Outcome Attainability: Update II to the CBP Management Board

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Our objective (copied from Update I, dated March 11, 2021): To review the progress/status of the 31 outcomes of the 2014 Agreement, identifying those that have quantifiable targets, and specifying alternatives for those outcomes that are unlikely to be met without a significant change of course.

Current Perspective

Seven months ago, an analysis was conducted that identified 7 outcomes with quantitative, time-bound targets associated with their completion, and were unlikely to be met without implementing significant changes. Other outcomes with quantifiable targets and timetables appeared to be on a good trajectory.

After presenting the issue to the Management Board, exploring aspects of it further at the SRS biennial meeting, and several subsequent discussions among the Outcome Attainability Team (OAT), the thinking on this topic has shifted slightly. To better focus our efforts, outcomes were color coded in the attached table to help guide our next steps.

Outcome Attainability Table

The Outcome Attainability Table bins the 31 outcomes into several categories. These categories are represented by being shaded red, yellow, green, or left unshaded. The significance of the color coding is described below:

The "red" outcomes are far off track. ***They will require additional support from technical and policy experts to identify specific and actionable options to increase the rate of implementation.*** This effort is already underway for the 2025 WIP outcome. Similar attention should be given to the remaining two "red" outcomes.

The "yellow" outcomes represent varying levels of uncertainty and generally fall into the following sub-categories:

- Those missing specific, known resources, like stream health. The Management Board should advocate for these resources to help get the outcomes back on track.
- Others need more clearly defined metrics or analysis associated with existing metrics. These outcomes may not be met, but these measures are needed first to identify a path forward. This work can be completed by their respective workgroups and GITs over the next 2 years.
- The third sub-category includes outcomes with a renewed emphasis from the PSC, but specific renewed efforts achieve, or in some cases to establish new targets, have not been identified. The climate and diversity outcomes fall into this group. The yellow outcomes may not be completed by 2025. However, ***meaningful steps forward can be taken by relying on the current workgroups, GITs, and Management Board via the SRS process.***

The "green" outcomes still require substantial effort to be completed, but they are likely to be completed by 2025, if current efforts continue as planned.

The “unshaded” outcomes represent those that don’t have quantifiable targets, or timetables, or both. Many of these outcomes are characterized by the phrase, “continuously improve…” some condition or level of knowledge to advance the outcome. ***Professional judgment of the various Goal Implementation Teams and their workgroups is required to characterize if these outcomes are on track or not.***

Recommendations Summary

The Outcome Attainability Team recommends the following:

1. For wetlands and forest buffers, an infusion of state and federal representatives that can reallocate funding and programs to address shortfalls and accelerate progress on these outcomes are critically needed. The Management Board has requested that the workgroups invite key experts and program leads to a workgroup meeting on these topics.
2. The SRS process should continue to be employed to identify the specific barriers to achieving the “yellow” outcomes.
3. Outcomes shaded yellow for which known shortfalls exist (brook trout and black duck), should be elevated to the PSC.
4. Efforts should continue on the “green” outcomes so that they stay on track.
5. For unshaded outcomes, each of the GITs and associated workgroups should define how progress toward and ultimate success of their outcome will be described narratively, and/or measured through metric or indicator development with assistance from the Status and Trends Workgroup and STAR.
6. The results of progress toward outcome completion should be **compiled in a biennial report to the PSC** at their winter meeting. The report should be drafted by Outcome leads, supported by the Communications Workgroup and draw as much as possible from existing sources like ChesapeakeProgress, Bay Barometer, and the SRS Logic & Action Plans.
7. The PSC should discuss whether this report will meet the obligation in the Chesapeake Bay Watershed Agreement to present biennially to the EC.

Table 1: Outcomes with targets and timeframes identified in the Outcome

Goal	Outcome *	Status
Sustainable Fisheries	Blue Crab Abundance & Mgmt *Maintain crab population at 215 million adult females. Refine targets through 2025 based on best science.*	On course - Maintain existing effort
	Oyster Restoration *Restore native habitat and populations in 10 tributaries by 2025.*	On course.
Vital Habitats	Brook Trout *Restore and sustain brook trout populations with 8% increase in occupied habitat by 2025.*	Off course. Incomplete tracking information. Data support and intervention is needed to increase rate of implementation, monitoring of restoration activities/success."
	Fish Passage *By 2025 open an additional 132 miles every two years to fish passage.*	On course.
	Forest Buffers *Restore 900 miles of riparian forest buffers per year and conserve existing buffers until at least 70% of riparian areas are forested*	Off course. Intervention needed – increase rate of implementation.
	Stream Health *Improve health and function of 10% of stream miles above the 2008 baseline.*	A new baseline for the Chessie BIBI was established in 2018 and we are expecting updated data and A&M by the end of December 2021 for the first update.
	SAV *90,000 acres by 2017; 130,000 acres by 2025; ultimate goal of 185,000 acres*	Water clarity and climate change impacts. Unclear trajectory given recent declines.
	Tree Canopy *Expand urban tree canopy by 2,400 acres by 2025.*	Tree canopy baseline established in 2013. First update with acreage loss data available in October along with the annual tree planting data. Incomplete information on status.
	Wetlands *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.*	Significantly off course. Incomplete tracking information. Data support and intervention is needed to increase rate of implementation.

	Black Duck *By 2025, restore, enhance, and preserve wetland habitats that support a wintering population of 100,000 black ducks. Refine population targets through 2025 based on best available science.*	Target and baseline developed. Data support needed to identify consistent means to collect tidal wetland acreage. Could be combined with the wetlands outcome above?
Water Quality	2025 WIP *By 2025, have all practices and controls in place to achieve applicable water quality standards as articulated in the CB TMDL.*	Currently off course for nitrogen. Interventions are in place through WIPs, 2-year milestones, etc.
Land Conservation	Protected Lands *By 2025, protect an additional 2 million acres of lands, including 225,000 acres of wetlands and 695,000 acres of forest land.*	On course. If 2020 tracking update confirms likelihood of meeting the 2M acre goal by 2025, consider upgrading target to 30% of lands protected by 2030 (need to protect ~3M ac between 2018 and 2030), in line with Federal initiatives. Emphasize/encourage protecting wetland and larger tracts of forest to meet the Outcome's subgoals.
Public Access	Public Access *By 2025, add 300 new public access sites.*	On course.
Stewardship	Diversity**	Off course with current internal diversity indicator targets and behind in showing progress, in part because of the lack of more timely, consistent, and comprehensive analysis and tracking across the Bay Program (Note: internal indicator targets were set by CBP and not in original Outcome language). Important to also note that the indicator assigned is not the full picture for the Diversity Outcome, therefore additional indicator(s) should be explored for future tracking to reflect a key component of the Outcome: public involvement In 2020 the EC took a positive step and signed a DEIJ Statement committing to embrace DEIJ efforts in all areas of the CBP.

*For full text of Outcome language, click on the hyperlink.

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

Table 2: Outcomes with either no quantitative targets or have targets but no timeframes

Goal	Outcome	Notes
Sustainable Fisheries	Fish Habitat	Data was assembled and fish habitat assessment frameworks were developed for tidal and non-tidal portions of the Bay, pilots were conducted in each, and plans for a combined tidal and non-tidal assessment were developed for the Patuxent River. A shoreline hardening threshold was developed showing impacts to fish beginning between 10%-30% hardening. Multiple Ecosystem Based Fisheries Management research projects linking environmental variables to fish populations were successfully conducted, several more are underway.
	Forage Fish	After identifying forage species of highest importance in the Bay,The Forage Action Team completed a Forage Indicator Plan, guiding the creation of a suite of indicators to assess the Bay's forage base and relationships to biotic/abiotic conditions. There are three indicators currently under development.
Water Quality	Water Quality Standards Attainment and Monitoring	Attainment indicator developed and is updated annually along with monitored trends in pollutant loads.
Toxic Contaminants	Toxic Contaminants Research	Working to develop options for an indicator of progress
	Toxic Contaminants Policy and Prevention	Indicator of PCB toxic impairments developed and reported biennially.

Healthy Watersheds	Healthy Watersheds	Healthy Watersheds Assessment Tool to be completed in late 2022 – 2023. Three interim indicators have been chosen for development.
Land Conservation	Land Use Options Evaluation	Working to develop metrics to track progress
	Land Use Methods and Metrics	Resources have been compiled and available on www.chesapeakebay.net . Outreach and engagement strategies are ongoing needs
Stewardship	Stewardship	Baseline measures developed, reported, and used to establish a new indicator. Next data update expected in 2022. Resources are needed to focus on programmatic efforts and building desired behavior.
	Local Leadership	Awaiting approval from OMB to collect the data that will inform development of an indicator.
Environmental Literacy	Sustainable Schools	Indicator of progress developed and reported. Target is continuous improvement indicated through biennial review of data.
	Environmental Literacy Planning	Indicator of progress developed and reported. Target is continuous improvement indicated through biennial survey
	Student MWEEs	Indicator of progress developed and reported. Target is continuous improvement indicated through biennial survey
Climate Resiliency	Monitoring and assessment	Directive in development. Several indicators currently reported but work underway to reduce the number to focus efforts on those most meaningful to the CBP.
	Adaptation	Directive in development