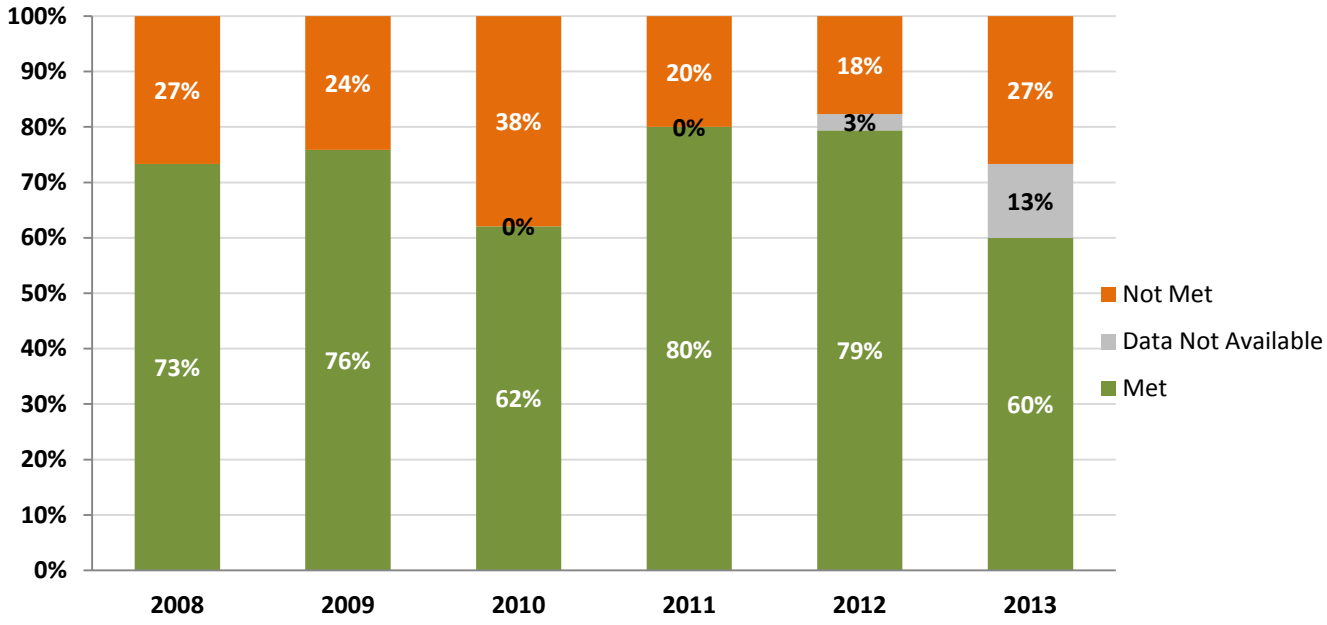
Subobjective: Water Quality

EPA and states met 67% of their commitments under the Water Quality subobjective in FY 2013 and fell short on 30%; data were not available for 3%. The number of measures with commitments that were not met in FY 2013 was significantly higher than 2012 (18%). The FY 2013 results were below the six-year average for the percent of commitments met (69%). (Figure 19)

Figure 19: Water Quality Subobjective Six-Year Trend



FY 2013 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met = Not Met = Data Not Available = Indicator/Long-Term (No Commitment) = Measure Did Not Exist							Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	2013	
Subobjective 2.2.1 Improve Water Quality on a Watershed Basis									
WQ-SP10.N11	Number formerly impaired waterbodies now meeting standards (cumulative)	3,251	2,165	2,505	2,909	3,119	3,527	3,679	D-13/Fig. 20
WQ-SP11	Number causes of waterbody impairment removed (cumulative)		6,723	7,530	8,446	9,527	11,134	11,754	D-13
WQ-SP12.N11	Number impaired watersheds improved water quality (cumulative)	21	60	104	168	271	332	376	D-14/Fig. 23
WQ-SP13.N11	Maintain and Improve nation's stream conditions						Not Maintain		D-14
WQ-SP14aN11	Number of monitoring stations in tribal waters with improved water quality (cumulative)							20	D-15
WQ-SP14bN11	Identify number monitoring stations in tribal waters with no degradation in water quality (cumulative)						7	4	D-15
WQ-24.N11	Number Indian & Alaska Native homes with access to sanitation					56,875	63,087	69,783	D-16/Fig. 97
WQ-01a	Number of numeric nutrient water quality standards approved or promulgated by EPA					45	42	44	D-16/Fig. 27
WQ-26	Number states/territories implementing nutrient reduction strategies							22.99	D-17
WQ-02	Number Tribes with approved water quality standards	32	35	35	35	38	39	40	D-17/Fig. 98
WQ-03a	Number/Percent states/territories with updated water quality criteria	39	35	38	38	39	39	32	D-18/Fig. 25
WQ-03b	Number/Percent Tribes with updated water quality criteria	17	19	17	18	13	14	9	D-18
WQ-04a	Percent states/territorial water quality standards revisions approved	86%	93%	93%	91%	92%	89%	82.4%	D-19/Fig. 29
WQ-06a	Number Tribes implementing monitoring strategies	44	101	134	161	196	214	224	D-19/Fig. 99
WQ-06b	Number Tribes providing water quality data	44	60	86	106	171	184	193	D-20
WQ-08a	Number/Percent total TMDLs established/approved EPA	4,191	8,696	5,887	4,951	2,846	2,922	15,476	D-20/Fig. 33
WQ-08b	Number/Percent TMDLs developed by states/approved by EPA	3,998	8,553	5,829	2,262	2,482	2,702	15,277	D-21
WQ-09a	Number pounds nitrogen reduced from non-point sources (millions)	19.1	11.3	9.1	9.7	12.8	10.5	10.4	D-21
WQ-09b	Number pounds phosphorus reduced from non-pount sources (millions)	7.5	3.5	3.5	2.6	4.8	4.4	3.5	D-22
WQ-09c	Number tons sediment reduction reduced from non-point sources (thousands)	3,900	2,100	2,300	2,055	2,007	2,007	1	D-22

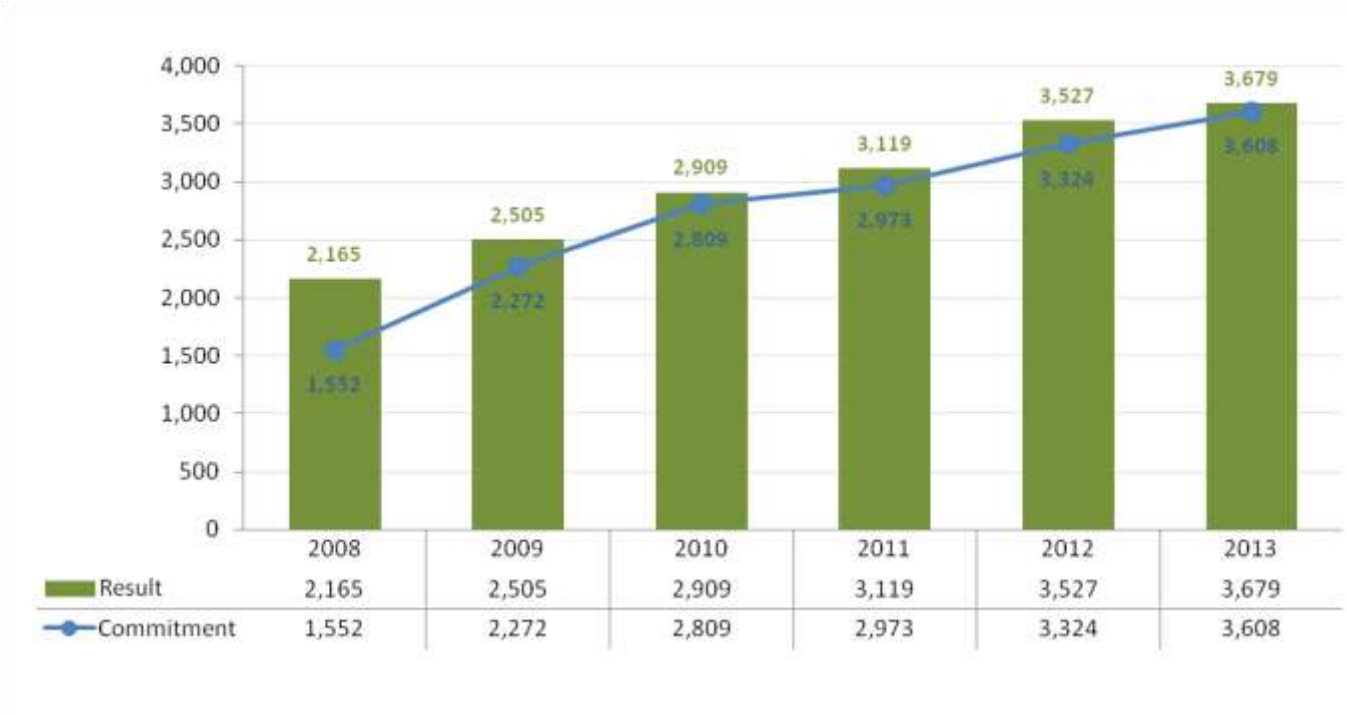
Notes: NPS=nonpoint source; CAFO=concentrated animal feeding operation; POTW=publicly owned treatment works; SIU=significant industrial user; CIU=categorical industrial user; SNC=significant noncompliance; CWSRF=Clean Water State Revolving Fund.

FY 2013 ACS Code	Abbreviated Measure Description	Results and Commitment Status = Met; = Indicator/Long-Term (No Commitment); = Not Met; = Measure Did Not Exist; = Data Not Available							Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	2013	
WQ-10	Number NPS-impaired waterbodies restored (cumulative)	48	97	147	215	358	433	504	D-23/Fig. 41
WQ-11	Number/Percent NPDES follow-up actions completed	184	216	228	253	293	344	74% 364	D-23
WQ-12a	Number/Percent Nontribal NPDES permits current	90%	90%	90%	89%	89%	90%	90%	D-24/Fig. 35
WQ-12b	Number/Percent Tribal permits current	83%	85%	85%	88%	87%	86%	83%	D-24/Fig. 100
WQ-13a	Number facilities covered by MS-4 permit	6,632	7,080	6,541	6,919	6,952	6,888	7,774	D-25
WQ-13b	Number facilities covered by industrial storm water permit	86,826	89,530	81,660	88,788	84,718	87,060	94,447	D-25
WQ-13c	Number facilities covered by construction storm water permit	242,801	204,341	200,732	186,874	168,744	166,031	158,525	D-26
WQ-13d	Number facilities covered by CAFO permit	8,729	7,830	7,900	7,882	7,994	7,587	6,684	D-26
WQ-14a	Number/Percent POTWs SIUs control mechanisms in place	22,062	21,830	22,270	17,948	20,977	20,733 (98.4%)	20,739	D-27
WQ-14b	Number/Percent POTWs CIUs control mechanisms in place	1,547	21,830	1,338	1,241	1,229	1667 (94.1%)	1650; 94%	D-27
WQ-15a	Percent major dischargers in SNC	22.6%	24.0%	23.0%	24.0%	23.0%	21.0%	21.0%	D-28
WQ-16	Number/Percent POTWs comply wastewater discharge standards	3,645	3,645	86%	87%	87%	88%	88%	D-28
WQ-17	CWSRF Fund utilization rate	97%	98%	98%	100%	98%	98%	97%	D-29/Fig. 39
WQ-19a	Number high priority state NPDES permits	484	930	1,309	1,008	943	850	404	D-29
WQ-19b	Number high priority state & EPA NPDES permits	11	61	1,118	1,063	1,005	925	449	D-30/Fig. 37
WQ-22a	Number regions completed Healthy Watershed Initiative strategy					4	7	7	D-30
WQ-23	Percent Alaska homes access to drinking water & sanitation					92%	91%	91%	D-31
WQ-25a	Number urban water projects initiated addressing water quality issues in the community						46	9	D-31
WQ-25b	Number urban water projects completed addressing water quality issues in the community								D-32

FY 2013 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 water bodies listed as impaired. At the end of 2013, a cumulative 3,679 of the waters listed as impaired in 2002 met standards for all the impairments identified, thus exceeding the FY 2013 commitment of 3,608[11] (SP-10) (Figure 20). Eight of the 10 EPA regions met their 2013 commitments (Figure 21). The Agency has already achieved its FY 2015 goal of 3,360 water bodies. Of a universe of 39,503 impaired water bodies identified in 2002, about 9.3% were attaining standards by the end of FY 2013 (Figure 22). For future reporting, EPA is evaluating a new approach for measuring local improvements in water quality. The goal is to provide a consistent method for measuring progress. This new approach will enable EPA to more effectively track water quality outcomes from investments in protection and restoration.

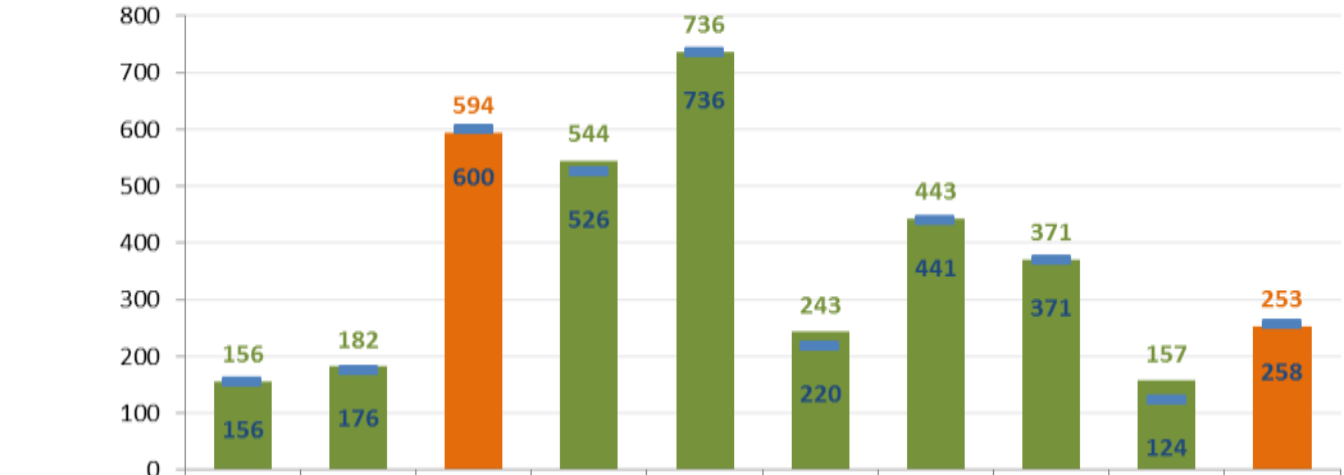
Figure 20: Formerly Impaired Water Bodies Meeting Water Quality Standards by Fiscal Year (WQ-SP10.N11)



	2008	2009	2010	2011	2012	2013
Result	2,165	2,505	2,909	3,119	3,527	3,679
Commitment	1,552	2,272	2,809	2,973	3,324	3,608

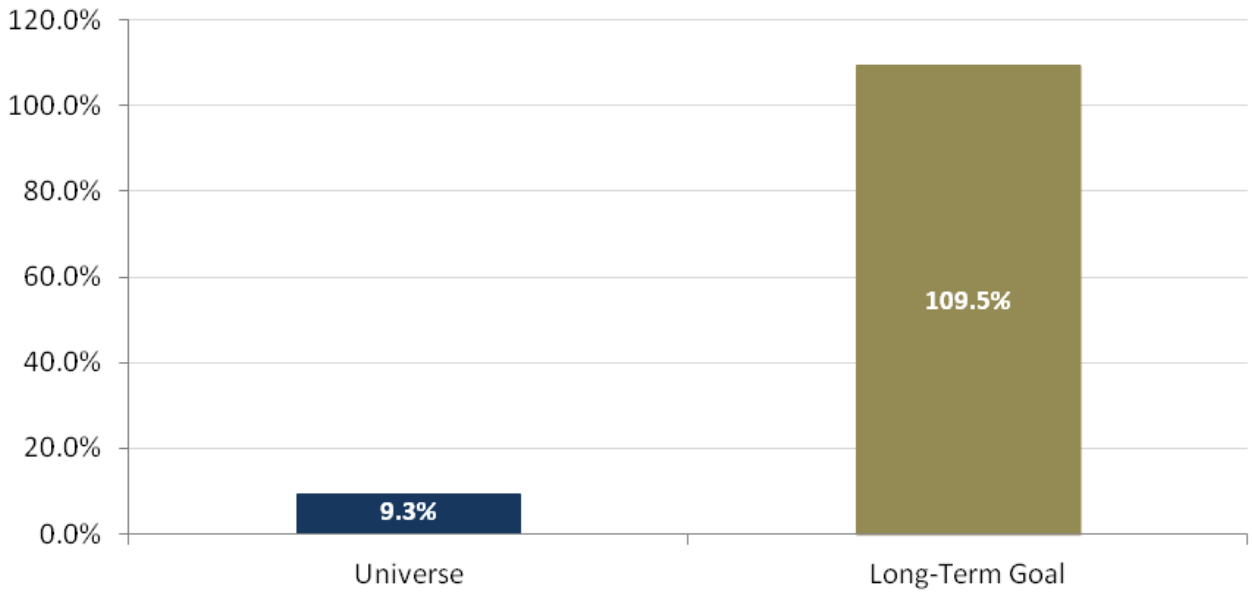
[11] Information for this commitment is based on CWA 305(b) reports submitted by states on a biannual basis. To some extent, EPA exceeded its commitment for this measure due to receiving late FY 2008 and timely FY 2010 Integrated Reports (IRs).

Figure 21: Formerly Impaired Water Bodies Meeting Water Quality Standards (WQ-SP10.N11) by Region for FY 2013



	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Result	156	182	594	544	736	243	443	371	157	253
Commitment	156	176	600	526	736	220	441	371	124	258

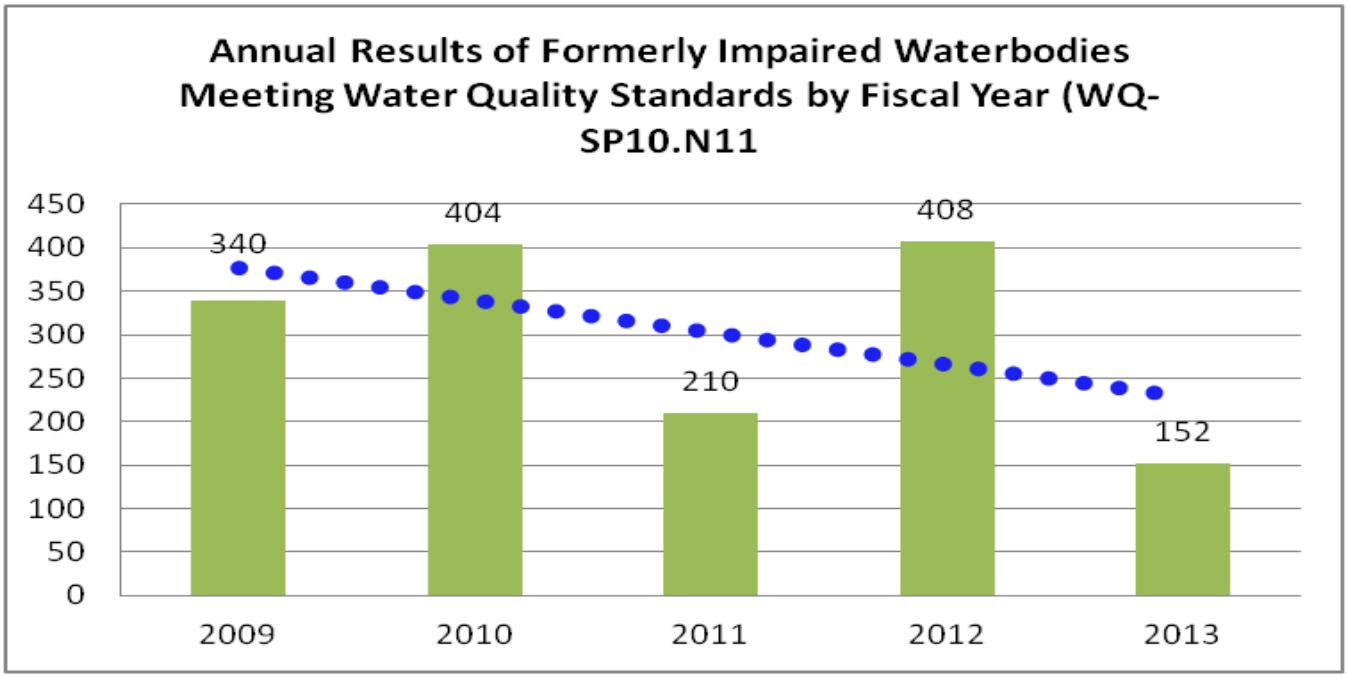
Figure 22: Formerly Impaired Water Bodies Meeting Water Quality Standards as a Percent of Universe and Long-Term Goal (WQ-SP10.N11)



By the end of 2013, EPA and states had removed 11,754 specific causes of water body impairments that states had identified in 2002 (SP-11). Factors contributing to exceeding the commitment in FY 2013 included removal of causes of impairments from impaired water lists that were submitted late in the biennial water quality assessment cycle. Some of the challenges EPA faces include:

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

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



EPA and states were successful in improving water quality conditions in 376 impaired watersheds nationwide cumulatively through 2013 using the watershed approach (SP-12) (Figure 23). This was a 13% increase over the 2012 result of 332 improved watersheds nationwide. Nine of 10 regions met their commitments last year (Figure 24).. In the future, EPA anticipates that the results for this measure will be steady or lower.

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

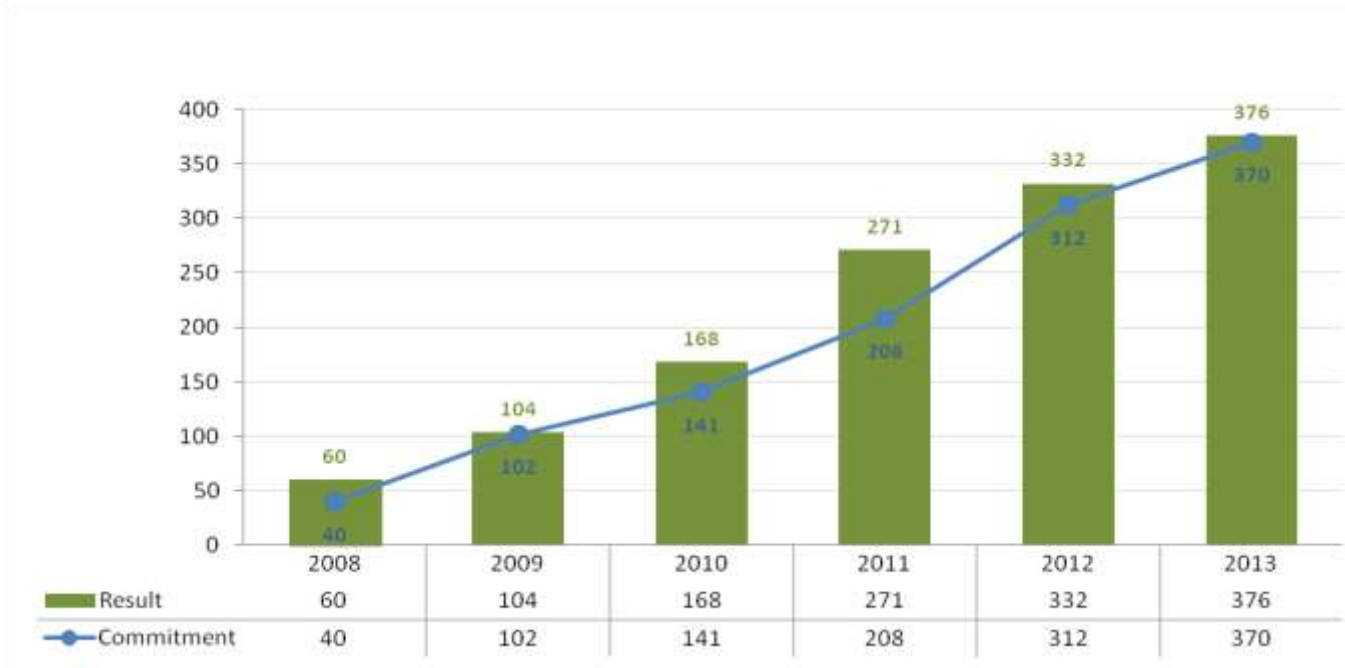
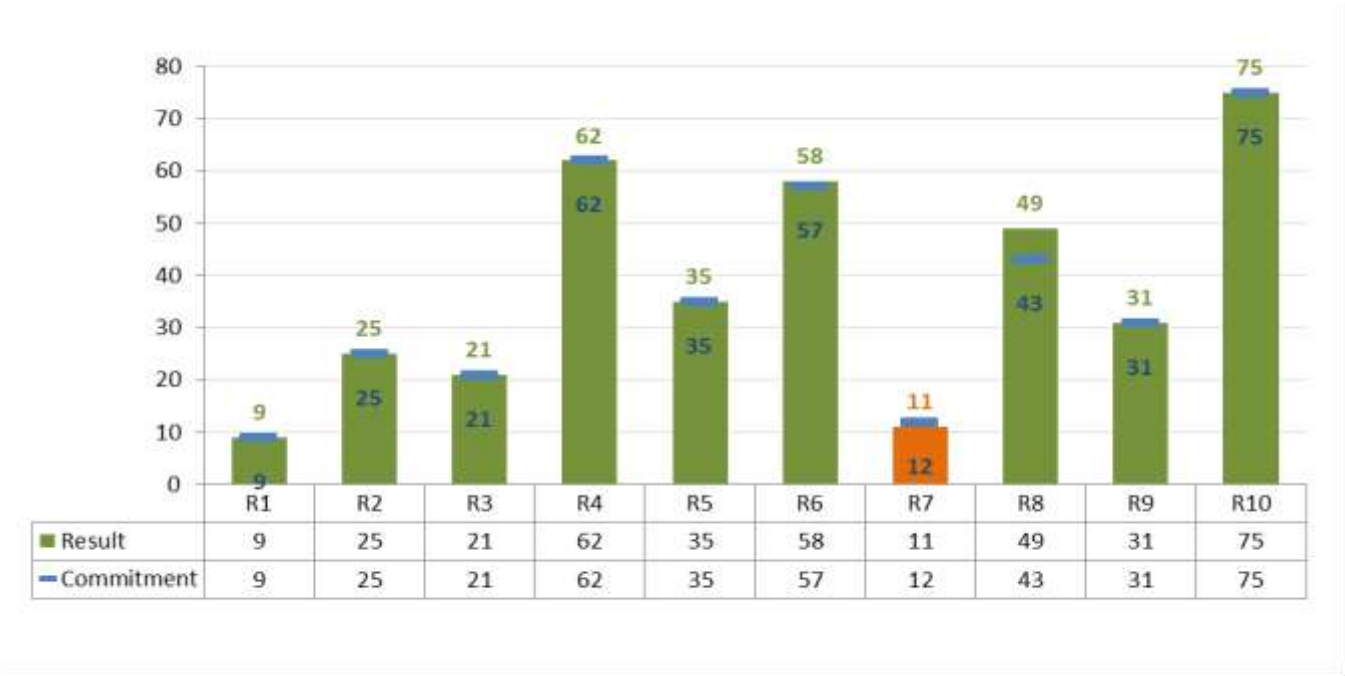


Figure 24: Impaired Watersheds Showing Improved Water Quality Conditions (WQ-SP12.N11) by Region for FY 2013



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 first time in 5 years, states and territories did not meet regional commitments for submitting new or revised water quality criteria acceptable to EPA within the preceding three years that reflect new scientific information (WQ-3a) (Figure 25). The FY 2013 result of 32 states and territories fell short of the national goal of 36 (Figure 26). Three Regions missed their annual commitments. In Region 4, Kentucky and Kansas did not submit criteria for FY13 as anticipated. Additionally, the workload related to promulgating nitrogen/phosphorus criteria prevented action on criteria submitted by Mississippi during FY13. Complex science and policy issues—including those raised in litigation and difficult Endangered Species Act consultations—will continue to pose challenges.

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

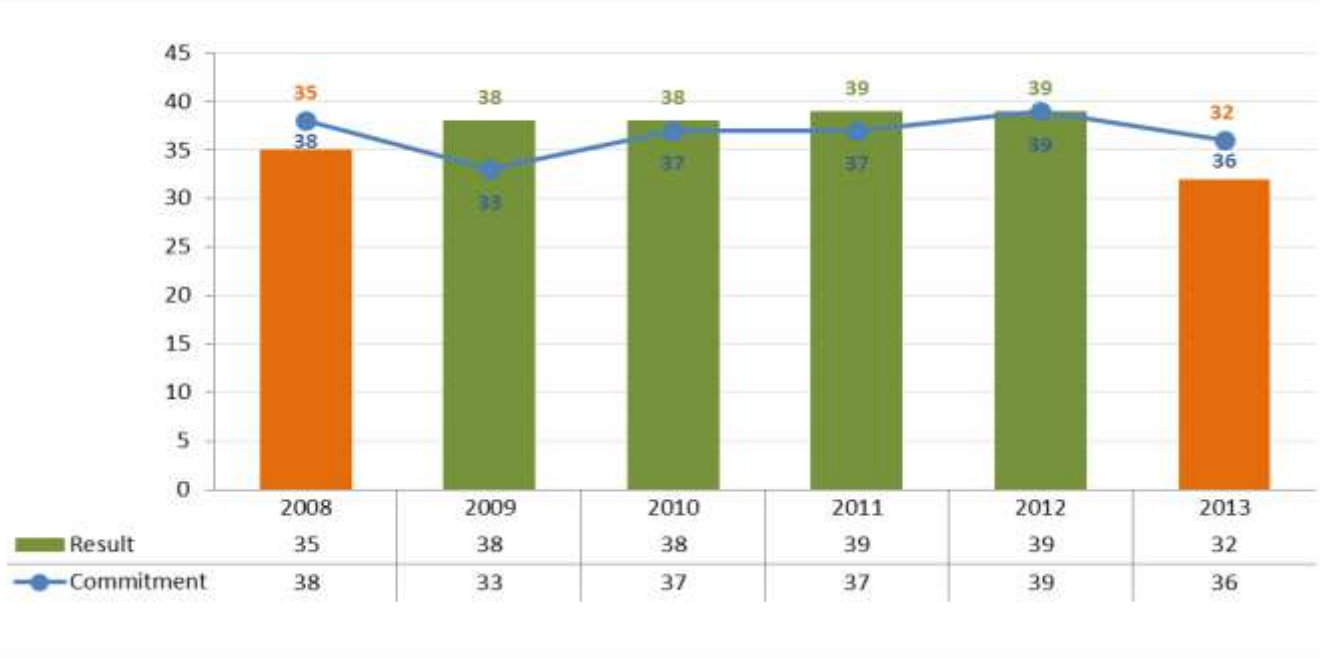
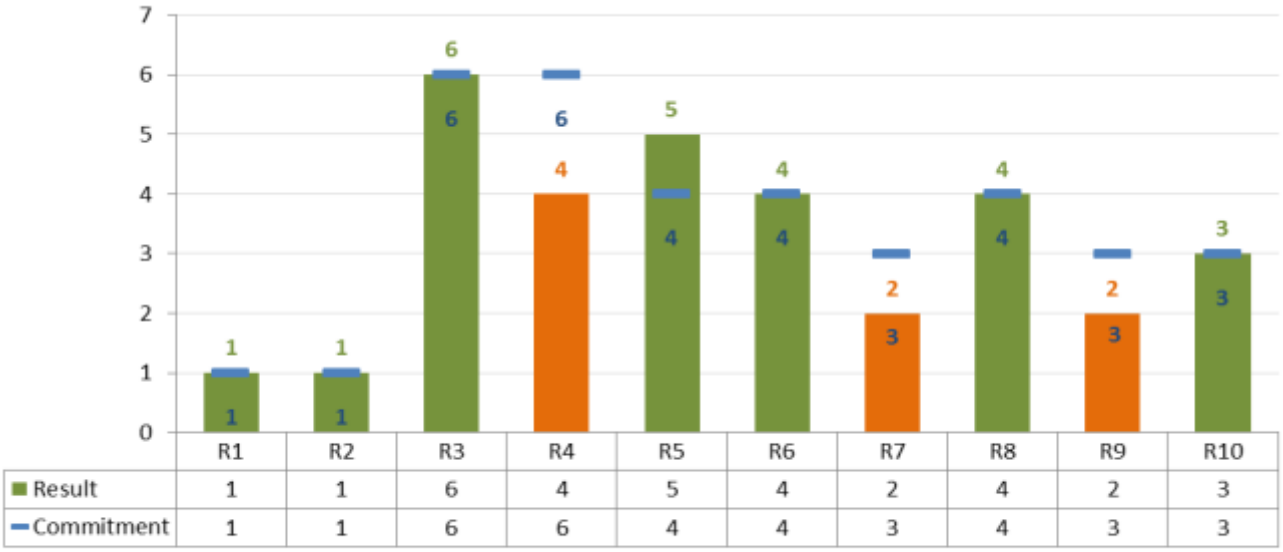


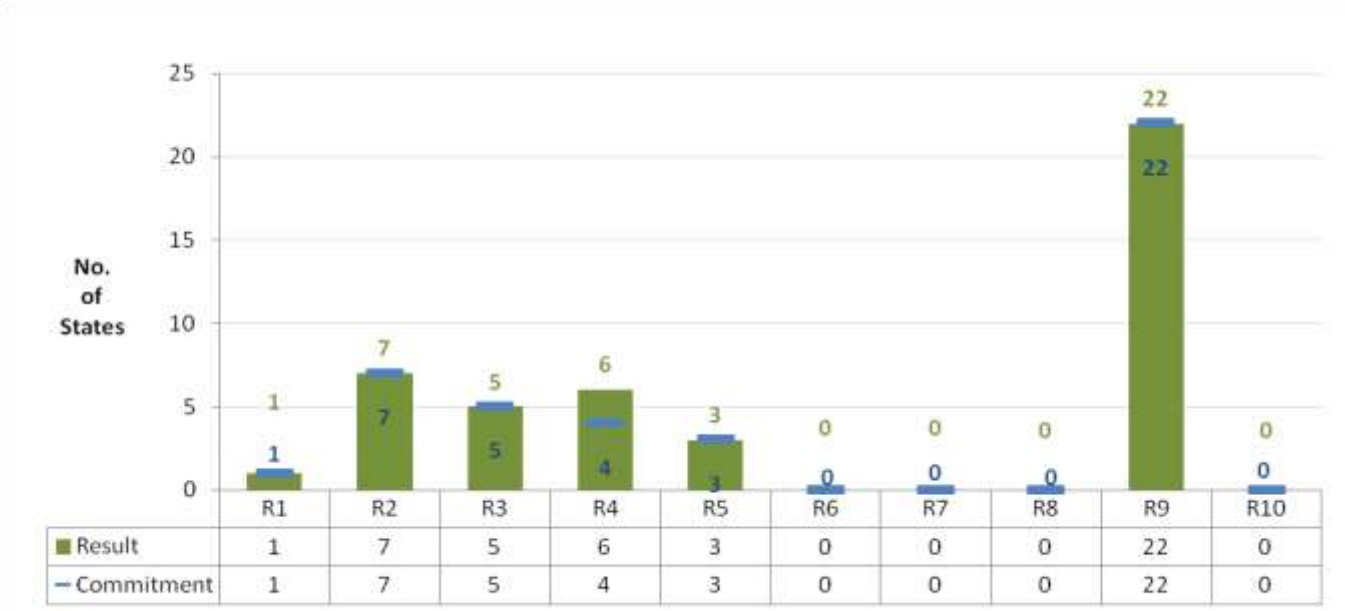
Figure 26: States/Territories with Updated Water Quality Criteria (WQ-03a) by Region for FY 2013



The proposal and adoption of numeric water quality standards for total nitrogen and phosphorus by states and territories continues to be a top priority for the National Water Program. In FY 2013, the number of such standards approved by EPA for all waters of a waterbody type within the state or territory increased by two (Figure 27). All EPA Regions met their commitments in FY 2013 (Figure 28).

Figure 27: Number of Numeric Water Quality Standards for Nitrogen and Phosphorus Adopted by States/Territories & Approved/Promulgated by EPA (WQ-01a)

Figure 28: Number of Numeric Water Quality Standards for Nitrogen & Phosphorus Adopted by States/Territories & Approved/Promulgated by EPA Region for FY 2013 (WQ-01a)



	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Result	1	7	5	6	3	0	0	0	22	0
Commitment	1	7	5	4	3	0	0	0	22	0

For the first time in six years, EPA fell short of its annual national commitment for approving water quality standard revisions submitted by states and territories (WQ-4a) (Figure 29). EPA approved approximately 82% of state revisions which was below the agency commitment of 87%. Higher priority work and complex policy, technical, and litigation issues, particularly in Region 10, have caused several submissions to have an extended or delayed, lower priority review for approval. Three regions failed to meet their commitments for this measure in FY 2013 (Figure 30).

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

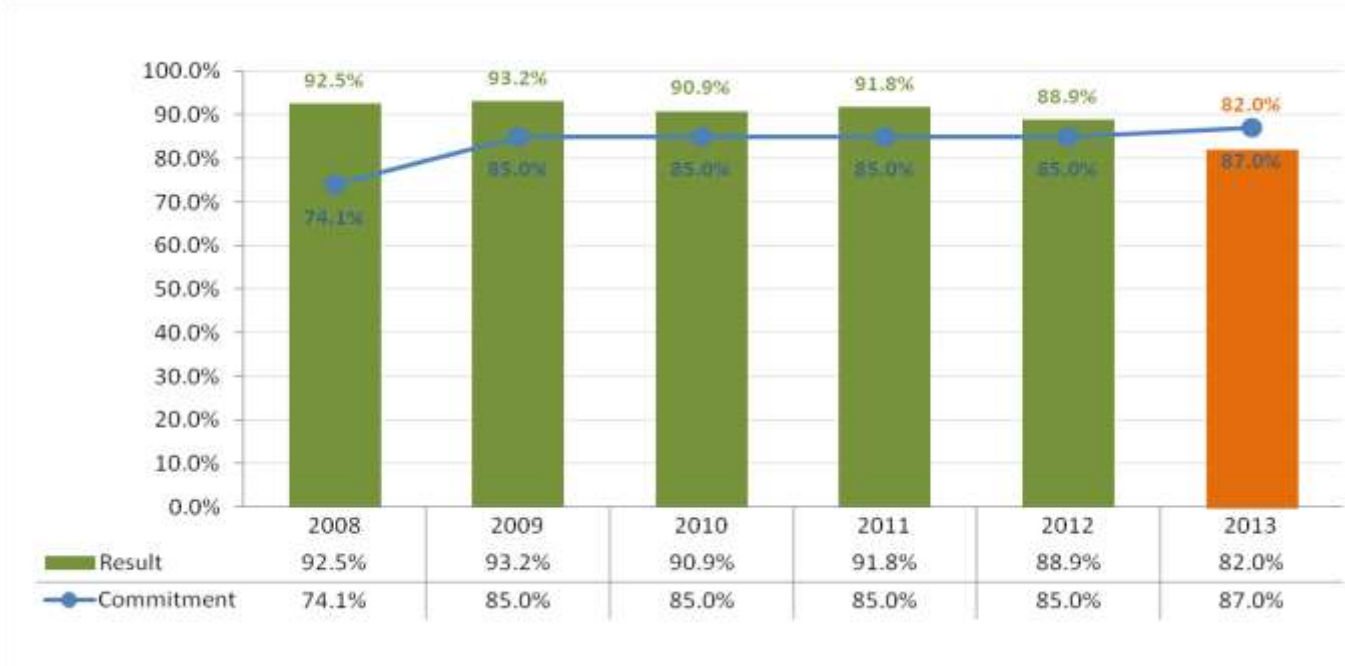
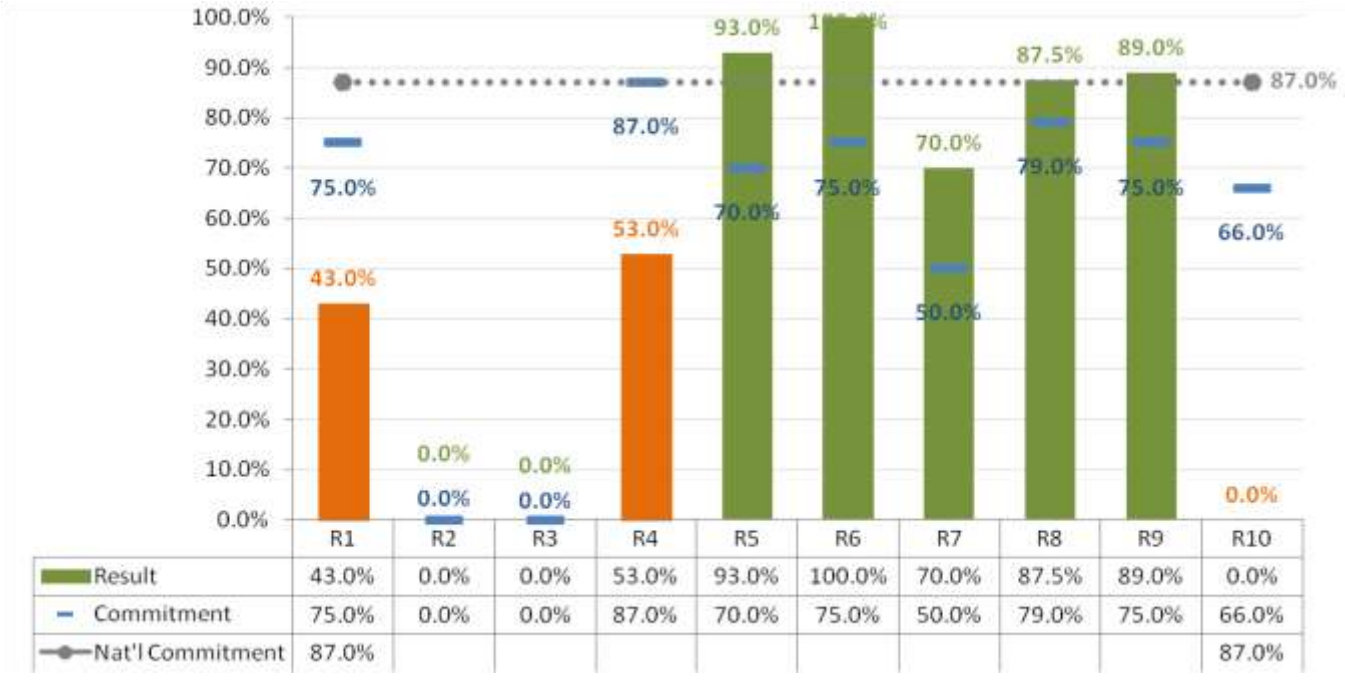


Figure 30: States/Territories with Water Quality Standards Revisions Approved (WQ-04a) by Region for FY2012



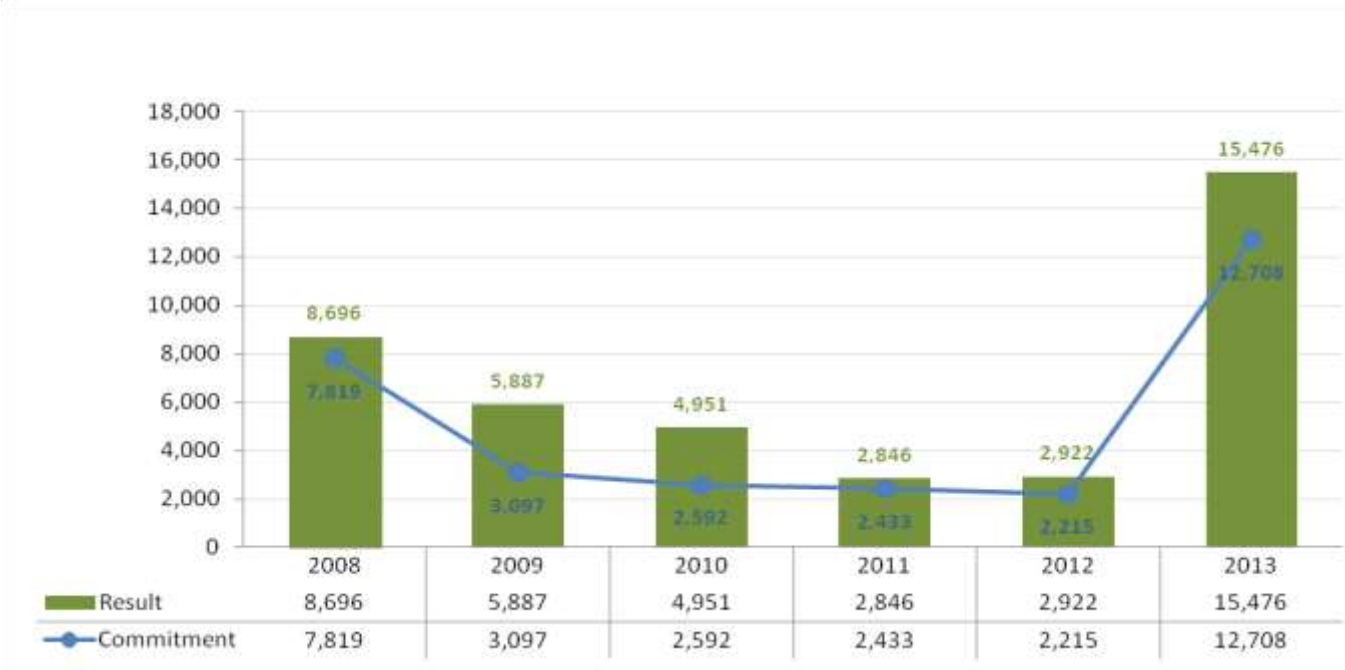
Water Quality Monitoring: Throughout FY 2013, EPA continued to work with states, tribes, interstate agencies, and territories to strengthen their monitoring programs. Activities included technical support from EPA regions and the Office of Water in monitoring, data management, assessment and reporting. To expand access to ambient water quality data, EPA continues to support states and tribes in joining the Water Quality Exchange (WQX). In FY 2013, EPA, in partnership with states and tribes continued to expand the data holdings available from the WQX/STORET data warehouse and the EPA/USGS Water Quality Data Portal hosted by the National Water Quality Monitoring Council. In FY13, an additional 9 states began submitting data through WQX. This expanded data holdings to more than 140 million records from states, tribes, EPA, and others housed in the WQX/STORET data warehouse.

One of the long-standing gaps in EPA and state monitoring is being addressed through the National Aquatic Resource Surveys (NARS), an EPA, state, and tribal partnership to produce cross-jurisdictional, representative assessments of the condition of the nation's waters. These statistical surveys are a cost-effective and scientifically credible means for assessing and reporting on the current status of a water resource and, over time, changes and trends for that water resource. Initiated in 2005, the NARS program relies on collective EPA, state, and tribal efforts to conduct annual surveys that rotate through each water body type (streams, rivers, lakes, coasts/estuaries, or wetlands) and repeat on a five-year cycle. In FY 2013, EPA sought public comment on the draft National Rivers and Streams Assessment which found that 20.7% of the nation's rivers and streams support healthy biological communities, as reflected by the index of benthic macroinvertebrate condition. It also found nitrogen and phosphorus to be widespread stressors associated with degraded biological health. When comparing the condition of streams in this survey to a previous survey of streams in 2004, the data show a 7% decrease in the amount of stream miles with health biological communities. EPA, states, and tribes initiated sampling for the next National Rivers and Streams Assessment in FY13. They also continued data processing for the surveys of lakes, wetlands and coastal waters..

Total Maximum Daily Loads (TMDLs): Developing TMDLs for an impaired water body is a critical step in meeting water restoration goals. TMDLs establish a pollutant budget, which may be implemented via permit requirements or watershed plans through local, state, and federal programs. In FY 2013, states developed and EPA approved or established 15,476 TMDLs (WQ-8a) (Figure 33), of which 199 were established by EPA. Over 13,000 TMDLs were due to a State-wide mercury TMDL in North Carolina.

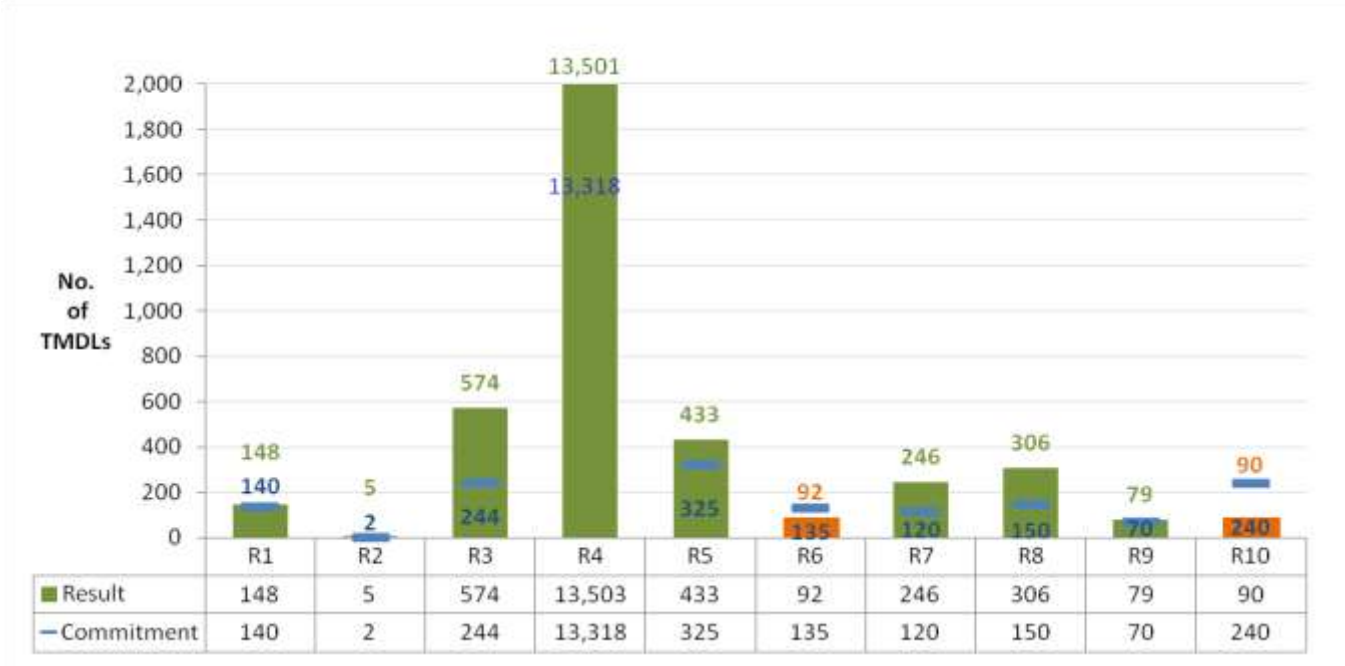
EPA tracks the pace of TMDL development, which refers to the annual number of TMDLs approved or established consistent with national policy. The national policy recommends that TMDLs be established and approved within eight to 13 years of the water having been listed as impaired under CWA Section 303(d). The national 2013 end-of-year pace was 97%, which significantly exceeded the commitment of 80% (WQ-8a).

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



Eight EPA regions met their annual commitments for this measure in FY 2013 (Figure 34). Due to continued budget cuts, States continue to be impacted and have limited resources to solely focus on TMDL development, and as such States are shifting their focus to prioritize how resources will be spent (e.g., implementation). The CWA 303(d) Listing and TMDL Program has engaged with states to implement a new 10-year vision for the program. As part of this effort, the EPA will continue to encourage states to identify priority waters for assessment, development of TMDLs and other restoration plans for impaired segments, and pursuit of protection approaches for unimpaired waters. In FY15, we will shift from reporting on TMDL development and begin reporting on a new TMDL prioritization measure which is consistent with states' focus.

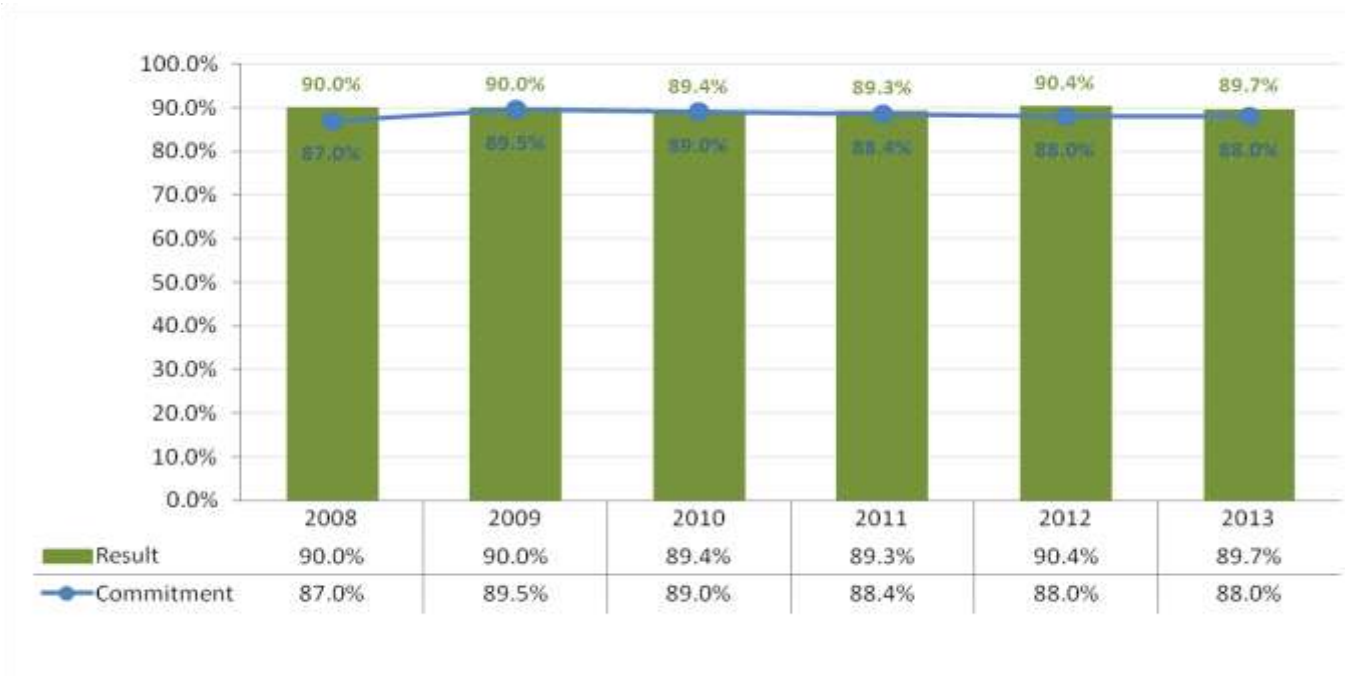
Figure 34: TMDLs Established or Approved on a Schedule Consistent with National Policy (WQ-08a) by Region for FY 2013



	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Result	148	5	574	13,503	433	92	246	306	79	90
Commitment	140	2	244	13,318	325	135	120	150	70	240

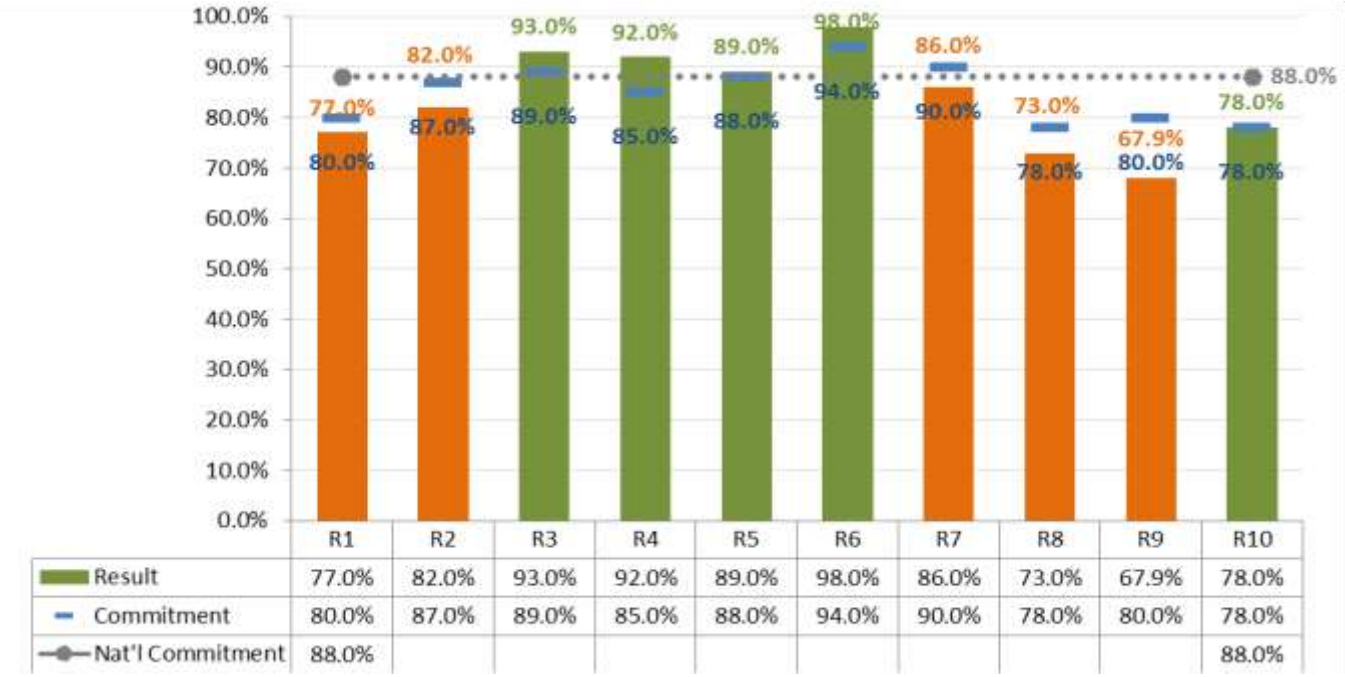
National Pollutant Discharge Elimination System (NPDES) Permit Program: The NPDES program requires all point sources discharging into U.S. water bodies to be covered by state or EPA NPDES permits. For the sixth year in a row, EPA and states achieved the national goal of having current NPDES permits in place. In 2013, 89.7% of nontribal facilities (109,440 facilities) had current permits, exceeding the national commitment of 88% (106,221 facilities) (WQ-12a) (Figure 35). Despite resource declines and various issues delaying permit issuance, such as litigation, complex permits, and difficult political climates, EPA Regions and states were able to maintain a level of permit issuance high enough to meet this measure's national goal. Some Regions focused on increased efficiency, such as by developing templates to streamline the permit issuance process. (Figure 36)

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



	2008	2009	2010	2011	2012	2013
Result	90.0%	90.0%	89.4%	89.3%	90.4%	89.7%
Commitment	87.0%	89.5%	89.0%	88.4%	88.0%	88.0%

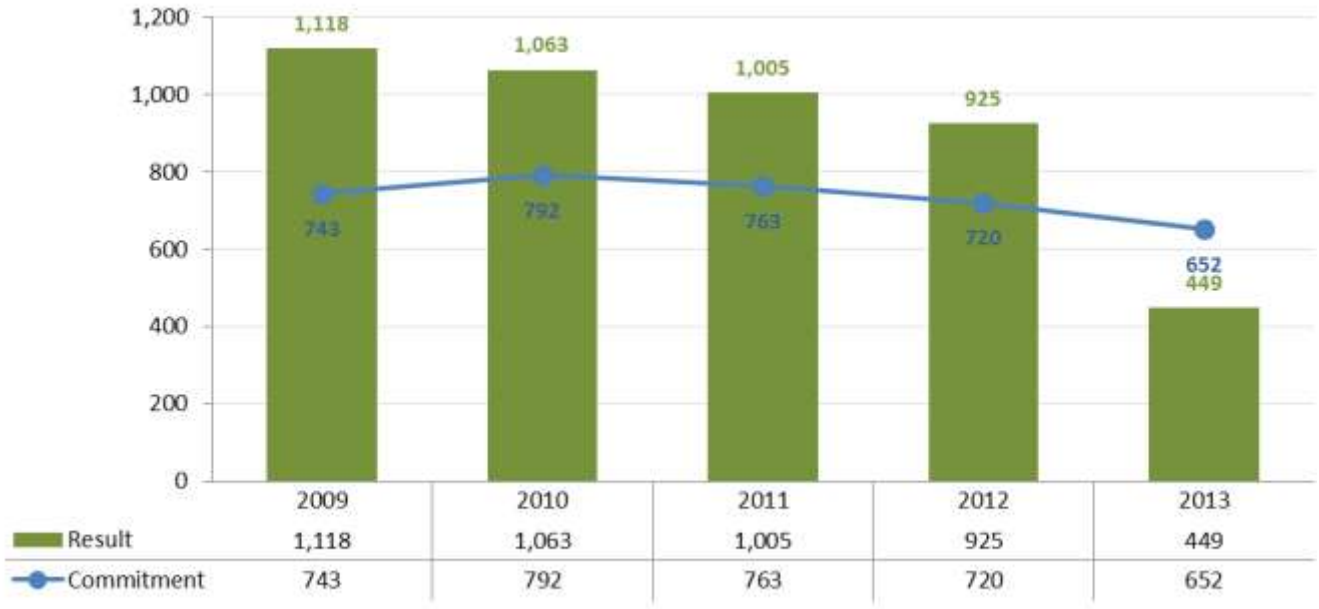
Figure 36: Non-Tribal NPDES Permits Considered Current (WQ-12a) by Region for FY 2013



	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Result	77.0%	82.0%	93.0%	92.0%	89.0%	98.0%	86.0%	73.0%	67.9%	78.0%
Commitment	80.0%	87.0%	89.0%	85.0%	88.0%	94.0%	90.0%	78.0%	80.0%	78.0%
Nat'l Commitment	88.0%									88.0%

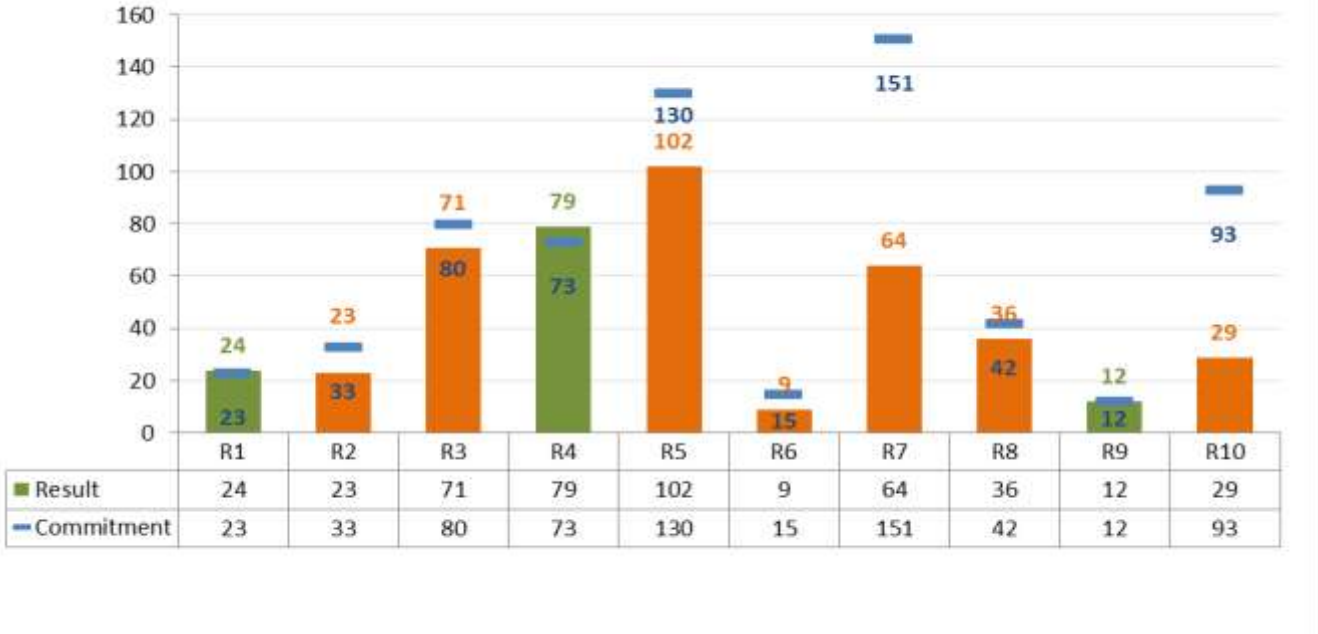
EPA has been working with states to structure the permit program to better support comprehensive protection of water quality. A key strategy is to focus efforts on high-priority permits that need to be issued or reissued to help implement TMDLs, watershed plans, effluent guidelines, or other environmental and programmatic actions. In FY 2013, both EPA and authorized states issued 449 priority permits, failing to meet the national commitment of 752 permits (WQ-19b) (Figure 37). Seven of the 10 EPA regions did not their commitments in 2013 (Figure 38). This was the first time in 5 years that EPA and authorized states have failed to meet their targets for issuing high-priority permits.[12] This measure was revised for FY 2013 in an attempt to focus more keenly on issuing the most environmentally and programmatically significant permits. Previously, a larger pool of priority permits could be selected, with states and EPA committing to issue a smaller percentage, allowing for flexibility in which permits could be issued and count toward this measure's results. With the FY13 revision the expected commitment percentage was increased, focusing more intensely on a smaller pool of priority permits. These priority permits are often the hardest to issue due to a high level of interest from third parties. Resources are also diminished in many states. These factors lead to the commitment being missed in FY13.

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



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

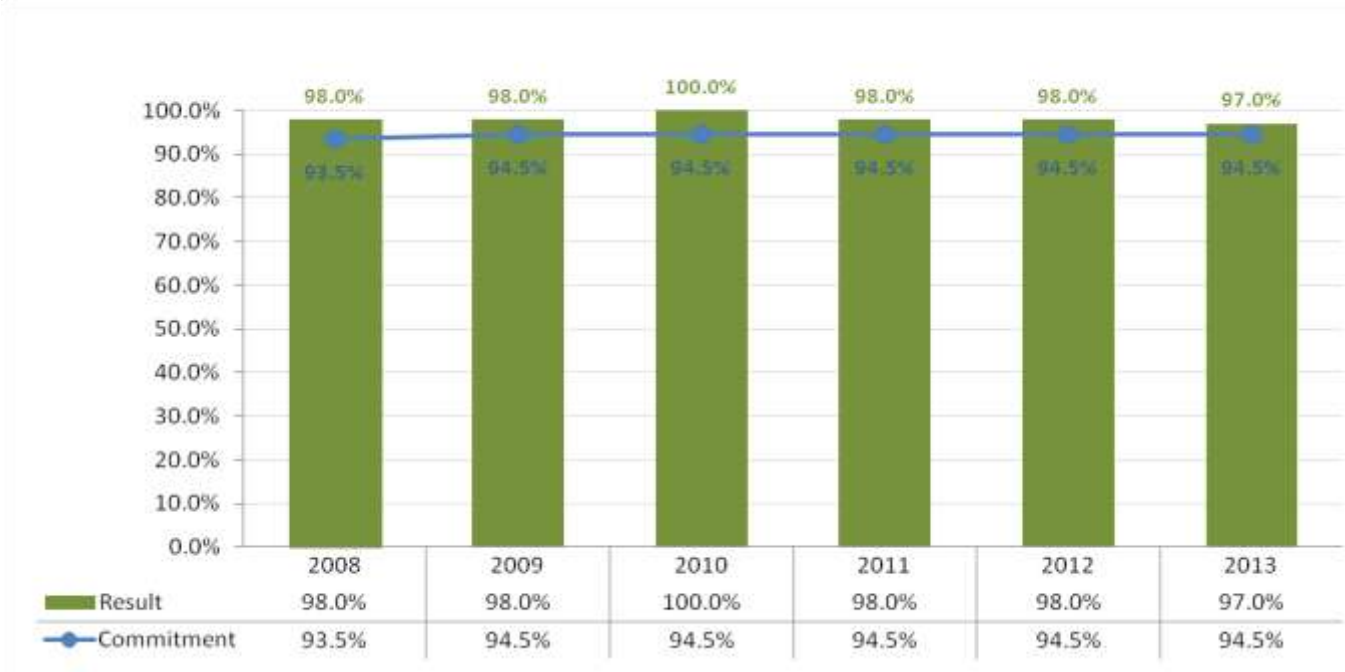
Figure 38: High-Priority EPA and State NPDES Permits (WQ-19b) by Region for FY 2013



	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Result	24	23	71	79	102	9	64	36	12	29
Commitment	23	33	80	73	130	15	151	42	12	93

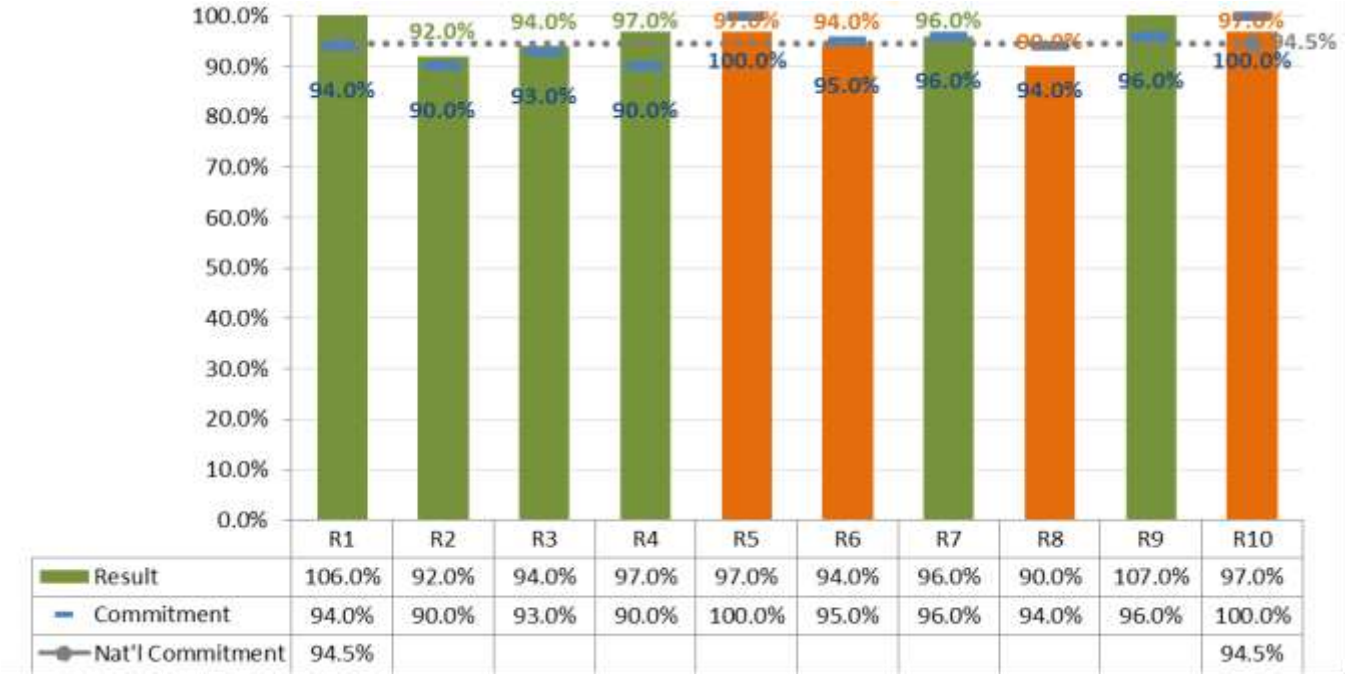
Clean Water Financing: The Clean Water State Revolving Funds (CWSRFs) provide low-interest loans to local governments to help finance wastewater treatment facilities and other water quality projects. The CWSRF utilization rate hit 97% in 2013. Six of the 10 regions met their commitments in FY 2013. Challenges to meeting the commitments included weaker than expected loan demand due to very low market interest rates. Also, in several states, loan recipients unexpectedly repaid their loans early, which left the CWSRFs with more funds than anticipated and little time to commit them toward new projects, thereby negatively impacting their final fund utilization rates for 2013. Of the $103.1 billion in funds available for projects through 2013, $100 billion has been committed to nearly 33,325 loans. In 2013, project assistance reached $4.6 billion, which funded 1,477 loans in a single year. Nationally, since 2001, fund utilization has remained relatively stable and strong at greater than 90% (WQ-17)

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



	2008	2009	2010	2011	2012	2013
Result	98.0%	98.0%	100.0%	98.0%	98.0%	97.0%
Commitment	93.5%	94.5%	94.5%	94.5%	94.5%	94.5%

Figure 40: Fund Utilization Rate for the CWSRF (WQ-17) by Region for FY 2013 (Numbers reflect both base program and ARRA funded projects)

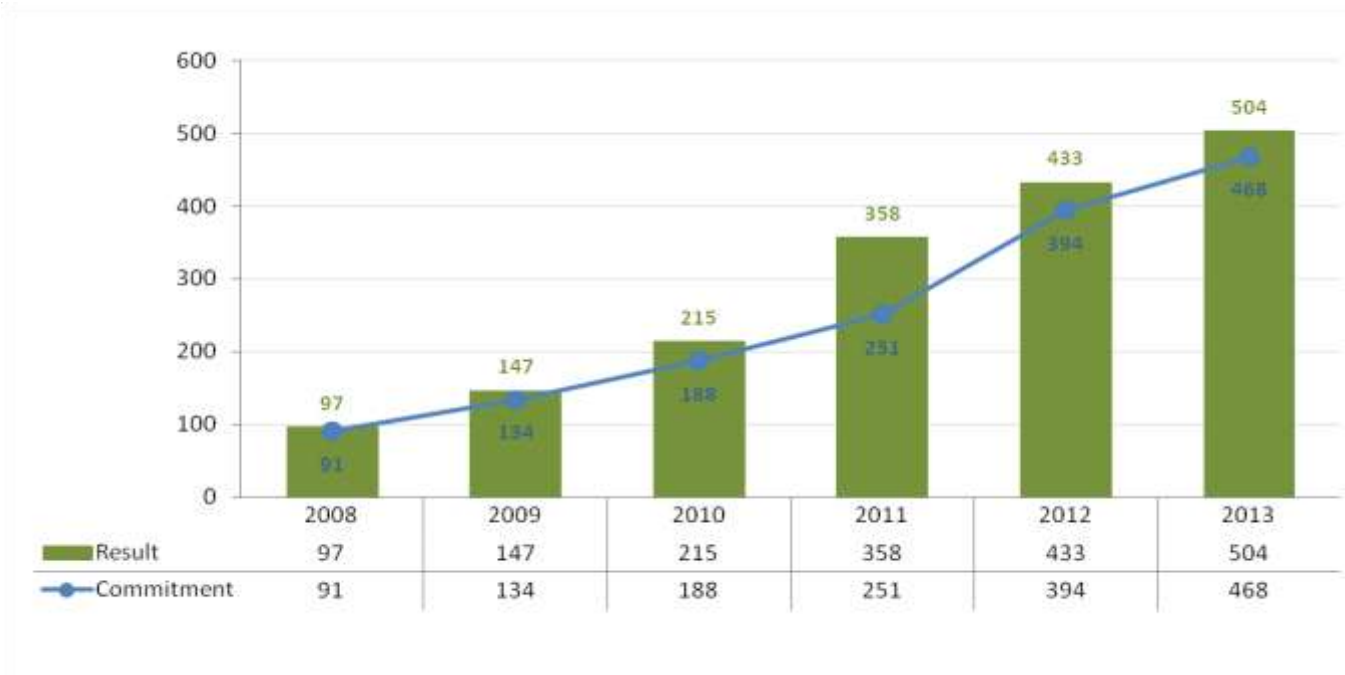


	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Result	106.0%	92.0%	94.0%	97.0%	97.0%	94.0%	96.0%	90.0%	107.0%	97.0%
Commitment	94.0%	90.0%	93.0%	90.0%	100.0%	95.0%	96.0%	94.0%	96.0%	100.0%
Nat'l Commitment	94.5%									94.5%

Control Nonpoint Source (NPS) Pollution: Polluted runoff from sources such as agricultural lands, forestry sites, and urban areas is the largest single remaining cause of water pollution. EPA and states are working with local governments, watershed groups, property owners, tribes, and others to implement programs and management practices to control polluted runoff throughout the country. EPA and states made significant progress in FY 2013 in documenting the full or partial restoration of water bodies that are impaired primarily by nonpoint source runoff. Nationally, EPA exceeded its FY 2013 commitment (468), with 504 water bodies partially or fully restored. This was a 16% increase over the 2012 result of 433 improved water bodies nationwide (WQ-10) (Figure 41).[13] Seven EPA regions met their annual commitments in FY 2013 with the remaining Regions missing their annual targets by only one waterbody each (Figure 42).

One of the challenges of the measure is it can be difficult to anticipate in exactly what year projects will come to fruition because each one consists of a different scale or scope, pollutant(s) type, and monitoring cycle. While these results accrued in 2012-13, they are likely the outcome of program investments made several years ago, as the typical timeline for restoring impaired waters is several-to-many years. In addition, factors helping or hindering water quality progress, such as other projects currently underway or watershed development, often add more pollutants, thus making detecting change difficult.

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



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

Figure 42: NPS-Impaired Water Bodies Restored (WQ-10) by Region for FY 2013

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Result	31	18	62	82	37	58	57	30	17	112
Commitment	29	19	60	76	37	41	47	28	18	113