



NOAA

Habitat
Blueprint

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habitatblueprint](http://www.habitat.noaa.gov/habitatblueprint)

...an excellent opportunity to build on the extensive oyster restoration under way and further improve habitat.

...an ideal location to see how habitat...can be a part of increased coastal resilience.



Focusing on Habitat in the Choptank River Complex

The Choptank River Complex, which includes the Choptank and Little Choptank Rivers on Maryland's Eastern Shore, was selected as a NOAA Habitat Focus Area in 2014. The Choptank River, with headwaters in Delaware, is the longest river on the Delmarva Peninsula. This area is a treasured part of the Chesapeake Bay ecosystem, representing critical habitat for spawning striped bass and river herring, as well as historically abundant oyster reefs. Residents of the watershed—including many families who have lived there for multiple generations—have traditionally been employed in agriculture or commercial fishing.



But times are changing in this region. Continued human population growth and land development threaten key habitats for fish and aquatic resources. The historical loss of wetlands in the upper Choptank River subwatershed is estimated to be 47,400 acres—approximately 11% of the total watershed area. Climate change and sea level rise, combined with land subsidence, further threaten losses of nearshore marshes and coastal environments. While the rivers and Bay have supported major annual seafood harvests in previous years, fishery resources are at risk.

Native oysters (*Crassostrea virginica*) in the Chesapeake Bay have declined dramatically over the past century due to overfishing, habitat loss (including poor water quality), and disease. Their populations are estimated to be less than one percent of historic levels. As filter feeders, oysters help clean the water; they grow in reefs that provide needed habitat for many Bay species.

Focus Area Objectives at a Glance

- Restore and protect habitat, including restoring oyster reefs, creating living shoreline, and removing dams and augmenting fish passage
- Rebuild and sustain important fish populations (including striped bass, shad, herring, blue crab, American eel and other species)
- Document and quantify the benefits oyster reefs and associated habitats provide
- Engage the community to promote long-term stewardship



NOAA's work in the Choptank River Complex, including oyster restoration and research on how a variety of Bay species use restored oyster reefs, will contribute to a healthier and more sustainable river system.

For more information on the Choptank Complex Habitat Focus Area, contact Peyton Robertson, Director, NOAA Chesapeake Bay Office, at peyton.robertson@noaa.gov or 410-267-5652.

Building on Work Already Under Way

NOAA is concentrating agency resources and leveraging many activities in this watershed to improve and sustain ecological health. Several subestuaries in the Choptank River Complex are designated by Maryland as oyster sanctuaries, establishing the basis for oyster restoration on an unprecedented scale. For example, NOAA is working with federal, state, and nonprofit partners to restore oysters in Harris Creek, the first large-scale oyster restoration project in the Chesapeake Bay. By the time the initial construction and seeding phase is complete in late 2015, restoration work by NOAA and its partners will have taken place on more than 370 acres.

In the next three to five years, NOAA and partners will focus efforts in the area to strengthen ecological and societal resiliency, conserve habitat, provide science for application to local problems, and engage community members to identify their priorities and respond to their needs. Projects in the Habitat Focus Area will include:

- *Map and characterize tidal in-water and near-shore habitats* to identify critical fish, shellfish, and protected resources habitat, conserve and manage habitat, and identify priority areas for restoration and conservation.
- *Explore removal of fish blockages* in the Choptank River at priority locations identified through the Chesapeake Fish Passage Prioritization tool.
- *Identify priority wetlands restoration sites* in the Choptank River through a collaborative effort with The Nature Conservancy.
- *Demonstrate the benefits of oyster reef ecosystem services* through applied research and living resource assessments, including benefits to coastal and ocean fish species that utilize the Chesapeake Bay during their life cycle.
- *Apply NOAA science to inform better management* and encourage complementary conservation actions across federal, state, and local government.
- *Engage coastal communities* to ensure their increased involvement in and ownership of the protection and restoration of coastal habitats.

Partners

NOAA partner offices include the National Marine Fisheries Service, National Ocean Service, National Weather Service, National Environmental Satellite Data and Information Service, and Office of Oceanic and Atmospheric Research. NOAA also will work with partners including (but not limited to):

- Maryland Department of Natural Resources
- Chesapeake Bay Foundation
- Chesapeake Bay Program
- Chesapeake Conservancy
- Maryland Sea Grant
- National Fish and Wildlife Foundation
- The Nature Conservancy
- Oyster Recovery Partnership
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- University of Maryland Center for Environmental Science
- U.S. Department of Agriculture
- Midshore Riverkeeper
- Town Creek Foundation
- Eastern Shore Land Conservancy