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National Water Program

Best Practices and End of Year Performance Report

Fiscal Year 2011






April 2012

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

This report includes three key elements:

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

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

Program Contacts

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

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

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

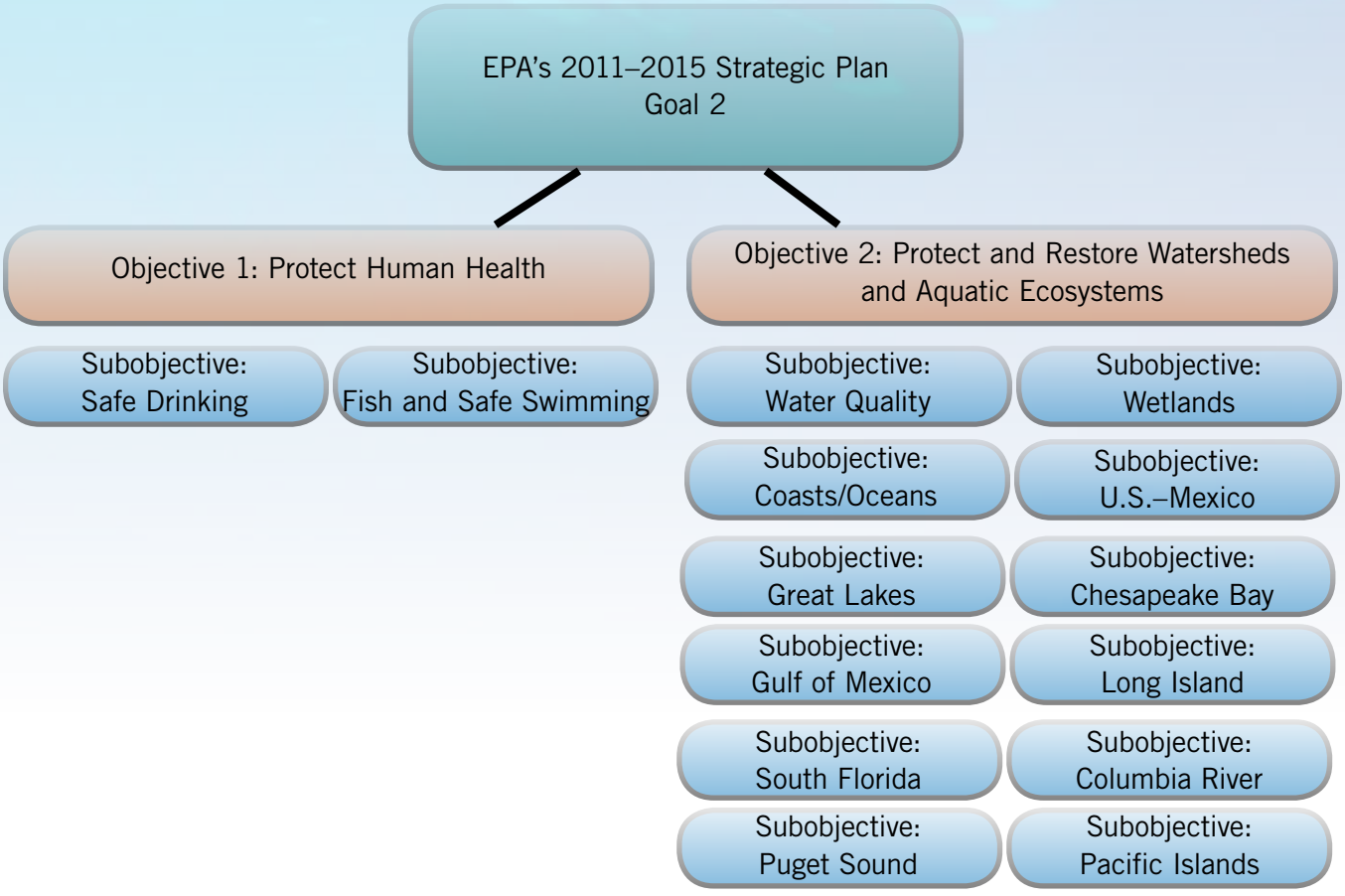

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Table of Contents

US EPA ARCHIVE DOCUMENT

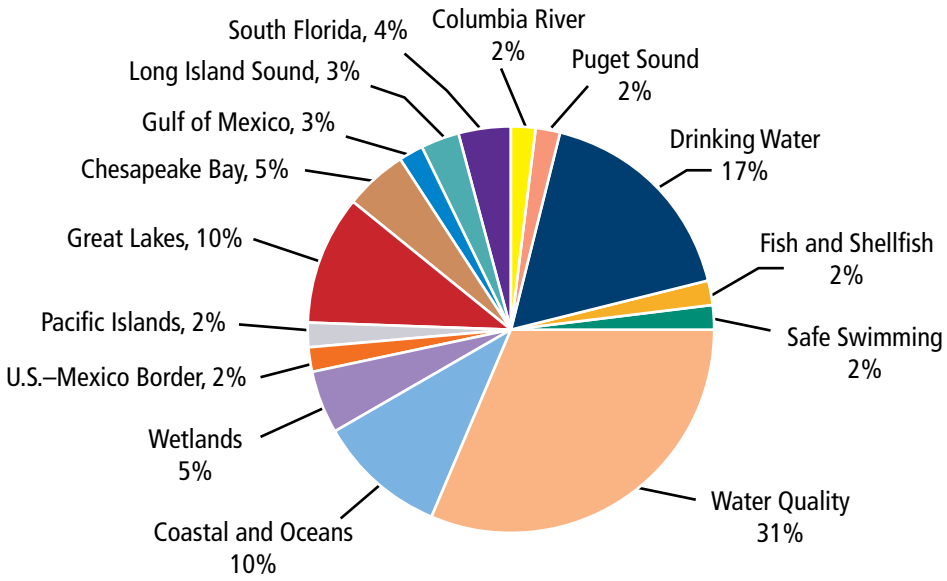
US EPA ARCHIVE DOCUMENT

Overview of 2011 Performance Results and Recent Trends

Total Measures by Subobjective

Among the 15 subobjectives outlined in the *FY 2011 National Water Program Guidance*, Water Quality had the largest share of performance measures at 31%; Drinking Water was next with 17%; and Coastal and Ocean Protection was third with 10%. The remaining 42% of the measures were spread among the other 12 subobjectives (Figure 2).

Figure 2: FY 2011 Total Measures by Subobjective



Total Commitment Measures

About two-thirds (64%) of commitment measures in the National Water Program were met in FY 2011. Twenty-two percent (22%) were not met, and for 14%, either not enough data were available to assess progress or no reporting was expected for 2011 (Figure 3). This was a decrease over FY 2010 in the percentage of measures met and an increase in measures with data unavailable or not reporting. Long-term trend data shows that the percentage of commitment measures met has remained fairly consistent over the past five years, averaging about 66% (Figure 4).

Figure 3: Commitment Measures Met and Not Met

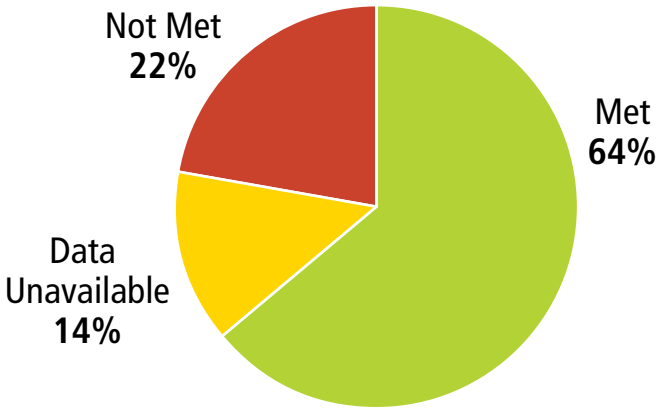
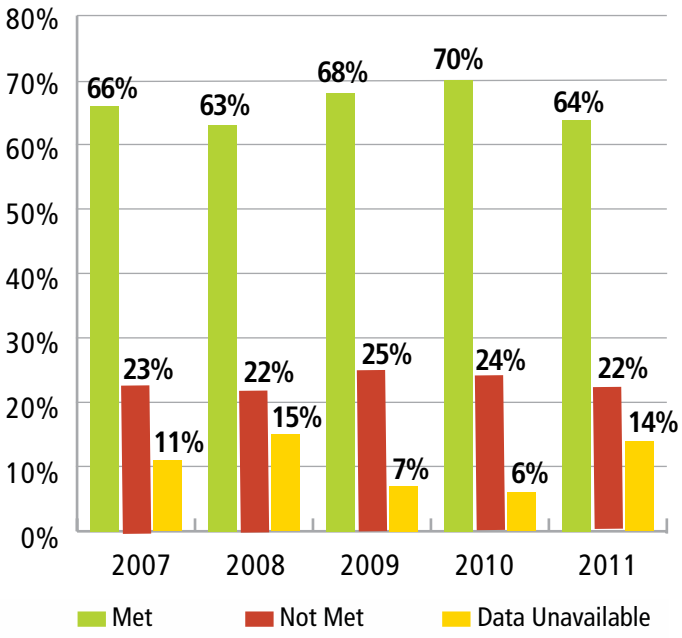


Figure 4: FY 2007–2011 Commitment Measures Trend



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Measures With Changes in Performance Status From FY 2010 to FY 2011

The performance status of 17 of the 105 commitment measures changed between FY 2010 and FY 2011. Ten measures switched from not meeting to meeting their annual commitments, whereas seven previously met measures did not meet their commitments in the past year. Both the Drinking Water and Puget Sound subobjectives had two commitments with results that changed from met to not met in FY 2011. The U.S.–Mexico Border subobjective saw the greatest improvement in performance, with a shift in status of three measures from not met to met (Table 2).

Table 2: Measures With Changes in Performance Status From FY 2010 to FY 2011

Subobjective	ACS Code	Measure ("Key Words")	Performance Status	
			2010	2011
2.1.1. Water Safe to Drink	SDW-1a	CWSs with sanitary survey	Not Met	Met
2.1.1. Water Safe to Drink	SDW-7a	Class I wells with mechanical integrity	Met	Not Met
2.1.1 Water Safe to Drink	SDW-7b	Class II wells with mechanical integrity	Met	Not Met
2.1.1 Water Safe to Drink	SDW-7c	Class III wells with mechanical integrity	Not Met	Met
2.1.3 Safe Swimming	SS-1	CSO permits schedules in place	Met	Not Met
2.2.1 Water Quality	SP-11	Remove cause of waterbody impairment	Not Met	Met
2.2.1 Water Quality	WQ-6a	Tribes implementing monitoring strategies	Not Met	Met
2.2.1 Water Quality	WQ-8b	TMDLs developed by States	Not Met	Met
2.2.1 Water Quality	WQ-14a	POTWs SIUs control mechanisms in place	Not Met	Met
4.3.3 Great Lakes	SP-31	Manage restoration of AOCs	Not Met	Met
4.2.4 U.S.–Mexico Border	SP-23	U.S.–Mexico Border loading of biochemical oxygen (BOD)	Not Met	Met
4.2.4 U.S.–Mexico Border	SP-24	Safe drinking water homes U.S.–Mexico Border	Not Met	Met
4.2.4 U.S.–Mexico Border	SP-25	Wastewater sanitation homes U.S.–Mexico Border	Not Met	Met
4.2.5 Pacific Island	SP-28	Pacific Islands beach days open for swimming	Met	Not Met
4.3.6 Long Island Sound	SP-44	Re-open river and streams for fish passage	Met	Not Met
4.3.8 Puget Sound Basin	SP-49	Increase acres of Puget Sound shellfish areas	Met	Not Met
4.3.8 Puget Sound Basin	SP-50	Remediate Puget Sound contaminated sediments	Met	Not Met

The Most Successful Annual Commitment Measures for the Past Four or Five Years

About 77% of all the annual commitment measures in the *FY 2011 National Water Program Guidance* have had annual commitments since FY 2007 or FY 2008. Of these so-called "legacy" measures, approximately 40% have met their commitments 100% of the time over the past four or five years (Table 3). The Water Quality subobjective has the highest percentage of legacy measures that have met their commitments every year (47%). Seven of 15 Drinking Water, five of nine Coastal/Ocean, and three of five Great Lakes subobjective legacy measures have met their commitments 100% of the time

since FY 2007. The ability to consistently meet annual commitments year after year is due to a number of factors, including effective program management, a strategic approach to setting realistic commitments, and changing climatic and economic conditions (Table 3).

Table 3: The Most Successful Annual Commitment Measures for the Past Four or Five Years

Subobjective	ACS Code	Measure Description	Total Yrs. Commitment Met
2.1.1 Water Safe to Drink	2.1.1	Population served by CWSs	5
2.1.1 Water Safe to Drink	SDW-1b	Tribal CWSs with sanitary survey	5
2.1.1 Water Safe to Drink	SDW-4	DWSRF fund utilization rate	5
2.1.1 Water Safe to Drink	SDW-5	DWSRF projects initiated	5
2.1.1 Water Safe to Drink	SP-4a	CWSs and source water protection	5
2.1.3 Safe Swimming	SP-9	Beach days safe for swimming	5
2.2.1 Water Quality	SP-10	Waterbodies water quality standards revisions approved	5
2.2.1 Water Quality	WQ-12a	Non-tribal NPDES permits current	5
2.2.1 Water Quality	WQ-17	CWSRF fund utilization rate	5
2.2.1 Water Quality	WQ-19a	High-priority state NPDES permits	5
2.2.1 Water Quality	WQ-3b	Tribes submitted water quality criteria	5
2.2.1 Water Quality	WQ-4a	States/Territories water quality standards submissions	5
2.2.1 Water Quality	WQ-6b	Tribes providing water quality data	5
2.2.1 Water Quality	WQ-8a	Total TMDLs	5
2.2.2 Coastal/Oceans	2.2.2	Improve coastal aquatic system health	5
4.3.2 Wetlands	WT-1	Wetland acres restored and enhanced	5
4.3.3 Great Lakes	SP-29	Reduce PCBs in Great Lakes fish	5
4.3.3 Great Lakes	SP-32	Remediate cubic yards of contaminated sediment	5
4.3.5 Gulf of Mexico	SP-39	Gulf acres restored or enhanced	5
2.1.3 Safe Swimming	SS-1	CSO permits schedules in place	4
2.1.3 Safe Swimming	SS-2	Public beaches monitored	4
2.2.1 Water Quality	WQ-10	NPS-impaired waterbodies restored	4
2.2.1 Water Quality	WQ-14a	POTWs SIUs control mechanisms in place	4
2.2.1 Water Quality	WQ-19b	High-priority EPA NPDES permits	4
2.2.1 Water Quality	WQ-6a	Tribes implementing monitoring strategies	4
2.2.1 Water Quality	WQ-8b	TMDLs developed by states	4
4.3.2 Wetlands	WT-4	States wetland condition trend has been measured	4
4.3.4 Chesapeake Bay	CB-1b	Bay point source phosphorus reduction	4
4.3.4 Chesapeake Bay	CB-2	Bay forest buffer goal achieved	4

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Subobjective	ACS Code	Measure Description	Total Yrs. Commitment Met
4.3.5 Gulf of Mexico	GM-1	Warning system to manage algal blooms	4
4.3.5 Gulf of Mexico	SP-38	Impaired water segments and habitat restored	4
2.1.1. Water Safe to Drink	SP-1	CWSs meeting safe standards	4
2.1.1. Water Safe to Drink	SP-2	"Person months" with CWSs safe standards	4
2.2.1 Water Quality	SP-12	Improve water quality w/ watershed approach	4
2.2.2 Coastal/Oceans	SP-16	Maintain aquatic health – Northeast	4
2.2.2 Coastal/Oceans	SP-17	Maintain aquatic health – Southeast	4
2.2.2 Coastal/Oceans	SP-18	Maintain aquatic health – West Coast	4
2.2.2 Coastal/Oceans	SP-19	Maintain aquatic health – Puerto Rico	4
4.2.5 Pacific Island	SP-26	Pacific Islands population served by CWS	4
4.3.6 Long Island Sound	SP-43	Restore Long Island Sound coastal habitat	4
4.3.8 Puget Sound Basin	SP-51	Restore acres of Puget Sound estuarine wetlands	4
4.3.9 Columbia River Basin	SP-52	Protect Columbia River wetland habitat	4
4.3.9 Columbia River Basin	SP-53	Clean up Columbia River contaminated sediments	4

Several measures have not met their commitments three or four times over the past four or five years.

Table 4: Measures Not Meeting Commitments

Subobjective	ACS Code	Measure Description	Total Yrs. Commitment Not Met	% Years Not Met
2.1.1 Water Safe to Drink	SDW-1a	CWSs with sanitary survey	4	80.00%
2.2.1 Water Quality	WQ-2	Tribes water quality standards approved	4	80.00%
2.2.1 Water Quality	WQ-5	States/territories adopted monitoring strategies	4	80.00%
2.2.1 Water Quality	WQ-12b	Tribal permits current	3	60.00%
2.2.1 Water Quality	WQ-14a	POTWs SIUs control mechanisms in place	3	60.00%
4.3.3 Great Lakes	SP-31	Manage restoration of AOCs	3	60.00%
4.3.7 South Florida	SP-48	Improve Everglades water quality	4	100.00%
4.3.4 Chesapeake Bay	SP-35	Bay nitrogen reduction*	4	80.00%
4.3.4 Chesapeake Bay	CB-1a	Bay point source nitrogen reduction*	3	60.00%

*Measure deleted in FY 2012

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Strategic Targets Met and Not Met

Strategic Targets represent the highest level of performance measures in EPA's Strategic Plan. These measures usually track changes in environmental and public health outcomes associated with specific objectives and subobjectives. Under the Clean and Safe Water goal of the Agency's *Strategic Plan*, 16 of the 22 Strategic Targets had commitments; 63% of the Strategic Targets met their FY 2011 commitments, and thirty-one percent (31%) were not met (Figure 5). There was a slight decrease in the percentage of Strategic Targets met in 2011 (63% compared with 67% in 2010). The National Water Program has averaged approximately 64% of targets met over the past five years (Figure 6). Notably, the number of Strategic Targets decreased dramatically from 59 in the *FY 2006 Strategic Plan* to 22 in the *FY 2011 Plan.*

Figure 5: Strategic Targets Met and Not Met

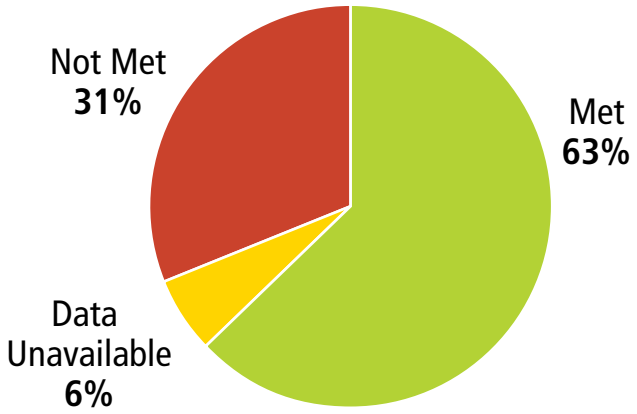
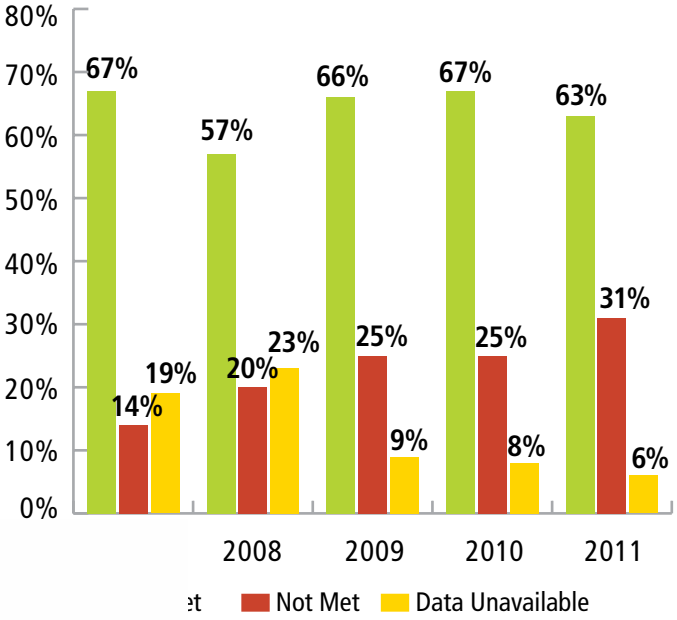


Figure 6: FY 2007–FY 2011 Strategic Targets Met and Not Met



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Program Activity Measures (PAMs)

The FY 2011 National Water Program Guidance included 126 PAMs. PAMs are often measures of activities and outputs to implement water program areas. Approximately 71% of these measures had annual commitments in FY 2011. The remaining 29% of measures do not have annual commitments and are used as indicators of progress. Sixty-four percent (64%) of PAMs met their commitments in 2011, 20% did not meet their commitments, and 16% lacked sufficient data (Figure 7). After four years of gradual increases in measures met, 2011 represented a decline in performance (64% from 74% in 2010) and a significant increase in the percentage of measures with data unavailable or not reporting (16% from 4% in 2010) (Figure 8).

Figure 7: FY 2011 PAMs Met and Not Met

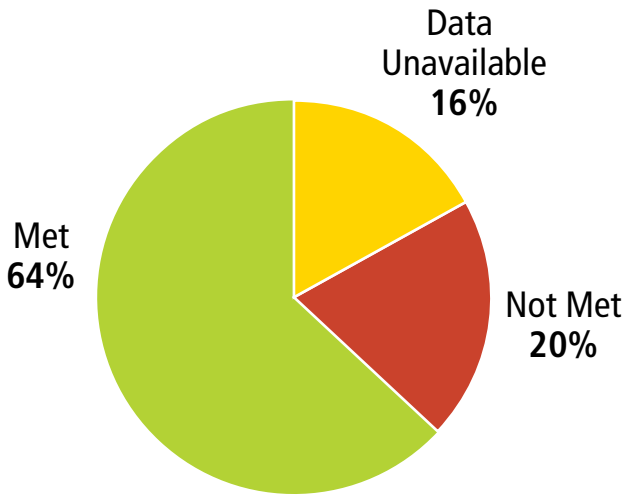
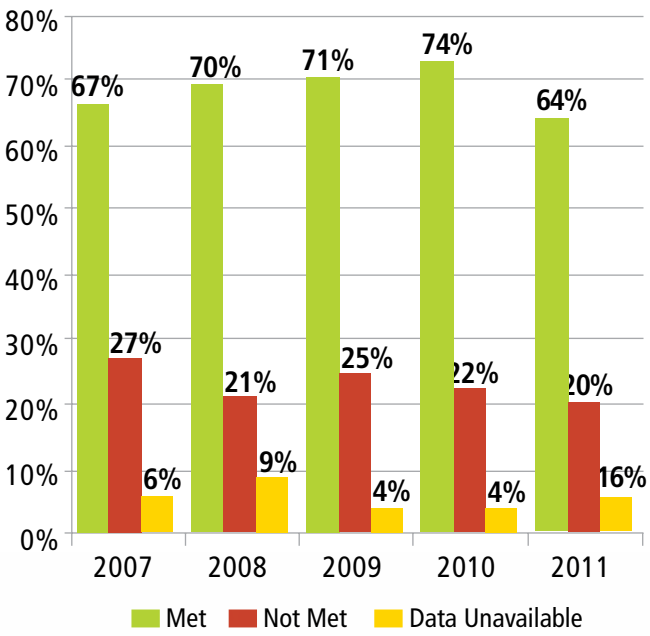


Figure 8: FY 2007–2011 PAMs Met and Not Met



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National Water Core Programs vs. Geographic Aquatic Programs

The National Water Program is composed of core drinking water and water quality programs and large aquatic ecosystem or geographic programs. The core programs were more successful than the geographic programs in meeting their commitments in 2011 (70% vs. 56%) (Figure 9). The geographic programs most successful in meeting their FY 2011 commitments were the U.S.–Mexico Border, Gulf of Mexico, and Great Lakes programs. The geographic programs had more measures not met compared to the core programs (28% vs. 17%) and a higher universe of measures with data unavailable or not reported (16% vs. 13%). According to long-term trends, geographic programs saw a significant decrease in measures met in 2011, reversing the trend from FY 2010 (Figure 10).

Figure 9: FY 2011 National and Geographic Programs Met and Not Met

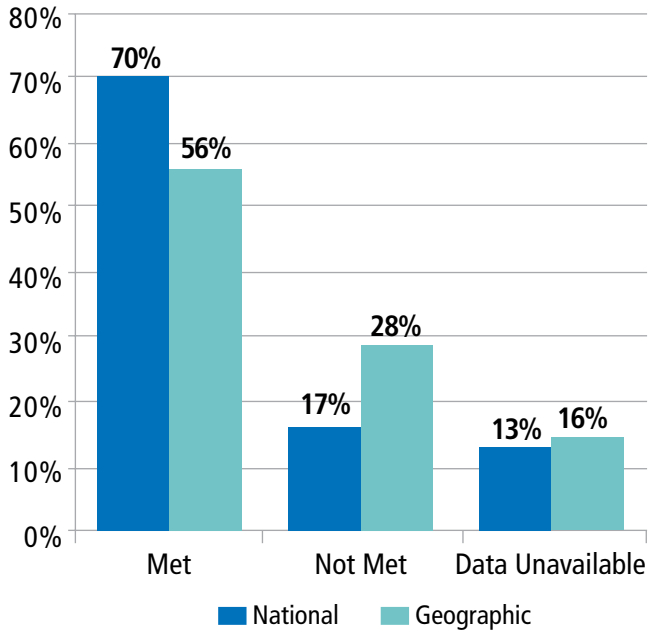
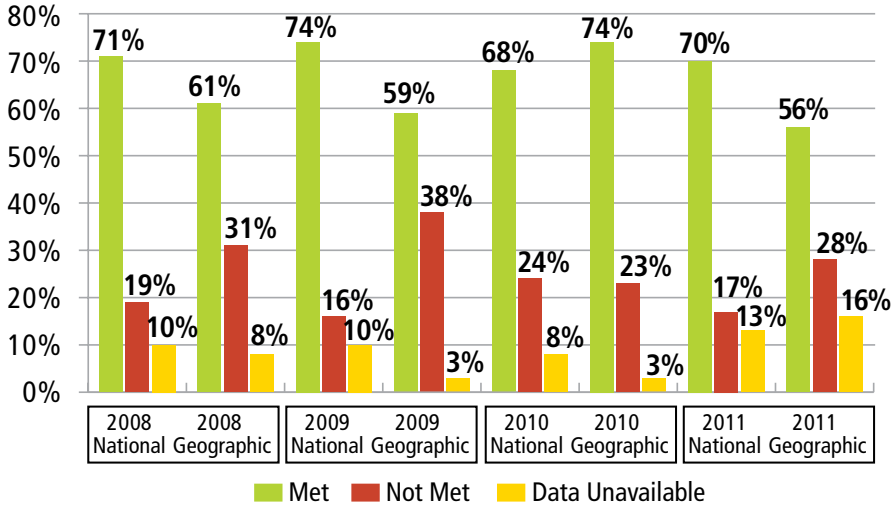


Figure 10: FY 2008–2011 National and Geographic Programs Trend



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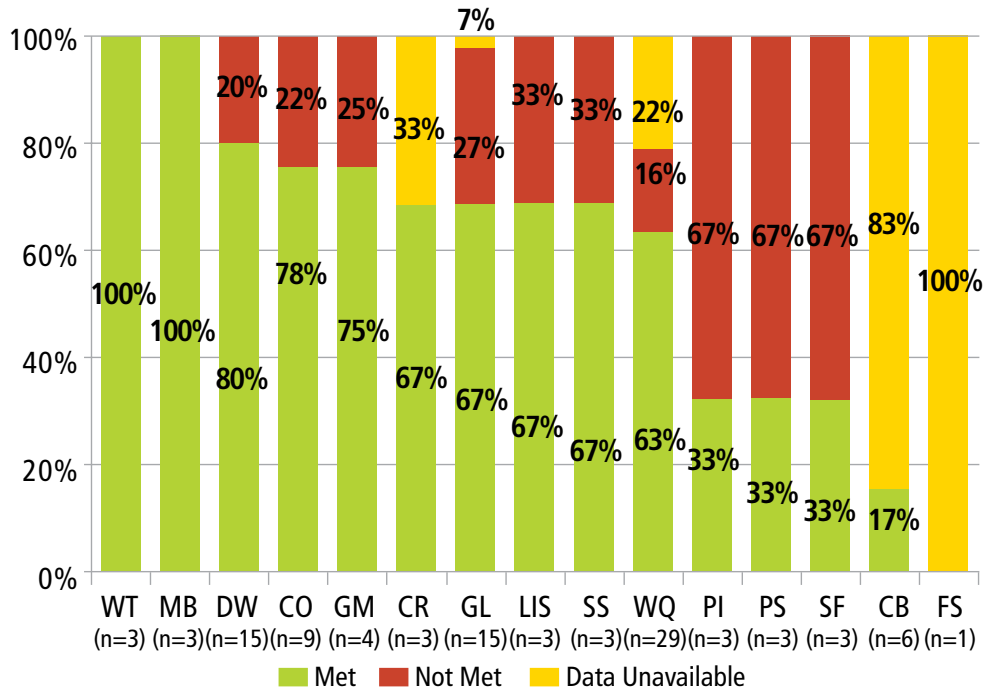
Commitments Met by National Water Program Guidance Subobjective

When the FY 2011 results are looked at by subobjective, the Wetlands, U.S.–Mexico Border, Drinking Water, Coastal and Oceans, and Gulf of Mexico subobjectives were most successful in meeting their FY 2011 commitments (Figure 11). It should be noted, however, that some subobjectives have more performance measures than others. For example, the Gulf of Mexico has six measures, and Pacific Islands and Columbia River each have three commitment measures. In contrast, Drinking Water has 15 measures and Water Quality has 29. Pacific Island, South Florida, and Puget Sound subobjectives (three commitments each) had the most difficulty in meeting their commitments in FY 2011.

Figure 11: FY 2011 Commitments Met and Not Met by Subobjective



Subobjective acronyms:

LIS = Long Island Sound
MB = U.S.–Mexico Border
PI = Pacific Islands
GM = Gulf of Mexico
CB = Chesapeake Bay
WT = Wetlands
WQ = Water Quality
CO = Coastal and Oceans
SF = South Florida
GL = Great Lakes
SS = Safe Swimming
DW = Drinking Water
PS = Puget Sound
CR = Columbia River
FS = Fish and Shellfish

In looking at long-term trends over the past four years by subobjective, the Coastal and Oceans (89%), Columbia River (83%), Puget Sound (83%), Drinking Water (79%), and Wetlands (75%) subobjectives have been the most successful in meeting their commitments (Figure 12). Only three subobjectives—U.S.–Mexico Border, Wetlands, and Water Quality—demonstrated improvement in FY 2011 over their 2010 results; the other subobjectives finished with the same or a lower percent measure met than the previous year. The Fish and Shellfish subobjective continues to have the greatest problems with data availability.

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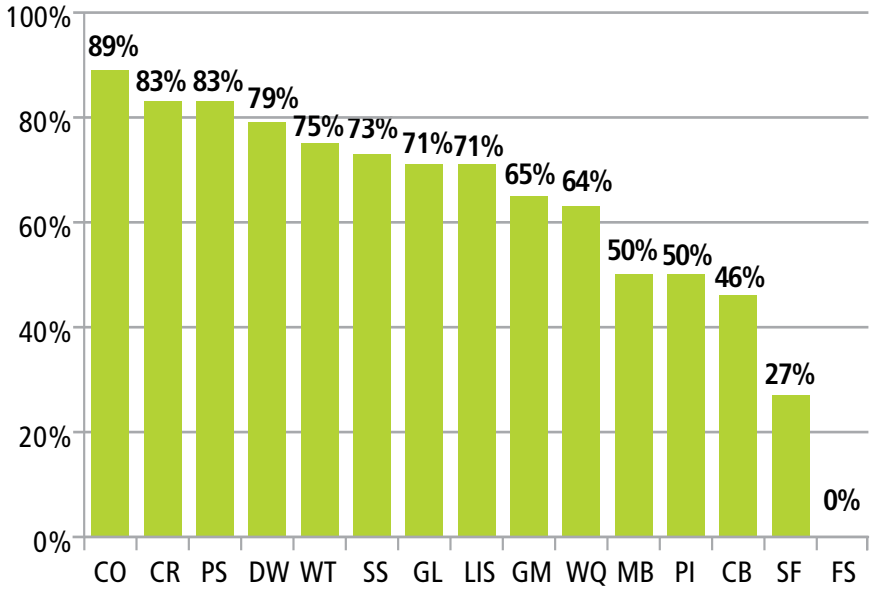
Figure 12: FY 2008–2011 Average Percent Measures Met by Subobjective



Commitment Measures by EPA Region

EPA is broken up into 10 geographical regional offices. EPA regions and states are primarily responsible for implementing the programs under the Clean Water and Safe Drinking Water Acts. On average, 83% of performance commitments set by the EPA regional offices for activities in their geographic areas were met in 2011, while 17% of commitments were missed. This was a 5% decrease over the FY 2010 results of 88% met, with nine regions seeing a drop in their percentage of commitments met in FY 2011 compared to FY 2010. Region 1 (95%) and Region 2 (93%) met the highest percentage of their commitments in 2011 (Figure 13).

Figure 13: FY 2011 Commitment Measures Met and Not Met by Region

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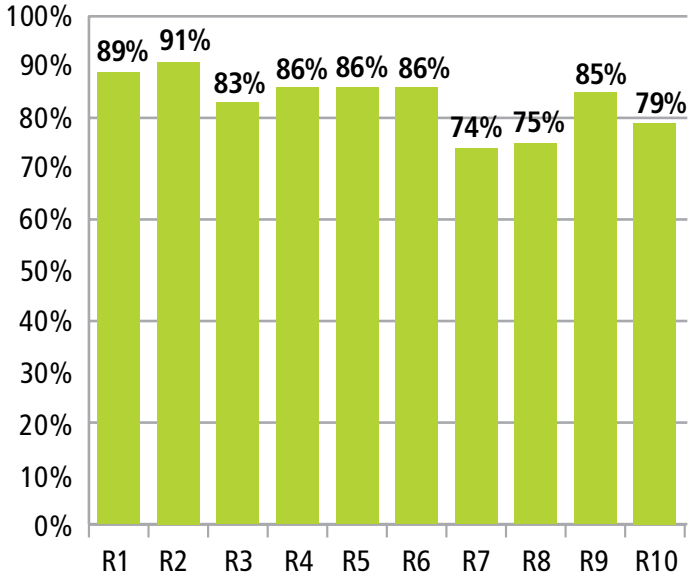
Over the past five years, Regions 2, 1, 4, 5, and 6 have had the highest percentages of commitments met (Figure 14).

Figure 14: FY 2007–2011 Average Percent Commitment Measures Met by Region



A trend analysis of regional performance reveals that EPA Regions 1 and 9 exhibited the most improvement in meeting their annual commitments between FY 2007 and FY 2011. Region 1 increased its performance by 18% (79% to 97% commitments met) (Figure 15), as did Region 9 (74% to 92%) (Figure 16). Region 10 also experienced an improvement in performance, with an increase of 15% in commitments met over the past five years.

Figure 15: Region 1 Percent Measures Met Trend

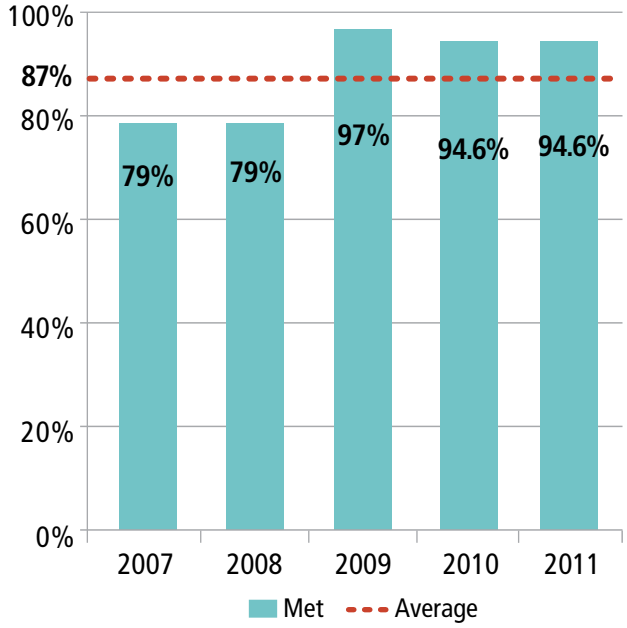
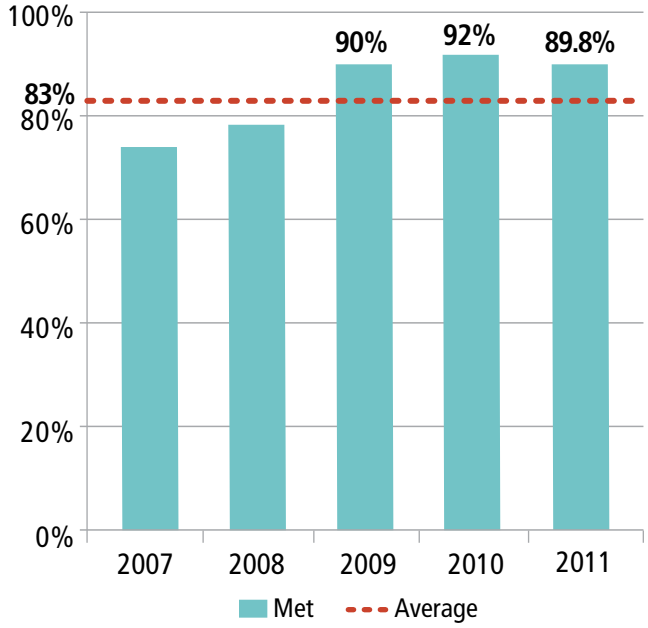


Figure 16: Region 9 Percent Measures Met Trend



EPA Regions 3, 4, and 6 showed the most decline in commitments met between FY 2007 and FY 2011. Region 3 dropped by 13% (88% to 75%) (Figure 17), and Region 4 declined by 17% (93% to 76%) (Figure 18). It should be noted that much of the FY 2011 drop in the commitments met for Region 3, however, is due to the lack of reporting for five of six Chesapeake Bay Program commitment measures as a result of the new TMDL. With a range of 20%, Region 7 exhibited the greatest variability in percent commitments met over the past five years. Regions 8, 1, and 9 had ranges of 19%, 18%, and 17.8%, respectively. The region with the least variability in performance over the past five years was Region 5 with a range of only 7%. **It should be noted 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 17: Region 3 Percent Measures Met Trend

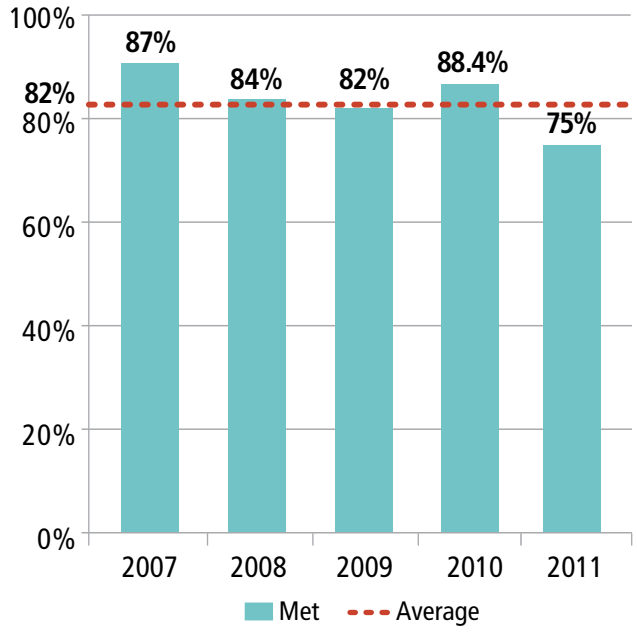


Figure 18: Region 4 Percent Measures Met Trend

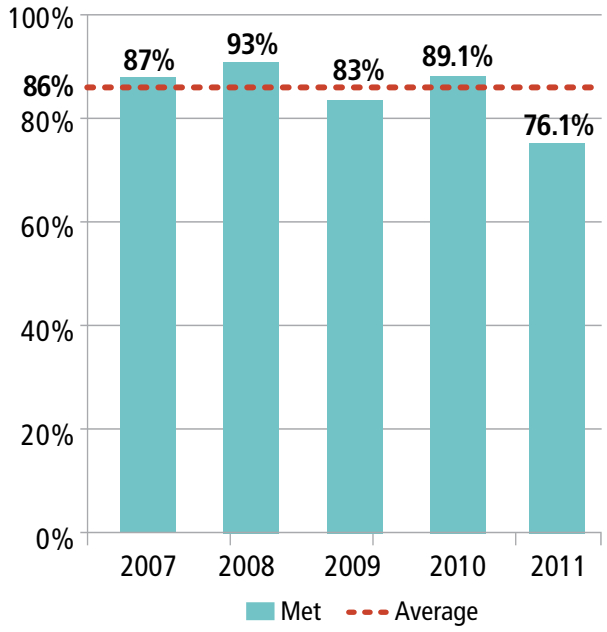


Table 5 exhibits how EPA regions rank as most improved in performance over the past five years.

Table 5: Most Improved EPA Regions (Five Years)

Most improved ← Least improved									
Region 1	Region 9	Region 10	Region 2	Region 5	Region 7	Region 8	Region 6	Region 4	Region 3

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Measuring the Ambitiousness of Regional Commitments

Over the past five years, EPA has published the percentage of commitments met and not met by region in its annual *National Water Program Best Practices and End of Year Performance Report*. For the FY 2011 report, EPA's Office of Water developed a method that attempts to add context to these results by ranking each region according to the ambitiousness of its commitments, regardless of whether those commitments were met or not met.

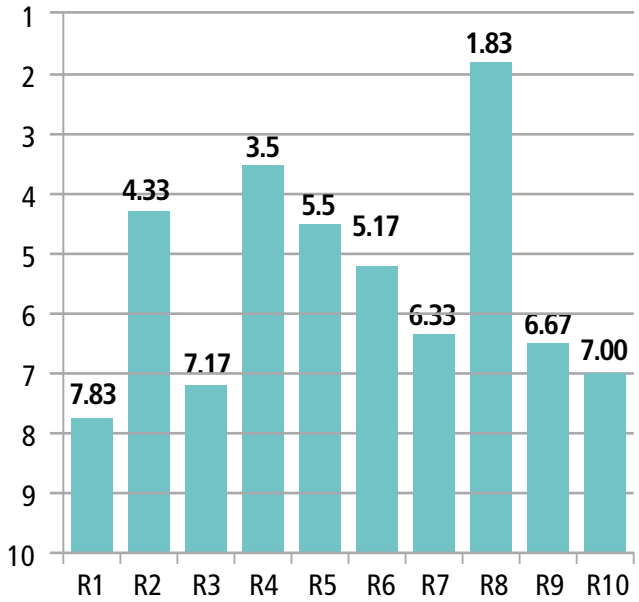
EPA employed three overarching methods to evaluate the relative ambitiousness of regional commitments, computing:

- The difference between FY 2011 regional commitments and FY 2011 national commitments for all measures using percentage commitments.
- The difference between FY 2011 regional commitments and FY 2010 regional results for all measures using percentage commitments.
- FY 2011 regional commitments as a percentage of FY 2011 regional universes for all measures with numeric commitments and results.

Each region was assigned a rank for each measure according to each of the comparisons above (1= most ambitious, 10= least ambitious). These rankings were combined to generate an average rank per region. The underlying methodology used to determine the ranking is described in Appendix C.

According to OW's assessment of the level of ambitiousness in setting commitments, the regions' average rankings are provided in Figure 19. Regions 8, 4, and 2 were judged to have developed the most ambitious commitments, whereas Regions 1, 3, and 10 appear to have set less ambitious commitments.

Figure 19: Average Rank by Region



To determine what effect the level of ambitiousness of commitments may have on the percentages of commitments met for each region, OW compared the rankings for each factor across regions (Table 6). Each region was placed into one of five categories to denote commitment ambitiousness: consistently high, moderately high, mixed, moderately low, and consistently low.

Table 6: Level of Ambitiousness Compared to Percentages of Commitments Met by Region

Region	FY 2011 Commitment Measures Met	FY 2011 Commitment Measures Met Rank	Average Rank	Average Rank Categories
1	95%	1	7.83	Moderately low
2	93%	2	4.33	Moderately high
3	75%	9	7.17	Moderately low
4	76%	7	3.50	Moderately high
5	87%	4	5.50	Mixed
6	83%	5	5.17	Mixed
7	73%	10	6.33	Mixed
8	76%	7	1.83	Consistently high
9	90%	3	6.67	Moderately low
10	81%	6	7.00	Moderately low

One might suppose that the more ambitious a region's commitments, the lower its level of performance. As we can see, this assumption holds up for Region 8 but not for Region 2. One may also assume that the less ambitious a region's commitments, the higher the percentage of commitments met. This assumption holds up for Regions 1 and 9 but not for Region 10. Although there does not appear to be a direct correlation between the level of ambitiousness and performance, there are some cases where a relationship may exist.

Considering all the data, the results by region are as follows:

- Region 1 set moderately low ambitiousness commitments and exhibited the highest percentage of commitment measures met.
- Region 2 set mixed to moderately high ambitiousness commitments and ended FY 2011 as the second highest performing region in terms of commitment measures met.
- Region 3 set moderately low ambitiousness commitments and finished FY 2011 with the second lowest percentage of commitment measures met.
- Region 4 set moderately high commitments and ended the year with a low commitment measures met percentage.

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- Region 5 set average or mixed ambitiousness commitment levels and fell toward the middle of all the regions in terms of commitment measures met.
- Region 6 set mixed to moderately high commitments and fell toward the middle of all the regions in terms of commitment measures met.
- Region 7 set mixed to moderately low commitments and ended with the lowest percentage of commitment measures met of FY 2011.
- Region 8 set the most ambitious commitments and ended the year with a low commitment measures met percentage.
- Region 9 set mixed to moderately low commitments and ended FY 2011 as the third-highest performer in terms of commitment measures met.
- Region 10 set moderately low to consistently low commitments, displaying the lowest ambitiousness level of any of the regions, and finished the year with a low commitment measures met percentage.

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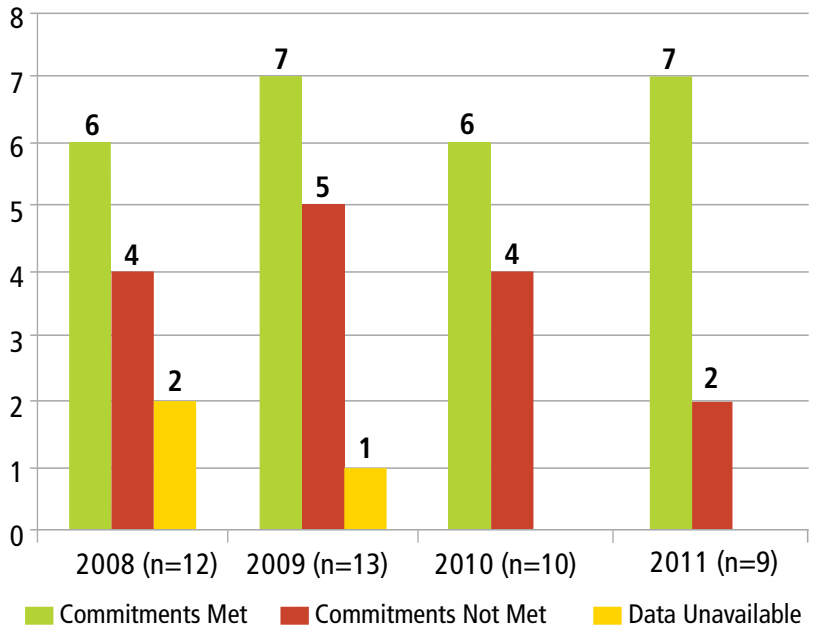
Tribal Commitment Measures

Nine of the National Water Program measures focus specifically on public health and environmental outcomes on American Indian lands. There was a slight increase in the commitments met (seven) and a decrease in the measures not met (two) in 2011 (Figure 20). End of the year results indicate that management of water quality and access to sanitation on tribal lands showed some improvement FY 2011. For more information on tribal performance results, see the chapter on "American Indian Drinking Water and Water Quality FY 2011 Performance" on EPA's Water Program Performance Page at http://water.epa.gov/resource_performance/performance/.

Figure 20: FY 2008–FY 2011 Tribal Commitment Measures Met and Not Met



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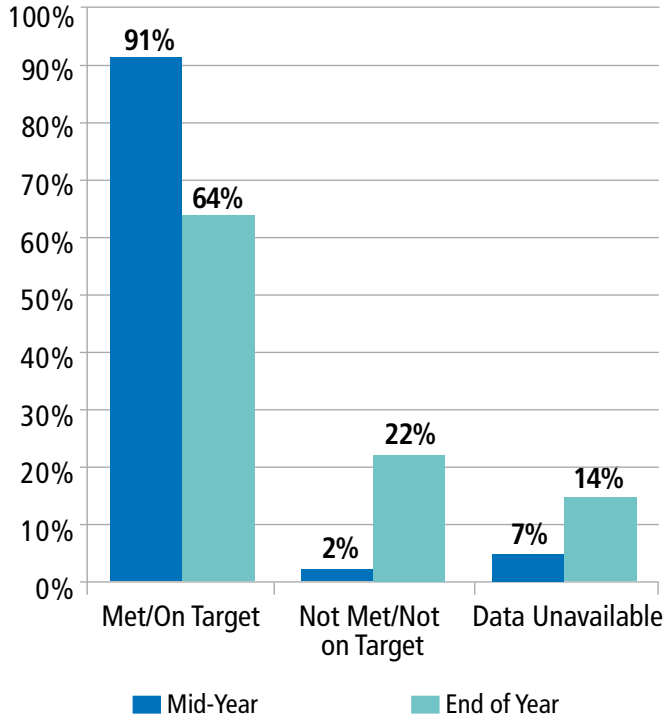
Mid-Year Versus End of the Year Results

The National Water Program reports biannually on performance, at mid-year and end of the fiscal year. Of the fifty-four (54) measures reported at mid-year, 91% (49) were on track to meet their annual commitments and 2% (1) were not on track. Of the 103 commitment measures reported at the end of the year, 64% (66) measures were met and 23% (24) were not met (Figure 21). Several measures that were on track at mid-year were not met at the end of the year.

Figure 21: FY 2011 Mid-Year vs. End of Year Measures Met and Not Met



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National Water Program FY 2011 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 success in drinking water, surface water quality, wetlands, coastal, 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 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:** See "Seven Priorities for EPA's Future" at http://blog.epa.gov/administrator/2010/01/12/seven-priorities-for-epas-future/.

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. These best practices are in addition to a number of activities identified in the *FY 2011 End of Year Report*.

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.

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Automating Water Quality Data Assessments for Developing Lists of Impaired Waters

Brief Description:

The Region 6 Monitoring and Assessment Section developed a more efficient mechanism to assess water quality data and identify waters that must be included on the state of Arkansas Clean Water Act § 303(d) list of impaired waters. The project was initiated to reduce the time required for EPA action on the current/future lists and was completed without contractor assistance. Water quality data downloaded from EPA STORET and USGS National Water Information System (NWIS) databases are assessed based on Arkansas water quality standards and EPA national water quality criteria, using Microsoft Access lookup tables and queries. The queries link pollutant concentrations with water quality criteria, dependent on applicable uses, ecoregion, watershed size, or other factors; calculate pH, temperature, or hardness-dependent criteria; compare water quality results with the applicable criteria; count criteria exceedances or calculate percentage of exceedances for each pollutant by station; and append summary information for each waterbody-pollutant combination that should be included on the § 303(d) list.

Current Status:

Although no states have used the tool to generate a 303d list yet, regional scientists have shared the software with three states—Arkansas, New Mexico, and Oklahoma—that are currently using the tool as a model for automating their own systems. The ability to analyze large datasets has motivated Arkansas to include more data in its assessments, leading to the development of more complete 303(d) lists.

Outcomes:

The software is capable of analyzing 500,000 water quality measurements collected from hundreds of stations in a matter of minutes. Rather than analyzing data one station at a time, as some states still do, the software analyzes data for all stations simultaneously. This has reduced the amount of time for processing pertinent 303(d) list data from weeks to 30 minutes. Although the tool will automate analysis of water quality measurements, it also generates reports that allow for quality control review at each step.

Subobjective:

Water Quality

Type:

Assessment/Database

Highlights:

- **What:** Development of database software to automate water quality data assessment
- **Who:** EPA Region 6
- **Why:** States and regions are pursuing more efficient mechanisms to analyze data to develop Clean Water Act § 303(d) lists of impaired waters and to improve on-time submittals and EPA actions

Notable benefits of this tool include reducing state burden to analyze complex datasets, generating information that can help management decision-making, and addressing questions about TMDLs/standards. The criteria lookup tables and queries can be easily modified to accommodate different states' water quality standards. The limited amount of select query language "code" is relatively simple and easily updated by anyone with basic Microsoft Access experience.

Lessons Learned/Recommendations:

State 303(d) lists of impaired waters must be developed and validated every two years, so automating associated processes will yield benefits immediately and into the future. In Region 6, the immediate benefit of this tool has been the reduced burden of assessing large datasets for Arkansas' 303(d) list. Moreover, we have found that the tool has been invaluble for answering water quailty standards and TMDL questions related to monitoring data. On multiple occasions,

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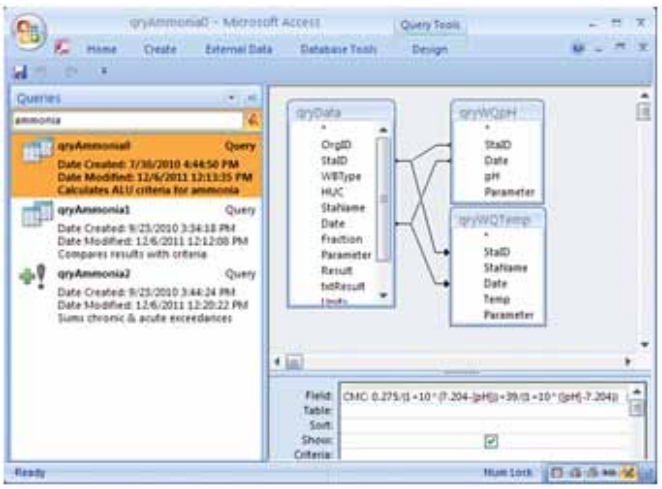
we have been able to rapidly pull specific data from more than 100,000 data points in minutes to answer specific questions on TMDLs or standards. It is important to note that the region developed this tool without any prior Access database knowledge. The database can be easily modified for use with data from other states.



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2 Gulf Coast Senior Environmental Employment Community Liaison Specialists

Brief Description:

Elders within Gulf Coast underserved and underrepresented communities are enrolled through the Senior Environmental Employment (SEE) Program to recruit older Americans age 55 and over to share their unique community and professional expertise to increase the voice and conversation of their communities' environmental concerns and generate ideas for solutions for the Gulf. SEE position announcements looking for elders with experience in needs assessment, program planning and independent working skills were run in the local community newspaper. The program piloted the effort in a community where environmental justice partnerships had been building, as in the Turkey Creek community in Mississippi. The lessons learned from the pilot increased confidence in starting Community Liaison Specialist programs in more underrepresented communities.

The liaisons help identify concerns of these vulnerable populations through work with community groups; nonprofits; and local, state, and federal agencies. In the Gulf Vietnamese community, for example, translation of environmental documents is a main concern, and recently, the Vietnamese Community Liaison from Bayou La Batre, Alabama, translated the Gulf of Mexico Alliance Community Resilience Index into Vietnamese to help the approximately 7,000 member Vietnamese Alabama/Mississippi Gulf community better recover and prepare for disasters like hurricanes and sea level rise. Decision-makers in the community will be reporting back to organizations (e.g., Boat People SOS) on how they have used the Index. The liaisons are also experts at serving as conduits in conveying relevant information in tandem with promoting a citizenry that is environmentally aware. Some of the community concerns receiving the most effort today are in the areas of seafood safety (especially marketing the safety of Gulf seafood using science rather than emotion); access to health care (which was a large concern during and subsequent to the Deepwater Horizon oil spill); environmental information accessibility; materials translated and printed in multiple languages; citizen engagement; stronger partnership among federal agencies when working with communities; and funding for resilient community revitalization.

Subobjective:

Gulf of Mexico Program Office

Type:

Community Outreach

Highlights:

- **What:** A targeted Senior Environmental Employment (SEE) Program of experienced community elders (e.g., African American, Vietnamese, Latin American) who have strong networks within their communities, which gives them the unique ability to gather and assess coastal environmental concerns of underserved and underrepresented communities that need corrective action measures developed (e.g., prevent illegal dumping in traditional fishing areas, improved construction practices).
- **Who:** Gulf of Mexico Program Office (GMPO), EPA Regions 4 and 6. Primary Partners: Asian Americans for Change; Boat People SOS; Center for Environmental and Economic Justice; Land Trust for Mississippi Coastal Plain; Mississippi Department of Environmental Quality; Mississippi Disaster Coalition; Pascagoula Audubon Center; and the Turkey Creek Community Initiative.
- **Why:** Through listening sessions with underserved and underrepresented Gulf Coast communities, it was determined that environmental concerns and potential solutions were not being effectively captured by traditional government processes. This effort also directly supports the Administrator's priority of "Expanding the Conversation on Environmentalism and Working for Environmental Justice".

Current Status:

Community liaisons are active along the northern Gulf Coast in Alabama, the Florida Panhandle, and Mississippi. During 2012, the Gulf of Mexico Program expects to enroll liaisons

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to serve communities in the rest of the Florida, Louisiana, and the Texas Gulf Coast, with a special emphasis on Hispanic and tribal communities. Environmental summits in historically underrepresented communities are currently being developed for 2012. These summits will include grant training, peer listening sessions, federal/state/city government environmental updates, and community organization successes and lessons learned sessions to aid in capacity building.

Outcomes:

As a direct result of the liaison program's feedback to EPA, "An Outreach Strategy to Strengthen Communications with Vulnerable Populations across the Gulf of Mexico" has been completed by GMPO and EPA Regions 4 and 6 to better target efforts and increase underserved and underrepresented community input across the Gulf region. Also, liaison input was extremely valuable in completing the GMPO's portion of the Limited English Proficiency Plan to meet EPA Order 1000.32 for compliance with Executive Order 13166: Improving Access to Services for Persons with Limited English Proficiency. Some environmental documents have been translated and printed in Spanish and Vietnamese, and more will follow. Because of direct input from liaisons, live Vietnamese and Spanish interpreters were made available at Gulf Coast Ecosystem Restoration Task Force public listening sessions across the Gulf. Liaisons have reached an average of 50 people each week in their communities while working on environmental concerns and solutions development. Community liaisons, using the elder community leader model, easily could be replicated and implemented using the SEE Program, as is being used on the Gulf Coast. This program is "ripe" for a large increase in scale to serve vulnerable populations across the country, because it is very cost efficient based on the SEE Program's modest cost relative to the expertise of the SEE participants.

Lessons Learned/Recommendations:

The key to these successful community liaisons is self-motivated elders respected in their communities that easily reach out to identify concerns as well as to educate people. Oftentimes, the best underused resource in a community is its elders, who largely have already had successful careers and raised families and can bring that experience to bear in giving a stronger voice to community environmental concerns and solutions. Additional keys to success include 1) being able to partner with existing community organizations such as churches and community and senior centers; 2) having a person who is seen as a member of the community; and 3) in-kind experts/university staff who can educate the community. One thing that makes this SEE Community Liaison Specialist Program easier for EPA regions is being able to use their existing cooperative agreement with their appropriate national aging organization, such as the National Council on Aging. A consideration for implementation is to ensure that the EPA office is considering the long-term environmental success of the community, especially when considering long-term funding of the liaison position and providing technical/educational support to the community. Once the relationship with the community is established, it needs to be nourished until mutual goals are met.

(a)

(b)

(a) Turkey Creek Community Leaders, Liaison Flowers White, EPA Staff, MS Land Trust, MS DEQ and (b) Turkey Creek Community Fishing with Liaison Flowers White and Gulfport Councilwoman Ella Holmes-Hines

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3 EPA's Quadrennial Comprehensive Evaluation of State Water Programs

Brief Description:

The comprehensive evaluation process is designed to evaluate two state water programs per year every four years, such that all eight states in the region are evaluated during a four-year period. The comprehensive evaluation includes two components: 1) an evaluation of the integrity of state water programs with respect to programmatic/regulatory requirements and 2) an evaluation of the effectiveness of state water programs with respect to achievement of environmental goals and objectives. The comprehensive review is designed to evaluate 1) how, where, and why certain long-term goals are being met (or are not being met); 2) the cross-program linkages and whether they are working; 3) where and why there are barriers for meeting program objectives and/or environmental outcomes; and 4) where EPA and/or state resources need to be focused. EPA Region 4 worked in coordination with the states to establish appropriate program integrity indicators, program effectiveness indicators, and self-assessment questions that are based on the Agency's strategic goals/objectives, statutory/regulatory requirements, and collective knowledge of how programs should integrate to achieve environmental results. For each evaluation, the state provides EPA with information with respect to the indicators and self-assessment questions, which in turn is evaluated and assessed by EPA. Although the final evaluation report is an EPA product, it is developed in close coordination with state programs and is intended to be a constructive mechanism for making recommendations to improve state programs and for highlighting aspects of state programs that are successful in achieving environmental goals and objectives.

Current Status:

To date, the region has completed the evaluation process for four states; the evaluation of two states is currently underway; and the evaluation of the remaining two states will be initiated during FY 2012.

Subobjective:

Water Quality

Type:

Oversight

Highlights:

- **What:** In 2009, the EPA Region 4 Water Protection Division began implementing a comprehensive evaluation process with respect to the integrity and effectiveness of state water programs.
- **Who:** Members of the region's Water Protection Division formed a workgroup composed of representatives from three state water programs that developed this process during 2008.
- **Why:** The primary purpose of this process is to improve the integrity and effectiveness of state water programs in a meaningful and constructive manner. This process complements evaluation processes that EPA continues to conduct—with respect to annual/semiannual grant management and oversight—and is intended to provide EPA and states with a longer term view of EPA and state performance.

Outcomes:

The evaluations conducted to date have helped EPA and states to focus on taking specific actions to improve the integrity of state programs and the effectiveness of state programs in achieving environmental results. To date, examples of specific actions taken as a result of the reviews include providing certain training and/or technical support to state programs, increasing focus and/or resources by the state and/or EPA to resolve an environmental issue, and accelerating EPA and/or state timeframes for taking action or making a decision. The evaluations have also highlighted certain successes and practices conducted by the states with respect to achieving environmental results,

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which has helped to educate EPA and the states in the region on how to manage their work and focus resources to maximize their ability to achieve their goals and objectives. For example, certain states in the region implement programs/requirements that are not regulated by EPA but have helped to leverage environmental results. Accordingly, the quadrennial comprehensive evaluation can serve as an important means to educate EPA and other states on improving the management and implementation of the region's programs.

Lessons Learned/Recommendations:

Implementing the quadrennial comprehensive evaluation process can potentially utilize significant resources by EPA and the states in terms of the time it takes to generate and compile the necessary information and data to address the program integrity indicators, the program effectiveness indicators, and the self-assessment questions. Between each annual cycle for conducting the evaluations, we have made some revisions to the indicators and self-assessment questions, as we have learned that certain indicators and questions are more or less valuable than we originally understood. In addition, Region 4 expects to phase out the comprehensive evaluation of state NPDES programs, as we anticipate that the implementation of the Agency's Permit Quality Review process will achieve the same result. The region recognizes that the quadrennial comprehensive evaluation process and the manner in which it conducts it should continue to be evaluated to ensure that the benefits produced for EPA and the states exceed the cost and resources used to implement it.

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Mid-Atlantic Healthy Waters Internet Blog

Brief Description:

The Mid-Atlantic Healthy Waters Internet Blog establishes an informal dialogue with the public, enabling a window into the public activities of EPA Region 3's Water Protection Division and permitting the public a participatory role in these activities. It includes posts on a variety of topics related to the Mid-Atlantic's Healthy Waters priority, an initiative based on the National Academy of Public Administration's 2007 report, *Taking Environmental Protection to the Next Level*, which recognizes that it takes partnerships to build on our progress in achieving clean water and to use these tools—as well as the traditional regulatory tools—to help tackle some of the most current and challenging water protection issues of the 21st century. It is EPA's first regional blog to be available on the Internet, and it leverages other social media networks, including Facebook, Twitter, Linkedin, and others, to support public outreach and communication. It also provides automated emails notifying blog writers that a comment was received and provides the opportunity to continue the dialogue on the subject. The Mid-Atlantic Healthy Waters Blog was established through partnerships with EPA Headquarters OEI (providing technical support) and the Office of External Affairs and Environmental Education (providing guidance on social media policy and content).

Current Status:

The Mid-Atlantic Healthy Waters Internet Blog was launched on May 14, 2010. Since then, participation in the blog has been growing steadily. Quarterly reports are issued and include visitor statistics and public comments. Visitors are primarily from EPA, but Twitter and Facebook referrals are gaining popularity. A different blog is posted every Thursday. As of early December 2011, the Water Protection Division had posted 80 blogs and received 230 comments. Since its inception, the blog has had a total of 29,211 visitors, averaging about 2,500 per month.

Subobjective:

Water Quality

Type:

Outreach

Highlights:

- **What:** The Mid-Atlantic Healthy Waters Internet Blog is an open-government initiative that leverages social media tools and is designed to bring new voices and perspectives to the Mid-Atlantic region's work in restoring and protecting water resources. It has grown to become one of EPA's Family of Greenversations blogs.
- **Who:** Region 3/Office of Environmental Information/ Office of Public Affairs.
- **Why:** The Mid-Atlantic Healthy Waters Internet Blog was developed to establish an informal dialogue and public outreach forum to assist EPA Region 3's Water Protection Division in gathering new ideas for water protection and communicating events and outreach.

Outcomes:

The Mid-Atlantic Healthy Waters Internet Blog has been used as an outreach tool to promote Chesapeake Bay public meetings; to help launch the Rain Gardens for the Bays Campaign and Green Highways projects and concepts; as a teaching tool to explain topics such as biosolids, water quality trading, and the importance of managing stormwater; and to communicate best practices for water protection for homeowners. As evidenced by several comments expressing appreciation and asking for consideration of additional areas, the blog has succeeded in providing both education and a participatory window into EPA activities in the public domain. This blog has contributed to the retooling of EPA's Greenversations from a single blog to a multi-blogging

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platform where all EPA blogs are represented as OneEPA's Family of Greenversations. The Mid-Atlantic Healthy Waters Internet Blog uses EPA-approved, out-of-the-box WordPress software and is transferrable to any other region.

Lessons Learned/Recommendations:

A strong marketing plan and a focused objective are key features of managing any blog. Resources should also be devoted to ensuring that the blog content is fresh, new, and interesting, and that comments are posted in a timely manner, according to EPA's social media policies.

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Photo courtesy of Nixon Photography/Flourish Designs, Inc.

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Rain Gardens for the Bays Campaign

Brief Description:

Unchecked stormwater carries nutrients, sediment, and toxic pollutants to receiving streams leading to Delaware and Maryland's inland and coastal bays. The Rain Gardens for the Bays Campaign was conceived and designed by EPA and its NEPs, along with willing partners from the Delaware Natural Resources and Environmental Control (DNREC), the University of Delaware (Cooperative Extension and Sea Grant programs), the Delaware Nature Society, and the Delaware Nursery and Landscape Association, among others. The goal is to design and install thousands of rain gardens in the watershed, which will result in a cumulative benefit by reducing the volume and slowing the flow of stormwater from residential and commercial properties, both private and public.

The outreach and education component will encourage property owners to make a personal contribution to water quality by creating rain gardens and installing rain barrels. Supplemental Clean Water Act Section 319 funds provided to Delaware's nonpoint source program have enabled the campaign to build demonstration rain gardens in each watershed in publicly accessible locations. Additional demonstration rain gardens have been built by the campaign's partners, including DNREC, the University of Delaware, and its NEPs.

Current Status:

To date, more than 30 demonstration rain gardens have been installed. DNREC's soil scientist visited each potential demonstration site to ensure the feasibility of a successful rain garden installation. Ten additional demonstration rain gardens will be installed in 2012. The Rain Gardens for the Bays website (www.raingardensforthebays.org) has registered more than 40 rain gardens since September 2011. Partners are gearing up for the spring planting season push to market the campaign, including a rain garden "tour" for current and potential partners.

Subobjective:

Chesapeake Bay

Type:

Green Infrastructure

Highlights:

- **What:** The Rain Gardens for the Bays Campaign includes a one-stop shop Rain Garden website, demonstration projects throughout the three Delaware and Maryland National Estuary Program (NEP) watersheds, outreach and education, training programs, and a rain garden registry.
- **Who:** The Mid-Atlantic NEPs (Partnership for the Delaware Estuary, Center for Inland Bays, Maryland Coastal Bays), states, nongovernmental organizations, and EPA.
- **Why:** Stormwater runoff continues to be a major issue in developed and developing areas of Maryland and Delaware's estuarine watersheds. Rain gardens represent a well-documented best management practice to help mitigate polluted stormwater and prevent it from entering the region's bays.

Outcomes:

Through the registration of rain gardens, the campaign partners will be able to estimate environmental benefits from each rain garden by watershed, based on the information collected. In addition, as the campaign moves forward and gains momentum, its partners will work with garden stores, nurseries, and landscapers to market, use, and promote the use of native plants in rain gardens. The campaign will continue to find opportunities to train and conduct outreach to the green industry, homeowners' associations, property owners, and public institutions (e.g., schools, hospitals, libraries).

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In partnership with Rutgers University Cooperative Extension, two rain garden workshops were conducted in Delaware, with participants receiving a certificate. A rain garden at each training location was installed as part of the certificate program. The Mid-Atlantic NEPs and Rutgers Cooperative Extension conducted rain garden workshops throughout the NEP watersheds in 2011.

Lessons Learned/Recommendations:

The many and varied partnerships the campaign has nurtured are key to making it a successful initiative. Funding is required, however, to jump start any initiative in order to demonstrate the goals of the campaign (e.g., rain gardens), to develop outreach and marketing materials, and to design a Web-based toolkit. EPA has found that both public and private landowners are willing and able to participate in the campaign if provided minimal technical assistance (e.g., soil testing), assurances of success, and incentives (e.g., design help, signage for completed rain gardens).

For continued success, sufficient Clean Water Act Section 319 funding should be provided to state programs to support the design of on-the-ground rain garden installation throughout the watersheds. Outreach to landscaping (green) businesses and "big box" and other commercial enterprises is important to build local support. In addition, Region 3 recommends working with partners to develop rain garden certification for each estuary program (similar to Rutgers University's program).

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Photo courtesy of U.S. Fish and Wildlife Service, Craig Koppie.

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6 Targeting State NPDES Permit Reviews To Align With National and Regional Priorities

Brief Description:

The key elements of this best practice are 1) identifying permits that could have the greatest impact on EPA achieving its national and regional water quality priorities, and then 2) having procedures in place to provide swift and meaningful input to the permitting authority before a critical permit is finalized. The practice is innovative in that permits are targeted for review using GIS-based data systems complementary to compliance monitoring strategies, such as permits that potentially allow sewer bypasses or overflows to persist contrary to national enforcement priority strategies. This allows permit and compliance resources to be synchronized, consistent with Clean Water Act Action Plan principles, such as joint planning and better orchestration of federal and state programs to focus resources and expertise on the most important water quality problems.

Current Status:

During the summer of FY 2011, permits for review during FY 2012 were selected using the new GIS-based process. Also during FY 2011, real-time permit review procedures were developed. Currently, all individual permit reviews are being conducted on permits identified through this best practice. Region 5's FY 2012 permit review resources are focused on the highest priority permits. This approach could easily be applied to all programs and regions where permit oversight is an element.

Outcomes:

The anticipated outcome of the targeting aspect of the project is better deployment of resources on permits that have the greatest potential impact on water quality. An anticipated outcome of the improved procedures will be higher quality permit reviews and better use of the federal authorities to improve permit quality, effectiveness, and consistency with NPDES principles. To date, these efforts have resulted in shorter compliance schedules with enforceable milestones, enhanced monitoring requirements, addition of Water Quality Based Effluent Limits, improved

Subobjective:

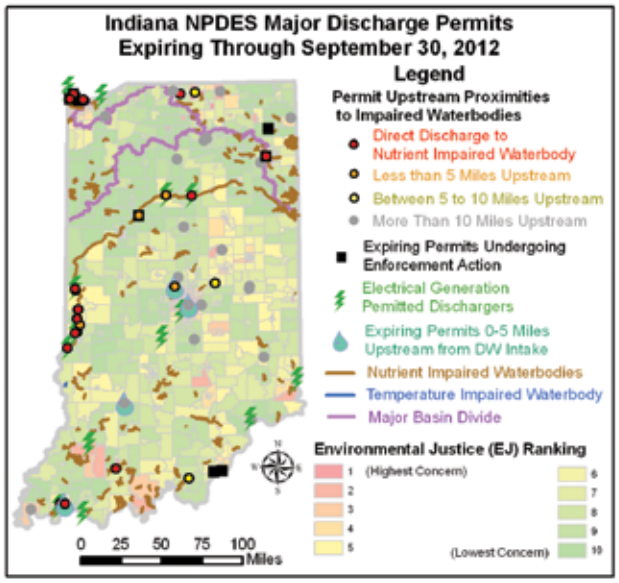
Water Quality

Type:

Oversight

Highlights:

- **What:** Enhancing state NPDES permits through real-time reviews targeting permits aligned with national and regional priorities and known water quality problems.
- **Who:** EPA Region 5, Water Division, NPDES Programs Branch.
- **Why:** Past state permit oversight consisted of reviewing NPDES permits without regard to national or regional priorities, such as environmental justice, protecting drinking water intakes, or impaired waters. The best practice employs GIS-based targeting of permit reviews and revises standard operating procedures to improve review timeliness, thoroughness, and coordination consistent with EPA's Clean Water Act Action planning principles



effluent characterization to inform reasonable potential analyses for nutrients, elimination of unauthorized bypasses, improved enforceability, and identification of long-expired permits to compel reissuance.

Lessons Learned/Recommendations:

Real-time permit reviews, when targeted in alignment with national priorities, can provide a strong complimentary tool to enforcement to help clean up targeted watersheds, implement national priority strategies, and generate measureable environmental results. Using GIS tools to map expiring permits relative to priority areas, such environmental justice areas, impaired waters, and drinking water intakes, is a strong tool for focusing limited resources, implementing Clean Water Act Action Plan principles, and earning state acceptance should an EPA objection to a permit be necessary.

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Photo courtesy of U.S. Fish and Wildlife Service, Phyllis Cooper.

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Appendix A: National Water Program FY 2011 End of Year Performance Measure Commitments, Results, and Status

ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
Goal 2: Clean and Safe Water				
Subobjective 2.1.1: Water Safe to Drink				
SDW-2.1.1	Percent of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.	91.0%	93.2%	▲
SDW-SP-1. N11	Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection.	88.0%	90.7%	▲
SDW-SP-2	Percent of "person months" (i.e. all persons served by community water systems times 12 months) during which community water systems provide drinking water that meets all applicable health-based drinking water standards.	95.0%	97.4%	▲
SDW-SP-3. 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.	80.0%	81.2%	▲
SDW-SP-4a	Percent of community water systems where risk to public health is minimized through source water protection.	36.4%	40.2%	▲
SDW-SP-4b	Percent of the population served by community water systems where risk to public health is minimized through source water protection.	52.3%	55.2%	▲
SDW-SP-5	Number of homes on tribal lands lacking access to safe drinking water.	Indicator	8.5% (32,900)	Indicator
SDW-18	Number of American Indian and Alaska Native homes provided access to safe drinking water in coordination with other federal agencies.	100,700	97,311	▼
SDW-1a	Percent of 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 Rules.	88.0%	92%	▲
SDW-1b	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 Rules.	65	74	▲

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ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
SDW-2	Percent of the data for violations of health-based standards at public water systems that is accurate and complete in SDWIS-FED for all maximum contaminant level and treatment technique rules (excluding the Lead and Copper Rule).	Indicator	N/A	Indicator
SDW-3	Percent of the Lead action level data for the Lead and Copper Rule, for community water systems serving over 3,300 people, that is complete in SDWIS-FED.	Indicator	87%	Indicator
SDW-4	Fund utilization rate [cumulative dollar amount of loan agreements divided by cumulative funds available for projects] for the Drinking Water State Revolving Fund (DWSRF).	87.7%	90.0%	▲
SDW-5	Number of Drinking Water State Revolving Fund (DWSRF) projects that have initiated operations.[a]	5,590	6,237	▲
SDW-7a	Percent of deep injection wells that are used to inject industrial, municipal, or hazardous waste (Class I) that lose mechanical integrity and are returned to compliance within 180 days thereby reducing the potential to endanger underground sources of drinking water.	84%	83%	▼
SDW-7b	Percent of deep injection wells that are used to enhance oil recovery or that are used for the disposal or storage of other oil production related activities (Class II) that lose mechanical integrity and are returned to compliance within 180 days thereby reducing the potential to endanger underground sources of drinking water.	87%	86%	▼
SDW-7c	Percent of deep injection wells that are used for salt solution mining (Class III) that lose mechanical integrity and are returned to compliance within 180 days thereby reducing the potential to endanger underground sources of drinking water.	86%	100%	▲
SDW-8	Percent of high priority Class V wells identified in sensitive ground water protection areas that are closed or permitted.[a] [Measure will still set targets and commitments and report results in both % and #.]	81%	88%	▲
SDW-11	Percent of DWSRF projects awarded to small PWS serving <500, 501-3,300 and 3,301-10,000 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	38%	Indicator
SDW-13	Percent of DWSRF loans that include assistance to disadvantaged communities.	Indicator	31%	Indicator
SDW-14	Number and percent of CWS and NTNCWS, including new PWS, serving fewer than 500 persons. (New PWS are those first reorted to EPA in last calendar year.)	Indicator	63.1%/43,728 (605 new)	Indicator

US EPA ARCHIVE DOCUMENT

ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
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 1 D/DBP, SWTR and TCR violations.	Indicator	2.1%/1,337	Indicator
SDW-16	Average time for small PWS (<500, 501-3,300, 3,301-10,000) to return to compliance with acute Nitrate/Nitrtie, Stage 1D/DBP, SWTR and TCR health-based violations (based on state-reported RTC determination data).	Indicator	167	Indicator
SDW-17	Number and percent of schools and childcare centers that meet all health-based drinking water standards.	Indicator	92%/7,114	Indicator
Subobjective 2.1.2: Fish and Shellfish Safe to Eat				
FS-SP-6	Percent of women of childbearing age having mercury levels in blood above the level of concern.	4.90%	N/A	N/A
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	36%	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	42%	Indicator
Subobjective 2.1.3: Water Safe for Swimming				
SS-SP-9.N11	Percent of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming.	91%	96%	▲
SS-1	Number and national percent, using a constant denominator, of Combined Sewer Overflow (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) which will result in compliance with the technology and water quality-based requirements of the Clean Water Act; 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).	736 (86%)	734	▼
SS-2	Percent of all Tier I (significant) public beaches that are monitored and managed under the BEACH Act program.	97%	100%	▲
Subobjective 2.2.1: Improve Water Quality on a Watershed Basis				
WQ-SP-10.N11	Number of waterbodies identified in 2002 as not attaining water quality standards where standards are now fully attained (cumulative).	2,973	3,119	▲
WQ-SP-11	Remove the specific causes of waterbody impairment identified by states in 2002 (cumulative).	9,016	9,527	▲

US EPA ARCHIVE DOCUMENT

ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
WQ-SP-12. N11	Improve water quality conditions in impaired watersheds nationwide using the watershed approach (cumulative).	208	271	▲
WQ-SP-13. N11	Ensure that the condition of the Nation's wadeable streams does not degrade (i.e., there is no statistically significant increase in the percent of streams rated "poor" and no statistically significant decrease in the streams rated "good").	n/a (not reporting until 2012)	n/a (not reporting until 2012)	Long-Term
WQ-SP-14. N11	Improve water quality in Indian country at monitoring stations in tribal waters (i.e., show improvement in one or more of seven key parameters: dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, and turbidity) (cumulative).	n/a (not reporting until 2012)	n/a (not reporting until 2012)	Long-Term
WQ-SP-15	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	8.60%	Indicator
WQ-24.N11	Number of American Indian and Alaska native homes provided access to basic sanitation in coordination with other federal agencies.	52,300	56,875	▲
WQ-1a	Number of numeric water quality standards for total nitrogen and for total phosphorus adopted by States and Territories and approved by EPA, 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).	46	45	▼
WQ-1b	Number of numeric water quality standards for total nitrogen and total phosphorus at least proposed by State and Territories, or by EPA proposed rulemaking, for all waters within the State or Territory for each of the followin gwaterbody types: lakes/ reservoirs, rivers/streams, and estuaries (cumulative, out of a universe of 280).	53	52	▼
WQ-1c	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 tototal nitrogen and total phosphrous for each waterbody type wihin the State or Territory (annual). (The universe for this measure is 56.)	19	21	▲
WQ-2	Number of Tribes that have water quality standards approved by EPA (cumulative).	39	38	▼
WQ-3a	Number, and national 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 other resources not considered in the previous standards.	37	39 (69.6%)	▲
WQ-3b	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.	13	13	▲

ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
WQ-4a	Percentage of submissions of new or revised water quality standards from States and Territories that are approved by EPA.	85.0%	91.8%	▲
WQ-5	Number of States and Territories that have adopted and are implementing their monitoring strategies in keeping with established schedules.	56	55	▼
WQ-6a	Number of Tribes that currently receive funding under Section 106 of the Clean Water Act that have developed and begun implementing monitoring strategies that are appropriate to their water quality program consistent with EPA Guidance (cumulative).	176	196	▲
WQ-6b	Number of Tribes that are providing water quality data in a format accessible for storage in EPA's data system (cumulative).	130	171	▲
WQ-7	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).	46	45	▼
WQ-8a	Number, and national percent, of TMDLs that are established or approved by EPA [Total TMDLs] on a schedule consistent with national policy. Note: A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms 'approved' and 'established' refer to the completion and approval of the TMDL itself.	2,433 (74%)	2,846 (87%)	▲
WQ-8b	Number, and national percent, of approved TMDLs, that are established by States and approved by EPA [State TMDLs] on a schedule consistent with national policy. Note: A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms 'approved' and 'established' refer to the completion and approval of the TMDL itself.	1,999 (62%)	2,482 (77%)	▲
WQ-9a	Estimated annual reduction in million pounds of nitrogen from nonpoint sources to waterbodies (Section 319 funded projects only).	8.5 million lbs	N/A	N/A
WQ-9b	Estimated annual reduction in million pounds of phosphorus from nonpoint sources to waterbodies (Section 319 funded projects only).	4.5 million lbs	N/A	N/A
WQ-9c	Estimated annual reduction in million tons of sediment from nonpoint sources to waterbodies (Section 319 funded projects only).	700,000 tons	N/A	N/A
WQ-10	Number of waterbodies identified by States (in 1998/2000 or subsequent years) as being primarily nonpoint source (NPS)-impaired that are partially or fully restored (cumulative).	251	358	▲
WQ-11	Number, and national percent, of follow-up actions that are completed by assessed NPDES (National Pollutant Discharge Elimination System) programs (cumulative).	Indicator	293	Indicator

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
WQ-12a	Percent of facilities covered by NPDES permits that are considered current.[a] (Measure will still set targets and commitments and report results in both % and #.)	88.40%	89.3%	▲
WQ-12b	Percent of tribal facilities covered by NPDES permits that are considered current.[a] (Measure will still set targets and commitments and report results in both % and #.)	84%	86.5%	▲
WQ-13a	Number, and national percent, of facilities covered under either an individual or general MS-4 permit.	Indicator	6,952	Indicator
WQ-13b	Number, and national percent, of facilities covered under either an individual or general industrial storm water permit.	Indicator	84,718	Indicator
WQ-13c	Number of facilities covered under either an individual or general construction storm water site permit.	Indicator	168,744	Indicator
WQ-13d	Number of facilities covered under either an individual or general CAFO permit.	Indicator	7,994	Indicator
WQ-14a	Number, and national percent, of Significant Industrial Users (SIUs) in POTWs with Pretreatment Programs that have control mechanisms in place that implement applicable pretreatment requirements.	19,782	20,977	▲
WQ-14b	Number, and national percent, of Categorical Industrial Users (CIUs) in non-pretreatment POTWs that have control mechanisms in place that implement applicable pretreatment requirements.	Indicator	1,229	Indicator
WQ-15a	Percent of major dischargers in Significant Noncompliance (SNC) at any time during the fiscal year.	<22.5%	N/A	N/A
WQ-15b	Of the major dischargers in Significant Noncompliance (SNC) at any time during the fiscal year, the number, and national percent, discharging pollutant(s) of concern on impaired waters.	Indicator	N/A	Indicator
WQ-16	Number, and national percent, of all major publicly-owned treatment works (POTWs) that comply with their permitted wastewater discharge standards. (i.e. POTWs that are not in significant non-compliance)	4,256 (86%)	86.70%	▲
WQ-17	Fund utilization rate [cumulative loan agreement dollars to the cumulative funds available for projects] for the Clean Water State Revolving Fund (CWSRF).	94.5%	98%	▲
WQ-19a	Number, and national percent, of high-priority state NPDES permits that are issued as scheduled.	702 (100%)	943 (134%)	▲
WQ-19b	Number, and national percent, of high priority state and EPA (including tribal) NPDES permits, that are issued as scheduled.[a]	763 (100%)	1,005 (132%)	▲

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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	461	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	14,898	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	4	Indicator
WQ-22b	Number of states that have completed at least 2 of the major components of a Healthy Watershed Initiative assessment.	Indicator	5	Indicator
WQ-23	Percent of serviceable rural Alaska homes with access to drinking water supply and wastewater disposal.	91%	N/A	N/A
Subobjective 2.2.2: Improve Coastal and Ocean Waters				
CO-2.2.2.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 Report.	2.8	2.8	▲
CO-SP-16	Maintain aquatic ecosystem health on the 'good/fair/poor' scale of the National Coastal Condition Report in the Northeast Region.	2.4	2.4	▲
CO-SP-17	Maintain aquatic ecosystem health on the 'good/fair/poor' scale of the National Coastal Condition Report in the Southeast Region.	3.6	3.6	▲
CO-SP-18	Maintain aquatic ecosystem health on the 'good/fair/poor' scale of the National Coastal Condition Report in the West Coast Region.	2.4	2.4	▲
CO-SP-19	Maintain aquatic ecosystem health on the 'good/fair/poor' scale of the National Coastal Condition Report in Puerto Rico.	1.7	1.7	▲
CO-SP-20.N11	Percent of active dredged material ocean dumping sites that will have achieved environmentally acceptable conditions (as reflected in each site's management plan and measured through on-site monitoring programs).	98%	93%	▼
4.3.2	Working with partners, protect or restore additional acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program (NEP).	100,000	62,213	▼
CO-2	Total coastal and non-coastal acres protected from vessel sewage by 'no discharge zone(s)'.[a]	Indicator	54,494	Indicator

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
CO-3	Number of National Estuary Program priority actions in Comprehensive Conservation and Management Plans (CCMPs) that have been completed (cumulative).	Indicator	300	Indicator
CO-4	Rate of return on Federal investment for the National Estuary Programs [dollar value of 'primary' leveraged resources (cash or in-kind) divided by Section 320 funds].	Indicator	$662.00	Indicator
CO-5	Number of dredged material management plans that are in place for major ports and harbors.	Indicator	40	Indicator
CO-6	Number of active dredged material ocean dumping sites that are monitored in the reporting year.	Indicator	33	Indicator
CO-7	Maintain aquatic ecosystem health on the "good/fair/poor" scale of the National Coastal Condition Report in the Hawaii Region.	4.5	4.5	▲
CO-8	Maintain aquatic ecosystem health on the "good/fair/poor" scale of the national Coastal Condition Report in the Central Alaska Region.	5	5	▲
Subobjective 4.3.1: Increase Wetlands				
WT-SP-21	Working with partners, achieve a net increase of acres of wetlands per year with additional focus on biological and functional measures and assessment of wetland condition.[a]	n/a (not reporting in 2011)	n/a (not reporting in 2011)	Long-Term
WT-SP-22	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	▲
WT-1	Number of acres restored and improved, under the President's 2004 Earth Day Initiative (cumulative).	150,000	154,000	▲
WT-2a	Number of States that have built capacities in wetland monitoring, regulation, restoration, water quality standards, mitigation compliance, and partnership building.	Indicator	54	Indicator
WT-2b	Number of Tribes that have built capacities in wetland monitoring, regulation, restoration, water quality standards, mitigation compliance, and partnership building.	Indicator	29	Indicator
WT-3	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 08 documents requirements for greater environmental protection than originally proposed.	Indicator	88%	Indicator
WT-4	Number of states measuring baseline wetland condition–with plans to assess trends in wetland condition as defined through condition indicators and assessments (cumulative).[a]	26	29	▲
Subobjective 4.2.4: Sustain and Restore the U.S.–Mexico Border Environmental Health				
MB-SP-23	Loading of biochemical oxygen demand (BOD) removed (cumulative million pounds/year) from the U.S.–Mexico Border area since 2003.	108.2	108.5	▲

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MB-SP-24. N11	Number of additional homes provided safe drinking water in the U.S.–Mexico Border area that lacked access to safe drinking water in 2003.[a]	2,000	2,604	▲
MB-SP-25. N11	Number of additional homes provided adequate wastewater sanitation in the U.S.–Mexico Border area that lacked access to wastewater sanitation in 2003.[a]	207,000	259,371	▲
Subobjective 4.2.5: Sustain and Restore Pacific Island Territories				
PI-SP-26	Percent of the population served by community water systems in the U.S. Pacific Island Territories that receive continuous drinking water that meets all applicable health-based drinking water standards.	75%	87%	▲
PI-SP-27	Percent of the time that the sewage treatment plants in the U.S. Pacific Island Territories comply with permit limits for biochemical oxygen demand (BOD) and total suspended solids (TSS).	63%	50%	▼
PI-SP-28	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%	77%	▼
Subobjective 4.3.3: Improve the Health of the Great Lakes				
GL-4.3.3.N11	Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic ecosystems.	23.4	21.9	▼
GL-SP-29	Cumulative percentage decline for the long-term trend in average concentrations of PCBs in whole lake trout and walleye samples.	37%	44%	▲
GL-14	Number of Areas of Concern in the Great Lakes Basin where all management actions necessary for delisting have been implemented (cumulative).	1	2	▲
GL-SP-32.N11	Cubic yards of contaminated sediments remediated (cumulative) in the Great Lakes.	7.2 million	8.4	▲
GL-5	Number of Beneficial Use Impairments removed within Areas of Concern (cumulative).	26	26	▲
GL-6	Number of nonnative species newly detected in the Great Lakes ecosystem.	1	0.83 (1)	▲
GL-7	Number of multi-agency rapid response plans established, mock exercises to practice responses carried out under those plans, and/or actual response actions.	7	10	▲
GL-8	Percentage of beaches meeting bacteria standards 95% or more of beach days.	87%	62%	▼
GL-9	Acres managed for populations of invasive species controlled to a target level (cumulative).	1,500	13,045	▲

US EPA ARCHIVE DOCUMENT

ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
GL-10	Percent of populations of native aquatic non-threatened and endangered species self-sustaining in the wild (cumulative).	35%	31%	▼
GL-11	Number of acres of wetlands and wetland-associated uplands protected, restored and enhanced (cumulative).	7,500	9,624	▲
GL-12	Number of acres of coastal, upland, and island habitats protected, restored and enhanced (cumulative).	20,000	12,103	▼
GL-13	Number of species delisted due to recovery.	1	1	▲
GL-15	Five-year average annual loadings of soluble reactive phosphorus (metric tons per year) from tributaries draining targeted watersheds.	0.5%	N/A	N/A
GL-16	Acres in Great Lakes watershed with USDA conservation practices implemented to reduce erosion, nutrients, and/or pesticide loading.	2.0%	62%	▲
Subobjective 4.3.4: Improve the Health of the Chesapeake Bay Ecosystem				
CB-SP-33.N11	Percent of Submerged Aquatic Vegetation goal of 185,000 acres achieved, based on annual monitoring from prior year.	Long-Term	43%	Long-Term
CB-SP-34	Percent of Dissolved Oxygen goal of 100% standards attainment achieved, based on annual monitoring from the previous calendar year and the preceding 2 years.	Long-Term	39%	Long-Term
CB-SP-35	Percent of goal achieved for implementation of nitrogen reduction practices (expressed as progress meeting the nitrogen reduction goal of 162.5 million pounds reduced).	56%	N/A	N/A
SP-36	Percent of goal achieved for implementation of phosphorus reduction practices (expressed as progress meeting the phosphorus reduction goal of 14.36 million pounds).	70%	N/A	N/A
SP-37	Percent of goal achieved for implementation of sediment reduction practices (expressed as progress meeting the sediment reduction goal of 1.69 million tons reduced).	69%	N/A	N/A
CB-1a	Percent of point source nitrogen reduction goal of 49.9 million pounds achieved.	78%	N/A	N/A
CB-1b	Percent of point source phosphorus reduction goal of 6.16 million pounds achieved.	99%	N/A	N/A
CB-2	Percent of forest buffer planting goal of 10,000 miles achieved.	69%	72%	▲

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

ACS Code	FY 2011 National Water Program Guidance Measure Text	FY 2011 National Commitment	FY 2011 National End of Year Result	FY 2011 Status
Subobjective 4.3.5: Improve the Health of the Gulf of Mexico				
GM-4.3.5	Improve the overall health of coastal waters of the Gulf of Mexico on the "good/fair/poor" scale of the National Coastal Condition Report.	2.6	2.4	▼
GM-SP-38	Restore water and habitat quality to meet water quality standards in impaired segments in 13 priority areas (cumulative starting in FY 07).	128	286	▲
GM-SP-39	Restore, enhance, or protect a cumulative number of acres of important coastal and marine habitats (cumulative starting in FY 07).	30,000	30,052	▲
GM-SP-40	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 5-year running average of the size of the zone.	commitment deferred	17,520	Indicator
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 operations in Campeche, MX	Binational operations completed	▲
Subobjective 4.3.6: Restore and Protect Long Island Sound				
LI-SP-41	Reduce point source nitrogen discharges to Long Island Sound as measured by the Long Island Sound Nitrogen Total Maximum Daily Load (TMDL).	55%	69%	▲
LI-SP-42	Reduce the size of the hypoxic area in Long Island Sound (i.e., defined as the area in which the long-term average maximum July-September dissolved oxygen level is <3mg/l b; reduce the average duration of the maximum hypoxic event).	commitment deferred	130 sq miles and 54 days	Long-Term
LI-SP-43	Restore or protect acres of coastal habitat, including tidal wetlands, dunes, riparian buffers, and freshwater wetlands.	832%	890%	▲
LI-SP-44	Reopen miles of river and stream corridor to anadromous fish passage through removal of dams and barriers or installations of by-pass structures such as fishways (cumulative starting in FY 06).	92%	72%	▼
Subobjective 4.3.7: Restore and Protect the South Florida Ecosystem				
SFL-SP-45	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, tribal, and local).	Indicator	Not Achieved	Indicator
SFL-SP-46	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	Maintained	Indicator
SFL-SP-47a	At least seventy five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain Chlorophyll a (CHLA) levels at less than or equal to 0.35ug1-1 and light clarity (Kd) levels at less than or equal to 0.20m-1.	75%	85.40%	▲

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SFL-SP-47b	At least seventy five percent 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 at less than or equal to 0.75 µM and total phosphorus (TP) levels at less than or equal to 0.25 µM.	75%	73.60%	▼
SP-48	Improve water quality of the Everglades ecosystem as measured by total phosphorus, including meeting the 10 parts per billion (ppb) total phosphorus criterion throughout the Everglades Protection Area marsh and the effluent limits for discharges from stormwater treatment areas.	Maintain	Not Maintained	▼
SF-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 two percent (1500 EDUs) annually.	Indicator	23.80%	Indicator
Subobjective 4.3.8: Restore and Protect the Puget Sound Basin				
PS-SP-49	Improve water quality and enable the lifting of harvest restrictions in acres of shellfish bed growing areas impacted by degraded or declining water quality (cumulative starting in FY 06).	4,953	1,525	▼
PS-SP-50	Remediate acres of prioritized contaminated sediments (cumulative starting in FY 06).	163	123	▼
PS-SP-51	Restore acres of tidally- and seasonally-influenced estuarine wetlands (cumulative starting in FY 06).	12,363	14,629	▲
Subobjective 4.3.9: Restore and Protect the Columbia River Basin				
SP-52	Protect, enhance, or restore acres of wetland habitat and acres of upland habitat in the Lower Columbia River watershed (cumulative starting in FY 05)	16,300	16,661	▲
SP-53	Clean up acres of known contaminated sediments. (cumulative starting in FY 06).	60	63	▲
SP-54	Demonstrate a reduction in mean concentration of contaminants of concern found in water and fish tissue (cumulative starting in FY 06).	10% reduction	N/A	N/A

US EPA ARCHIVE DOCUMENT

Appendix B: Performance Measurement Changes From FY 2010 to FY 2011

ACS Code	Abbreviated Measure Description	Change in FY 2011
Subobjective: Water Safe to Drink		
SP-5	Tribal households with safe drinking water	Modified from Commitment to Indicator
SDW-18	Indian & Alaska native homes safe drinking water	New
SDW-9	CWS intakes for drinking water uses	Deleted
SDW-10a	Drinking water impairments with TMDL	Deleted
SDW- 10b	Drinking water impairments restored	Deleted
SDW-11	DWSRF projects for small systems	New
SDW-12	DWSRF dollars for small systems	New
SDW-13	DWSRF loans for disadvantaged communities	New
SDW-14	CWS serving small communities	New
SDW-15	Small CWS with violations	New
SDW-16	Small CWS with violations over time	New
SDW-17	Schools/childcare meeting safe standards	New
Subobjective: Fish and Shellfish Safe to Eat		
SP-6	Women and mercury blood levels	Modified to defer reporting
Subobjective: Water Safe for Swimming		
SP-8	Waterborne disease and swimming	Deleted
Subobjective: Improve Water Quality on a Watershed Basis		
SP-15	Reduce tribal households lacking sanitation	Modified from Commitment to indicator
WQ-24	Indian & Alaska Native homes access to sanitation	New
WQ-1a	State/Territories adopted nutrient criteria	Deleted
WQ-1b	State/Territories on schedule to adopt nutrient criteria	Deleted
WQ-1a	Numeric nutrient water quality standards approved	New
WQ-1b	Numeric nutrient water quality standards proposed	New
WQ-1c	Numeric nutrient water quality standards milestones	New
WQ-4b	Tribal water quality standard submissions	Deleted

US EPA ARCHIVE DOCUMENT

ACS Code	Abbreviated Measure Description	Change in FY 2011
WQ-22a	Regions Healthy Watershed Initiative	New
WQ-22b	States Healthy Watershed Initiative	New
WQ-23	Alaska homes access to drinking water & sanitation	New
Subobjective: Improve Coastal and Ocean Waters		
CO-1	Coastal waterbody impairments restored	Deleted
Subobjective: Improve the Health of the Great Lakes		
SP-29	Reduce PCBs in Great Lakes fish	Modified reporting requirements
SP-30	Reduce PCBs in Great lakes air	Deleted
SP-31	Restore AOCs	Modified as long term indicator
GL-1	Permitted discharges reflect standards	Deleted
GL-2	CSO permits consistent with national policy	Deleted
GL-3	High priority–Great Lakes beaches	Deleted
GL-4a	Great Lakes near term actions on track	Deleted
GL-4b	Great Lakes near term actions completed	Deleted
GL-6	Great Lakes nonnative species detected	New
GL-7	Great Lakes rapid response plans	New
GL-8	Great Lakes beaches meeting bacteria standards	New
GL-9	Great Lakes acres managed for invasive species	New
GL-10	Great Lakes endangered species sustaining	New
GL-11	Great Lakes acres of wetlands protected	New
GL-12	Great Lakes acres of habitat protected	New
GL-13	Great Lakes species delisted	New
GL-15	Great Lakes loadings of phosphorus	New
GL-16	Great Lakes acres under watershed conservation practices	New
Subobjective: Restore and Protect the Gulf of Mexico		
GM-3a	Gulf near term actions on track	Deleted
GM-3b	Gulf near term actions completed	Deleted
Restore and Protect the South Florida Ecosystem		
SP-45	Achieve no net loss in South Florida stony coral	Modified from Commitment to Indicator
SP-46	Maintain health of South Florida sea grass	Modified from Commitment to Indicator
SP-47a	Maintain South Florida coastal water quality–chlorophyll[a]	New

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ACS Code	Abbreviated Measure Description	Change in FY 2011
SP-47b	Maintain South Florida coastal water quality–nitrogen/phosphorus	New
SF-1	South Florida advanced sewage treatment	New

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Appendix C: Measuring Ambitiousness of Regional Commitments

EPA employed three overarching comparisons to evaluate regional ambitiousness: the difference between FY 2011 Regional Commitments and FY 2011 National Commitments; the difference between FY 2011 Regional Commitments and FY 2010 Regional Results; and FY 2011 Regional Commitments as a percentage of FY 2011 Regional Universes. EPA evaluated percentage-based commitment measures according to the former two methods and numeric commitment measures according to the latter. Each of these three comparisons was subdivided into two analyses: one that ranked the regions according to the average difference or spread of the data per measure, and another that ranked the regions according to the average rank across each comparison for each measure. The methodology behind these analyses is described in more detail below.

Rank Based on Percentage Difference or Spread

This analysis involved three parts:

1) Compare the FY 2011 Regional Commitments to three other categories: FY 2011 National Commitments, FY 2010 Regional Results, and FY 2011 Regional Universes.

   a) Calculate the percentage difference between the FY 2011 Regional Commitments and the FY 2011 National Commitments for each region by commitment measure.

   b) Calculate the percentage difference between the FY 2011 Regional Commitments and the FY 2010 Regional Results for each region by commitment measure.

   c) Calculate the percentage of each FY 2011 Regional Universe represented by the FY 2011 Regional Commitments for each commitment measure.

2) Average the values from steps 1a), 1b), and 1c) for each region.

   a) The resulting value from averaging the percentages in step 1a) is the average difference between the FY 2011 Regional Commitments and the FY 2011 National Commitments for each region, taken across the 19 percentage commitment measures.

   b) The resulting value from averaging the percentages in step 1b) is the average difference between the FY 2011 Regional Commitments and the FY 2010 Regional Results for each region, taken across the 19 percentage commitment measures.

   c) The resulting value from averaging the percentages in step 1c) is the average percentage of the FY 2011 Regional Universes represented by the FY 2011 Regional Commitments, taken across the 17 numeric commitment measures.

3) Rank each region according to the averages obtained in step 2). Each region was given three rankings based on the percentage difference of the three comparisons. The largest percentages received a rank of 1, whereas the lowest received a rank of 10 (in the absence of a tied rank).

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Measuring Average Rank

In addition to the three measures of difference or spread described above, EPA also used a method that ranked each region for each commitment measure. The three steps used for this method were:

1) Same process as in step 1) of the measuring percentage difference method.

2) Assign regions a rank for each measure, with the largest percentage difference receiving a rank of 1 and the lowest a rank of 10 (in the absence of a tied rank or missing data). Each region was given three rankings based on its order within each comparison.

3) Average the rankings for each region across those measures that have data for all 10 regions. Assign an overall rank to these averages; the lowest figure should receive a rank of 1 and the highest a rank of 10.

Results of Ambitiousness Analysis

The two methods used to measure ambitiousness resulted in a total of six rankings for each region (see Table 1). EPA aggregated these six rankings in two ways: 1) by noting the percentage of those six ranks that had a value ≥ 5 and 2) by averaging all six to produce one overall ranking. To compare the percent ranked ≥ 5 approach to the overall ranking approach, five categories were created to describe the results (from most to least ambitious): 1) "consistently high," 2) "moderately high," 3) "mixed," 4) "moderately low," and 5) "consistently low." Table 2 describes how these categories were assigned to each region, while Table 3 summarizes the two overall rankings, along with data demonstrating the percentage of commitment measures met by each region in FY 2011.

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Table 1:

EPA Regions	FY 2011 Regional Commitments vs. FY 2011 National Commitments				FY 2011 Regional Commitments vs. FY 2010 Regional Results				FY 2011 Regional Commitments vs. FY 2011 Regional Universes				Average Rank
	Average Difference in FY 2011 Regional Commitments and FY 2011 National Commitments	Rank	Average FY 2011 Regional Commitment Rank	Rank	Average Difference in FY 2011 Regional Commitments and FY 2010 Regional Results	Rank	Average FY 2011 Regional Commitment Rank	Rank	Average FY 2011 Regional Commitment as Percent of Regional Universes	Rank	Average FY 2011 Regional Commitment Rank	Rank	
1	4.40%	2	5	5	-11.80%	10	7.82	10	56.42%	10	5.78	10	7.83
2	6.10%	1	5.36	7	-6.10%	8	5.73	6	73.10%	1	2.89	3	4.33
3	-0.70%	6	5.55	8	-4.80%	6	6.36	9	58.31%	9	3.89	5	7.17
4	3.90%	3	4	2	0.70%	3	3.73	1	64.20%	5	4.00	7	3.50
5	-3.70%	8	4.18	3	-7.90%	9	6	8	68.03%	3	2.78	2	5.50
6	2.20%	5	4.82	4	-1.80%	4	5.73	6	61.06%	8	3.11	4	5.17
7	-7.80%	9	6.18	9	1.40%	2	5.09	4	62.04%	7	4.00	7	6.33
8	3.50%	4	3.91	1	4.60%	1	3.91	2	69.27%	2	2.56	1	1.83
9	-11.70%	10	6.91	10	-4.40%	5	4.27	3	65.34%	4	4.44	8	6.67
10	-2.70%	7	5.18	6	-5.90%	7	5.82	7	62.89%	6	5.11	9	7.00

Note: Green shading = two highest ranked regions within that category; Orange shading = two lowest ranked regions within that category.

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Table 2:

Categories	Percent With Rank At Or Above Rank Of 5	Average Rank
Consistently high	6/6, or 100%	< -2σ of μ, or < 1.99
Moderately high	4/6 to 5/6, or 66.7% to 83.3%	< -0.5σ to -2σ of μ, or 1.99 to 4.64
Mixed	3/6, or 50%	-0.5σ to +0.5σ of μ, or 4.65 to 6.42
Moderately low	1/6 to 2/6, or 16.7% to 33.3%	> +0.5σ to +2σ of μ, or 6.43 to 9.07
Consistently low	0/6, or 0%	> +2σ of μ, or > 9.07

Note: The standard deviation, or σ, of the 10 regions' average rank values is 1.77. The mean, or μ, of the 10 average rank values is 5.53.

Table 3:

Region	FY 2011 Commitment Measures Met	FY 2011 Commitment Measures Met Rank	Percent With Rank ≥ 5	Percent With Rank ≥ 5 Categories	Average Rank	Average Rank Categories
1	95%	1	33%	Moderately low	7.83	Moderately low
2	93%	2	50%	Mixed	4.33	Moderately high
3	75%	9	33%	Moderately low	7.17	Moderately low
4	76%	7	83%	Moderately high	3.50	Moderately high
5	87%	4	50%	Mixed	5.50	Mixed
6	83%	5	67%	Moderately high	5.17	Mixed
7	73%	10	33%	Moderately low	6.33	Mixed
8	76%	7	100%	Consistently high	1.83	Consistently high
9	90%	3	50%	Mixed	6.67	Moderately low

IMPLICATIONS FOR REGIONS

As indicated in Table 3, there is a substantial degree of correspondence between the categories assigned to the "Percent with Rank ≥ 5" analysis results and those of the "Average Rank" analysis; each region has either the same category in both columns or two different categories that are no more than one step from each other (i.e., we do see "mixed" and "moderately low/high" but not "mixed" and "consistently low"). The relationship between these two sets of categories is described on pages 20–21 of the report. However, Table 6 in the report and the correlation between required levels of ambitiousness and performance demonstrate that these results are not universally consistent with the FY 2011 commitment measures met by each region's data; regions that performed well in terms of commitment measures met were not necessarily the most ambitious, and vice versa.

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