

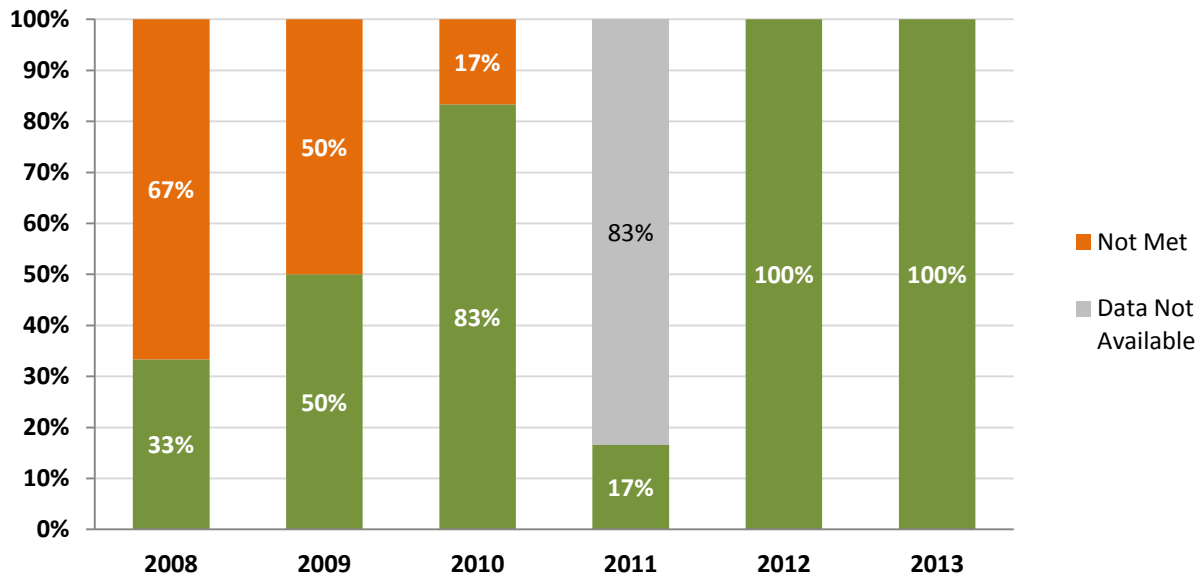
US EPA ARCHIVE DOCUMENT



## Subobjective: Chesapeake Bay

EPA's Chesapeake Bay Program was successful in meeting 100% of its annual commitments in FY 2013 (Figure 71).

**Figure 71: Chesapeake Bay Subobjective Six-Year Trend**



FY 2013 ACS Code	Abbreviated Measure Description	Results and Commitment Status							Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	2013	
<b>Subobjective 2.2.5 Improve the Health of the Chesapeake Bay</b>									
CB-SP33.N11	Percent Chesapeake Bay SAV restored	32%	35%	42%	46%	43%	34%	26%	D-45/Fig. 72
CB-SP34	Percent Chesapeake Bay dissolved oxygen attained		12%	16%	12%	39%	34%	35%	D-46/Fig. 73
CB-SP35	Percent Bay nitrogen reduction practices implemented	46%	47%	49%	51%		21%	25%	D-46
CB-SP36	Percent Bay phosphorus reduction practices implemented	62%	62%	65%	67%		19%	27%	D-47
CB-SP37	Percent Bay sediment reduction practices implemented	62%	64%	64%	69%		30%	32%	D-47

Note: SAV=submerged aquatic vegetation.

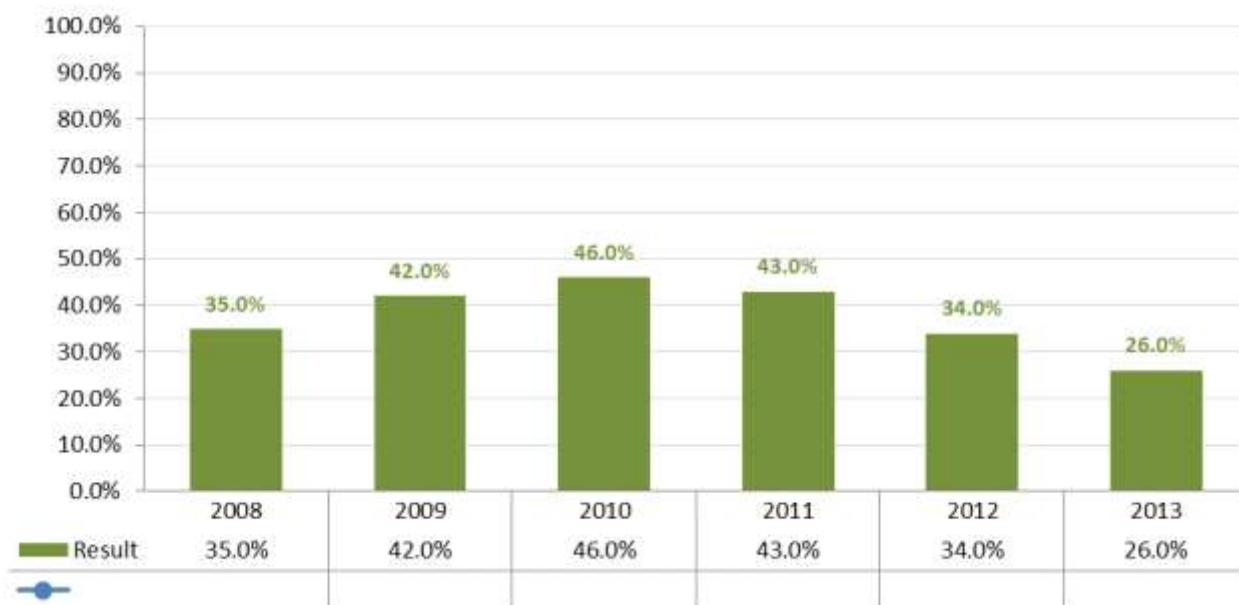
The Bay Program adopted the current measure language for CB-SP35, CB-SP36, and CB-SP37 in FY 2011 to capture progress under the Bay TMDL established in December FY 2010. This change occurred after the publication of the FY 2011 National Water Program Guidance and Commitment Appendix. The program was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

## FY 2013 Performance Highlights and Management Challenges

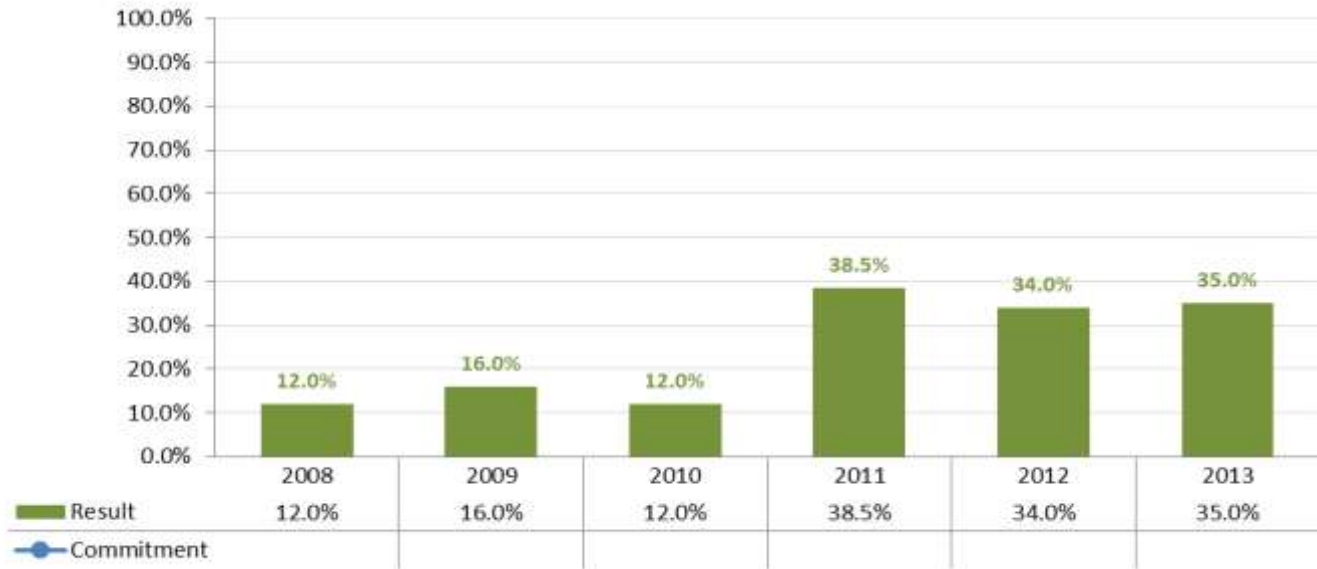
**Submerged Aquatic Vegetation (SAV) and Water Quality in the Bay:** The overriding goal of EPA's Chesapeake Bay Program Office is to work with its federal, state, and local partners to improve the health of the Chesapeake Bay ecosystem. Two of the most important indicators for measuring the health of the Chesapeake Bay are acres of submerged aquatic vegetation (SAV) (SP-33) and levels of dissolved oxygen (DO) (SP-34). Based on annual monitoring from the prior year, the Chesapeake Bay Program reported 48,100 acres of SAV in the bay. This represents approximately **26%** of the program's long-term goal of 185,000 acres, which is the amount necessary to achieve Chesapeake Bay water quality standards (Figure 72). The fiscal year data reported in Figure 72 are based on data from the previous calendar year. Experts agree that Hurricane Irene and Tropical Storm Lee contributed strongly to the decline.<sup>1</sup>

Monitoring data from the previous three calendar years indicate that about **35%** of the combined volume of open-water, deep-water, and deep-channel water of the bay and its tidal tributaries met DO standards during the summer months (Figure 73). The goal is for 100% of the tidal tributaries and the Chesapeake Bay to meet Clean Water Act standards for DO. To achieve SAV and DO goals, program partners are implementing pollution control measures throughout the bay watershed to reduce nitrogen, phosphorus, and sediment loads to the bay.

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



<sup>1</sup> R. J. Orth, D. J. Wilcox, L. J. R. Whiting, L. Nagey, A. K Kenne and E.R. Smith, 2012 Distribution of Submerged Aquatic Vegetation in Chesapeake Bay and Coastal Bays, October 2013, Virginia Institute of Marine Science. Special Scientific Report Number 154" available at <http://web.vims.edu/bio/sav/sav12/>

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

\* National Program Manager Comments: Historic data for measure changed due to new assessment method adopted during development of the Bay TMDL. Results from FY11 EOY reflect new method, past results reported here reflect the old method. The revised historic results are FY05: 42%; FY08: 40.5%; FY09: 42.1%; FY10: 39.4%.

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

EPA strongly believes that local governments are critical partners in implementing the TMDL, and the Agency is working to ensure that states provide necessary support to local governments as they take the on-the-ground actions necessary to achieve the goals of the Chesapeake Bay TMDL. EPA will continue to implement key initiatives under Executive Order 13508. For additional information, please refer to the most recent Action Plan, available at [http://executiveorder.chesapeakebay.net/EO\\_13508\\_FY13\\_Action\\_Plan.pdf](http://executiveorder.chesapeakebay.net/EO_13508_FY13_Action_Plan.pdf).

EPA expects enhanced implementation of nitrogen, phosphorus, and sediment pollution control measures as a result of the TMDL that was established in December 2010. Chesapeake Bay Program partners continue to implement pollution controls necessary to restore Chesapeake Bay water quality. The program exceeded its FY 2013 targets for pollution controls (refer to Table 1). By the end of 2017 (FY 2018), the program expects to achieve 60 percent of its goals for implementing nitrogen, phosphorus, and sediment reduction actions necessary to achieve final TMDL allocations, as measured through the phase 5.3 watershed model. Given that the Chesapeake Bay Program created these measures in FY 2011 as a result of the TMDL and a new watershed model, trend data does not exist prior to FY 2011.

**Table 1: Chesapeake Bay Nutrient Measures**

ACS Code	Measure Language	FY 2012 Commitment	FY 2012 Results	FY 2013 Commitment	FY 2013 Result
SP-35	Percent of goal achieved for implementing nitrogen pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	21%	22.5%	25%
SP-36	Percent of goal achieved for implementing phosphorus pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	19%	22.5%	27%
SP-37	Percent of goal achieved for implementing sediment pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.	15%	30%	22.5%	32%