



FORAGE FISH OUTCOME

SUSTAINABLE FISHERIES GIT/FORAGE ACTION TEAM

2014 WATERSHED AGREEMENT: GOAL & OUTCOME LANGUAGE

OUTCOME:

Continually improve the Partnership's capacity to understand the role of forage fish populations in the Chesapeake Bay. By 2016, develop a strategy for assessing the forage fish base available as food for predatory species in the Chesapeake Bay.

SUSTAINABLE FISHERIES GOAL:

Protect, restore and enhance finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem in the watershed and Bay

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

REMOVE

2. Consider if the Outcome is SMART, and specifically, whether the current outcome meets the definition of an outcome, as described in the 2014 Chesapeake Bay Watershed Agreement ("Agreement"), or if that outcome is an output or indicator.

This outcome was specific and measurable but was not clear about what we wanted to change or improve by focusing on forage. The forage outcome was not linked to a specific fishery or Bay program management objective. The work addressed under the forage outcome could serve as an output or indicator under Fish habitat.

3. Consider aspects of "what makes a good Outcome".

This is a "good outcome" as it is measurable, and has a strong partner commitment. However, it did not have a clear objective since there was no linkage to a specific fishery or Bay program management objective.

4. Consider the challenges to and opportunities for achieving the outcome.

The forage outcome assessed which forage species are most important and developed status and trends for several species (changes in abundance over time). It also developed a better understanding of how some forage species respond to changing climate and habitat conditions. Continued forage work could support shallow water recommendations and be used to assess how living resources are responding to climate change. There is an opportunity to use the results of the modeling and analysis to track changes in forage as an output or indicator of a revised fish habitat outcome. The challenge is connecting these indicators to clear management objectives so that the information provided by the indicator can be used

in a meaningful way. Resources to operationalize the modeling and analysis into indicators or to pursue new research is uncertain.

5. Consider how the outcome relates or could relate to the Bay Agreement mission, vision, and themes/pillars.

It made sense to place it under the Abundant Life theme and Sustainable Fisheries Goal. It addressed the interest to better understand the relationships between prey species, water quality, climate, habitat and availability to predators. It was aimed at advancing ecosystem based management.

6. Consider the timescale for completing the outcome (5, 10, 15 years). Determine if achieving the outcome is an incremental step or is it a final outcome.

The forage outcome was an initial step focused on assessing the forage base of the bay. As part of a revised fish habitat outcome the research results derived from the current forage outcome could be used to assess forage quality across the bay and some research results and modeling could be used as indicators to track changes every few years over the longer term.

7. Consider resource needs and availability (high, medium, low).

The resource needs for this outcome is medium. Additional resources are uncertain but would be required to utilize the available science as outputs or indicators and for a fish habitat outcome or other management purposes.

8. Consider the risk or unintended consequences of removing the Outcome.

Lower priority on assessing the forage base and therefore less focus on utilizing the science produced under this outcome.

9. What value is added by having the Chesapeake Bay Program work on the outcome?

Making connections to other outcomes and priorities such as water quality, habitat and climate change. Using science results to guide restoration efforts.

10. Consider how the Outcome, as written, benefits the public. Does the outcome reflect public input already received and have the potential to galvanize public support/engagement?

The outcome was never really connected to the public. If it was more directly tied to other outcomes or to specific species such as striped bass, red drum or invasive species it could galvanize more interest.