



Manokin River chosen for oyster restoration

Ten sites now selected under Chesapeake Bay Program goal

Annapolis, MD – The Chesapeake Bay Program is pleased to announce that the Manokin River has been selected as the tenth Chesapeake Bay tributary for large-scale oyster reef restoration. The [Chesapeake Bay Watershed Agreement](#) calls for the restoration of the native oyster population in 10 tributaries by 2025—and the Manokin River is the final tributary to be selected for this Chesapeake Bay Program partnership effort.

The Manokin River joins four other large-scale Maryland oyster restoration sites: Harris Creek and the Little Choptank, Tred Avon and Upper St. Mary's rivers. Situated off Tangier Sound, along Maryland's Eastern Shore, the Manokin River is over 16,000 acres and has been an oyster sanctuary area since 2010.

In addition to the Maryland sites, large-scale oyster restoration is also taking place in five locations in Virginia: Great Wicomico, Lafayette, Lower York, Lynnhaven and Piankatank rivers.

Facts

The [oyster](#) outcome in the *Chesapeake Bay Watershed Agreement* seeks to continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. It also looks to restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.

Ten Chesapeake Bay tributaries have been selected for oyster restoration: Harris Creek and Little Choptank, Manokin, Tred Avon and St. Mary's rivers in Maryland, and Great Wicomico, Lafayette, Lower York, Lynnhaven and Piankatank rivers in Virginia. Each river is at a different level of progress that involves developing a tributary restoration plan, constructing and seeding reefs, and monitoring and evaluating restored reefs. The last phase of this process – reef monitoring and evaluation – determines success in meeting this outcome.

According to the [2018 Maryland Oyster Restoration Update](#), 773.58 acres of oyster reefs have been restored in Harris Creek and the Little Choptank and Tred Avon rivers. While all initial restoration work—construction of reefs and seeding with spat-on-shell oysters—has been [completed in Harris Creek](#), work continues in the Tred Avon and Little Choptank rivers. Monitoring efforts to date, which track the health of restored reefs, show the work has been successful: A [recent report notes that](#) from 2015 through 2017, a total of 56 restored reefs in Harris Creek were monitored—and 98% of those reefs met the minimum threshold for both oyster density and biomass.

The St. Mary's River and Manokin River were approved as sites for oyster restoration in December 2018 and June 2019, respectively.

The [2018 Virginia Oyster Restoration Update](#) states that 510 acres of oyster reefs have been restored by either constructing reefs, seeding or are otherwise already considered healthy, with the [Lafayette River fully](#)

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We Recommend:

- [Blog](#)
- [NOAA Chesapeake Bay Office Oyster Fish Facts](#)
- ChesapeakeProgress: [Oysters](#)
- [NOAA Fisheries highlights Chesapeake Bay oyster restoration](#)



[restored](#). Two hundred and twenty-one acres of reefs remain to be restored in the Lynnhaven and Piankatank rivers. The Great Wicomico and the Lower York rivers were approved as restoration sites in December 2017.

Issues

Disease, historical overharvesting, poor water quality and habitat loss have led to a severe drop in [oyster](#) populations over the last century. Excess nutrients in the water fuel the growth of algae blooms that create low-oxygen “dead zones” that can kill oysters or hinder their development. Stress related to poor water quality can make oysters more susceptible to disease and impacts reproduction. Additionally, as clean shell is vital habitat for oysters, any sediment that covers it has the potential to cause suffocation. As a result, native oyster populations in the Chesapeake Bay are at less than one percent of historic levels.

Importance

[Oysters](#) are ecologically valuable as filter-feeders that clean the waters of the Chesapeake Bay and its tidal tributaries by pumping water through their gills and trapping food particles, nutrients, suspended sediments and chemical contaminants. In 2017, the Chesapeake Bay Program [recommended](#) three forms of oyster aquaculture as approved [conservation practices](#). As an adult oyster is capable of filtering up to 50 gallons of water each day, local and state governments can now receive credit under the [Chesapeake Bay Total Maximum Daily Load](#) for their pollution-reducing abilities. Experts are exploring the possibility of crediting restoration oysters as well.

As oysters grow, larvae settle on shells of other oysters, forming layers that spread up and out. These reefs offer food and habitat to other animals. [Recent research](#) estimated that mature restored oyster reefs in the Choptank River watershed, left unharvested for 10 years, can contribute a 160 percent increase in blue crab harvests per year—and support an additional 300 jobs (combination of full- and part-time).

Oysters also play an important role in the Bay’s resilience to [climate change](#). They [help protect shorelines](#) from strong waves, reducing the extent of property damage caused by extreme weather.

Since the late nineteenth century, the oyster industry – including the catch, sale, shucking, packing and shipping of oysters – has contributed hundreds of millions of dollars to the region’s economy. Oyster restoration at the tributary level aims to increase oyster populations to provide the ecosystem services that oyster reefs perform, including water quality improvements and habitat for aquatic critters.

Quotes

“Oyster reefs provide needed fish habitat benefiting both the ecology of the Chesapeake Bay and the economy of the region. At NOAA, we’re delighted to have our science, technical planning and financial support make this effort possible.”

- Sean Corson, Acting Director, NOAA Chesapeake Bay Office; Chair, Sustainable Fisheries Goal Implementation Team

“The Manokin River is well-situated to provide for natural and self-sustaining oyster recruitment and reproduction, which is why our scientists and the Oyster Advisory Commission recommended this location for

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large-scale restoration. With all restoration sites now selected Bay-wide, we look forward to continued work with our partners to establish more oysters in the Chesapeake Bay and to meet our watershed restoration goals.”



- Jeannie Haddaway-Riccio, Secretary, Maryland Department of Natural Resources

"The Army Corps fully supports selection of the Manokin River as the 10th tributary for large-scale oyster restoration in the Chesapeake Bay. For more than two decades, we have been involved in the restoration of Bay reef structures to re-establish critical oyster habitat. We remain committed to this program and stand ready to assist as needed and able to achieve the partnership's restoration goals."

- Angie Sowers, Integrated Water Resources Management Specialist, U.S. Army Corps of Engineers, Baltimore District