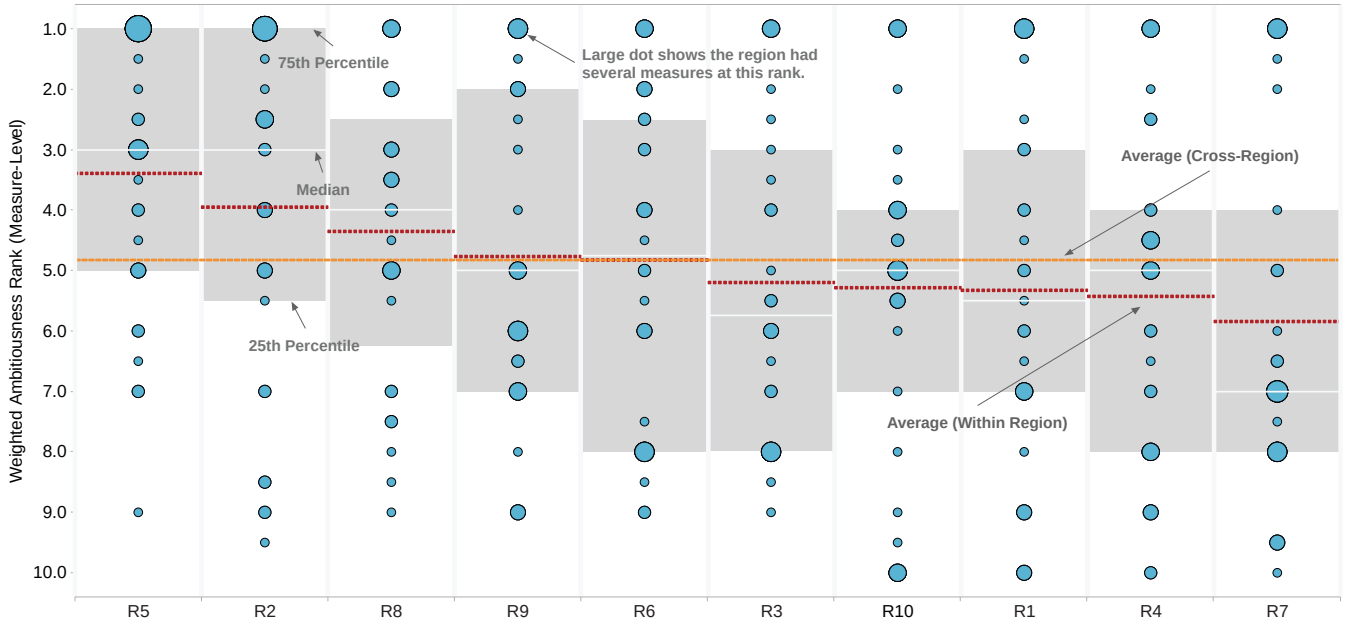
[1] OW focused only on those measures with eight or more regions setting commitments and reporting results, so that the meaning of different ranks would remain fairly constant across measures. This choice excluded measures for large aquatic ecosystems and placed-based programs that are often reported by only one or two regions.

[2] This middle 50% of values is typically called the "interquartile range" in statistics.

- **Red dashed lines.** Each dashed red line in the chart represents, for each region, the average of all its measure-level weighted ranks. This is referred to elsewhere in the report as the average weighted rank for each region. The regions in the chart are sorted by this measure, which is the basis for Figure 13 in the Overview chapter.
- **Orange dashed line.** The orange dashed line indicates the average of all weighted ranks, across all regions and measures.

Figure 1: Weighted Ambitiousness Ranks, By Region and Measure (FY 2012)

Regions Sorted by FY 2012 Average Weighted Ambitiousness Rank



In addition to the calculations described above, regions were rank-ordered by this average weighted rank, with the region with the highest average weighted rank receiving a rank of 1, etc. Table 1, below, provides details on the number of measures and average weighted rank, for each region. These average weighted ranks are the basis for the overall ambitiousness ranks, displayed in the table and in Figures 14 and 15 in the Overview chapter.

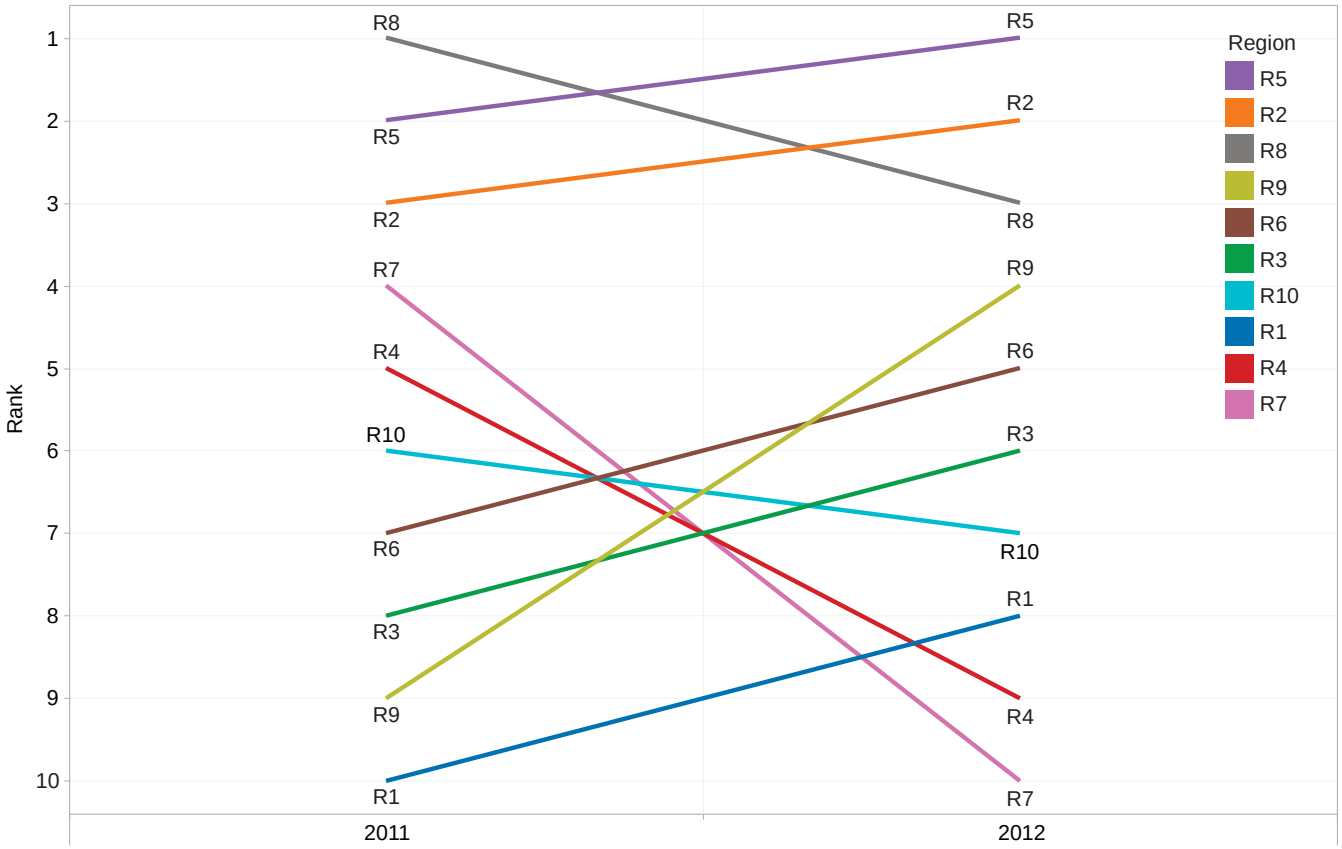
Figure 2: Number of Measures and Rankings By Region and Year

Regions Sorted by FY 2012 Ambitiousness Rank (Final Column)

Region	2011			2012		
	# of Measures Ranked	Average Weighted Rank (Across Measures)	Overall Ambitiousness Rank	# of Measures Ranked	Average Weighted Rank (Across Measures)	Overall Ambitiousness Rank
R5	25	3.72	2	31	3.39	1
R2	24	4.33	3	30	3.95	2
R8	25	3.10	1	28	4.36	3
R9	25	5.04	9	31	4.77	4
R6	24	4.75	7	30	4.83	5
R3	20	4.78	8	26	5.19	6
R10	25	4.74	6	30	5.28	7
R1	23	5.35	10	29	5.33	8
R4	25	4.60	5	31	5.44	9
R7	22	4.39	4	29	5.84	10

To compare the regions' level of ambitiousness in setting commitments beween FY 2011 and FY 2012, EPA developed a trend chart comparing the average weighted ranking for each region for the two years (See Figure 2). Five regions dropped in rank while five regions increased their rank.

Figure 3: Change in Regional Ambitiousness Rank FY 2011 to FY 2012



For the same set of measures used to assess commitment ambitiousness, EPA also developed regional rankings for the percent of commitments met for FY 2011 and FY 2012. Because this ambitiousness analysis focused only on a subset of OW's measures, the rankings for commitments met may be different than those presented elsewhere in this report. (See, for instance, Figure 9 in the Overview chapter of the report.) This approach helps ensure appropriate comparability, for this analysis, between the ambitiousness ranks and commitments-met ranks. EPA compared the rankings for ambitiousness and commitments met to each other to understand whether ambitiousness in setting of commitments appears to be correlated with the meeting of commitments. Figures 14 and 15 in the Overview chapter show comparisons of these ranks.

National Water Program Best Practices and End of Year Performance Report

Subobjective Chapters

Table of Contents

FY 2012 National Water Program End of Year Performance by Subobjective

The following chapters provide a summary of the progress made toward accomplishing environmental and program goals for each subobjective described in the *FY 2012 National Water Program Guidance*. Each subobjective chapter includes the following information:

- An overview of performance over the past six years for measures under each subobjective.
- A description of performance highlights in FY 2012, including what commitments were met and what factors contributed to success.
- A description of management challenges, if appropriate, identifying key factors that led to measures not being met and next steps to improve performance for the future.

Each subobjective section focuses primarily on measures with FY 2012 commitments. Indicator measures are discussed where trends significantly differ from previous year's results. Annual Commitment System (ACS) measure codes (e.g., SDW-SP-1.N11) are provided in the text in parentheses.

Key for Reading Performance Measure Charts and Tables

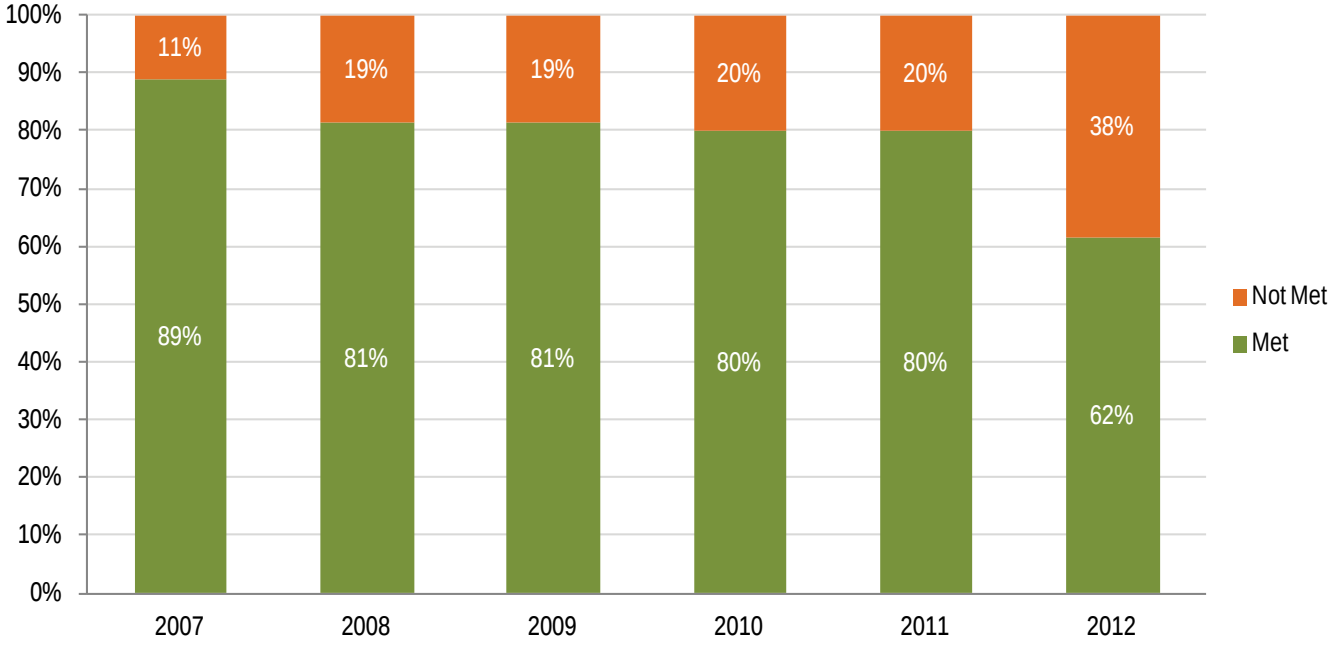
For all charts with national trend results, commitments are reflected by blue trend lines and results by vertical bars. For charts with regional FY 2012 results, a dotted line (in orange) indicates the national FY 2012 commitment for that particular measure. Although regions use the national commitment as a point of reference in setting their annual commitments, regional commitments may vary based on specific conditions within each region. Green bars in both national and regional charts identify commitments met, and orange bars identify measures not met. A purple bar indicates that the Agency did not set a commitment for that year.

For the measure summary tables in each subobjective chapter, a green colored box means that a measure met its FY 2012 commitment, and an orange colored box indicates that the annual commitment was not met. A blue colored box means that the measure is an indicator measure and did not have an annual commitment for FY 2012 or has a long-term goal and does not have an annual commitment. Measures without data or not reporting in FY 2012 are indicated by a gray colored box. And finally, the appendix number represents the page in Appendix D (A-00) on the website where additional details about the measure can be found, and the figure number is the number of the chart in the chapter.

Subobjective: Water Safe to Drink

Sixty-two percent (62%) (8 of 13) of all drinking water measures met their commitments in FY 2012. Thirty-eight percent (38%) (five of 13) of measures did not meet their commitments. EPA has maintained an average of 78% of commitments met and reported on all measures over the past six years under the Water Safe to Drink subobjective (Figure 1).

Figure 1: Drinking Water Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status: = Met; = Not Met; = Data Not Available; = Indicator/Long-Term (No Commitment); = Measure Did Not Exist						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.1.1 Water Safe to Drink								
SDW-211	Percent population served by CWSs	92%	92%	92%	91%	93%	95%	D-1/Fig. 2
SDW-SP1.N11	Percent CWSs meeting safe standards		89%	89%	90%	91%	91%	D-1
SDW-SP2	Percent "person months" with CWSs safe standards	97%	97%	97%	97%	97%	98%	D-2/Fig.4
SDW-SP3.N11	Percent population served by CWSs Indian country	87%	83%	81%	87%	81%	84%	D-2/Fig.92*
SDW-SP4a	Percent CWSs and source water protection	33%	32%	35%	37%	40%	43%	D-3/Fig.8
SDW-SP4b	Percent Population and source water protection		48%	54%	58%	55%	56%	D-3
SDW-SP5	Number tribal households lacking safe drinking water	36,575	34,855	43,437	34,187	32,900		D-4
SDW-18.N11	Number Indian & Alaska Native homes provided safe drinking water					97,311	104,266	D-4/Fig.96*
SDW-01a	Percent CWSs with sanitary survey	92%	87%	88%	87%	92%	89%	D-5/Fig.6
SDW-01b	Number Tribal CWSs with sanitary survey	54	47	63	63	74	82	D-5
SDW-03	Percent Lead/Copper Rule data in SDWIS-FED	80%	87%			87%		D-6
SDW-04	DWSRF fund utilization rate	88%	90%	92%	91%	90%	91%	D-6/Fig.10
SDW-05	Number DWSRF projects initiated (cumulative)	3,526	4,082	4,576	5,236	6,237	6,781	D-7
SDW-07	Percent Class I, II, or III wells with mechanical integrity						85%	D-7
SDW-08	Number High Priority Class V wells closed/permitted (cumulative)						25,225	D-8
SDW-11	Percent DWSRF projects awarded to small PWS					71%	71%	D-8
SDW-12	Percent DWSRF dollars to small PWS					38%	37%	D-9
SDW-13	Percent DWSRF loans to disadvantaged communities					31%	32%	D-9
SDW-14	Number/Percent CWS serving < 500 people					43,728	44,860	D-10
SDW-15	Number/Percent small CWS w/health-based violations					1,337	1,230	D-10/Fig.12
SDW-16	Ave. Time small CWS returned to compliance (days)					167	130	D-11
SDW-17	Number/Percent schools/childcare meet safe standards					7,114	6,991	D-11
SDW-19a	Volume of CO_2 sequestered through injection						40,380	D-12
SDW-19b	Number of permit decisions that result in CO_2 sequestered through injection						0	D-12

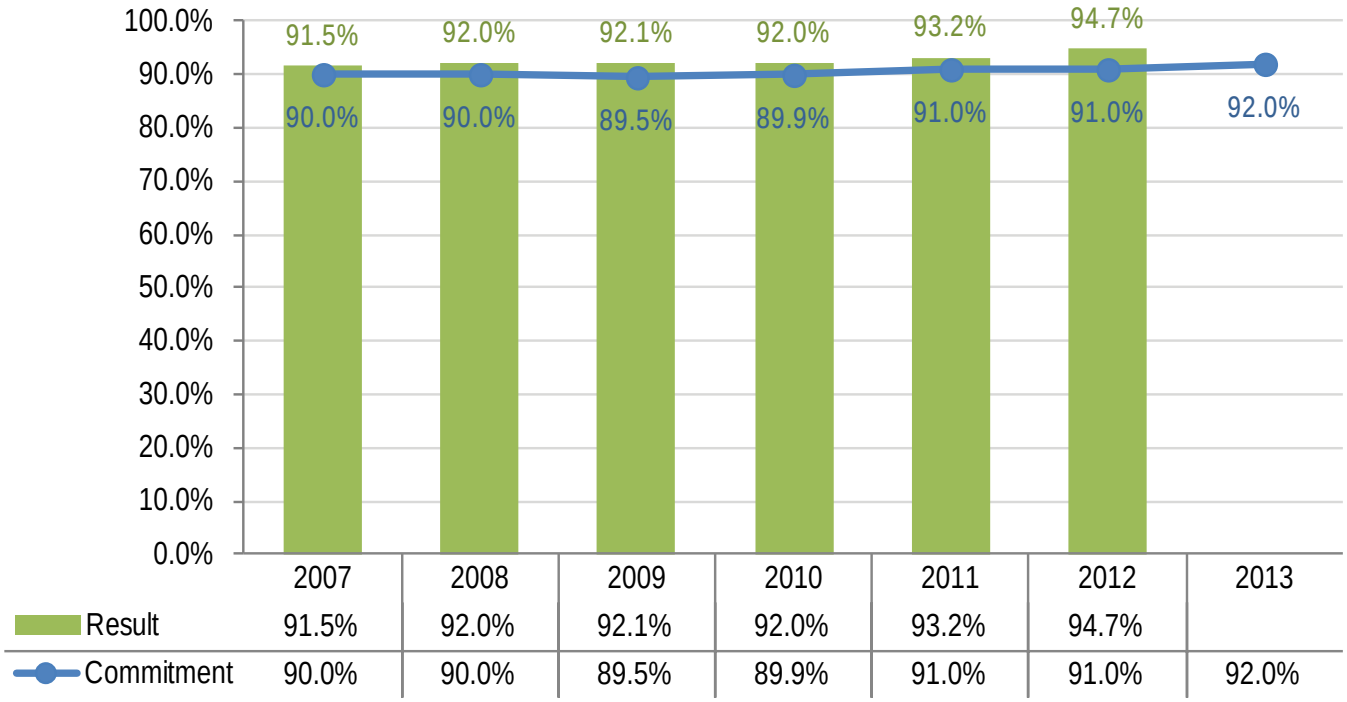
*Notes: Figures for these measures can be found in the End of Year Report chapter, "American Indian Drinking Water and Water Quality FY 2012 Performance." CWS=community water system; SDWIS= Safe Drinking Water Information System; SDWIS-FED=Safe Drinking Water Information System/Federal; DWSRF=Drinking Water State Revolving Fund.

FY 2012 Performance Highlights and Management Challenges

Compliance with Drinking Water Standards: The overall objective of EPA's national drinking water program is to protect public health by ensuring that public water systems (PWSs) deliver safe drinking water to their customers. The drinking water program measures compliance with drinking water standards in three ways: 1) the percent of the population served by community water systems[1] (CWSs) that meet drinking water standards, 2) the percent of CWSs meeting standards, and 3) the length of time a given population is served by a water system that is in violation of drinking water standards. EPA, states, and CWSs work together to increase the percentage of the population served by CWSs that meet all health-based standards.

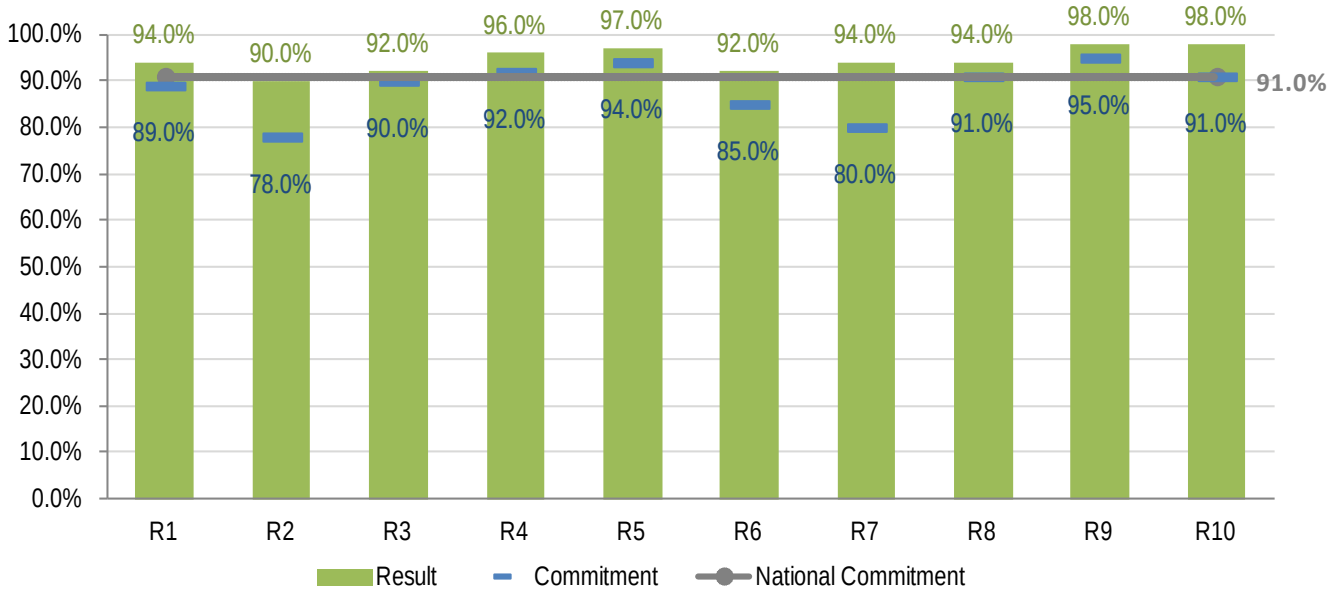
Despite a growing population and an increasing demand for safe drinking water, EPA met its FY 2012 commitment (91%) by providing 94.7% of the population that was served by CWSs with drinking water that met all applicable health-based drinking water standards (Subobjective 2.1.1) (Figure 2). All 10 EPA regional offices met their FY 2012 commitments (Figure 3). Although regions use the national target of the population served by CWSs receiving safe drinking water as a point of reference, regional commitments to this outcome goal might vary based on differing conditions in each EPA region.

Figure 2: Percent Population with Drinking Water Meeting Standards by Fiscal Year (SDW-211)



[1] A CWS is a public water system that provides water to the same population year-round. As of January 2012, there were 52,079 CWSs.

Figure 3: Percent Population with Drinking Water Meeting Standards (SDW-211) by Region for FY 2012



EPA met its commitment for the percent of CWSs meeting all applicable health-based standards (91% versus 90%) (SP-1). The success of this measure reflects the work by states and tribes to ensure that systems are in compliance with standards. Nine of 10 regions achieved their commitment for this measure, with six regions setting commitments above the national level

EPA also measures the percent of "person months"[2] during which CWSs provide drinking water that meets all applicable health-based drinking water standards. The purpose of this measure is to capture the length of time a given population is served by a water system that is in violation of drinking water standards. In FY 2012, almost 98% of the population was served by CWSs over a 12-month period that was in compliance with drinking water standards (SP-2) (Figure 4). All EPA regions met their commitments for this goal (Figure 5). The measure continues to be successful, exceeding the goal of 95% as well as the previous year's performance for each of the last five years.

[2] "Person-months" for each CWS is calculated as the number of months in the most recent four-quarter period in which health-based violations overlap, multiplied by the retail population served.

Figure 4: "Person Months" with CWSs Meeting Safe Standards by Fiscal Year (SDW-SP2)

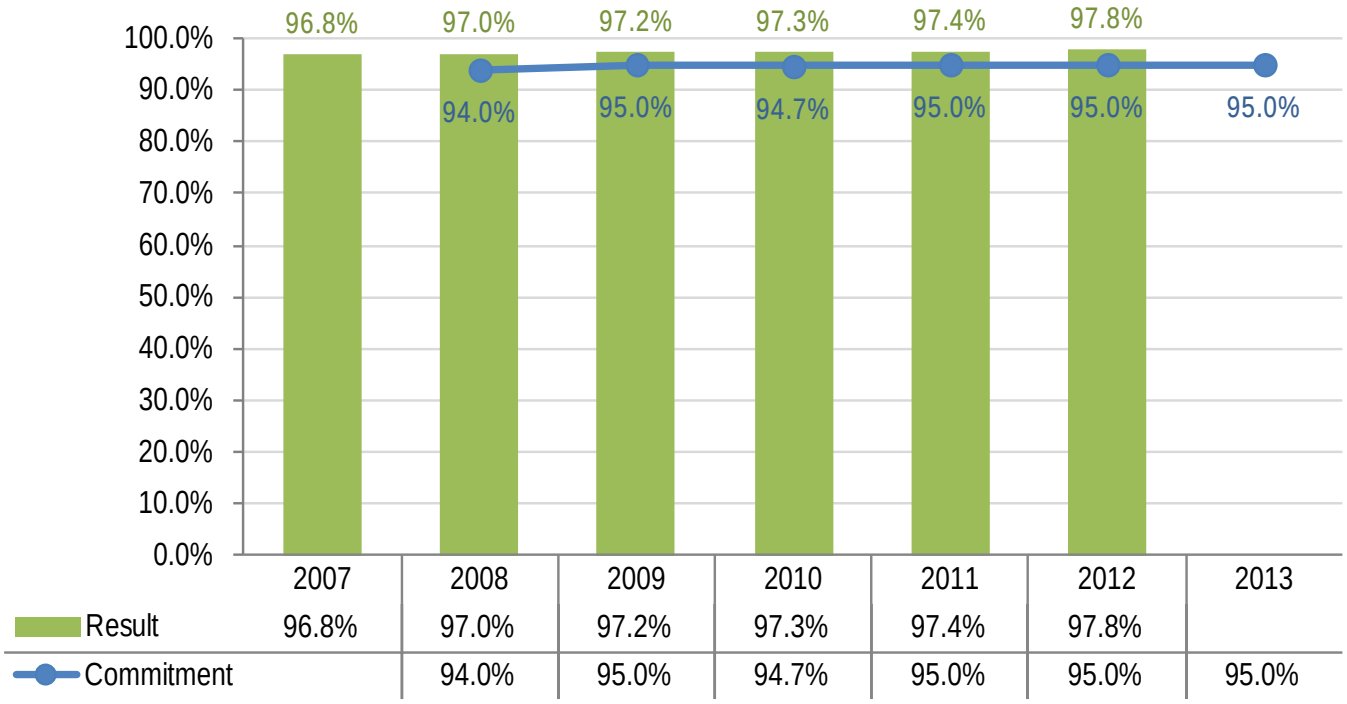
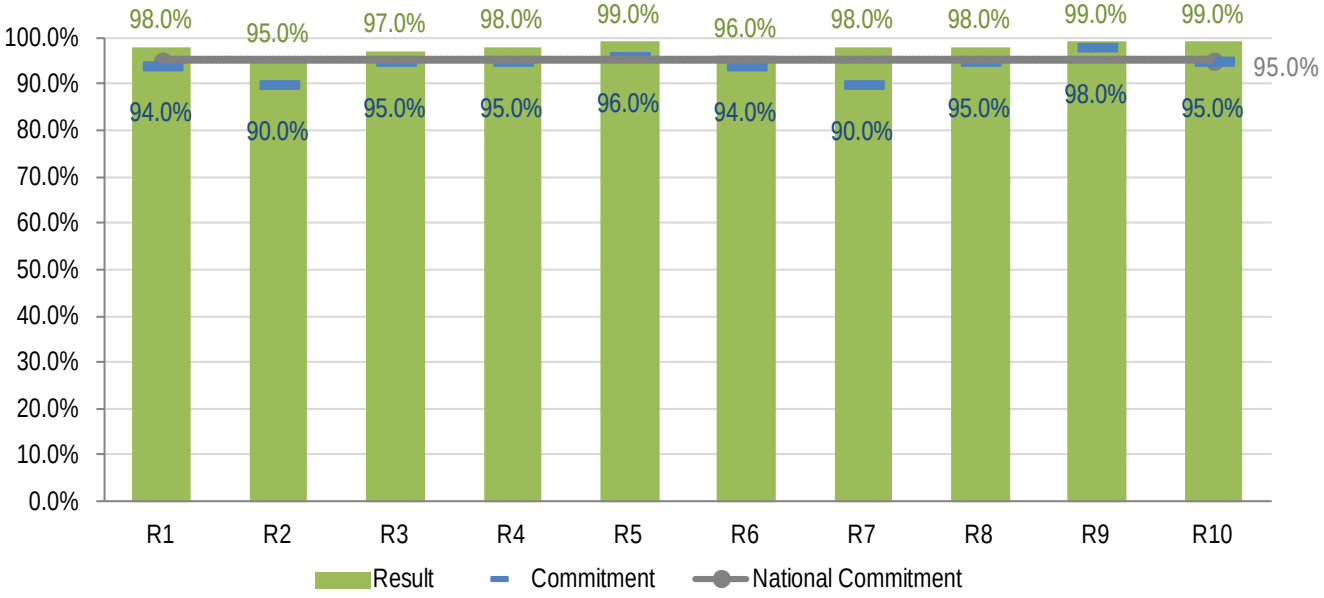


Figure 5: "Person Months" with CWSs Meeting Safe Standards (SDW-SP2) by Region for FY 2012



According to EPA regulations,[3] CWSs are required to undergo a sanitary survey within three years of their last survey (five years for outstanding performers). Sanitary surveys are onsite reviews of the water sources, facilities, equipment, operation, and maintenance of PWSs. EPA estimates that in 2012, 89% of community systems underwent a survey (SDW-1a) The Agency fell short of its commitment of 95%. (Figure 6). Seven of 10 regions met their targets (Figure 7).

Figure 6: CWSs with Sanitary Surveys by Fiscal Year (SDW-01a)

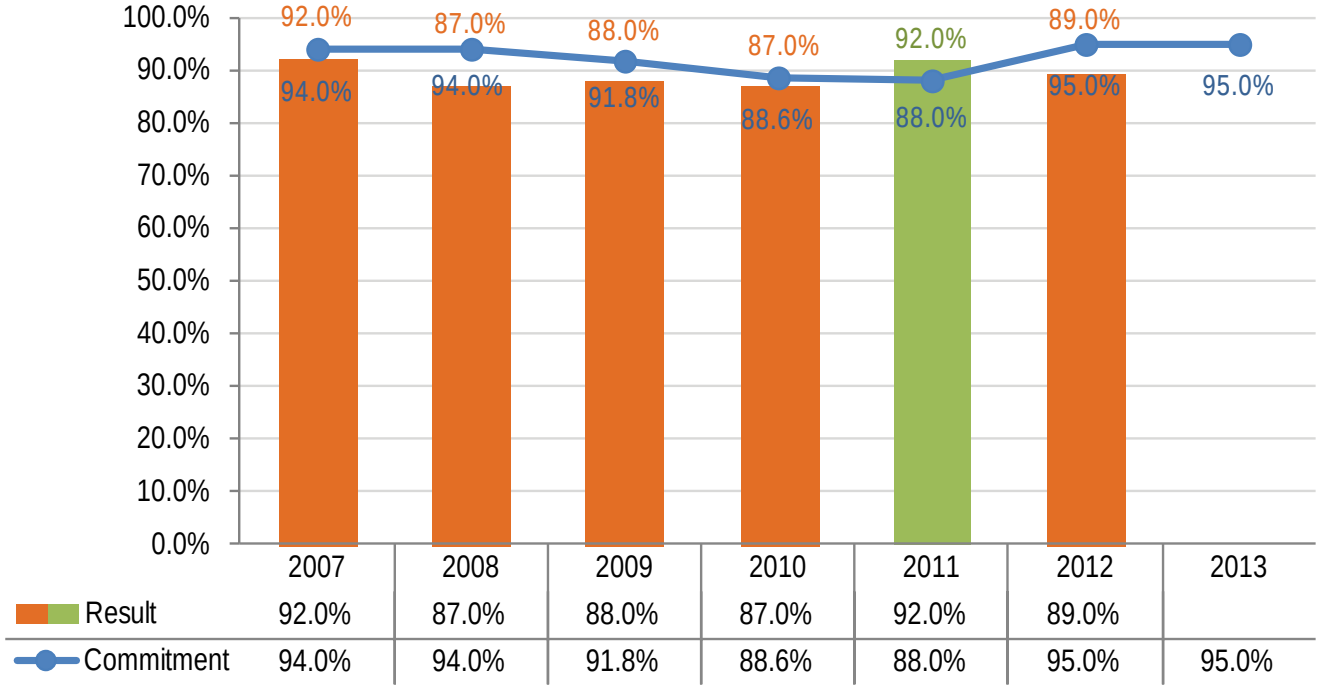
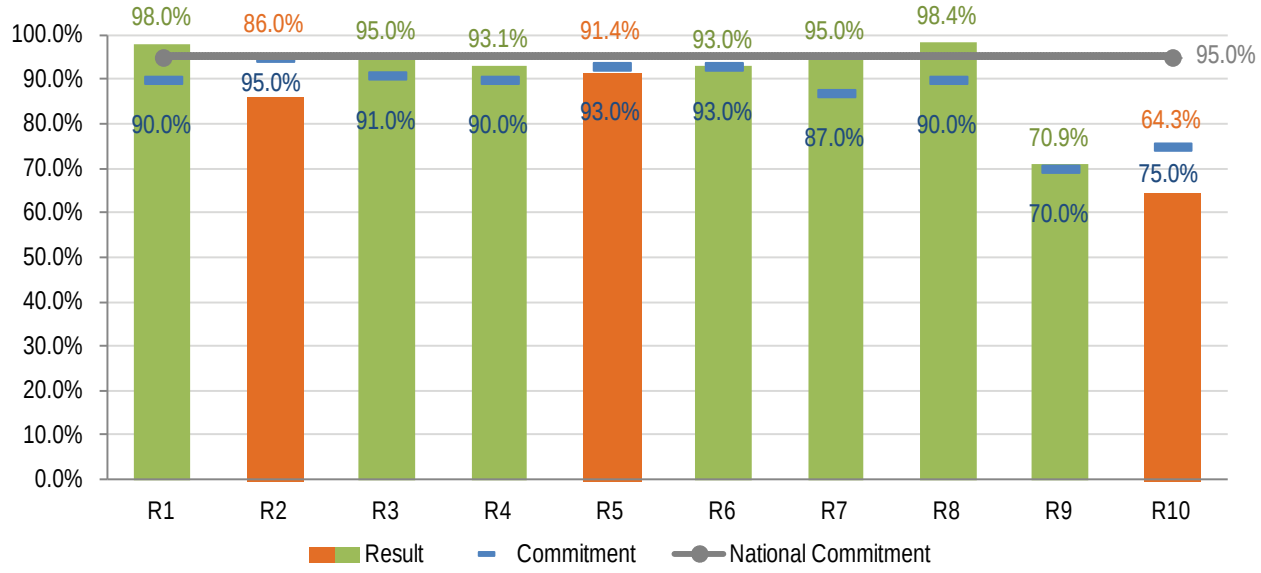


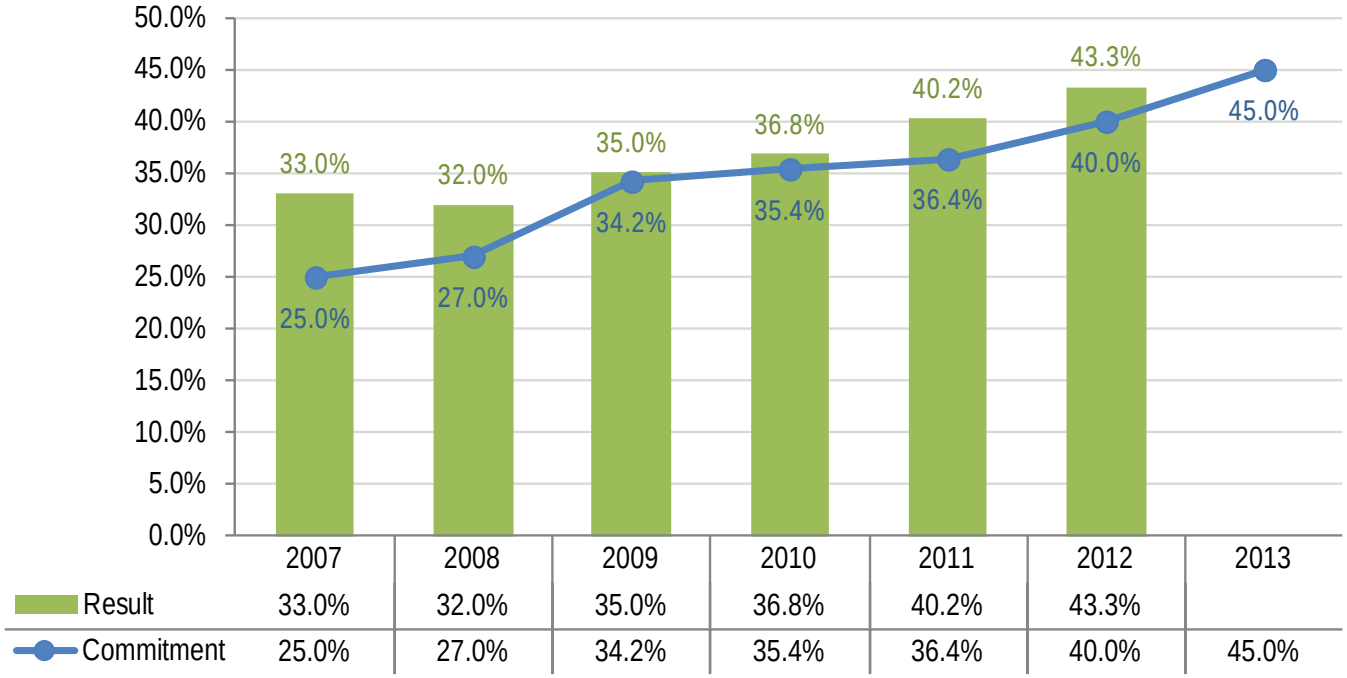
Figure 7: CWSs with Sanitary Surveys (SDW-01a) by Region for FY 2012



[3] Interim Enhanced and Long-Term 1 Surface Water Treatment Rules.

Source Water Protection: CWSs minimized the risk[4] to public health for more than 43% of the nation's source water areas (both surface and ground water) (SP-4a) (Figure 8). This was above the FY 2012 commitment of 40%. EPA met its commitment for this measure for the sixth year in a row and has made significant progress against the FY 2005 baseline of 20%. Eight of 10 regions met their commitment in FY 2012 (Figure 9). When looked at on a population basis, 55.9% of the population was served by CWSs where risk to public health is minimized through source water protection (SDW-SP-4b). Although the program failed to meet its annual commitment of 57%, the Agency considers this goal to be a stretch and feels confident that the performance measure is moving in the right direction.

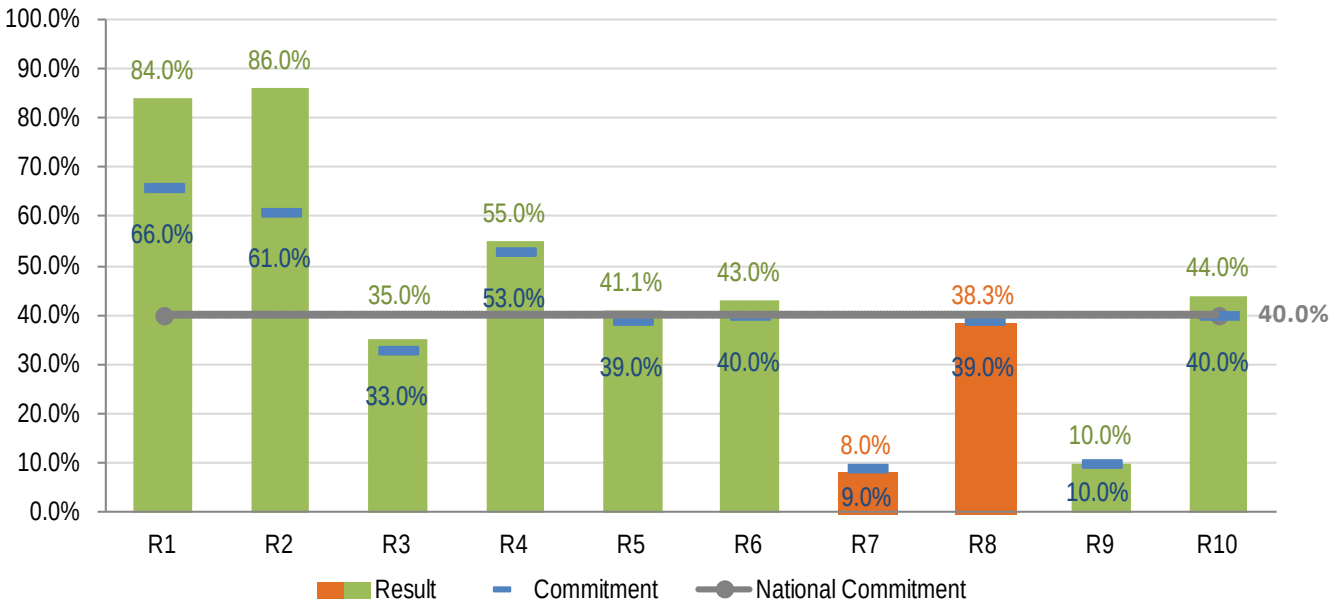
Figure 8: CWSs and Source Water Protection by Fiscal Year (SDW-SP4a)



	2007	2008	2009	2010	2011	2012	2013
Result	33.0%	32.0%	35.0%	36.8%	40.2%	43.3%	
Commitment	25.0%	27.0%	34.2%	35.4%	36.4%	40.0%	45.0%

[4] "Minimized risk" is achieved by the substantial implementation, as determined by the state, of source water protection actions in a source water protection strategy.

Figure 9: CWSs and Water Protection (SDW-SP4a) by Region for FY 2012



Water System Financing: Financing is a key component of the national drinking water program. The Drinking Water State Revolving Fund (DWSRF), in place since 1997, provides low-interest loans to communities for building and upgrading drinking water facilities. The SRF fund utilization rate—the dollar amount of loan agreements per funds available for projects—is a valuable way to measure states' effectiveness in obligating grant funds for drinking water projects. EPA met its FY 2012 goal by establishing loan agreements for 90.7% of the cumulative amount of funds available (commitment of 89%). EPA has met its commitments for this measure for six consecutive years (SDW-4) (Figure 10). Six of 10 regions met their commitments in FY 2012, with a range from 82.3% to 103% of funds obligated (Figure 11). More than 6,690 SRF projects have initiated operations to date, up from 6,076 in FY 2011 (SDW-5).

Figure 10: Fund Utilization Rate for the DWSRF by Fiscal Year (SDW-04)

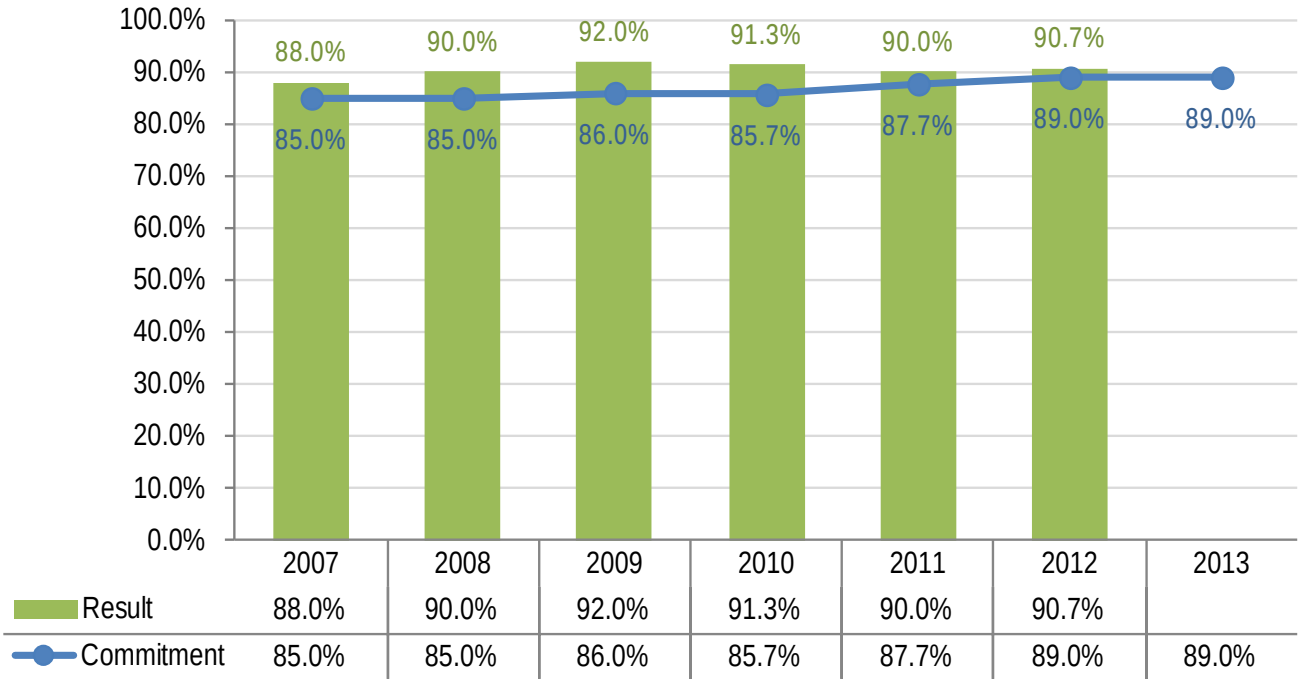
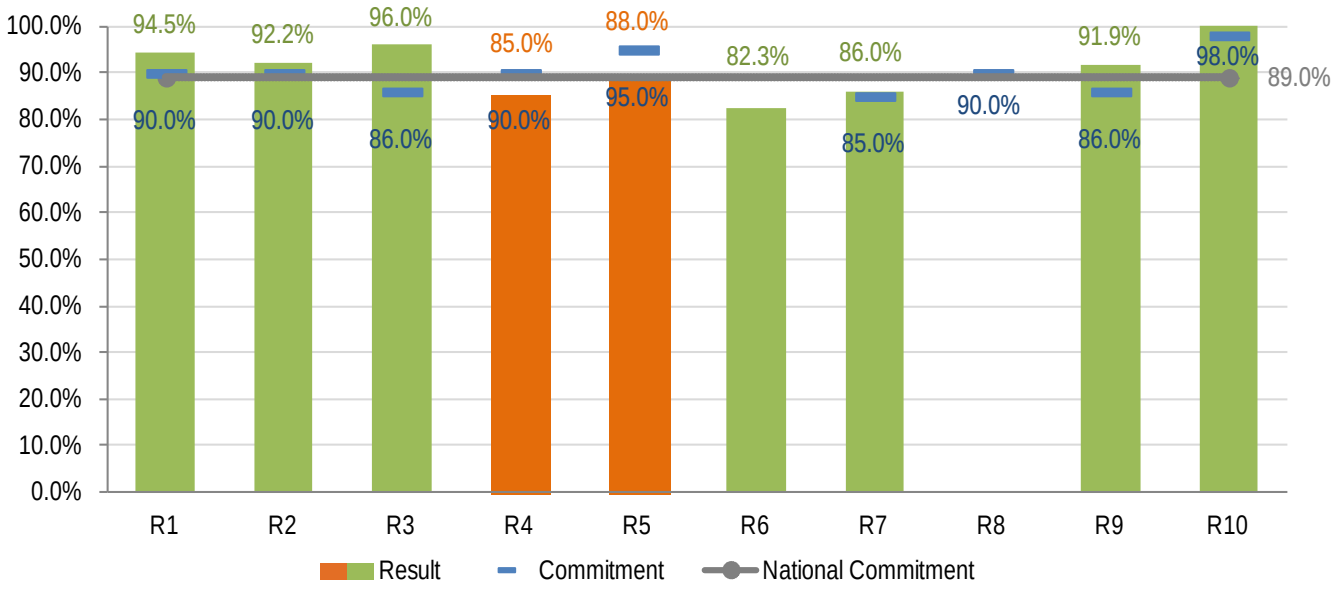


Figure 11: Fund Utilization Rate for the DWSRF by Fiscal Year (SDW-04)



Underground Injection Control: EPA works with states to monitor the injection of fluids—both hazardous and nonhazardous—to prevent contamination of underground sources of drinking water. One way to prevent contamination is for states to maintain the mechanical integrity of underground injection wells. EPA fell short of meeting its FY 2012 commitment (90%), with 85% of Class I, II, and III wells (SDW-7) that lost mechanical integrity returning to compliance within 180 days. As a newly reported measure, EPA will analyze the performance results and work to improve the measure targets. As the measure evolves and more data is available to develop a performance trend, the program will revisit the target and adjust it as appropriate.

EPA also works with states to monitor the number and percentage of high-priority Class V wells identified in ground water-based CWS source water areas that are closed or permitted. High-priority Class V wells include motor vehicle waste disposal wells, cesspools, industrial wells, and other wells so designated by the state or regional program. More than 25,000 high-priority Class V wells were closed or permitted in 2012 (SDW-8). This was above the 2012 commitment of 22,650 wells.

Supporting Small CWSs: Small CWSs face many challenges in providing safe drinking water and in meeting the requirements of the Safe Drinking Water Act (SDWA). Some of these challenges include lack of adequate revenue, aging infrastructure, and difficulty understanding existing or new regulatory requirements. As a result, small systems may experience frequent or long-term compliance challenges in providing safe water to their communities. In FY 2012, EPA continued its efforts to enhance small system capacity through a comprehensive small system strategy. http://water.epa.gov/type/drink/pws/smallsystems/basicinformation.cfm

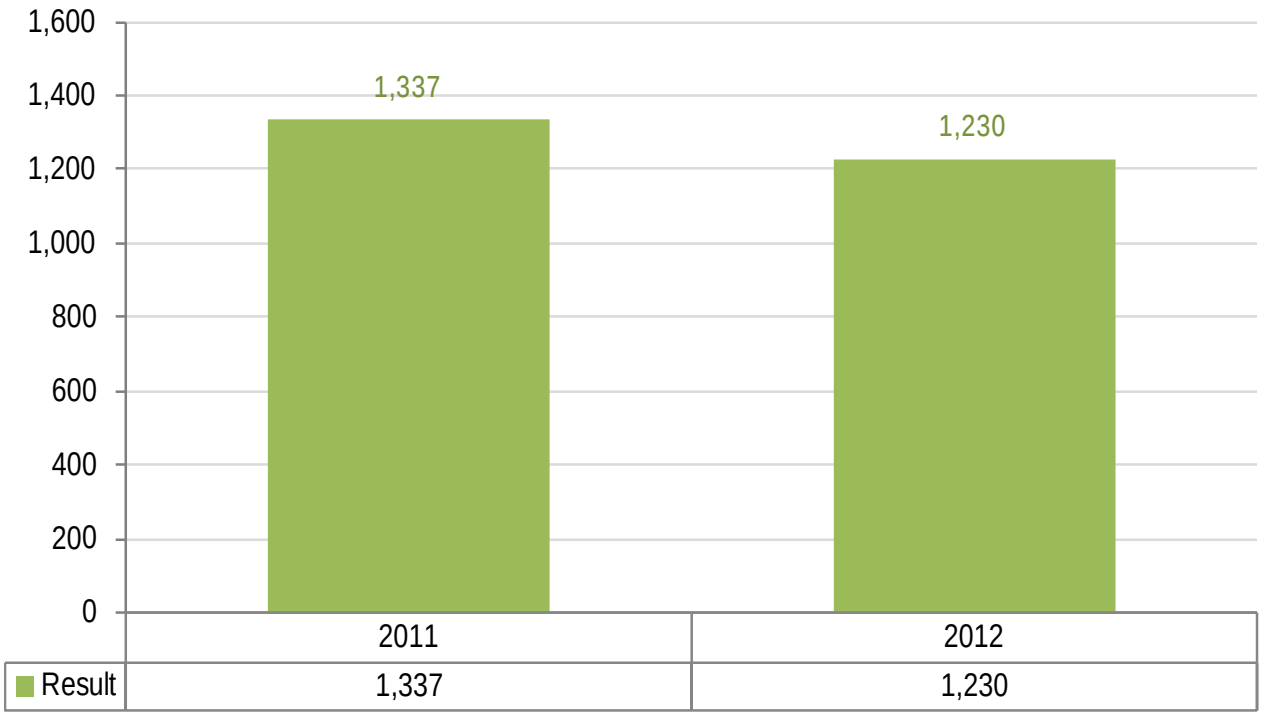
To support implementation of the strategy, the Agency developed a suite of new indicators in FY 2011 to track small CWSs serving fewer than 10,000 people. These indicators correspond to the three major components of the small system strategy: existing and new small water system inventory; state DWSRF projects targeting small systems; and small system noncompliance and capacity to quickly return to compliance with health-based standards. Schools and daycare centers are a critical subset of small systems for which EPA continues to provide special emphasis to ensure that children receive water that is safe to drink.

The results in Table 1 provide a snapshot of key indicators regarding the level of support provided by the DWSRF program to small systems and the violation rate of small systems with regard to health-based drinking water standards. Seventy-one

percent (71%) of the projects funded by the DWSRF went to small PWSs serving fewer than 10,000 people. This was almost identical to the FY 2009 baseline of 72%. Thirty-eight percent (38%) of the DWSRF funds awarded as of FY 2012 went to small PWSs. This was slightly below the FY 2009 baseline of 44%. Thirty-two percent (32%) of DWSRF loans went to disadvantaged communities.

Two percent (2%) (1,230) of small systems had repeat health-based violations[5] in FY 2012, with an average of 130 days spent in violation before returning to compliance. This was an increase over the FY 2009 baseline of 99 days in violation but an improvement over the FY 2011 result of 167 days (Figures 12 and 13). Ninety-three percent (6,991) of schools and childcare centers met all health-based drinking water standards in FY 2012.

Figure 12: Small CWS and NTNCWS with Repeat Health-Based Violations by Fiscal Year (SDW-15)



[5] Repeat violations are defined as repeats of the same combination of violation code (e.g., 21–Total Coliform Rule maximum contaminant level) and contaminant type (e.g., Total Coliform Rule) occurring at a particular system more than once in a fiscal year.

Figure 13: Number of Small Public Water Systems with Repeat Health Based Violations (SDW-15)

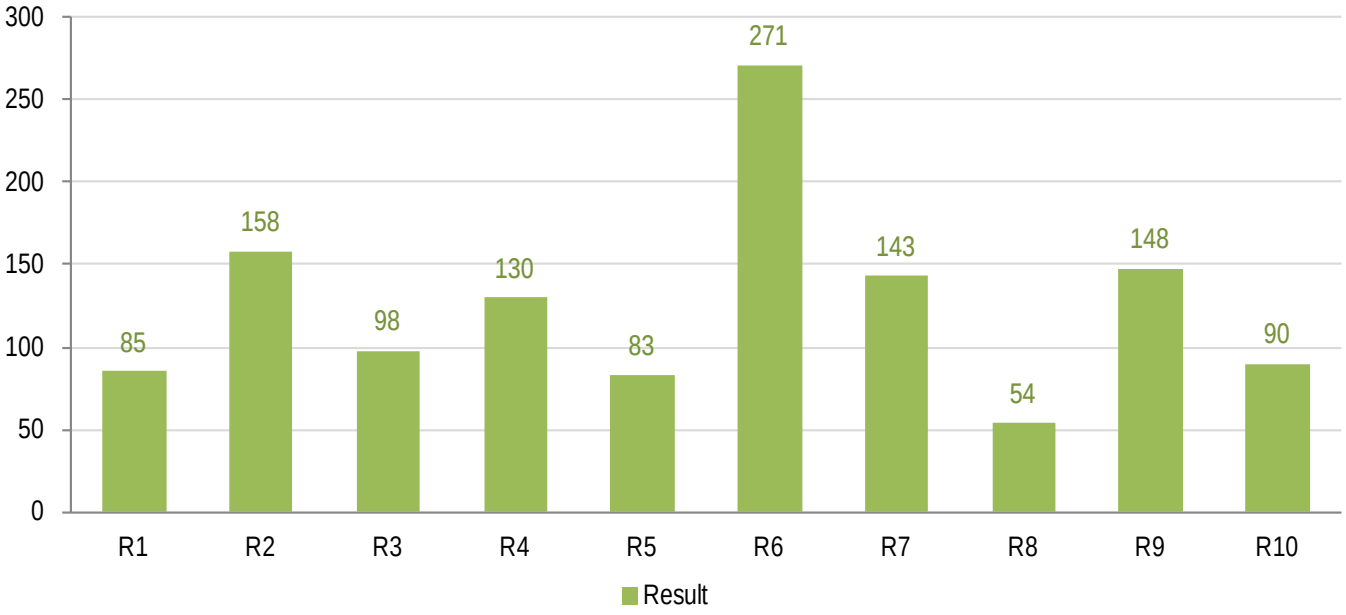


Table 1: FY 2012 Indicators of Small Public Water Systems

FY 11 ACS Code	Abbreviated Measure Description	FY 2012 Result	FY 2009 Baseline	Universe
SDW-11	DWSRF projects awarded to small PWS	71%	72%	698
SDW-12	% DWSRF dollars to small PWS	37%	44%	$1,522.3 million
SDW-13	% DWSRF loans to disadvantaged communities	32%	31%	698
SDW-14	#/% CWS serving <500 people	44,860 CWS (650 new)	44,673[6]	70,377 CWS and NTNCWS <500
		64%	65%	
SDW-15	#/% small CWS with health-based violations	1230 CWS	1,904[7]	66,165 CWS and NTNCWS <10,000
		2%	3%	
SDW-16	Average time small CWS returned to compliance	130 days	99[8]	66,165 CWS and NTNCWS <10,000
			88	
SDW-17	#/% schools/childcare meet safe standards[9]	6,991	7,260	7,703
		93%	94%	

[6] CWSs and nontransient, noncommunity water systems (NTNCWS) serving a population less than 500.

[7] CWSs and NTNCWS serving a population less than 10,000 with repeated health-based violations.

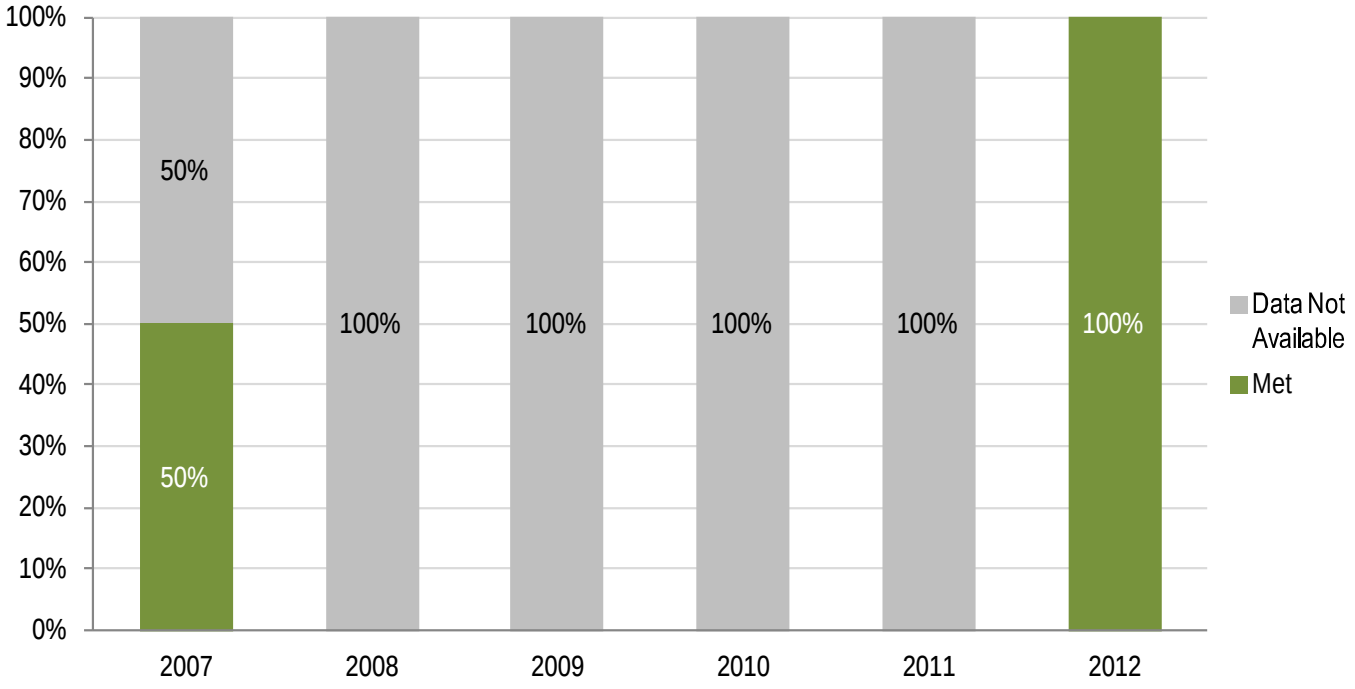
[8] CWSs and NTNCWS serving a population less than 10,000 with acute health-based violations.

[9] Schools are defined as CWS or NTNCWS with a primary service area equal to SC (school) or DC (daycare). Puerto Rico systems were not included. California systems were based on a list of school systems provided by California.

Subobjective: Fish and Shellfish

For the first time in five years, EPA was able to report on its only commitment measure under this subobjective (Figure 14).

Figure 14: Fish and Shellfish Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status: = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available						Appendix Page Number / Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.1.2 Fish and Shellfish Safe to Eat								
FS-SP6.N11	Percent Women and mercury blood levels						2.3%	D-13
FS-1a	Percent River miles fish consumption advisory	910,000	26%	39%		36%		D-13
FS-1b	Percent Lake acres fish consumption advisory	15.2	38%	43%		42%		D-14

FY 2012 Performance Highlights and Management Challenges

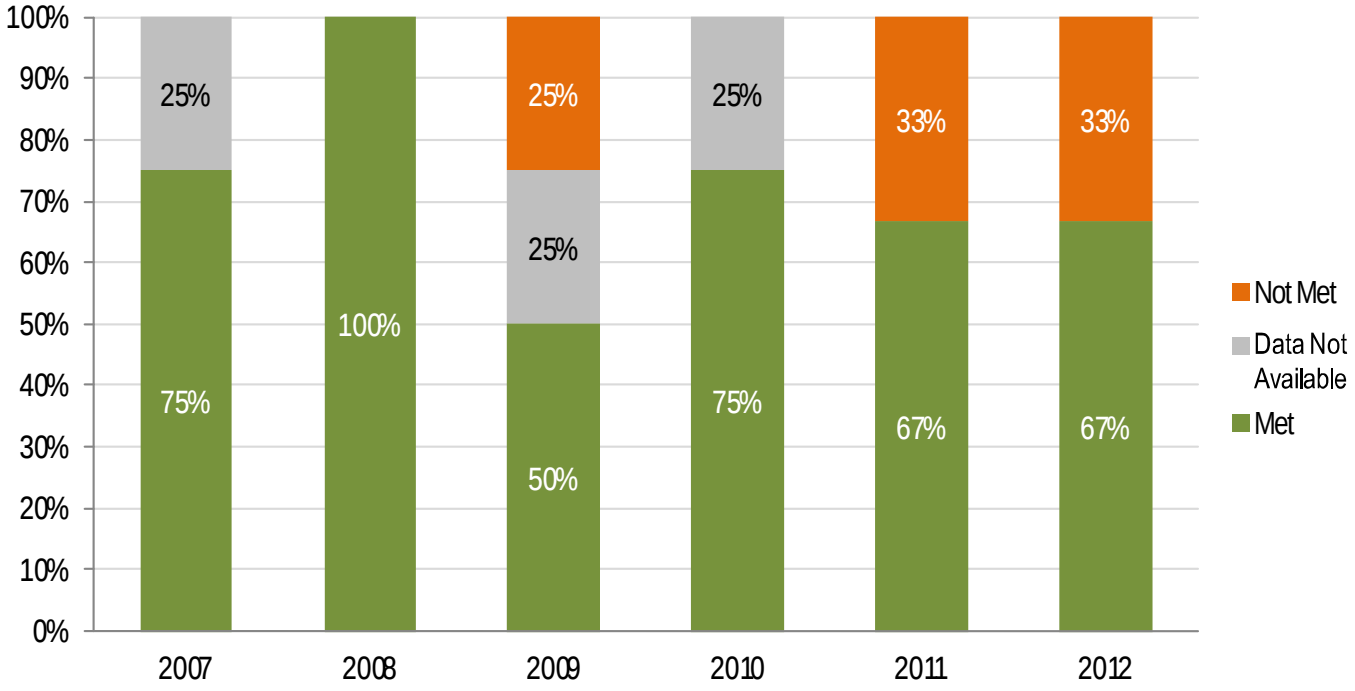
Elevated blood mercury levels pose a significant neurodevelopmental risk, and consumption of mercury-contaminated fish is the primary source of mercury exposure. Across the country, states and tribes have issued fish consumption advisories for a range of contaminants, covering 1.26 million river miles and more than 16.8 million lake acres. These data are based on the National Listing of Fish Advisories, which was issued in 2010 and covered the years 2009 and 2010. EPA is still reviewing states' fish tissue assessment data for rivers and lakes in support of consumption advisories and is unable to report a final result for 2012 at this time (FS-1a/b).

For the first time in five years, EPA was able to report on the percentage of women of childbearing age having mercury levels in blood above the level of concern (SP-6). Based on the Centers for Disease Control and Prevention's most recent report (with 2009–2010 data), 2.3% of women of childbearing age had mercury levels in blood above the level of concern. This was below the 2012 commitment of 4.9%.

Subobjective: Safe Swimming

EPA was successful in meeting two of its three commitments under the Water Safe for Swimming subobjective in FY 2012. There has been a great deal of variability in the number of commitment measures met and not met over the past six years (Figure 15).

Figure 15: Safe Swimming Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.1.3 Water Safe for Swimming								
SS-SP9.N11	Percent beach days safe for swimming	95%	95%	95%	95%	96%	95%	D-14
SS-1	Number enforceable long-term CSO control plan with specific dates and milestones in place	559	610	693	724	734	748	D-15/Fig.16
SS-2	Percent significant public beaches monitored	100%	99%	98%	99%	100%	100%	D-15

Note: CSO=combined sewer overflow.

FY 2012 Performance Highlights and Management Challenges

The nation's waters, especially beaches in coastal areas and the Great Lakes, provide recreational opportunities for millions of Americans. Swimming in some recreational waters, however, can pose a risk of illness resulting from exposure to microbial pathogens.[10]

Beach Monitoring and Safety: For coastal and Great Lakes beaches monitored by state-based beach safety programs, EPA found that 95.2% of beach season days were open and safe for swimming. This result met the FY 2012 target of 95%, and EPA has consistently met its annual targets over the past six years. Seven of eight EPA regions met their FY 2012 target (Regions 7 and 8 do not have beaches under the program) (SP-9). States monitored and managed 100% of all Tier 1 (significant) public beaches covered under the Beaches Environmental Assessment and Coastal Health (BEACH) Act program in 2012, which exceeded the annual goal of 95% (SS-2). All regions met their commitments in 2012.

Combined Sewer Overflows (CSOs): Overflows from combined storm and sanitary sewers in urban areas can result in high levels of pathogens being released during storm events. Because urban areas are often upstream from recreational waters, these overflows are a significant source of unsafe levels of pathogens. Over the past five years, EPA and the states have made consistent progress in increasing the number of CSO permits or enforcement orders with compliance schedules in place (Figure 16). As of 2012, approximately 88% (748 of 853) of the CSO permittees have approved or accepted CSO long-term control plans (LTCPs) with enforceable compliance schedules in place, which is approximately a 38% improvement over the 2008 baseline (Figure 18). Each year, progress toward the ultimate goal of 100% of CSOs approved has become more difficult because the remaining permits still needing LTCPs are often held up in various legal and political issues, even though the overall universe of these permits has decreased. As the Agency moves forward, the Office of Enforcement and Compliance Assurance (OECA) and the Office of Water (OW) plan to work together to refine this measure to ensure consistency and consider a possible evaluation of the effectiveness of plans already put into place.

Seven of nine EPA regions with CSOs (Region 6 does not have any CSOs) met their commitment for this measure in 2012 (Figure 17). Region 3 missed their target by just 1 permit, which did not end up being reissued before the end of the fiscal year in Pennsylvania. In Region 5, the reissuance of a number of municipal permits was delayed, so even though several additional LTCPs have been approved, they have not yet been included in permits at this time.

[10] By "recreational waters," EPA means waters officially designated by states, authorized tribes, and territories for primary contact recreational use or similar full-body contact use.

Figure 16: CSO Permit Schedules in Place by Fiscal Year (SS-1)

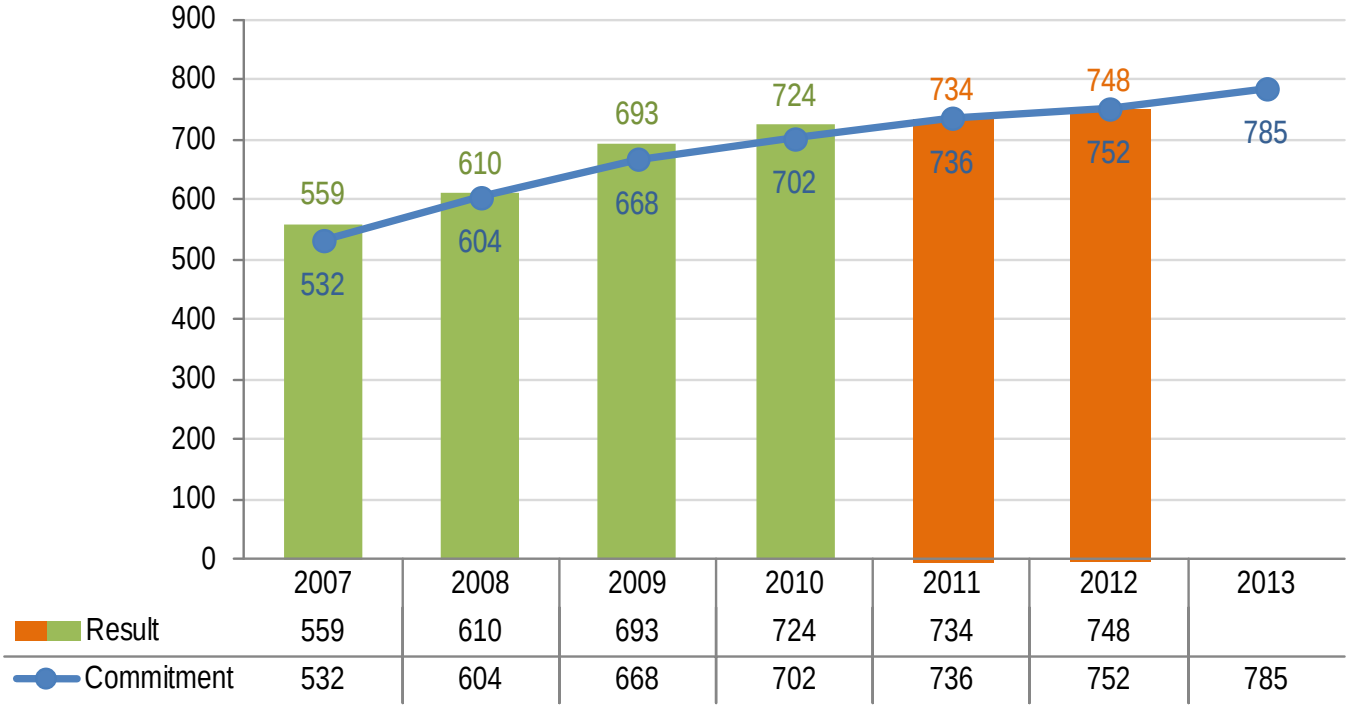


Figure 17: CSO Permit Schedules in Place (SS-1) by Region for FY 2012

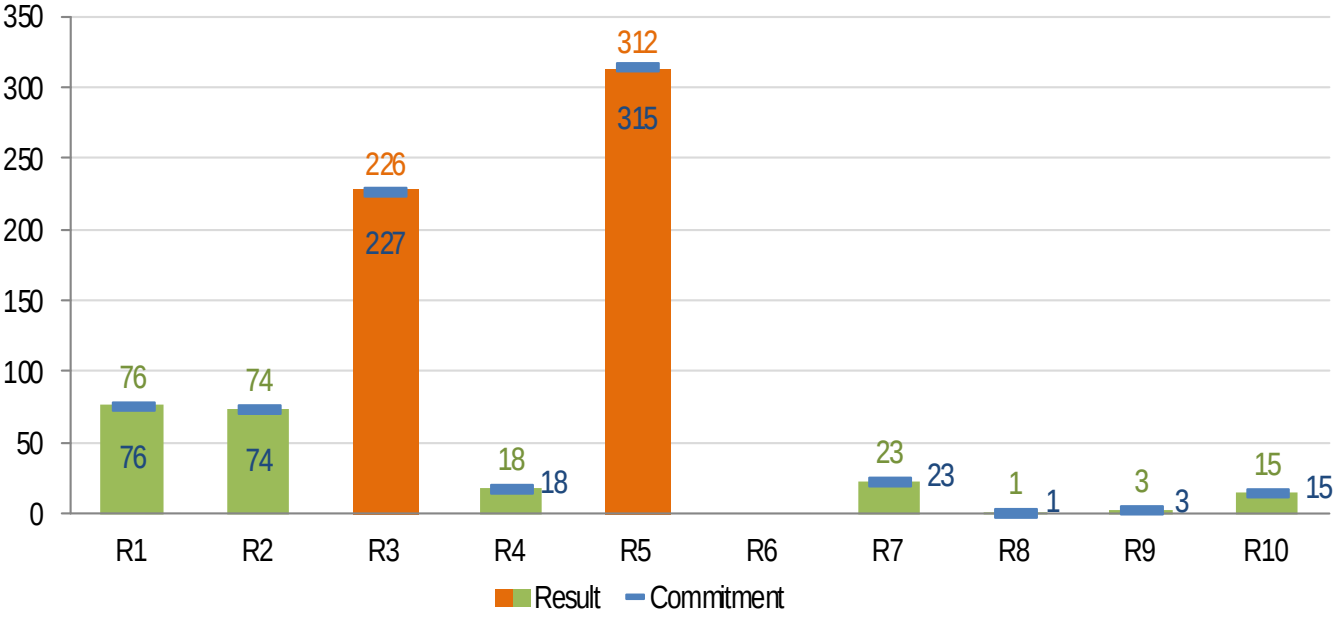
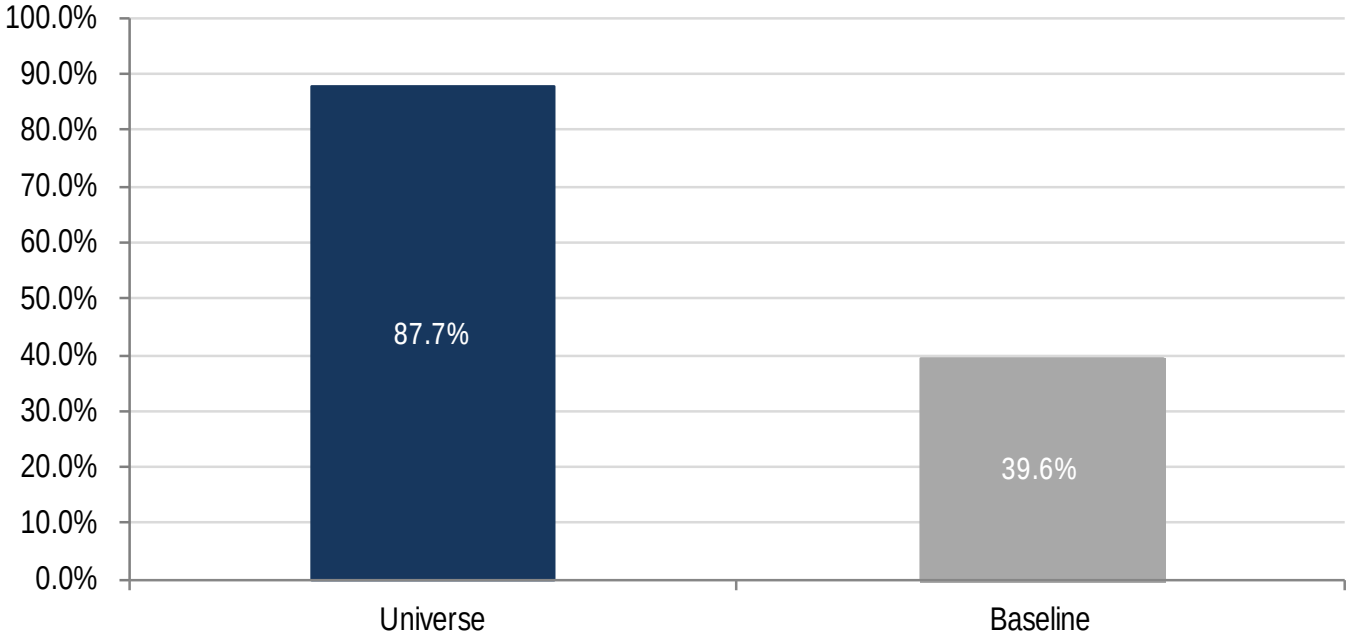


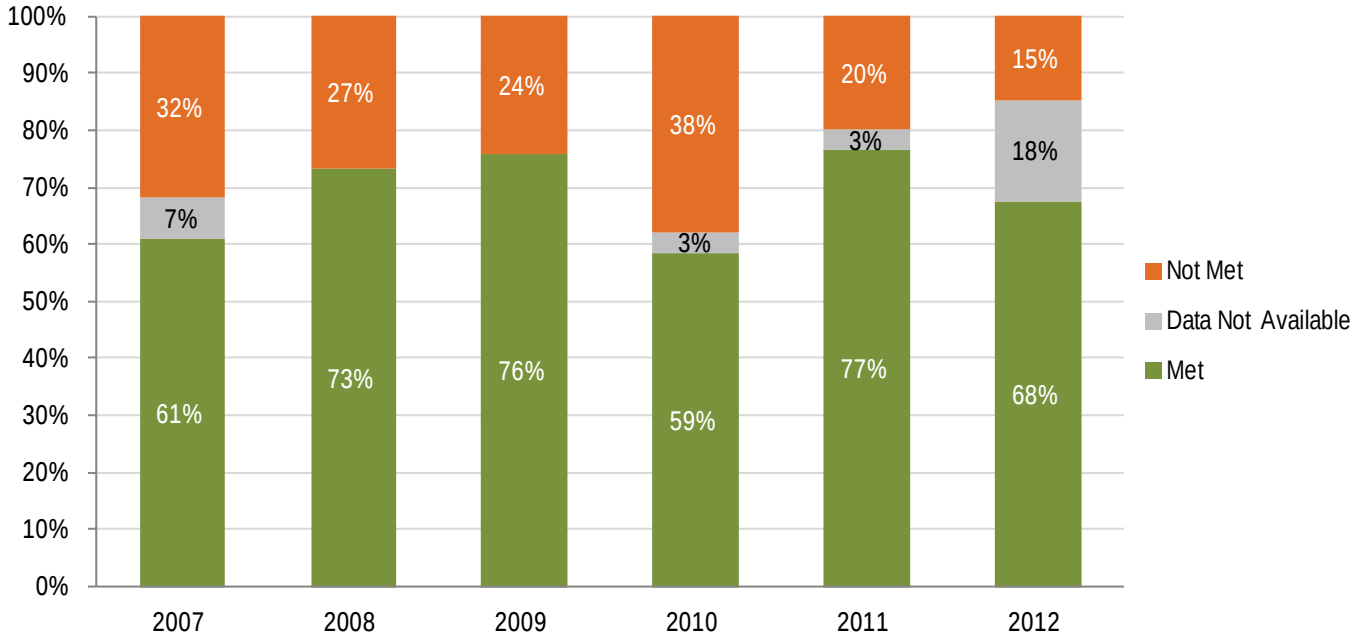
Figure 18: CSO Permit Schedules as a Percent of Universe and Percent Over Baseline (SS-1)



Subobjective: Water Quality

EPA and states met 74% of their commitments under the Water Quality subobjective in FY 2012 and fell short on 15%; data were not available for 12%. The number of measures with commitments that were not met in FY 2012 was lower than 2011 (20%).[11] The FY 2012 results were close to the six-year average for the percent of commitment met (70%) (Figure 19).

Figure 19: Water Quality Subobjective Six-Year Trend



[11] Although the percentage of measures with data unavailable appears higher in 2012, this is misleading. The FY 2012 results are incomplete due to data lags for some measures at the time of publication of this report. Previous year results include data received following the publication of each year's end of year report.

FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.1 Improve Water Quality on a Watershed Basis								
WQ-SP10.N11	Number formerly impaired waterbodies now meeting standards (cumulative)	3,251	2,165	2,505	2,909	3,119	3,527	D-16/Fig.20
WQ-SP11	Number causes of waterbody impairment removed (cumulative)		6,723	7,530	8,446	9,527	11,134	D-16
WQ-SP12.N11	Number impaired watersheds improved water quality (cumulative)	21	60	104	168	271	332	D-17/Fig.23
WQ-SP13.N11	Maintain and Improve nation's stream conditions						Not Main-tained	D-17
WQ-SP14aN11	Number of monitoring stations in tribal waters with improved water quality (cumulative)						15	D-18
WQ-SP14bN11	Identify number monitoring stations in tribal waters with no degradation in water quality (cumulative)						7	D-18
WQ-24.N11	Number Indian & Alaska Native homes with access to sanitation					56,875	63,087	D-19/Fig.97*
WQ-01a	Number of numeric nutrient water quality standards approved or promulgated by EPA					45	42	D-20
WQ-01b	Number of numeric nutrient water quality standards proposed by states/territories					52	46	D-20
WQ-01c	Number State/Territories providing nutrient water quality standards milestones					21	14	D-21/Fig.27
WQ-02	Number Tribes with approved water quality standards	32	35	35	35	38	39	D-21/Fig.98*
WQ-03a	Number/Percent states/territories with updated water quality criteria	39	35	38	38	39	39	D-22/Fig.25
WQ-03b	Number/Percent Tribes with updated water quality criteria	17	19	17	18	13	14	D-22
WQ-04a	Percent states/territorial water quality standards revisions approved	86%	93%	93%	91%	92%	89%	D-23/Fig.29
WQ-05	Number states/territories adopted monitoring strategies	55	53	56	55	55	55	D-23/Fig.31
WQ-06a	Number Tribes implementing monitoring strategies	44	101	134	161	196	214	D-24/Fig.99*
WQ-06b	Number Tribes providing water quality data	44	60	86	106	171	184	D-24
WQ-07	Number states/territories using Assessment Database (ADB) (cumulative)	41	42	44	44	45	46	D-25
WQ-08a	Number/Percent total TMDLs established/approved EPA	4,191	8,696	5,887	4,951	2,846	2,922	D-25/Fig.33
WQ-08b	Number/Percent TMDLs developed by states/approved by EPA	3,998	8,553	5,829	2,262	2,482	2,702	D-26
WQ-09a	Number pounds nitrogen reduced from non-point sources (millions)	19.1	11.3	9.1	9.7	12.8	10.5	D-26
WQ-09b	Number pounds phosphorus reduced from non-pount sources (millions)	7.5	3.5	3.5	2.6	4.8	4.4	D-27
WQ-09c	Number tons sediment reduction reduced from non-point sources (thousands)	3,900	2,100	2,300	2,055	2,007	919	D-27

FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.1 Improve Water Quality on a Watershed Basis								
WQ-10	Number NPS-impaired waterbodies restored (cumulative)	48	97	147	215	358	433	D-28/Fig.41
WQ-11	Number/Percent NPDES follow-up actions completed	184	216	228	253	293	344	D-28
WQ-12a	Number/Percent Nontribal NPDES permits current	90%	90%	90%	89%	89%	90%	D-29/Fig.35
WQ-12b	Number/Percent Tribal permits current	83%	85%	85%	88%	87%	86%	D-29/Fig.100*
WQ-13a	Number facilities covered by MS-4 permit	6,632	7,080	6,541	6,919	6,952	6,888	D-30
WQ-13b	Number facilities covered by industrial storm water permit	86,826	89,530	81,660	88,788	84,718	87,060	D-30
WQ-13c	Number facilities covered by construction storm water permit	242,801	204,341	200,732	186,874	168,744	166,031	D-31
WQ-13d	Number facilities covered by CAFO permit	8,729	7,830	7,900	7,882	7,994	7,587	D-31
WQ-14a	Number/Percent POTWs SIUs control mechanisms in place	22,062	21,830	22,270	17,948	20,977	20,733	D-32
WQ-14b	Number/Percent POTWs CIUs control mechanisms in place	1,547	21,830	1,338	1,241	1,229	1,667	D-32
WQ-15a	Percent major dischargers in SNC	22.6%	24.0%	23.0%	24.0%	23.0%		D-33
WQ-16	Number/Percent POTWs comply wastewater discharge standards	3,645	3,645	86%		87%		D-33
WQ-17	CWSRF Fund utilization rate	97%	98%	98%	100%	98%	98%	D-34/Fig.39
WQ-19a	Number high priority state NPDES permits	484	930	1,309	1,008	943	850	D-34
WQ-19b	Number high priority state & EPA NPDES permits	11	61	1,118	1,063	1,005	925	D-35/Fig.37
WQ-20	Number facilities providing trading	127	368	407	442	461	481	D-35
WQ-21	Number impaired segments restoration planning complete	6,792	12,479	13,515	13,932	14,898	14,985	D-36
WQ-22a	Number regions completed Healthy Watershed Initiative strategy					4	7	D-36
WQ-22b	Number state completed Healthy Watershed Initiative strategy					5	13	D-37
WQ-23	Percent Alaska homes access to drinking water & sanitation							D-37
WQ-25a	Number urban water projects initiated addressing water quality issues in the community						46	D-38
WQ-25b	Number urban water projects completed addressing water quality issues in the community							D-38

*See “American Indian Drinking Water and Water Quality FY 2012 Performance” chapter.
Notes: NPS=nonpoint source; CAFO=concentrated animal feeding operation; POTW=publicly owned treatment works; SIU=significant industrial user; CIU=categorical industrial user; SNC=significant noncompliance; CWSRF=Clean Water State Revolving Fund.

FY 2012 Performance Highlights and Management Challenges

Attaining Water Quality Standards in Impaired Waters: The Agency continues to make progress in ensuring that water quality standards are fully attained in waterbodies listed as impaired. At the end of 2012, a cumulative 3,527 of the waters listed as impaired in 2002 met standards for all the impairments identified, thus exceeding the FY 2012 commitment of 3,324[12] (SP-10) (Figure 20). Nine of the 10 EPA regions met their 2012 commitments (Figure 21). The Agency has already achieved its FY 2015 goal of 3,360 waterbodies. Of a universe of 39,503 impaired waterbodies identified in 2002, about 9% were attaining standards by the end of FY 2012 (Figure 22).

By the end of 2012, EPA and states had removed 11,134 specific causes of waterbody impairments that states had identified in 2002 (SP-11). Factors contributing to exceeding the commitment in FY 2012 included removal of causes of impairments from impaired water lists that were submitted late in the biennial water quality assessment cycle. Some of the challenges EPA faces include:

- Reduced state budgets are slowing implementation activities that are necessary to improve impaired waterbodies.
- Meeting standards in a single waterbody segment impaired by multiple pollutants is more difficult than if just one or two pollutants were impairing the segment.

In the future, EPA expects results to be lower because many of the impairments that remain in waters identified in 2002 will require many years before restoration strategies result in full recovery of the waterbody segment. This is borne out by noting the gradual leveling off of yearly results over the past few years.

[12] Information for this commitment is based on CWA 305(b) reports submitted by states on a biannual basis. To some extent, EPA exceeded its commitment for this measure due to receiving late FY 2008 and timely FY 2010 Integrated Reports (IRs).

Figure 20: Formerly Impaired Waterbodies Meeting Water Quality Standards by Fiscal Year (WQ-SP10.N11)

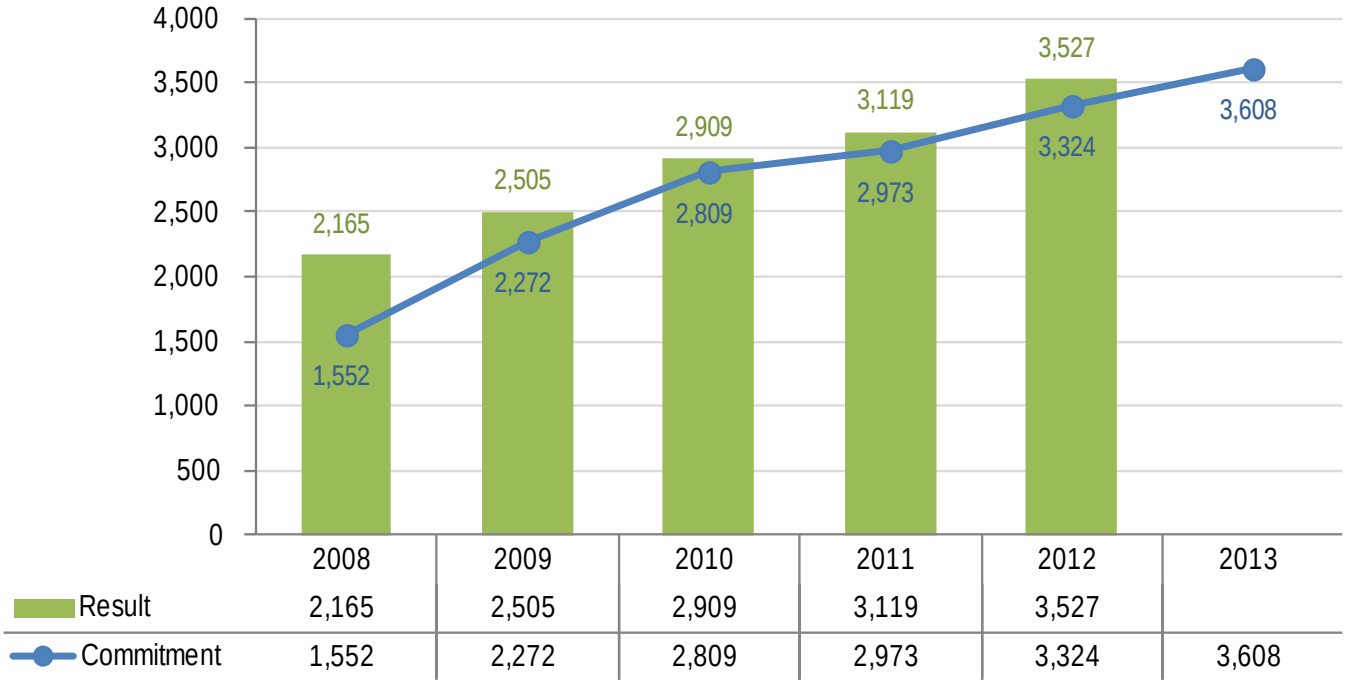


Figure 21: Formerly Impaired Waterbodies Meeting Water Quality Standards (WQ-SP10.N11) by Region for FY 2012

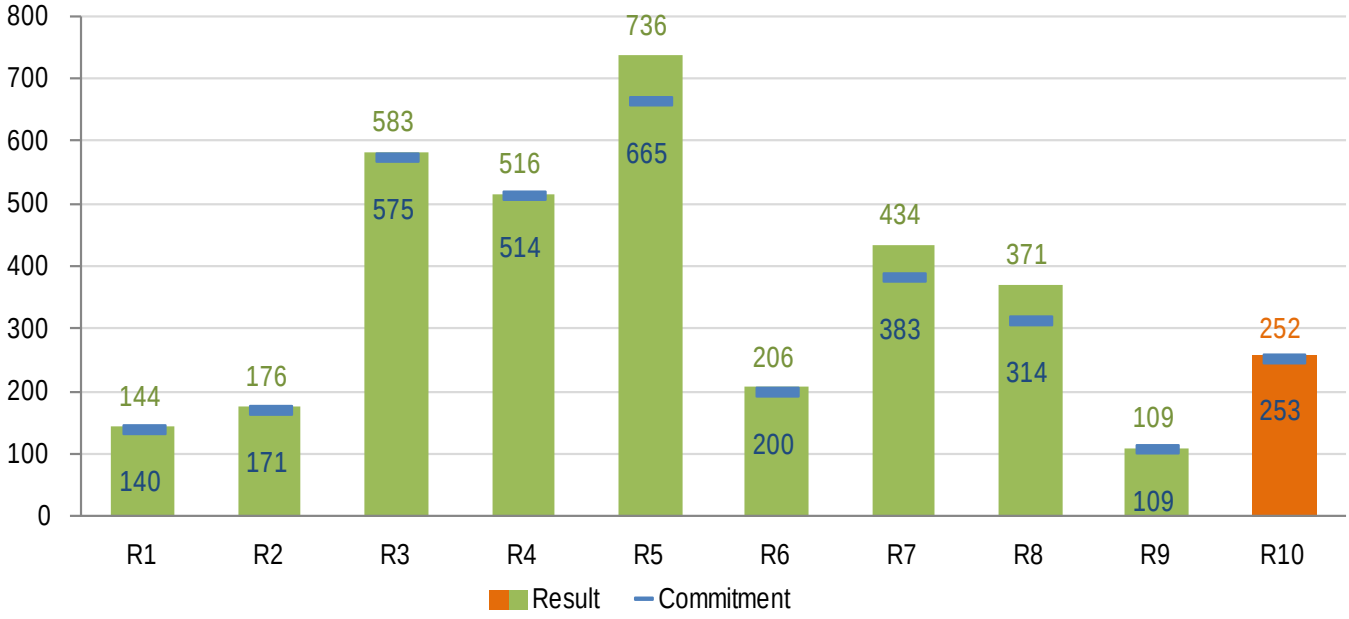
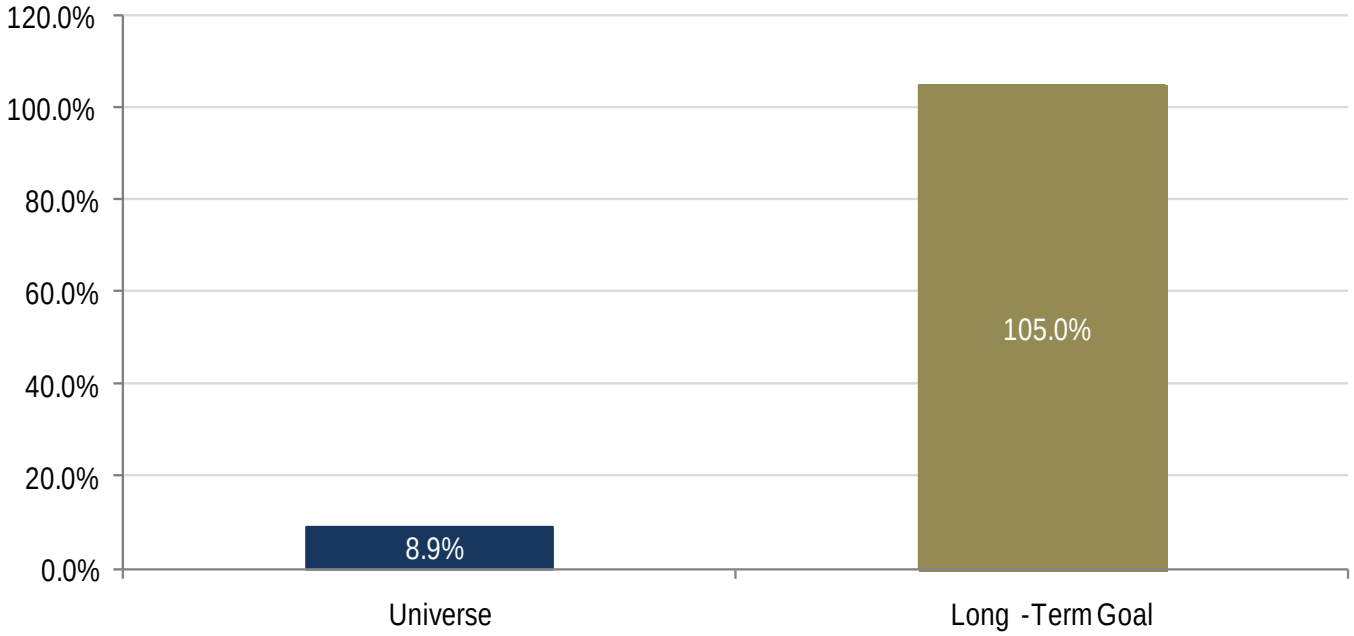


Figure 22: Formerly Impaired Waterbodies Meeting Water Quality Standards as a Percent of Universe and Long-Term Goal (WQ-SP10.N11)



EPA and states were successful in improving water quality conditions in 332 impaired watersheds nationwide cumulatively through 2012 using the watershed approach (SP-12) (Figure 23). This was a 23% increase over the 2011 result of 271 improved watersheds nationwide. Despite setting the most ambitious commitment in five years, EPA met its goal by a comfortable margin. Nine of 10 regions met their commitments last year (Figure 24). The majority of the increase was due to improvement within the Tualatin watershed in Oregon. In the future, EPA anticipates that the results for this measure will be steady or lower.

Figure 23: Impaired Watersheds Showing Improved Water Quality Conditions by Fiscal Year (WQ-SP12.N11)

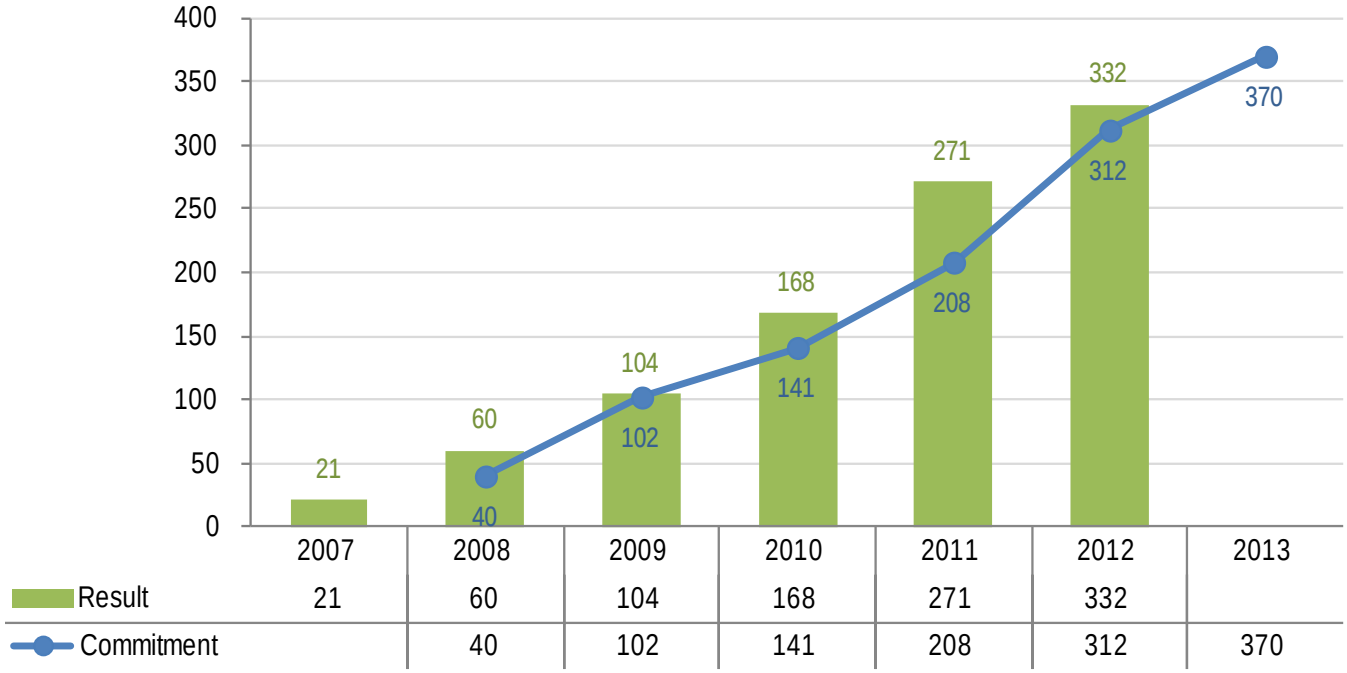
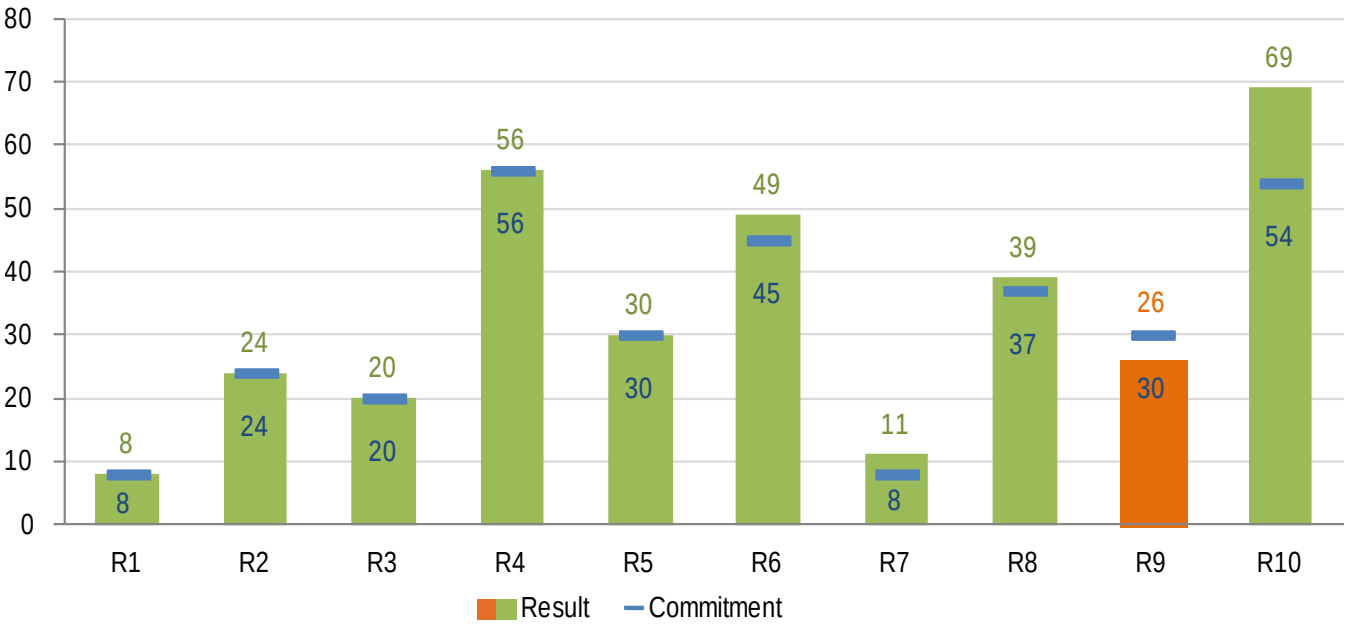


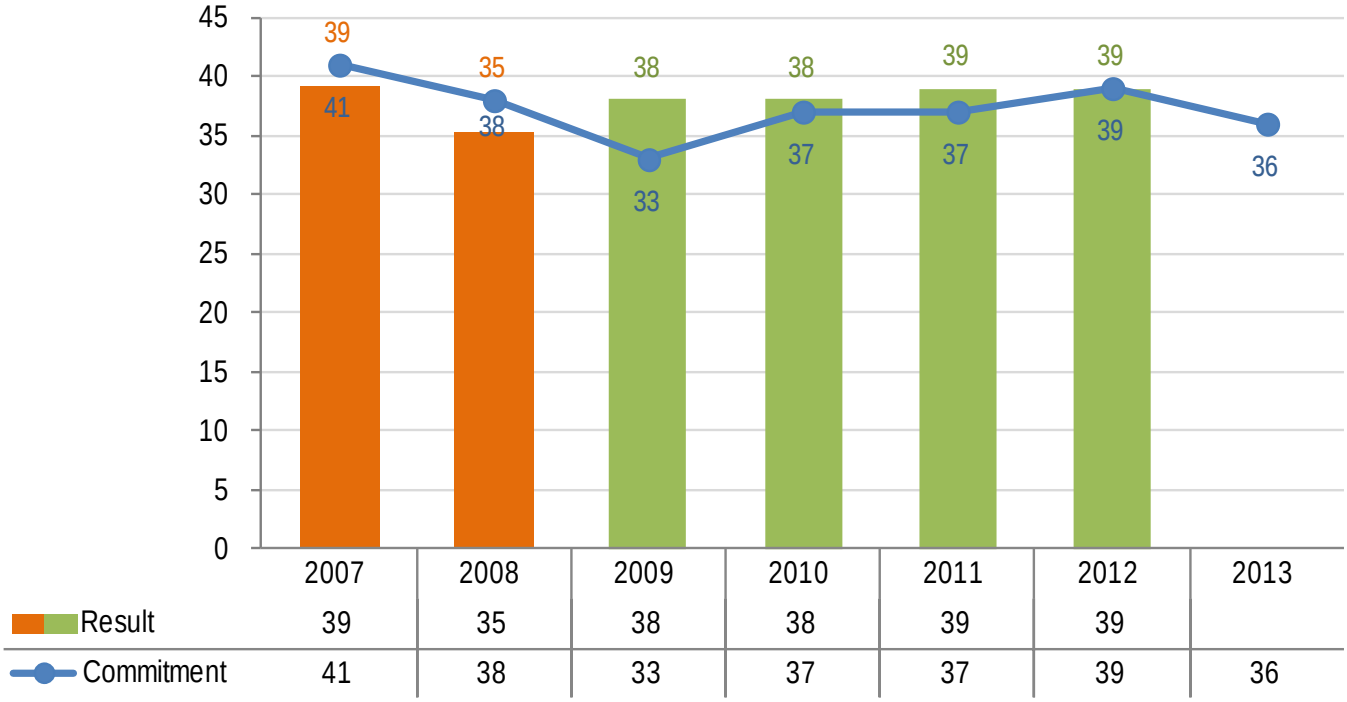
Figure 24: Impaired Watersheds Showing Improved Water Quality Conditions (WQ-SP12.N11) by Region for FY 2012



Water Quality Criteria and Standards: Water quality standards are the regulatory and scientific foundation of water quality protection programs under the Clean Water Act (CWA). Under the CWA, states, territories, and authorized tribes establish water quality standards that define the designated uses (and water quality criteria to protect those uses) for waters within their jurisdictions. The standards are used to determine which waters must be cleaned up, how much may be discharged, and what is needed for protection.

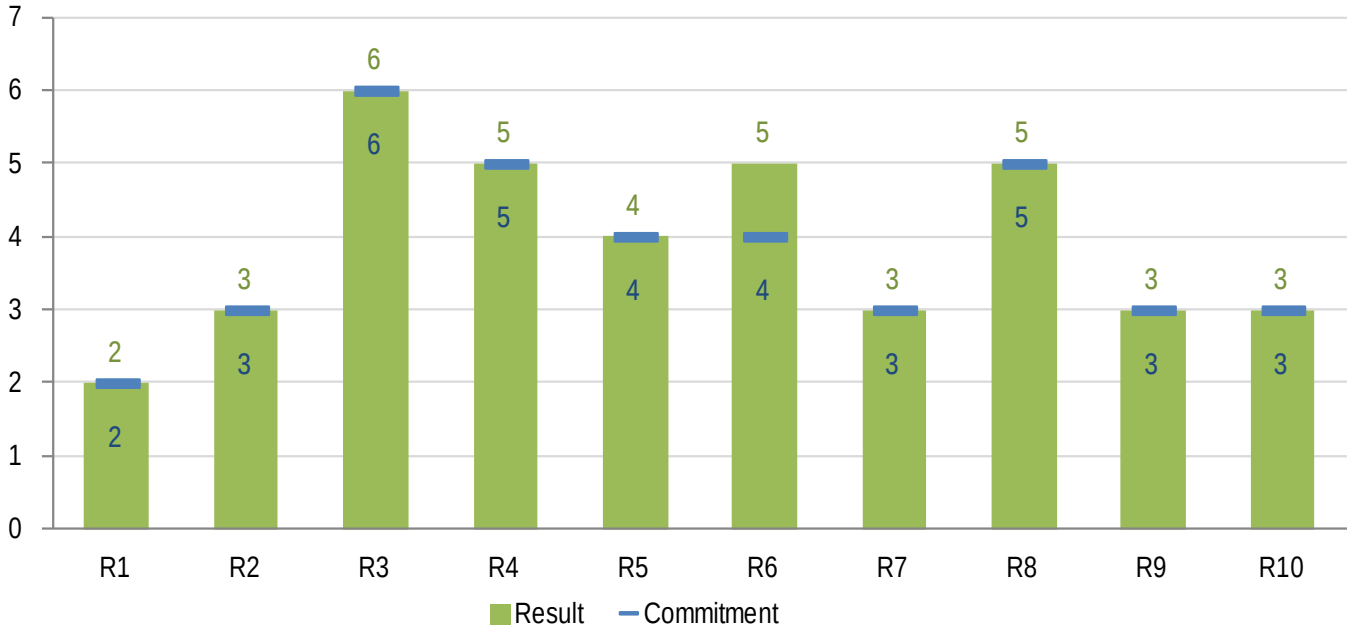
For the fourth year in a row, states and territories met regional commitments for submitting new or revised water quality criteria acceptable to EPA that reflect new scientific information (WQ-3a) (Figure 25). The FY 2012 result of 39 states and territories met the national goal, with all regions meeting their commitments (Figure 26). However, complex science and policy issues—including those raised in litigation and difficult Endangered Species Act consultations—will continue to pose challenges.

Figure 25: States/Territories with Updated Water Quality Criteria by Fiscal Year (WQ-03a)



	2007	2008	2009	2010	2011	2012	2013
Result	39	35	38	38	39	39	
Commitment	41	38	33	37	37	39	36

Figure 26: States/Territories with Updated Water Quality Criteria (WQ-03a) by Region for FY 2012



The adoption and proposal of numeric water quality standards for total nitrogen and phosphorus by states and territories was a top priority for the National Water Program in FY 2012. In FY 2012, one state adopted a total phosphorus criterion for its lakes that was EPA-approved, bringing the cumulative total for WQ-1a to 42 criteria; no new proposed criteria were added under WQ-1b.[13] Commitments for WQ-1a and WQ-1b were met. EPA did not, however, meet its commitment for state and territories supplying performance milestones to EPA on the development, proposal, and adoption of numeric water quality standards for total nitrogen and phosphorus (WQ-1c) (Figure 27). Many states have not provided complete information due to the scientific, programmatic, and policy complexities of developing nitrogen and phosphorus criteria. Additionally, this measure does not allow partial credit to acknowledge state milestone accomplishments toward the criteria development for major water types.[14]

[13] During FY 2012, the results for FY 2011 were adjusted because some criteria did not fully qualify under the WQ-1a and WQ-1b definitions.

[14] While measure WQ-1c was discontinued for FY 2013, it has been adapted as part of the new Nutrient Framework measure to include more flexibility (see FY 2013 National Water Program Guidance, http://water.epa.gov/resource_performance/planning/FY-2013-National-Water-Program-Guidance.cfm).

Figure 27: States/Territories Supplying Performance Milestones by Fiscal Year (WQ-01c)

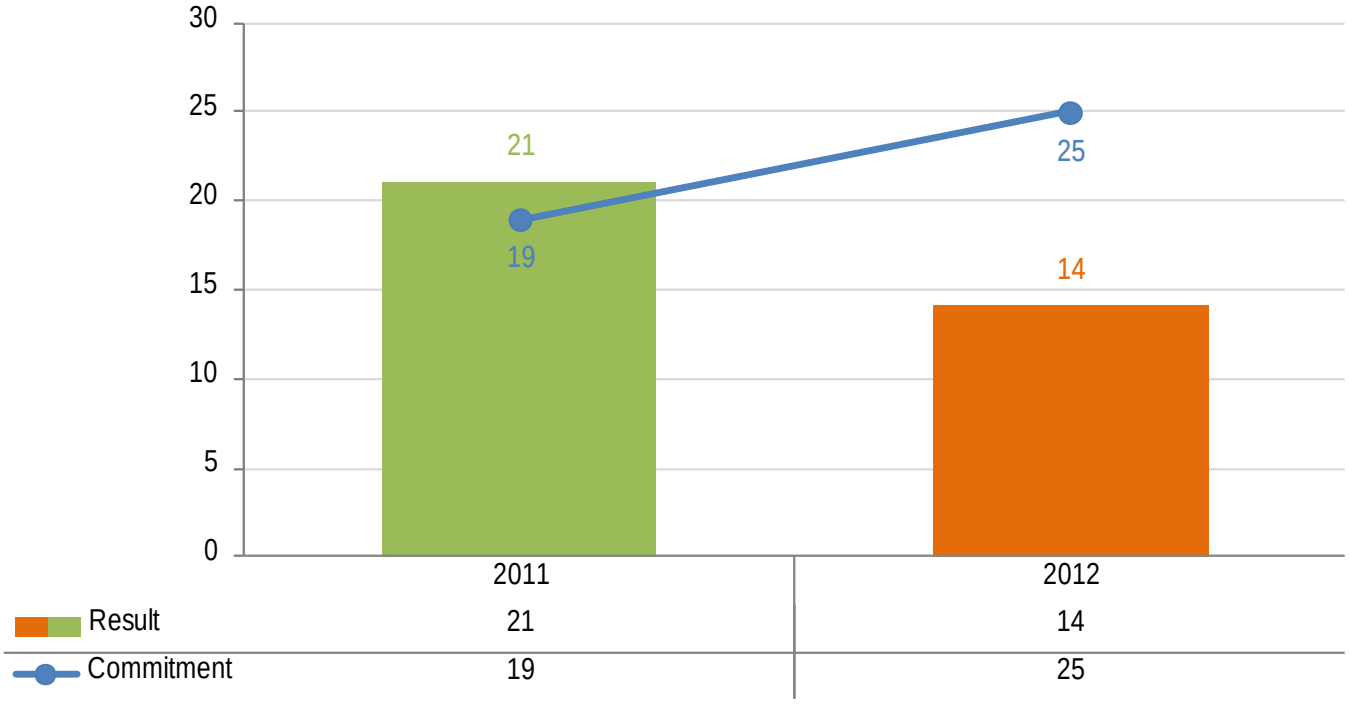
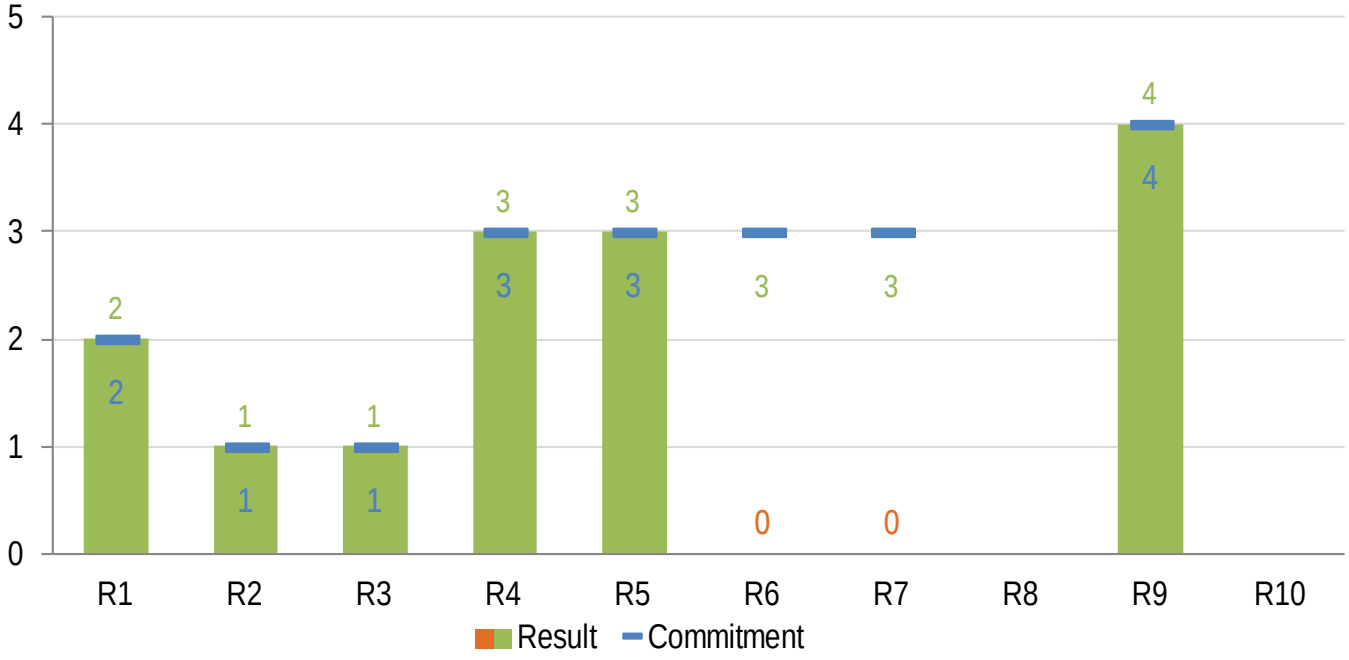
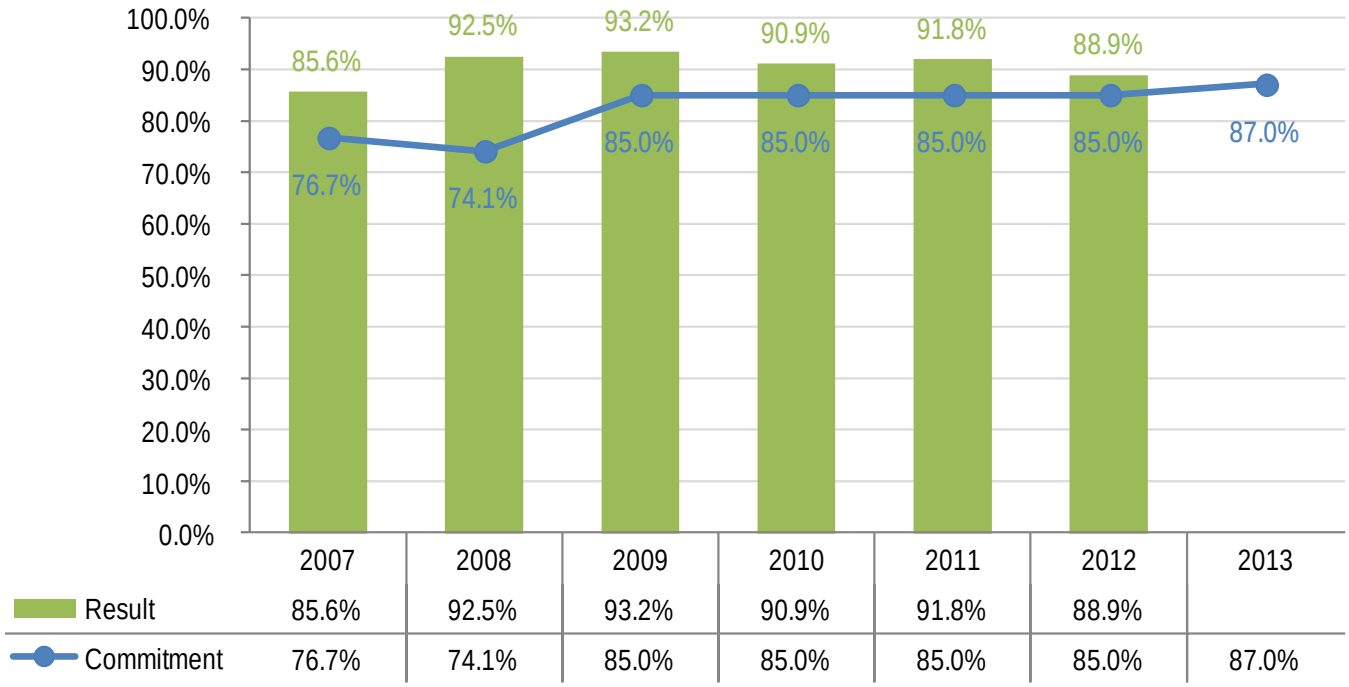


Figure 28: States/Territories Supplying Performance Milestones (WQ-01c) by Region for FY 2012



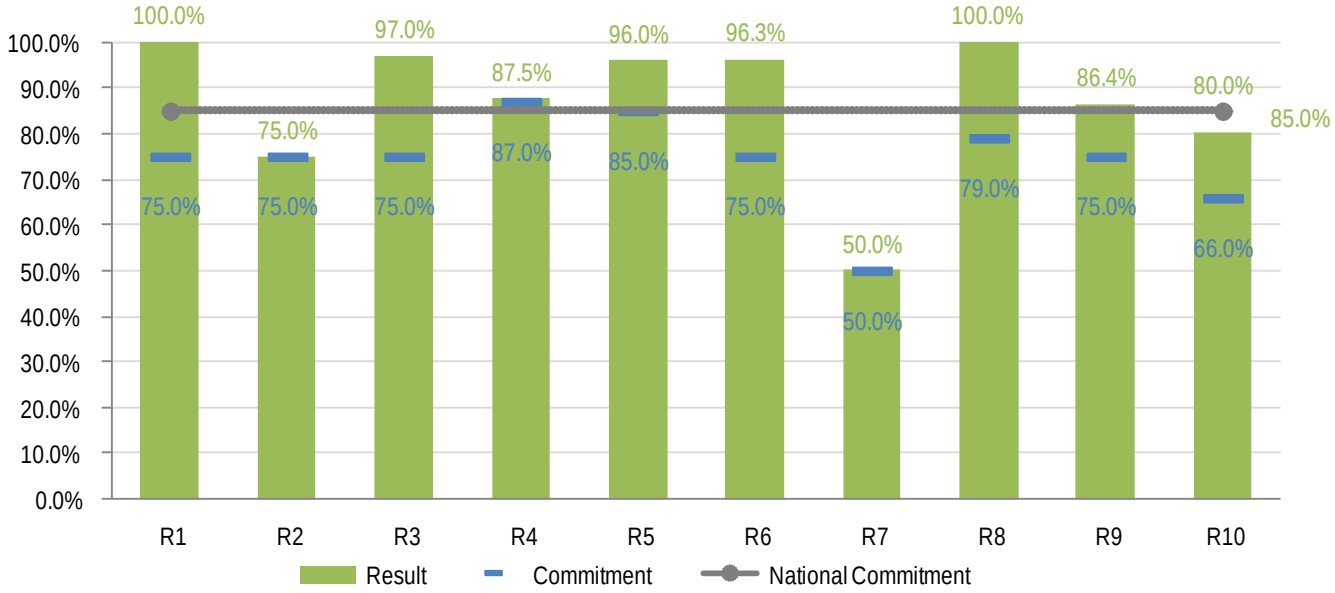
EPA exceeded its FY 2012 national commitment (85%) by approving 89% of water quality standard revisions submitted by states and territories (WQ-4a) (Figure 29). EPA has exceeded commitments for this measure for the past six years. Nonetheless, the trend declined slightly in FY 2012 from 92% in FY 2011. This may reflect the fact that states are tackling more difficult environmental problems and issues in their standards revisions. All regions met their commitments for this measure in FY 2012 (Figure 30).

Figure 29: States/Territories with Water Quality Standards Revisions Approved by Fiscal Year (WQ-04a)



	2007	2008	2009	2010	2011	2012	2013
Result	85.6%	92.5%	93.2%	90.9%	91.8%	88.9%	
Commitment	76.7%	74.1%	85.0%	85.0%	85.0%	85.0%	87.0%

Figure 30: States/Territories with Water Quality Standards Revisions Approved (WQ-04a) by Region for FY 2012



Water Quality Monitoring: Throughout FY 2012, EPA continued to work with states, tribes, interstate agencies, and territories to strengthen their monitoring programs. Activities included technical support from EPA regions and the Office of Water in monitoring, data management, assessment and reporting. To expand access to ambient water quality data, EPA continues to support states and tribes in joining the Water Quality Exchange. In FY 2012, EPA, in partnership with the National Water Quality Monitoring Council and the U.S. Geological Survey, launched the Water Quality Data Portal providing seamless access to data holdings managed by both agencies. This includes more than 100 million records from states, tribes, EPA, and others housed in the WQX/STORET data warehouse.

One of the long-standing gaps in EPA and state monitoring is being addressed through the National Aquatic Resource Surveys (NARS), an EPA, state, and tribal partnership to produce cross-jurisdictional, representative assessments of the condition of the nation's waters. These statistical surveys are a cost-effective and scientifically credible means for assessing and reporting on the current status of a water resource and, over time, changes and trends for that water resource. Initiated in 2005, the NARS program relies on collective EPA, state, and tribal efforts to conduct annual surveys that rotate through each waterbody type (streams, rivers, lakes, coasts/estuaries, or wetlands) and repeat on a five-year cycle. In March 2013, EPA published the results of the second survey of streams (see text box). In FY 2012, EPA, states, and tribes also completed sampling for the second survey of lakes. Samples collected at more than 1,000 lakes have been sent to laboratories for processing.

NARS National Rivers and Streams Assessment

On March 26, 2013, EPA released the draft National Rivers and Streams Assessment for public comment. This report is the first combined report on rivers and streams. It is the second national assessment of streams. Key findings include:

- More than half (55%) of river and stream miles are in poor condition for aquatic life. Key stressors include nutrients that increase the risk of degraded biology.
- Nitrogen and phosphorus are at excessive levels. Twenty-seven percent (27%) of the nation's rivers and streams have excessive levels of nitrogen, and 40% have high levels of phosphorus. High levels of nutrients have local and downstream impacts. Nutrients stimulate algal growth. Severe algal blooms can produce unpleasant odors and create algal mats, reducing the appeal of lakes for recreational activities. As algae die and decompose, they remove oxygen from the water, reducing the amount available to fish and other organisms. Removing algae from drinking water can significantly increase water treatment costs.
- Streams and rivers are at an increased risk due to decreased riparian vegetation cover. Vegetation along rivers and streams is a key factor in slowing the velocity of rainwater so it doesn't scour and erode stream banks, removing pollutants carried by rainwater, and providing shade to maintain temperatures that support healthy stream biology. Almost one-quarter (24%) of rivers and streams are rated as poor because of the loss of healthy vegetative cover.
- Increased bacteria levels. High bacteria levels were found in 9% of stream and river miles, making those waters potentially unsafe for swimming and other recreation.
- Elevated mercury levels. A subset of rivers and larger streams was sampled for fish tissue contaminants. Many of those waters, equivalent to more than 13,000 miles of rivers, have fish with mercury levels that may be unsafe for human consumption.

Compared to a 2004 assessment of wadeable streams, this new assessment finds that stream condition is different than it was during a similar survey that focused only on streams. The new survey reports that 7% fewer stream miles rate good for biological condition based on the same macroinvertebrate indicator of stream health. For nutrients, the results are mixed, with a 9% increase in stream miles rated good for low levels of nitrogen, but 19% fewer stream miles rated good for having low levels of phosphorus. Looking at indicators of habitat quality, the new survey finds improvements for streams, with 17% more stream miles in good condition for fish habitat and 12 percent more stream miles in good condition for vegetation along the banks.

The number of states and territories implementing comprehensive monitoring strategies in keeping with established schedules has remained just short of its annual goal for the past three years (WQ-5) (Figure 31). This is primarily due to the U.S. Virgin Islands' (VI) struggle to manage a successful monitoring program. The VI is currently under a Corrective Action Plan (CAP), and all monitoring work funded by the CWA Water Pollution Control (Section 106) grants program will be conducted by contractors in FY 2013.

Figure 31: States/Territories That Have Adopted Monitoring Strategies by Fiscal Year (WQ-05)

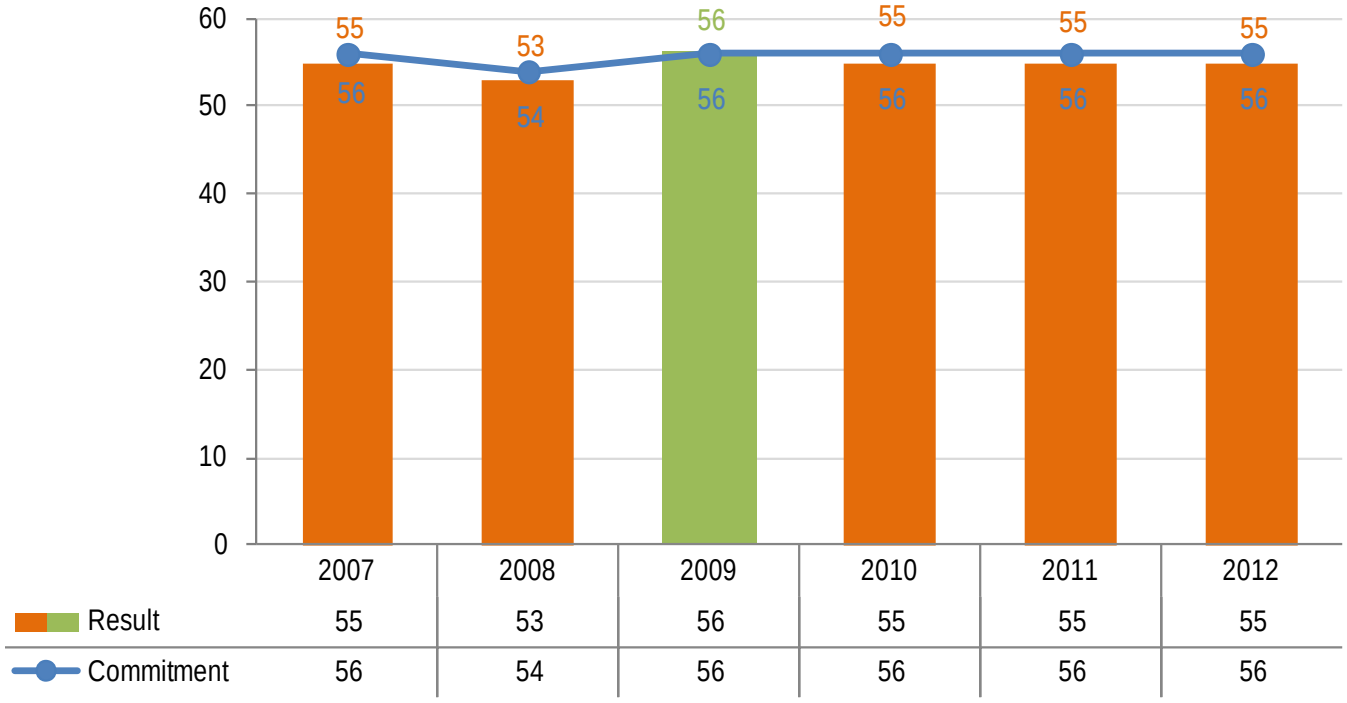
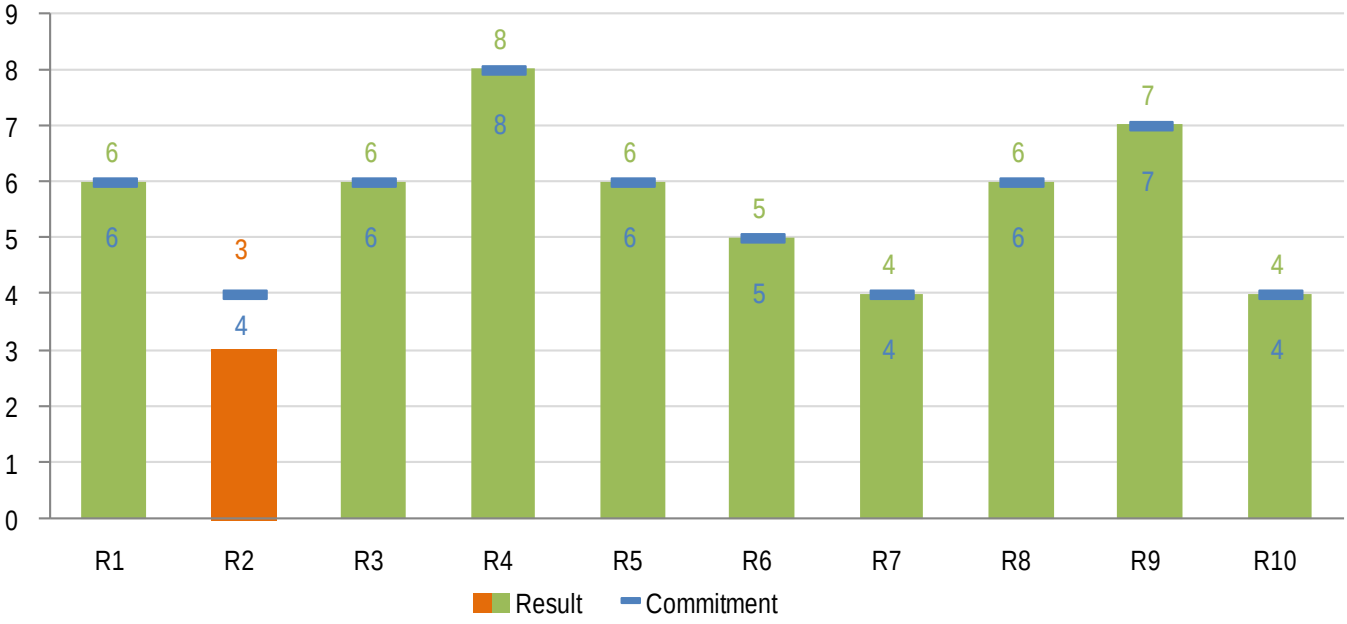


Figure 32: States/Territories That Have Adopted Monitoring Strategies (WQ-05) by Region for FY 2012



Forty-six states and territories provided electronic information for integrated reporting of water quality assessment data in FY 2012 (WQ-7). This was two states short of the annual commitment. There is a long-standing issue with the assessment reporting processes employed by two states in Region 3. In a change from the most recent reporting cycles, all Region 3 states submitted their draft 2012 Integrated Reports by mid-May. Several of these had significant issues for the region to work through, and the combined effort to address these concerns and complete reviews and approvals of all six submissions did not allow for extra time to resolve the database reporting issues for the two Region 3 states.

Total Maximum Daily Loads (TMDLs): Developing TMDLs for an impaired waterbody is a critical step in meeting water restoration goals. TMDLs establish a pollutant budget, which may be implemented via permit requirements or watershed plans through local, state, and federal programs. In FY 2012, states developed and EPA approved or established 2,922 TMDLs (WQ-8a) (Figure 33), of which 227 were established by EPA. All regions met their annual commitments for this measure in FY 2012. (Figure 34).

EPA tracks the pace of TMDL development, which refers to the annual number of TMDLs approved or established consistent with national policy. The national policy recommends that TMDLs be established and approved within eight to 13 years of the water having been listed as impaired under CWA Section 303(d). The national 2012 end-of-year pace was 91%, which significantly exceeded the commitment of 60% (WQ-8a).

Figure 33: TMDLs Established or Approved on a Schedule Consistent with National Policy by Fiscal Year (WQ-08a)

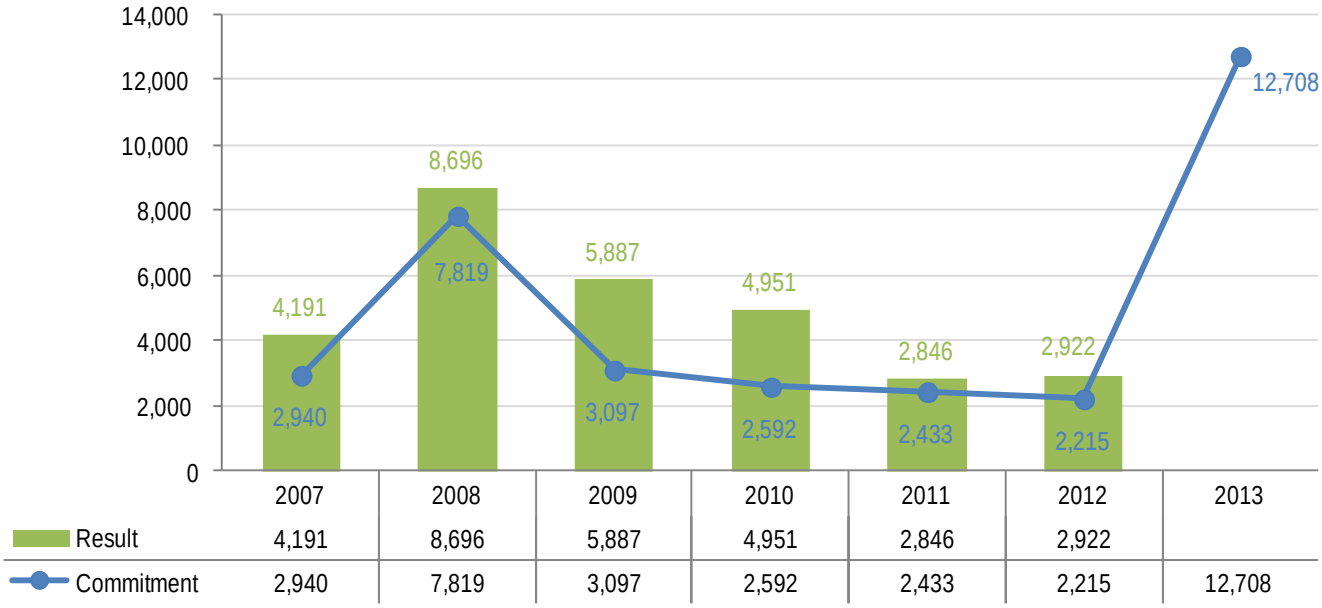
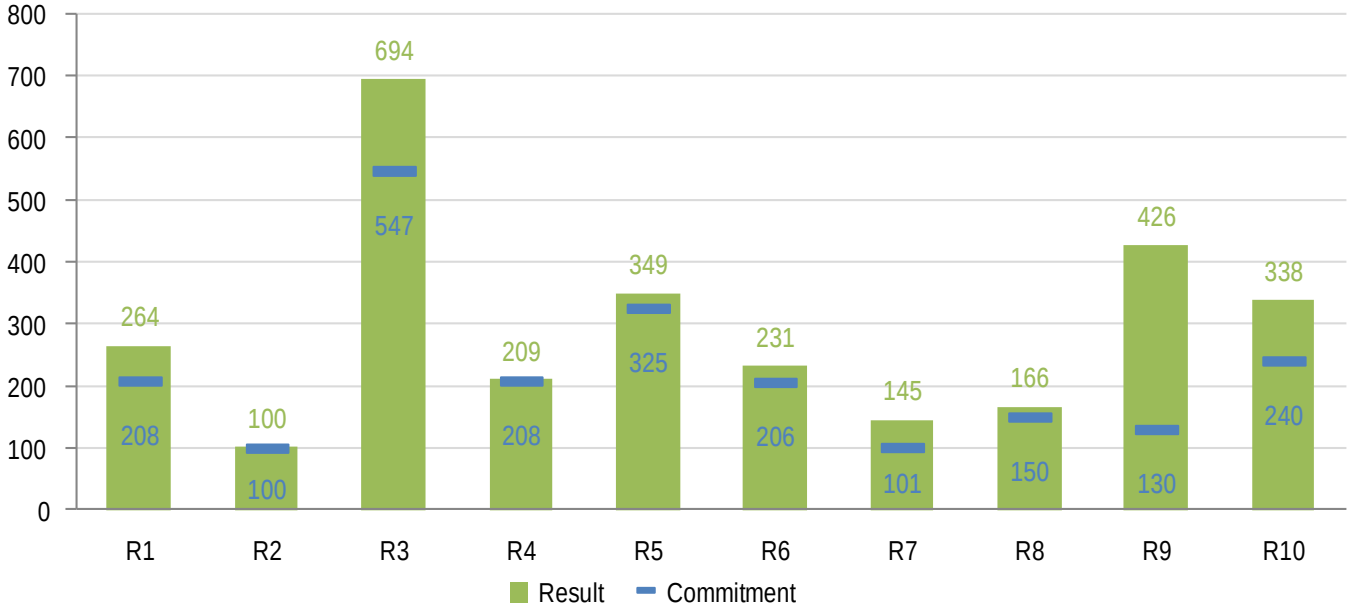


Figure 34: TMDLs Established or Approved on a Schedule Consistent with National Policy (WQ-08a) by Region for FY 2012



The higher than expected results were due to a number of factors. Specifically, Connecticut developed 186 bacteria TMDLs and Maine completed a statewide impervious cover TMDL, which accounted for 30 TMDLs. West Virginia conducts their TMDL process at the watershed scale, and in FY 2012, completed two watershed TMDL packages, which accounted for more than 600 TMDLs. Kansas also applies a watershed approach to TMDL development, and in FY 2012, completed and submitted to EPA a watershed TMDL, which had not been anticipated. Lastly, several Los Angeles consent decree TMDLs were completed, which resulted in substantially more TMDLs than anticipated.

National Pollutant Discharge Elimination System (NPDES) Permit Program: The NPDES program requires all point sources discharging into U.S. waterbodies to be covered by state or EPA NPDES permits. For the sixth year in a row, EPA and states achieved the national goal of having current NPDES permits in place. In 2012, 90.4% of nontribal facilities (109,866 facilities) had current permits, exceeding the national commitment of 88% (100,147 facilities) (WQ-12a) (Figure 35). Despite widespread decline in state resources causing five of the 10 Regions to miss FY 2012 commitments, some states and regional offices were able to maintain a strong performance and issue more permits than expected, leading to an overall national result that met the national commitment. (Figure 36)

Figure 35: Non-Tribal NPDES Permits Considered Current by Fiscal Year (WQ-12a)

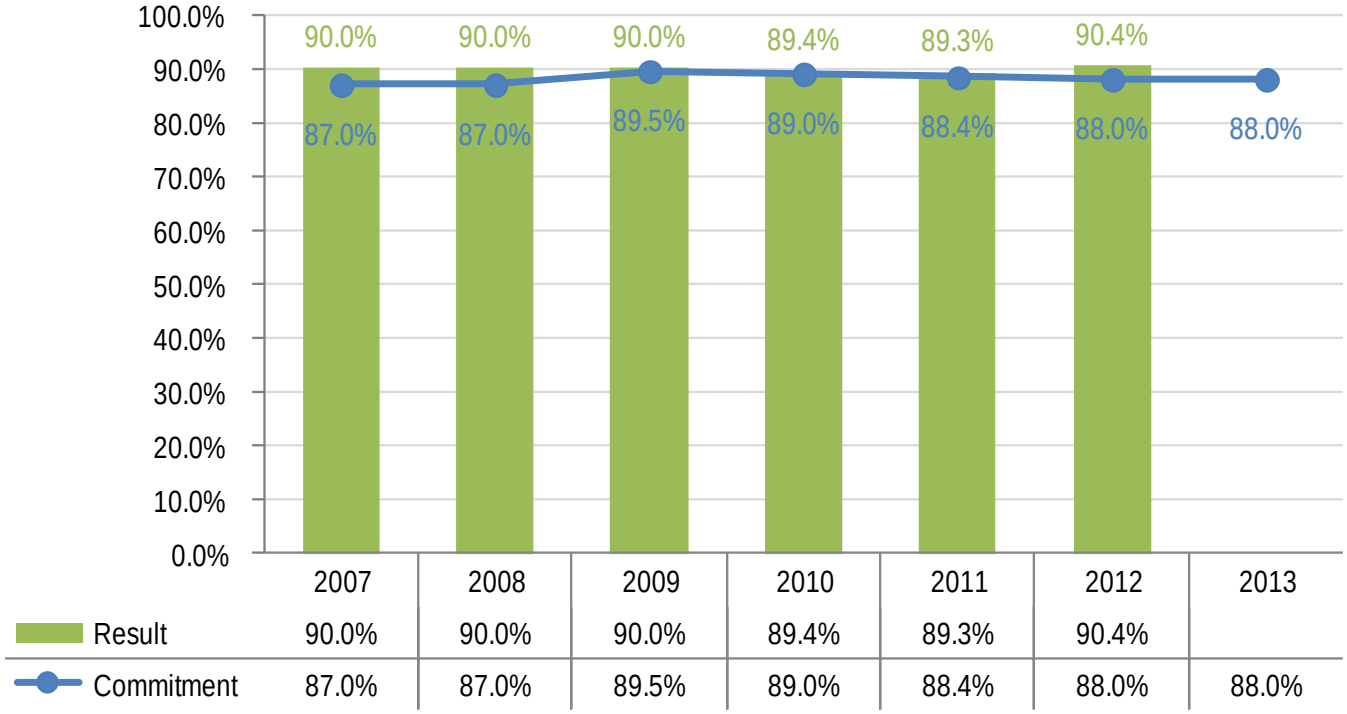
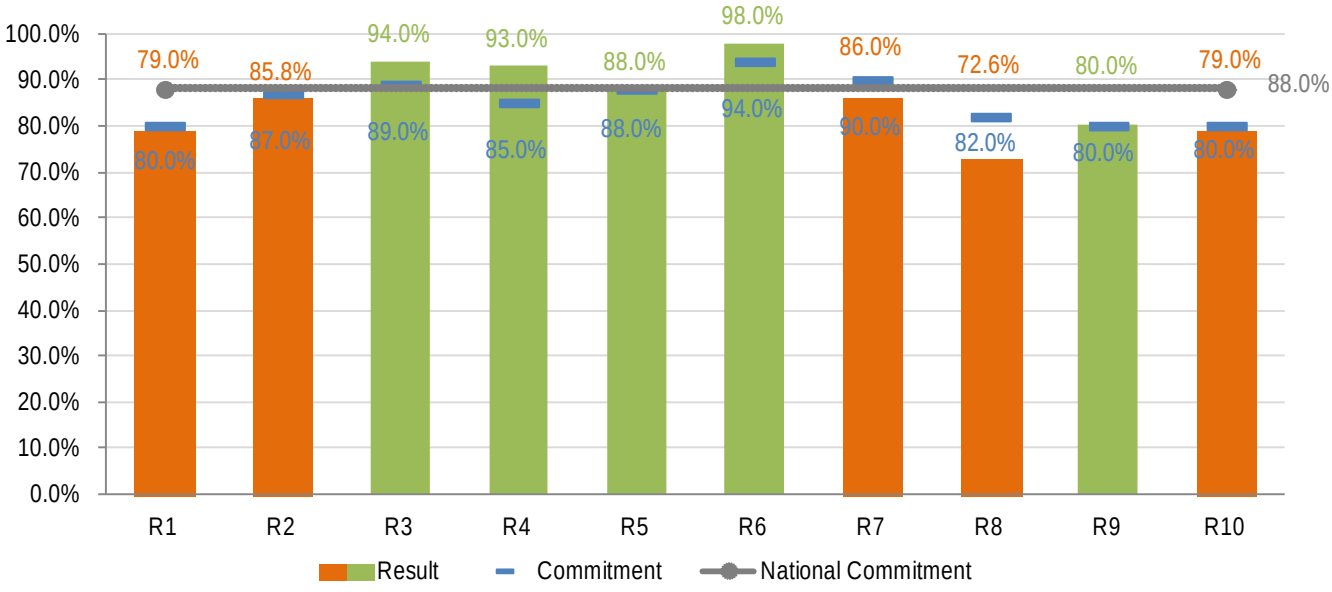
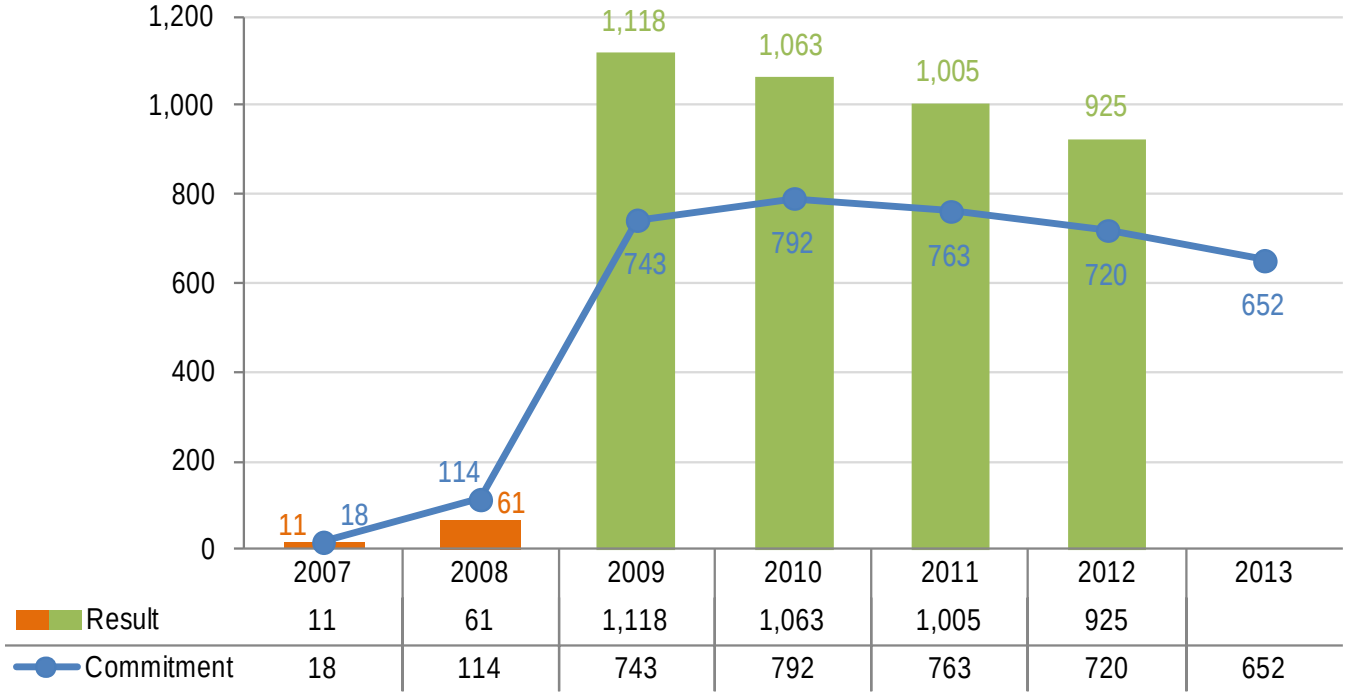


Figure 36: Non-Tribal NPDES Permits Considered Current (WQ-12a) by Region for FY 2012



EPA has been working with states to structure the permit program to better support comprehensive protection of water quality. A key strategy is to focus efforts on high-priority permits that need to be issued or reissued to help implement TMDLs, watershed plans, effluent guidelines, or other environmental and programmatic actions. In 2012, both EPA and authorized states issued 925 priority permits (128% of the universe), exceeding the national commitment of 720 permits (100%) (WQ-19b) (Figure 37). Eight of the 10 regions met or exceeded their commitments in 2012 (Figure 38). EPA and authorized states have exceeded their targets for issuing high-priority permits for the past four years.[15] States have continued their efforts in coordination with EPA regions to maintain strong performance in issuing high-priority permits.

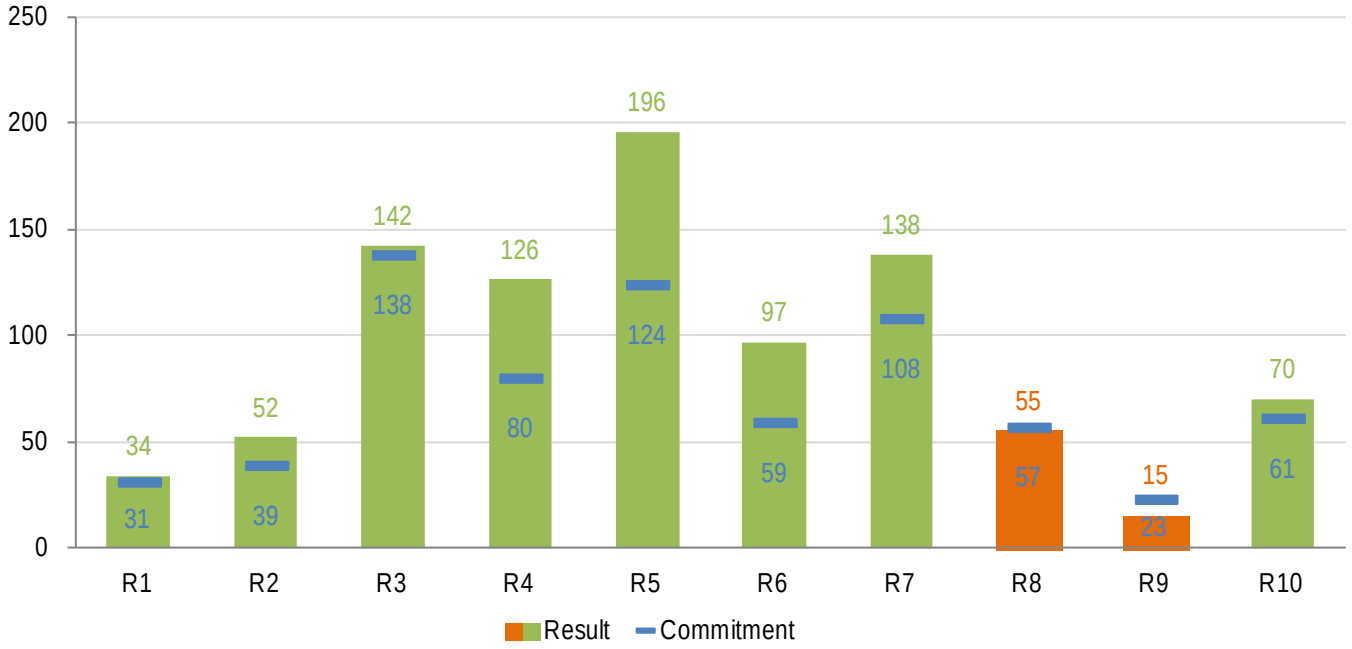
Figure 37: High-Priority EPA and State NPDES Permits by Fiscal Year (WQ-19b)



	2007	2008	2009	2010	2011	2012	2013
Result	11	61	1,118	1,063	1,005	925	
Commitment	18	114	743	792	763	720	652

[15] To simplify the process and be more transparent, EPA developed a new policy for FY 2010 for developing the priority permits universe. In addition, EPA shifted the time period for locking down the priority permits universe to align with the Government Performance and Results Act (GPRA) commitment schedule. When states establish their lists each year, they designate priority permits and commit to a certain number of these to be issued within the fiscal year. If a state is able to issue additional priority permits ahead of schedule, it receives credit toward the current fiscal year target, which may result in more permits being issued than originally targeted. This measure has been revised for FY 2013 so that results over 100% will no longer be possible.

Figure 38: High-Priority EPA and State NPDES Permits (WQ-19b) by Region for FY 2012



Clean Water Financing: The Clean Water State Revolving Funds (CWSRFs) provide low-interest loans to local governments to help finance wastewater treatment facilities and other water quality projects. The CWSRF utilization rate hit 98% in 2012. Six of the 10 regions met their commitments in FY 2012. Two regions—9 and 10—significantly exceeded their annual goals due to the fact that a number of states were able to provide more assistance to communities than was original estimated, given current economic conditions and the amount of funding that was expected to become available. Of the $97.4 billion in funds available for projects through 2012, $95.4 billion has been committed to nearly 32,000 loans. In 2012, project assistance reached $5.8 billion, which funded 1,947 loans in a single year. Nationally, since 2001, fund utilization has remained relatively stable and strong at greater than 90% (WQ-17)

Figure 39: Fund Utilization Rate for the CWSRF by Fiscal Year (WQ-17)

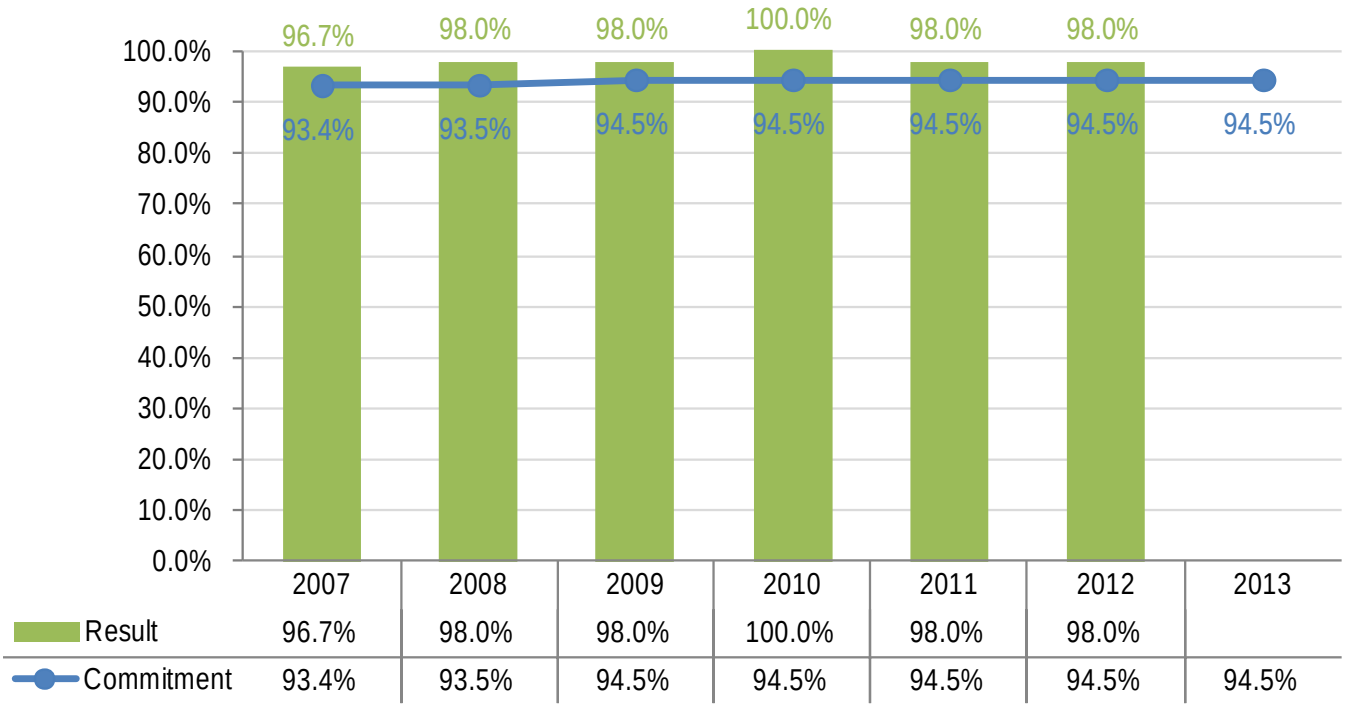
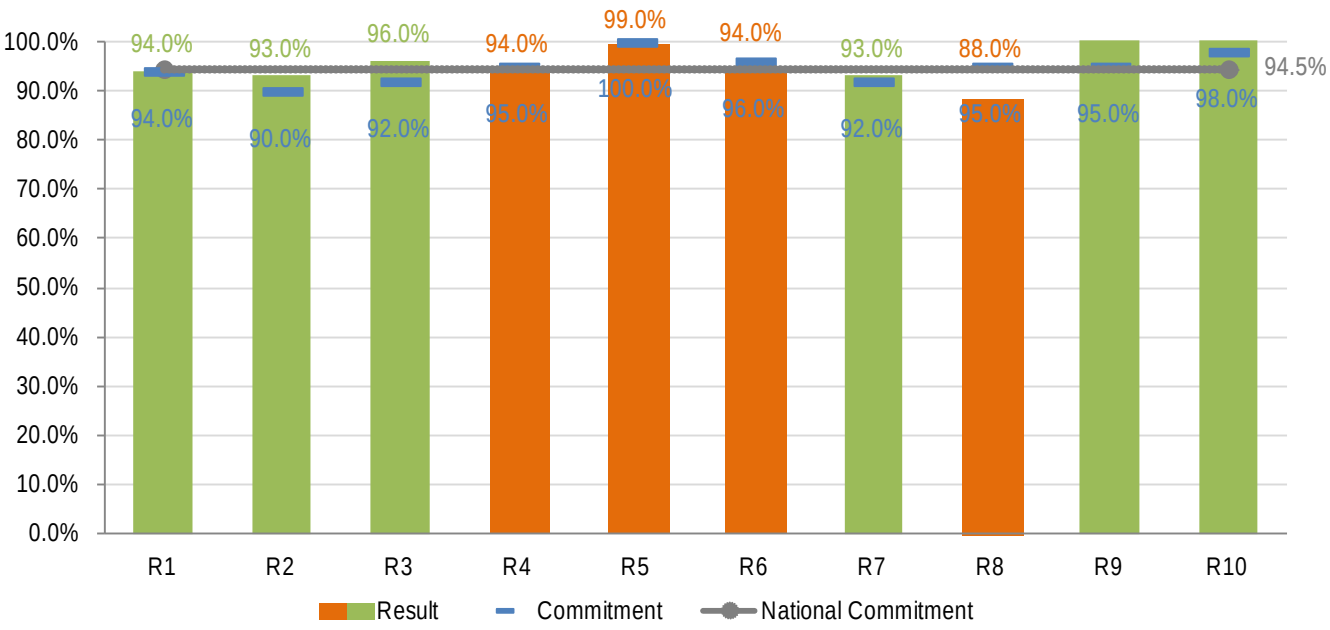


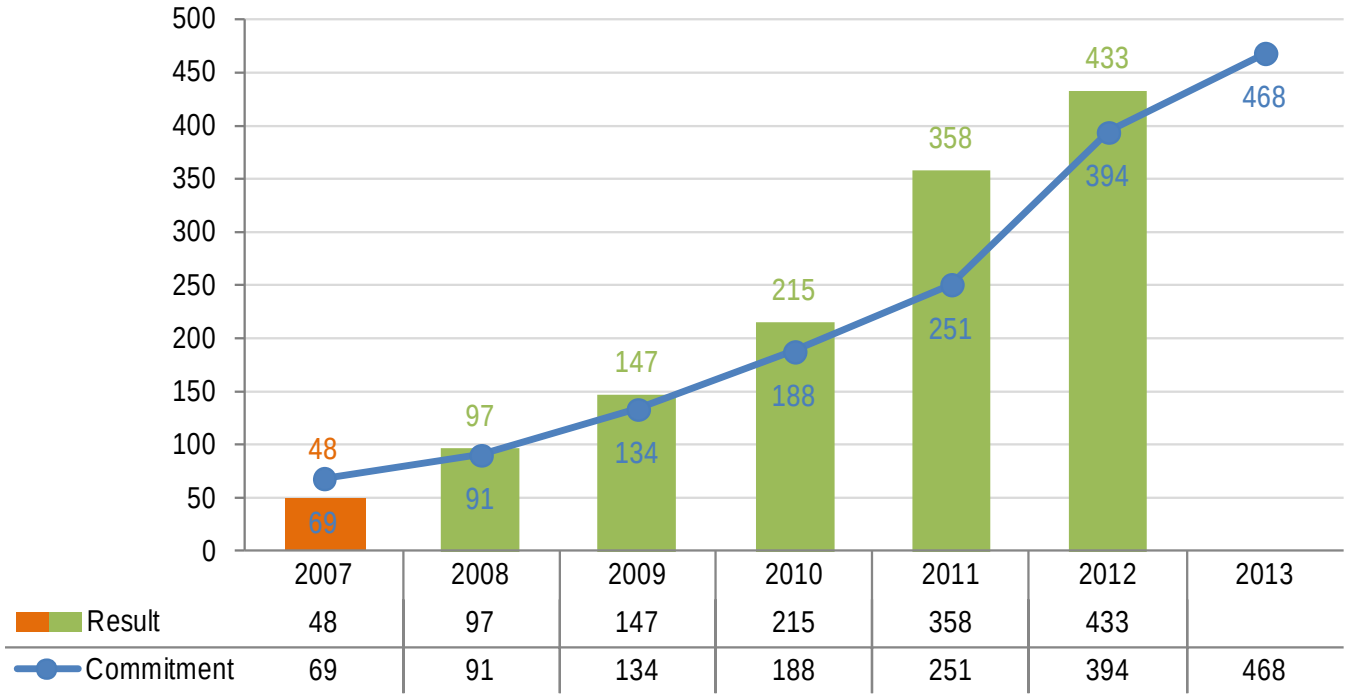
Figure 40: Fund Utilization Rate for the CWSRF (WQ-17) by Region for FY 2012
(Numbers reflect both base program and ARRA funded projects)



Control Nonpoint Source (NPS) Pollution: Polluted runoff from sources such as agricultural lands, forestry sites, and urban areas is the largest single remaining cause of water pollution. EPA and states are working with local governments, watershed groups, property owners, tribes, and others to implement programs and management practices to control polluted runoff throughout the country. EPA and states made significant progress in FY 2012 in documenting the full or partial restoration of waterbodies that are impaired primarily by nonpoint source runoff. Nationally, EPA exceeded its FY 2012 commitment (394), with 433 waterbodies partially or fully restored. This was a 21% increase over the 2011 result of 358 improved waterbodies nationwide (WQ-10) (Figure 41).[16] All regions met their annual commitments (Figure 42). Some of the results are due to Region 6 exceeding its commitment because of 11 delisted Oklahoma waterbodies. Region 7 had several success stories, counting for 18 delisted waterbodies. In addition, one state in Region 7 updated the segmentation of their waters so that some stories that would have previously counted for one segment or waterbody now count for multiple segments.

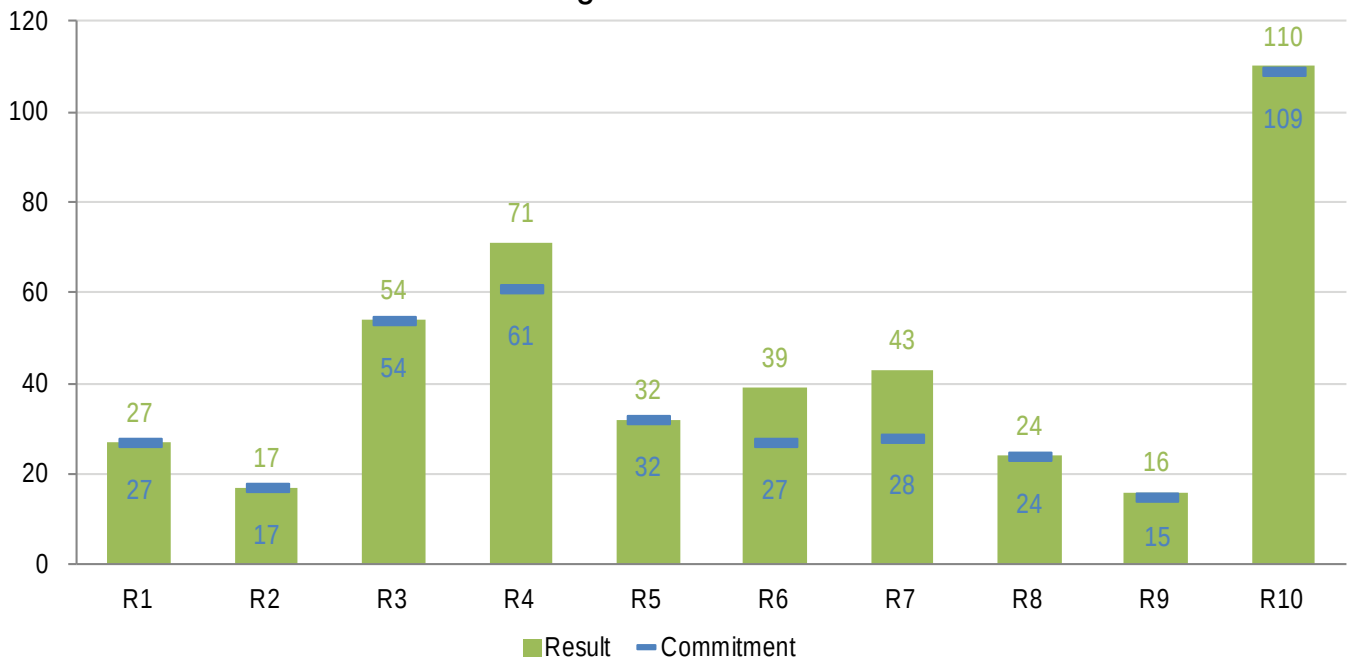
One of the challenges of the measure is it can be difficult to anticipate in exactly what year projects will come to fruition because each one consists of a different scale or scope, pollutant(s) type, and monitoring cycle. In addition, factors helping or hindering water quality progress, such as other projects currently underway or watershed development, often add more pollutants, thus making detecting change difficult.

Figure 41: NPS-Impaired Waterbodies Restored by Fiscal Year (WQ-10)



[16] EPA continues to highlight NPS success stories on its website at http://www.epa.gov/owow/nps/Success319/.

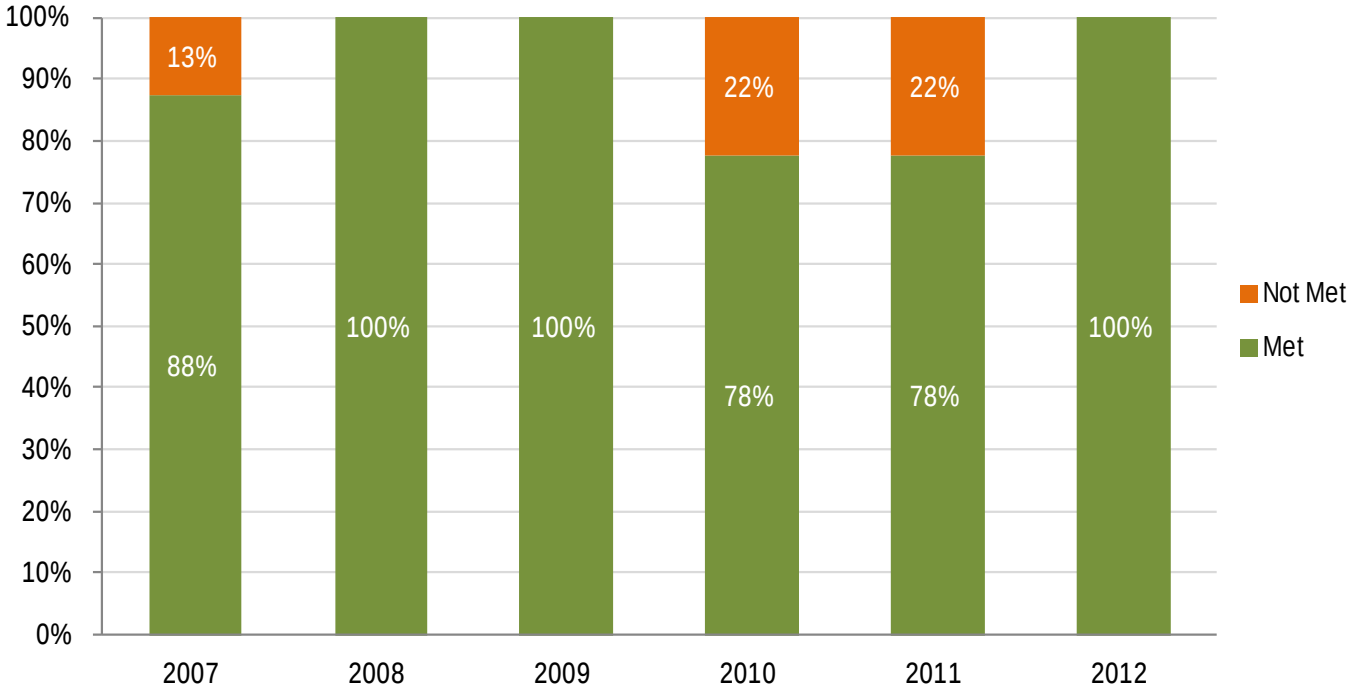
Figure 42: NPS-Impaired Waterbodies Restored (WQ-10) by Region for FY 2012



Subobjective: Improve Coastal and Ocean Waters

EPA's Coastal and Oceans program met 100% (three of three measures) of its commitments in 2012. This was an improvement over the FY 2011 results (Figure 43). It should be noted, however, that due to Agency streamlining efforts, the number of commitment measures for the Coastal and Oceans program was reduced from nine to three in FY 2012.

Figure 43: Coastal and Ocean Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.2 Improve Coastal and Ocean Waters								
CO-222.N11	Improve coastal aquatic system health (index)	2.8	2.4	2.4	2.8	2.8	3.0	D-39/Fig.44
CO-SP20.N11	Percent ocean dumping sites acceptable conditions	85%	99%	99%	90%	93%	97%	D-39/Fig.49
CO-02	Number coastline miles protected vessel sewage (cumulative)				53,634	54,494	58,929	D-40
CO-04	Rate of return federal investment for NEP (million dollars)	208.1	83.2	514.0	274.3	662.0	323.0	D-40/Fig.48
CO-05	Number dredged material management plans in place	30	37	38	37	40	37	D-41
CO-06	Number active dredged material sites monitored annually	33	28	38	33	33	35	D-41
CO-432.N11	Number additional NEP acres habitat protected or restored	102,462	82,828	125,437	89,985	62,213	114,579	D-42/Fig.46

FY 2012 Performance Highlights and Management Challenges

In April 2012, the federal government released the fourth *National Coastal Condition Report* (NCCR IV), which highlights EPA's National Coastal Assessment (NCA) data, collected primarily in 2003 and 2006. The findings from this report serve as a foundation for EPA and its partners to meet their commitments to water quality and offer insights on what additional actions are needed to better protect, manage, and restore coastal ecosystems. The NCCR provides a rating on the ecosystem health of eight coastal regions and U.S. coastal waters overall.[17] According to the NCCR IV, the overall condition of the nation's coastal waters is rated fair, or 3.0 on a scale of 1 to 5. EPA and its partners set a commitment for an overall score of 2.8 (fair) for FY 2012. (Subobjective 2.2.2) (Figure 44). A score below the target reflects the need for continued work to improve the condition of the nation's coastal waters. Because EPA is not collecting annual data on this measure, it is able to maintain the same target for the period within which a particular NCCR is applicable.

The National Coastal Condition Assessment Score provides a consistent metric that allows comparisons of regional coastal conditions and overall condition scores from one assessment period to the next. Comparison of the scores over time shows that the overall condition of U.S. coastal waters has improved since the 1990s. Although the overall condition is rated as fair in all four reports, the score supporting the rating has gradually increased from 2.0 in the NCCR I to 3.0 in the most recent report (Figure 45). The NCCR IV includes for the first time the U.S. Virgin Islands, Guam, and American Samoa. If the national score were recalculated without Alaska, Hawaii, and the island territories, however, the overall condition score would be 2.5 (rated fair; only a slight improvement from the overall condition score of 2.3 in NCCR III).

[17] This rating is based on five indicators or indices of ecological condition: water quality index (including dissolved oxygen, chlorophyll-a [Chla], nitrogen, phosphorus, and water clarity); sediment quality index (including sediment toxicity, sediment contaminants, and sediment total organic carbon [TOC]); benthic index; coastal habitat index; and fish tissue contaminants index. Each index is given a score based on a five-point system, where a score of less than 2.0 is rated poor, 2.0 to less 2.3 is rated poor to fair, greater than 2.3 to 3.7 is rated fair, greater than 3.7 to 4 is rated good to fair, and greater than 4.0 is rated good.

Figure 44: Overall Condition of U.S. Coastal Waters

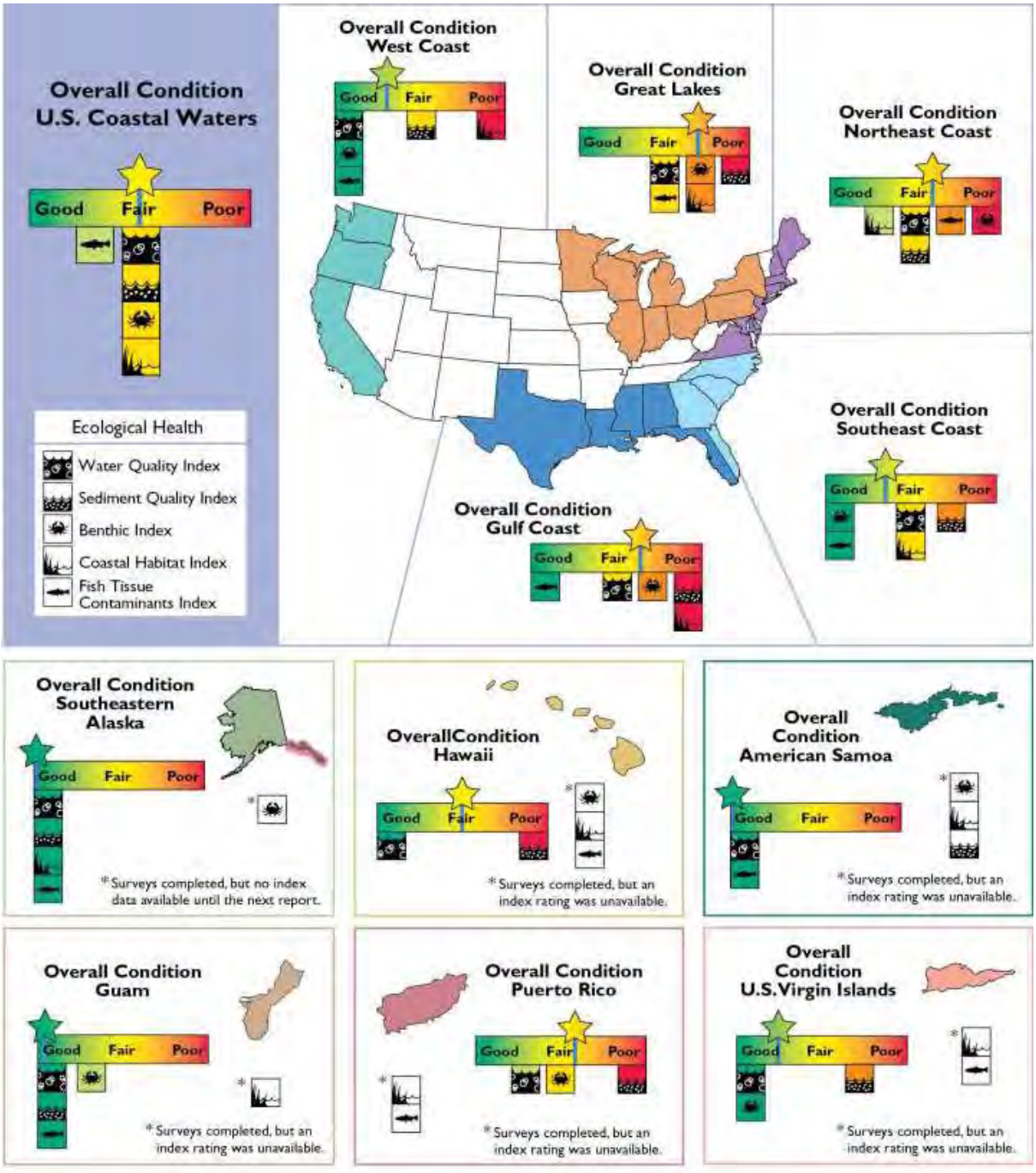


Figure 45: NCCR Scores

Category	NCCR I	NCCR II	NCCR III[a]	NCCR III[b]	NCCR IV[c]	NCCR IV[d]
Water Quality Index	1.5	3.2	3.2	3.8	3.2	3.6
Sediment Quality Index	2.3	2.1	1.6	2.8	1.8	2.6
Coastal Habitat Index	1.6	1.7	1.7	1.7	1.7	2.6
Benthic Index	1.5	2.0	2.1	2.1	2.4	2.4
Fish Tissue Contaminants Index	3.1	2.7	2.9	3.7	3.7	4.0
Overall Condition	2.0	2.3	2.3	2.8	2.5	3.0

[a] NCCR III scores excluding Alaska and Hawaii
[b] NCCR III scores including Alaska and Hawaii (except for coastal habitat index)
[c] NCCR IV scores excluding Alaska, Hawaii, Guam, American Samoa, and U.S. Virgin Islands
[d] NCCR IV scores including Alaska, Hawaii, Guam, American Samoa, and U.S. Virgin Islands

National Estuary Program (NEP): The 28 NEPs and their partners protected or restored more than 114,000 acres of habitat within the NEP study areas—more than 14,000 acres above EPA's goal of 100,000 acres (Measure 4.3.2) (Figures 46 and 47). The target was exceeded due to the completion of several large projects. Also, it is often difficult to predict the completion date of protection and restoration projects because of the many factors or steps required for each project, such coordinating with numerous partners, negotiating with landowners, obtaining all the funding from multiple sources, having the necessary permits approved, and variability in the weather.

Figure 46: NEP Acres Protected or Restored by Fiscal Year (CO-432.N11)

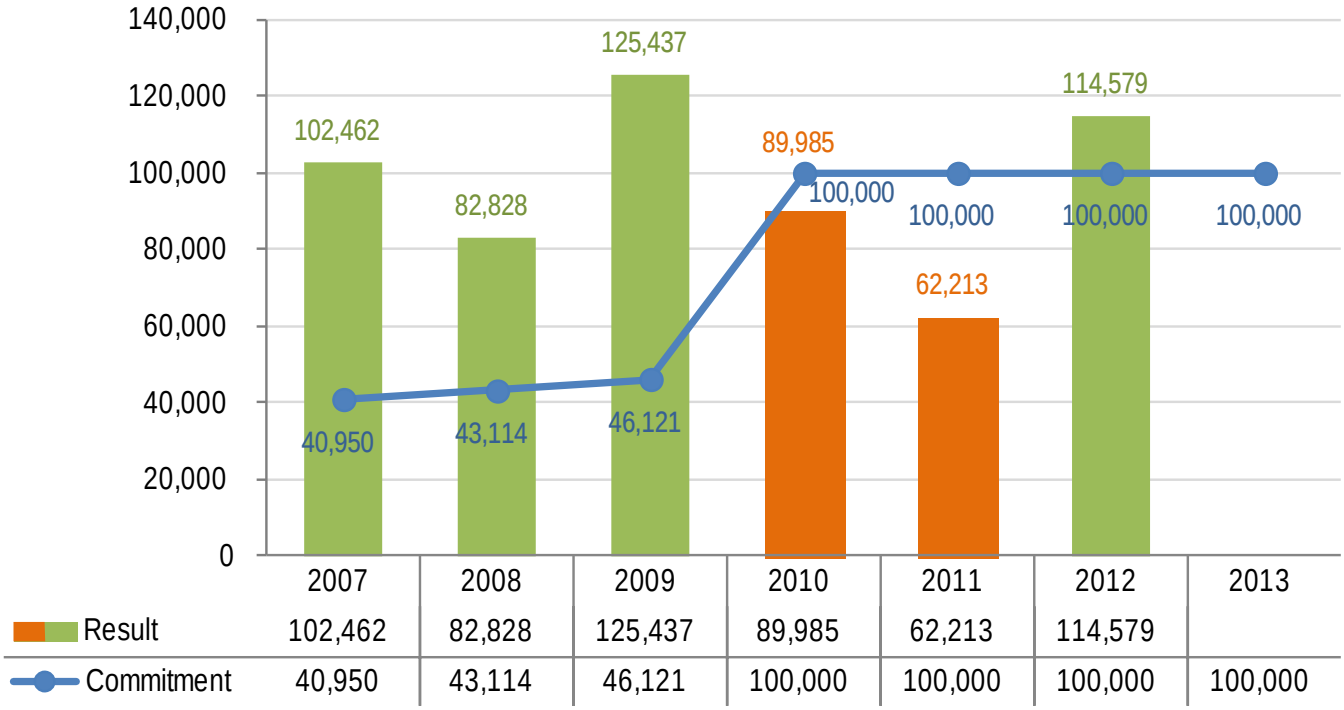
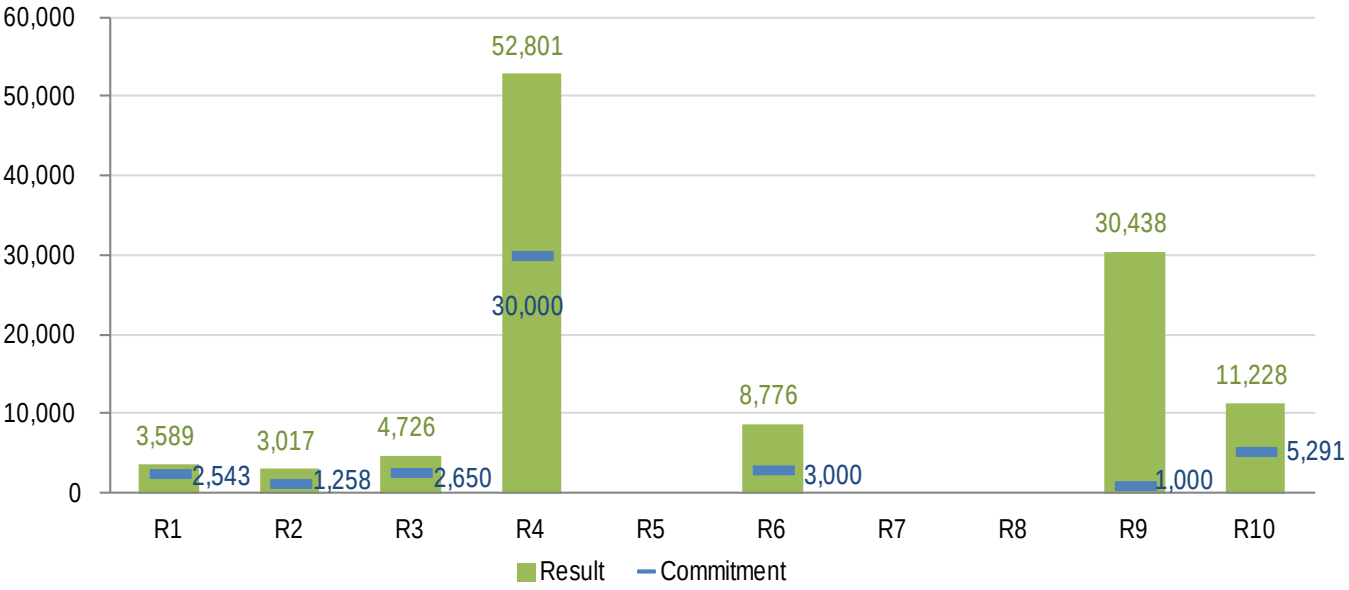
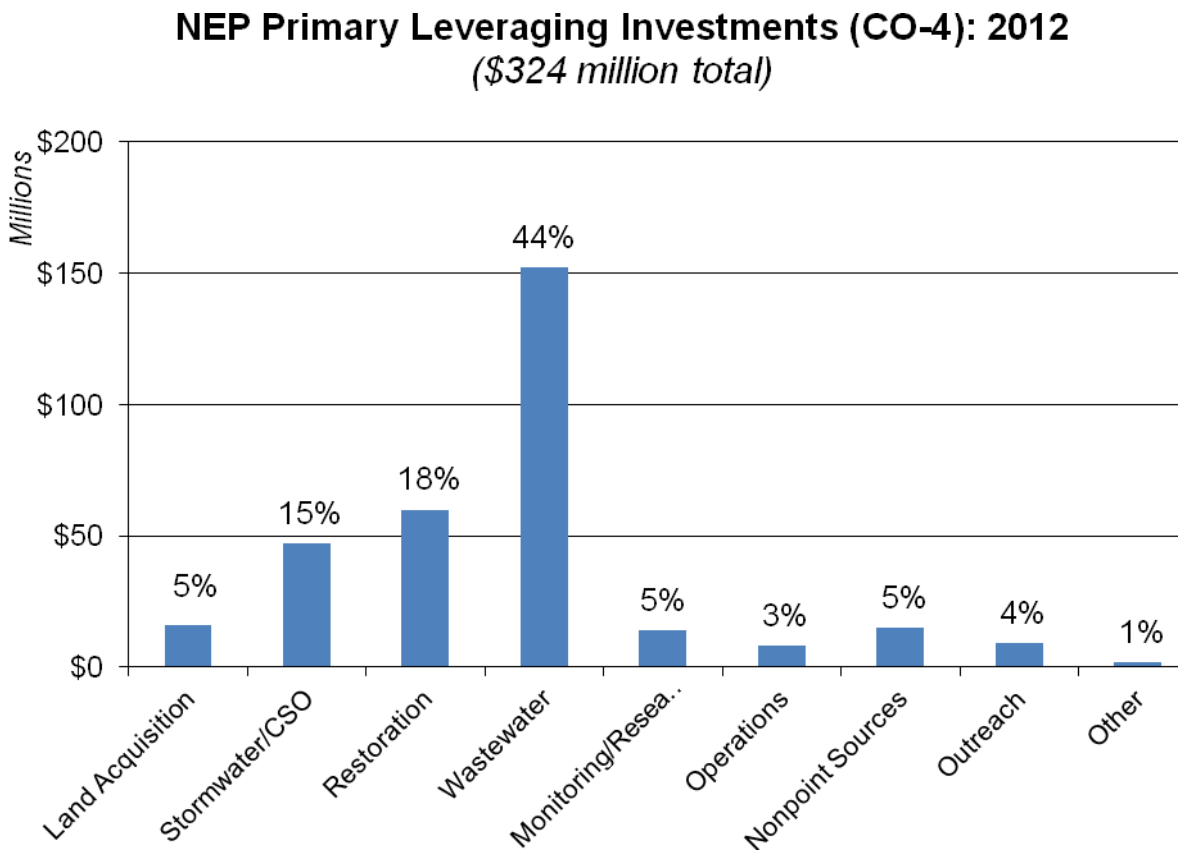


Figure 47: NEP Acres Protected or Restored (CO-432.N11) by Region for FY 2012



In FY 2012, the 28 NEPs played the primary role in directing $324 million in additional funds—leveraged from approximately $22 million in EPA Section 320 and earmark funds—toward Comprehensive Conservation and Management Plan (CCMP) implementation. This represents a ratio of $15 raised for every $1 provided by EPA, which matches the historic ratio measured over the 2003–2012 period (CO-4). The leveraged funds were primarily invested in sewage treatment plan upgrades, habitat restoration, and CSO abatements. Approximately 95% of these leveraged resources were invested in on-the-ground activities, such as habitat restoration and stormwater management, rather than overhead or operations (Figure 48).

Figure 48:



Ocean Protection: Several hundred million cubic yards of sediment are dredged from waterways, ports, and harbors every year to maintain the nation's navigation system. All of this sediment must be disposed of without causing adverse effects to the marine environment. EPA and the U.S. Army Corps of Engineers (COE) share responsibility for regulating how and where the disposal of dredged sediment occurs in ocean waters. In FY 2012, 97% of active ocean dumping sites for dredged material achieved environmentally acceptable conditions, as reflected in each site's management plan and measured through onsite monitoring programs The end-of-the-year result exceeded the annual commitment of 96%, which was an improvement over the FY 2010 and FY 2011 results (SP-20) (Figure 49 and Figure 50).

Figure 49: Ocean Dumping Sites with Acceptable Conditions by Fiscal Year (CO-SP20.N11)

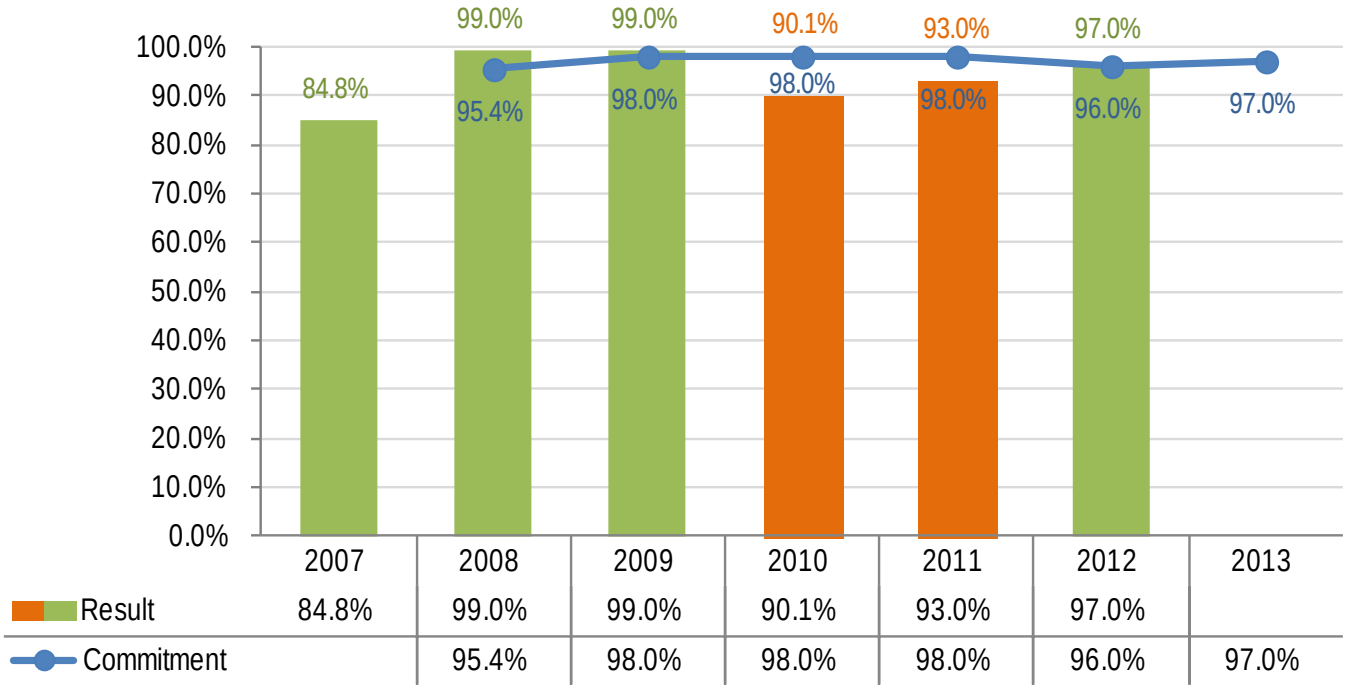
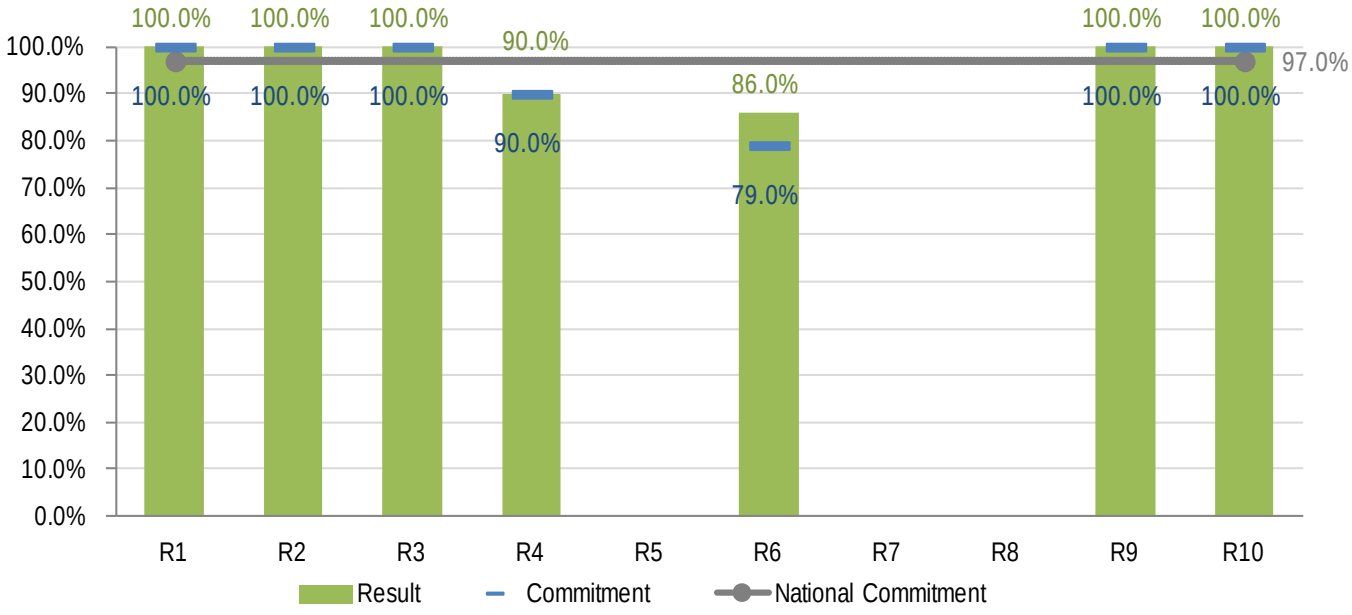


Figure 50: Ocean Dumping Sites with Acceptable Conditions by Region for FY 2012 (CO-SP20.N11)



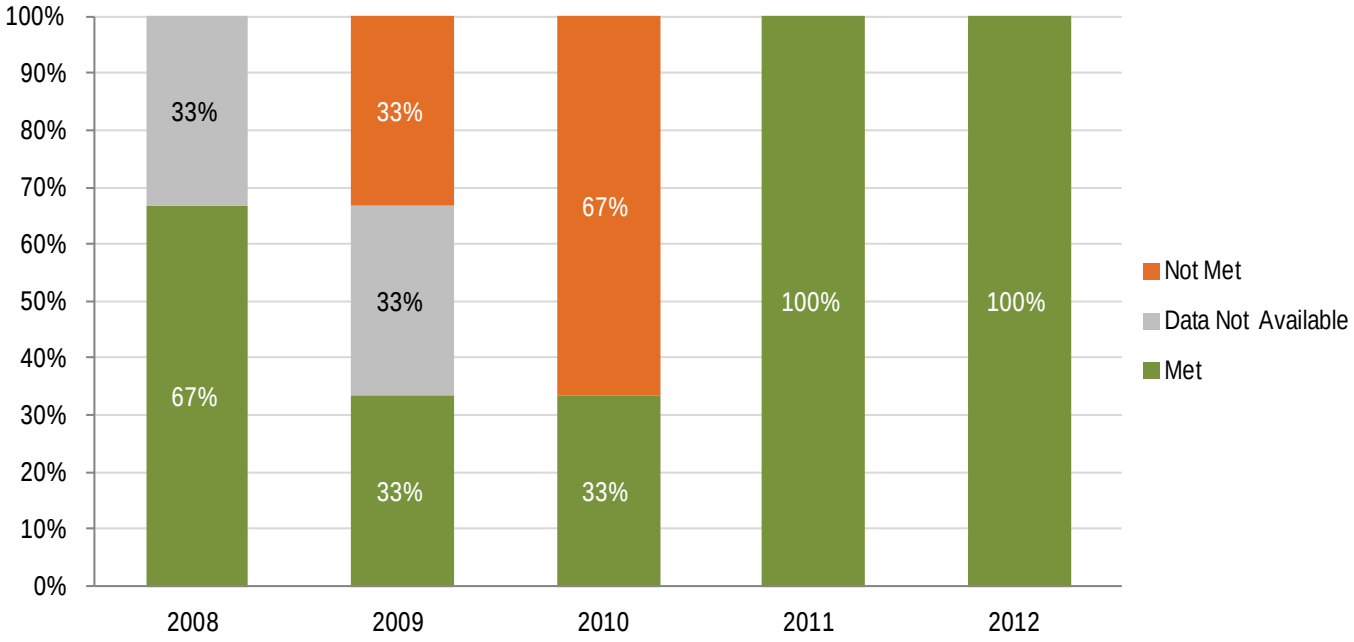
The number of dredged material management plans that are in place for major U.S. coastal and Great Lakes ports and harbors (commercially significant or deep draft and regionally significant) decreased from 40 in FY 2011 to 37 in FY 2012 (CO-5). Developing a dredged material management plan is not necessary for all ports and harbors. EPA is no longer using this measure as an indicator after 2013.

The number of monitored active ocean disposal sites increased from 33 in 2011 to 35 in 2012 (CO-6). The number of disposal sites monitored on an annual basis depends on a number of factors, including resources available for monitoring in a given year, and will vary from year to year. Note that the number of dredged material management plans is not related to the number of active ocean disposal sites (i.e., dredged material disposal seaward of the baseline), the usage of such ocean disposal sites, or the how the sites are monitored.

Subobjective: U.S.–Mexico Border

For the second consecutive year, the U.S.–Mexico Border Program met all three of its commitment measures in FY 2012 (Figure 51). Note that setting commitments for infrastructure projects can be difficult; an unanticipated project delay or an expedited project completion can affect end of year performance reporting.

Figure 51: U.S. Mexico Border Subobjective Five-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available 2007	2008	2009	2010	2011	2012	Appendix Page Number (D-0)/ Figure Number
Subobjective 2.2.9 Sustain and Restore the U.S.–Mexico Border Environmental Health								
MB-SP23	Number million pounds BOD loadings removed U.S.-Mexico Border (cumulative)	0.0			65.2	108.5	119.0	D-62/Fig.52
MB-SP24.N11	Number additional Mexico Border homes access to safe drinking water (annual)	1,276	5,162	1,584	21,650	2,604	5,185	D-62/Fig.53
MB-SP25.N11	Number additional Mexico Border homes access to adequate sanitation (annual)	73,475	31,686	43,594	75,175	259,371	31,092	D-63/Fig.55

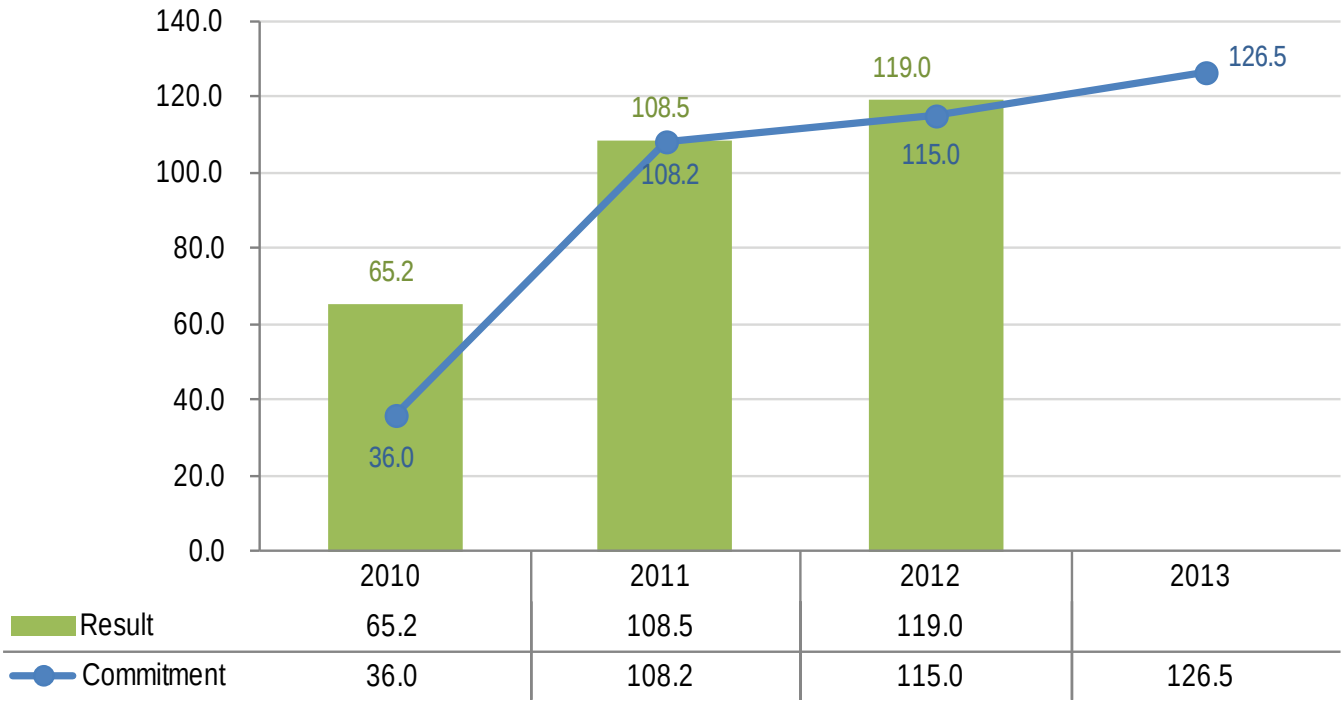
The United States and Mexico have a longstanding commitment to protecting the environment and public health in the U.S.–Mexico Border Region. EPA's U.S.–Mexico Border Program will continue to implement this binational program by working with the Mexican government, the Border Environment Cooperation Commission, the North American Development Bank, the 10 border states, and border communities to improve public health and the environment in the region.

The U.S.–Mexico Border Water Infrastructure Program provides funding for the development and construction of wastewater and drinking water infrastructure for border residents, often for first-time services. EPA establishes annual commitments for the safe drinking water and wastewater sanitation measures using detailed project schedules to estimate project completions. Many variables can impact the construction schedule of a large infrastructure project. These variables may include weather delays, local economic conditions, or the unique challenges of binationally funded and managed projects, such as political exigencies or the complications associated with multiple funding sources working on different schedules. In prior years, these variables have impacted the end-of-year results, with some projects completed ahead of schedule and some experiencing delays. In FY 2012, all expected project completions were accomplished, and the program met its commitment measures

FY 2012 Performance Highlights and Management Challenges

BOD (Biochemical Oxygen Demand) Loadings Removed: Under the U.S.–Mexico Border Program, EPA tracks the amount of BOD—a measure of organic content and a standard metric of wastewater strength—removed from wastewater as a result of EPA investments in wastewater infrastructure. Project completions through FY 2012 resulted in the removal of 119 million pounds of BOD loadings per year from the U.S.–Mexico Border area, slightly more than its commitment of 115 million pounds (based on a baseline of 0 pounds in 2003) (SP-23) (Figure 52). New project completions in FY 2012 contributed 10.3 million pounds to the total 100 million pounds of BOD removed per year.

Figure 52: Loading of Biochemical Oxygen Demand (BOD) Removed (Cumulative Million Pounds/Year) from the U.S.-Mexico Border Area (MB-SP23)



Safe Drinking Water to Homes in U.S.–Mexico Border Area: EPA provided 5,185 additional homes with access to safe drinking water in FY 2012 (SP-24) (Figure 53). Two drinking water projects that were completed in FY 2012 serve an additional 8,000 people. Since 2003, the Agency has provided 59,919 additional homes in the border region with access to safe drinking water (Figure 54). As a result, the Agency has achieved 81% of its long-term FY 2015 target of 73,886 additional homes having access to safe drinking water.

Figure 53: Homes with Safe Drinking Water in the U.S.–Mexico Border Area by Fiscal Year (MB-SP24.N11)

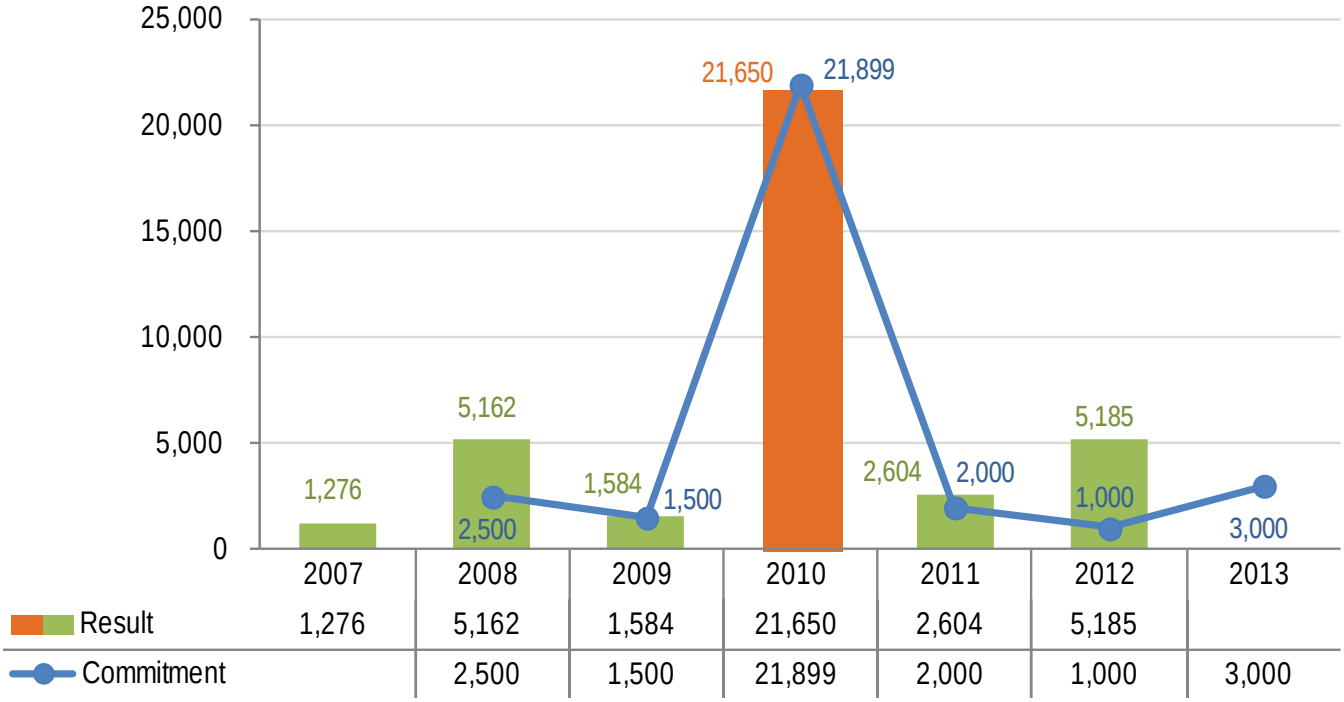
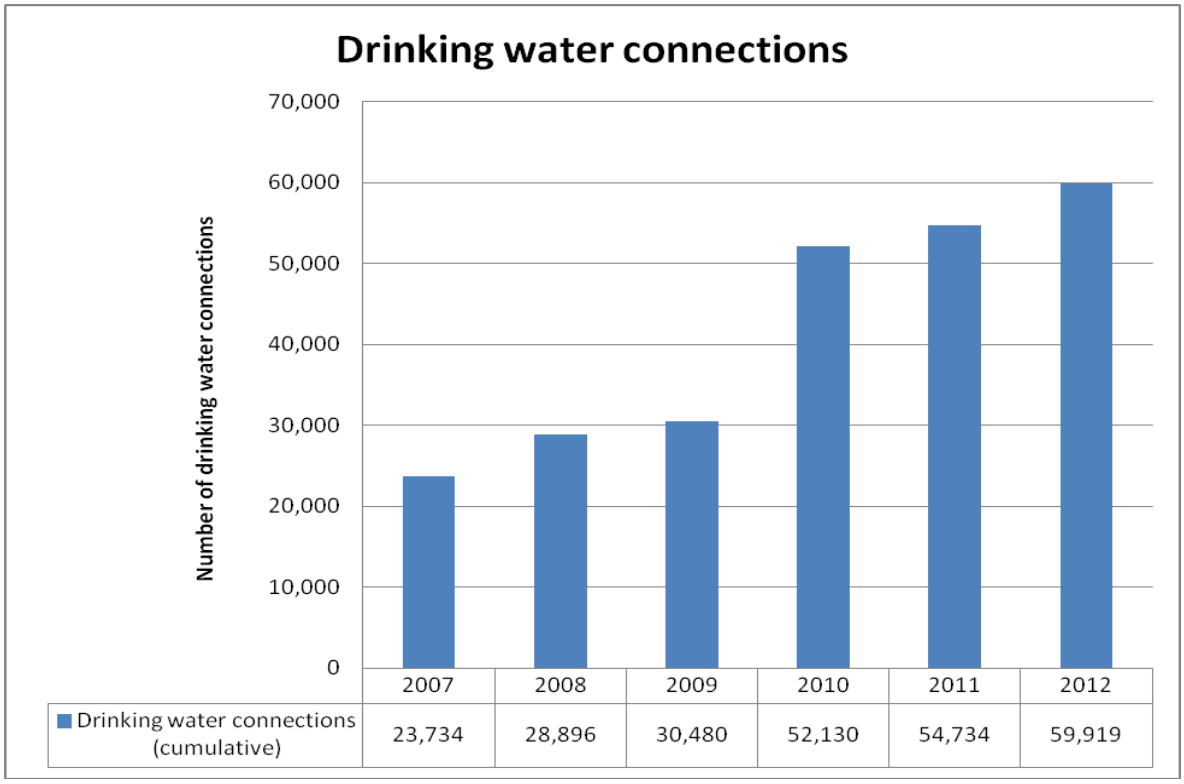


Figure 54:



Adequate Wastewater Sanitation to Homes in the U.S.–Mexico Border Area: EPA provided adequate wastewater sanitation to an additional 31,092 homes over the past year, more than three times the FY 2012 NWPG's targets (Figure 55). Ten wastewater projects were completed in fiscal year 2012, providing service for more than 115,000 people. Cumulative wastewater sanitation connections made through FY 2012 total 544,133 homes (SP-25) (Figure 56), exceeding the Agency's long-term commitment of connecting 518,042 homes by FY 2015.

Figure 55: Homes Provided Adequate Wastewater Sanitation in the U.S.–Mexico Border Area by Fiscal Year (MB-SP25.N11)

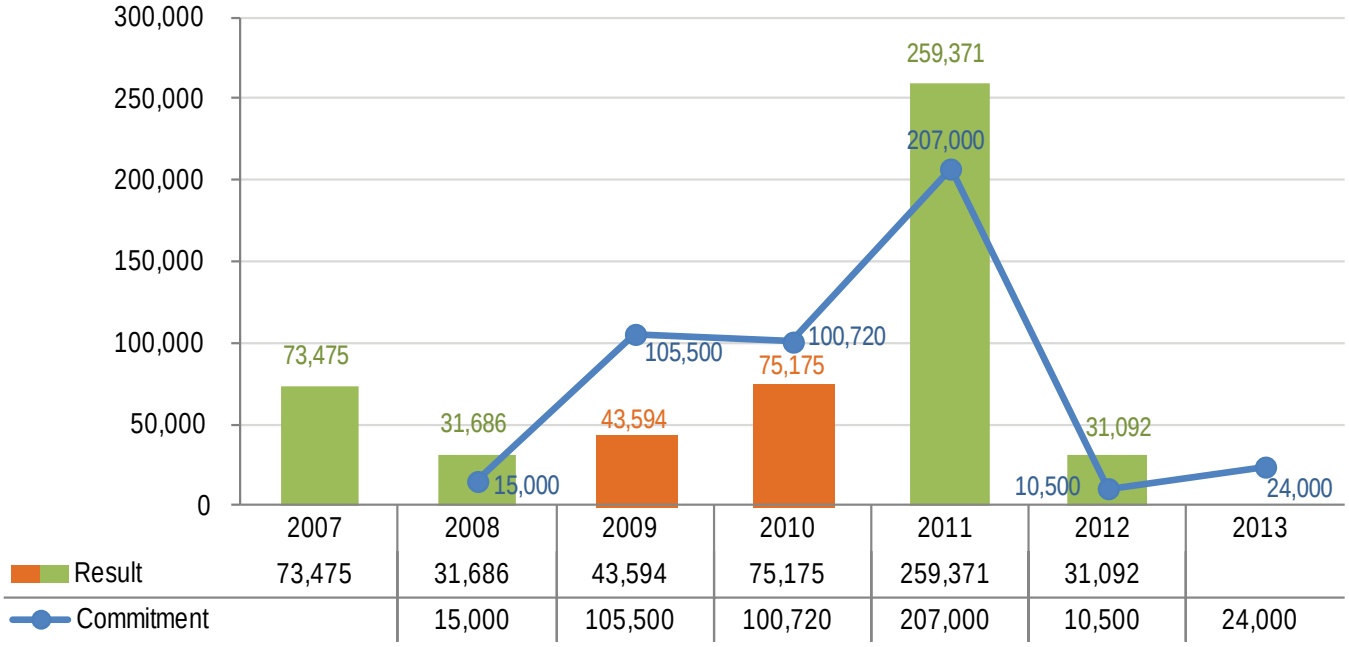
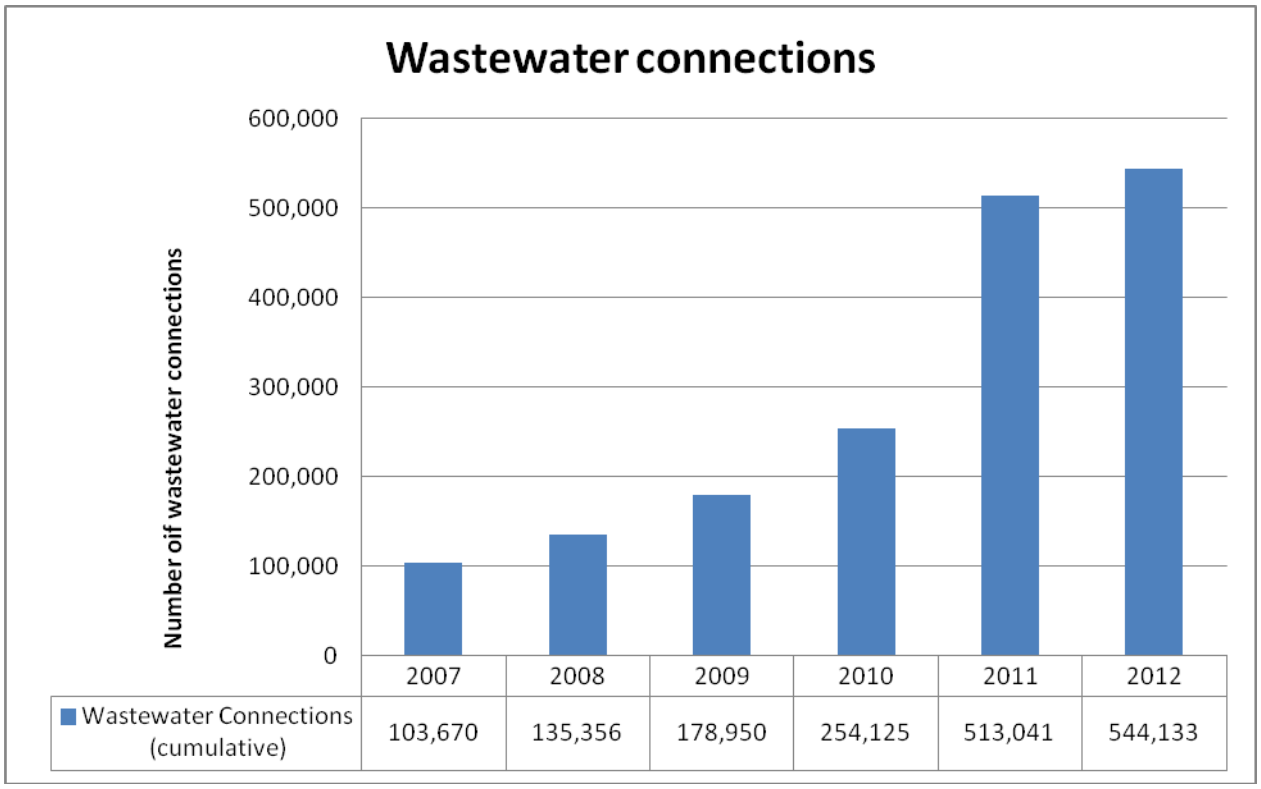


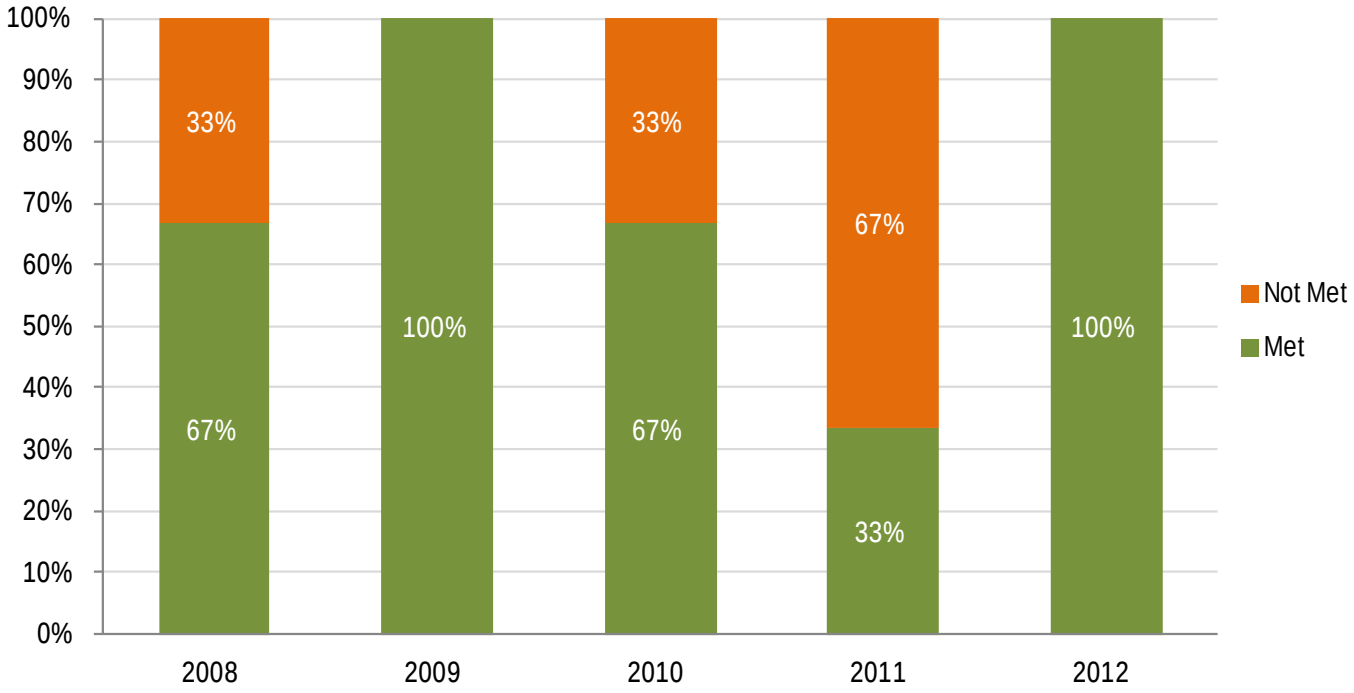
Figure 56:


Wastewater connections
Number oif wastewater connections
600,000
500,000
400,000
300,000
200,000
100,000
0
2007
2008
2009
2010
2011
2012
Wastewater Connections (cumulative)
103,670
135,356
178,950
254,125
513,041
544,133

Subobjective: Pacific Islands

The Pacific Islands met all three of its commitments in 2012. This was a significant improvement over FY 2011 (Figure 57).

Figure 57: Pacific Islands Subobjective Five-Year Trend

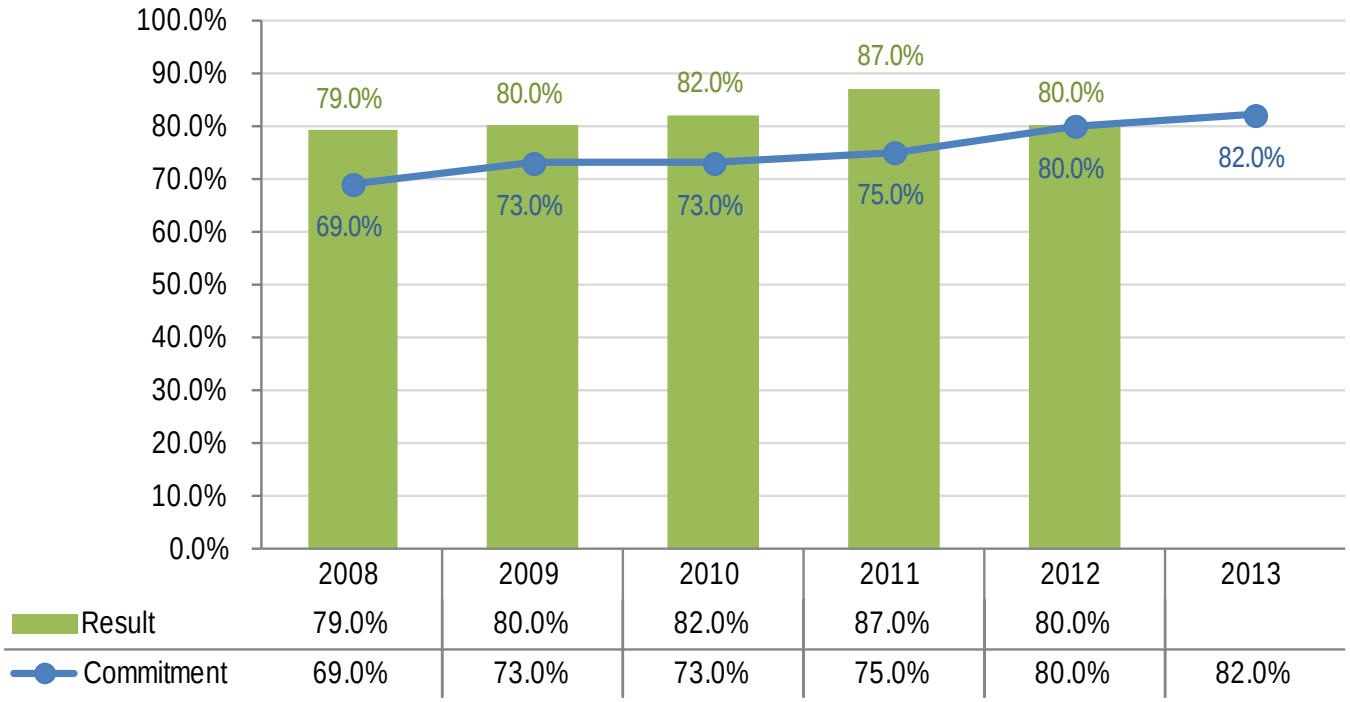


FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status (= Met; = Not Met; = Data Not Available; = Indicator/Long-Term (No Commitment); = Measure Did Not Exist)	2007	2008	2009	2010	2011	2012	Appendix Page Number (D-0)/ Figure Number
Subobjective 2.2.10 Sustain and Restore the Pacific Island Territories									
PI-SP26	Percent Pacific Islands population served by CWS			79%	80%	82%	87%	80%	D-63/Fig.58
PI-SP27	Percent time Pacific Islands treatment plants comply w/ BOD limits			67%	65%	52%	50%	64%	D-64
PI-SP28	Percent Pacific Islands beach days open for swimming			80%	81%	80%	77%	82%	D-64

FY 2012 Performance Highlights and Management Challenges

The U.S. Pacific Island Territories of Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (CNMI) are responsible for providing safe drinking water and adequate sanitation service to the public. In 2012, 80% of the population in the U.S. Pacific Island Territories was served by community drinking water systems that met all applicable health-based drinking water standards throughout the year (SP-26), meeting the FY 2012 commitment of 80% (Figure 58). The improvement for this measure was due primarily to better water service in the CNMI. EPA is continuing its efforts through infrastructure financing, enforcement, and technical assistance to improve the water and wastewater situation in the Pacific Islands.

Figure 58: Pacific Islands Population Served by CWS by Fiscal Year (PI-SP26)



	2008	2009	2010	2011	2012	2013
Result	79.0%	80.0%	82.0%	87.0%	80.0%	
Commitment	69.0%	73.0%	73.0%	75.0%	80.0%	82.0%

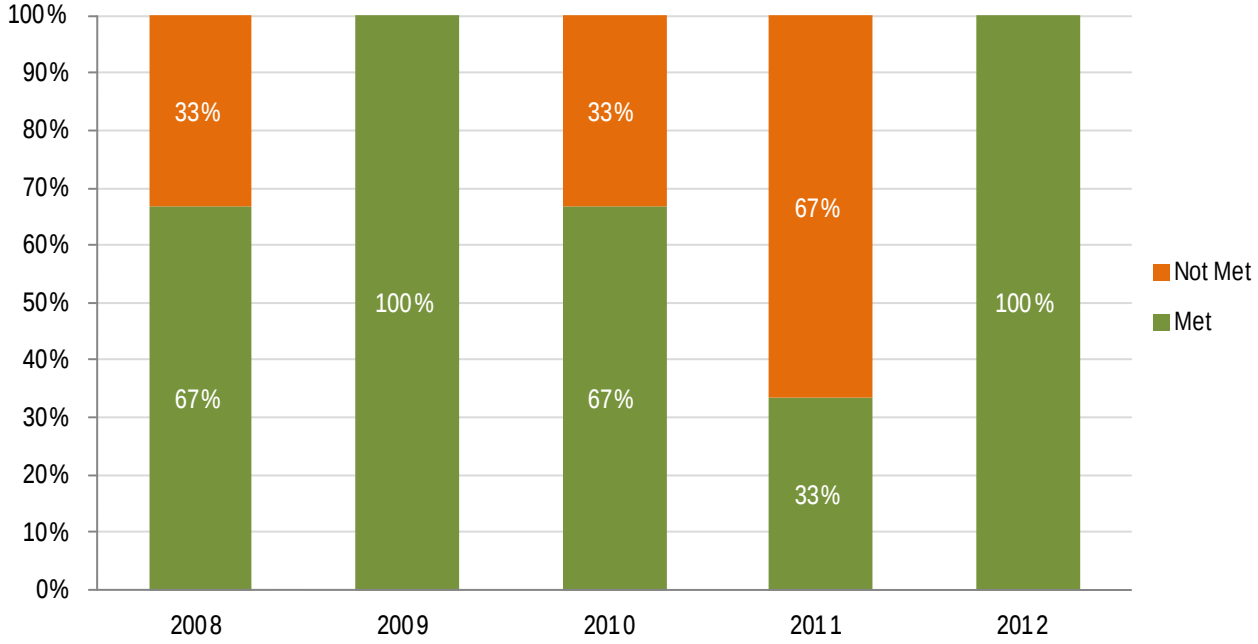
Sixty-four percent (64%) of sewage treatment plants in the U.S. Pacific Island Territories complied with permit limits for biological oxygen demand (BOD) pollutants and total suspended solids (SP-27). Not only was the 2012 goal met, but the end-of-year result was a significant improvement over the previous year's result of 50%. However, additional improvements are not expected until infrastructure upgrades are completed over the next several years, in compliance with two court orders and one administrative order. This measure will be deleted in FY 2013.

Monitored beaches in the U.S. Pacific Island Territories were open and safe for swimming for 82% of beach-season days in FY 2012 (SP-28), meeting the annual commitment of 82%. This measure will be deleted in FY 2013.

Subobjective: Wetlands

EPA's Wetlands Program met three-quarters of its commitments in FY 2012. The program has met at least 75% of its goals over the past four years (Figure 59).

Figure 59: Wetlands Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status: = Met; = Not Met; = Data Not Available; = Indicator/Long-Term (No Commitment); = Measure Did Not Exist						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.3 Increase Wetlands								
WT-SP21.N11	Net increase wetlands achieved (acres)	96,000 lost	128,000 lost				62,300 lost	D-42
WT-SP22	No net loss of wetlands			No Net Loss	No Net Loss	No Net Loss	No Net Loss	D-43
WT-01	Number wetland acres restored and enhanced (cumulative)	61,856	82,875	103,507	130,000	154,000	180,000	D-43/Fig.60
WT-02a	Number states/tribes increased wetland program capacity in one or more core elements	25	22	22	47	54	44	D-44
WT-02b	Number of core elements developed by states and tribes	11	24	39	27	29	33	D-44
WT-03	Percent CWA 404 permits with greater environ. protection					88%	85%	D-45
WT-04	Number states measuring wetland condition trend	13	14	20	22	29	31	D-45

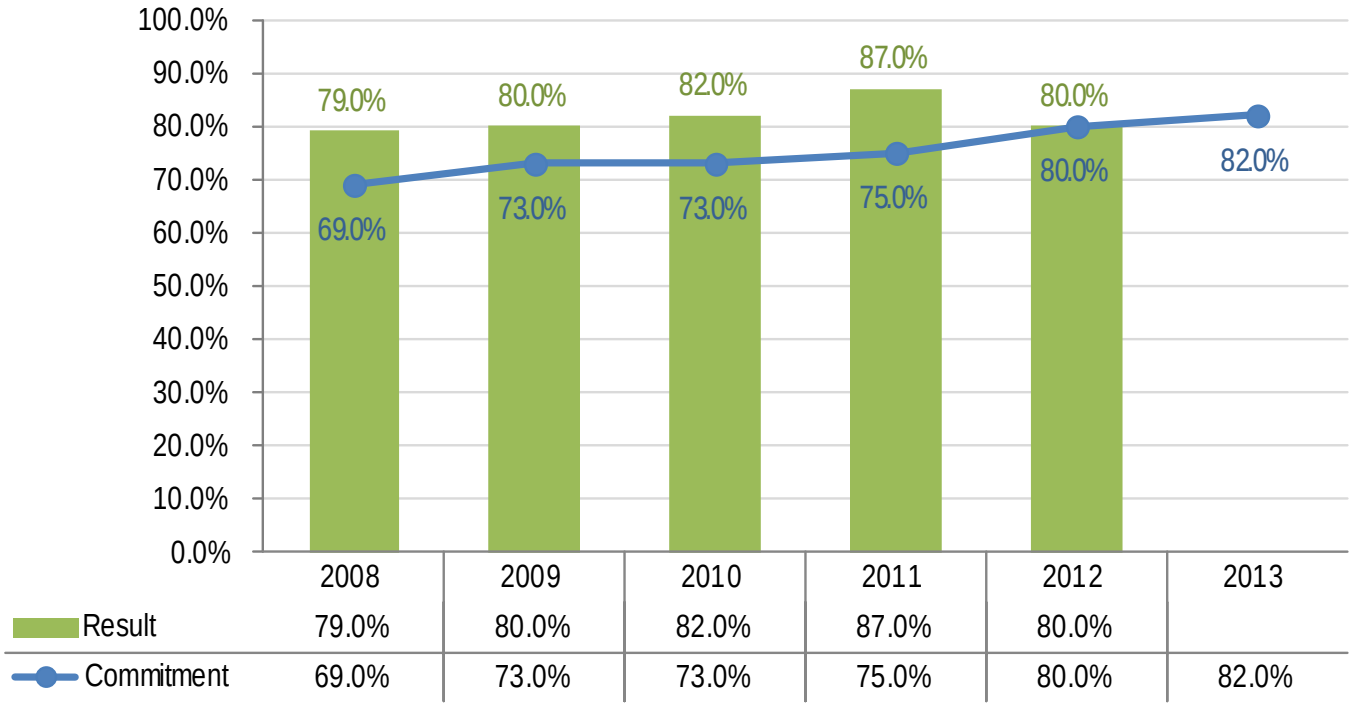
FY 2012 Performance Highlights and Management Challenges

Wetlands are among our nation's most critical and productive natural resources. They provide a variety of benefits, such as water quality improvements, flood protection, shoreline erosion control, and ground water exchange. Wetlands are the primary habitat for fish, waterfowl, and other wildlife, providing numerous opportunities for education, recreation, and research. EPA recognizes that the challenges the nation faces in conserving our wetland heritage are daunting and that many partners must work together for this effort to succeed.

No Net Loss and the Number of Wetland Acres Restored/Enhanced: In 2012, EPA, in partnership with the U.S. Army Corps of Engineers (COE), states, and tribes, achieved a "no net loss" of wetlands under the Clean Water Act (CWA) Section 404 regulatory program (SP-22). EPA continues to achieve this commitment through regional involvement and coordination in reviewing 404 permits issued by the COE. With each permit review targeted, EPA 404 permit experts assess whether their involvement resulted in a positive environmental outcome.

EPA continues to exceed expectations in terms of the number of acres of wetlands restored and enhanced, with 180,000 acres restored and enhanced since 2002 (WT-1) (Figure 60). EPA has exceeded its commitment under this measure every year since 2004, due mostly to the combined efforts of local groups to restore wetlands under EPA funding programs. Although it is difficult to determine an accurate number of habitat acres that will be improved and restored—because projects can sometimes take a number of years to design, fund, implement, and complete—EPA has observed a long enough trend to be able to forecast improvements.

Figure 60: Wetland Acres Restored and Enhanced by Fiscal Year (WT-01)



	2008	2009	2010	2011	2012	2013
Result	79.0%	80.0%	82.0%	87.0%	80.0%	
Commitment	69.0%	73.0%	73.0%	75.0%	80.0%	82.0%

EPA and its partners fell short in FY 2012 in achieving a net increase of wetlands on a nationwide basis. According to the latest Status and Trends report, there are 110.1 million acres of wetlands in the conterminous United States, and 62,300 wetland acres were lost over five years. The report, which represents the most up-to-date, comprehensive assessment of wetland habitats in the United States, documents substantial losses in forested and coastal wetlands. The rate of gains from reestablishment of wetlands increased by 17 percent from the previous study period (1998–2004), but the wetland loss rate increased 140 percent during the same time period. Although the losses of wetlands exceeded the gains, the net change was not statistically significant.

The reasons for the overall decline in wetland area were complex and potentially reflected economic conditions, land use trends, changing wetland regulation and enforcement measures, conservation initiatives, the impacts of the 2005 hurricane season, and climatic changes. Wetland gains were due to agricultural conservation programs, wetland reestablishment and creation involving partners, land retirement programs, and the creation of freshwater ponds.

State and Tribal Wetlands Program Capacity: As of FY 2012, 44 states and 29 tribes have built capacities in the core program elements of wetlands monitoring, regulation, voluntary restoration and protection, and wetland water quality standards (WT-2a/b).[18]

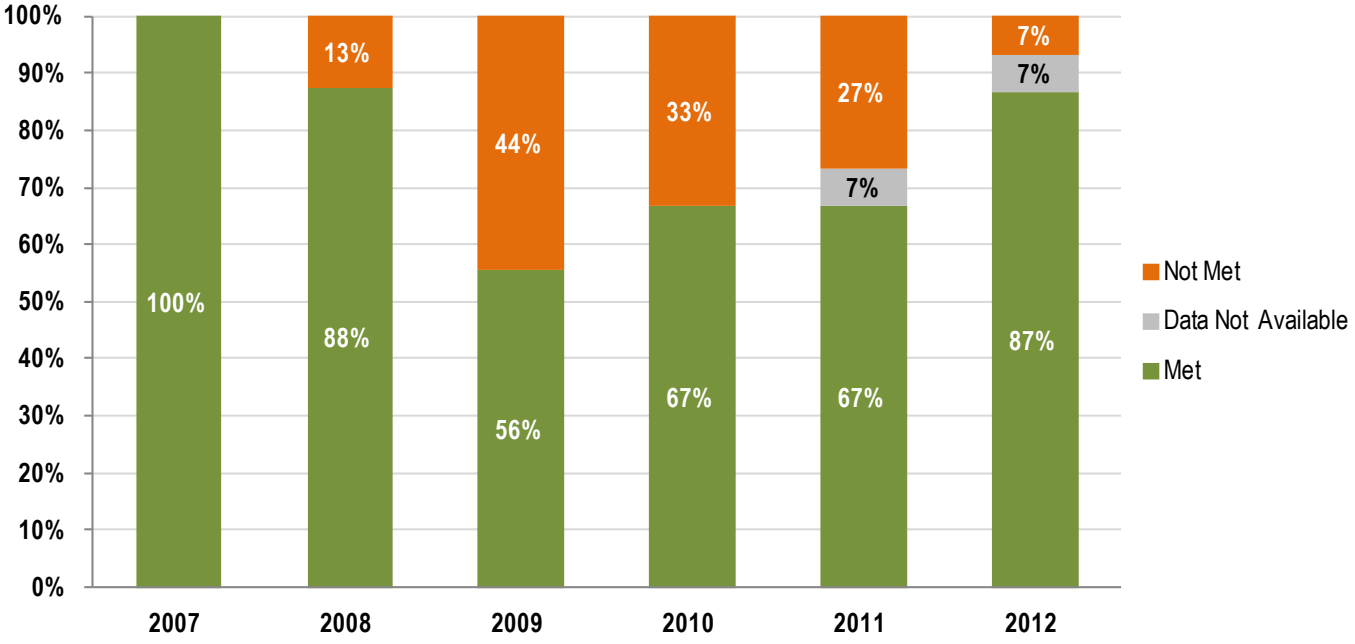
Number of States Measuring Trends in Condition: The number of states where the trend in wetland condition has been measured, as defined through biological metrics and assessments, increased from 29 states in FY 2011 to 31 states in FY 2012 (WT-4). This measure currently counts states that are "on track" to assess trends in wetland condition for at least 20% of their state by the end of FY 2012. Trends assessment involves establishing a baseline, then reassessing the same areas to evaluate trends. The increase among states in building wetlands monitoring programs is due to continued active participation by approximately 40 states on the National Wetlands Monitoring and Assessment Work Group, and involvement of EPA regions in the Regional Wetlands Monitoring Work Groups and National Wetland Condition Assessment.

[18] This measure was changed in 2010 to gauge the number of states and tribes that have built the core elements of their programs (WT-2a) and have reached the point of managing fully functional wetland programs. The new measure tracks closely with EPA's Core Elements Framework for State and Tribal Wetlands Program, which provides a more objective basis for measurement.

Subobjective: Great Lakes

The Great Lakes National Program Office met 87% (13 of 15) of its performance commitments in 2012. This is a significant accomplishment, with only one measure not meeting its commitment and one indicator not having data by the end of year (Figure 61).

Figure 61: Great Lakes Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	= Met; = Not Met; = Data Not Available; = Indicator/Long-Term (No Commitment); = Measure Did Not Exist						Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.4 Improve the Health of the Great Lakes								
GL-433.N11	Improve health–Great Lakes ecosystem (index)	22.7	23.7	23.0	22.7	21.9	23.9	D-46/Fig.62
GL-SP29	Reduce PCBs in Great Lakes fish (cumulative)	6%	6%	6%	6%	44%	43%	D-46
GL-SP31	Number Areas of Concern (AOCs) with all management actions implemented (cumulative)	1	1	1	1	2	2	D-47/Fig.65
GL-SP32.N11	Number cubic yards (millions) of contaminated sediment remediated (cumulative)	4.5	5.5	6.0	7.3	8.4	9.7	D-47/Fig.63
GL-05	Number Beneficial Use Impairments (BUIs) removed			12	12	26	33	D-48/Fig.66
GL-06	Rate of invasive species newly detected in the Great Lakes (avg. since 2010)					0.83	0.80	D-48
GL-07	Response plans established, response exercises, and/or response actions (cumulative)					10	23	D-49
GL-08	Percent of days of the beach season that monitored Great Lakes beaches are open and safe for swimming					62%	94%	D-49
GL-09	Number acres managed for populations of invasive species controlled to a target level. (cumulative)					13,045	31,474	D-50/Fig.67
GL-10	Percent of populations of native aquatic non-threatened and endangered species self-sustaining in the wild. (cumulative)					31%	33%	D-50
GL-11	Acres of wetlands and wetland-associated uplands protected, restored and enhanced. (cumulative)					9,624	65,639	D-51/Fig.68
GL-12	Acres of coastal, upland, and island habitats protected, restored and enhanced. (cumulative)					12,103	28,034	D-51/Fig.69
GL-13	Number of species delisted due to recovery					1	1	D-52
GL-15	Five-year average annual loadings of soluble reactive phosphorus draining from targeted watershed							D-52
GL-16	Percent increase in acres in Great Lakes watershed with USDA conservation practices implemented					62%	70%	D-53/Fig.70

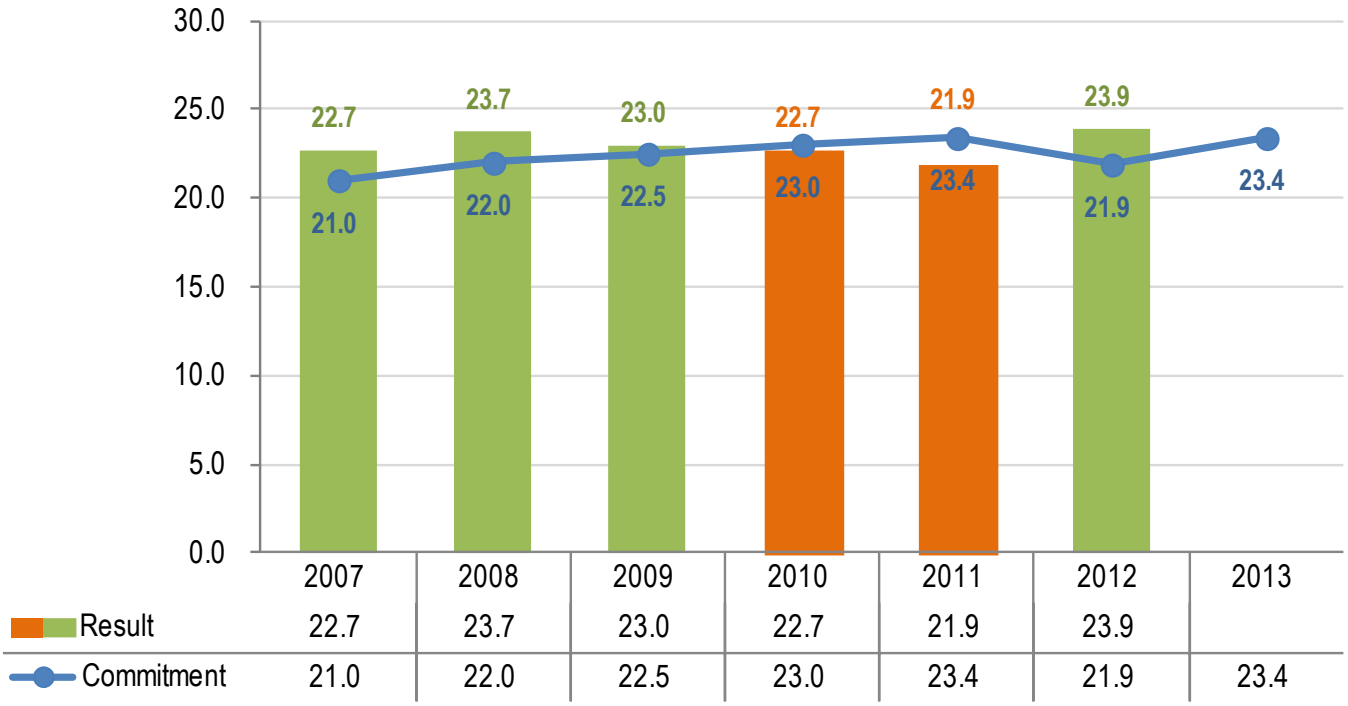
As the largest surface freshwater system on the face of the earth, the Great Lakes ecosystem holds the key to the quality of life and economic prosperity for tens of millions of people. U.S. President Barack Obama and EPA Administrator Lisa Jackson, in collaboration with 15 other federal agencies, have made restoring the Great Lakes a national priority. Congress appropriated $300 million for the Great Lakes Restoration Initiative (GLRI) for FY 2012.

FY 2012 Performance Highlights and Management Challenges

One of the Great Lakes National Program's key strategic targets assesses the overall progress U.S. environmental programs are making in protecting and restoring the chemical, physical, and biological integrity of the Great Lakes ecosystem. This is measured using the Great Lakes Index, a tool for assessing the overall condition of the Great Lakes that is based on a set of selected ecosystem indicators (i.e., coastal wetlands, phosphorus concentrations, Areas of Concern [AOCs], sediment contamination, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition). Improvements in the Great Lakes Index measures would indicate that fewer toxins are entering the food chain, ecosystem and human health are better protected, fish are safer to eat, water is safer to drink, and beaches are safer for swimming.

From a baseline score of 20 in 2002, the Great Lakes Index increased from a score of 21.9 in 2011 to 23.9 in 2012 (Subobjective 4.3.3) (Figure 62). Although trend data indicate that the index score decreased in 2010 and 2011, this was not necessarily due to worsening environmental conditions over the long term, but rather an adjustment to one of eight index components—beach closures.[19]

Figure 62: Improve the Health of the Great Lakes Ecosystem on a 40-Point Scale by Fiscal Year (GL-433.N11)



	2007	2008	2009	2010	2011	2012	2013
Result	22.7	23.7	23.0	22.7	21.9	23.9	
Commitment	21.0	22.0	22.5	23.0	23.4	21.9	23.4

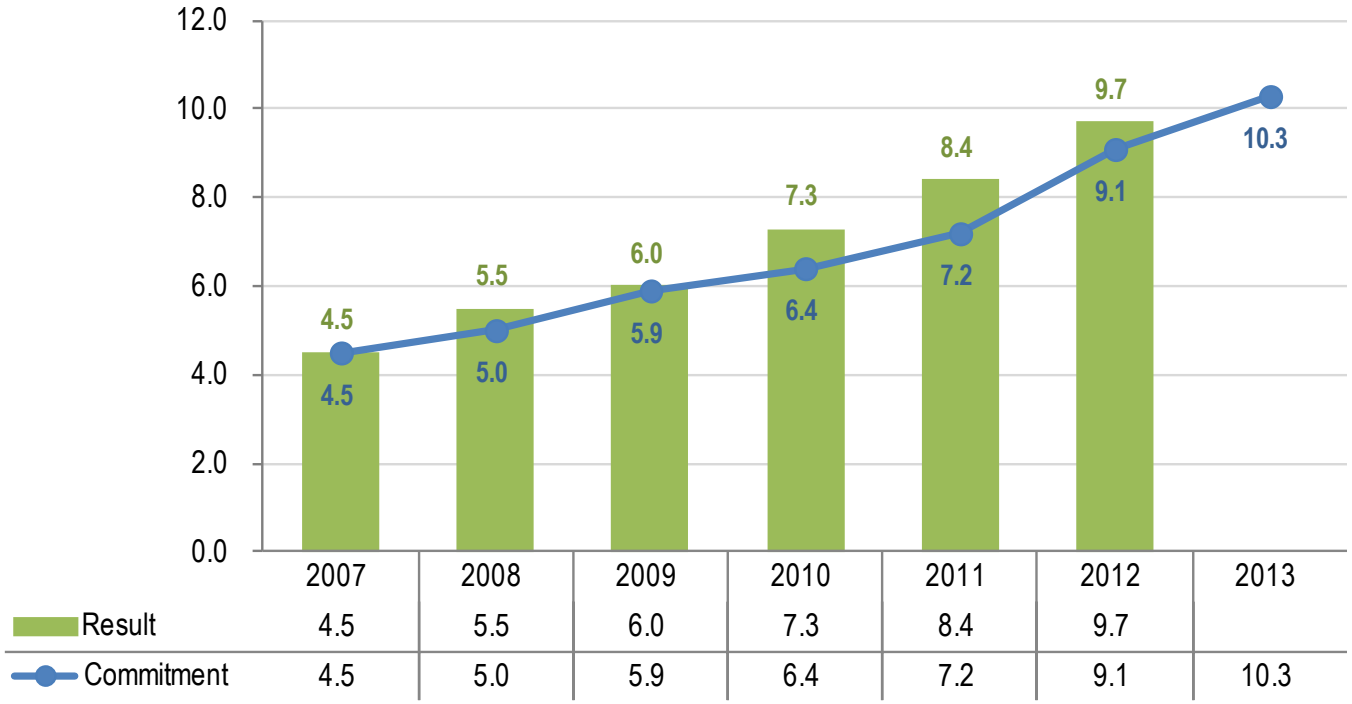
[19] The reporting standard used in 2010 (when 62% of Great Lakes beaches were reported as open more than 95% of the swimming season) was more rigorous than that used in 2009 (when 82% of beaches were reported open), which caused the beach closure component of the index to drop. While this gave the appearance that beach conditions—and therefore the Great Lakes' general health—were deteriorating, approximately the same number of beaches did not meet the 95% threshold in 2010 as in 2009. Prior to 2010, states had reported all nonmonitored beaches as open and safe for swimming for 100% of the beach season, thus raising the number of beaches "open more than 95% of the swimming season" and increasing the percentage. Starting in FY 2012, the beach closure component of the index only includes monitored beaches and is consistent with the national beach program measure.

The results of analyses reported in FY 2012 indicated that average long-term total PCB concentrations in whole Great Lakes top predator fish at sites in each Great Lake declined more than 42% between 2000 and 2010, meeting the target for declines in concentration trends (40%). EPA base programs and GLRI projects, including Great Lakes Legacy Act sediment remediation, contribute to continued progress under this long-term measure (SP-29).

PCBs were banned in the 1970s and continue to degrade. Contaminated sediment remediation (under the Legacy Act and Superfund) is removing additional PCBs from the environment. Based on Lake Michigan data, current concentrations in whole body lake trout are approximately six times the wildlife protection value (0.16 parts per million [ppm]), and the majority of sport fish collected from Lake Michigan fall into the one meal per month consumption advice category (.21–1.0 ppm) for protection of human health.

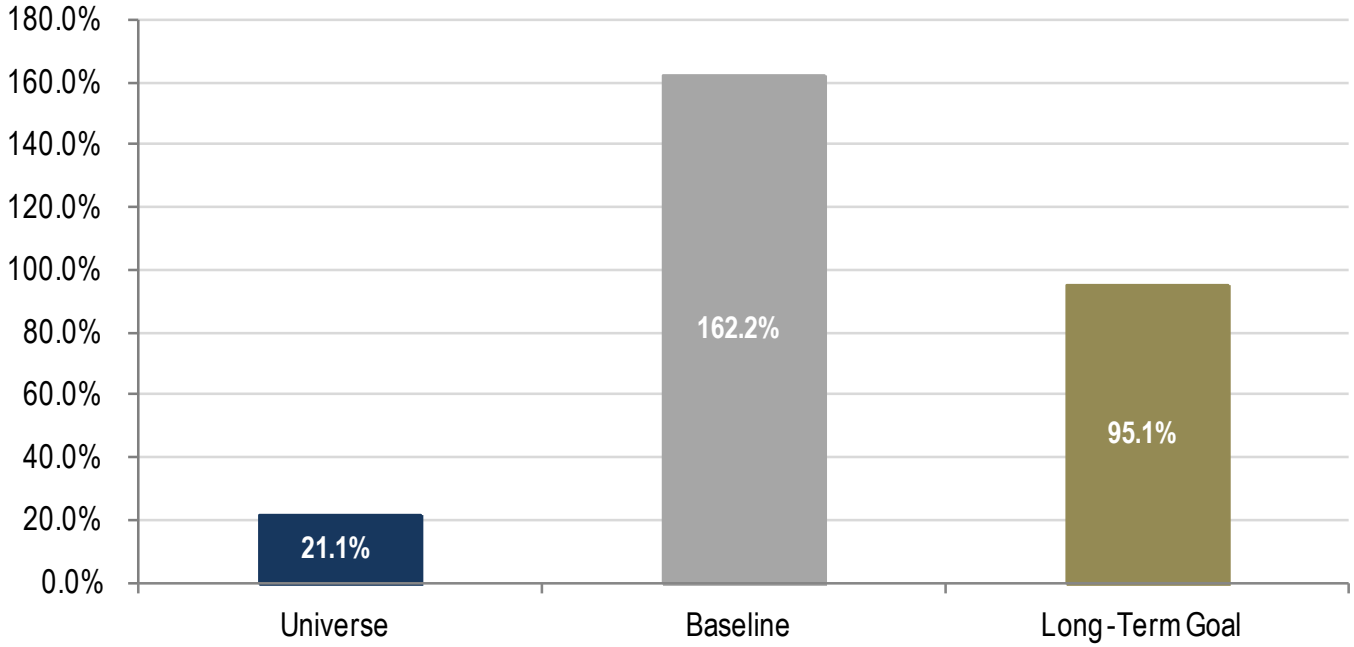
A prominent source of pollution in the Great Lakes is contaminated sediments. From 1997 through calendar year 2011, EPA and its partners have remediated approximately 9.7 million cubic yards of contaminated sediment from the Great Lakes basin. In calendar year 2011 (for FY 2012 reporting), approximately 1.3 million cubic yards were remediated through various federal and state authorities, including the Great Lakes Legacy Act (366,000 cubic yards); Superfund (45,000 cubic yards); Superfund Natural Resource Damage Assessment (347,000 cubic yards); Army Corps of Engineers (577,000 cubic yards); and Wisconsin/EPA Toxic Substance Control Act (18,000 cubic yards). This is the sixth consecutive year that the Great Lakes National Program Office has met its commitments for this measure (SP-32) (Figure 63). GLRI has achieved approximately 95% of its 2015 goal of removing 10.2 million cubic yards of contaminated sediments. The volume of sediments remediated to date represents about 21% of the estimated universe of contaminated sediments in the Great Lakes basin (Figure 64).

Figure 63: Cubic Yards of Remediated Sediment by Fiscal Year (GL-SP32.N11)



	2007	2008	2009	2010	2011	2012	2013
Result	4.5	5.5	6.0	7.3	8.4	9.7	
Commitment	4.5	5.0	5.9	6.4	7.2	9.1	10.3

Figure 64: Cubic Yards of Remediated Sediment as a Percent of Universe, Baseline, and Long-Term Goal (GL-SP32.N11)



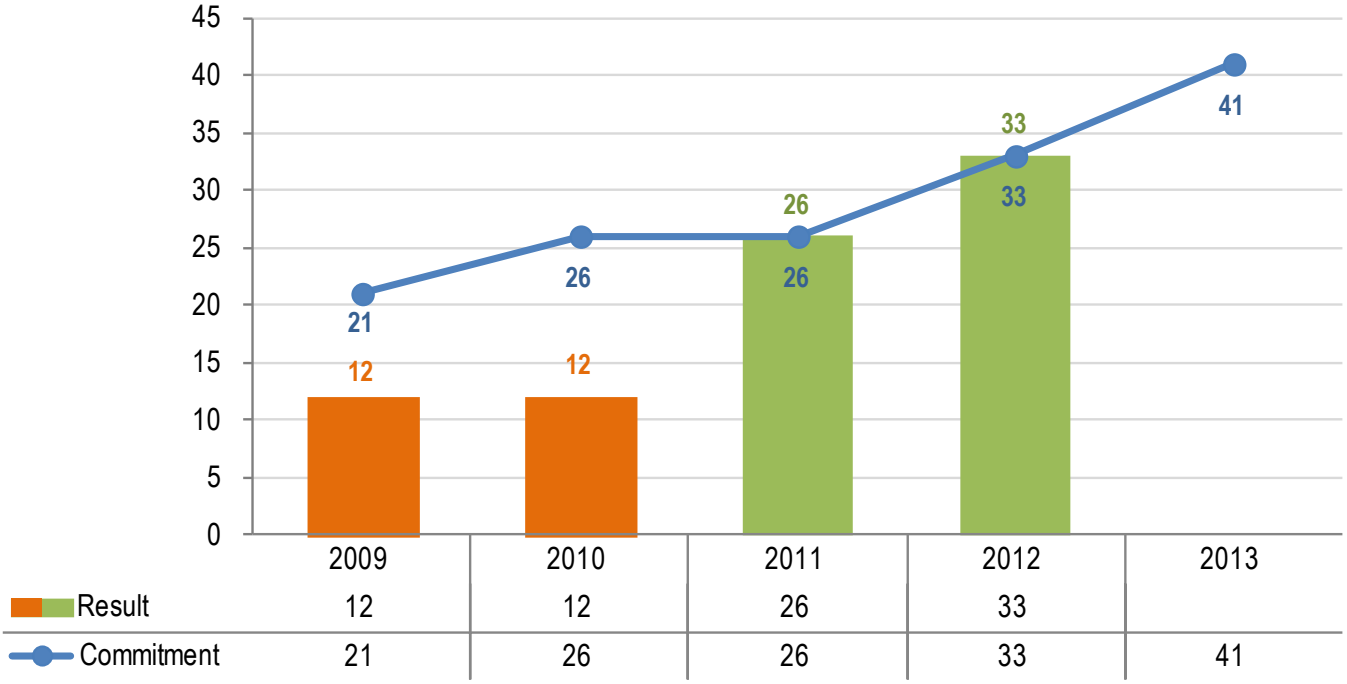
A key indicator for the Great Lakes National Program Office is to implement all management actions necessary for delisting AOCs[20] within the Great Lakes basin. A delisting indicates that the AOC meets the public's vision for that area and that it is no longer among the most polluted areas in the Great Lakes. The first two AOCs for which all management actions were completed were Oswego River/Harbor and Presque Isle Bay. In January 2013, EPA and its partners completed all management actions at their third AOC (Sheboygan River), thus falling slightly short of their commitment to complete all management actions for a cumulative total of three AOCs through FY 2012 (SP-31) (Figure 65). Unexpected additional work was needed at the Sheboygan AOC, delaying the completion of the management actions there. The Presque Isle Bay AOC was formally delisted in February 2013.

[20] The U.S.-Canada Great Lakes Water Quality Agreement (Annex 2 of the 1987 Protocol) defines AOCs as "geographic areas that fail to meet the general or specific objectives of the agreement where such failure has caused or is likely to cause impairment of beneficial use of the area's ability to support aquatic life." More simply put, an AOC is a location that has experienced environmental degradation.

Figure 65: Great Lakes Areas of Concern (AOCs)

For the second consecutive year, the Great Lakes Program met its commitment to reduce the number BUIs at Great Lakes AOCs. Under the GLRI, EPA collaborated extensively with state and federal partners to conduct projects supporting the removal of 33 impairments (Figure 66), such as restrictions on drinking water consumption (or drinking water taste and odor) at Grand Calumet River AOC; aesthetics at Kalamazoo River AOC, River Raisin AOC, and St. Clair River AOC; eutrophication at White Lake AOC; added costs to agriculture and industry at St. Clair River AOC; and degradation of benthos at White Lake AOC.

Figure 66: Beneficial Use Impairments Restored by Fiscal Year (GL-05)



One of the key goals of the GLRI[21] is to reduce the number of invasive species entering the Great Lakes Basin. Although 10 new species were detected between 2000 and 2009, no new species have been detected since then (GL-6). The program also measures the number of acres managed for populations of invasive species that are controlled to a specific target level. More than 31,000 acres were managed in FY 2012, which is significantly above the annual commitment of 2,600 acres (GL-9) (Figure 67). The unprecedented level of funding for invasive species work capitalized on a backlog of projects and appears to have achieved economies of scale due to significantly larger projects becoming fully operational this field season. Additionally, management efforts that involved comprehensive surveillance of large acreages with targeted treatment follow-up came to fruition this field season.

EPA collaborated with and funded a number of other federal agencies[22] to protect, restore, and enhance more than 65,000 acres of wetlands and wetland-associated uplands across the Great Lakes Basin (GL-11) (Figure 68). This was well above the FY 2012 commitment of 11,000 acres. Some of the most significant completions received funding from the Bureau of Indian Affairs (BIA) for restoring wild rice and other cultural wetland resources across the basin. The unprecedented level of funding capitalized on a backlog of projects and appears to have achieved economies of scale due to significantly larger projects. In addition, the Great Lakes Program and its partners protected, restored, and enhanced more than 28,000 acres of coastal, upland, and island habitats in FY 2012. These results were well above of the Agency's commitment of 15,000 acres (GL-12) (Figure 69).

[21] See http://greatlakesrestoration.us/pdfs/glri_actionplan.pdf).

[22] Bureau of Indian Affairs, U.S. Fish and Wildlife Service, National Park Service, Forest Service, National Oceanic and Atmospheric Agency, and the U.S. Army Corps of Engineers.

Figure 67: Acres Managed for Populations of Invasive Species Controlled to a Target Level by Fiscal Year (GL-09)

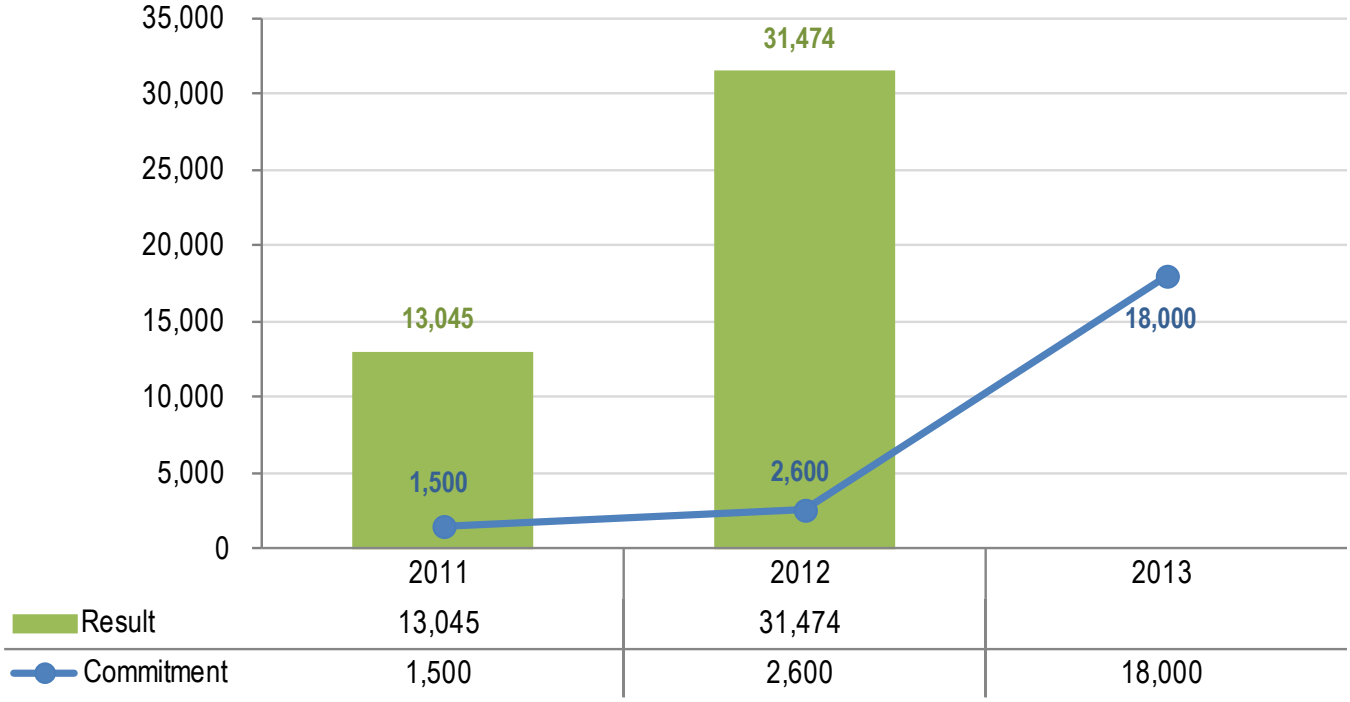


Figure 68: Wetland and Upland Acres Protected, Restored, and Enhanced by Fiscal Year (GL-11)

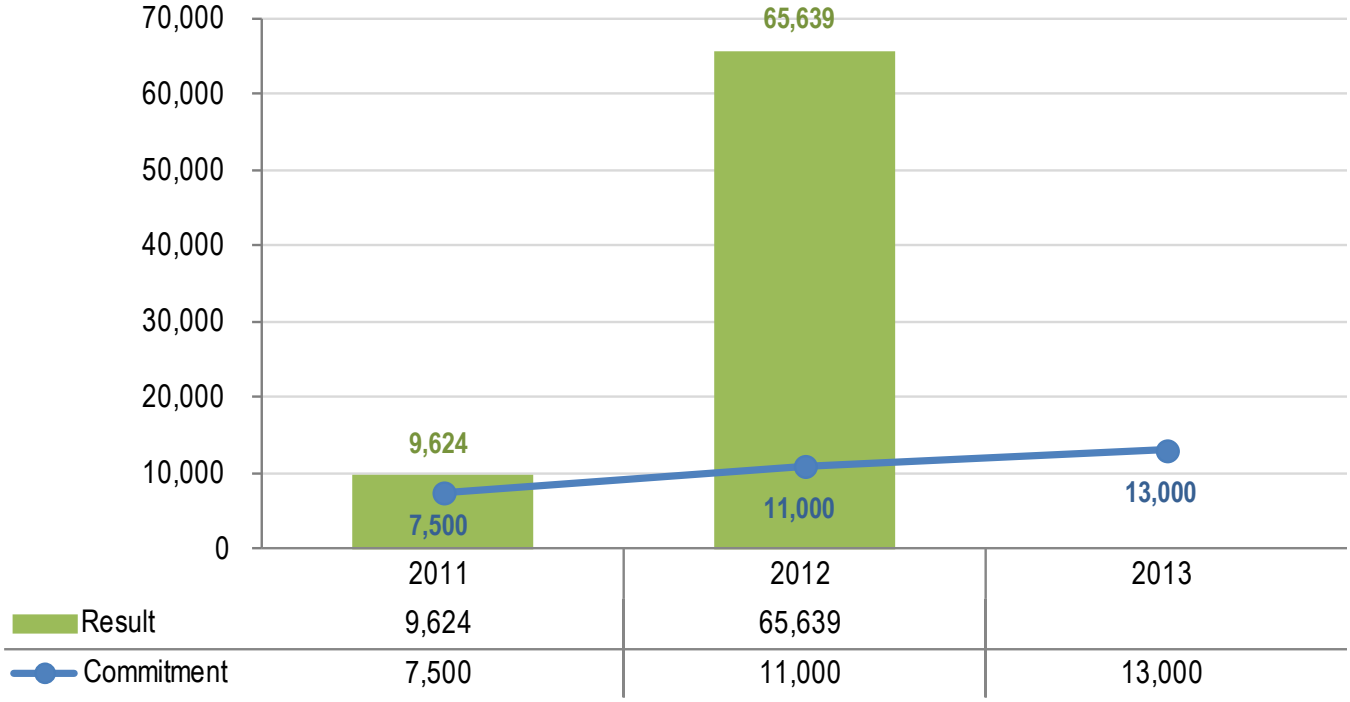
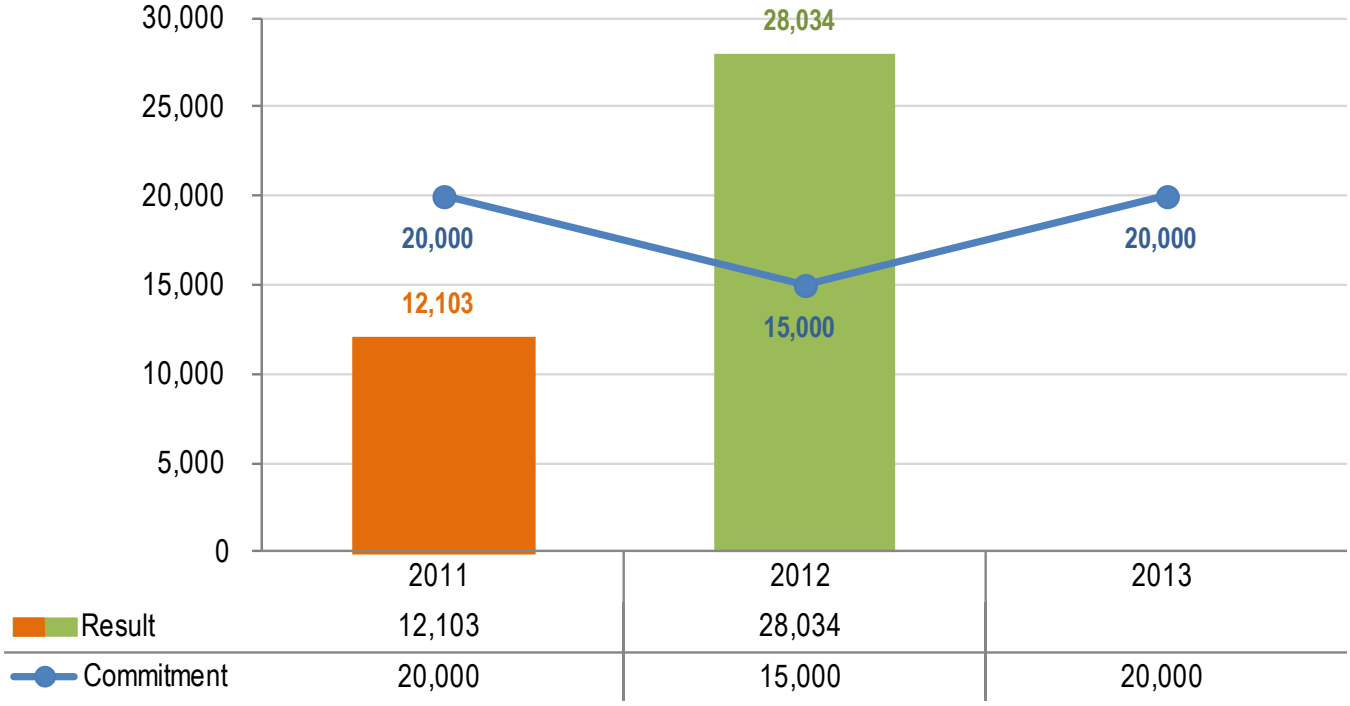


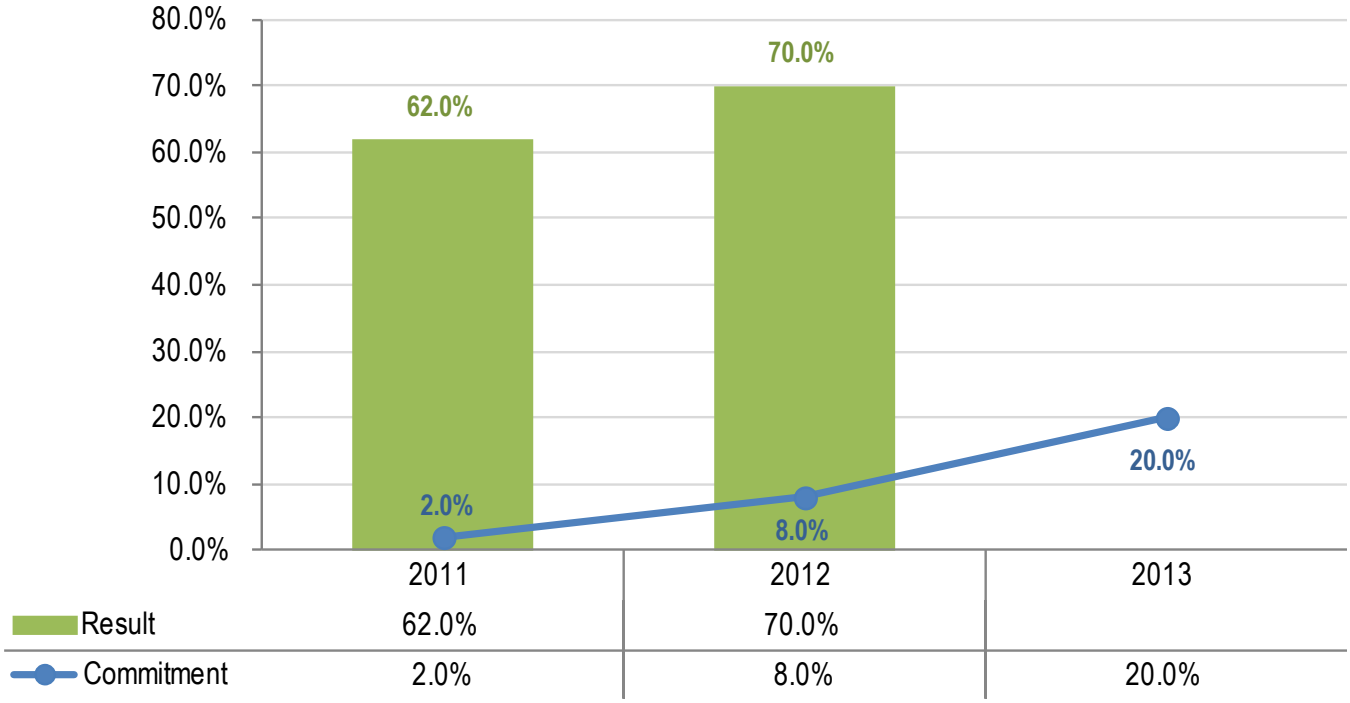
Figure 69: Coastal, Upland, and Island Acres Protected, Restored, and Enhanced by Fiscal Year (GL-12)



In FY 2012, approximately 280,000 acres in the Great Lakes watershed were put into U.S. Department of Agriculture (USDA) conservation practices to reduce erosion, nutrients, and/or pesticide loadings under Farm Bill programs. This represents a 70% increase over the baseline of 165,000 acres (based on FY 2008 data) (Figure 70). The significant increase in FY 2012 is a combined result of greater funding (base USDA programs and GLRI) and increased participation in Natural Resource Conservation Service (NRCS) programs. [23]

[23] The acres tracked in this measure are not cumulative but are for new conservation practices implemented in a given fiscal year. The percent increase will vary considerably from year to year due to funding, the conservation universe, and the difficulty of conservation practices.

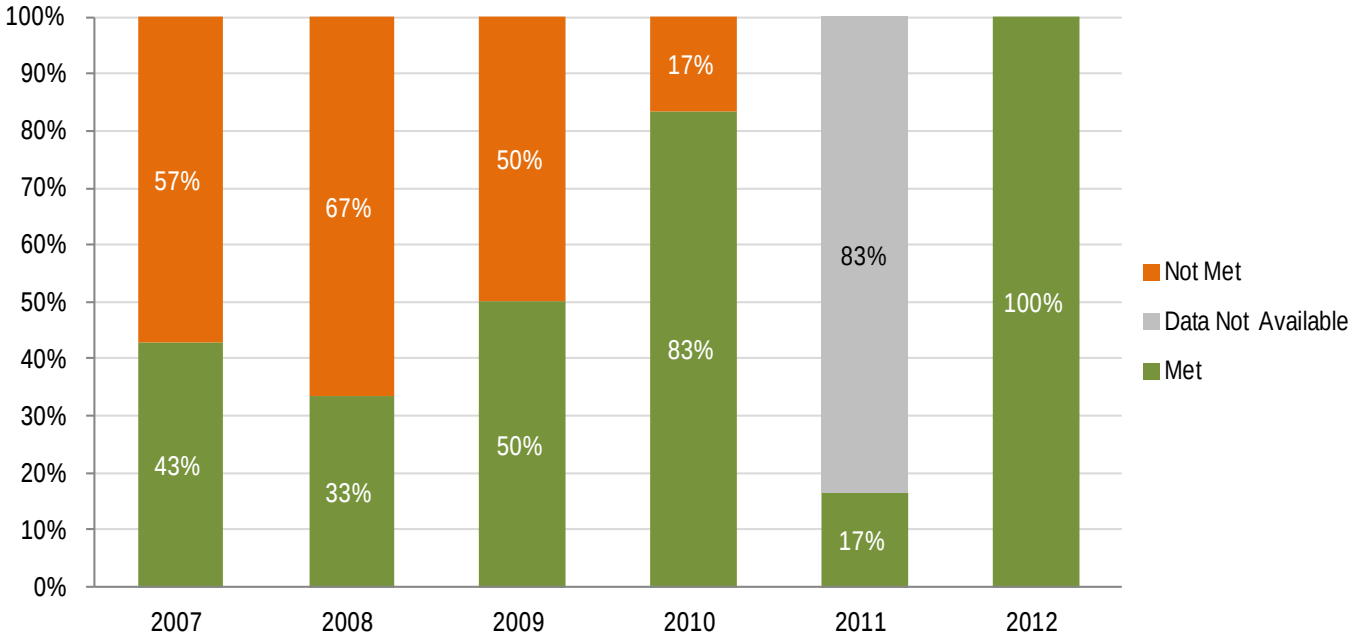
Figure 70: Great Lakes Acres with USDA Conservation Practices by Fiscal Year (GL-16)



Subobjective: Chesapeake Bay

EPA's Chesapeake Bay Program was successful in meeting 100% of its annual commitments in FY 2012 (Figure 71).

Figure 71: Chesapeake Bay Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.5 Improve the Health of the Chesapeake Bay								
CB-SP33.N11	Percent Chesapeake Bay SAV restored	32%	35%	42%	46%	43%	34%	D-53/Fig.72
CB-SP34	Percent Chesapeake Bay dissolved oxygen attained		12%	16%	12%	39%	34%	D-54/Fig.73
CB-SP35	Percent Bay nitrogen reduction practices implemented	46%	47%	49%	51%		21%	D-54
CB-SP36	Percent Bay phosphorus reduction practices implemented	62%	62%	65%	67%		19%	D-55
CB-SP37	Percent Bay sediment reduction practices implemented	62%	64%	64%	69%		30%	D-55
CB-2	Percent Bay forest buffer planting goal achieved	53%	57%	62%	69%	72%	75%	D-56

Notes: SAV=submerged aquatic vegetation.

The Bay Program adopted the current measure language for CB-SP35, CB-SP36, and CB-SP37 in FY 2011 to capture progress under the Bay TMDL established in December FY 2010. This change occurred after the publication of the FY 2011 National Water Program Guidance and Commitment Appendix. The program was unable to report results in FY 2011 National Water Program End of Year Performance Report under the old measures but did report the following results for the revised measure language in the Agency's FY 2011 Annual Performance Report based on targets in the FY 2013 budget: SP-35: 8%; SP-36: 1%, SP-37: 11%.

FY 2012 Performance Highlights and Management Challenges

Submerged Aquatic Vegetation (SAV) and Water Quality in the Bay: The overriding goal of EPA's Chesapeake Bay Program Office is to work with its federal, state, and local partners to improve the health of the Chesapeake Bay ecosystem. Two of the most important indicators for measuring the health of the Chesapeake Bay are acres of SAV (SP-33) and levels of dissolved oxygen (DO) (SP-34). Based on annual monitoring from the prior year, the Chesapeake Bay Program reported 63,074 acres of SAV in the bay. This represents approximately 34% of the program's long-term goal of 185,000 acres, which is the amount necessary to achieve Chesapeake Bay water quality standards (Figure 72). The fiscal year data reported in Figure 72 are based on data from the previous calendar year. Experts agree that extreme environmental conditions in calendar years 2010 and 2011 contributed strongly to the decline.[24]

[24] R. J. Orth, D. J. Wilcox, L. J. R. Whiting, L. Nagey, A. L. Owens, and A. K Kenne, 2011 Distribution of Submerged Aquatic Vegetation in Chesapeake Bay and Coastal Bays, October 2012, Virginia Institute of Marine Science. Special Scientific Report Number 154" available at http://www.vims.edu/bio/sav/sav11/.

Monitoring data from the previous three calendar years indicate that about 34% of the combined volume of open-water, deep-water, and deep-channel water of the bay and its tidal tributaries met DO standards during the summer months (Figure 73). The goal is for 100% of the tidal tributaries and the Chesapeake Bay to meet Clean Water Act standards for DO. To achieve SAV and DO goals, program partners are implementing pollution control measures throughout the bay watershed to reduce nitrogen, phosphorus, and sediment loads to the bay.

Figure 72: Chesapeake Bay Submerged Aquatic Vegetation Restored by Fiscal Year (CB-SP33.N11)

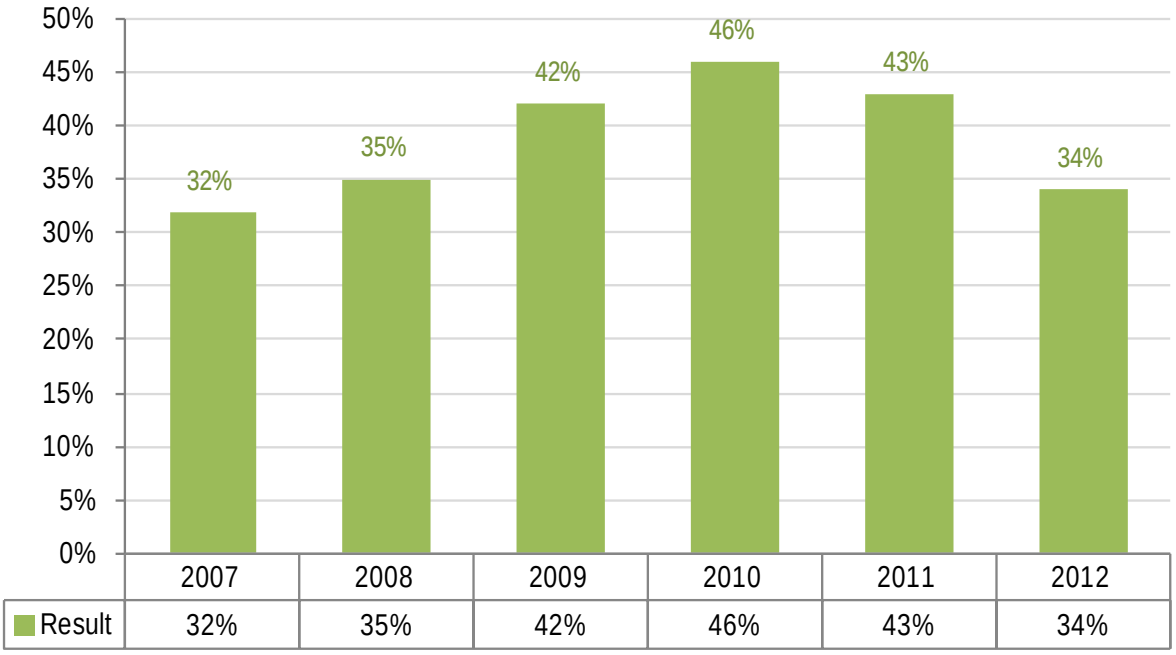
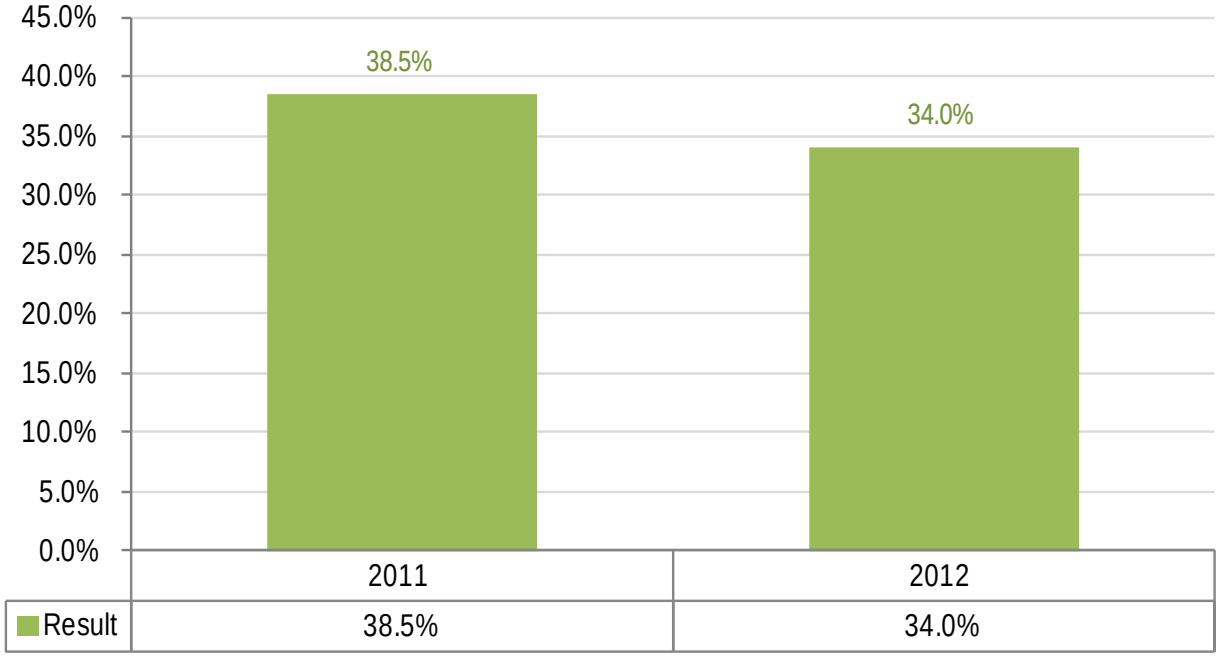


Figure 73: Chesapeake Bay Dissolved Oxygen Attained by Fiscal Year (CB-SP34)



Reducing Nitrogen, Phosphorus, and Sediment Runoff to the Bay: In December 2010, EPA established the Chesapeake Bay Total Maximum Daily Load (TMDL), a comprehensive "pollution diet" with rigorous accountability measures, to initiate sweeping actions to restore clean water in the Chesapeake Bay and the region's streams, creeks, and rivers. The District of Columbia, Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia developed Phase I Watershed Implementation Plans (WIPs) to identify how much pollution would need to be reduced from each source sector in order to meet water quality standards in the Chesapeake Bay, and how these reductions would be achieved and maintained. In 2011 and 2012, jurisdictions working with their local stakeholders developed Phase II WIPs that will help key partners better understand what they need to do to improve water quality in the rivers and streams flowing to the Chesapeake Bay.

EPA strongly believes that local governments are critical partners in implementing the TMDL, and the Agency is working to ensure that states provide necessary support to local governments as they take the on-the-ground actions necessary to achieve the goals of the Chesapeake Bay TMDL. EPA will continue to implement key initiatives under Executive Order 13508. For additional information, please refer to the most recent Action Plan, available at http://executiveorder.chesapeakebay.net/post/Federal-partners-outline-planned-actions-for-2013-to-protect-and-restore-the-Chesapeake-Bay.aspx.

EPA expects enhanced implementation of nitrogen, phosphorus, and sediment pollution control measures as a result of the TMDL that was established in December 2010. Chesapeake Bay Program partners continue to implement pollution controls necessary to restore Chesapeake Bay water quality. The program exceeded its FY 2012 targets for pollution controls (refer to Table 1). By the end of 2017 (FY 2018), the program expects to achieve 60 percent of its goals for implementing nitrogen, phosphorus, and sediment reduction actions necessary to achieve final TMDL allocations, as measured through the phase 5.3 watershed model. Given that the Chesapeake Bay Program created these measures in FY 2011 as a result of the TMDL and a new watershed model, trend data does not exist prior to FY 2011.

Table 1: Chesapeake Bay Nutrient Measures

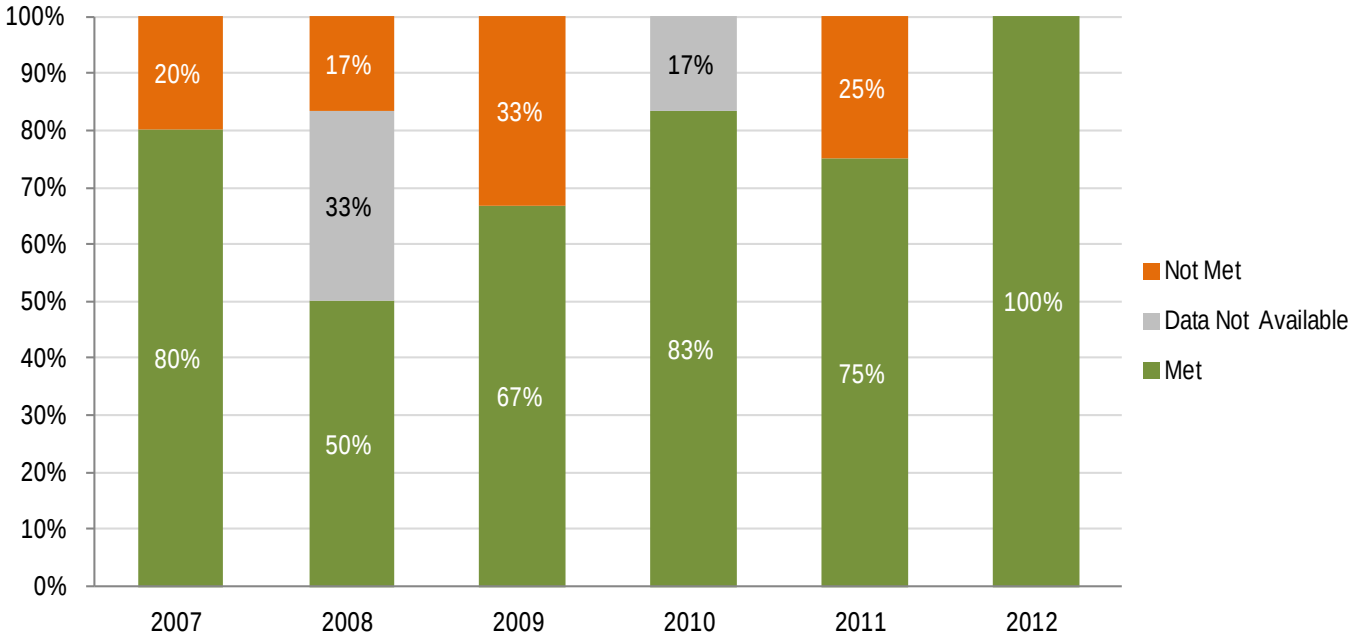
ACS Code	Measure Language	FY 2012 Commitment	FY 2012 Results
SP-35	Percent of goal achieved for implementing nitrogen pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	21%
SP-36	Percent of goal achieved for implementing phosphorus pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	19%
SP-37	Percent of goal achieved for implementing sediment pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	30%

Restoring Forest Buffer: State and federal efforts to accelerate forest buffer restoration resulted in planting 240 miles of forest buffers in FY 2012. A total of 7,479 miles have been planted since FY 1997, achieving 75% of the long-term goal of planting 10,000 miles of forest buffer (CB-2). Reasons for the continuing slow progress in planting forest buffers include the high price of crop commodities; a shortage of technical assistants, which is likely to continue due to the impact of the economy on agency staffing levels; uninformed landowners; and the tendency of the agricultural community to plant grass buffers. All of these issues have been the focus of recent efforts to improve forest buffer implementations.

Subobjective: Gulf of Mexico

EPA met all of its commitments for the Gulf of Mexico Program in FY 2012. EPA has continued to meet the majority of its commitments to protect the Gulf of Mexico for four of the past five years (Figure 74).

Figure 74: Gulf of Mexico Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status (= Met; = Not Met; = Data Not Available; = Indicator/Long-Term (No Commitment); = Measure Did Not Exist)						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.6 Restore and Protect the Gulf of Mexico								
GM-435	Improve health–Gulf of Mexico ecosystem (index)	2.4	2.2	2.2		2.4	2.4	D-56
GM-SP38	Number of impaired Gulf water segments and habitat restored (cumulative)	109		131	170	286	316	D-57/Fig.79
GM-SP39	Number of Gulf Acres restored or enhanced (cumulative)	18,660	25,215	29,344	29,552	30,052	30,796	D-57/Fig.77
GM-SP40.N11	Reduce hypoxic zone Gulf of Mexico (sq kilometers)	20,500		8,000	20,000	17,520	7,483	D-58/Fig.75
GM-1	Implement warning system to manage algal blooms							D-58

FY 2012 Performance Highlights and Management Challenges

The Gulf of Mexico basin has been called "America's Watershed." Its U.S. coastline encompasses 1,630 miles; it is fed by 33 major rivers; and it receives drainage from 31 states in addition to a similar drainage area from Mexico. One-sixth of the U.S. population now lives in Gulf Coast states, and the region is experiencing remarkably rapid population growth. In addition, the Gulf of Mexico yields approximately 40% of the nation's commercial fishery landings. Gulf Coast wetlands comprise about half the national total and provide critical habitat for 75% of the migratory waterfowl traversing the United States.

The latest *National Coastal Condition Report* (NCCR IV) (2012) indicates that the overall aquatic ecosystem health of the coastal waters of the Gulf of Mexico is rated as fair, or 2.4 on a 5-point scale, in which 1 is poor and 5 is good (Subobjective 4.3.2). The NCCR IV assessment is based on environmental stressor and response data collected by the states of Florida, Alabama, Mississippi, Louisiana, and Texas from 2003 to 2006. The hurricanes of 2005 (Katrina and Rita) significantly affected the data collected; Alabama, Mississippi, and Louisiana did not collect data in 2005, except for water quality indicators in Mississippi. These factors influenced the overall condition score, which represents no significant change from the previous ratings in NCCR II and III.

The size of the hypoxic, or "dead," zone[25] in the Gulf of Mexico decreased significantly from 17,520 km^2 (8,000 mi^2) in 2011 to 7,483 km^2 (2,889 mi^2) in FY 2012 (SP-40) (Figure 75). A number of hydrological, climate, and monitoring factors impact the hypoxic zone from year to year (e.g., lower than average Mississippi River flow, timing of monitoring during weather events).[26] According to an academic research organization within the Gulf of Mexico basin, "The smaller area [in 2012] reflects the drought conditions across the US in that the freshwater discharge and associated nutrients delivered to the Gulf of Mexico was mostly below average in spring and approached the 80-year minimum discharge."[27] The six-year running average is currently at 15,750 km^2 (6,681 mi^2). The interagency Gulf of Mexico/Mississippi River Watershed Nutrient Task Force goal is to reduce the dead zone to a size of 5,000 km^2 (1,900 mi^2) or less by 2015, based on a five-year running average. Figure 76 provides dissolved oxygen levels by location in the Gulf of Mexico.

[25] The dead zone is an area of oxygen-starved water, also known as hypoxia. It is fueled by nitrogen and phosphorus runoff, principally from agricultural activity in the Mississippi River watershed, which stimulates an overgrowth of algae that sinks, decomposes, and consumes most of the life-giving oxygen supply in the water.

[26] For more information on causes of the size of the hypoxic zone, visit: http://www.gulfhypoxia.net/News/documents/PressReleaseVers27Jul12.pdf.

[27] Louisiana Universities Marine Consortium, July 27, 2012, Press Release.

Figure 75:

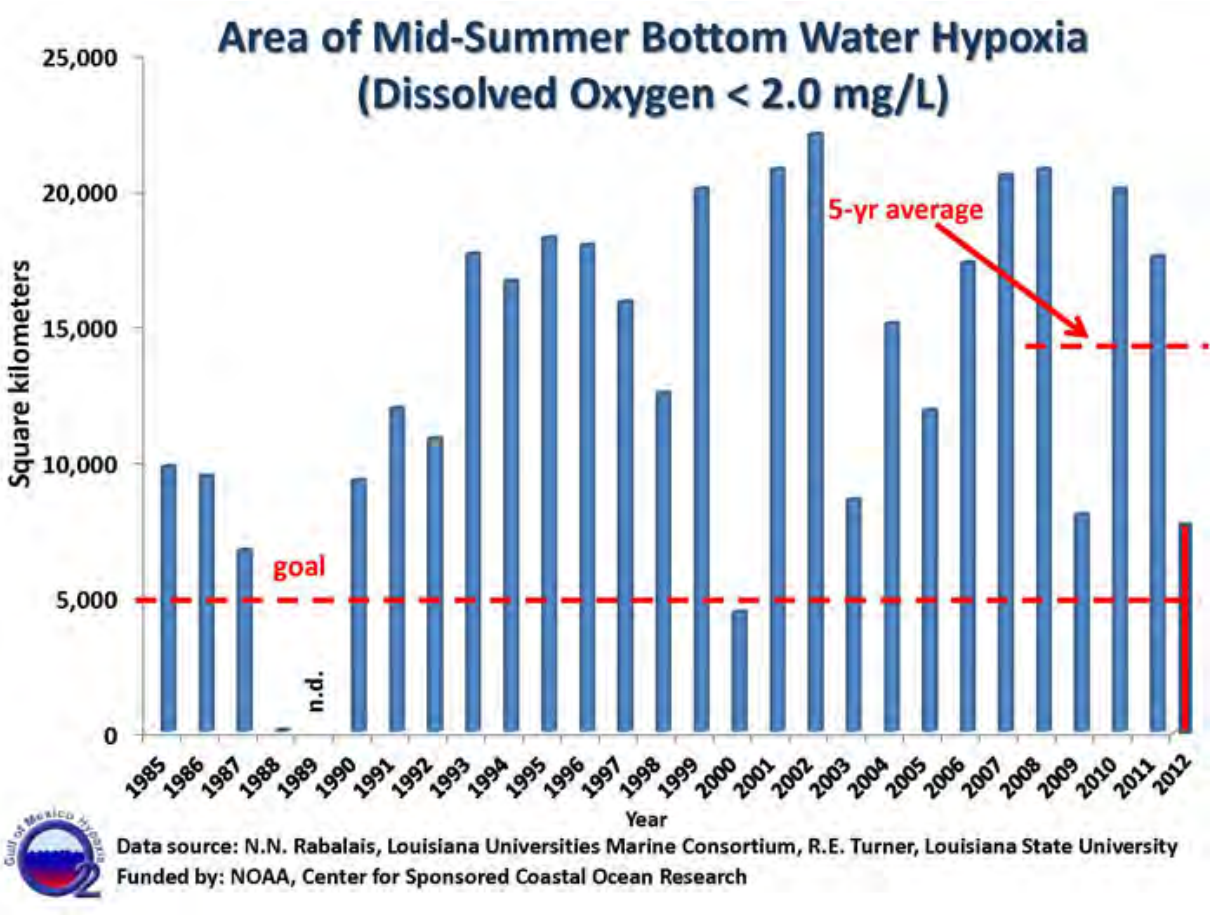
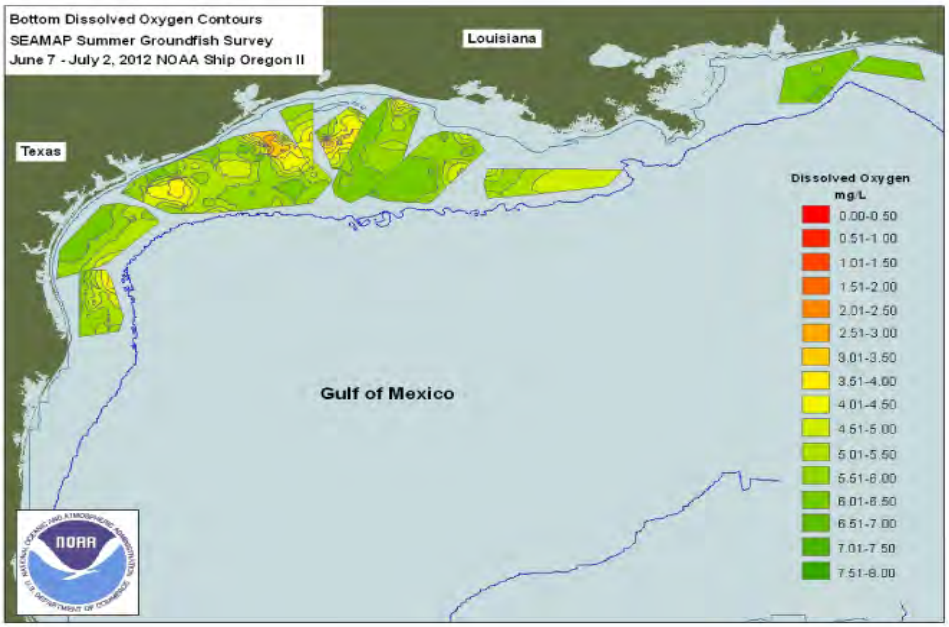
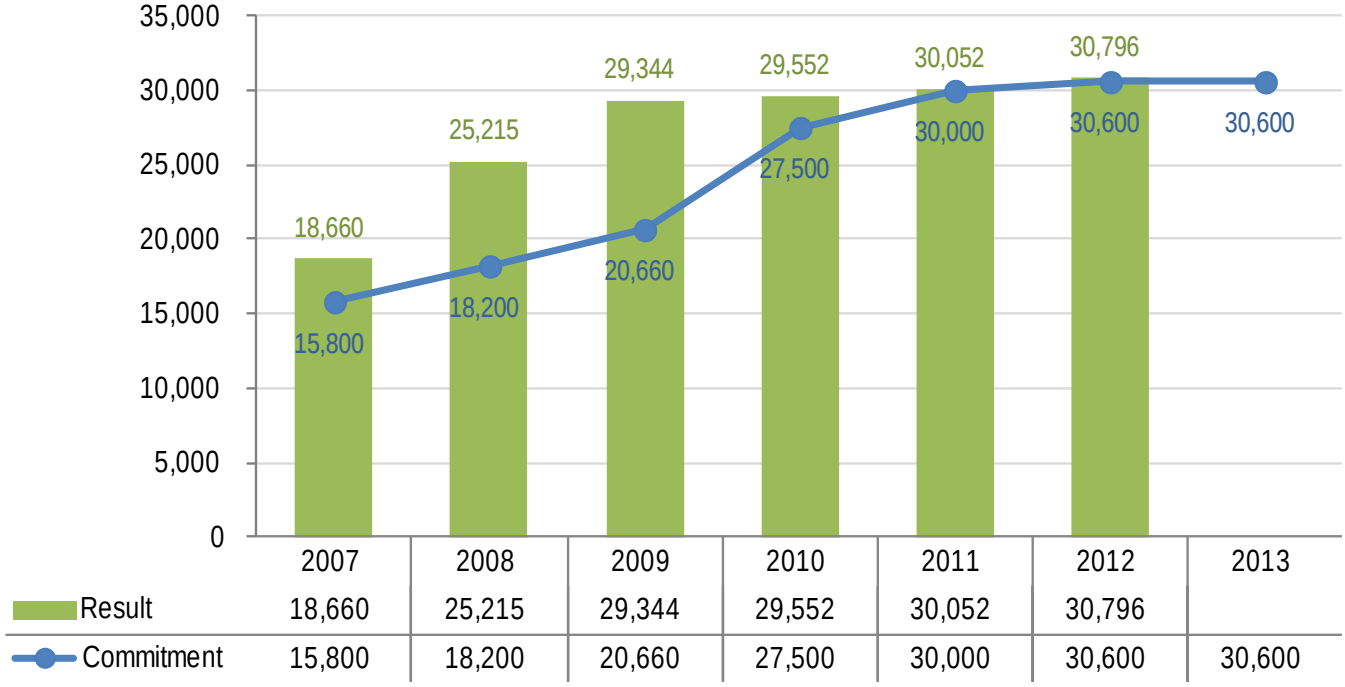


Figure 76: Dissolved Oxygen Levels in the Gulf of Mexico



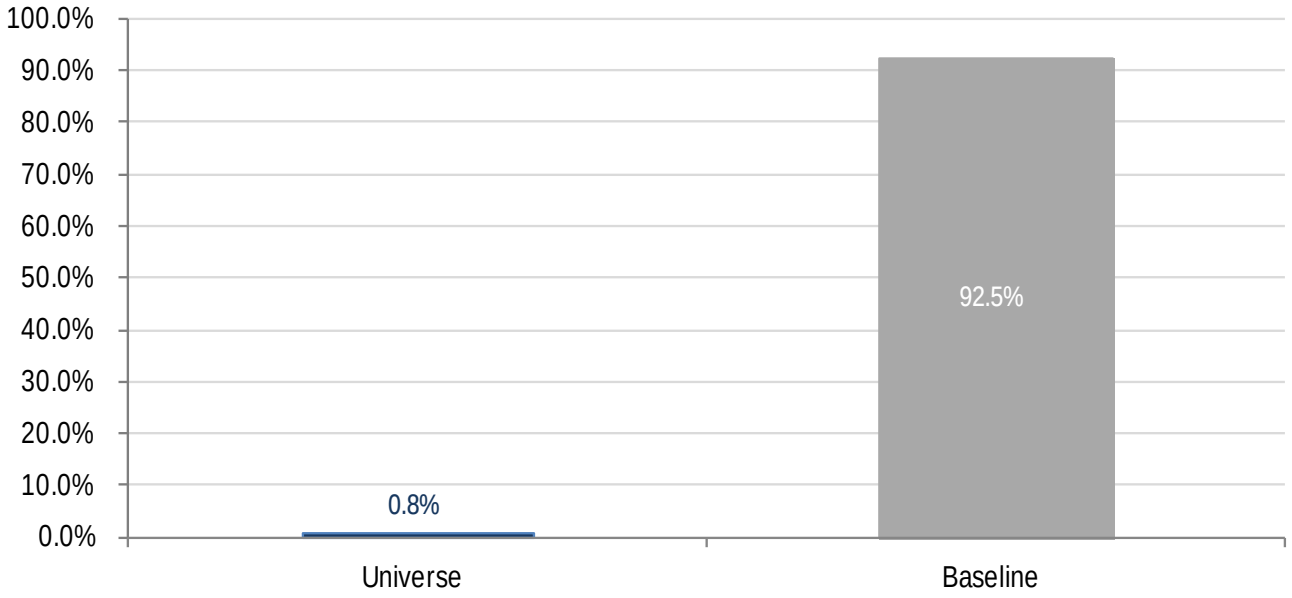
Acres Habitat Restored: The Gulf of Mexico Program ended the year slightly ahead of its FY 2012 cumulative target to restore, protect, or enhance 30,000 acres of coastal and marine habitats. Regional collaboration through coordinated efforts helped restore about 196 acres in 2012. Although the past three years have seen significantly less than the approximately 4,000 acres restored in 2009, the program has restored, enhanced, or protected a total of 30,796 acres in the states of Florida, Mississippi, Alabama, Louisiana, and Texas since 2006 (SP-39) (Figure 77). This is a 92% improvement over the FY 2005 baseline of 16,000 acres. Slightly less than 1% of the total universe of habitat acres, however, have been restored to date (Figure 78).

Figure 77: Gulf Acres Restored or Enhanced by Fiscal Year (GM-SP39)



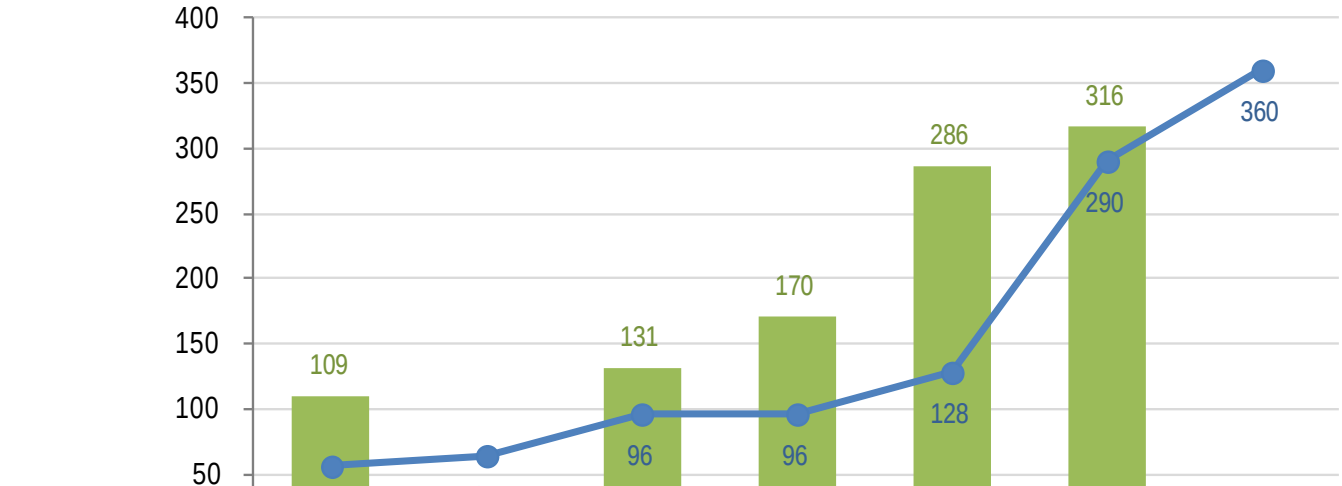
	2007	2008	2009	2010	2011	2012	2013
Result	18,660	25,215	29,344	29,552	30,052	30,796	
Commitment	15,800	18,200	20,660	27,500	30,000	30,600	30,600

Figure 78: Gulf Acres Restored or Enhanced as a Percent of Universe and Percent Over Baseline by (GM-SP39)



A central pillar of the strategy to restore the health of the Gulf is restoring water quality and habitat in 13 priority coastal watersheds. These 13 watersheds include 755 of the impaired segments identified by Gulf states that receive targeted technical and financial assistance to restore impaired waters. The program met its 2012 commitment (290) by restoring water and habitat quality to meet water quality standards in 316 impaired segments in priority coastal areas (Figure 79).

Figure 79: Number of Impaired Gulf Water Segments and Habitat Restored to Meet Water Quality Standards (GM-SP38)

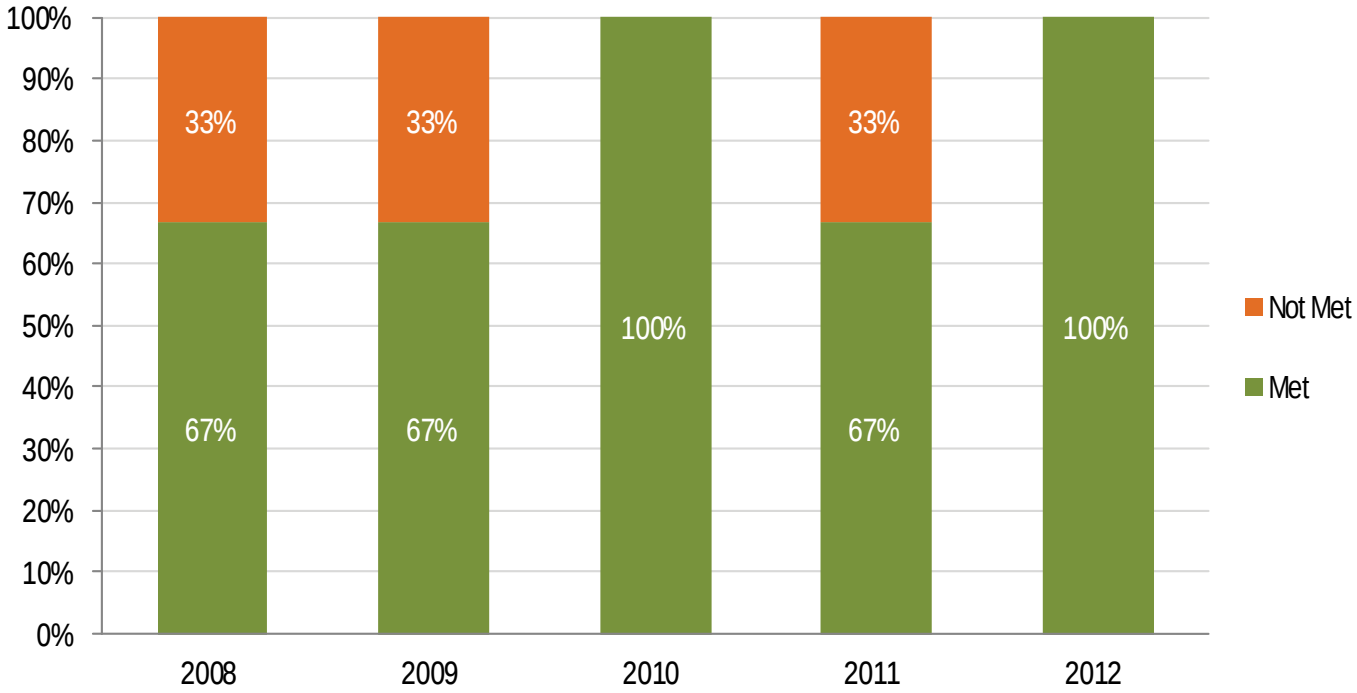


	2007	2008	2009	2010	2011	2012	2013
Result	109		131	170	286	316	
Commitment	56	64	96	96	128	290	360

Subobjective: Long Island Sound

The Long Island Sound Program was successful in meeting all three of its commitments in FY 2012 (Figure 80).

Figure 80: Long Island Sound Subobjective Five-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available	2007	2008	2009	2010	2011	2012	Appendix Page Number (D-0)/ Figure Number
Subobjective 2.2.7 Restore and Protect the Long Island Sound									
LI-SP41	Percent reduction Long Island Sound nitrogen			40,440	39,011	70%	69%	83%	D-59/Fig.83
LI-SP42.N11	Reduce Long Island Sound hypoxic zone (sq miles)			180	169	101	130	289	D-59/Fig.81
LI-SP43	Number acres Long Island Sound coastal habitat restored			1,199	1,614	7.4	8.9	537	D-60
LI-SP44	Number miles river and streams for fish passage reopened			124.3	147.0	72%	72%	72.3	D-60

More than 20 million people live within 50 miles of Long Island Sound's shores, and more than 1 billion gallons per day of treated effluent enter the Long Island Sound from 106 treatment plants. A study conducted in 1990 estimated that Long Island Sound contributes more than $5.5 billion annually to the regional economy from clean water-related activities alone—recreational and commercial fishing and shellfishing, beach-going, and swimming. In 2013 dollars, that equates to $9.5 billion. Long Island Sound is a breeding ground, nursery, feeding ground, and habitat to more than 170 species of fish and 1,200 species of invertebrates that are under increasing stress from development and competing human uses.

FY 2012 Performance Highlights and Management Challenges

The Long Island Sound Program significantly exceeded its 2012 commitment (218 acres) by restoring or protecting 537 acres of coastal habitat, including tidal wetlands, dunes, riparian buffers, and freshwater wetlands (SP-43).
In 2012, the Long Island Sound Program significantly exceeded its annual goal of reopening 28 miles of rivers and streams to diadromous fish passage. More than 72 miles of river and stream corridors were reopened by the removal of dams and barriers or by installing bypass structures. More habitat restoration (and riverine corridor) projects were completed in 2012 because some of them had been delayed by Hurricane Irene in August 2011. Resources were diverted to storm cleanup and recovery at that time. In 2012, work resumed on these projects, which otherwise would have been completed in 2011. This contributed to the measure being significantly exceeded.

The states of Connecticut and New York have listed Long Island Sound as impaired for dissolved oxygen (DO) under Section 303(d) and have developed a TMDL to control nitrogen deposition to the Sound as a means of improving DO. The TMDL calls for a 58.5% reduction in anthropogenic nitrogen deposition from baseline levels over a 15-year period commencing in 2000 and ending in 2014. Nitrogen from sewage treatment plants has been reduced by more than 76,000 pounds per day from baseline loads.

A key measure for assessing the states' progress in restoring water quality standards for DO in the Sound is the annually measured size of its maximum area of hypoxia. In 2012, the maximum area of hypoxia in Long Island Sound measured 288 square miles (SP-42) (Figure 81). Summer 2012 was one of the warmest for water temperatures in the Sound. The five-year rolling average maximum area of hypoxia is 173.6 square miles, or a 16.5% percent reduction from the 208 square mile pre-TMDL average maximum area of hypoxia, thereby exceeding the 15% target in the Strategic Plan for 2012. Figure 82 shows the locations of dissolved oxygen levels in Long Island Sound bottom waters.[28]

[28] Data from the state of Connecticut water quality monitoring program.

Figure 81: Reduction in Size (Square Miles) of Long Island Sound Hypoxic Zone by Fiscal Year (LI-SP42.N11)

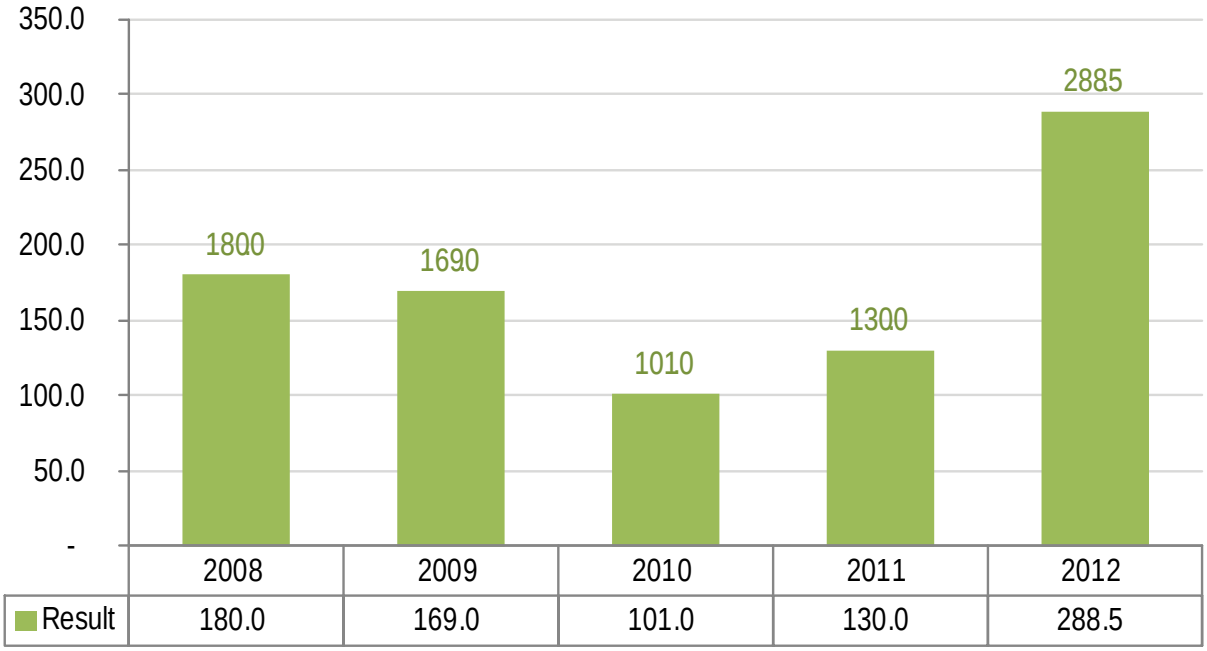
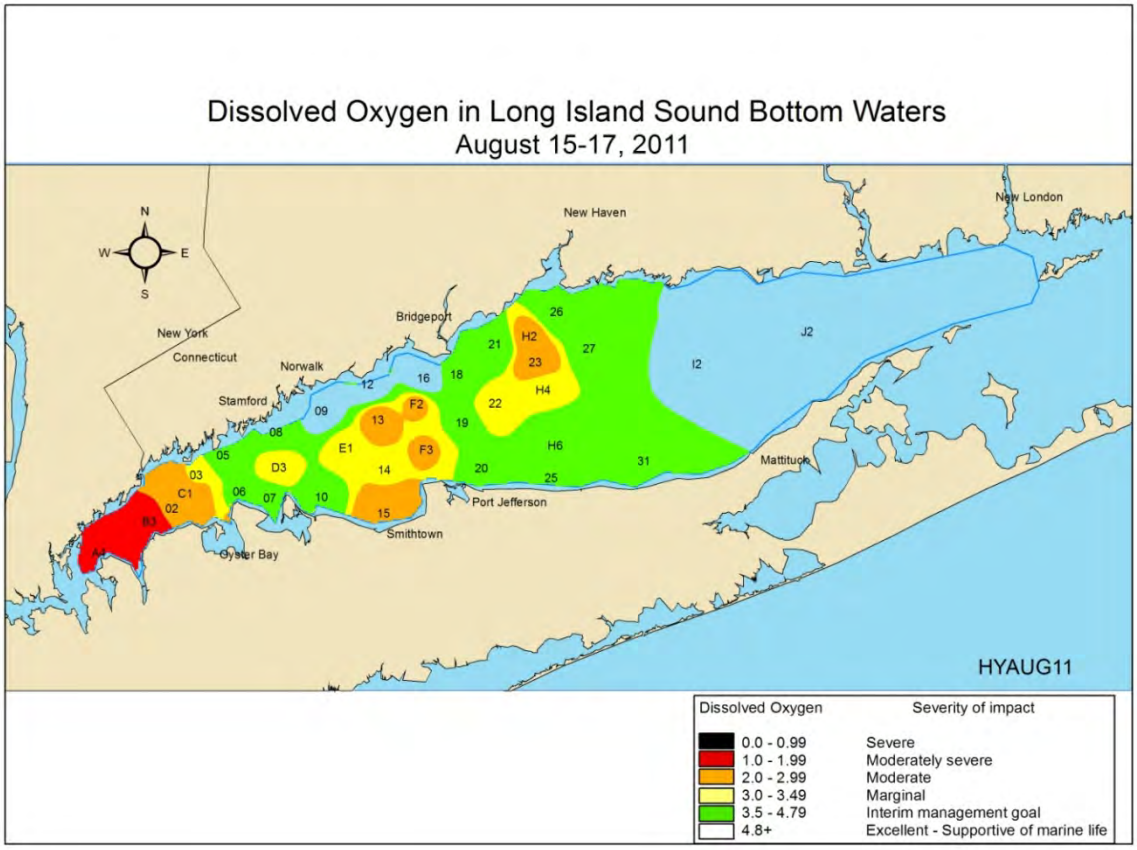
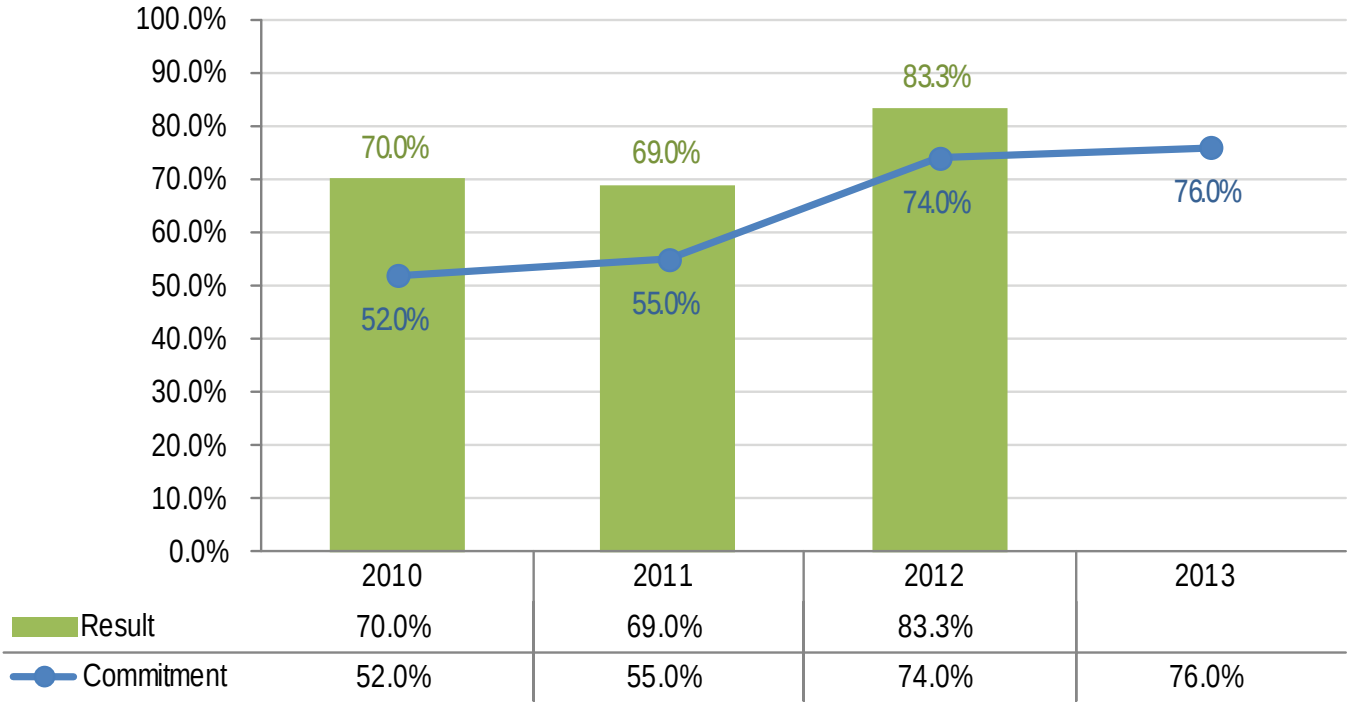


Figure 82: Dissolved Oxygen in Long Island Sound Bottom Water August 15-17, 2011



Long Island Sound program's measurement on reduction in nitrogen discharges (SP-41) from sewage treatment plants was 83.3 percent compared with the target of 74 percent in 2012. Data is collected on a calendar year basis. This ensures that the full seasonal variation in biological treatment methods is accounted for in the results (e.g., colder winter temperatures slow down biological nitrogen removal processes, wet spring weather can inhibit biological controls at treatment plants).

Figure 83: Percent of Goal to Reduce Long Island Sound Nitrogen by Fiscal Year (LI-SP41)

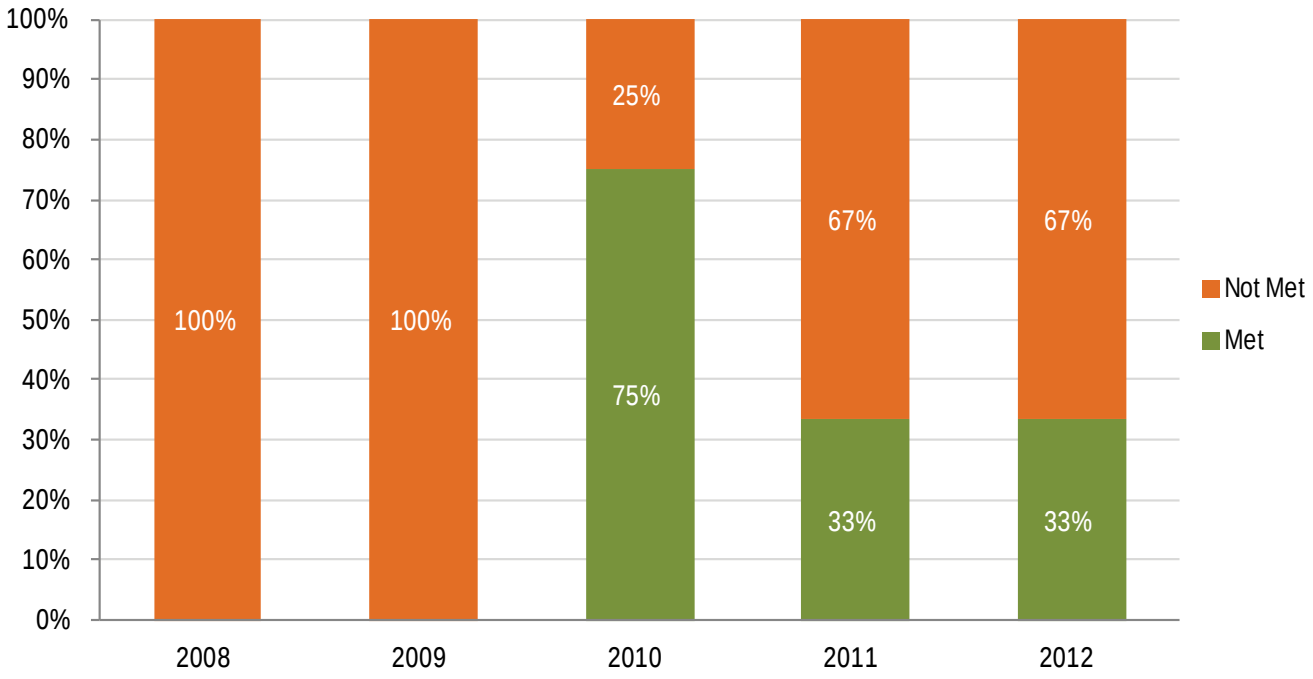


	2010	2011	2012	2013
Result	70.0%	69.0%	83.3%	
Commitment	52.0%	55.0%	74.0%	76.0%

Subobjective: South Florida

The South Florida Program and its partners had mixed results in FY 2012, failing to meet two of three of their commitments (Figure 84).

Figure 84: South Florida Subobjective Five-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available						Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.11 Restore and Protect the South Florida Ecosystem								
SFL-SP45	Achieve no net loss in South Florida stony coral		Loss	Loss	No Net Loss	Loss	No Net Loss	D-65
SFL-SP46	Maintain health of South Florida sea grass							D-65
SFL-SP47a	Percent South Florida monitoring stations maintain coastal water quality for chlorophyll a & light clarity					85%	70.9%; 72.5%	D-66/Fig.85
SFL-SP47b	Percent South Florida monitoring stations maintain coastal water quality for nitrogen and phosphorous					74%	81%; 89.5%	D-66/Fig.86
SFL-SP48	Maintain Everglades water quality measured by total phosphorus							D-67
SFL-1	Increase percent sewage treatment systems receiving advanced wastewater treatment in Florida					24%	13.1%	D-67

FY 2012 Performance Highlights and Management Challenges

The South Florida ecosystem encompasses three national parks, more than 10 national wildlife refuges, a national preserve, and a national marine sanctuary. It is home to two Native American Nations, and it supports the largest wilderness area east of the Mississippi River, the only living coral barrier reef adjacent to the United States, and the largest commercial and sport fisheries in Florida. Rapid population growth, however, is threatening the health of this vital ecosystem. South Florida is home to about 8 million people, greater than the population of 39 individual states.

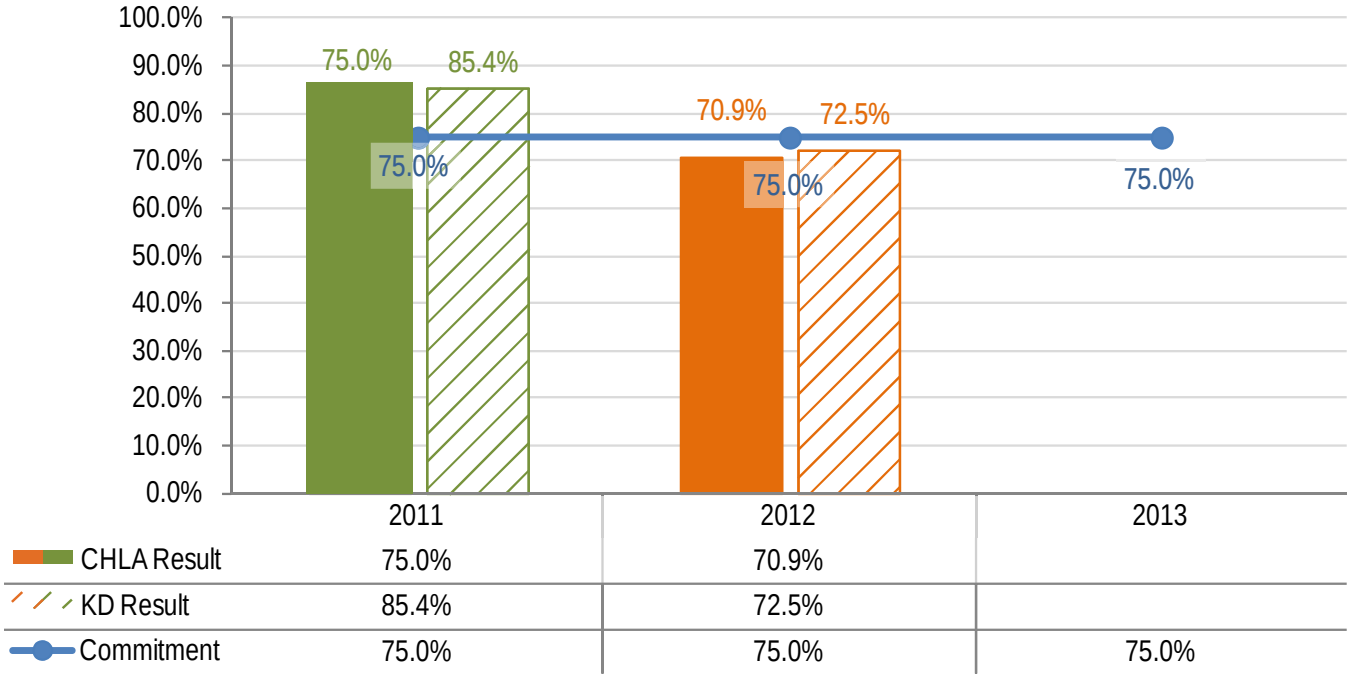
EPA and its federal, state, regional, and local partners were able to achieve an increase from 5.9% in FY 2011 to 6.6% in FY 2012 in stony coral cover (mean percent stony coral cover) in the Florida Keys National Marine Sanctuary (FKNMS) and in the coastal waters of Dade, Broward, and Palm Beach Counties, Florida (SP-45). Note, however, that the results for this measure have been fairly inconsistent over the past three years.[29] While it is plausible that some coral recovery is occurring, it is too early to say that cover is increasing with any statistical confidence.

For the first time, the overall health and functionality of the sea grass beds in the FKNMS fell below the baseline established in 2005 (SP-46). In FY 2012, the Species Composition Index (SCI) was 0.28 and the Elemental Indicator (EI) was 5.5—significantly lower than the 2005 baseline of 0.48 and 8.3, respectively. The explanation is that less light is reaching the sea grasses and that water quality has been degraded.

EPA and its partners measure water quality of the near shore and coastal waters of the FKNMS in two different ways; one indicator measures the levels of chlorophyll a (CHLA) and light clarity, and the other indicator tracks the amount of dissolved inorganic nitrogen (DIN) and total phosphorus (TP) levels at monitoring stations throughout the sanctuary (SP-47). Seventy-one percent (162 of 227) of monitoring stations saw CHLA concentrations maintained at healthy levels (less than or equal to 0.35 ugl-1). Light clarity (KD) levels fell below FY 2011 levels, with 150 of 207 stations exhibiting KD levels appropriate (less than or equal to 0.20 m-1) for a result of 72.5%. This is the first time both indicators failed to meet their targets since reporting began in 2006 Figure 85). Although the reason behind the decline in performance is unknown at this time, the South Florida Water Quality Protection Program will continue future monitoring to discern if this is a one-time event or the start of an emerging trend.

[29] This is the second time in three years that coral coverage has increased. Coral coverage increased from 6.5% in FY 2009 to 7.3% in FY 2010. Stony coral coverage significantly decreased from 7.3 % in FY 2010 to 5.9% in FY 2011 due to an unprecedented cold snap in the Florida Keys.

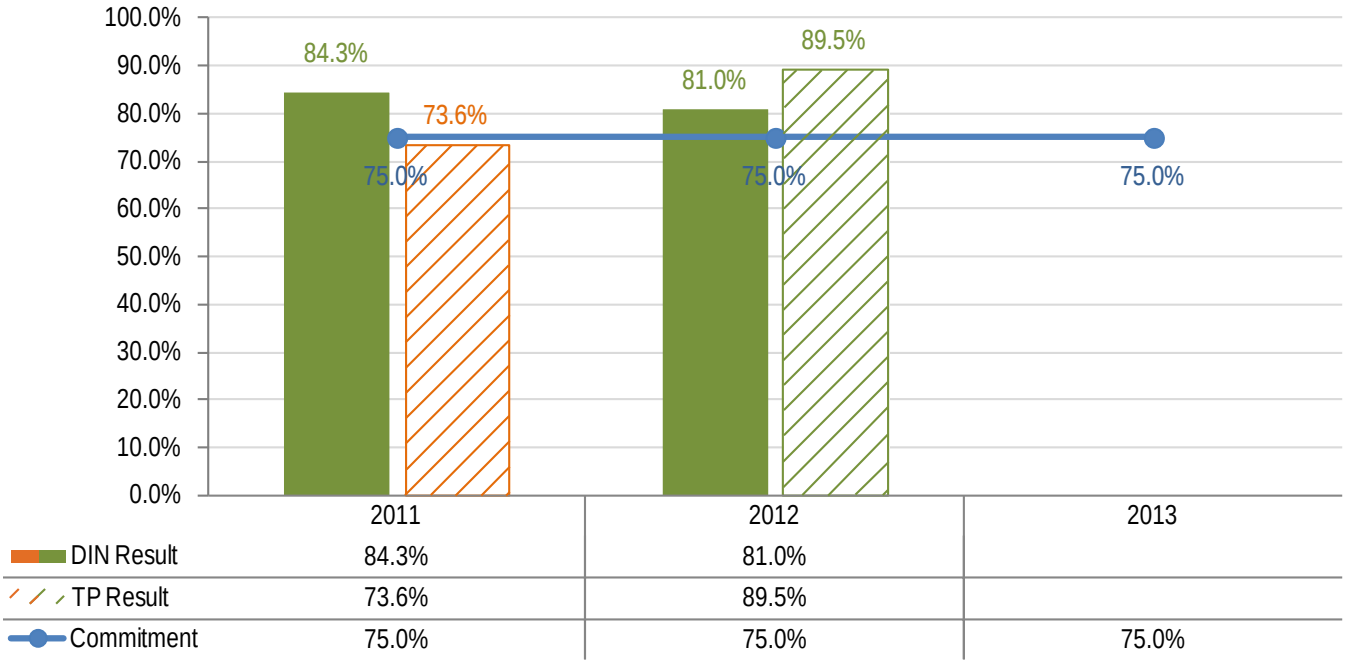
Figure 85: Florida Keys National Marine Sanctuary CHLA and Light Clarity (KD) Levels by Fiscal Year (SFL-SP47a)



	2011	2012	2013
CHLA Result	75.0%	70.9%	
KD Result	85.4%	72.5%	
Commitment	75.0%	75.0%	75.0%

In FY 2012, 810 of 1,000 stations exhibited DIN levels less than or equal to 0.75 µM, for an 81% result that meets the annual commitment. TP numbers also achieved the measure commitment of 75%, with 896 of 1,001 stations meeting the target, for a result of 89.5% (Figure 86). Note that the FY 2012 results indicate a gradual improvement in water quality over the previous five-year (2007–2012) average of 77% of stations meeting TP levels of .25 µM or less. While yearly excursions from meeting water quality targets are expected, the trend in the long-term monitoring program is toward documentable total nitrogen and TP water quality improvement. From the data, the trend coincides with implementation of improved wastewater management, but further investigation is required.

Figure 86: Florida Keys National Marine Sanctuary Dissolved Inorganic Nitrogen (DIN) and Total Phosphorus (TP) Levels by Fiscal Year (SFL-SP47b)



	2011	2012	2013
DIN Result	84.3%	81.0%	
TP Result	73.6%	89.5%	
Commitment	75.0%	75.0%	75.0%

For the fifth consecutive year, EPA and its partners failed to meet the water quality goal for the Everglades ecosystem, as measured by the annual TP concentration of 10 parts per billion (ppb). Inflow phosphorus concentrations to the Everglades continue to exceed the 10 ppb criterion, in spite of significant progress over the past five years. A major factor in the failure to meet the water quality goal is that point source controls and the storage treatment wetlands areas are not adequate for treating all water to the discharge limits. In recognition of this, in September 2012, Florida issued a revised NPDES permit and Consent Order for the storage treatment areas. The permit includes a new protective water-quality-based discharge limit for phosphorus and requires additional phosphorus control measures that are projected to cost about $900 million.

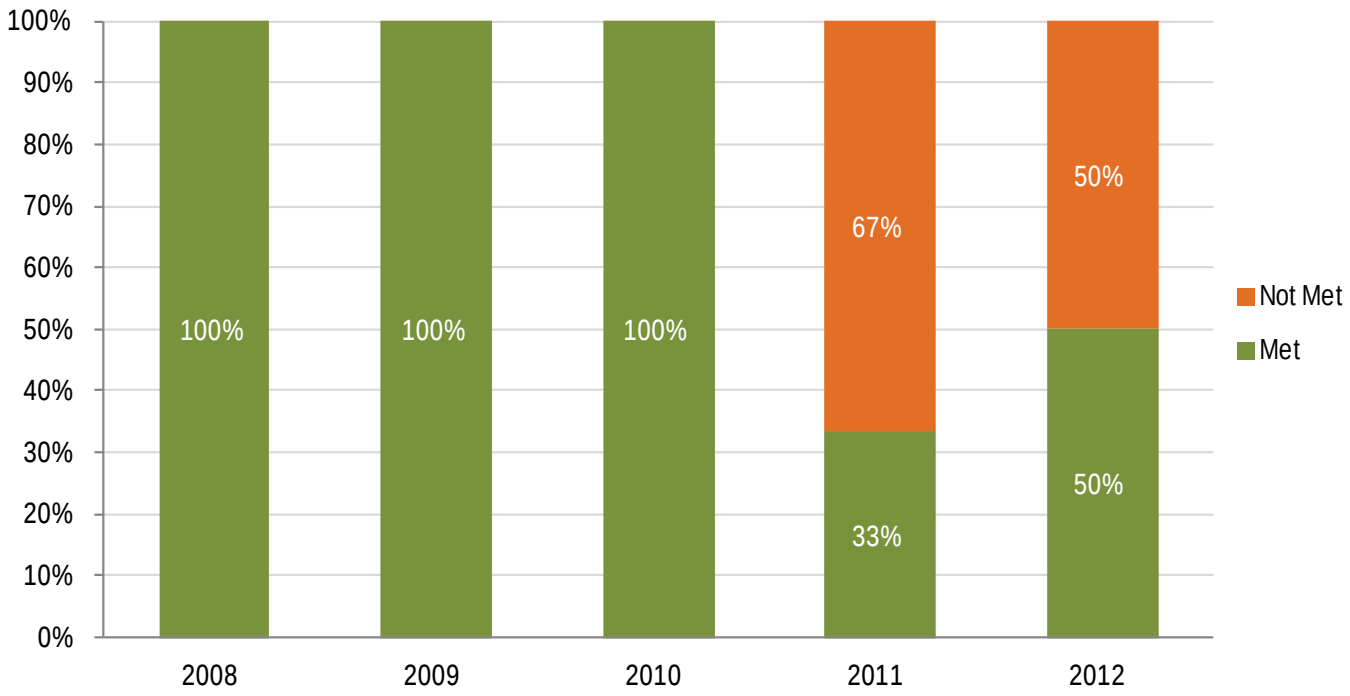
In FY 2012, EPA and its South Florida partners saw a 13.1% increase over the past year in sewage treatment facilities and onsite sewage treatment and disposal systems receiving advanced wastewater treatment (AWT) or best available technology (BAT), as recorded by equivalent dwelling units (EDUs). The increase in EDUs by 13.1% (or 5,505) significantly exceeded the 2% (or 1,500) increase in EDUs annually called for by the EPA strategic target, as well as the overall goal to provide AWT or BAT sewage treatment throughout the Florida Keys by December 31, 2015.

In the past 10 years, the city of Key West has moved to advance wastewater treatment and eliminate its outfall. In addition, EPA designated all state waters of the Florida Keys a no-discharge zone to eliminate sewage discharge from vessels. Moreover, septic tank/cesspit issues are being eliminated (63.5% complete) as homeowners and businesses connect to advanced wastewater treatment systems as they come online. EPA and its partners have been able to make such aggressive moves based on the strong science from an effective monitoring program and a series of special studies.

Subobjective: Puget Sound

EPA met one of its two commitments for the Puget Sound subobjective in FY 2012 (Figure 87).

Figure 87: Puget Sound Subobjective Five-Year Trend



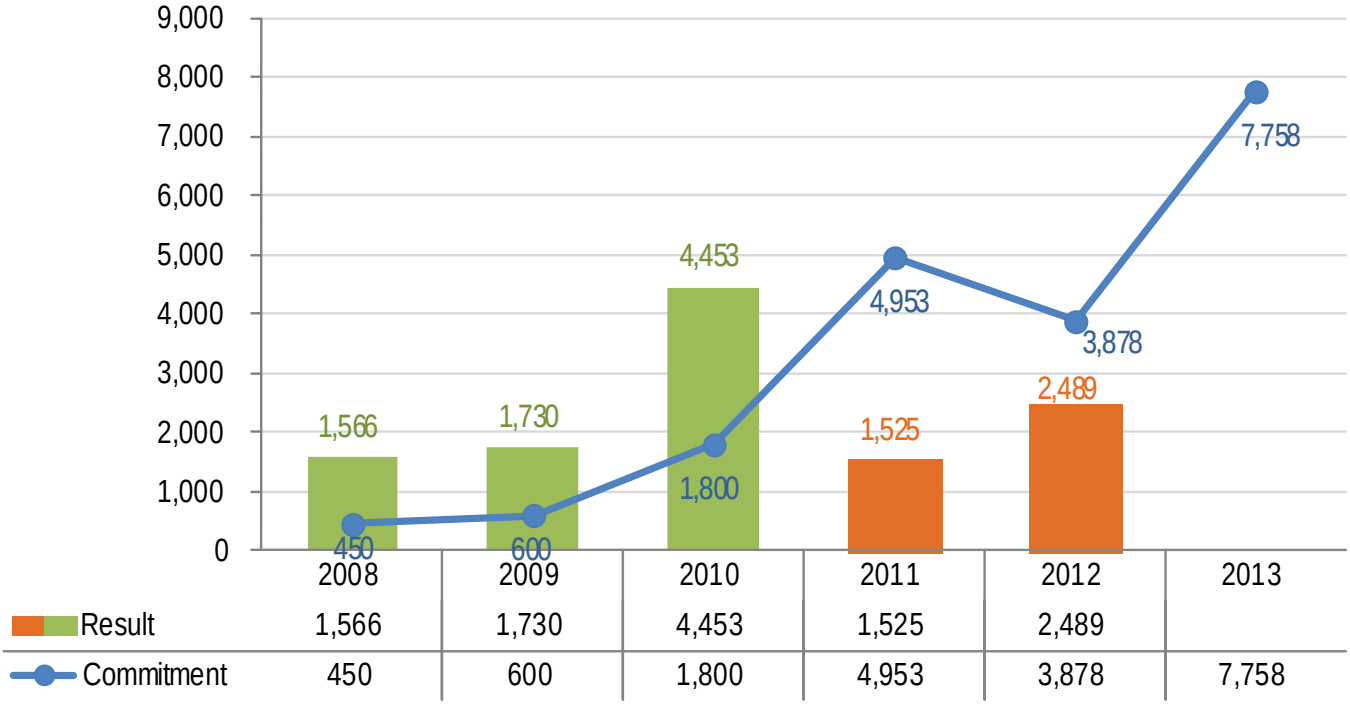
FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status: = Met; = Not Met; = Data Not Available; = Indicator/Long-Term (No Commitment); = Measure Did Not Exist	2007	2008	2009	2010	2011	2012	Appendix Page Number (D-0)/ Figure Number
Subobjective 2.2.8 Restore and Protect the Puget Sound									
PS-SP49.N11	Number acres of Puget Sound shellfish areas improved (cumulative)			1,566	1,730	4,453	1,525	2,489	D-61/Fig.88
PS-SP51	Number acres of Puget Sound estuarine wetlands restored (cumulative)			4,413	5,751	10,062	14,629	23,818	D-61

EPA's Puget Sound program works to ensure that the natural, cultural, and economic benefits of the Puget Sound ecosystem are protected and sustained, today and into the future. The Puget Sound ecosystem encompasses roughly 20 rivers and 2,800 square miles of sheltered inland waters that provide habitat to hundreds of species of marine mammals, fish, and sea birds. The waters in this basin also provide a significant source of seafood for both commercial and recreational harvesters.

FY 2012 Performance Highlights and Management Challenges

The Puget Sound program missed its annual commitment to improve water quality and lift harvest restrictions in 3,878 of shellfish bed growing areas. Efforts by federal, state, and local agencies in partnership with Puget Sound tribes have resulted in better water quality on 2,489 acres of commercial and recreational shellfish harvesting area since 2007 (Figure 88). In FY 2012, these efforts resulted in an upgrade of 964 acres. Notably, in FY 2012 there were no shellfish growing area classification downgrades.

Figure 88: Increased Acres of Puget Sound Shellfish Areas by Fiscal Year (PS-SP49.N11)

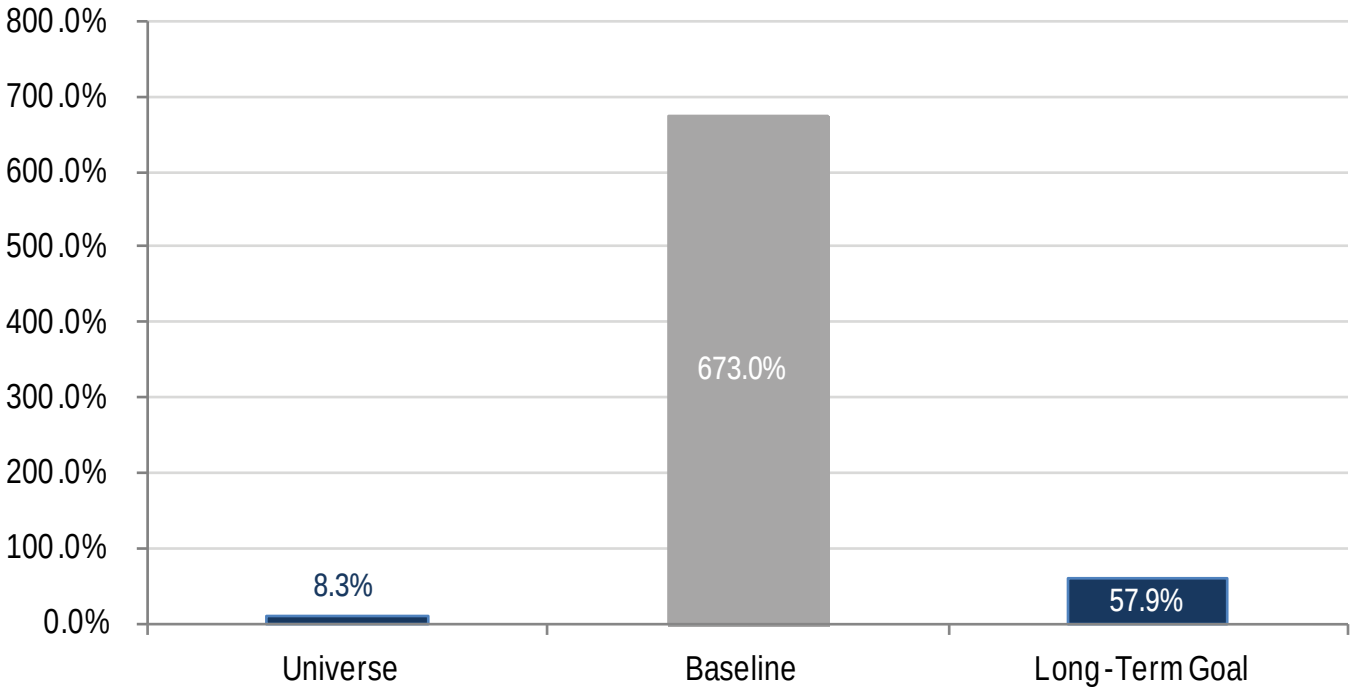


	2008	2009	2010	2011	2012	2013
Result	1,566	1,730	4,453	1,525	2,489	
Commitment	450	600	1,800	4,953	3,878	7,758

Maintaining water quality for approved shellfish harvesting is as important as obtaining upgrades for meeting the overall performance measure targets. Local projects aimed at onsite sewage system maintenance and repair, agricultural best management practice implementation, and wastewater treatment plant upgrades have helped maintain and upgrade shellfish growing areas. In particular, the program has expanded implementation of Pollution Identification and Correction (PIC) programs to 10 of the 12 counties surrounding Puget Sound. The program is addressing pathogen pollution in the near term, focusing on specific geographical locations (e.g., Samish Bay), and in the long term for the universe of potentially recoverable shellfish acres basinwide in Puget Sound.

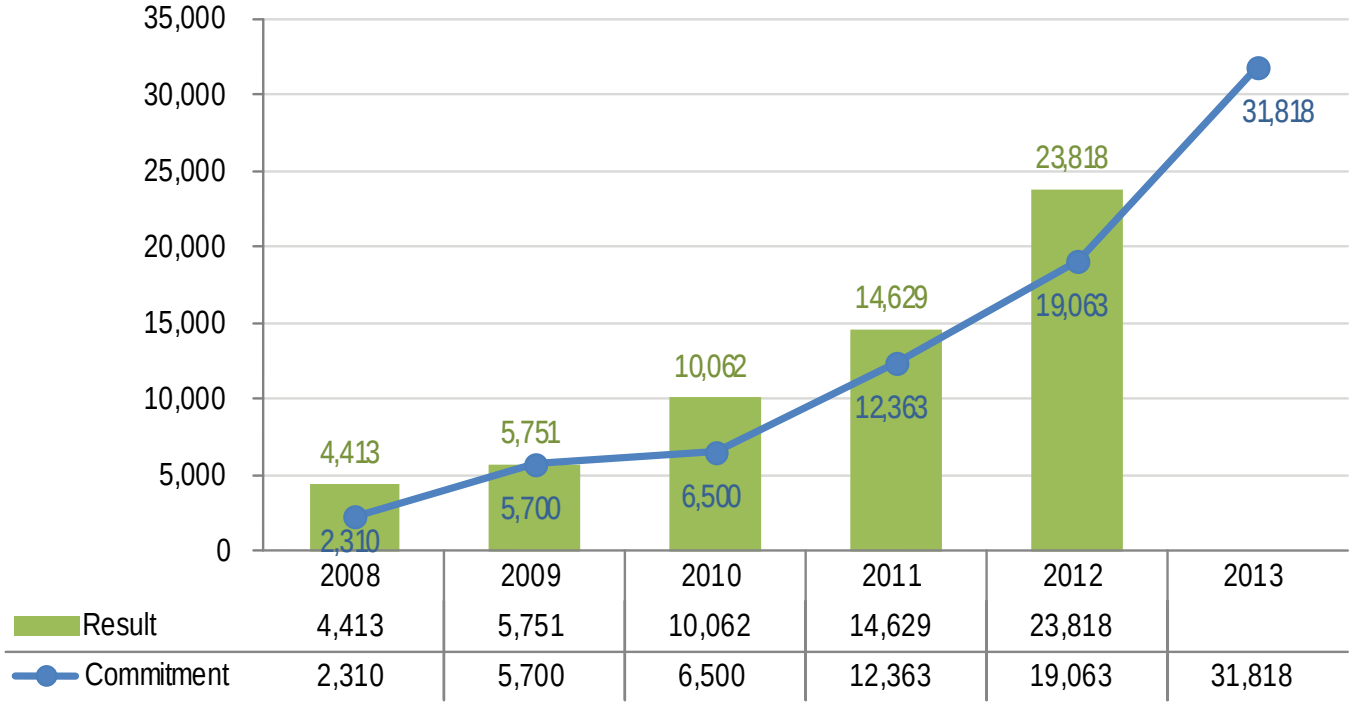
As of 2012, EPA and its partners have upgraded 8.3% of a total of 30,000 acres of shellfish beds impacted by degraded or declining water quality in the Puget Sound. This is a significant increase over the 2007 baseline of 322 acres (670%). The program has achieved approximately 58% of its FY 2015 goal of 4,300 acres of harvestable shellfish beds. With continued emphasis on pollution identification and correction, gains will be made in FY 2013 and FY 2014 that should enable the Puget Sound program to meet its five-year strategic plan goal by FY 2015 (Figure 89).

Figure 89: Increased Acres of Puget Sound Shellfish Areas as a Percent of Universe, Baseline, and Long-Term Goal (PS-SP49.N11)



Close to 24,000 acres of tidally and seasonally influenced estuarine wetlands have been restored in the Puget Sound Basin since FY 2006 (SP-51). In FY 2012, the Puget Sound program tallied an annual increase of 9,218 acres, exceeding the annual increment needed to meet the cumulative target of 19,063 acres (Figure 90). In FY 2012 the Puget Sound program was able to report an additional 6,400 acres of restored habitat associated with the removal of the Elwha Dam. This included a diverse assemblage of riverine, riparian, estuarine, and nearshore habitats. For the habitat measure in FY 2013, EPA is expecting to be able to report an additional 6,500 acres in the Elwha River basin associated with completion of the Glines Dam removal, a second dam affecting a distinct reach of the river basin. In addition, EPA is also expecting a 400-acre delta restoration project in the Snohomish River basin to be implemented. These projects, in conjunction with a 1,500- to 2,000-acre cumulative result from the salmon recovery projects, should result in another 8,000 to 9,000 acres restored.

Figure 90: Restored Acres of Puget Sound Estuarine Wetlands by Fiscal Year (PS-SP51)

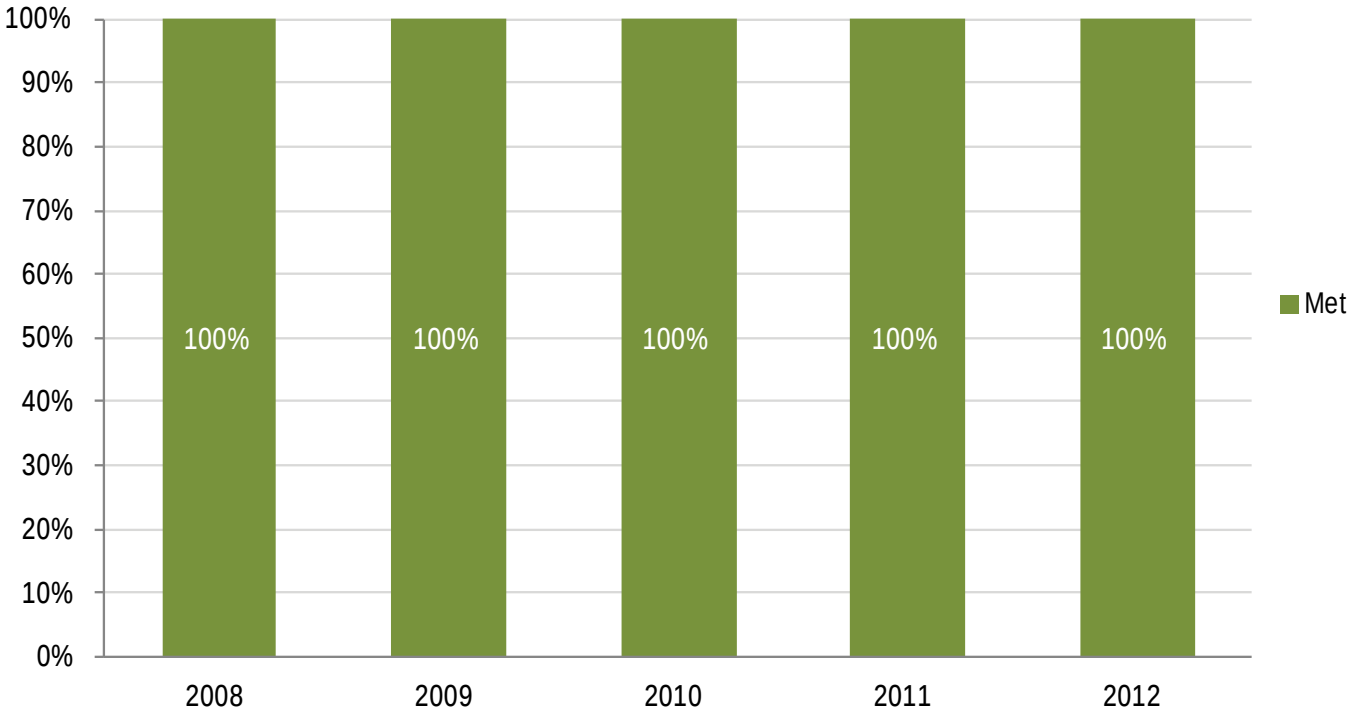


	2008	2009	2010	2011	2012	2013
Result	4,413	5,751	10,062	14,629	23,818	
Commitment	2,310	5,700	6,500	12,363	19,063	31,818

Subobjective: Columbia River

EPA met its commitment for the Columbia River subobjective and was only able to report partial results for a second measure (Figure 91).

Figure 91: Columbia River Subobjective Five-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
Subobjective 2.2.12 Restore and Protect the Columbia River Basin								
CR-SP53	Number acres Columbia River contaminated sediments cleaned up (cumulative)		0	10	20	63	79	C-68
CR-SP54	Percent reducuction Columbia River contaminants in water & fish					92%		C-68

More than 1,200 miles long, the Columbia River spans portions of Oregon, Washington, Idaho, Wyoming, Nevada, Utah, and Montana, as well as a substantial portion of British Columbia. The 260,000-square-mile Columbia River Basin includes ecosystems that are home to a variety of biologically significant plants and animals and supports industries vital to the Pacific Northwest, including sport and commercial fisheries, agriculture, transportation, recreation, and electrical power generation.

FY 2012 Performance Highlights and Management Challenges

The Columbia River Program cleaned up an additional 16 acres of contaminated sediment at the Zidell cleanup site in the Lower Columbia River in FY 2012. The program exceeded its commitment of a cumulative total of 63 acres cleaned up since FY 2006, with a total of 79 acres cleaned up as of 2012. This is a significant accomplishment for the health of the Columbia River, as sediment cleanup is complicated and takes time. These cleanups provide a significant contribution to reducing toxics in the Columbia River.

Over the past few years, EPA has measured the reduction in contaminants of concern in the water column and fish in the Columbia River. Originally, the Agency selected five sites in the Columbia River basin to monitor, but because of limited resources, the program was only able to monitor at the West Prong Little Walla Walla River site (South of Stateline Road, Oregon) in FY 2012. At this site, there was a 95% decrease in the average and maximum detection levels between 2006 (baseline year) and 2011 for Chlorphyrifos and 100% reduction in azinphos-methyl. No data are available for the other sites.

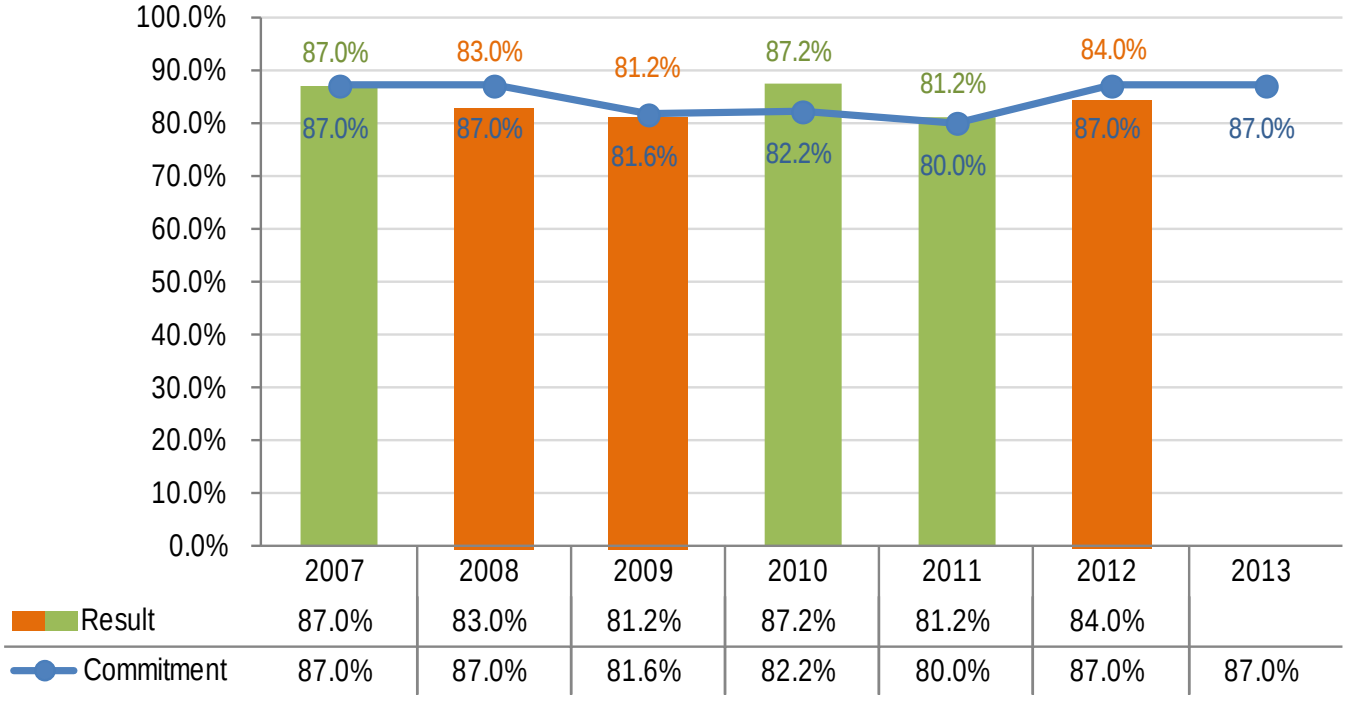
American Indian Drinking Water and Water Quality FY 2012 Performance

Drinking Water

An important priority for the National Water Program is to ensure that drinking water consumers in Indian Country receive public health and environmental protection through sustained PWS compliance with the National Primary Drinking Water Regulations (NPDWRs). EPA's Office of Water has three measures for tracking the safety of drinking water for tribes: percent of population in Indian Country receiving safe drinking water (SP-3), number of American Indian Alaska Native homes provided access to safe drinking water (SDW-18), and the number CWSs undergoing sanitary surveys (SDW-1b). EPA met one of the three commitments for these measures in FY 2012.

EPA failed to achieve its national target for the percentage of the population in Indian Country served by CWSs that receive drinking water meeting all applicable health-based standards. The performance of this measure has been impacted in various regions by the Total Coliform Rule, Stage 1 Disinfection By-Products Rule, and Nitrates Rule violations, as well as by data correction to address reporting problems. (SP-3) (Figure 92).

Figure 92: Population Served by CWSs in Indian Country by Fiscal Year (SDW-SP3.N.11)



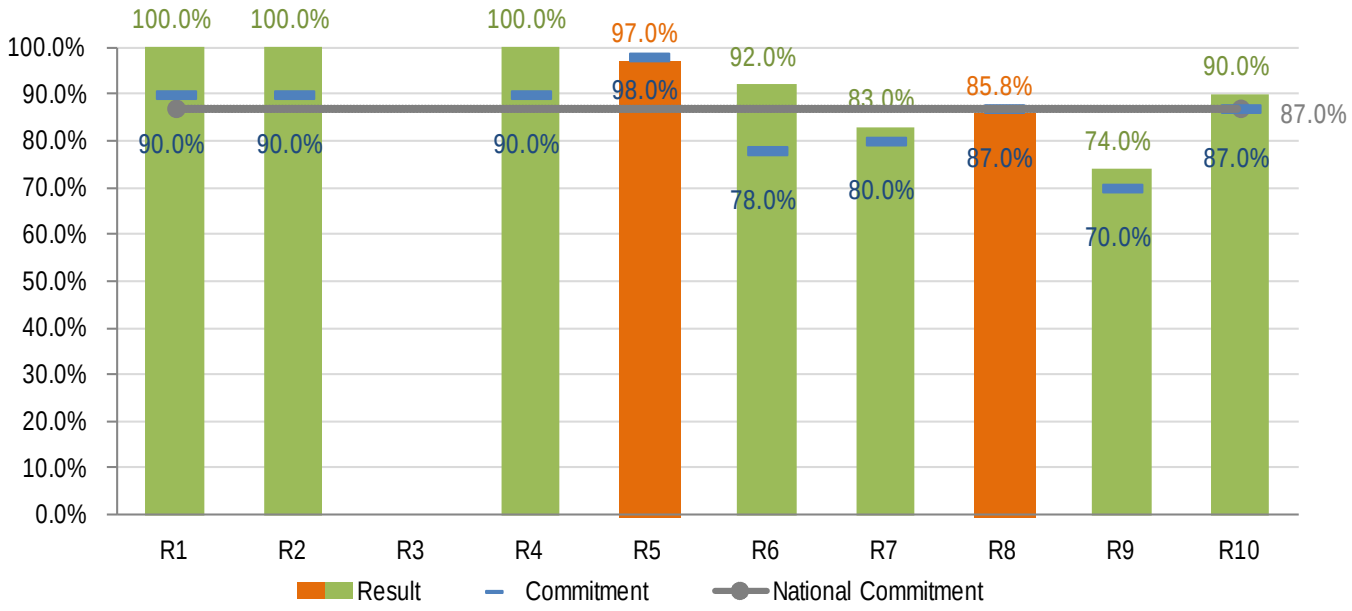
	2007	2008	2009	2010	2011	2012	2013
Result	87.0%	83.0%	81.2%	87.2%	81.2%	84.0%	
Commitment	87.0%	87.0%	81.6%	82.2%	80.0%	87.0%	87.0%

FY 2011 Universe: 918,668 people

Eight of the nine regions with Safe Drinking Water Act direct implementation responsibility in Indian Country met or exceeded their individual commitments for this measure in 2012 (Figure 93). EPA is undertaking action to market potential resource availability for addressing infrastructure shortfalls by:

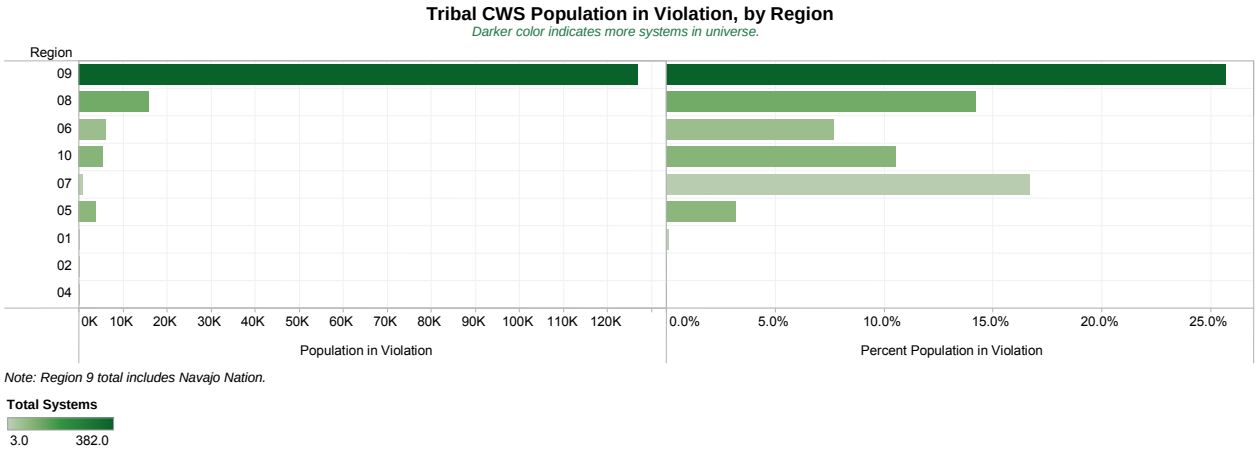
- Updating the Drinking Water Infrastructure Grants Tribal Set-Aside (DWIG-TSA) program guidelines to:
  1. Clarify the goal and priorities of the program to focus on compliance
  2. Changing the national funds allocation to ensure that funds are targeted to the Agency's strategic goals and priorities.
  3. Strengthening the project funding selection process to ensure that tribes have the technical, managerial, and financial capacity to operate the drinking water infrastructure funded by the program.
- Summarizing DWIG-TSA and PWSS program data in an annual report starting in FY 2014 to improve transparency and strategic coordination of the programs.
- Continuing communication with all partners via the tribal infrastructure task force (ITF) and biannual discussions with EPA regions that focus on clarifying collected data for use in communicating program achievements.

Figure 93: Population Served by CWSs in Indian Country (SDW-SP3.N11) by Region for FY 2012



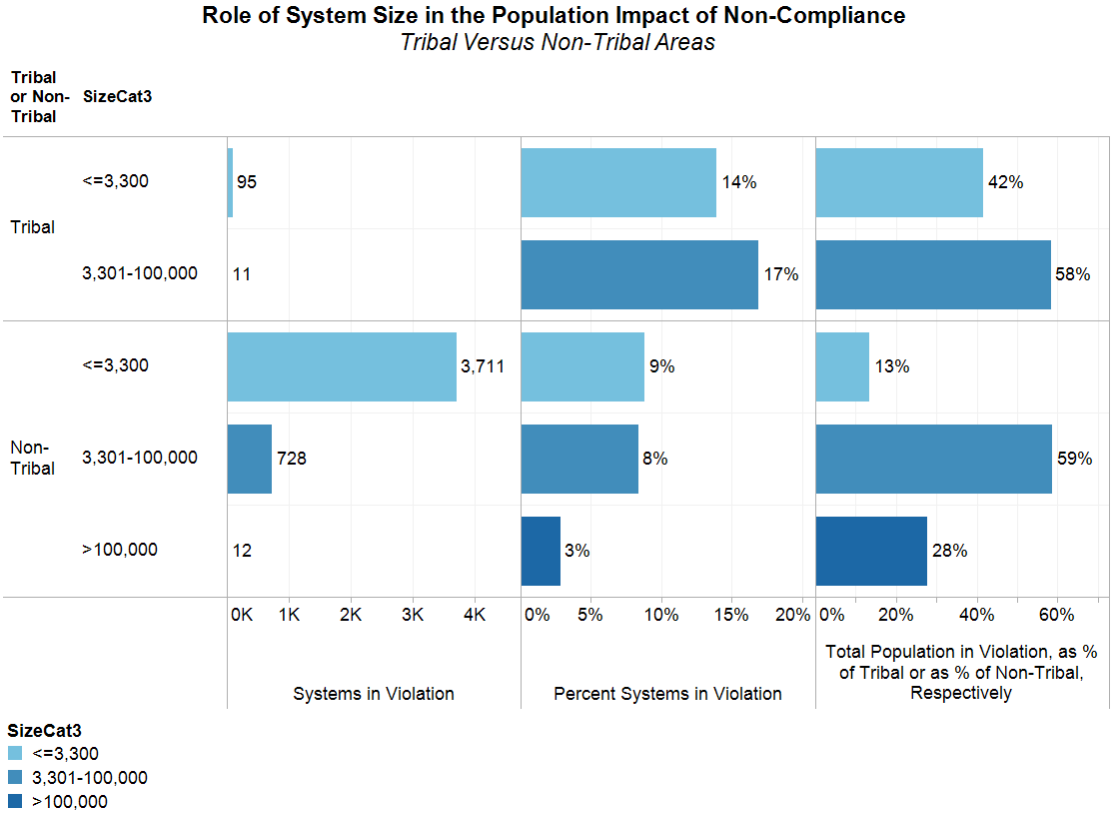
Another perspective of tribal compliance is the tribal population in violation and the percent population in violation by region. In the figure below (Figure 94), the focus is on noncompliance (total population in violation) rather than compliance, and it shows the degree to which each region contributes to national noncompliance (and consequently, the result for measure SP-3). Region 9 (including Navajo Nation) and, to a lesser extent, Region 8 dominate the tribal population served by community water systems (CWSs) in violation. Region 7 tribes have a relatively high percent of population in violation (17%) but a small number of CWS (nine). The bar color indicates the number of CWSs.

Figure 94: Tribal CWS Population in Violation by Region



The size of tribal and non-tribal public water systems can have an impact on the percentage of populations receiving drinking water from systems that are in noncompliance.,The vast majority of systems that are in violation for tribal and non-tribal populations are small systems. For tribal systems, a larger share of the medium systems are in violation (17%) compared to the small systems (14%). For non-tribal systems, a slightly larger percentage of the small systems (9%) are in violation compared to the medium non-tribal systems (8%). Fifty-eight percent of the tribal population affected by violations is served by medium systems which is more than the percent of tribal population in violation served by small systems (42%). And finally, 59% of the non-tribal population affected by violations is served by medium systems which is significantly more than the percent of non-tribal population affected by violations that is served by small systems (13%). (Figure 95)

Figure 95:

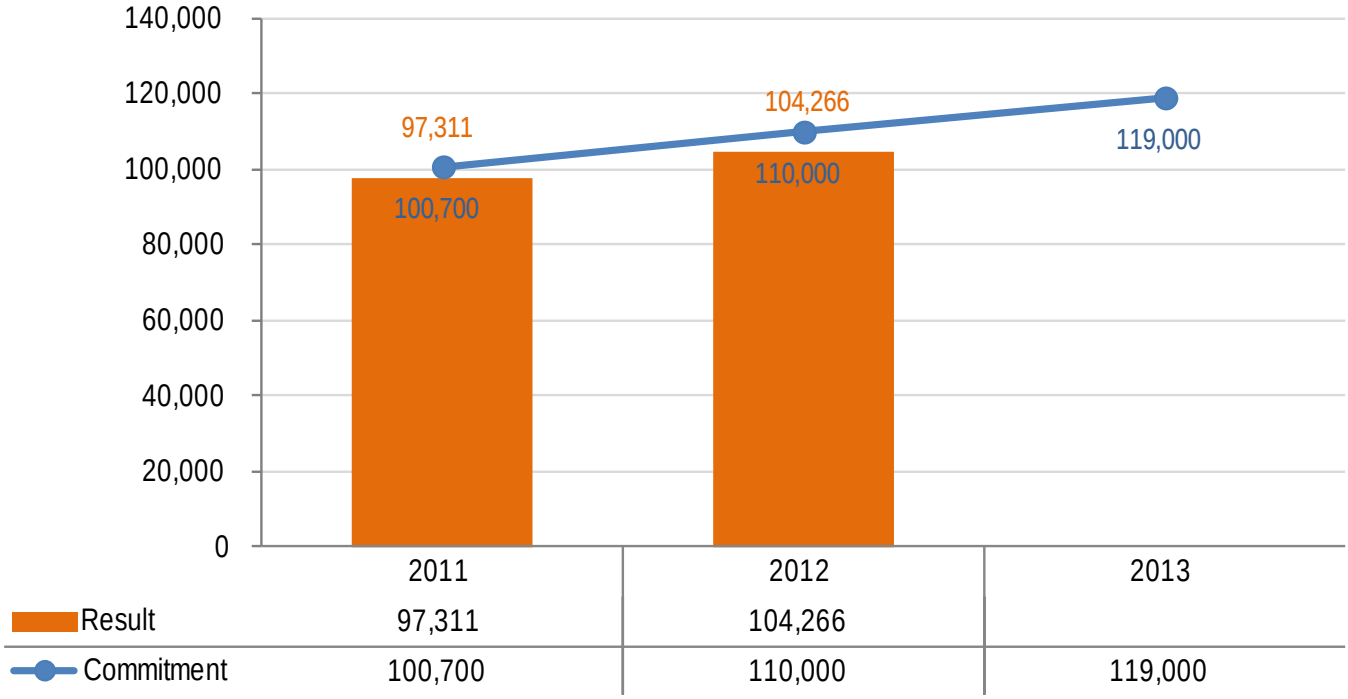


This figure illustrates that there may be bang-for-the-buck opportunities in pursuing medium-sized systems, which account for a modest share of all systems (not shown) but a large share of the population in violation. Their role relative to that of small systems is more prominent than is often understood. This goes for both tribal and non-tribal systems. Another important fact is that small tribal systems have a higher noncompliance rate than small non-tribal systems (14% vs. 9%). This is revealing in the fact that it is often claimed that higher tribal noncompliance rates compared to non-tribal noncompliance is due to small systems. Further research is necessary to determine why small tribal systems perform worse than small non-tribal systems.

In the second year of reporting, EPA, in coordination with other federal agencies, fell just short of reaching its FY 2012 commitment of achieving 110,000 American Indian and Alaska Native homes with access to safe drinking water (SDW-18) (Figure 96). The result is due to a 20% drop in Indian Health Service and EPA tribal funding for water and wastewater infrastructure and an increase in the average unit cost to provide drinking water access to homes.

Although this program measure missed its commitment, EPA and its partners are making progress toward decreasing the number of homes that lack access to safe drinking water. At the end of FY 2012, the Indian Health Service reported that there were 30,275 tribal homes lacking access to safe drinking water in Indian Country, or 7.4% of the total number of homes in Indian Country. This represents the lowest percentage of homes lacking access to safe drinking water since EPA began tracking this program indicator in 2003.

Figure 96: Homes on Tribal Lands Lacking Access to Safe Drinking Water by Fiscal Year (SDW-18.N11)



Universe: 360,000 homes (2011)

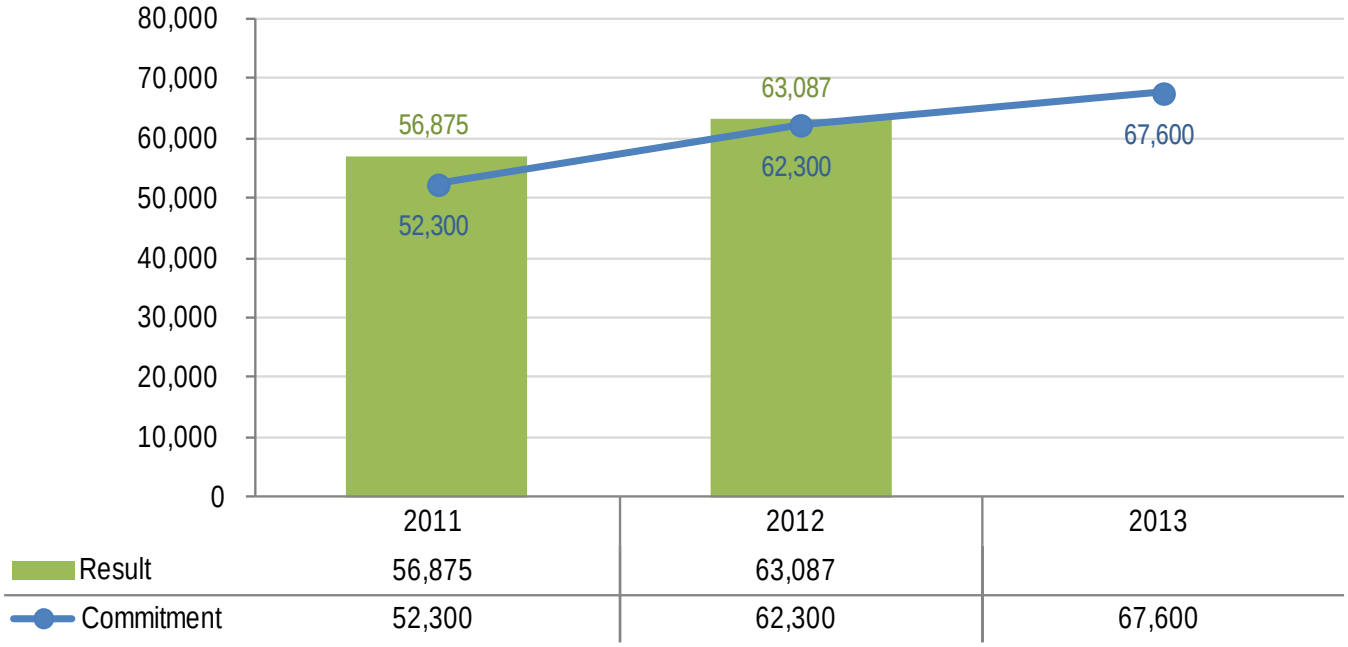
For the fifth year in a row, EPA has met its annual commitment for the percent of CWSs that have undergone a sanitary survey within the past three years, as required under the Interim Enhanced and Long-Term I Surface Water Treatment Rules. Eighty-two tribes underwent a sanitary survey in FY 2012, which was above the commitment of 76 tribes (SDW-1b). Note, however, that universe for this commitment measure over the past five years only represents 12.3% of the total systems and serves just 27% of the population. The universe for this measure is likely to increase significantly next year, however, as ground-water-based CWSs will be added to the number of systems that will potentially need to undergo sanitary surveys.

Water Quality

The National Water Program has six measures for tracking access to basic sanitation on American Indian lands and assessing the quality of tribal water quality programs. These include the number of American Indian and Alaska Native homes provided access to basic sanitation (WQ-24), the number of tribes with water quality standards (WQS) approved (WQ-2), the number of tribes submitting water quality criteria acceptable to EPA (WQ-3b), the number of tribes implementing monitoring strategies (WQ-6a), the number of tribes providing water quality data in an accessible format (WQ-6b), and the percent of current tribal NPDES permits (WQ-12b). The Office of Water met its commitments for all of these measures in FY 2012.

EPA, in coordination with other federal agencies, exceeded the FY 2012 commitment of providing access to basic sanitation to nearly 63,000 American Indian and Alaskan Native homes (Figure 97). In FY 2012, EPA continued to enhance the working tribal water infrastructure relationships with the Indian Health Service, USDA, and Department of Housing and Urban Development. EPA led the coordination of the ITF, composed of four federal agencies and tribal representatives addressing the severe infrastructure needs in Indian Country. Challenges remain, given that 12% of tribal homes are without water and/or wastewater service compared to 0.6% non-tribal homes.

Figure 97: Number of American Indian and Alaska Native Homes with Access to Basic Sanitation by Fiscal Year (WQ-24.N11)

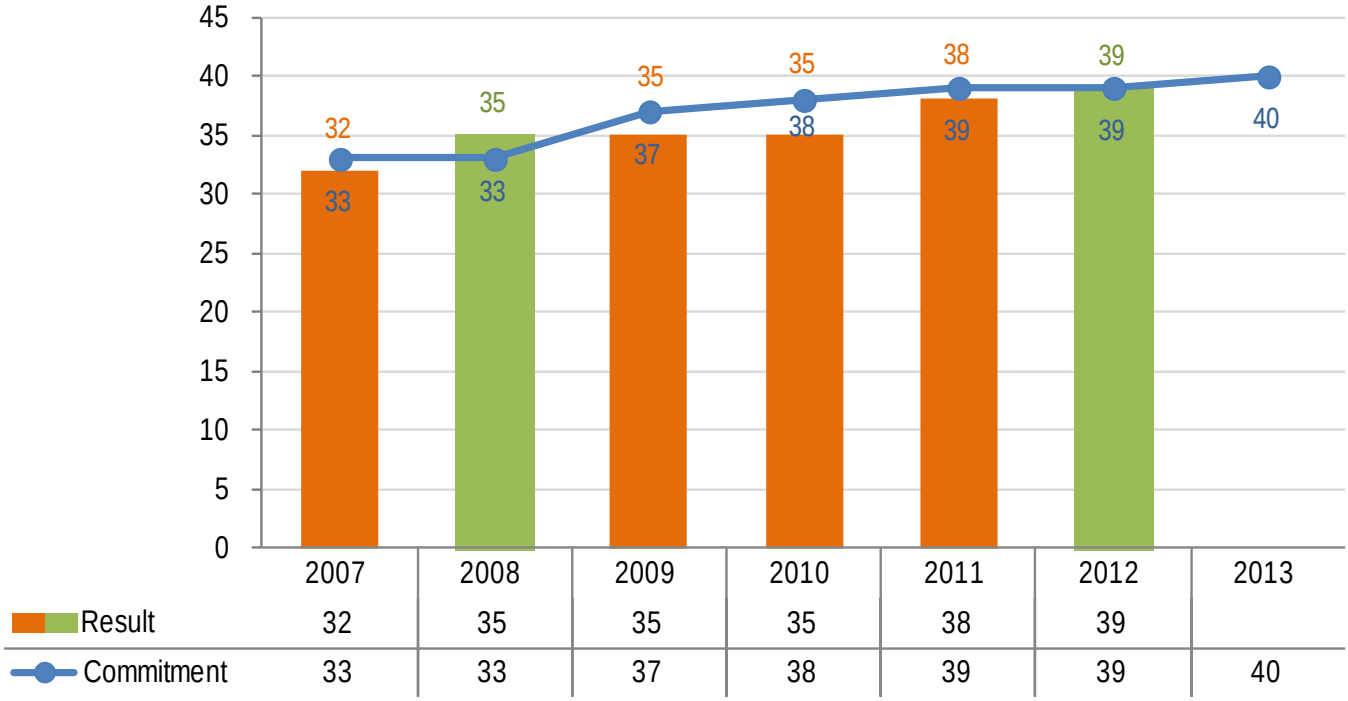


	2011	2012	2013
Result	56,875	63,087	
Commitment	52,300	62,300	67,600

Universe: 383,674 homes (2010)

EPA is committed to assisting any tribe interested in adopting WQS under the CWA (WQ-2). Meeting the eligibility criteria and developing the detailed standards can be a challenge for tribes and often requires them to spend some time and collaborate with EPA. Not all tribes can meet the criteria or want WQS authority. For this measure, therefore, the universe reflects all federally recognized tribes that have applied for "treatment in the same manner as a state" (TAS) to administer the WQS program (as of September 2009). In FY 2012, EPA met its annual goal by approving standards for 39 tribes (Figure 98).

Figure 98: Tribes with Water Quality Standards Approved by Fiscal Year (WQ-02)



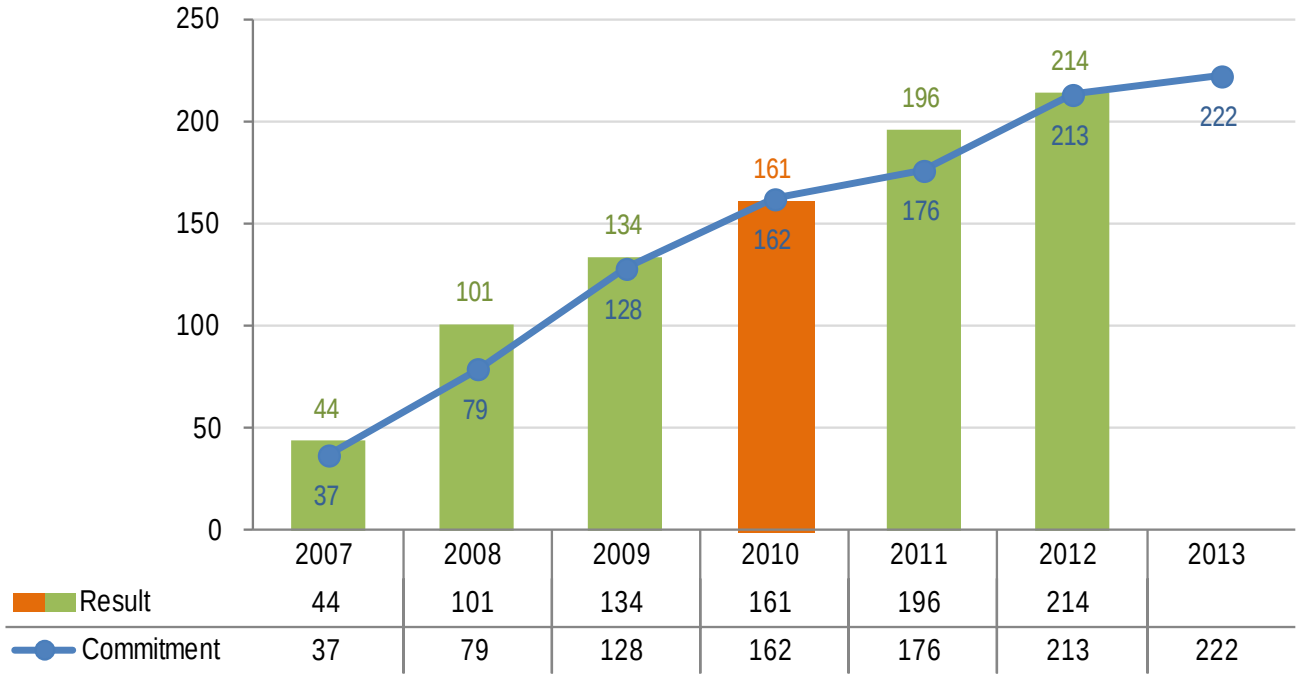
	2007	2008	2009	2010	2011	2012	2013
Result	32	35	35	35	38	39	
Commitment	33	33	37	38	39	39	40

Universe: 62 tribes

Tribes continue to develop and implement their ambient water quality monitoring strategies. In FY 2012, 214 tribes that currently receive funding under CWA Section 106 developed and began implementing monitoring strategies. This was an increase of 18 tribes over the FY 2011 results and was slightly above the FY 2012 commitment of 213 tribes (WQ-6a) (Figure 99). Meeting this measure continues to be challenging as additional tribes apply for Section 106 grants and the amount of tribal set-aside funds remains the same.

One of the most important factors contributing to the success of tribal monitoring and assessment programs is improved tools for data submission. One hundred and eighty-four (184) tribes are providing water quality data in a format accessible for storing in EPA's data system. This is above the FY 2012 commitment of 178 tribes (WQ-6b). In FY 2012, EPA and tribes began reporting on a new indicator measure tracking water quality improvements at tribal monitoring stations. Fifteen stations demonstrated improvements in one or more of seven key water quality parameters.

Figure 99: Tribes That Have Implemented Monitoring Strategies by Fiscal Year (WQ-06a)

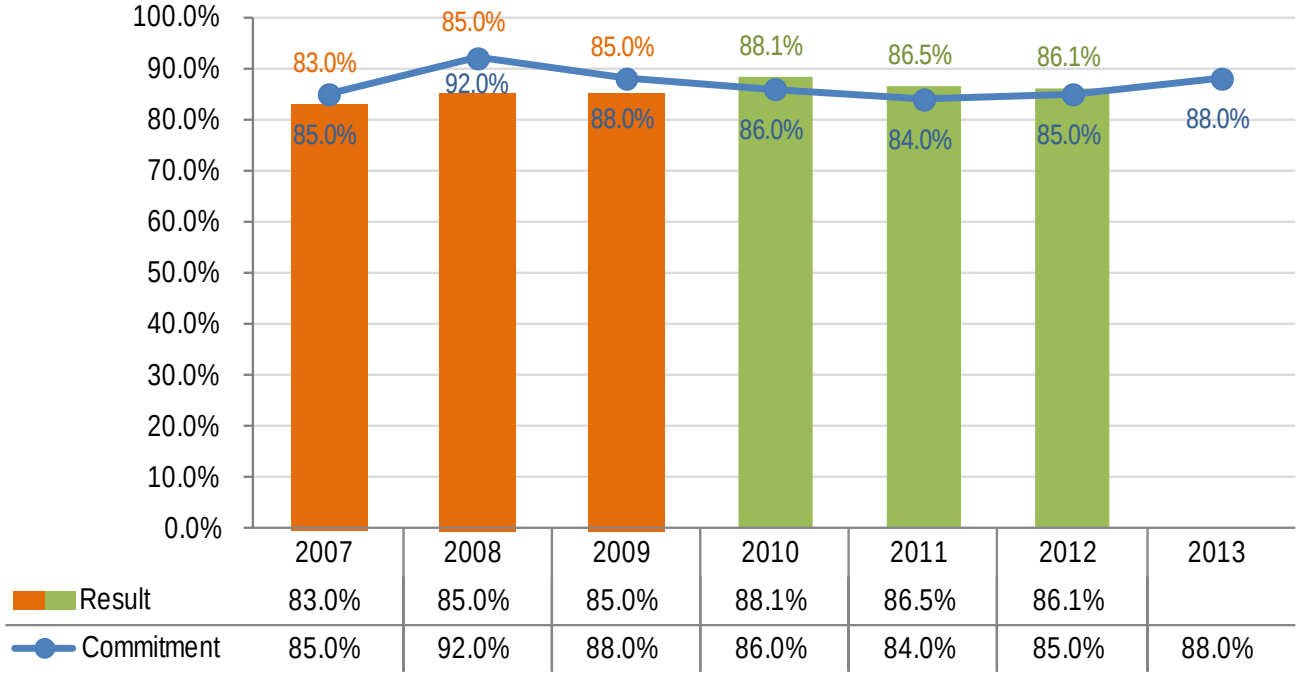


	2007	2008	2009	2010	2011	2012	2013
Result	44	101	134	161	196	214	
Commitment	37	79	128	162	176	213	222

Universe: 261 tribes

In the past, EPA struggled to meet annual commitments for keeping tribal NPDES permits current, but since 2010, EPA has met its commitments each year. In FY 2012, permits for 86% of tribal facilities were considered current, which was slightly above the national goal of 85% (WQ-12b) (Figure 100).

Figure 100: Tribal NPDES Permits Considered Current by Fiscal Year (WQ-12b)

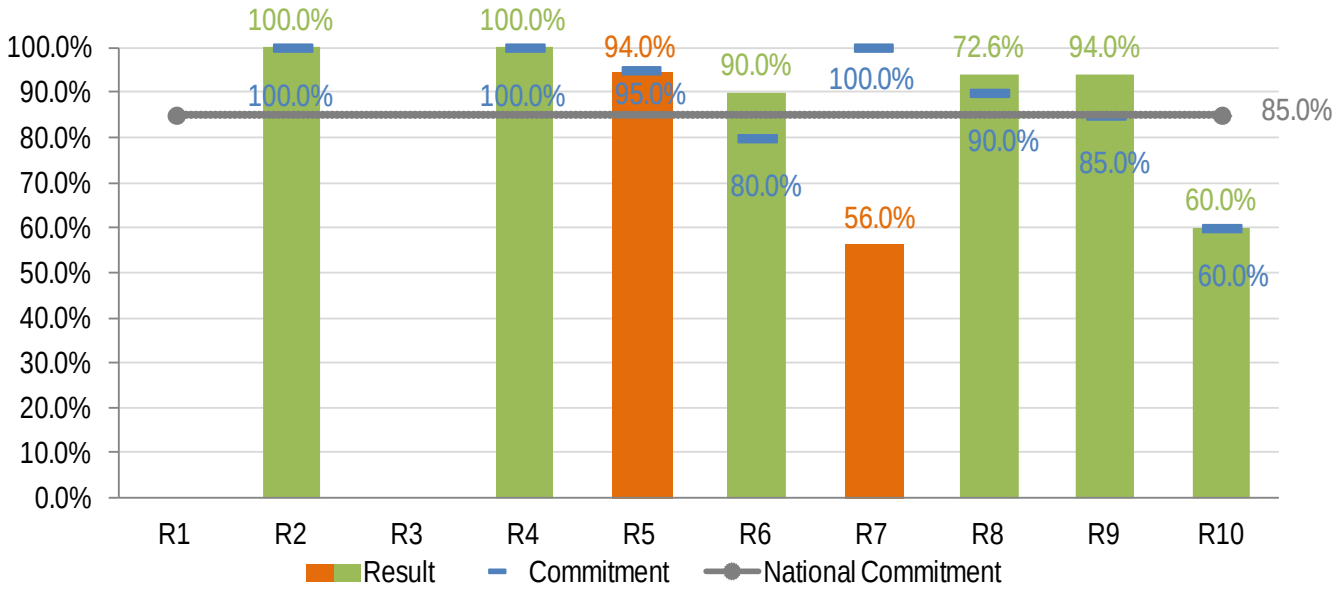


	2007	2008	2009	2010	2011	2012	2013
Result	83.0%	85.0%	85.0%	88.1%	86.5%	86.1%	
Commitment	85.0%	92.0%	88.0%	86.0%	84.0%	85.0%	88.0%

Universe: 412 tribal facilities

Overall, EPA regional offices maintained a strong performance and met the national commitment. While two regions did not meet FY 2012 commitments, one region missed its commitment by just two permits. In Region 7, a pending resolution between EPA and Kansas on methodologies and procedures for determining long-term bacterial limits delayed permit issuance in many cases. This issue has now been resolved and should not delay permit issuance in FY 2013. Various other permits were deactivated, had enforcement actions, or were delayed due to facility reconstruction. (Figure 101)

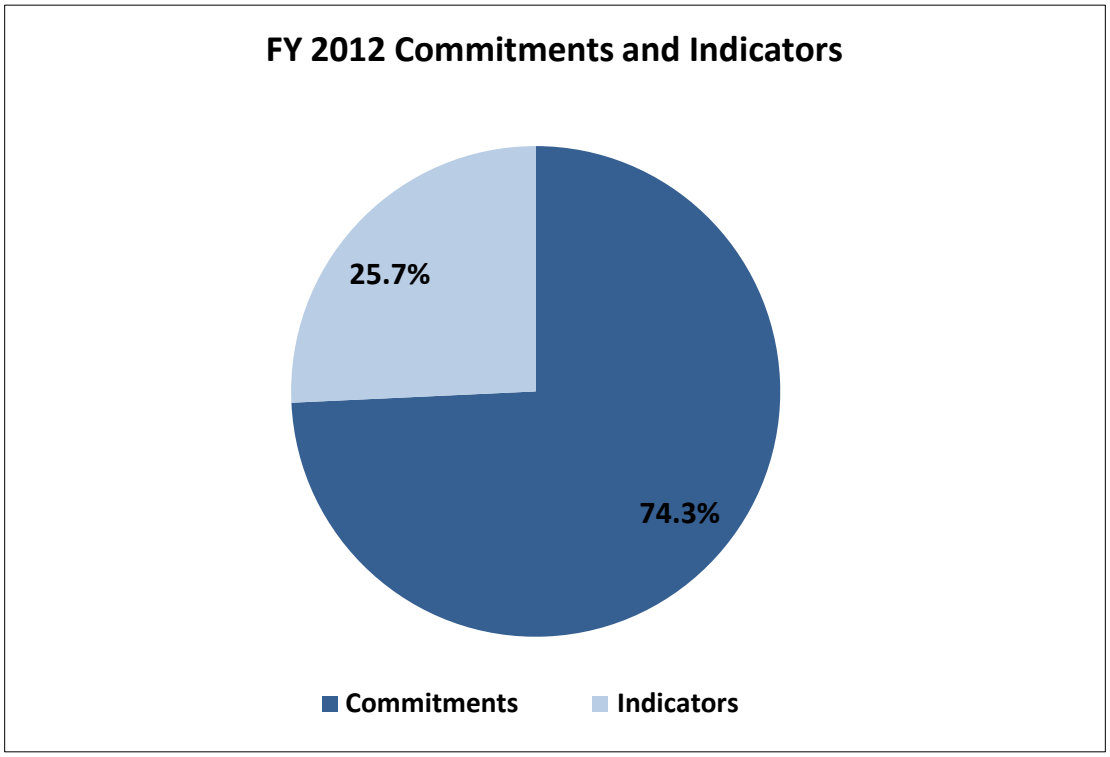
Figure 101: Tribal NPDES Permits Considered Current (WQ-12b) by Region for FY 2012



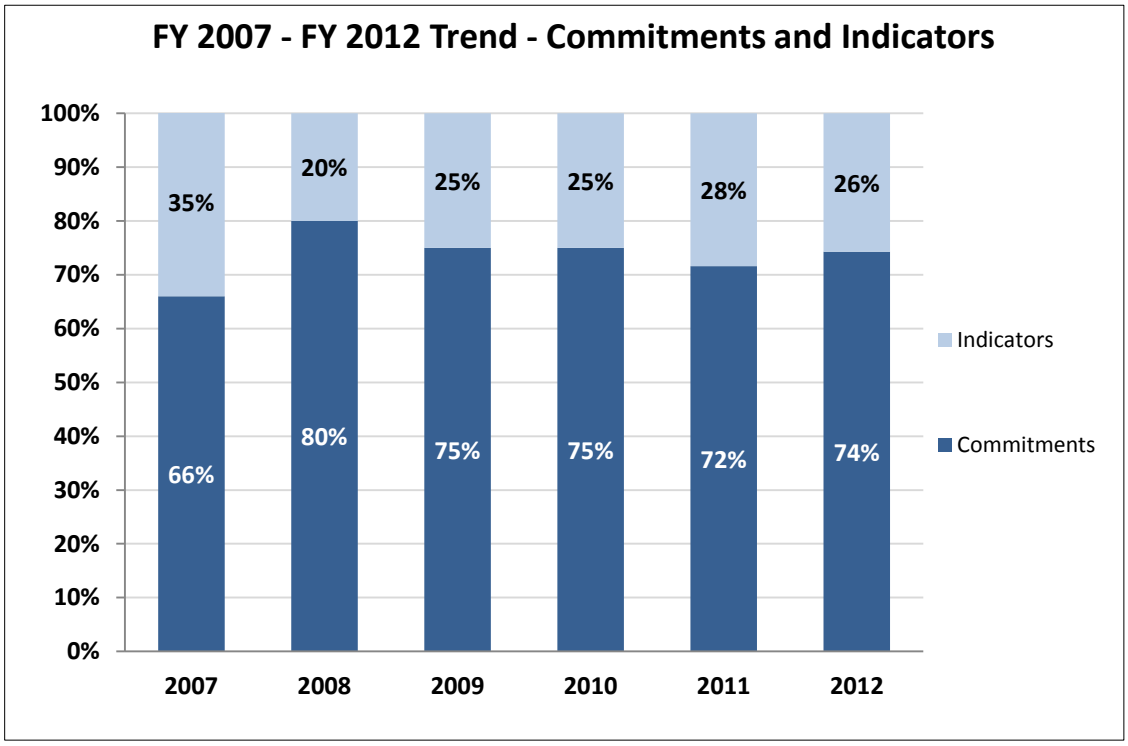
Appendix B. FY 2012 Performance Measure Universe

Total Measures by Commitments vs. Indicators

The National Water Program tracked a total of 148 performance measures in FY 2012 to assess progress in protecting the public health and the environment. Seventy-four percent (74%) of these measures had annual commitments, and approximately 26% of the measures were indicators with no commitments in 2012. The percentage of measures with annual commitments has remained fairly steady over the past three years. Final commitments are numeric goals that are established annually through negotiations among EPA Headquarters, Regional Offices, and states. Commitments for FY 2012 were published in the *National Water Program Guidance Appendix* in December 2011.[1]

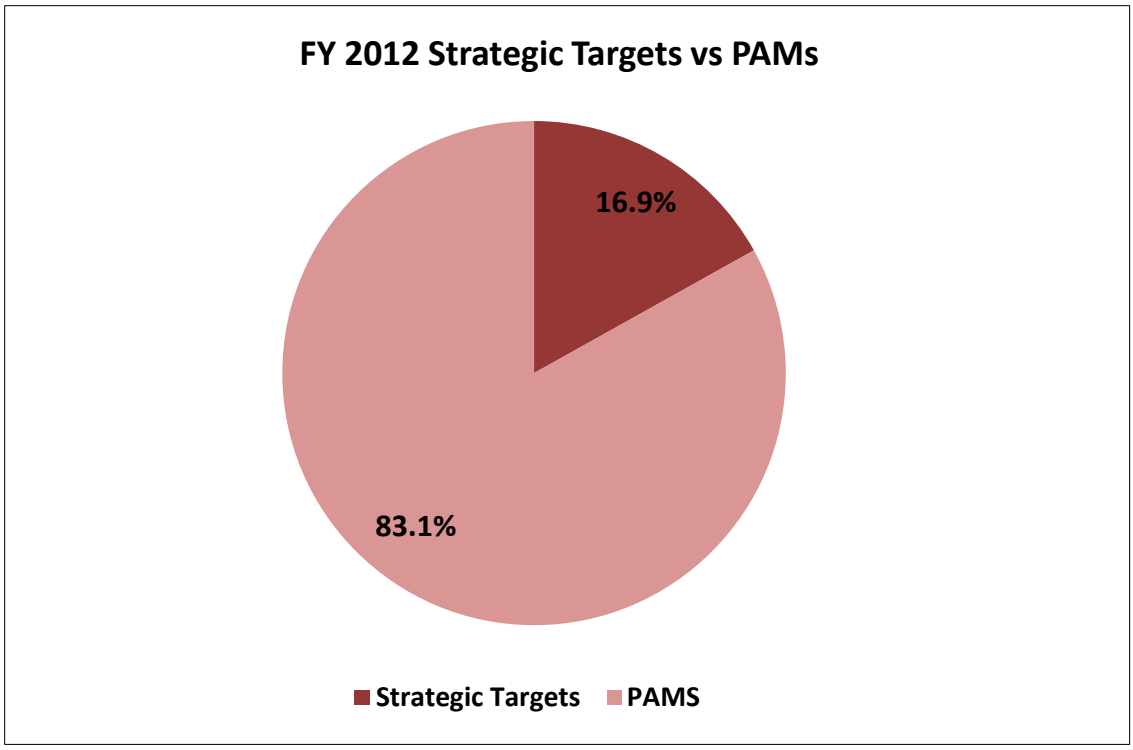


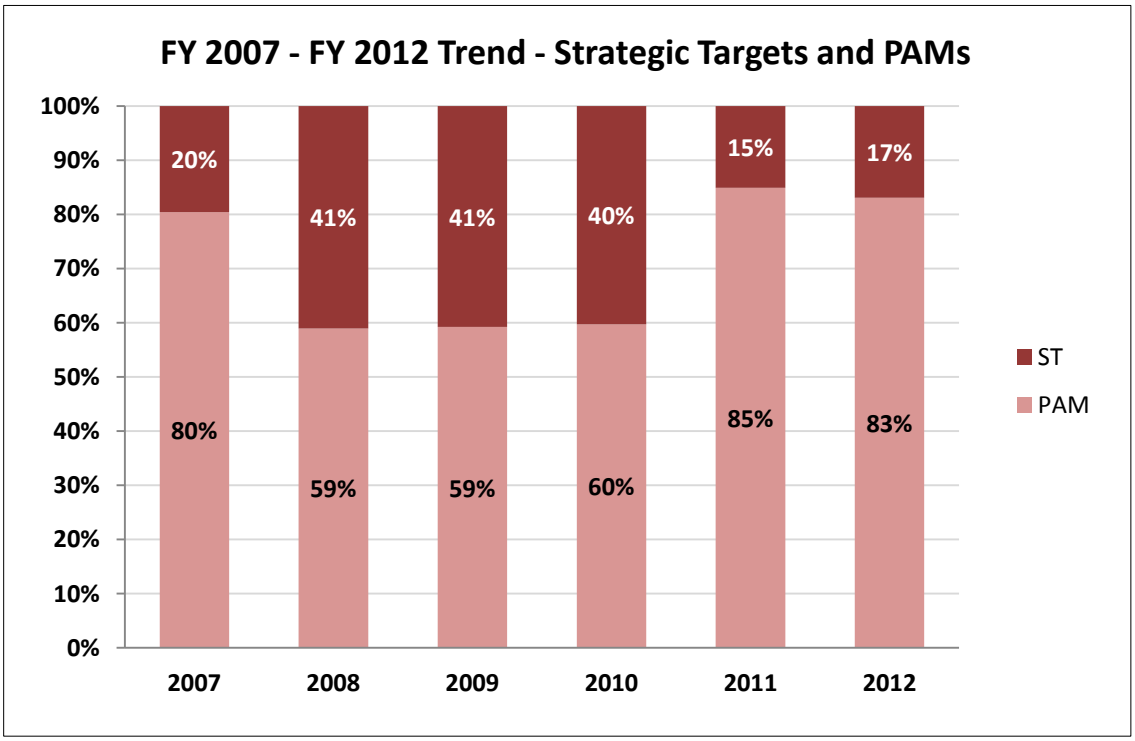
[1] National Water Program Guidance. Appendix FY 2012 Final Performance Measure Commitments, U.S. Environmental Protection Agency, Office of Water, December, 2011, http://water.epa.gov/resource_performance/planning/FY-2012-National-Water-Program-Guidance.cfm



FY 2012 Strategic Targets vs. PAMs

The National Water Program uses two types of measures to assess progress toward the goals in the *FY 2011-2015 Strategic Plan*: Strategic Targets and Program Activity Measures (PAMs). Strategic Targets are organized under individual subobjectives in the *Strategic Plan* and are outcome-based measures of changes in the environment or public health with long-term targets in most cases for FY 2014. Program Offices and Regions also set annual commitments for almost all of these measures. Strategic Targets represented about 17% of all 2012 performance measures. PAMs are primarily output-based measures that track programmatic progress on an annual basis. PAMs represented 83.1% of all measures in 2012. Notably, the number of strategic targets decreased dramatically from 59 in the *FY 2006 Strategic Plan* to 22 in the *FY 2011 Plan*.

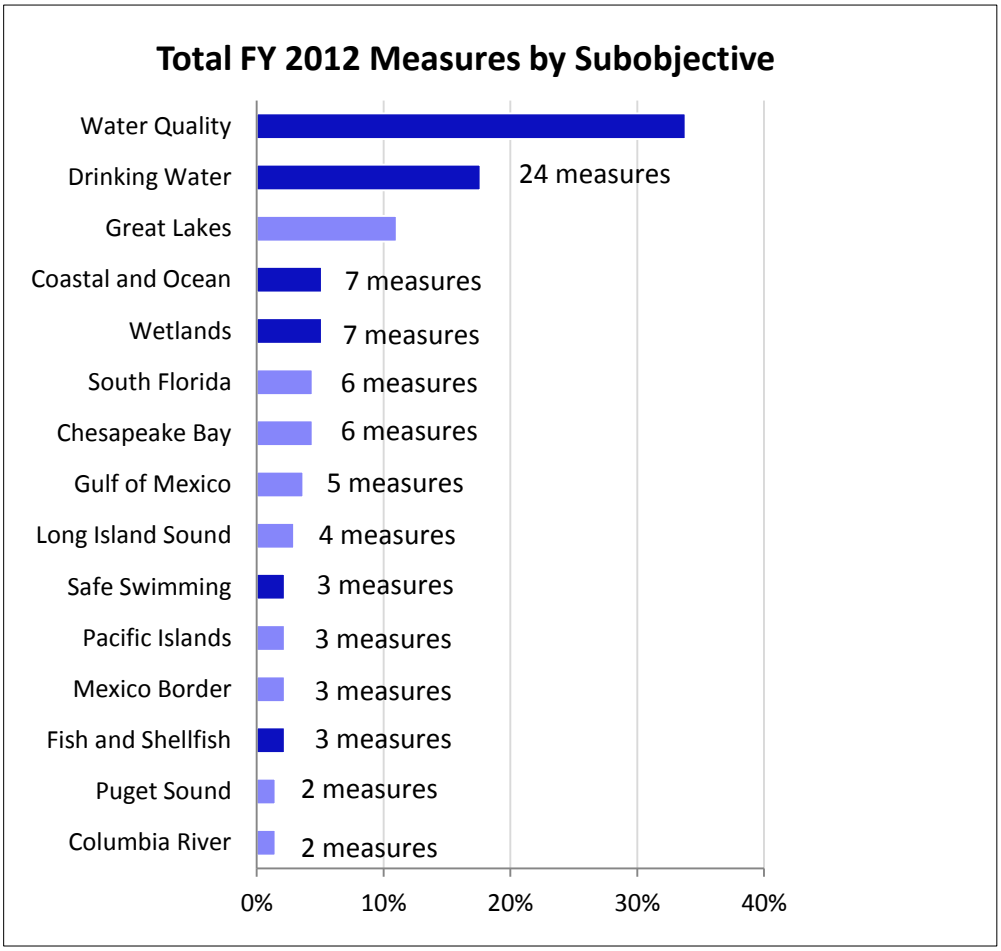




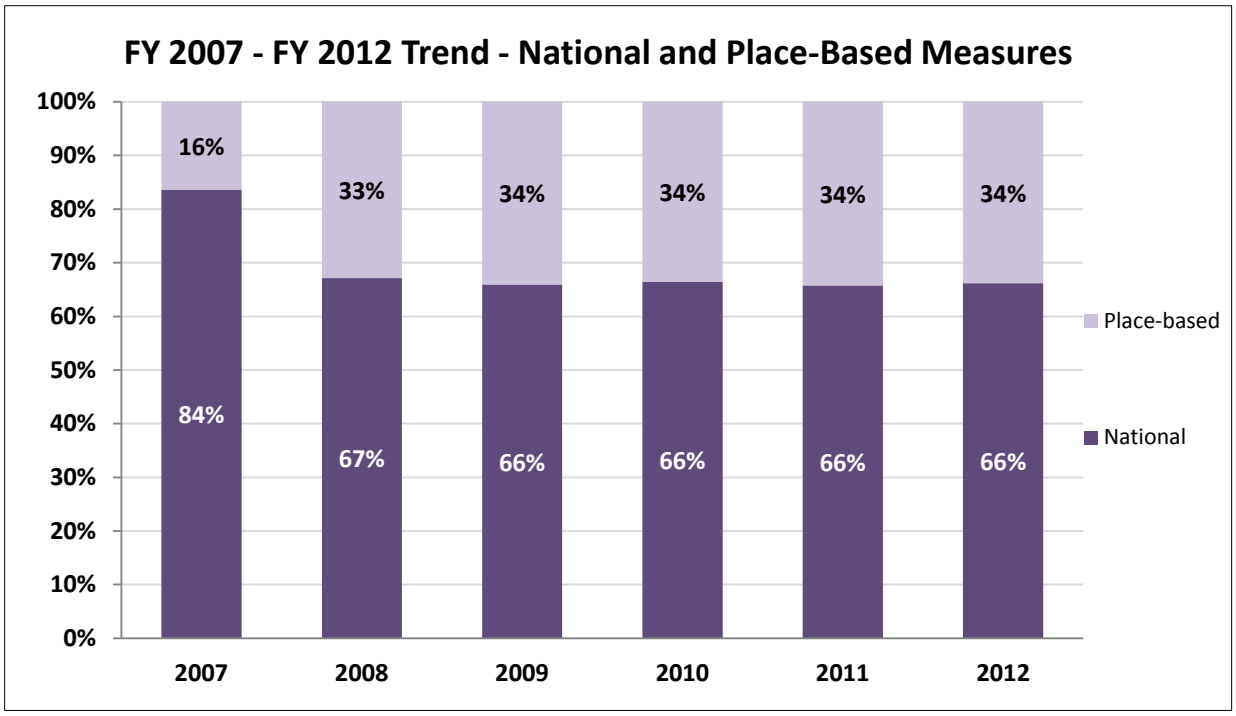
Total Measures by Subobjective

Among the 15 subobjectives outlined in the FY 2012 National Water Program Guidance, Water Quality had the largest share of performance measures at 34%; Drinking Water

was next with 18%; and the Great Lakes program was third with 11%. The remaining 37% of the measures were spread among the other 12 subobjectives



FY 2012 Core Program vs Large Aquatic Ecosystem Measures (LAEs)
The National Water Program can be viewed as divided between core program activities and geographic or Large Aquatic Ecosystems. Core programs are usually responsible for activities such as funding state drinking water programs, adopting water quality standards, developing TMDLs, and issuing NPDES permits. This would include the water quality, drinking water, safe swimming, fish and shellfish, oceans and coastal, and wetlands subobjectives under the national Water Program Guidance. Geographic or LAEs usually involve partnership-based efforts focused on ecosystems surrounding large waterbodies. This would include Chesapeake Bay, Great Lakes, Gulf of Mexico, U.S.-Mexico Border, Pacific Islands, Long Island Sound, South Florida, Puget Sound, and Columbia River subobjectives. Sixty-six percent (66%) of performance measures in the National Water Program are focused on core program activities. The remaining 34% of measures cover the LAEs.


FY 2007 - FY 2012 Trend - National and Place-Based Measures
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
16%
33%
34%
34%
34%
34%
84%
67%
66%
66%
66%
66%
2007
2008
2009
2010
2011
2012
Place-based
National

U.S. Environmental Protection Agency

American Recovery and Reinvestment Act
Quarterly Performance Report

FY 2012 Quarter 4
Cumulative Results as of September 30, 2012

Published October 31, 2012

Clean Water State Revolving Fund

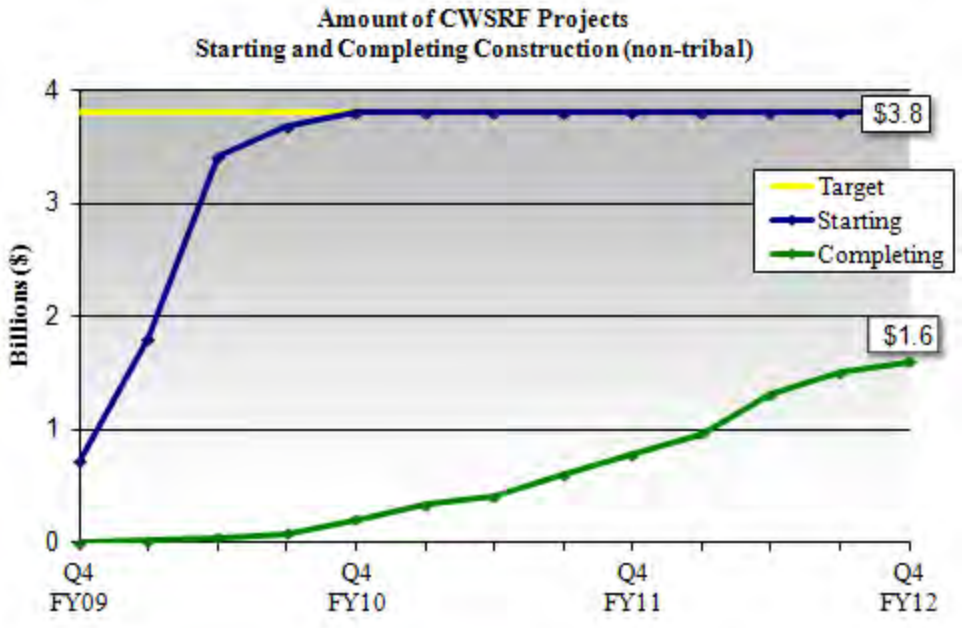
The Clean Water State Revolving Fund (CWSRF), in place since 1987, provides funds to states to capitalize state loan revolving funds that finance infrastructure improvements for public wastewater systems and other water quality projects. The EPA provides direct grants to Washington, DC and the territories for similar purposes.

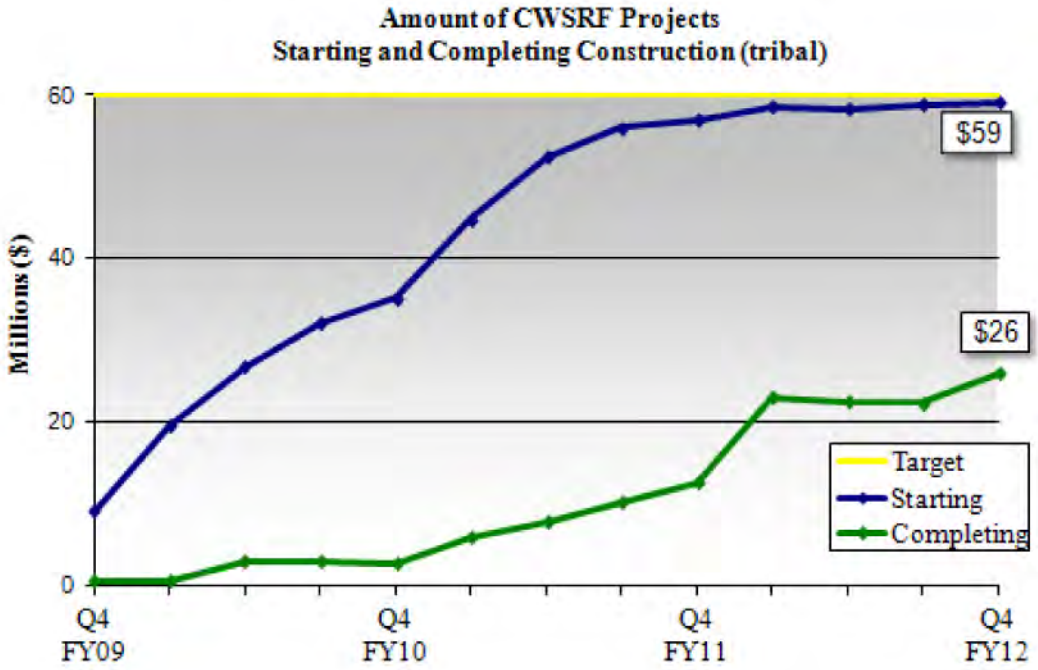
The EPA received $4 billion for the CWSRF that includes funds for water quality management planning grants with up to 1% reserved for federal management and oversight and 1.5% for Tribes. EPA awarded grants to states and Puerto Rico for their state revolving fund programs, from which assistance is provided to finance eligible high priority water infrastructure projects.

The states play a critical role by selecting projects, dispersing funds, and overseeing spending. Projects were selected based on public health and environmental factors, and readiness to proceed with construction capability. In addition, states were also required to provide at least 20% of their grants for green projects (i.e., green infrastructure, energy or water efficiency improvements, and environmentally innovative activities). States had the option to retain up to 4% of available funds for program administration. Visit www.epa.gov/water/eparecovery to learn more about the CWSRF.

Program Results as of September 30, 2012

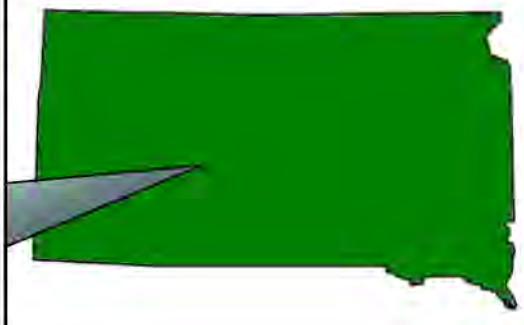
States certified that all project funding was under contract by the February 17, 2010 deadline and at least 20% of their funds went to green projects. Collectively, states far surpassed the 20% requirement, providing a national total of $1.13 billion, or 30% of all funds.





Despite significant wastewater needs, there are few financial resources available to small, rural communities. The Lincoln County Commission, in West Virginia, used a $718,626 Recovery Act loan, all of which was provided in the form of principal forgiveness, to fund the construction of on-site wastewater systems for 19 residences in the community of Alkol, in the Left Fork watershed of the Mud River. The systems use innovative peat filters that pre-treat septic system effluent, removing high concentrations of nutrients and producing high quality effluent with less biological oxygen demand, fewer total suspended solids, and reduced fecal coliform bacteria. These on-site systems replaced direct discharges from homes or failing septic systems and reduced pollutants that were negatively impacting surface and ground water in the watershed, helping to protect the environment and public health.

The city of Lennox, in South Dakota used to treat wastewater through aerated ponds. However, a change in beneficial use classifications for Long Creek resulted in a revision of effluent limits beyond the level the old facility. As a result, Lennox invested in the construction of new technology which lowered ammonia in the wastewater stream to acceptable levels. The system also utilizes ultraviolet disinfection of effluent prior to discharge, which allowed Lennox to avoid the increased costs and risks associated with chemical treatment options. This up-front investment had lower life-cycle costs than other alternative treatment technologies. Nevertheless, taking on a $4 million loan was a huge commitment for a community of only 2,843. The Recovery Act made this investment affordable to Lennox with more than $1.5 million in principal forgiveness and 30 year extended financing terms. The project enabled Lennox to protect water quality in Long Creek over the long term while also keeping sanitary sewer rates affordable for the public.



Drinking Water State Revolving Fund

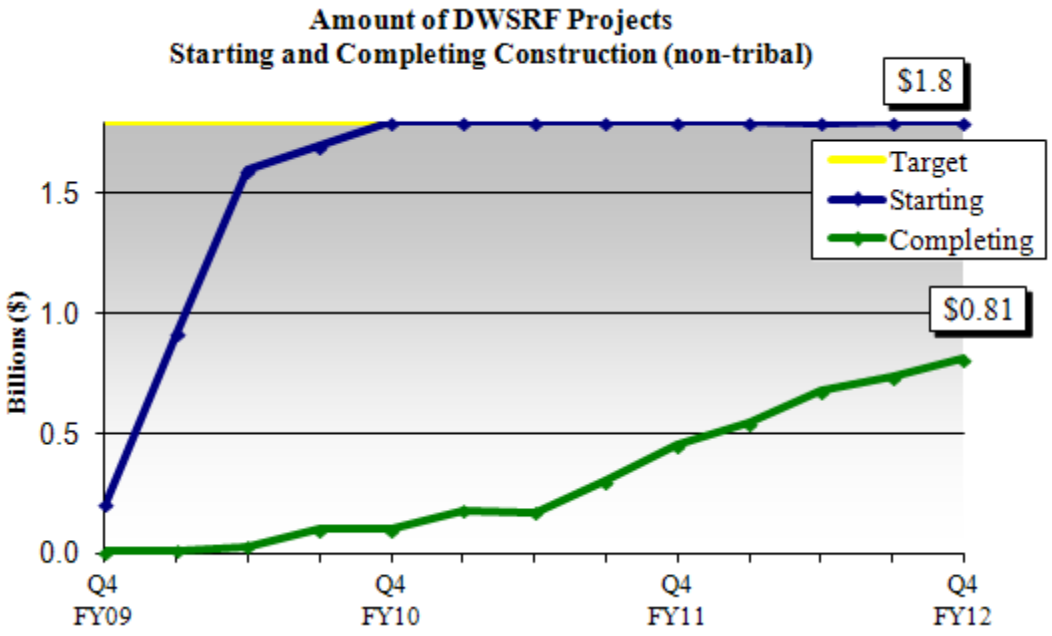
The Safe Drinking Water Act, as amended in 1996, established the Drinking Water State Revolving Fund (DWSRF) to make funds available to drinking water systems to finance infrastructure improvements. Under the Recovery Act, EPA received $2 billion for the DWSRF with up to 1% of fund reserved for federal management and oversight and 1.5% for Tribes.

The program emphasizes the provision of funds to small and disadvantaged communities and to programs that encourage pollution prevention as a tool for ensuring safe drinking water. The DWSRF provides funds to states to establish state loan revolving funds that finance infrastructure improvements for public and private Community Water Systems and not-for-profit Non-Community Water Systems and direct grants to Washington, DC and the territories.

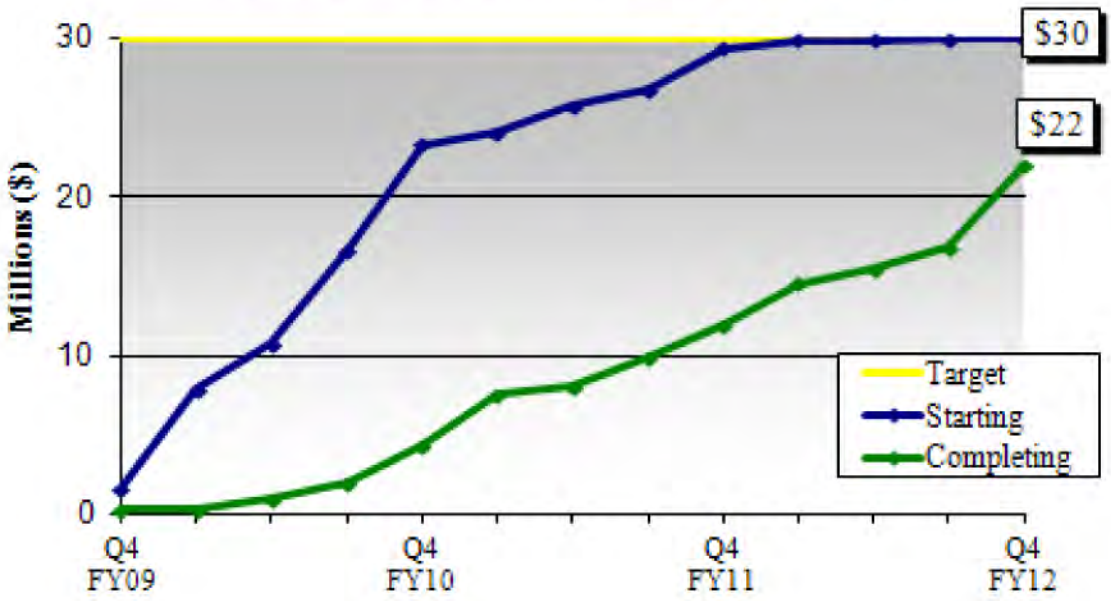
The DWSRF consists of 51 state financing programs (includes Puerto Rico) which comply with federal statute and regulations. States must provide at least 20% of their grants for green projects (i.e., green infrastructure, energy or water efficiency improvements, and environmentally innovative activities) and may retain up to 4% of available funds for program administration. To learn more about the DWSRF implementation of the Recovery Act, visit www.epa.gov/water/eparecovery.

Program Results as of September 30, 2012

Over a thousand projects have initiated construction that will bring safe drinking water to many people across the country. Like the CWSRF, the states certified that all project funding was under contract by the February 17, 2010 deadline and at least 20% of their funds went to green projects. Many states surpassed the 20% minimum with the average amount of green reserve totaling $500 million or 29% of all funds.

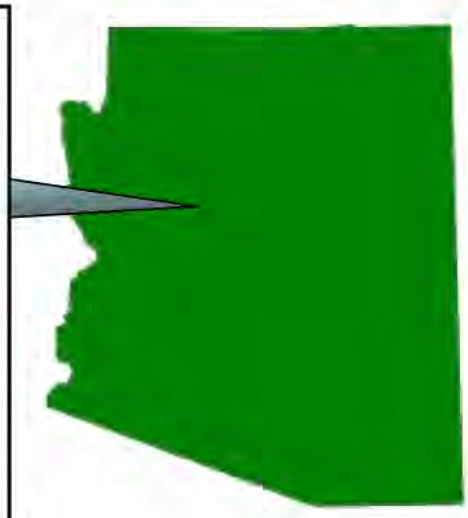


Amount of DWSRF Projects
Starting and Completing Construction (tribal)



The Central Shoshone County Water District used their low-interest American Recovery Act loan to help correct a long-standing problem with a local drinking water source. The Enaville well near Kellogg, Idaho requires filtration under the 1993 Surface Water Treatment Rule, and the loan helped pay for the installation of a microfiltration plant to treat drinking water and install residential meters. Inadequate treatment of surface water that is used for drinking water can lead to ingestion of harmful parasites, such as cryptosporidium. Installation of filtration will provide approximately 5,800 people with cleaner, safer drinking water, and installation of metering will allow the water system to become more sustainable.

The community of Whiteriver, Arizona, in the heart of the Fort Apache Indian Reservation, has experienced significant population growth over the past decade (61%). The community's source of drinking water, the Miner Flat well field, has had its production reduced by 40% in the past few years while consumption has increased. To ameliorate the situation, the EPA, Indian Health Service (IHS), Department of Housing and Urban Development, and the White Mountain Apache Tribe have collaborated in the planning, design, and construction of an innovative surface diversion and treatment system that will be completed this year.



Appendix: Recovery Act Performance Measures and Cumulative Results

Program	Performance Measures	Q4 FY09	Q4 FY10	Q4 FY11	Q4 FY12	Target
Clean Water State Revolving Fund	Amount ($) of projects that are under contract (non-tribal)	$.61 B	$3.8 B	$3.8 B	$3.8 B	$3.8 B
	Amount ($) of projects that have started construction (non-tribal)	$.73 B	$3.8 B	$3.8 B	$3.8 B	$3.8 B
	Amount ($) of projects that have completed construction (non-tribal)	$.003 B	$.20 B	$.78 B	$1.6 B	$3.8 B
	States that have awarded all of their green project reserve	12	51	51	51	51
	Amount ($) of projects that have started construction (tribal)	$9 M	$35 M	$57 M	$59 M	$60 M
	Amount ($) of projects that have completed construction (tribal)	$.54 M	$3.0 M	$13 M	$26 M	$60 M
Drinking Water State Revolving Fund	Amount ($) of projects that are under contract (non-tribal)	$.16 B	$1.8 B	$1.8 B	$1.8 B	$1.8 B
	Amount ($) of projects that have started construction (non-tribal)	$.20 B	$1.8 B	$1.8 B	$1.8 B	$1.8 B
	Amount ($) of projects that have completed construction (non-tribal)	$.01 B	$.10 B	$.45 B	$.81 B	$1.8 B
	States that have awarded all of their green project reserve	8	51	51	51	51
	Amount ($) of projects that have started construction (tribal)	$1.7 M	$23 M	$29 M	$30 M	$30 M
	Amount ($) of projects that have completed construction (tribal)	$.54 M	$4.4 M	$12 M	$22 M	$30 M
Diesel Emissions Reductions	Projects implemented that promote diesel emissions reductions	160	160	160	160	160
	Existing heavy duty diesel engines (including school bus engines) that have been retrofitted, replaced, or retired	415	12,934	24,700	27,700	30,000
	Lifetime reductions of NO_x emissions (tons)	1,402	42,149	81,100	91,000	100,000
	Lifetime reductions of PM emissions (tons)	53	1,588	3,100	3,500	4,000
	Lifetime reductions of HC emissions (tons)	109	4,800	9,300	10,600	12,000
	Lifetime reductions of CO emissions (tons)	553	5,675	11,000	12,300	13,000
	Lifetime reductions of CO_2 emissions (tons)	11,083	351,332	672,400	753,000	850,000

United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
EPA 850-K-13-002
April 2013
www.epa.gov