

US EPA ARCHIVE DOCUMENT

## FY 2011 National Water Program End of Year Performance by Subobjective

The following chapters provide a summary of the progress made toward accomplishing environmental and program goals for each subobjective described in the *FY 2011 National Water Program Guidance*. Each subobjective chapter includes the following information:

- A brief summary of overall performance in 2011 and the previous four years for measures under each subobjective.
- A description of performance highlights, including what commitments were met and what factors contributed to success.
- A description of management challenges, if appropriate, identifying key factors that led to measures not being met and next steps to improve performance for the future.

Each subobjective section focuses primarily on measures with FY 2011 commitments. Indicator measures are discussed where trends significantly differ from previous year's results. Annual Commitment System (ACS) measure codes (e.g., SP-1) are provided in the text in parentheses.

### Key for Reading Performance Measure Charts and Tables

For all charts with national trend results, commitments are reflected by blue trend lines and results by vertical bars. For charts with regional FY 2011 results, a dotted line (in orange) indicates the national FY 2011 commitment for that particular measure. Although regions use the national commitment as a point of reference in setting their annual commitments, regional commitments may vary based on specific conditions within each region. Green bars in both national and regional charts identify commitments met, and red bars identify measures not met. A purple bar indicates that the Agency did not set a commitment for that year.

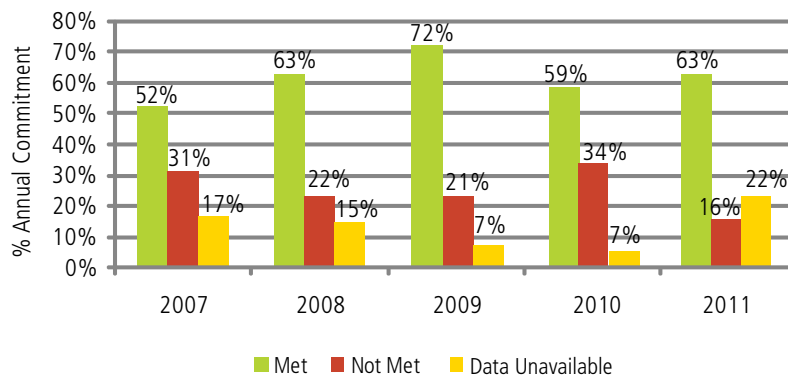
For the measure summary tables in each subobjective chapter, a green "up" arrow means that a measure met its FY 2011 commitment, and a red "down" arrow indicates that the annual commitment was not met. The letter "I" means that the measure is an indicator measure and did not have an annual commitment for FY 2011. Measures without data or not reporting in FY 2011 are indicated by "Data Unavailable." An "LT" symbol notes that the measure has a long-term goal and does not have an annual commitment. A gold star (★) in the past trends column highlights that the measure has met its annual commitment 100% of the time over the past four or five years. And finally, the appendix number represents the page in Appendix D (A-00) on the website where additional details about the measure can be found, and the figure number is the number of the chart in the chapter.



## Subobjective: Water Quality

EPA and states met 63% of their commitments under the Water Quality subobjective in FY 2011 and fell short on 16%; data were not available for 22%. The percentage of commitments met increased in FY 2011 after declining to 59% in FY 2010. The number of measures with commitments that were not met in FY 2011 (16%) was significantly lower than 2010 (34%), but the percent of measures with data unavailable or not reporting was higher than the previous year (22%) (Figure 17).

**Figure 17: Water Quality Subobjective  
Five-Year Trend by Fiscal Year**



FY 2011 ACS Code	Abbreviated Measure Description	Commitment Met/ Not Met (I = Indicator) (Data Unavailable = No Data/Not Reporting) (LT = Long-Term Target)	Past Trends: # of Years Met	Appendix Page Number (D-0)/ Figure Number
<b>Subobjective 2.2.1 Water Quality</b>				
SP-10	Formerly impaired waterbodies now meeting standards	▲	5/5 ★	D-16/Fig. 18
SP-11	Remove causes of waterbody impairment	▲	3/4	D-16
SP-12	Improve water quality w/ watershed approach	▲	4/4 ★	D-17
SP-13	Ensure wadeable stream conditions	LT		D-17
SP-14	Show improvement in tribal waters	LT		D-17
SP-15	Reduce tribal households lacking sanitation	I		D-18
WQ-24	Indian and Alaska Native homes with access to sanitation	▲	1/1	D-18/Fig. 75
WQ-1a	Numeric nutrient water quality standards approved	▼	0/1	D-18
WQ-1b	Numeric nutrient water quality standards proposed	▼	0/1	D-19
WQ-1c	State/territories providing nutrient water quality standards mile-stones	▲	1/1	D-19
WQ-2	Tribes with approved water quality standards	▼	1/5	D-20/Fig. 76
WQ-3a	States/territories with updated water quality criteria	▲	3/5	D-20/Fig. 21
WQ-3b	Tribes with updated water quality criteria	▲	5/5 ★	D-21
WQ-4a	States/territorial water quality standards revisions approved	▲	5/5 ★	D-21/Fig. 23
WQ-5	States/territories adopted monitoring strategies	▼	1/5	D-22/Fig. 25
WQ-6a	Tribes implementing monitoring strategies	▲	4/5	D-22/Fig. 77
WQ-6b	Tribes providing water quality data	▲	5/5 ★	D-23
WQ-7	States/territories using Assessment Database (ADB)	▼	1/5	D-23
WQ-8a	Total TMDLs	▲	5/5 ★	D-24/Fig. 27
WQ-8b	TMDLs developed by states	▲	4/5	D-25
WQ-9a	Nitrogen reduction	Data Unavailable	4/5	D-25
WQ-9b	Phosphorus reduction	Data Unavailable	1/5	D-26
WQ-9c	Sediment reduction	Data Unavailable	4/5	D-26
WQ-10	NPS-impaired waterbodies restored	▲	4/5	D-27/Fig. 35
WQ-11	NPDES follow-up actions completed	I		D-28
WQ-12a	Non-tribal NPDES permits current	▲	5/5 ★	D-28/Fig. 29
WQ-12b	Tribal permits current	▲	2/5	D-29/Fig. 78
WQ-13a	Facilities covered by MS-4 permit	I		D-30
WQ-13b	Facilities covered by industrial stormwater permit	I		D-30
WQ-13c	Facilities covered by construction stormwater permit	I		D-31
WQ-13d	Facilities covered by CAFO permit	I		D-31
WQ-14a	POTWs SIUs control mechanisms in place	▲	4/5	D-31
WQ-14b	POTWs CIUs control mechanisms in place	I		D-32



FY 2011 ACS Code	Abbreviated Measure Description	Commitment Met/ Not Met (I = Indicator) (Data Unavailable = No Data/Not Reporting) (LT = Long-Term Target)	Past Trends: # of Years Met	Appendix Page Number (D-0)/ Figure Number
<b>Subobjective 2.2.1 Water Quality</b>				
WQ-15a	Percent major dischargers in SNC	Data Unavailable	2/5	D-33
WQ-15b	Major dischargers on impaired waters in SNC	I		D-33
WQ-16	POTWs comply wastewater discharge standards	▲	3/5	D-33
WQ-17	CWSRF Fund utilization rate	▲	5/5 ★	D-34/Fig. 33
WQ-19a	High-priority state NPDES permits	▲	5/5 ★	D-35
WQ-19b	High-priority EPA NPDES permits	▲	5/5 ★	D-35/Fig. 31
WQ-20	Facilities providing trading	I		D-36
WQ-21	Impaired segments restoration planning complete	I		D-37
WQ-22a	Regions Healthy Watershed Initiative	I		D-37
WQ-22b	State Healthy Watershed Initiative	I		D-37
WQ-23	Alaska homes access to drinking water and sanitation	Data Unavailable		D-37

**Notes:** NPS = nonpoint source; CAFO = concentrated animal feeding operation; POTW = publicly owned treatment works; SIU = significant industrial user; CIU = categorical industrial user; SNC = significant noncompliance; CWSRF = Clean Water State Revolving Fund.

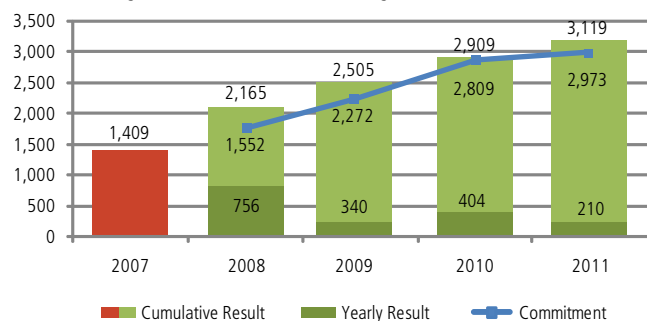


## FY 2011 Performance Highlights and Management Challenges

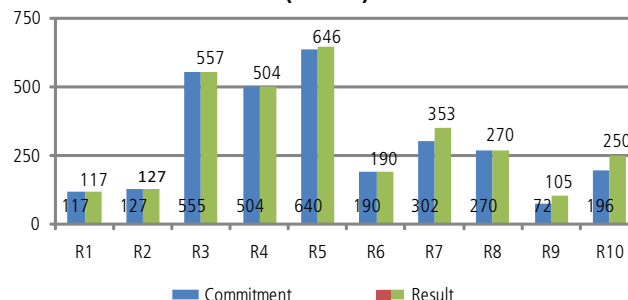
**Attaining Water Quality Standards in Impaired Waters:** The Agency continues to make progress in ensuring that water quality standards are fully attained in waterbodies listed as impaired. At the end of 2011, a cumulative 3,119 of the waters listed as impaired in 2002 met standards for all the impairments identified, thus exceeding the FY 2011 commitment of 2,973<sup>13</sup> (SP-10) (Figure 18). All EPA regions met their 2011 commitments (Figure 19). The Agency has achieved 93% of its FY 2014 goal of 3,250 waterbodies. Of a universe of 39,503 impaired waterbodies identified in 2002, about 8% were attaining standards by the end of FY 2011 (Figure 20).

By the end of 2011, EPA and states had removed 9,527 specific causes of waterbody impairments identified by states in 2002 (SP-11). Reviewing of late CWA 303(d) lists of impaired waters and audits of older lists from individual states undertaken by several regions are factors contributing to exceeding the commitment in FY 2011. In the future, EPA expects results to be lower because many of the remaining impairments of those identified in 2002 will require several years before restoration strategies result in full recovery of the waterbody segment. This phenomenon can already be observed in the gradual decline of the yearly results over the past few years.

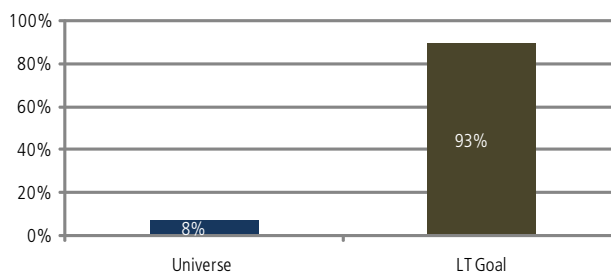
**Figure 18: Formerly Impaired Waterbodies Meeting Quality Standards Trends by Fiscal Year (SP-10)**



**Figure 19: FY 2011 Formerly Impaired Waterbodies Now Meeting Water Quality Standards by Region (SP-10)**



**Figure 20: Percent Toward Universe and Long-Term Goal (SP-10)**



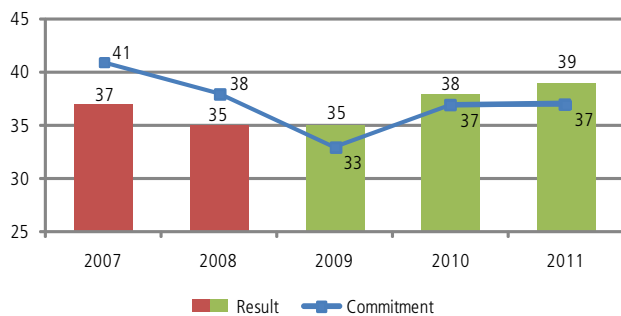
<sup>13</sup> Information for this commitment is based on CWA 305(b) reports submitted by states on a biannual basis. To some extent, EPA exceeded its commitment for this measure due to receiving late FY 2008 and timely FY 2010 Integrated Reports.

EPA and states were successful in improving water quality conditions cumulatively through 2011 in 271 impaired watersheds nationwide using the watershed approach (SP-12). This was a 40% increase over the 2010 result of 168 improved watersheds nationwide. All regions met their commitments last year, with several exceeding their expectations by large amounts. The reasons for these high results varied across regions. Some regions devoted more effort toward identifying and documenting cases where water quality improvements have occurred, while other regions conducted more sophisticated assessments that revealed that more watersheds had improved than originally expected.

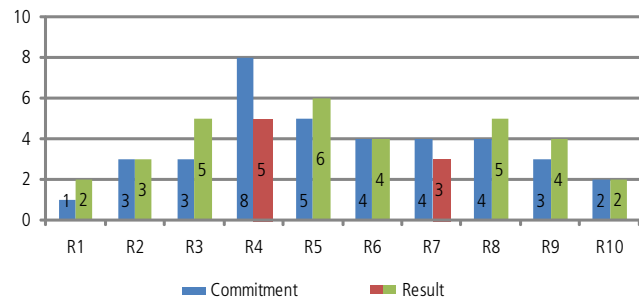
**Water Quality Criteria and Standards:** Water quality standards are the regulatory and scientific foundation of water quality protection programs under the Clean Water Act (CWA). Under the CWA, states, territories, and authorized tribes establish water quality standards that define the designated uses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

For the third year in a row, states and territories met regional commitments for submitting new or revised water quality criteria acceptable to EPA that reflect new scientific information (WQ-3a) (Figure 21). The FY 2011 result of 39 states and territories was above the national goal of 37. Eight of 10 regions met their commitments (Figure 22).

**Figure 21: States/Territories Submitted Water Quality Criteria Trend by Fiscal Year (WQ-3a)**

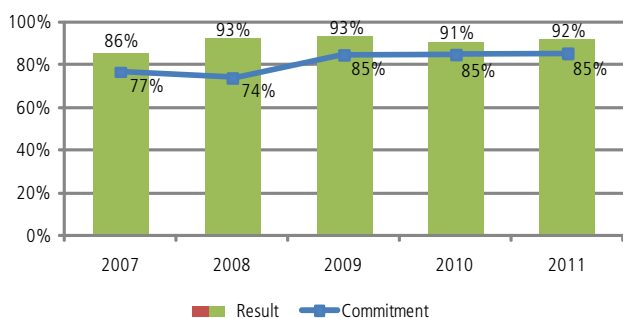
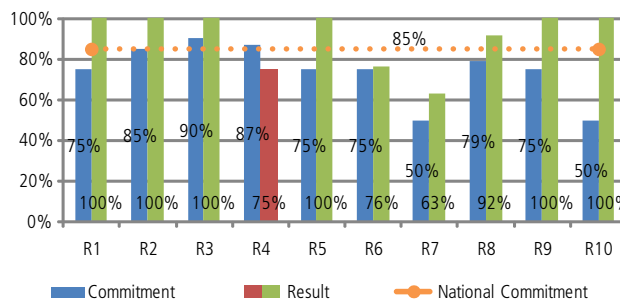


**Figure 22: FY 2011 States/Territories Submitted Water Quality Criteria by Region (WQ-3a)**



EPA created three new measures in the *FY 2011 National Water Program Guidance* to track the quantity of numeric water quality standards for total nitrogen and phosphorus adopted or proposed by states and territories and approved or promulgated by EPA (WQ-1a,b,c). In 2011, 45 numeric nitrogen and phosphorus standards were adopted by states and territories and approved or promulgated by EPA; a total of 52 standards were proposed. Both of these results were one standard short of their FY 2011 commitments. Adoption of approvable nitrogen and phosphorus criteria is challenging due to their scientific, programmatic, and policy complexities. Some states are delaying adoption until they can resolve implementation issues.

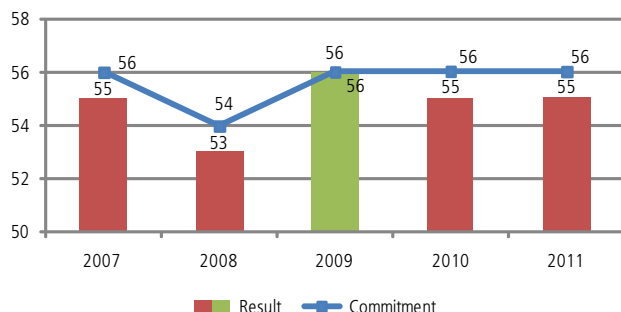
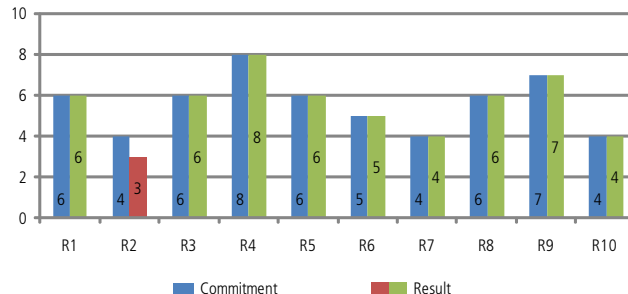
EPA exceeded its FY 2011 national commitment of 85% by approving 92% of water quality standard revisions submitted by states and territories (WQ-4a) (Figure 23). Nine of 10 regions met their commitments for this measure (Figure 24). EPA has exceeded commitments for this measure over the last five years. However, this trend may soon reverse, as states are beginning to tackle more difficult environmental problems, which may increase the number of standards provisions that raise complex technical and policy issues.

**Figure 23: States/Territories Water Quality Standards Submissions Trend by Fiscal Year (WQ-4a)****Figure 24: FY 2011 States/Territories Water Quality Standards Submissions by Region (WQ-4a)**

**Water Quality Monitoring:** Throughout FY 2011, EPA continued to work with states, tribes, interstate agencies, and territories to strengthen their monitoring programs. As part of this effort, EPA works with its partners to amass scientifically valid data needed by resource managers to make informed water quality protection and restoration decisions at both national and state levels. Moreover, high-quality data collected over time is essential to tracking changes and identifying potential trends. Due to the sheer size of the undertaking, traditional monitoring approaches are only able to target a small number of waterbodies within a state (typically 20–40%), falling short of the CWA mandate to assess all waters. Both EPA and the states recognize a need for greater integration of the various water monitoring approaches to better understand water quality across spatial, ecoregional, and geographic scales.

EPA is promoting probabilistic surveys as one approach to monitoring. EPA, states, tribes, and other partners are making progress toward monitoring all water types nationwide in a statistically valid manner. Statistical surveys are a cost-effective and scientifically credible means for assessing and reporting on the current status of a water resource and, over time, associated changes and trends. Initiated in 2005, the National Aquatic Resources Surveys (NARS) program relies on the collective effort of EPA, states, and tribes to conduct annual surveys of a specific waterbody type (i.e., streams, rivers, lakes, coasts/estuaries, or wetlands) and repeats each survey on a five-year cycle. At the end of FY 2011, EPA, states, and tribes completed the first full rotation of the program—a survey of all the nation's waters.

The number of states and territories implementing comprehensive monitoring strategies in keeping with established schedules has remained steady over the past two years (WQ-5) (Figure 25). This lack of progress is attributable to the Virgin Islands (VI), which fell significantly behind in implementing its monitoring strategy and consequently, could not expend past years' supplemental monitoring funds (Figure 26). The VI is currently under a Corrective Action Plan (CAP) that seeks to address and remedy these shortfalls.

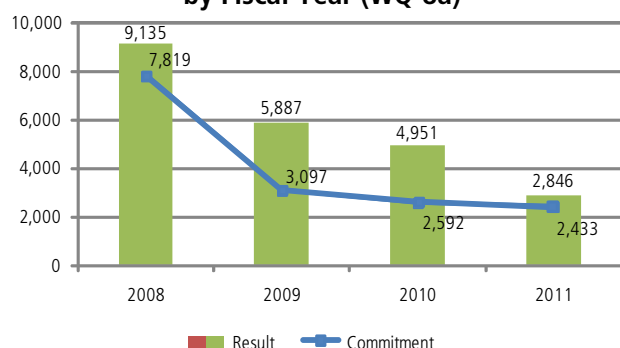
**Figure 25: States/Territories Adopted Monitoring Strategies Trend by Fiscal Year (WQ-5)****Figure 26: FY 2011 States/Territories Adopted Monitoring Strategies by Region (WQ-5)**



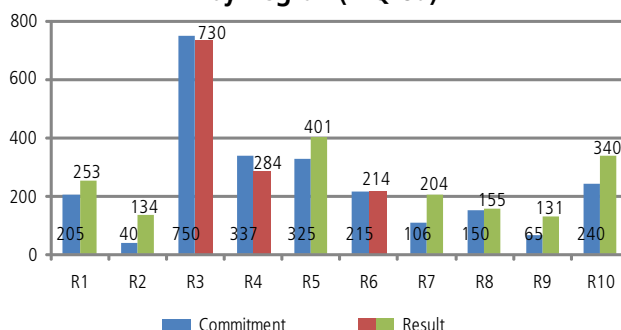
Forty-four states and territories provided electronic information for integrated reporting of water quality assessment data in FY 2011 (WQ-7). This was one state short of the annual commitment. Long-standing issues with assessment database submissions from two states in Region 3 were not resolved. Discussions are continuing in hopes of resolving the issues prior to the next reporting cycle in FY 2012.

**Total Maximum Daily Loads (TMDLs):** Development of TMDLs for an impaired waterbody is a critical step in meeting water restoration goals. TMDLs focus on clearly defined environmental goals and establish a pollutant budget, which is then implemented via permit requirements or watershed plans through local, state, and federal programs. In FY 2011, states developed and EPA approved or established 2,846 TMDLs (WQ-8a) (Figure 27), of which 364 were established by EPA. Seven of the regions met their annual commitments for this measure in FY 2011 (Figure 28).

**Figure 27: EPA and State TMDLs Trend by Fiscal Year (WQ-8a)**



**Figure 28: FY 2011 EPA and State TMDLs by Region (WQ-8a)**

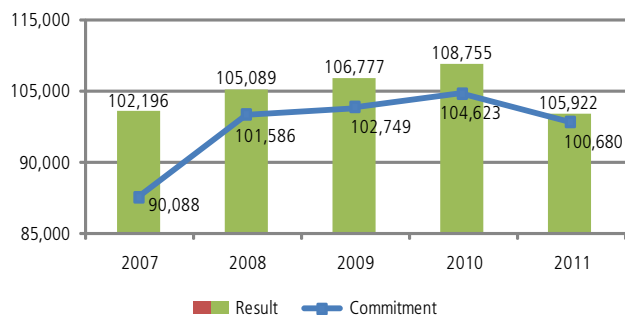


The unexpectedly higher results were due to a number of factors: Puerto Rico, with EPA support, established 118 TMDLs that were not anticipated until FY 2013; Rhode Island completed a statewide bacteria TMDL; Missouri developed 83 TMDLs to meet Consent Decree requirements; Kansas developed 106 TMDLs due to its rotating basin assessment; and an early set of TMDLs for San Diego beaches accounted for 60. Also, states in Region 10 developed watershed-wide TMDLs, which can result in a large number of individual TMDLs. In addition, the uncertainty in the timelines of TMDL development often results in a high number of TMDLs one year followed by a lower number of TMDLs the next year. While states should be recognized for these accomplishments, resource constraints, as well as technical and legal challenges, still exist.

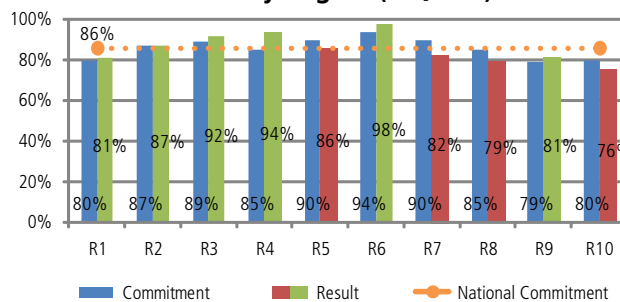
EPA also tracks the pace of TMDL development, which refers to the annual number of TMDLs needed to be consistent with national policy. The national policy recommends that TMDLs be established and approved within eight to 13 years of the waterbody being listed as impaired under CWA Section 303(d). The national 2011 end of year pace was 87%, which exceeded the commitment of 64% (WQ-8b).

**National Pollutant Discharge Elimination System (NPDES) Permit Program:** The NPDES program requires all point sources discharging into U.S. waterbodies to be covered by state or EPA NPDES permits. For the fifth consecutive year, EPA and states achieved the national goal of having current NPDES permits in place. In 2011, 89.3% of non-tribal facilities, or 105,922 facilities, had current permits; this figure exceeded the national commitment of 88.4%, or 100,680 facilities (WQ-12a) (Figure 29). Six of 10 regions met or exceeded their commitments in 2011 (Figure 30).

**Figure 29: Non-Tribal NPDES Permits Current Trend by Fiscal Year (WQ-12a)**

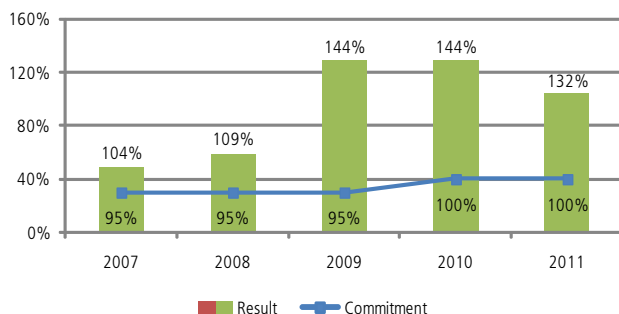


**Figure 30: FY 2011 Non-Tribal NPDES Permits Current by Region (WQ-12a)**

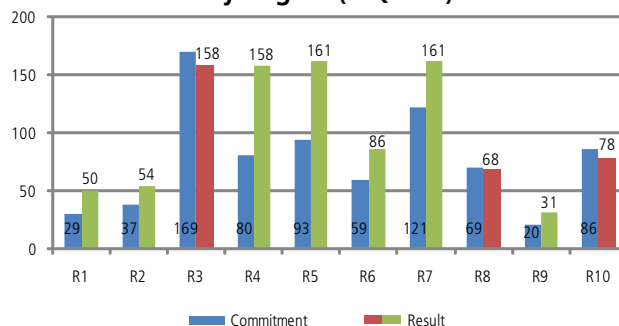


EPA has been working with states to structure their permit programs to better support comprehensive protection of water quality. A key strategy is to focus efforts on high-priority permits that need to be issued or reissued to help implement TMDLs, watershed plans, effluent guidelines, or other environmental and programmatic actions. In 2011, both EPA and authorized states issued 1,005 priority permits (132% of the universe), exceeding the national commitment of 763 permits (100%) (WQ-19b) (Figure 31). EPA and authorized states have exceeded their commitments (seven of 10 regions met or exceeded their commitments in 2011) for issuing high-priority permits during the past five years.<sup>14</sup> States have continued their efforts in coordination with EPA regions to maintain strong performance in the issuance of their high-priority permits (Figure 32). When states establish their lists each year, they designate priority permits and commit to a certain number of these to be issued within the fiscal year. If a state is able to issue additional priority permits ahead of schedule, they receive credit toward the current fiscal year target, which may result in issuing more permits than originally targeted.

**Figure 31: High-Priority NPDES Permits Trend by Fiscal Year (WQ-19b)**



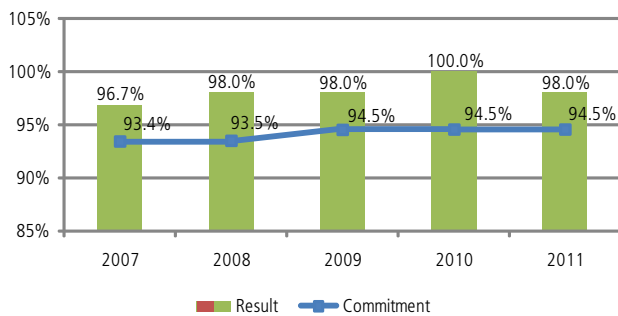
**Figure 32: FY 2011 High-Priority NPDES Permits by Region (WQ-19b)**



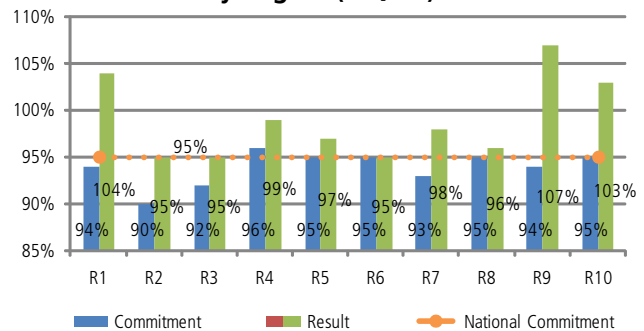
<sup>14</sup> To simplify the process and be more transparent, EPA developed a new policy starting in FY 2010 for developing the priority permits universe. In addition, EPA shifted the time period for locking down the priority permits universe to align with the Government Performance and Results Act (GPRA) commitment schedule.

**Clean Water Financing:** The Clean Water State Revolving Funds (CWSRFs) provide low-interest loans to local governments to help finance wastewater treatment facilities and other water quality projects. The CWSRF utilization rate hit 98% in 2011. Of the \$91.2 billion in funds available for projects through 2011, \$89.5 billion have been committed to more than 30,000 loans. In 2011, project assistance reached \$5.3 billion, which funded 1,803 loans in a single year. Nationally since 2001, fund utilization has remained relatively stable and strong at over 90% (WQ-17) (Figure 33). Demand for CWSRF funding was much greater than in previous years because communities could choose to receive part or all of their project funding as additional subsidization in the form of principal forgiveness, grants, and negative interest. This increased demand included communities that have not previously requested project funding from the CWSRF. All 10 regions met their commitments for the utilization rate in FY 2011, with a range of 95% to 107% of funds obligated (Figure 34).

**Figure 33: CWSRF Fund Utilization Rate Trend by Fiscal Year (WQ-17)**



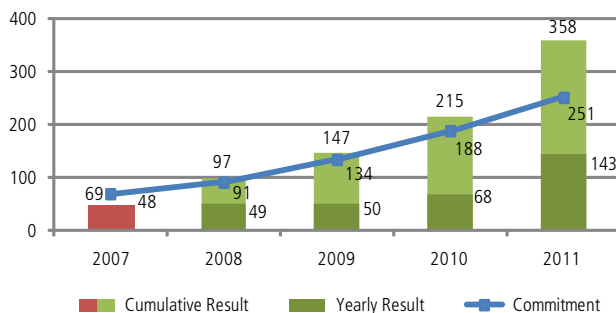
**Figure 34: FY 2011 CWSRF Fund Utilization Rate by Region (WQ-17)**



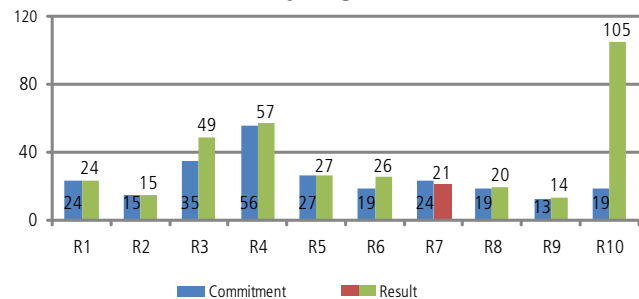
(Numbers reflect base program only and do not include ARRA funded projects)

**Control Nonpoint Source Pollution:** Polluted runoff from sources such as agricultural lands, forestry sites, and urban areas is the largest single remaining cause of water pollution. EPA and states are working with local governments, watershed groups, property owners, tribes, and others on implementing programs and management practices to control polluted runoff throughout the country. EPA and states made significant gains in FY 2011 in documenting the full or partial restoration of waterbodies that are primarily nonpoint source impaired. Nationally, EPA exceeded its FY 2011 commitment (251), with a cumulative 358 waterbodies that were partially or fully restored (against a universe of 5,967 waterbodies). EPA and states increased their output by 40% over the previous year (WQ-10) (Figure 35).<sup>15</sup> Nine of 10 regions met their annual commitments (Figure 36). One of the largest increases occurred in Region 10 and was primarily due to restoration efforts in Washington State's Chehalis River Basin, which led to the delisting of 76 segments of the Chehalis River.

**Figure 35: NPS-Impaired Waterbodies Restored Trend by Fiscal Year (WQ-10)**



**Figure 36: FY 2011 NPS-Impaired Waterbodies Restored by Region (WQ-10)**



<sup>15</sup> EPA continues to highlight nonpoint source success stories on its website at <http://www.epa.gov/owow/nps/Success319/>.