

Advancing Marsh Adaptation in the Choptank River

Advancing Marsh Adaptation in the Choptank River is being supported by master's students from the University of Michigan School for Environment and Sustainability as their capstone project, under the guidance of the NOAA Chesapeake Bay Office, Envision the Choptank, and Chesapeake Bay Program partner organizations. Through GIS analyses, literature reviews, and interviews with wetland professionals, the team is assessing historical and future changes to marshes of interest and identifying current ecological and social conditions and knowledge gaps to help prioritize next steps for adaptation and restoration. Products include a Coastal Wetland Management Assessment for the Choptank River and a GIS Mapper demonstrating the team's findings. In October 2025, Michigan students met with experts across the Choptank/Chesapeake region to discuss results from their initial analyses.



Choptank Wetlands Preserve (NAIP 2021)



Continuing Previous Work

The Chesapeake Bay Program worked with Envision the Choptank in 2024, when they held a Marsh Adaptation Workshop. Participants reviewed the conditions of existing tidal marshes in the watershed, identified research needs, and brainstormed adaptation strategies. They identified better understanding of invasive species impacts, sediment accumulation, and marsh migration pathways as needs. The Advancing Marsh Adaptation project picks up where the workshop left off, studying selected marshes to identify options for an adaptation plan.

October 2025 Meeting Summary

1

NEXT STEPS: For selected marshes, identify places with more marsh migration potential and evaluate different needs (preservation, restoration, migration) to help target landowner engagement and identify early adaptor sites for adaptation.

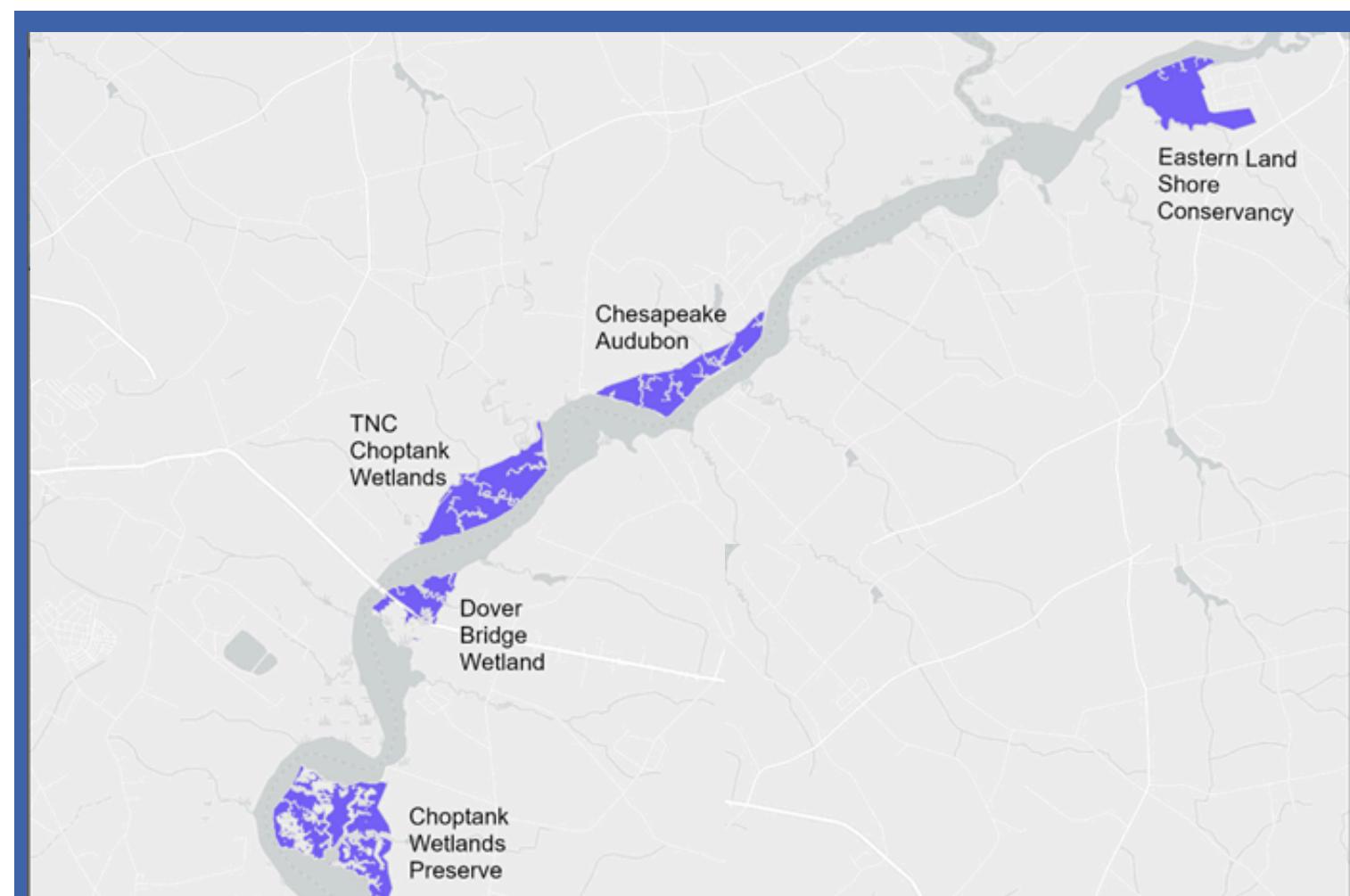
2

RESEARCH NEEDS: Habitat mapping, elevation surveys, and sediment transport data. Combining elevation and migration corridor data to help target Ash tree loss options and determine areas for Phragmites management.

Presentations and full meeting summary can be found [here](#).

3

FUTURE SUPPORT: Identify additional research support from University of Michigan and University of Maryland. More targeted community engagement with landowners.



Map of the selected marshes the students are evaluating in the Choptank River to help identify adaptation options.