

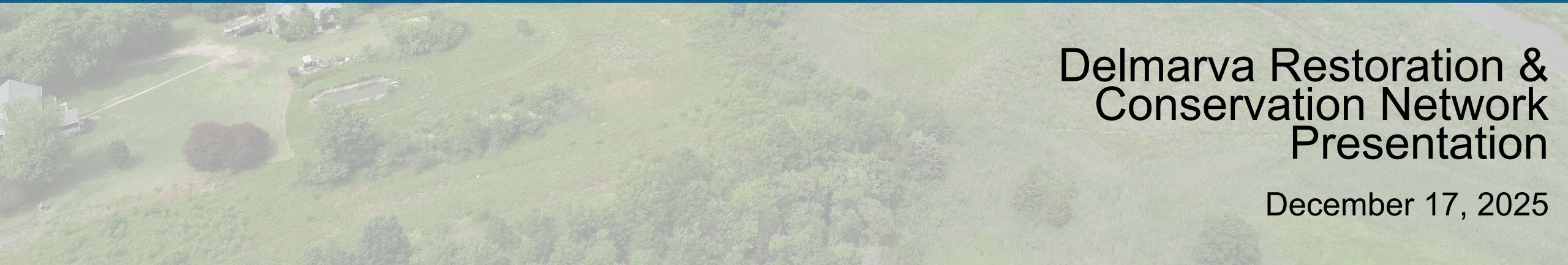


Roots for Resilience: *Strong Roots for a Changing Landscape*



Delmarva Restoration &
Conservation Network
Presentation

December 17, 2025





Marshes for Tomorrow:

A Strategic Plan for the Restoration & Resilience of Maryland's Salt Marshes



<https://media.audubon.org/2025-11/MfT%20Final%20Technical%20Report%20111825.pdf>

Implementation

Roots for Resilience:

Strong Roots for a Changing Landscape





Purpose: Share the context and background of the **NEW** DNR *Roots for Resilience* Initiative

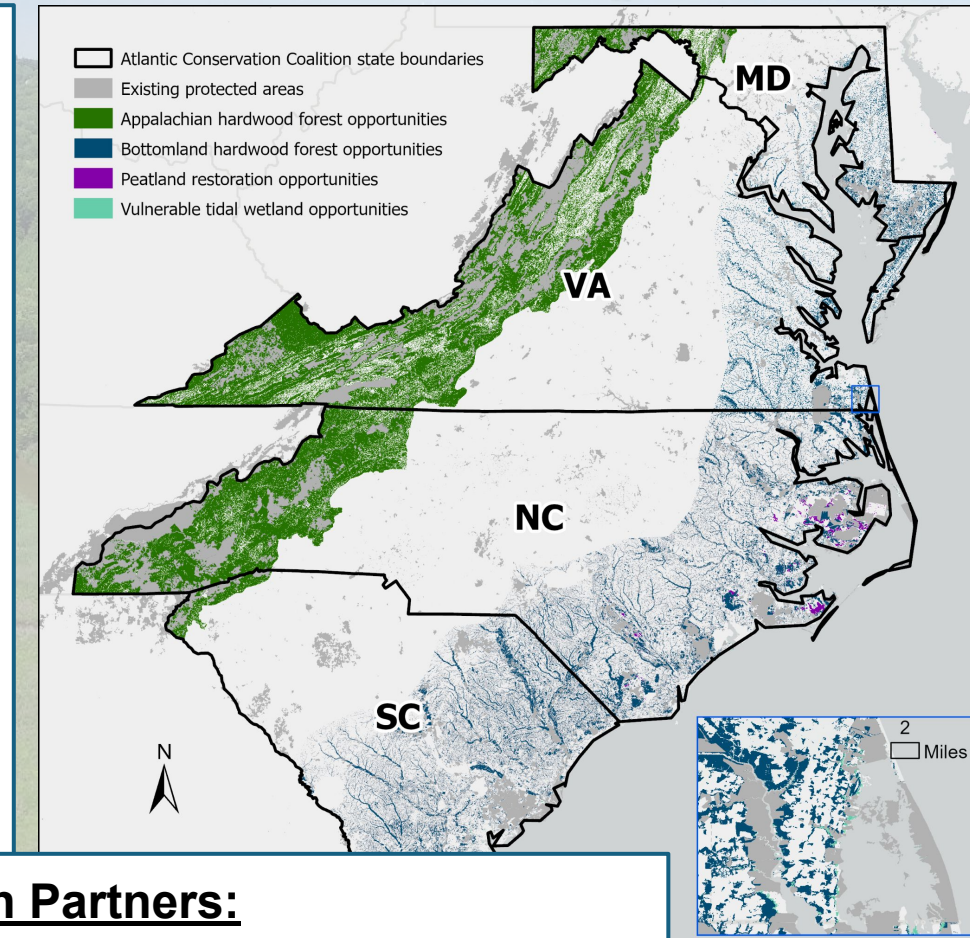
Goals: Audience is informed about the upcoming Living Shorelines Solicitation and understands where to find available resources

WELCOME & AGENDA:

1. Background & Context of Funding
2. Maryland Department of Natural Resources Commitments and *NEW* Initiative!
3. Key Partners
4. Living Shoreline Solicitation - Overview and Schedule
5. Resources and Contacts
3. Q&A and Open Discussion

Background: EPA Funding

- Funding (\$421M) through the EPA Climate Pollution Reduction Grant (CPRG) provided to the Atlantic Conservation Coalition (ACC) to implement a regional approach to **reduce greenhouse gas emissions through carbon sequestration**
- This multi-state coalition will implement carbon sequestration projects through enhanced forest management, and the protection and restoration of high-value coastal habitats and forests with the greatest carbon storage capacity
- Goal = reduce carbon emissions through conservation and restoration of natural resources while increasing community resilience to natural hazards



Coalition Partners:

- State of North Carolina (**LEAD**)
- State of South Carolina
- State of Maryland
- Commonwealth of Virginia

Atlantic Conservation Coalition (ACC)



Coalition State Partners:

North Carolina (Coalition Lead)

South Carolina

Virginia

Maryland:

- Maryland Dept. of the Environment (MDE) is the State Lead!
- **Maryland Dept. of Natural Resources (DNR) awarded \$43 Million**

Coalition-wide: The Nature Conservancy & Duke University (will support all four states)

Partners



Roots for Resilience: Strong Roots for a Changing Landscape



MARYLAND DEPARTMENT OF NATURAL RESOURCES
CLIMATE RESILIENCE

Impacts of Climate Change

Climate Data and Tools

Our Climate Initiatives

Our Initiative:

- To help Maryland's Lower Eastern Shore adapt to the challenges of climate change.
- Includes tree planting, coastal habitat restoration, and community engagement.
- Will unite existing relationships, initiatives, and passions on the Lower Shore to nourish roots — ecologically and socially — to preserve this rapidly changing landscape.

Roots for Resilience: Strong Roots for a Changing Landscape



Roots for Resilience is a new Initiative designed to help Maryland's Lower Eastern Shore adapt to the challenges of climate change by enhancing nature's ability to store carbon and buffer climate impacts. Through tree planting, coastal habitat restoration, and community engagement, the Initiative strengthens our natural defenses while reducing carbon emissions. Roots for Resilience unites the existing relationships, initiatives, and passions on the Lower Shore to nourish roots — ecologically and socially — to preserve this rapidly changing landscape.

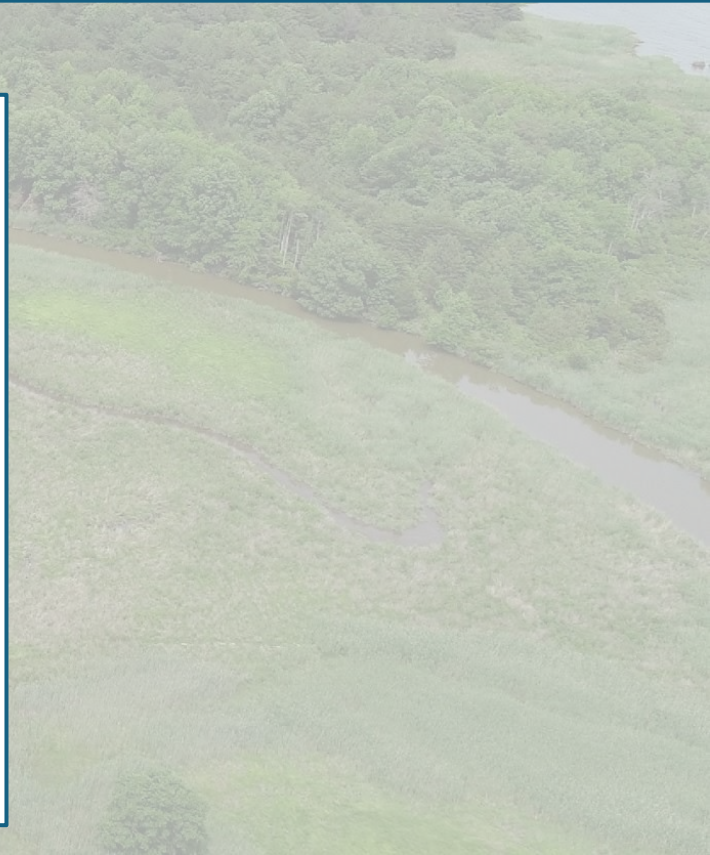
At Maryland DNR, we are proud to collaborate with our nonprofit partners to fulfill our commitments in the areas of forestry and wetland restoration. Our key partners include:

- Audubon Mid-Atlantic
- Lower Shore Land Trust
- Eastern Shore Land Conservancy

MDNR Commitments



- Focal Area: Lower Eastern Shore + Middle Eastern Shore
- Communities affected by flooding and sea level rise
- Timeline is ~5 years (END DATE: August 2029)
 - Forest Carbon Initiatives:
 - Afforestation
 - Improved forestry management
 - Blue Carbon Initiatives:
 - Marsh restoration
 - Tidal marsh re-connectivity
 - Living shorelines (that provide marsh protection)
 - Coastal Resilience Management Plans



Detailed MDNR Commitments



Blue Carbon - Coastal Wetlands:

- Restore 200 acres of marsh
- **Protect 400 acres marsh through living shorelines projects**
- Restore the tidal connectivity of 400 acres of marshes
- Using conservation easements and Coastal Resilience Management Plans, work with private landowners to develop plans to transition land to wetlands or actively restore wetlands on their property

Forest Carbon - Afforestation & Improved Management:

- Restore 500 acres of Atlantic white-cedar, bald-cypress, shortleaf pine, and other trees on public & private lands
- Target a fisheries restoration priority of the black-banded sunfish
- Evaluate forest stand condition using drone technology and remote imagery
- Improve forestry management on at least 1,000 acres
- Conduct landowner outreach, and planning for landscape-scale habitat opportunities for high-priority regions

How Can We Achieve these Goals?



Internal DNR Units Working Collaboratively

External Partners: USFWS; Delmarva Restoration Conservation Network (DRCN); University of Maryland

At Maryland DNR, we are proud to collaborate with our nonprofit partners to fulfill our commitments in the areas of forestry and wetland restoration. Our key partners include:

- Audubon (Marsh restoration; tidal connectivity assessments & implementation)
- Lower Shore Land Trust (Coastal Resilience Management Plans)
- Eastern Shore Land Conservancy (Coastal Resilience Management Plans)

Community Liaisons: to support outreach and engagement; known/trusted members to support work

+Release a Solicitation to request projects to meet our goals and commitments!

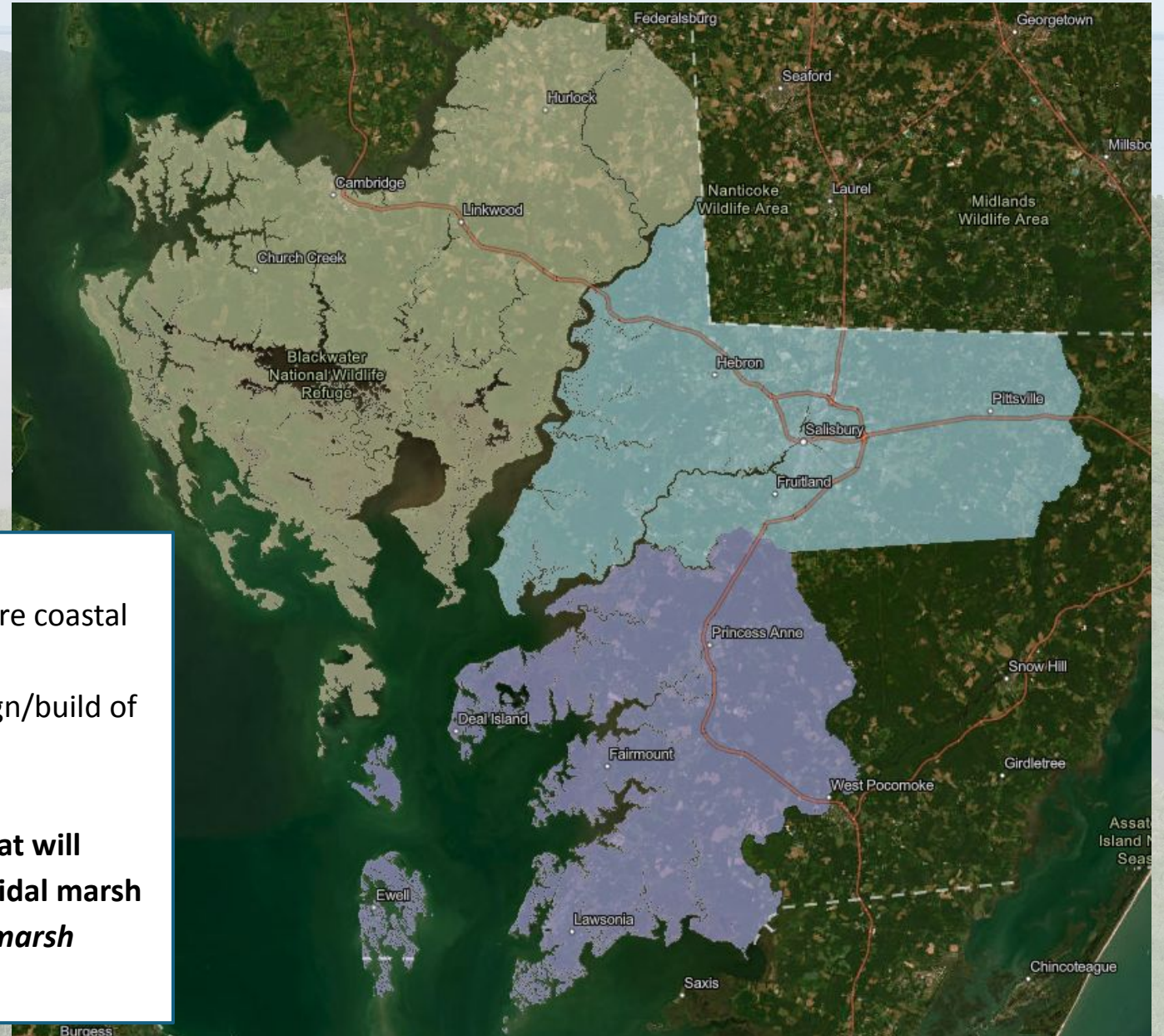
Living Shoreline Solicitation

- Living Shoreline projects must protect coastal wetlands
- Eligible Project Locations:
 - **Dorchester County**
 - **Wicomico County**
 - **Somerset County**
- Available funds: ~\$17M

The Solicitation will:

- focus on requests for living shoreline projects that will restore coastal shorelines and protect tidal marsh habitat
- invite applications for the design, construction, and/or design/build of living shoreline projects on the Lower Eastern Shore.
- open in January 2026

GOAL = award large-scale living shoreline restoration projects that will collectively protect a total of 400 acres of adjacent high quality tidal marsh habitat. *Multiple awards are expected to be made to meet our marsh protection goal*



Project Goals



- **Project Location**-> Within eligible counties and Chesapeake Bay
- **Project Need and Context**-> Public land, Active erosion, Marsh restoration
- **Cost effective**-> At least 2.3 acres of marsh per 100 ft living shoreline protected
- **Readiness and Ability to proceed**-> Realistic timeline for design/permitting/construction, Construction completed by July 2029
- **Long Term Success**-> Sea Level Rise incorporated into design, Appropriate stakeholders involved, Long term Adaptive management plan in place

Potential Restoration Techniques - Living Shorelines



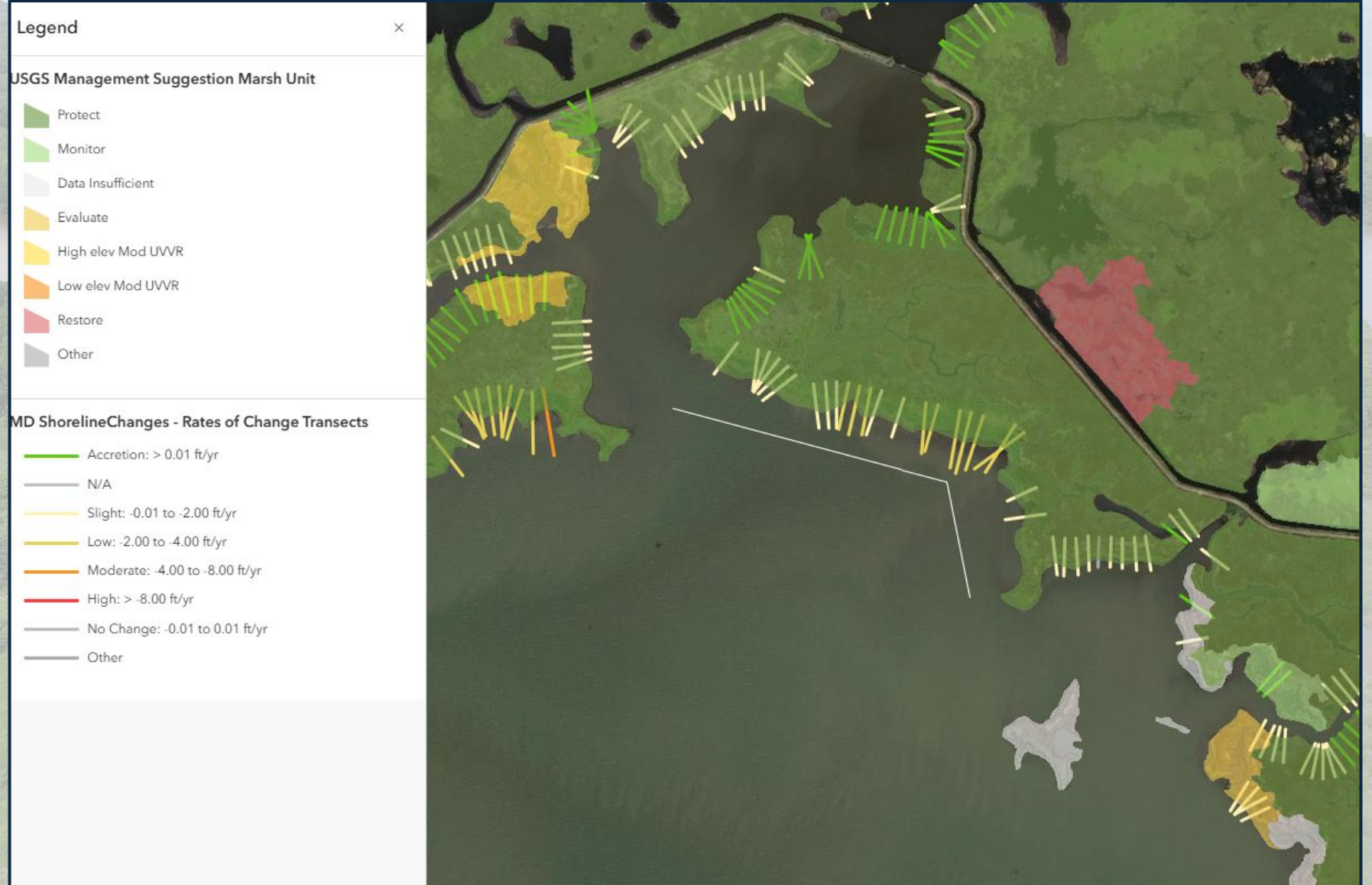
All projects will avoid natural resources (SAV, existing wetlands, etc.) to maximum extent practicable

Project Targeting Map

Map web link:

<https://arcg.is/vCaSW3>

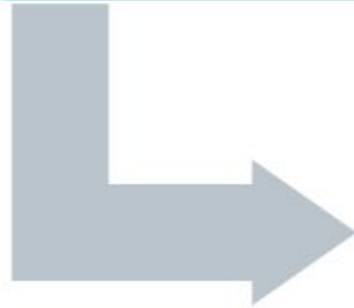
****Map and guidance documents are subject to changes.**



Project Types

Priority #1: Construction-ready request for living shoreline project*

- Highly suggested to apply
- Design complete [or near completion]
- Permits in-hand [or ready to be submitted]
- Project should maximize marsh protection



Priority #2: Design/Build request for living shoreline project*

- Encouraged to apply for design and construction funding
- Funds for permitting are eligible
- Project should maximize marsh protection



Priority #3: Design/permitting request for living shoreline project*

- Welcome to apply, but future construction funding not guaranteed
- Project should maximize marsh protection

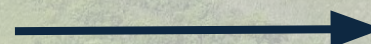
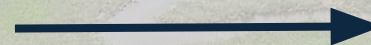
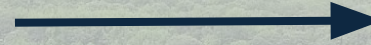
What information is needed to apply?



- **Budget**-Estimates of personnel, equipment, field supplies, and contractual costs.
- **Timeline**- Estimate of implementation, activities, major tasks, milestones, and deliverables with their associated start and end dates. *All construction must be completed by July 1, 2029
- **Project location and basic concept design**- Total wetland area protected, Living Shoreline length, design type (e.g., headland breakwater, sill, groin, etc)
- **Partner engagement**- Do you have landowner permission and/or an agreement in place?

RFP Timing

- **RFP Release**
- **Info sessions and site visits**
- **RFP Deadline**
- **Technical Review**
- **Project Selection**
- **Applicants Notified of Awards**
- **Project Funding Begins**



January 2026

January-March 2026

Late March 2026

April-May 2026

June 2026

July 2026

July 2026-July 2029

Contact us!



Ari Office Hours: Roots for Resilience: Strong Roots for a Changing Landscape

Fridays· 1:00 – 2:00pm

Google Meet joining info: <https://meet.google.com/jtz-zkfh-fip>

Or dial: (US) +1 401-903-3424 PIN: 617 166 843#

Ari contact info: ari.engelberg@maryland.gov; 401-260-8734

Sarah contact info: sarah.koser@maryland.gov; 410-260-8758

Resources

Email: dnr.rootsresilience@maryland.gov

- General email for communication and correspondence

Roots for Resilience Webpage: <https://dnr.maryland.gov/climateresilience/Pages/rootsforresilience.aspx>

- RFP will be posted here
- Recorded Webinars will be posted here

Technical Support with Applications: reach out to University of Maryland Environmental Finance Center (EFC) for technical support: efc_climateaction@umd.edu





Questions?



**Roots *for* Resilience:
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Landscape***

