

Oyster Advisory Commission

August 19, 2024

Agenda

1. Welcome, Attendance, Past Meeting Summaries
1. New Oyster Regulation Scoping
No new regulation scoping items
1. Four Point Sanctuary Plan
1. NOAA Grant Awarded to DNR
1. Overview and Status of the 51 Sanctuaries
1. Sanctuaries Under Consideration for Large-Scale Restoration and Underperforming Evaluation
1. New Commissioner Business and Public Comment

Four Point Sanctuary Plan

Oyster Advisory Commission Meeting: 8/19/2024



Introduction

Overview of Maryland's Oyster Sanctuary Program

- 2010 Expanded the sanctuary program to 51 areas
- 2014 Chesapeake Bay Watershed Agreement - Oyster Goal
- 14 years have passed and much has been learned
- The 5 large scale projects are nearing completion

Introduction

What are the next steps for the Oyster Sanctuary Program?

- Maintain a balanced approach to oyster management sanctuary/fishery/aquaculture
- Allow for adaptive management adjustments based on data



4 Point Sanctuary Plan

DNR's Four Point Oyster Sanctuary Plan developed to help guide future oyster sanctuary restoration and management.

1. Monitoring – Maintain the existing monitoring and evaluation of the first five large-scale oyster restoration sanctuaries to continue understanding long term ecological effects.
1. Restoration – Continue and expand oyster restoration
1. Evaluation – Examine underperforming sanctuaries to determine if other management strategies could increase oyster populations and associated ecosystem benefits
1. Connectivity – Develop strategies to connect oyster restoration to watershed restoration



Point 1 - Monitoring

The 2014 Chesapeake Bay Watershed Agreement stated that 10 tributaries (5 in MD and 5 in VA) to be restored by 2025.

On track to meet restoration goals.

After all in-water restoration activities and 6-year monitoring are completed, these areas should continue to be monitored and evaluated to track long-term effects of the restoration (oyster population and ecosystem).

Point 1 - Monitoring

Action: Continue Monitoring

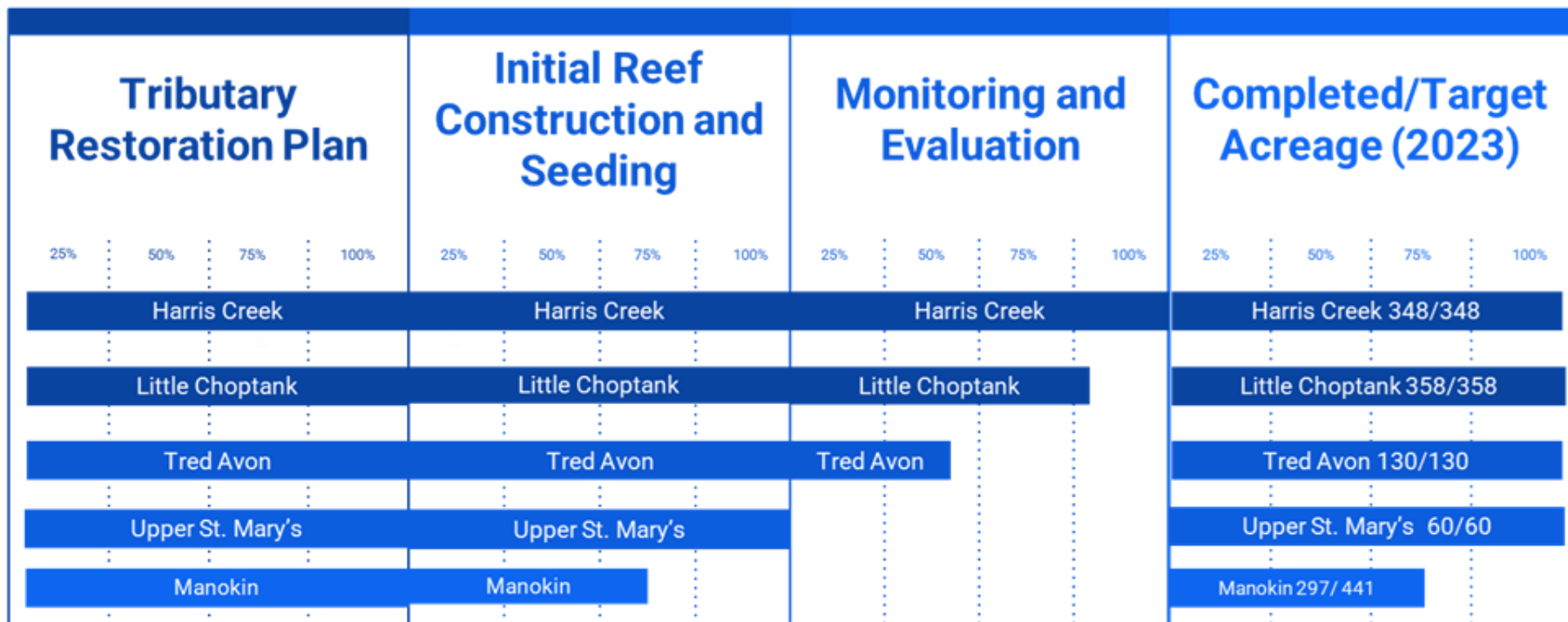
- Work with NOAA & USACE to continue the 3-yr and 6-yr quantitative monitoring at the level needed to assess the oyster metrics to determine if the restoration was successful
- Continue oyster population surveys on fully restored and mature reefs periodically after 6 years post-restoration
- Work with NOAA and other entities to fund and/or conduct similar studies to the 2014-2019 ORES projects within fully restored tributaries on mature reefs to determine long term ecological benefits



Point 2 - Restoration

Action: Continue Existing Large-Scale Restoration

Oyster Reef Restoration Progress Dashboard



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Point 2 - Restoration

Action: Conduct Additional Large-Scale Restoration

- Expand large-scale restoration beyond the initial 5 tribs
 - Limited by budget and logistics
 - Limited by the biological reality that the remaining 46 sanctuaries are not all suitable for large-scale restoration investments

Point 2 - Restoration

Action: Continue Ongoing Other Restoration

- Annual small-scale restoration in sanctuaries that are not receiving large-scale restoration.
 - Planting hatchery-reared spat on ~ 10 to 20 acres / year
- DNR's Eastern Bay Project - Sanctuary Restoration
 - \$1M per year over the next 25 years for hatchery-reared spat in the region's sanctuaries
- Facilitate private and non-profit organizations oyster restoration
 - Build-A-Reef programs
 - Watershed groups

Point 3 - Evaluation

Background

In 2010, some sanctuaries were created in areas with poor environmental conditions unable to support self-sustaining populations.

- Very low average salinity which limits natural recruitment below a level required for self-sustainability
- Poor bottom habitat with little to no oyster habitat present thus are not able to support restoration

These sanctuaries continue to be underperforming.

Action: Evaluate alternative management strategies for underperforming sanctuaries

- Work with the OAC to determine if alternate management strategies in underperforming areas would be more effective at increasing oyster abundance and associate ecological benefits.

Point 4 - Connectivity

Action: Connect oyster restoration to watershed restoration

Oysters → approved as a Best Management Practice (BMP) for the removal of nitrogen and phosphorus

- Aquaculture and Public Fishery..... Removal in meat
- Restoration.....Denitrification

Example: Estimated yearly value of nutrient removal in Harris Creek Sanctuary is \$2,026,233. 14.3 years for an ecological return on restoration investment.

Oysters → living shorelines and breakwaters to protect watersheds.

- Environmentally-friendly approach to shoreline stabilization that uses plants and other natural materials like oysters towards protecting eroding shorelines from wave and storm damage.
- Reduce wave energy attenuation on watersheds while enhancing ecosystems.

Recap - 4 Point Sanctuary Plan

To help guide future oyster sanctuary restoration and management.

1. Monitoring
1. Restoration
1. Evaluation
1. Connectivity

*Restoration and Evaluation
are the main topics for tonight's OAC meeting*



Questions and Comments ?