

Proposed Phase 7 E3 Scenario for Oysters

v. 08/20/2026

The proposed targets were prepared by Oyster Recovery Partnership based on the conditions/assumptions/resources described below.

BMP	Baseline	E3 Target	Estimated reduction	Justification	Location (counties)	Jurisdiction
Oyster Restoration – Assimilation	1,905 acres	33,095 new acres	Estimated appreciated biomass will reduce, on average, 350 lbs N/acre and 55 lbs P/acre.	Baseline from 2014 Bay Agreement outcome. Only new biomass can be credited one time.	MD: all Bay-adjacent counties except Harford, Cecil, Baltimore, Baltimore City VA: all Bay-adjacent counties	Federal/Non-federal
Oyster Restoration – Denitrification	1,905 acres	35,000 acres	Estimated appreciated biomass will reduce, on average, 200 lbs N/acre/year.	Baseline from 2014 Bay Agreement outcome. Denitrification associated with cumulative biomass is credited on annual basis.	MD: all Bay-adjacent counties except Harford, Cecil, Baltimore, Baltimore City VA: all Bay-adjacent counties	Federal/Non-federal
Licensed Oyster Harvest	Fishery replenishment of 330M oysters/year	Maintain fishery replenishment at a level of	Total annual reduction = 1,960 lbs N and 218 lbs P	On average, 330M oysters replenished annually. Using default maximum	MD: Somerset, Wicomico, Dorchester, Talbot,	Non-federal

	and estimated harvest of 114,000 oysters from replenished areas	330M oysters/year and harvest of maximum allowable harvest		harvest allowance of 3%, 9.9M oysters are eligible for harvest crediting annually. Assume oysters harvested at minimum legal size (3 in shell height) and all eligible oysters harvested.	Queen Anne's, Anne Arundel, Calvert, St. Mary's, Charles VA: none. Maryland-specific practice	
Private Oyster Aquaculture	71.7 M oysters harvested annually (28.3 M in MD, 43.4 M in VA)	143.4M oysters harvested annually	Total annual reduction = 12.9M lbs N and 1.4M lbs P	Reduction from assimilation in tissue only. Assume diploid oysters Assume 3.0 in (2.5-3.49 in) midpoint BMP	MD: Somerset, Wicomico, Dorchester, Talbot, Queen Anne's, Anne Arundel, Calvert, St. Mary's, Charles VA: all Bay-adjacent counties	Non-federal

Resources/Assumptions

Oyster restoration baseline and target data

- <https://www.chesapeakebay.net/files/2025-Oyster-Completion-Analysis-6.2.26.pdf>
- <https://www.nab.usace.army.mil/Missions/Environmental/Oyster-Restoration/Oyster-Master-Plan/> - use maximum total acreage for Tier 1 tributaries only (see Table ES-2)
- N & P reduction estimates/acre based on monitoring data from Harris Creek and Little Choptank, MD. Source: Oyster Recovery Partnership, Olivia Caretti, ocaretti@oysterrecovery.org

Oyster harvest and replenishment data

- https://dnr.maryland.gov/fisheries/pages/oysters/comm_landings.aspx
- <https://dnr.maryland.gov/fisheries/Documents/OysterCurrentTable.pdf> - reported baseline averaged over 2020-2025
- Fishery replenishment values averaged from 2021-2025. Source: Oyster Recovery Partnership, Olivia Caretti, ocaretti@oysterrecovery.org / Jennifer Walters, jwalters@oysterrecovery.org

Oyster aquaculture baseline data

- <https://scholarworks.wm.edu/entities/publication/ac47e01e-a7d0-4e38-86f1-e495a283d44a>
- <https://extension.umd.edu/resource/maryland-shellfish-aquaculture-industry-2023-glance-fs-2024-0732/>
- Note that reported harvest data is a mixture of triploid and diploid (not distinguished)

VA counties supporting oyster aquaculture

- https://webapps.mrc.virginia.gov/public/oystergrounds/search_applications.php
- https://webapps.mrc.virginia.gov/public/maps/chesapeakebay_map.php
- <https://experience.arcgis.com/experience/bfe5fc08e27b43ef9c63fb271d7b3044/page/Home-?views=-Market%2CFull-Page-MA-Graphs%2CManagement-Areas>