

Partnership-Building and Identification of Collaborative Marsh Adaptation Projects

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Climate Resiliency Workgroup Meeting

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Marsh Adaptation



*Working Definition:
Incorporating climate
change information
and resilience
strategies when
planning, designing,
implementing, and
managing marsh
restoration and
conservation projects
to enhance longevity of
marsh area and health*

Climate Change Factors	Resilience Strategies
Sea Level Rise	<ul style="list-style-type: none">● Identify and conserve marsh migration corridors● Restore/preserve healthy marsh sediment dynamics and vegetation● Ensure habitat connectivity
Increase in storm events & precipitation	

Why we need collaborative marsh adaptation projects

- Manage marshes to be resilient to sea level rise and other climate change impacts to preserve ecosystem services.
- Implement strategic large-scale restoration strategies with cross-goal benefits instead of opportunistic, disconnected projects.
- Increase understanding of geographical and organizational priorities to build partnerships to support large-scale implementation.
- Align marsh resilience research opportunities with implementation to increase data and information on the success of strategies.



Project Outcomes

- Identify **common criteria** for targeting tidal marsh projects by compiling resilience and social vulnerability metrics, geographic priorities, and organizational goals across stakeholder groups.
- Identify **partners and projects** within two focus areas (MD, VA, or tribal lands) that could support large-scale tidal marsh restoration using criteria as a guide.
- Identify **data gaps and research needs** to inform on-the-ground tidal marsh management and adaptation at regional scales.
- Identify potential **research opportunities** that could coincide with tidal marsh restoration efforts to increase understanding of the success of climate resilience strategies.
- Identify **short and long-term funding opportunities** for proposed collaborative tidal marsh restoration and research projects.

Project components

July 2022-Apr 2023

Phase 1

- Review existing partner resilience and social vulnerability metrics (GIS mapping)
- Perform partner outreach to identify priorities
- Overlay partner metric and priority maps to select two regional focus areas for in depth workshop conversations

Apr-Jun 2023

Phase 2

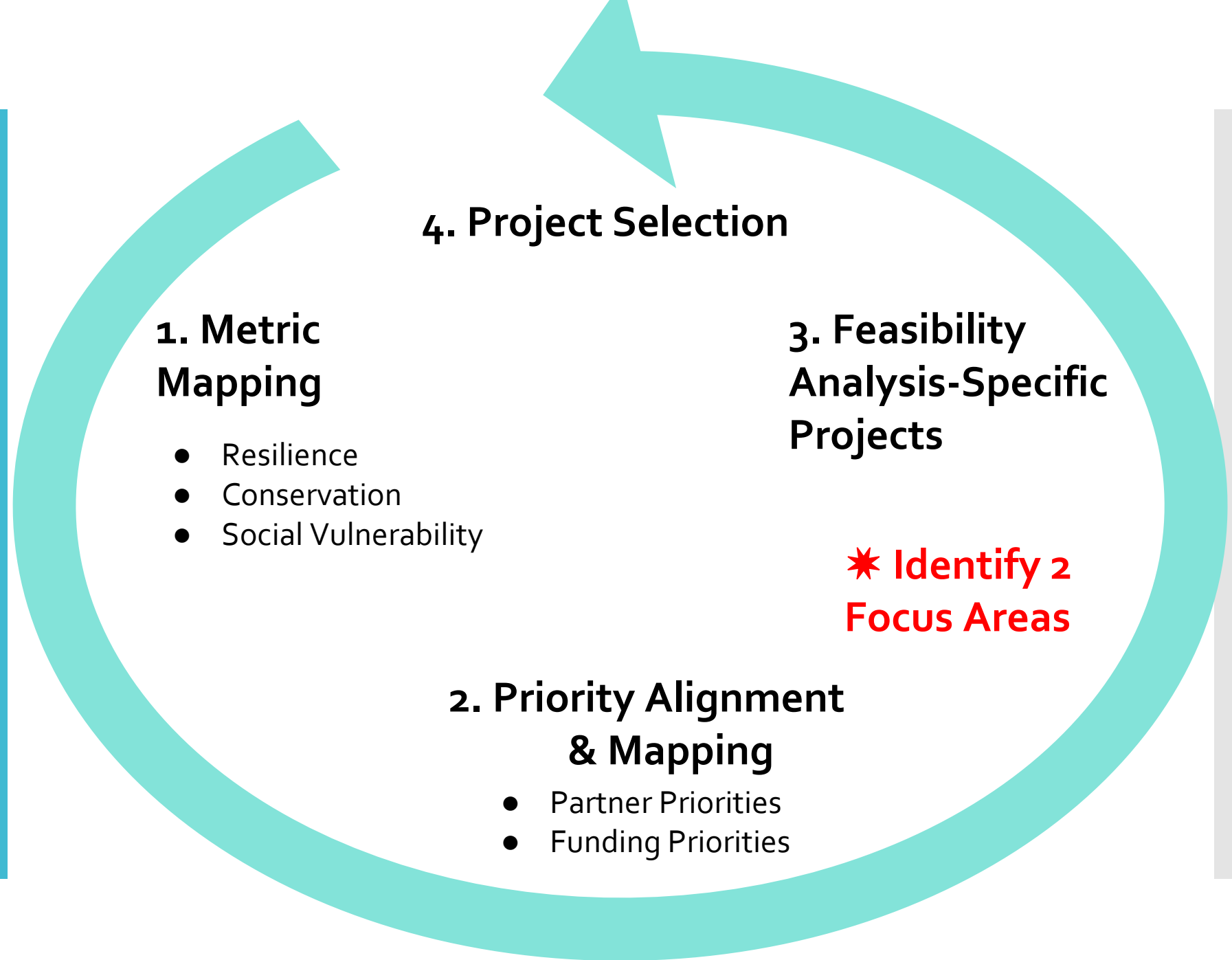
- Design 2-day workshop for MD, VA, and/or tribal stakeholders
- Identify large-scale marsh restoration and research projects and supporting partnerships

Jun-Sep 2023

Phase 3

- Prepare project report and stand-alone communication documents on metrics, identified projects, and supporting partner networks
- Link prioritized projects with list of potential funding opportunities
- Identify challenges to collaborations

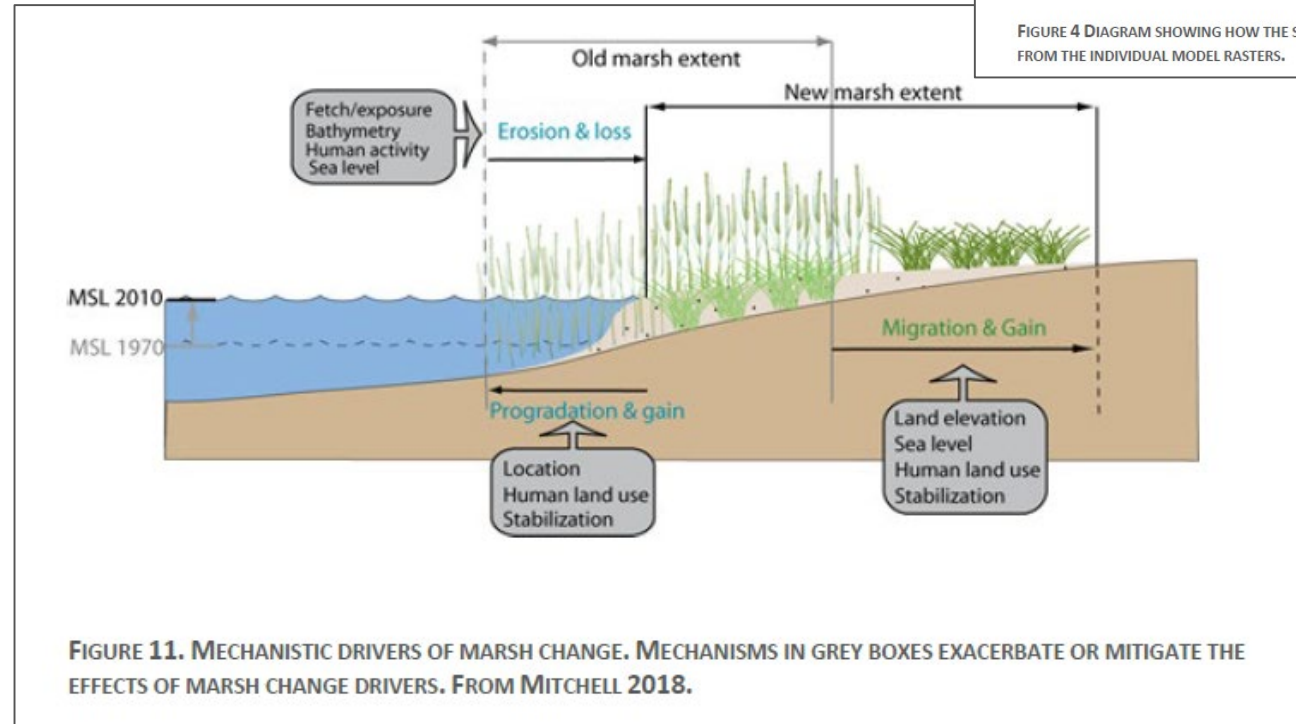
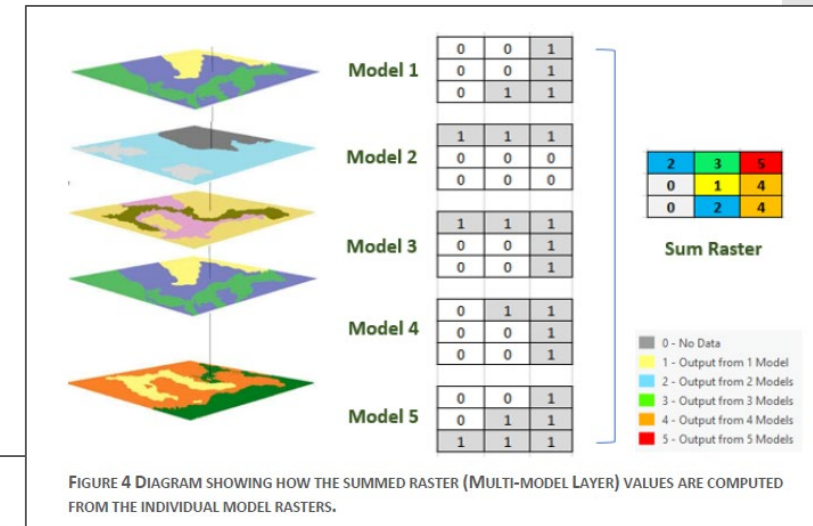
DRAFT Framework for Targeting Projects



Potential Resilience Metrics

Suite of Marsh Migration Models

- NOAA SLR Viewer (National)
- SLAMM 5.0 (Chesapeake Bay)
- InVEST (Mid Atlantic)

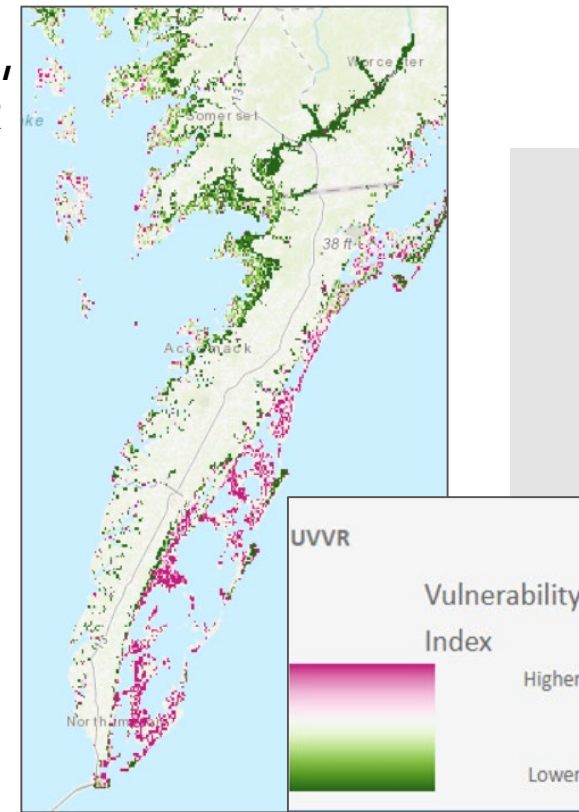


Utilizing method from Mitchell et al. 2022, Synthesis of Shoreline, Sea Level Rise, and Marsh Migration Data for Wetland Restoration Targeting (GIT-funded project)

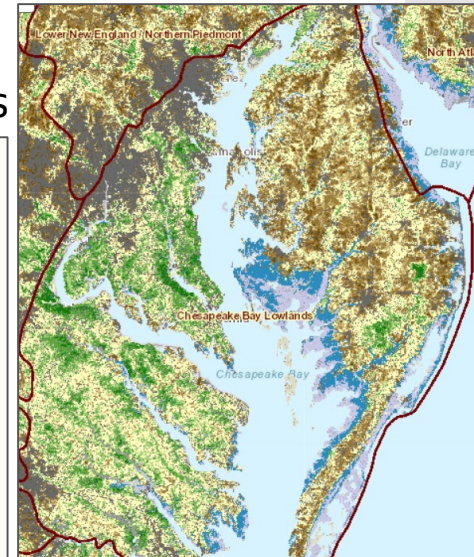
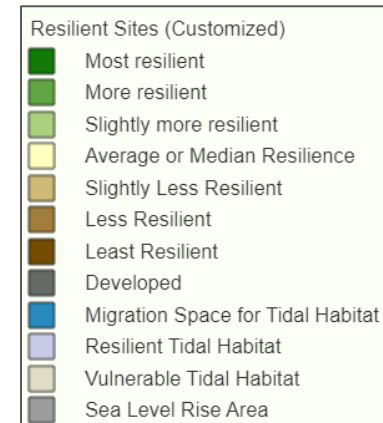
Potential Resilience Metrics

- Habitat Connectivity: TNC Resilient and Connected Landscapes (East Coast)
- Marsh Condition: USGS Coastal Wetlands Synthesis/Coastal Change Hazards (Chesapeake Bay/East Coast)

USGS,
UVVR



TNC Resilient Sites



Potential Conservation Metrics

Regional:

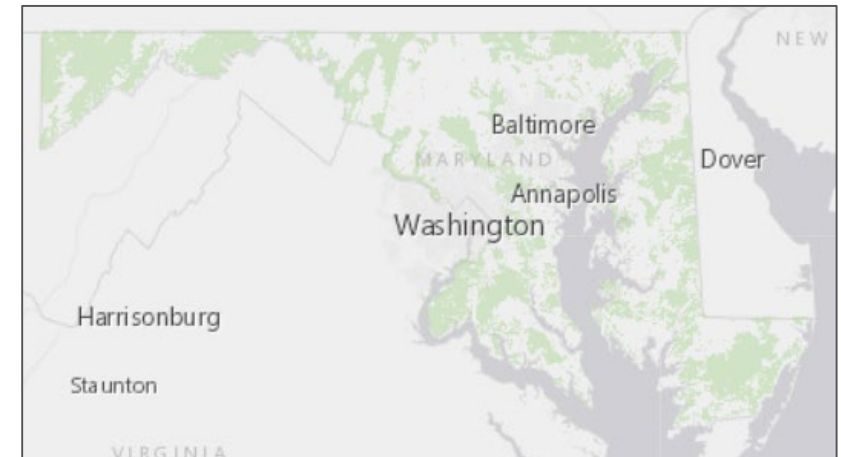
- Habitat/Species: EPA EnviroAtlas (National)
- Habitat Connectivity: Nature's Network (Mid-Atlantic)
- Bird Habitat: Audubon
- Fisheries Habitat: CBP Hardened Shoreline Threshold



AdaptVA Lands for Protection

State:

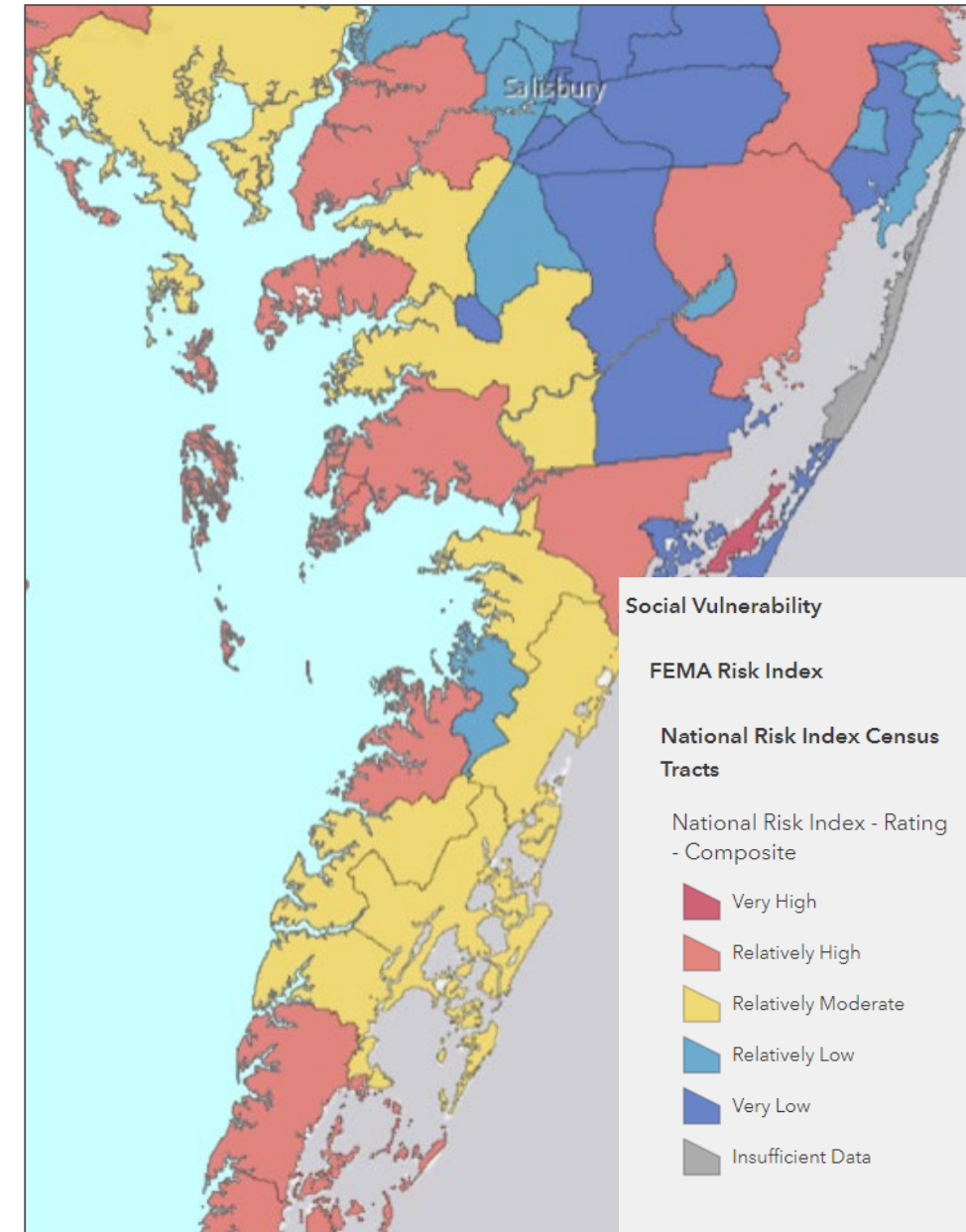
- Virginia Natural Heritage Data Explorer (DCR)
- VIMS AdaptVA
- MD DNR Greenprint
- MD Critical Area



Targeted Ecological Areas, MD Greenprint

Potential Social Vulnerability Metrics

- FEMA National Risk Index
- CDC Social Vulnerability Index
- EPA EJ Screen
- Health Resources and Services Administration
- American Community Survey
- White House Climate and Economic Justice Screening Tool (CEJST)



Identification of Partners and Priorities

Identify federal, state, local and regional partners that support marsh restoration, conservation and/or resilience research projects.

Outreach

- Identify partner geographic and organizational priorities.
- Identify partner roles in conservation, restoration and research.
- Understand how they are incorporating climate change information.
- Inform development of workshop to build partnerships in 2 Focus Areas (MD, VA) that lead to identification of large-scale marsh adaptation projects to seek federal infrastructure funds.
- Better understand needs/gaps in marsh adaptation and management.

How does this
project fit into
ongoing
efforts?

Conference/Workshops

- Marsh Resilience Summit, 2019
- EPA Resilient Coastal Wetlands and Communities Workshop, May 2022
- CBP Habitat GIT Wetland Outcome Attainability Workshop, August 2022
- Maryland Sea Grant Marsh Persistence and Restoration in the Chesapeake Bay Workshop, October 2022

Next Steps

- Outreach
- Methodology test with Middle Peninsula York River Roundtable Habitat Restoration Steering Committee
- Identification of 2 Focus Areas (MD, VA)
- Workshop Development & Participant Identification
- Hybrid Workshop

How You Can Help



- Review Partnership List - Are we missing any key partners?
- Review Partner Questions - Are we asking the right questions to align partner interests and priorities?
- Coordinate within your organization to submit 1 response to questionnaire and geographic priorities
- Review Targeting Framework and Data Methodology

