

Building Community Support for Water Quality Improvements in Maryland's Choptank Watershed

Beginning in Delaware and flowing through Maryland before emptying into the Chesapeake Bay, the Choptank is the longest river on the Delmarva Peninsula. The Choptank River is home to native oysters and blue crabs – fisheries with important regional economic, ecological and cultural significance. However, by the 1970s, the Choptank's declining water quality threatened the health of these natural resources. Nutrient and sediment pollution was determined to be a primary cause of degradation. This is largely a result of runoff from agriculture, the predominant land use in the watershed, and other sources such as wastewater treatment plants, septic systems, and development.

In 2010, the U.S. Environmental Protection Agency and the states that make up the Chesapeake Bay watershed established the Chesapeake Bay Total Maximum Daily Load (TMDL), setting limits for nutrients and sediment and charting a course for water quality improvements. The Choptank is part of this larger Bay TMDL. Numerous partners help implement and fund the work outlined in the TMDL, including Maryland's Departments of the Environment, Natural Resources, and Agriculture; the National Oceanic and Atmospheric Administration; nonprofit organizations; local governments and community partners.

A Vision for the Choptank

In 2015, a group of nonprofit organizations, federal and state agencies, local governments, researchers, community groups, and watershed residents formed the [Envision the Choptank](#) partnership to identify local solutions to improve the health of the Choptank watershed. This collaborative now brings together more than 45 entities to build community support for water quality projects that help achieve the Chesapeake Bay TMDL goals for the Choptank watershed. Its grassroots approach includes three focus areas: agriculture, local governments, and disenfranchised communities.



Eutrophication

When excess nutrients, such as nitrogen and phosphorus, enter a waterbody it can result in a process called eutrophication. When this occurs, algae and plant growth increases which can lead to algal blooms that may deplete oxygen levels in the water to the point where living organisms cannot survive.

Total Maximum Daily Load (TMDL)

A TMDL defines the maximum amount of a pollutant that a waterbody can receive while still meeting water quality standards.



Assisting Agricultural Landowners

Envision the Choptank's agriculture workgroup partners with rural landowners and farmers to advance the implementation of best management practices (BMPs) that improve water quality.

Such measures include installing grass and forested buffers, restoring wetlands, and improving farm drainage systems to manage runoff. The workgroup also developed BMP prioritization tools to inform decision-making across the watershed's five counties and created new financial incentive programs for implementing BMPs. With the help of its Landowner Assistance Coordinators, Envision was able to establish 197 acres of buffers, wetlands, and ditch retrofits over a three-year period.



Engaging Disenfranchised Communities

Envision the Choptank is committed to fully understanding the needs of local communities to inform its approach. The partnership builds relationships with those not often at the table to share information, identify common concerns, and develop collaborative solutions.

For example, in support of water quality improvements, the organization facilitates site assessments and helps disenfranchised communities identify natural resource-related concerns and develop restoration plans to implement stormwater BMPs.



Working With Local Governments

In many cases, local governments oversee land-use decisions that can have long-term impacts on the conservation – and development – of the watershed. Guided by the planning needs of local government staff, Envision the Choptank provides technical assistance, data and research, potential funding sources, and connections to better inform the land-use planning process and advance conservation. The partnership also provides a full-time Technical Assistance Circuit Rider that assists local governments with project identification and assessment, proposal development, and grant management.

Long-Term Sustainability and Restoration

Envision the Choptank has demonstrated success by building support for BMP implementation and other pollution reduction actions at the local level and in disenfranchised communities. However, assessing the impacts of these BMPs remains a challenge due to limited monitoring and long lag-times between implementation and improvements to water quality.

A major accomplishment of the partnership includes increased access to new funding for environmental work for local governments and nonprofit organizations. For example, in 2023, the Maryland Department of the Environment's Nonpoint Source Pollution grant program fully funded two efforts that will help bring essential funds to disenfranchised communities and provide much-needed capacity to local governments.

Envision the Choptank's evidence-based, community-driven approach has proven it keeps people coming back and "envisioning" a better future for the watershed. The partnership makes watershed health personal by understanding and incorporating environmental and socioeconomic concerns into its decision-making. By forging a broad base of support for projects that advance the Chesapeake Bay TMDL goals set for the river, Envision creates buy-in and inspires stewardship of the Choptank. The partnership's inclusive, collaborative approach can be transferred to other watersheds looking to improve water quality and quality of life.



This document has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement 84039101 to NEIW PCC. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does the EPA endorse trade names or recommend the use of commercial products mentioned in this document.

