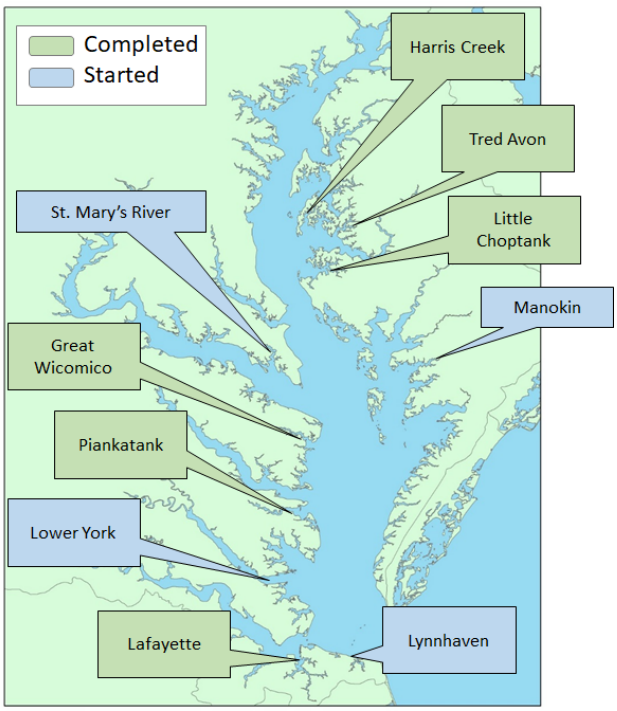
Oyster Restoration, November 2021

ABSTRACT: Partners are on track to meet the oyster outcome by 2025. However, all partners must remain fully committed in order to achieve success. Planned restoration work will need to be implemented continuously, right up through the 2025 deadline.

NOTE: The narrative analysis summarizes the findings of the logic and action plan and serves as the bridge between the pre-quarterly logic and action plan and the quarterly progress meeting presentation. After the quarterly progress meeting, your responses to these questions will guide your updates to your logic and action plan. Additional guidance can be found on ChesapeakeDecisions.

1. Are we, as a partnership, making progress at a rate that is necessary to achieve this outcome? Use a graph or chart to illustrate where feasible (replace example provided with your illustration).

Partners are on track to meet the oyster outcome by 2025. Six tributaries are complete; two more are expected to be complete in 2022 (St Marys and lower York rivers); and the remaining two (Lynnhaven and Manokin rivers) are expected by 2025. Although achieving the outcome looks promising, it will take partners right up until 2025 to complete the planned restoration work. Any delay or postponement of planned work could hamper success.



(See Link to ChesProgress - https://www.chesapeakeprogress.com/abundant-life/oysters, note new acreage numbers will not be updated until early 2022)

2. Looking back over the last two or more years, describe any scientific (including the impacts of climate change), fiscal, and policy-related developments that impacted your progress or may influence your work over the next two years. Have these resulted in revised needs (*e.g.*, less, more) to achieve the outcome?

   *To the extent feasible, describe your needs using the SPURR thought model, i.e., **S**pecific and actionable, **P**rogrammatic partner, **U**rgency of the needed action, **R**isk of not acting, **R**esources required.*

Policy commitments and funding support

The key states have stepped up in recent years to help ensure the oyster goal will be met. Maryland passed legislation mandating the completion of its five tributaries. Virginia allotted $10 million in additional funding to ensure its tributaries are completed. 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. Seeing these through to completion is a priority for achieving the oyster outcome.

Monitoring requirements and cost

Monitoring the restored reefs is resource intensive, particularly in Maryland, where partners needed to stand up a new monitoring program. The result is a highly regarded monitoring program that matches the scale and the effort of the restoration work. Results are showing that the restoration work is successful in every tributary. As impressive as that monitoring program has been, it may actually be over-developed, and therefore more cumbersome than needed to understand success relative to the established criteria. Partners are working to develop a more efficient monitoring methodology, dubbed the 'rapid assessment protocol', to augment or replace the current reef monitoring methods.

3. Based on the red/yellow/green analysis of the actions described in your logic and action plan, summarize what you have learned over the past two years of implementation.

   Summarize overall (not per action) what you have learned about what worked and what didn't work. For example, have you identified additional factors to consider or filled an information gap?

The up-front time that was 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 is relatively short (as little as three years by some measures). See (https://spo.nmfs.noaa.gov/sites/default/files/TMOHC8.pdf).

As mentioned above, monitoring at this level, to the established success criteria, using the traditional monitoring methods, 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 resolve this by streamlining monitoring through development and testing of a rapid oyster reef assessment protocol for restored oyster reefs.

4. Based on what you have learned through this process and any new developments or considerations described in response to question #2, how will your work change over the next two years? If we need to accelerate progress towards achieving our outcome, what steps are needed and, in particular, what specific actions or needs are beyond the ability of your group to meet and, therefore, you need the assistance of the Management Board to achieve?

   Describe any adaptations that may be necessary to achieve your outcome more efficiently and explain how these changes might lead you to adjust your Management Strategy (if significant) or the actions described in column four of your Logic & Action Plan. What new science, fiscal, and policy-related information, could be recommended or pursued over the next two years to maintain or, if needed, accelerate progress? Use the SPURR model described in question #2, to provide detail to the needed steps and actions.

1. To cross the finish line in 2025, all partners will need to reaffirm their commitment to achieving this goal, and stay with it through completion. It will take right up until 2025 to complete the planned reef construction.
2. Although there has been some nice attention nationally and internationally for this work, we are still hearing that people even in the Chesapeake watershed don't know about the work. Amplification of the success to date would help support outcome success.
3. The oyster restoration community needs to evaluate opportunities for better, more diverse inclusion. Support and direction on this could result in a successful outcome that better serves diverse communities.
4. Additional key science needs are currently being prioritized for the overall effort. Broad themes include understanding how and where shoreline resilience benefits can be incorporated into restoration, alternative funding based on oyster denitrification capacity, continued quantification of ecosystem services, and the relative efficacy of reef construction versus oyster conservation. This science will not only inform progress toward the current goal but will help set the next oyster outcome.

5. What steps are you taking, or do you recommend, to ensure your actions and work will be equitably distributed and focused in geographic areas and communities that have been underserved in the past?

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, which likely, de facto, serves a diverse cross-section of the public. Education, outreach, and volunteerism may provide opportunities for increased divers engagement. Going forward, partners will look more closely at community make up and ensure equity of benefits.