SRS Review for Management Board November 2021 Chesapeake Bay Program



Oysters

Stephanie Westby, NOAA Chair, Maryland and Virginia Oyster Restoration Workgroups under the Sustainable Fisheries GIT Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...

Goal: Oysters

Outcome:

Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.

What is our Expected and Actual Progress?

Partners are on track to meet the oyster outcome by 2025.

- Six tributaries are complete;
- Two more are expected to be complete in 2022; and
- The remaining two (Lynnhaven and Manokin rivers) are expected by 2025.



Learn

What have we learned in the last two years?



Successes and Challenges

- •The up-front time spent on science, planning, common goal setting, and partner development was well spent, as the implementation phase is moving well and has attracted more partners, funding, and excitement.
- •The ecosystem service value of the reef restoration work has been evaluated by modelers, scientists, and economists. Although oyster restoration is expensive up front, the return on investment in terms of social and ecological benefits comes relatively fast. See NOAA Fisheries Tech Memo on ORES research findings.
- •Monitoring at this level is expensive and cumbersome. Given the near-100%-success level we are seeing on reefs, it is unclear how much more we are learning by continuing to intensively monitor every reef. Partners are working to streamline monitoring through a rapid oyster reef assessment protocol for restored oyster reefs.



On the Horizon

- States have stepped up in recent years to help ensure the oyster goal will be met. These actions were largely possible due to the early intensive work of the partners in terms of common goal setting, tributary selection, planning, and consensus building.
 - Maryland passed legislation mandating the completion of its five tributaries.
 - Virginia allotted \$10 million in additional funding to ensure its tributaries are completed.
- To streamline monitoring, partners are working on developing a rapid assessment protocol.



Adapt

How does all of this impact our work?

Based on what we learned, we plan to ...

- Work is on track to be completed by 2025.
- All ten oyster restoration plans (tributary-specific 'Blueprints') are complete, and in-water work and monitoring are proceeding apace.



- Selection of restoration areas was informed primarily by where oysters would thrive, and where large-scale restoration was feasible and scientifically sound. That process led to a diverse geography of locations that likely, de facto, serves a diverse cross-section of the public.
- Partners will need to evaluate opportunities for more inclusive restoration planning in the future. Education, outreach, and volunteerism may provide opportunities for increased diverse engagement.



Help

How can the Management Board lead the Program to adapt?

| Help Needed

- Additional resources will likely be needed to ensure that a more-efficient monitoring protocol is well developed, scientifically sound, and embraced by the scientific and management communities.
- Additional key science needs are currently being prioritized for the overall effort. This science will not only inform progress toward the current goal, but will help set the next oyster outcome. Broad themes include:
 - Understanding how and where shoreline resilience benefits can be incorporated into restoration,
 - Alternative funding based on denitrification,
 - Continued quantification of ecosystem services

QUARTERLY PROGRESS MEETING Chesapeake Bay Program



Discussion