

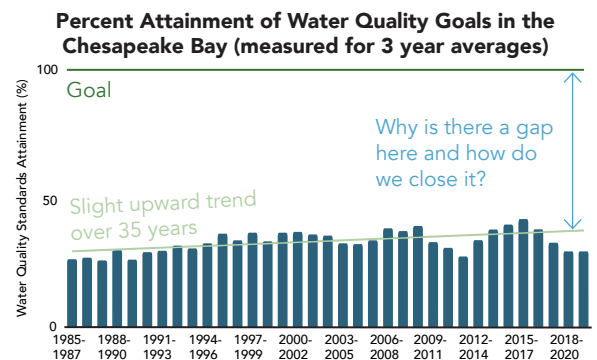
The CESR Report: Who, What, and Why

An independent group of scientists began CESR to look at what has worked to date and how we can continue to improve the water quality of the Chesapeake Bay.

The 40-year effort to restore Chesapeake Bay is one of the largest watershed restoration initiatives in the U.S. and serves as a model for efforts across the globe. A healthy Chesapeake Bay supports communities, quality of life, and economic prospects of those living in this 64,000 mi² watershed.

For over four decades, Bay scientists have understood that excess nutrients and sediment entering the Bay accelerates algal growth. In turn, the algal overgrowth reduces oxygen, which is needed by fish and other aquatic organisms, and reduces the light, which is needed for aquatic plants.

Concerted policy efforts have improved overall oxygen and water clarity. These improvements occurred in spite of a growing human and animal population, land development, and climate change. While holding the line against these headwinds is an exceptional achievement, we are still not meeting water quality and habitat goals.



To investigate why we are not closer to the goals that the Chesapeake Bay partnership set despite our collective efforts and funding to date, the Scientific and Technical Advisory Committee undertook an independent, multi-year analysis of the literature and data.

This has culminated in a Comprehensive Evaluation of System Response (CESR). This Report in Brief provides the major findings of the CESR report. It identifies opportunities and includes suggestions for a way forward, while leaving it to management agencies to develop specific recommendations for needed actions. Where it is relevant for each of the major findings, we refer the reader to specific sections of the CESR report for additional detail.

Major findings:

- Nonpoint source programs not generating enough pollutant reductions to meet the TMDL (CESR Chapter 3: Nutrient and Sediment Response to Management Efforts).
- Water quality is improving but not to the level expected, suggesting that our goals might not be met everywhere; DO in the deep channel is especially low (CESR Chapter 4: Estuary Water Quality Responses to Nutrient and Sediment Load Reductions).
- With additional management actions, we can realize potential improvements of living resources without completely achieving water quality standards across all habitats (CESR Chapter 5: Living Resource Response to Water Quality Conditions).
- Improved capacity to learn about system response can improve long-term pollutant control and living resource outcomes (CESR Chapter 6.6: Expanding Adaptive Decision-Making and Improving Program Learning).