Presentation to the Habitat Goal Implementation Team

The Chesapeake Bay Program Outcome Attainability

November 10, 2021

Sean Corson, NOAA

January 1, 2026 – What is the Headline we want to see?

Outcome Attainability Team (OAT)

- For those Outcomes that have a target and a timeline:
  - What do we know about the status?
  - Which are on track, which are significantly off track?
  - What don't we know?
- For those Outcomes that have either no target or timeline:
  - How do we define success?
- Based on the answers to the questions above, where do we focus our time and attention?

Watershed Agreement Outcomes

Sustainable Fisheries

- Blue Crab Abundance & Management
- Oyster Restoration
- Fish Habitat
- Forage fish

Vital Habitats

- Fish Passage
- Forest Buffers
- Stream Health
  - Brook Trout
- SAV
- Tree Canopy
- Wetlands
  - Black Duck

Clean Water

- Watershed Implementation Plans - 2017 & 2025
- Water Quality Standards Attainment & Monitoring
- Toxic Contaminants Research
- Toxic Contaminants Policy and Prevention
- Healthy Watersheds

Conserved Lands

- Protected Lands
- Land Use Options Evaluation
- Land Use Methods & Metrics

Engaged Communities

- Diversity
- Public Access
- Citizen Stewardship
- Local Leadership
- Sustainable Schools
- Environmental Literacy Planning
- Student MWEEs

Climate Change

- Climate Monitoring and Assessment
- Climate Adaptation

Watershed Agreement Outcomes with Targets and Timelines

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*Target and date set by CBP. Not in original Outcome language

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Forest Buffers

Continually increase the capacity of forest buffers to provide water quality and habitat benefits throughout the Chesapeake Bay watershed. Restore 900 miles of riparian forest buffers per year and conserve existing buffers until at least 70 percent of riparian areas in the watershed are forested.

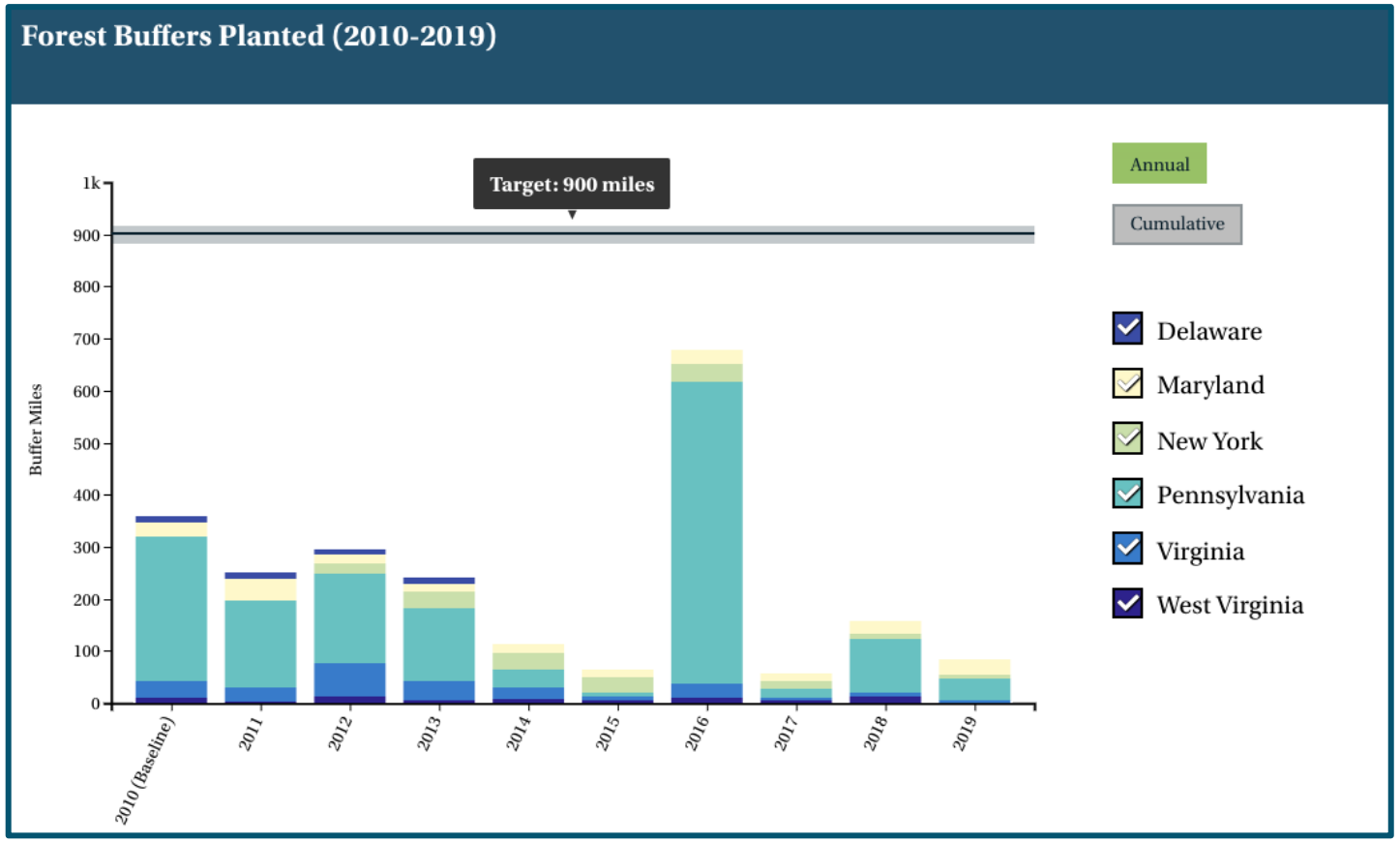
Progress needed to meet WIP3 goals (1719 miles/yr 2019-2025)

Current Progress

Between 2017 and 2018, about 158 miles of forest buffers were planted along rivers and streams, followed by about 83 miles in 2019. While this marks progress toward the outcome, it is 742 and 817 miles below the 900-mile-per-year target, respectively.

Not on Track

We are short of the 900-mile per year target and furthermore, this target is inadequate to meet the buffer goals outlined in the Phase III WIPs. To fill the gap between 2018 Progress and 2025 WIP III goals, we would need to add over 1,700 miles of forest buffers annually between 2019-2025.



Wetlands

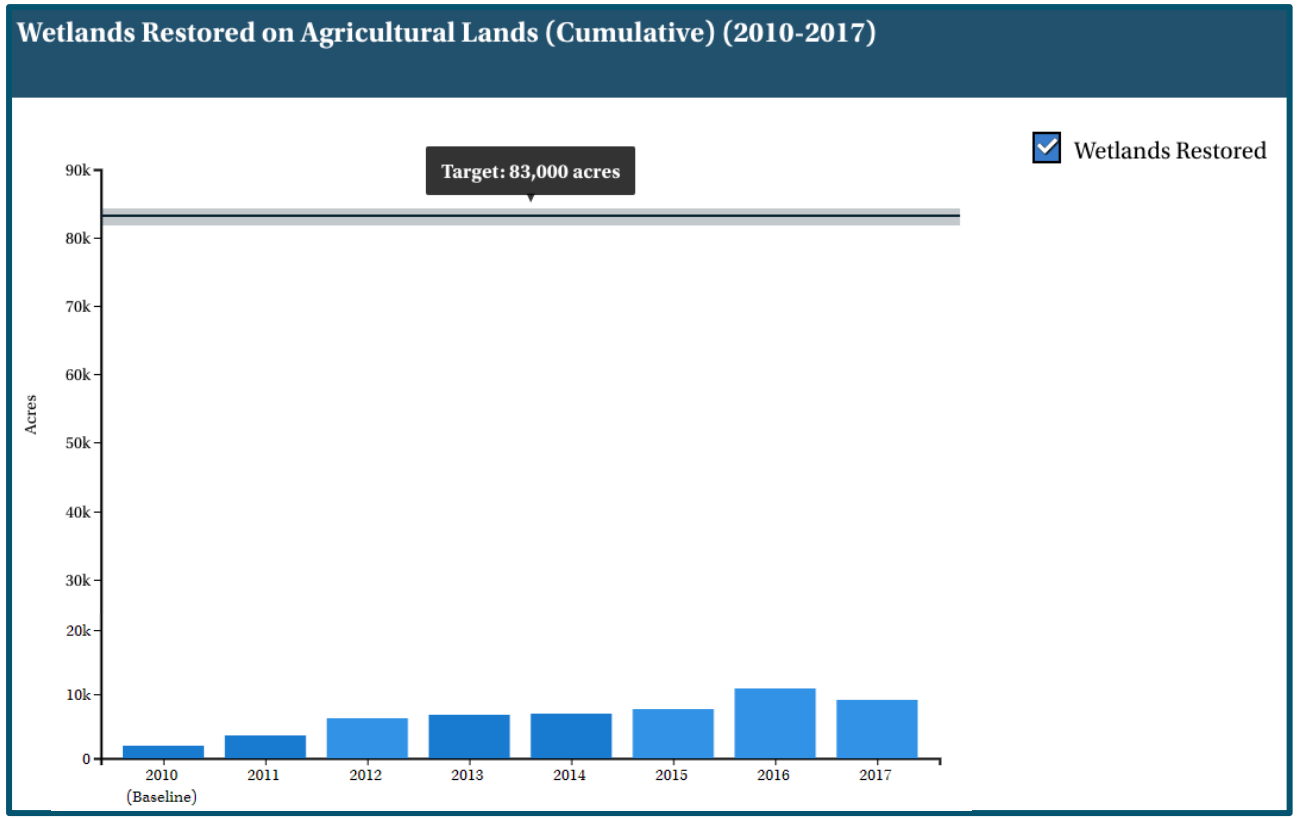
Continually increase the capacity of wetlands to provide water quality and habitat benefits throughout the watershed. Create or reestablish 85,000 acres of tidal and non-tidal wetlands and enhance function of an additional 150,000 acres of degraded wetlands by 2025. These activities may occur in any land use (including urban), but primarily occur in agricultural or natural landscapes.

Current Progress

Between 2010 and 2017, 9,103 acres of wetlands were established, rehabilitated or reestablished on agricultural lands.

Not on Track

Wetland acreage data are inconsistently reported and inaccurate for assessing progress toward this outcome. Work is underway to identify a consistent means for collecting data by maximizing existing data reporting processes.



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Stream Health

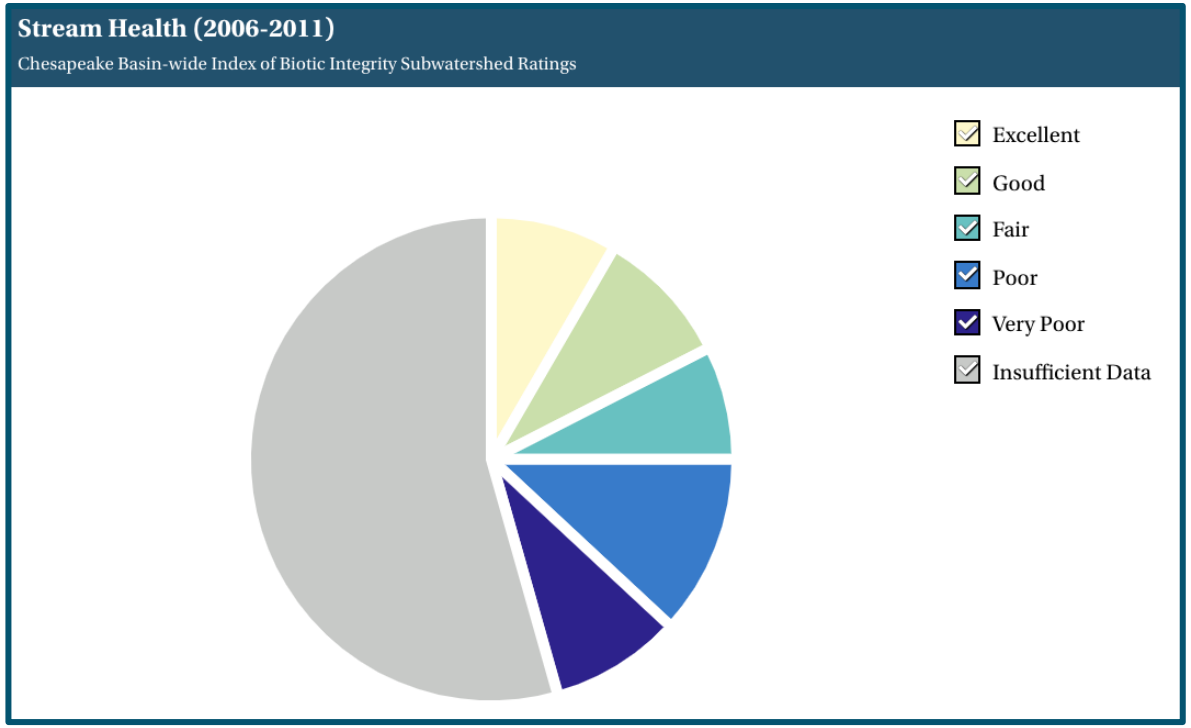
Continually improve stream health and function throughout the watershed. Improve health and function of 10% of stream miles above the 2008 baseline for the watershed.

Current Progress

In 2018, researchers and resource managers established the six years between 2006 and 2011 as the baseline period for our indicator of stream health. Known as the Chesapeake Basin-wide Index of Biotic Integrity, or Chessie BIBI, this indicator describes the quality of assessed streams in relation to all of the streams in the watershed. During this baseline period, the Chessie BIBI ranked 25% of the Bay watershed with fair, good or excellent stream conditions and 21% with poor or very poor conditions.

Outcome Achievement Uncertain

The graphic illustrates an update to the Stream Health Outcome, the Chessie BIBI. During this baseline period, the Chessie BIBI ranked 25 percent of the Bay watershed with fair, good or excellent stream conditions and 21 percent with poor or very poor conditions. Fifty-four percent of the watershed was not included in this baseline assessment, due to insufficient or absent data. Future data analysis is required to determine trends and the direction of change (progress).



Submerged Aquatic Vegetation

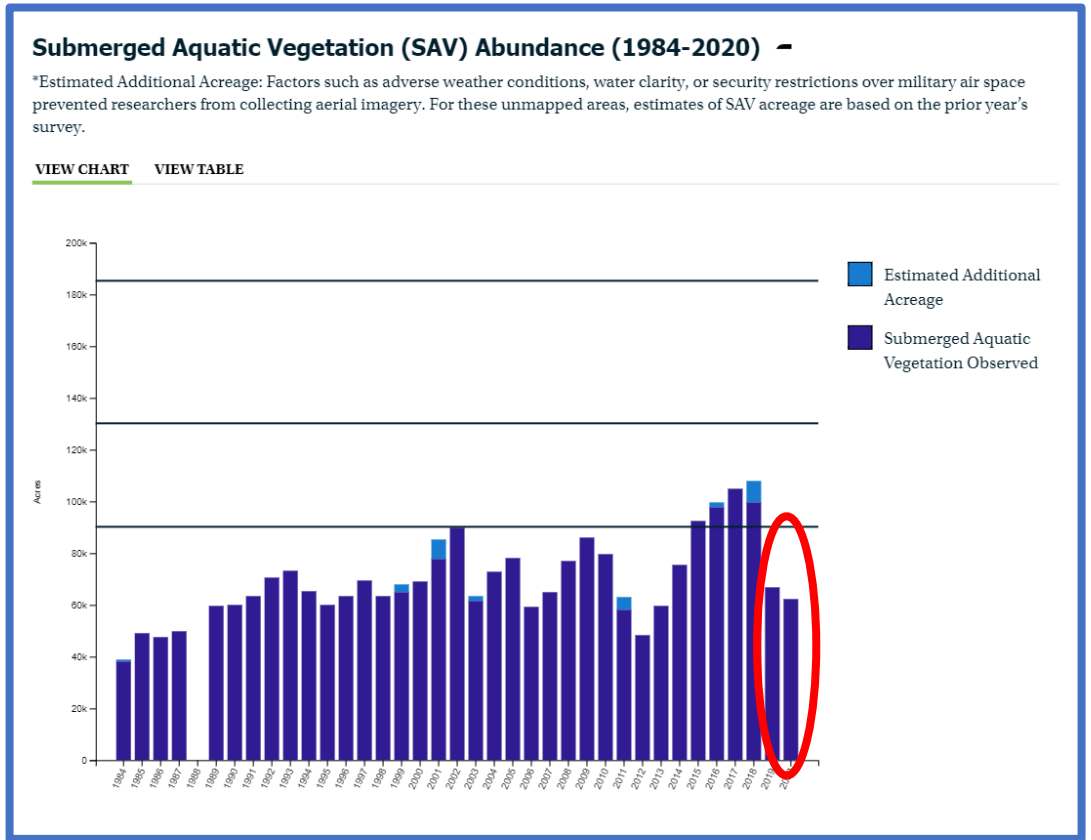
Sustain and increase the habitat benefits of submerged aquatic vegetation (SAV) in the Chesapeake Bay. Achieve and sustain the ultimate outcome of 185,000 acres of SAV Bay-wide necessary for a restored Bay. Progress toward this ultimate outcome will be measured against a target of 90,000 acres by 2017 and 130,000 acres by 2025.

Current Progress

According to preliminary data from the Virginia Institute of Marine Science (VIMS), 62,169 acres of underwater grasses were mapped in the Chesapeake Bay in 2020. This is 48% of the Chesapeake Bay Program's 2025 restoration target of 130,000 acres and 34% of the partnership's 185,000-acre goal.

Outcome Achievement Uncertain

Although the 62,169 acres mapped in 2020 is a 60% increase from the 38,958 acres observed during the first survey in 1984, it is a 20% decrease from the current 10-year average of 78,168 acres and a 7% decrease from 2019 when 66,684 acres of underwater grasses were mapped.



Tree Canopy

Continually increase urban tree canopy capacity to provide air quality, water quality and habitat benefits throughout the watershed. Expand urban tree canopy by 2,400 acres by 2025.

Current Progress

Between 2014-2020, states reported 5,525 acres of tree planting BMPs on developed lands, with most of those acres (4,875) reported by Maryland.

Outcome Achievement Uncertain

A high-resolution aerial tree canopy assessment—which would track net gain or loss of tree canopy over time—is still in the process of being completed for the entire watershed. As such, a more robust estimate of the baseline for this outcome is being developed.

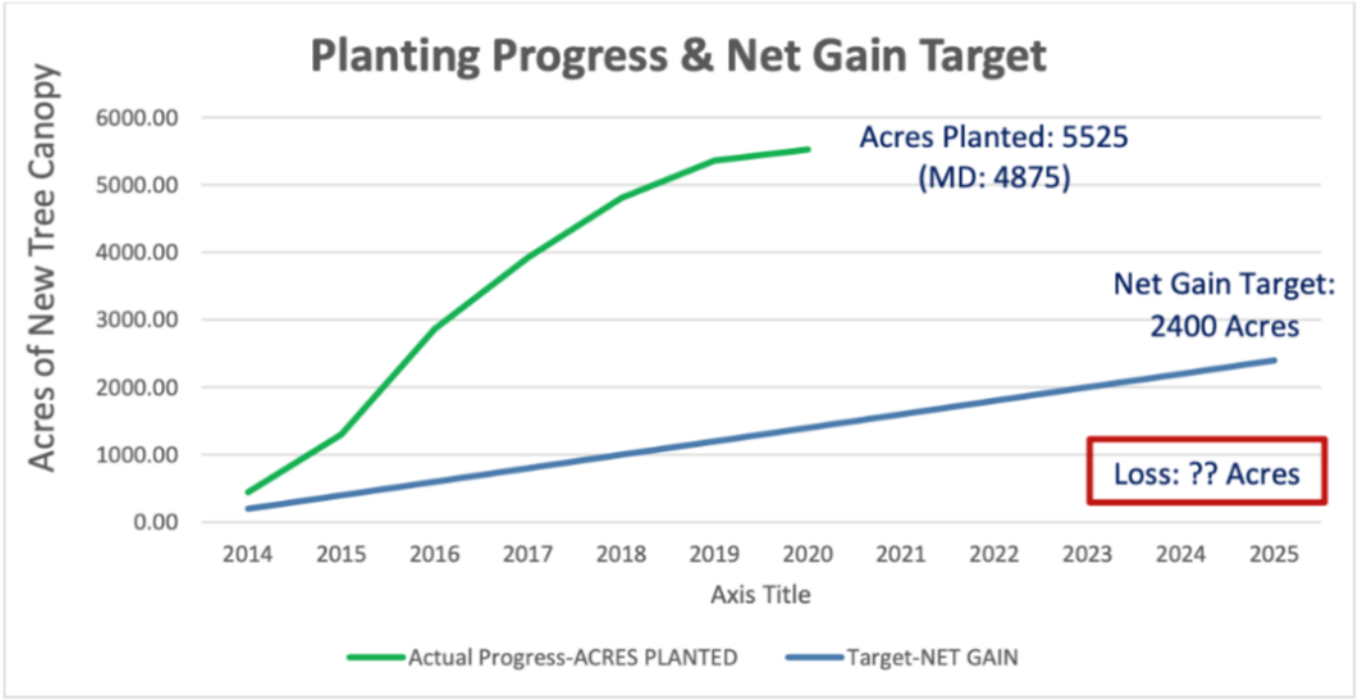


Chart courtesy of the Chesapeake Bay Commission

Watershed Agreement Outcomes With No Target And/Or Timeline

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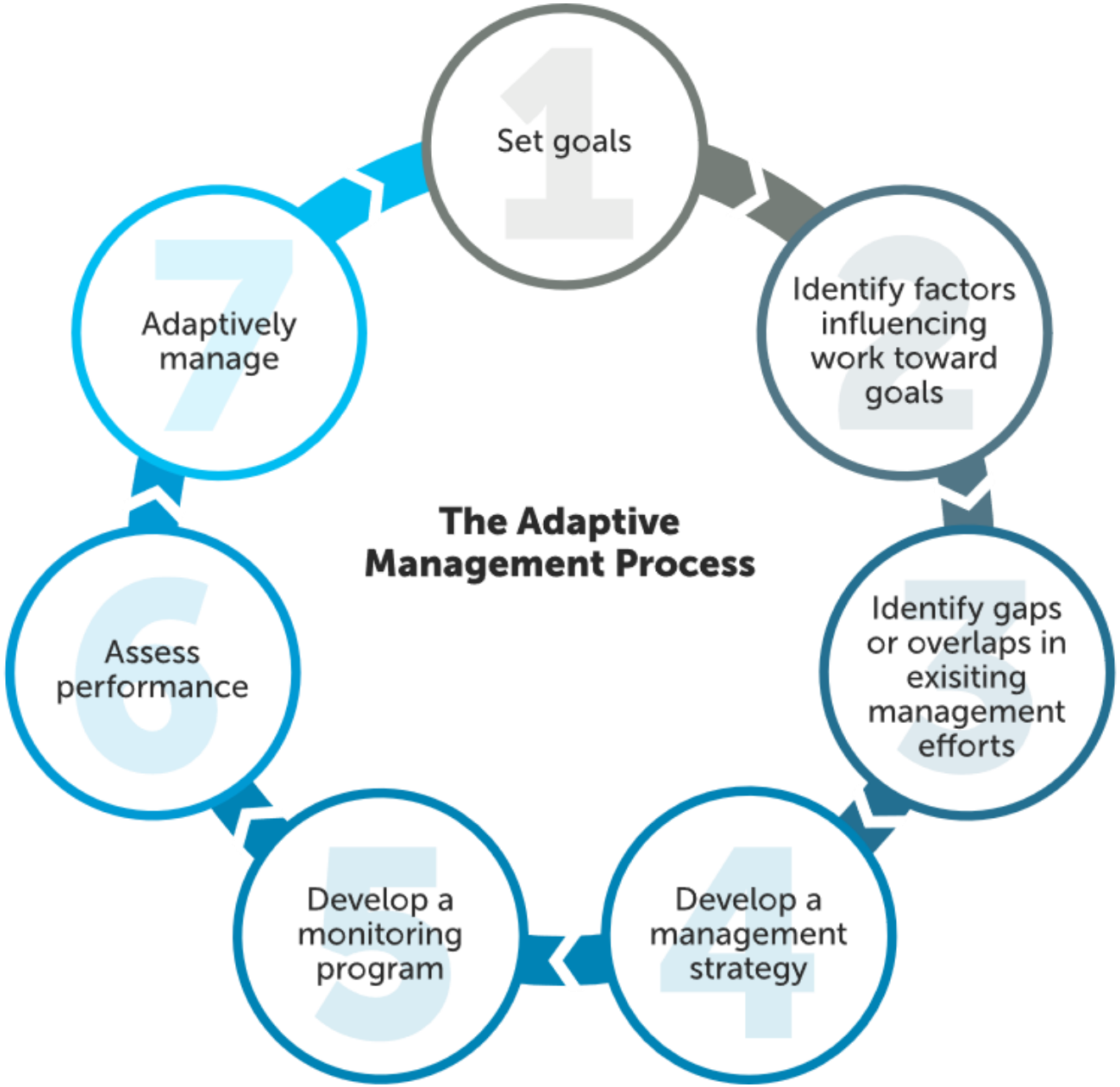
The Adaptive Management Process
1
Set goals
2
Identify factors influencing work toward goals
3
Identify gaps or overlaps in exisiting management efforts
4
Develop a management strategy
5
Develop a monitoring program
6
Assess performance
7
Adaptively manage

Proposal

What: Three One-day facilitated workshops hosted by the Wetlands and Forestry Workgroups

- Tidal Wetlands
- Non-Tidal Wetlands
- Forest Buffers

Who: Workgroup members, appropriate program managers identified by the workgroups, the Management Board, and others.

Outcomes:

- Options and recommendations to accelerate implementation.
- Recommendation for determining reasonableness of the target set in 2014.

Proposal

What: Develop a report summarize status of each outcome, including the qualitative outcomes

Who: Goal Implementation Teams, Coordinators, Staffers, Communications Team

Outcomes:

- Apply material from this analysis to the State of the Program Report delivered to the EC in December.

Recommended Steps - Workshop

- Three one-day facilitated workshops
  - Tidal Wetlands
  - Nontidal Wetlands
  - Forest Buffers
- Use facilitated approaches such as the SWOT analyses
- Ensure the right people are in attendance
- Develop draft options and recommendations for both desired outcomes.

Questions?

Chesapeake Bay Program
Science. Restoration. Partnership.

Learn more:

- **www.chesapeakebay.net**
- **www.chesapeakeprogress.com**
- **www.epa.gov/chesapeake-bay-tmdl**
- **Facebook: Chesapeake Bay Program**
- **Twitter: @chesbayprogram**
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