

Chesapeake Bay Water Quality Indicator

Responses to Questions Raised at the September 2013 PSC Meeting

Why did we develop a new water quality indicator?

The new indicator was developed for several reasons:

- to ensure the Chesapeake Bay Program Partnership's public water quality indicator was fully consistent with how Delaware, the District of Columbia, Maryland, and Virginia were reporting on the status of their Chesapeake Bay and tidal tributary waters on their 303(d) lists and integrated reports required under the Clean Water Act;
- to provide a single, integrated measure of Bay water quality versus separate indicators for dissolved oxygen, water clarity, and chlorophyll *a*;
- to provide a common, baywide water quality indicator which could also be reported for individual Bay segments, tidal tributaries, and individual jurisdictions; and
- to be used to illustrate incremental progress towards ultimately achieving each state's Chesapeake Bay water quality standards at smaller scales for the 291 designated use segments rather than just the 92 segments.

What was the process for development and review within the Bay Program?

The underlying technical methodology for calculating the water quality indicator was reviewed and approved initially by the Tidal Monitoring and Analysis Workgroup, then the Scientific and Technical Assessment and Reporting Team, and finally the Water Quality Goal Implementation Team. The Water Quality Goal Implementation Team, in turn, recommended the water quality indicator to the Partnership's Management Board, which approved the indicator for use by the Partnership at its May 2013 meeting.

Where does the data for this indicator come from?

The data used to calculate the water quality indicator comes from the Partnership's Chesapeake Bay Water Quality Monitoring Network. These are the same water quality monitoring data which have been collected and analyzed by the four jurisdictions and universities since 1985.

Will this place be an additional reporting burden placed on the jurisdictions?

No. Through the Partnership's Tidal Monitoring and Analysis Workgroup, state and university, and technical staff have already been collaboratively analyzing the data from the Chesapeake Bay Water Quality Monitoring Network for use in the four jurisdictions' biennial 303(d) lists and integrated reports since 2008 and used in the Partnership's annual Bay Barometer report to the

public on Bay and watershed health and restoration progress. The results of these exact same ongoing analyzes are used to report the water quality indicator.

Will additional costs be incurred by the jurisdictions as a result?

No. The data already come from the Partnership's Chesapeake Bay Water Quality Monitoring Network, already funded by EPA and the four jurisdictions. The data analyses already come from the work the Partnership's Tidal Monitoring and Analysis Workgroup, which is already funded by EPA data analysis grants to the states, SRBC, and USGS, and involves the jurisdictions' existing data analysis staff.

How was the 60% goal arrived at?

Accounting for delays in Bay water quality response times and groundwater and other lags identified by USGS and university scientists, EPA estimated what were the likely nutrient and sediment delivered loads to the Chesapeake Bay for the year 2025. These pollutant loads were higher than the then draft Bay TMDL allocations given the time lags affects from groundwater and other factors. Running these estimated loads to the Bay through the Chesapeake Bay water quality model scenario resulted in projected water quality conditions where about 60 percent of the Bay tidal waters would be achieving the four jurisdictions' Bay water quality standards at that time. Appendix C of the May 2010 Executive Order Strategy provides more detailed documentation (see attached).

Is there a process in place for updating this goal number now that the TMDL is in place?

Through the 2017 midpoint assessment currently underway, the Partnership has the tools, data, and information needed to agree on a process for updating/refining this goal now that the jurisdictions' Phase II WIPs are in place and being implemented.

What is the timing for such an update?

That is a Partnership decision which has not yet been made. However, as part of the midpoint assessment work, it is likely this update could be completed by 2015 (or at the end of the 2013-2014 milestone period).