PLANNING FOR 2025 AND BEYOND

Chesapeake Bay Program

Outcome Review Meeting

Outcome Presentations

March 13, 2025

STUDENT OUTCOME

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

UPDATE

OUTCOME: Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school depending on available resources.

GOAL: Environmental Literacy
LEAD: Stewardship GIT - Education Workgroup

- Outcome vital to meeting the EC goal of engaging all communities
- Short & long-term co-benefits for water quality, living resources, & other goals
- CBP adds significant value to jurisdictions by developing resources & tools
- Established state networks & emerging regional hubs to support MWEE implementation
- Continued focus needed to support local implementation efforts (e.g. case studies, trainings, guidance documents)

Recommendation

- UPDATE to ensure the outcome is SMART
- Better track/support experiences that are not full MWEEs
- Create new indicator to track % of student population receiving MWEEs in K-12
- *Continually increase the number of students who are participating in inquiry-based environmental literacy instruction. By 2035, XX% of the student population will be enrolled in a school district that offers a curriculum-embedded MWEE, with a target of at least one MWEE each in elementary, middle, and high school.*

Presented by: Shannon Sprague

SUSTAINABLE SCHOOLS OUTCOME

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

RECLASSIFY

OUTCOME: Continually increase the number of schools in the region that reduce the impact of their buildings and grounds on their local watershed, environment and human health through best practices, including student-led protection and restoration efforts.

GOAL: Environmental Literacy
LEAD: Stewardship GIT - Education Workgroup

Recommendation: RECLASSIFY as an indicator of the Environmental Literacy Planning Outcome.

Key Factors

- CBP partnership is not currently well positioned to add significant value towards outcome progress.
- Outcome lacks significant partner engagement, CBP champions, and funding.

Sustainable Schools programs are well positioned as an indicator:

- Important building block for school and district environmental literacy efforts
- Provide opportunities and spaces to engage students in inquiry-based learning and action projects
- Currently tracking green certifications (*e.g.,* Green Ribbon Schools, EcoSchools, MD Green Schools)

Presented by: Shannon Sprague

ENVIRONMENTAL LITERACY PLANNING OUTCOME

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

UPDATE

OUTCOME: Each participating Bay jurisdiction should develop a comprehensive and systemic approach to environmental literacy for all students in the region that includes policies, practices, and voluntary metrics that support the environmental literacy Goals and Outcomes of this Agreement.

GOAL: Environmental Literacy
LEAD: Stewardship GIT - Education Workgroup

- Outcome vital to meeting the EC goal of engaging all communities
- CBP adds significant value to jurisdictions as a network catalyst
- Established state networks & emerging regional hubs to support EL planning
- Continued focus needed to support state effort to build strong regional hubs

Recommendation

- UPDATE to ensure the outcome is SMART
- Clarify that school districts are the focus
- Identify/track metrics that to show incremental progress
- *Continually increase the number of school districts that have policies and practices to support environmental education and sustainable schools. By 2035, the number of school districts in each state that are more prepared to deliver a comprehensive and systemic approach to environmental literacy will increase by XX% points, with a state target of XX% being well prepared.*

Presented by: Shannon Sprague

DIVERSITY OUTCOME

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

REPLACE

OUTCOME: Identify stakeholder groups not currently represented in leadership, decision-making or implementation of current conservation and restoration activities and create meaningful opportunities and programs to recruit and engage these groups in the partnership's efforts.

Presented by: Julie Patton Lawson, Stakeholders' Advisory Committee

WORKFORCE OUTCOME

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

REPLACE

***DRAFT* OUTCOME:** Grow the regional workforce to meet implementation needs and develop the next generation of conservationists, by quantifying the number of new jobs and trained workers needed to accomplish partner priorities and identifying, growing, and tracking training programs and employers to support these workers by 2030.

- GOAL: Stewardship
- LEAD: Fostering Chesapeake Stewardship

The Workforce Outcome will leverage current and future jurisdiction programs to recruit, train, and retain employees and employers that increase capacity in technical assistance to help the Chesapeake Bay Program meet our outcomes and build professional capacity and economic opportunity in our watershed.

Source documents:

- 2024 Workforce Landscape Assessment
- SAC and LGAC Annual recommendations
- CESR report
- CBC “Boots on the Ground” report
- PA Clean Water Gathering
- DC Green Workforce Strategic Plan

Presented by: Julie Patton Lawson, Stakeholders’ Advisory Committee

Public Access Site Development Outcome

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

UPDATE

OUTCOME: "By 2025, add 300 new public access sites, with a strong emphasis on providing opportunities for boating, swimming and fishing, where feasible." (2010 baseline year)

- GOAL: Public Access
- LEAD: GIT 5 / Public Access Workgroup

- Update the outcome to expand the scope using specific targets and metrics, emphasizing both water and land access sites. Additional metrics to consider include ADA/ABA accessibility, maintenance of existing sites, and net gain/loss of sites.

- Recommended baseline survey to track green spaces and establish future outputs/targets.

- 10 -15 years with periodic milestone metrics. Workgroup will maintain annual reporting cycle, allowing for more accurate data collection and reporting of influences and factors affecting the outcome.

- Opportunities: public-private partnerships, technological tools, improvement of existing sites, and educational outreach

- Challenges: funding, maintenance, local staffing capacity

Presented by: Aurelia Gracia, NPS

Protected Lands Outcome

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

UPDATE

OUTCOME: "By 2025, protect an additional two million acres of lands throughout the watershed—currently identified as high-conservation priorities at the federal, state or local level—including 225,000 acres of wetlands and 695,000 acres of forest land of highest value for maintaining water quality"

- GOAL: Land Conservation
- LEAD: GIT 5 / Protected Lands Workgroup

- Update the outcome to encompass protection as well as regional strategic targeted large landscape conservation.
- Additional outputs to consider various types of areas such as forests, agricultural landscapes, wetlands, watersheds, urban green spaces, and Tribal lands.

- 10–15-year timeline with incremental targets to measure success and adapt to changes. Workgroup will maintain annual reporting cycle.

- Opportunities: increased public support, innovative funding models, technological tools

- Challenges: staffing and resources, competition for land

Presented by: Aurelia Gracia, NPS

Toxic Contaminants Research

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

Update

OUTCOME: Continually increase our understanding of the impacts and mitigation options for toxic contaminants. Develop a research agenda and further characterize the occurrence, concentrations, sources and effects of mercury, PCBs and other contaminants of emerging and widespread concern. In addition, identify which best management practices might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants in waterways.

- GOAL: Toxic Contaminants
- LEAD: WQGIT – Toxic Contaminants Workgroup

- TCW is a primary source of information and scientific inquiry
- Informs PCB strategies and a central point of coordination on PFAS
- Quarterly PFAS meetings very well attended

- Local Leaders (LLWG) and agriculture stakeholders have brought questions that will inform research
- USGS provides excellent leadership
- Consider removing BMP multi benefit
- Updated wording could expressly mention PFAS and microplastics as areas of prioritized research

OUTLOOK ON COURSE

Presented by: TBD

Toxic Contaminants Policy and Prevention

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

Update

OUTCOME: Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of polychlorinated biphenyls (PCBs) in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

- GOAL: Toxic Contaminants
- LEAD: WQGIT – Toxic Contaminants Workgroup

- The goal/outcome is expressly called for in the CWA Section 117.1.c
- 303(d) list impairments are extensive and are based on “Fishable” designated use in jurisdiction water quality standards

- PCBs are the basis for many fish consumption advisories presenting a human health risk
- Update the language to center on achieving PCB water quality standards through continuous reduction of loading
- Other options: Blend with fish outcomes to commit to goals related to the quality of fishery resources and protecting human health

OUTLOOK OFF COURSE

Presented by: TBD

WETLANDS OUTCOME

GOAL: Vital Habitats

LEAD: Habitat Goal Team – Wetlands Workgroup

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

UPDATE

OUTCOME: 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 the 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.

Recommendation:

- **Separate tidal and nontidal wetlands** into two outcomes because the current language lacks specificity with a broad acreage goal.
- **Include**
  - Changing environmental conditions (e.g. sea level rise, flooding, temperature change, and extreme weather)
  - Conservation/Protection and Anti-degradation (for prioritized/important wetlands)
- **Integrate** a modified Black Duck outcome as an output and expand to other waterbirds.

Value:

- Critical to the Chesapeake Bay health and living resources (CESR report).
- Wetlands are synergistically connected in the landscape, and by processes, to other critical habitats and provide living resources, water quality, flood, erosion, recreation and cultural benefits to people.
- Connected to: **Black Duck, Forest Buffer, Protected Lands, (Climate) Adaptation, Fish Habitat, Submerged Aquatic Vegetation, Stream Health, and Water Quality.**
- CBP engagement provides capacity, continuity and consistency for tracking.
- CBP wetland working groups and workshops support shared learning and collaboration.

Presented by: Pam Mason

BLACK DUCK OUTCOME

GOAL: Vital Habitats

LEAD: Habitat Goal Team – Black Duck Action Team

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

RECLASSIFY

OUTCOME: By 2025, restore, enhance and preserve wetland habitats that support a wintering population of 100,000 black ducks, a species representative of the health of tidal marshes across the watershed. Refine population targets through 2025 based on best available science.

Recommendation:

- The Black Duck Outcome should be reclassified as an output to the Wetlands Outcome and broadened to incorporate other waterbirds. Black duck and other waterbird guilds, are important indicators of the wetlands outcome and ecosystem health.
- There are surveys and data available to measure other waterbirds as a metric for the health of tidal marshes across the watershed.

Value:

- Waterbirds as an output helps prioritize where wetland protection and restoration efforts are focused to provide maximum benefits.
- Expanding to other waterbirds will support all types of wetlands.
- Forum for key stakeholders/managers in one place for cross coordination.
- A living resource metric of the Bay Program that ties to public interests and values.

Presented by: Alicia Berlin

SUBMERGED AQUATIC VEGETATION

GOAL: Vital Habitats

LEAD: Habitat Goal Team – SAV Workgroup

RECENT PROGRESS
INCREASE

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

UPDATE

OUTCOME: Sustain and increase the habitat benefits of 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.

RECOMMENDATION: Update to align with jurisdictional SAV and water clarity standards.

- Updating the SAV Outcome to align with water clarity standards will result in an SAV acreage target higher than in the current outcome but will result in a more accurate reflection of potential SAV extent in each Bay segment.
- The SAV Outcome is *measurable* and interim goals make it *time-bound*.
- Progress toward the SAV acreage goal is assessed and reported annually via the SAV Aerial Survey.

Presented by: Brooke Landry

KEY FACTORS:

- SAV beds are a cornerstone of the Bay's ecosystem, providing essential habitat, improving water quality, and enhancing the Bay's resilience to climate change.
- The SAV Workgroup provides regional coordination, leverages expertise and resources, sets science-based goals and tracks progress, facilitates collaboration, and enhances public engagement.
- Directly benefits the public with ecological, economic, and social values tied to the health of the Chesapeake Bay. These benefits directly impact people and businesses that rely on the Bay for their livelihoods, recreational opportunities, and quality of life.

Monitoring and Assessment

GOAL: Climate Resiliency Goal
LEAD: STAR/Climate Resiliency Workgroup (CRWG)

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

Replace

OUTCOME: : "Continually monitor and assess the trends and likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem, including the effectiveness of restoration and protection policies, programs and projects."

Considerations

- **Value:** Climate science informs achievability of all outcomes; priority in Bay agreement and 2021 EC Climate Directive
- **Risk:** Loss could result in having outcomes in the amended agreement that are not attainable
- **Challenges:** Resources and data to track trends and assessing effectiveness of programs

Overall Recommendation – Replace Focus to Climate Science Integration

- Develop/implement a climate resiliency assessment framework to apply with all outcomes and integrate climate science to inform attainability
- Move away from climate trends since others are already doing this
- Pursue SMART direction for outcome - measured by how many outcomes have integrated climate science (use SRS process)
- To be successful—need full engagement by GITs/partnership and additional climate science support

Presented by: Mark Bennett, USGS, CRWG Chair

Adaptation Outcome

GOAL: Climate Resiliency Goal
LEAD: STAR/Climate Resiliency Workgroup (CRWG)

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

Update

OUTCOME: "Continually pursue, design and construct restoration and protection projects to enhance the resiliency of Bay and aquatic ecosystems from the impacts of coastal erosion, coastal flooding, more intense and more frequent storms and sea level rise."

Considerations

- **Value:** Facilitates collaboration; provides cutting edge science; theme, principal and goal in Bay agreement; elevated priority by 2021 EC Climate Directive
- **Risk:** Loss of outcome could mean loss of partners, less support for legislative change
- **Challenges:** Not SMART; lack of monitoring/metrics; outcome structure under STAR—need jurisdictional support to implement

Overall Recommendation – Make SMART; Leverage Successes

- Use place-based, holistic watershed approach, timebound strategies, and monitoring and assessment objectives for identified focal areas (tidal and nontidal) that promote protection of communities and economies
- Ex: Provide scientific assistance on adaptation options that support local communities, economies, and living resources within identified focus areas. Develop success metrics to assess effectiveness of adaptation options under current and future conditions.

Presented by: Molly Mitchell, VIMS, CRWG Member