State of the Chesapeake Bay Program

Executive Summary

The Chesapeake Bay Program partnership is a unique and regional collaboration that brings together leaders and experts from a vast range of agencies and organizations. Partners work through Goal Implementation Teams (GIT), Workgroups and Advisory Committees to collaborate, share information and set goals. Following the adoption of the 2014 *Chesapeake Bay Watershed Agreement* (Agreement), the partners crafted Management Strategies, and subsequently, work plans for the outcomes included within the Agreement. This Executive Summary is a companion to the *State of the Chesapeake Bay Report* (Report), a document which fulfills the obligation of the Principals' Staff Committee (PSC) to the Executive Council (EC), noted in the Agreement, to "report on implementation of Management Strategies every two years" after the adoption of these strategies in 2015.

The Report provides an overview of the state of the Chesapeake Bay Program in several areas:
- our progress toward our outcomes, as demonstrated by our indicators;
- our continued and ongoing pursuit of a more collaborative and inclusive culture;
- our construction of a new biennial Strategy Review System (SRS) to examine progress toward our commitments, considering new information and adjusting as necessary; and
- our discussions as a partnership at a two day kick-off meeting of this system in February 2017.

The Chesapeake Bay Program's biennial SRS is a two-year process that will support our Adaptive Management Decision Framework and improve our effectiveness in achieving the Goals and Outcomes of the Agreement. During this process, the partnership will review its progress toward the Agreement, identify the management approaches and actions that are or are not working; consider scientific, fiscal and policy developments; and adjust our Management Strategies and work plans as needed. The system is not intended to focus on where we are falling short, but on how we can work together and support each other to improve our collective successes.

The SRS begins with a two day meeting designed to provide a broad review of where and why we have and have not made progress toward the Agreement over the previous two years, and identify issues and developments in the scientific, fiscal and policy fields that could impact Goal and Outcome achievement.

Issues identified during this two day meeting will inform subsequent and more detailed quarterly progress meetings, in which the Management Board will review progress toward individual outcomes, apply new opportunities and understandings, identify changes to management approaches and/or actions, and, where appropriate, offer input to support work plan revisions.

The Chesapeake Bay Program uses a suite of environmental health, restoration and stewardship indicators to track progress toward the Agreement. These indicators support the partnership's adaptive management-based decision-making process and highlight the critical work that is furthering the commitments we have made. The Report not only highlights the co-benefits and connections that exist between these indicators, but also provides an overview of the factors that influence their progress. A brief summary of progress is included below.

In terms of restoration, the Chesapeake Bay is at a critical tipping point. The watershed is resilient, vibrant and healthy in many ways; but it is also out of balance in others. A brief summary of our indicators is below; celebrate the vibrancy we are witnessing while continuing to address the challenges of the ecosystem.

Protected Lands: Data collected between 2015 and 2016 show that, since 2010, approximately one million acres of land in the Chesapeake Bay watershed have been permanently protected from development, marking a 50 percent achievement of the goal to protect an additional two million acres of land from development by 2025. This brings the total amount of protected lands in the watershed to 8.8 million acres.

Fish Passage: Between 2012 and 2015, 817 additional miles of fish migration routes were opened, including almost 300 miles in Virginia and more than 500 miles in Pennsylvania. This marks an 82 percent achievement of the goal to open 1,000 stream miles to fish passage by 2025.

Underwater Grasses: In 2016, preliminary data indicates an estimated 97,433 acres of underwater grasses in the Chesapeake Bay. This surpasses the 2017 restoration target and marks a 53 percent achievement of the 2025 goal to reach and sustain 185,000 acres of underwater grasses across the Chesapeake Bay. The diversity of bay grass species has also increased, contributing to the resilience and rebuilding of the ecosystem.

Blue Crab Abundance: Between 2016 and 2017, the abundance of adult (age 1 +) female blue crabs in the Chesapeake Bay increased 31 percent from 194 million to 254 million. This number is above the 70 million threshold and the 215 target, marking the highest amount ever recorded by the Bay-wide Blue Crab Winter Dredge Survey.

Oyster Restoration: Six out of ten Chesapeake Bay tidal tributaries have been selected for oyster restoration. Each of these sites is at different levels of progress: in Maryland, 564 acres of oyster reefs are considered "complete"; in Virginia, 158 acres are considered the same. As of April 2017, about 380 acres of oyster reefs remain to be restored.

Water Quality Standards: During the 2013 to 2015 assessment period, an estimated 37 percent of the Chesapeake Bay and its tidal tributaries met water quality standards. This marks an almost 10 percent increase from the previous assessment period, but is far below the 100 percent attainment that is needed for clean water and a stable aquatic habitat.

Nitrogen, Phosphorus and Sediment Loads: From October 2014 to September 2015, approximately 217 million pounds of nitrogen, 9.9 million pounds of phosphorus and 2.9 billion pounds of sediment reached the Chesapeake Bay: a 25 percent, 44 percent and 59 percent drop from the previous year, respectively. These estimates are based primarily on monitoring data from the Bay's major rivers and wastewater treatment facilities.
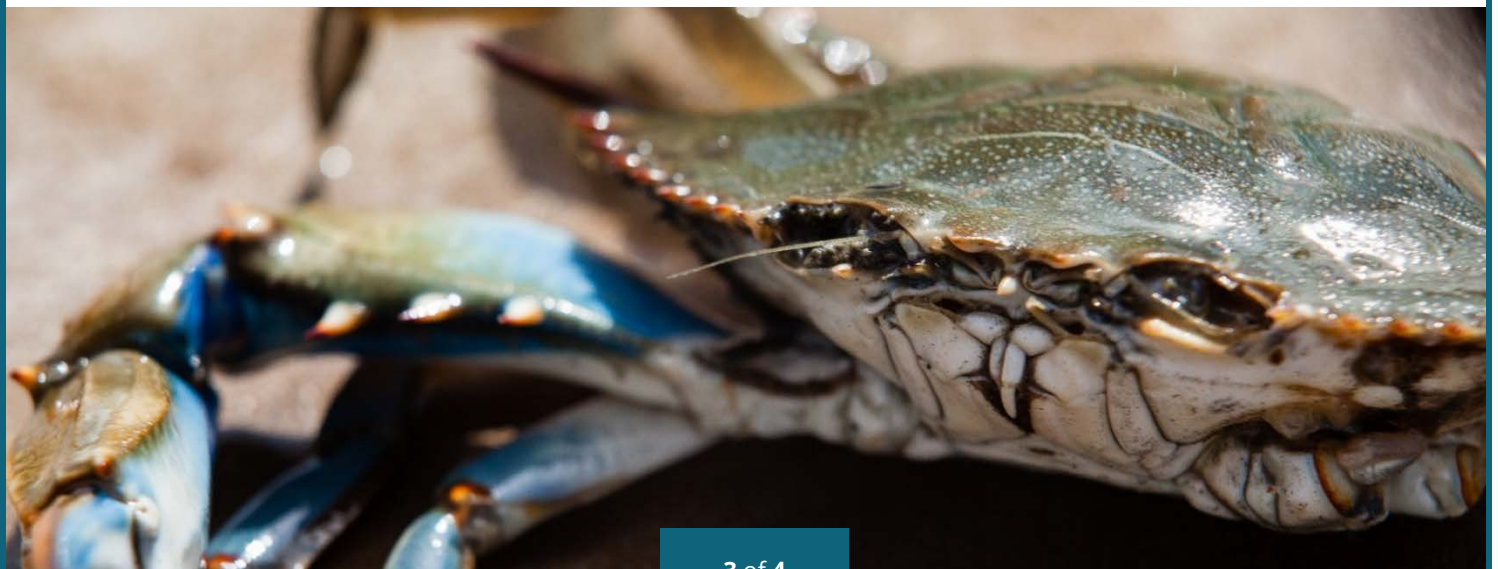
Estimated Pollution Reduced: Computer simulations show that pollution controls put into place in the Chesapeake Bay watershed between 2009 and 2015 lowered nitrogen loads by eight percent, phosphorous loads 20 percent and sediment loads seven percent. Experts attribute this drop to a number of factors, including the increased implementation of agricultural conservation practices; a drop in the atmospheric deposition of nitrogen; and significant reductions of nitrogen and phosphorous loads in the wastewater sector. For the first time – and ten years ahead of schedule – the Chesapeake Bay Program partnership as a whole met its 2025 pollution reduction targets for the wastewater sector. Pollution reducing practices are in place to achieve 31 percent of the nitrogen reductions, 81 percent of the phosphorus reductions and 48 percent of the sediment reductions necessary to attain application water quality standards.

Forest Buffers: Between 2014 and 2015, about 64 miles of forest buffers were planted along the rivers and streams in the Chesapeake Bay watershed. While this marks progress toward the outcome, it is significantly less than the progress made in the past years: at 836 miles below the 900-mile-per-year goal, it is the lowest restoration total in the past 16 years, meeting only seven percent of the 2025 goal.

Public Access: Between 2010 and 2016, over 130 public access sites were opened throughout the Chesapeake Bay watershed, making a 43 percent achievement of the goal to open 300 new sites by 2025. There are now 1,269 public access sites in the Chesapeake Bay watershed.

Diversity: In 2017, results of the first-ever Chesapeake Bay Program diversity profile were released. Almost 85 percent of respondents self-identified as white or Caucasian, while 13 percent identified as non-white or non-Caucasian. Of those respondents who identified as white, about one third identified themselves as a member of Chesapeake Bay Program leadership, while one quarter identified themselves as non-white. Non-white respondents who identified themselves as Bay Program leadership comprise only three percent of total profile respondents.