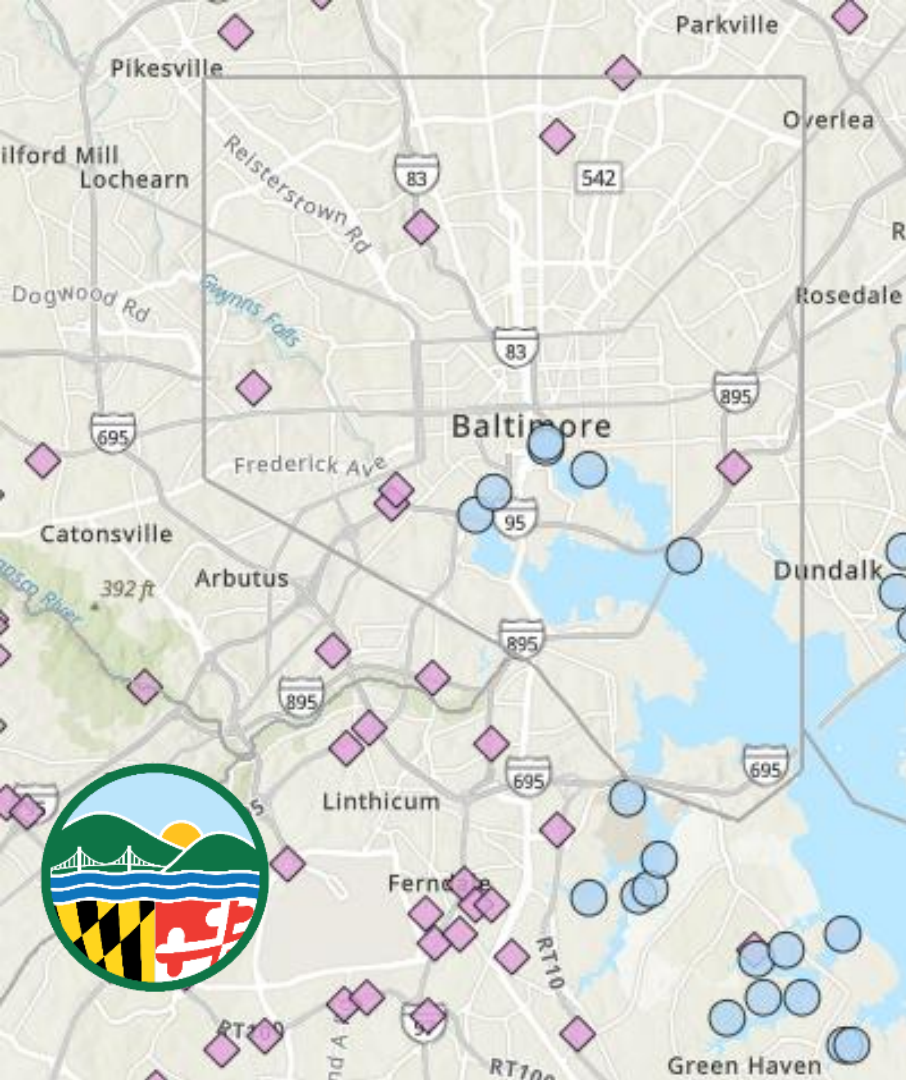


MDE INTERACTIVE RESTORATION MAPPER

September 23, 2025

Mid-Atlantic Wetlands Workgroup 2025 Meeting

Danielle Spendiff, Chief
Regulatory & Customer Service Division
Wetlands and Waterways Protection Program





MDE Authorities

- MDE is the State Agency implementing:
 - Waterway Construction Statute (1933)
 - Tidal Wetlands Act (1970)
 - Nontidal Wetlands Protection Act (1989)
- Clean Water Act (Section 401 Water Quality Certification for discharges from Federal permits/licenses)
- Coastal Zone Management Act – Federal actions in Coastal Zone (Consistency with Maryland's Coastal Zone Management Program)



Living Shoreline Protection Act of 2008

- House Bill (H.B.) No. 973 took effect October 1, 2008
- Improvements to protect a person's property against erosion shall consist of nonstructural shoreline stabilization measures that preserve the natural environment, such as marsh creation, except
 - In areas designated by MDE mapping as appropriate for structural shoreline stabilization measures; and
 - In areas where the person can demonstrate to MDE's satisfaction that such measures are not feasible, including areas of excessive erosion, areas subject to severe tides, and areas too narrow for effective use of nonstructural shoreline stabilization measures
- MDE implements a waiver process to the nonstructural requirement



Marsh Maintenance Report

- MDE provides a Marsh Maintenance Report template with reporting due at Years 2, 3, and 5
- Reporting includes construction information, vegetative cover, stressors, photos, etc.



Maryland
Department of
the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor
Serena McHale, Secretary
Suzanne E. Dorsey, Deputy Secretary

ANNUAL MARSH MONITORING REPORT SUBMISSION INSTRUCTIONS AND TEMPLATE

Marsh Monitoring Report Checklist and Report Template Instructions: Brief, annual Marsh Monitoring Reports (Report) are to be submitted to MDE for years 2, 3, and 5 by the dates identified in the Marsh Maintenance Plan (Plan), regardless if the project is completed or a healthy stand of wetland vegetation is present. The Report may be brief and should include the following information, at a minimum:

- ☐ State Agency Interest Number, Tidal Wetlands License Number, and Site Address
 - ❖ This information can be located on the first page of the Plan or at the top of the first page of the license.
- ☐ Inspection Date
 - ❖ The date the site is observed and photographed.
- ☐ Project Completion Date
 - ❖ Date the project was completed.
 - ❖ Projects that have not been completed, please indicate the current status of the project and disregard the remaining requirements. No formal report needs to be submitted for projects that have not been constructed. Submit notification via email to tidalump.mde@maryland.gov with project status.
- ☐ Vegetative Coverage
 - ❖ Estimate the total percent plant coverage of the area.
 - ❖ Identify the percent coverage of native and non-native wetland plant species. If 85% coverage by native species is not obtained, please indicate the limiting factors to plant growth, and the steps that will be taken to meet the 85% coverage requirement.
- ☐ Identify factors limiting establishment of a healthy stand of wetland vegetation and identify the maintenance activities necessary to mitigate the resulting stress.
 - ❖ For example, if non-native, invasive species (such as *Phragmites*) have emerged and begun to crowd out the planted or volunteer native species, the invasive species should be physically removed or chemically controlled. If geese are preying the plants, a goose exclusion fence should be erected.
- ☐ Photographs
 - ❖ Include multiple photographs that capture the current condition of all areas of the shoreline project.
 - ❖ Photographs should be taken from the same location each year.
- ☐ Submit the annual report by the due date(s) identified in the Plan via email to tidalump.mde@maryland.gov or by mail at the following address:

Maryland Department of the Environment
WSA/WWP Tidal Wetlands Division
1800 Washington Blvd., Suite 430
Baltimore, MD 21230



Whole Watershed Act of 2024

During the 2024 Maryland General Assembly Legislative Session, two bills (**Senate Bill 969 & House Bill 1165**) were introduced and passed impacting statutory requirements for stream and floodplain restoration project permitting:

- *Watershed, Stream, and Floodplain Restoration – Chesapeake and Atlantic Coastal Bays Restoration and Stream and Floodplain Restoration Funding*, known as the **Whole Watershed Act (WWA)**

Section 2 of the WWA:

- Took effect on **July 1, 2025** (further clarification in **2025 Bay Chesapeake Legacy Act**)
- Establishes new criteria for all stream and floodplain restoration projects under Title 18 of the Environment Article



Post-Construction Monitoring



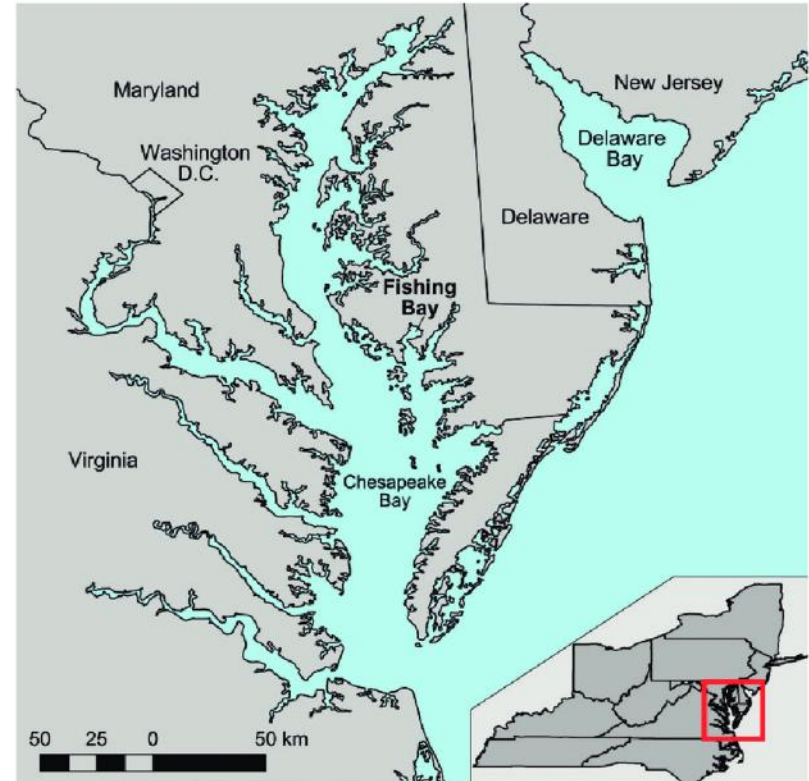
Photo credit: MDE

- Minimum of 5 years required
- Assessment of stream stability, stream and floodplain function, and vegetation viability within project area
- MDE policy is annual reporting at Years 1, 3, & 5 (unless otherwise specified)
- NEW formal process for submitting reports



Chesapeake Bay TMDL & Restoration

- TMDL BMP “Credit” - A scientifically defensible estimate of the load reduction a BMP provides towards overall TMDL goals
- MS4 Permits restore/offset a certain % of impervious cover to meet TMDLs using a wide range of BMPs
- Stream restoration and living shorelines are both creditable BMPs



Source: ResearchGate



Purpose of Restoration Mapper

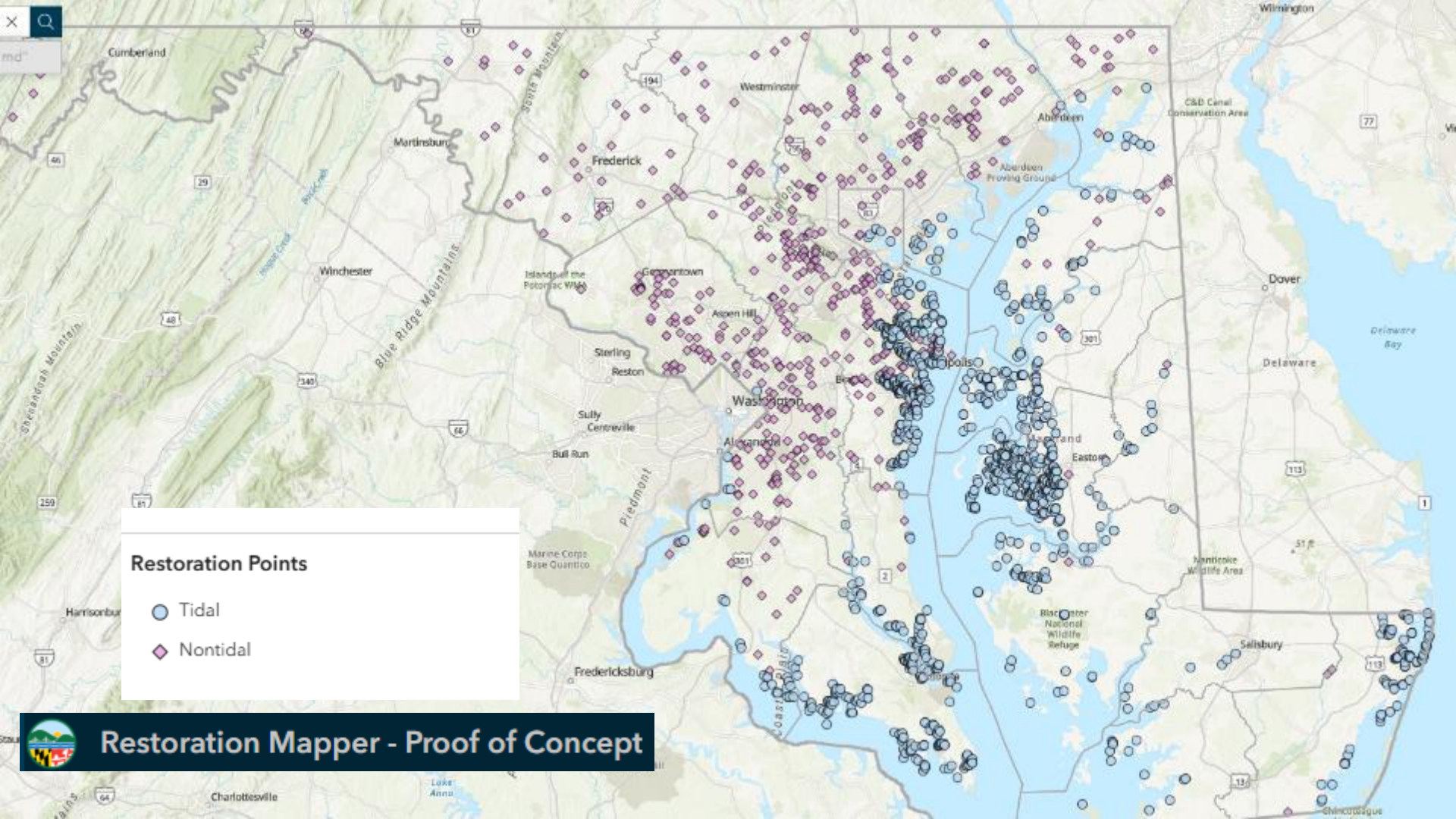
Public interest: Strong demand for information on whether restoration projects are successful

Proposed project:

- Create a public-facing web application & interactive map that retrieves internal data
- Built by Maryland Environmental Service (MES)

User features:

- Select map points or use filters to view reports for completed projects
- Expandable to include additional documents (authorizations, pre-construction assessments)



Restoration Points

- Tidal
- ◆ Nontidal



Restoration Mapper - Proof of Concept



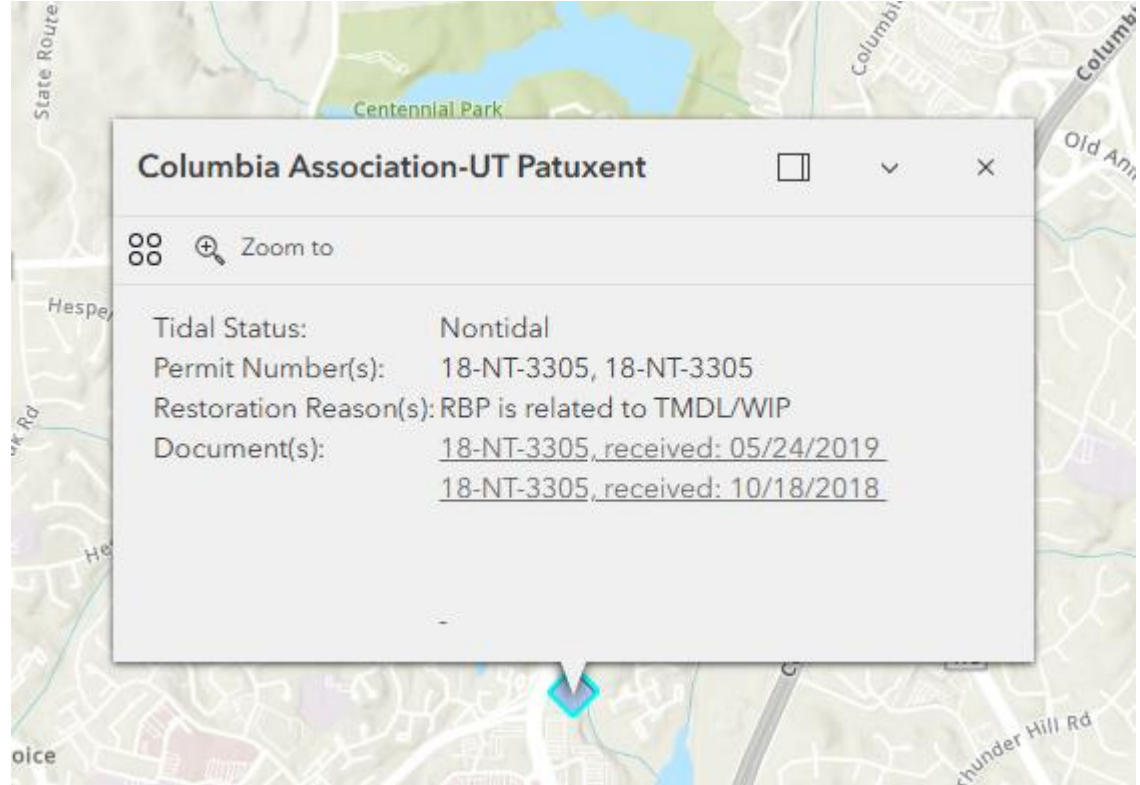
Restoration Project Types





Site Information

Map points are clickable and display basic information as well as available documents







Available Reports

COLUMBIA ASSOCIATION-UT PATUXENT (SITE # 161622)

BETWEEN MIDSUMMER LN AND WILLIAM TELL LN, 39.222896, -76.869213,
COLUMBIA, MD, 21044

***Note:** If any document exists then it will be displayed under column named "DOCUMENT",
please click the icon to download selected document*

LIST OF DOCUMENTS		
SNO	DOCUMENTS	FILE NAME
1		5293951_Year_2_Report_Auth_18-NT-3305.pdf
2		5293953_Year_3_Report_Auth_18-NT-3305.pdf
Displaying from 1 to 2 of 2 records		



Tidal Example

City: Chestertown

State: MD

Zip Code: 21620

Inspection Date:

Project Constructed (Check one): YES ☒

NO ☐

**if no, then no additional information needs to be completed but the signature of the report Project*

Completion Date: Feb 24, 2023

Annual Report (check the correct year): 1 ☐ 2 ☒ 3 ☐ 4 ☐ 5 ☐

Total Vegetative Cover (%): 50%

Vegetative Cover of Native Species (%): 40%

Vegetative Cover of Non-native Species (%): 10%

Identify Factors Limiting the Growth of the Marsh:

- We continue to have issues with phragmites spreading within the shoreline area.
- Existing trees provide some shade cover and limit sunlight to grasses.
- Groundhogs are creating serious challenges by tunneling all along the bank area.

Identify Any Maintenance Necessary to Mitigate the Stressors Identified Above:

- We are cutting the phragmites back as much as possible.
- We have tried multiple natural means to deter the groundhogs. We would welcome further guidance from MDE if there are proven strategies we have not tried. We are now planning to contact a local pest management company.





Nontidal Example

HO DPW/Font Hill Tributary Stream
Restoration/Centennial Lane
West/TMDL Bay Trust Fund Project

Zoom to

Tidal Status: Nontidal
Permit Number(s): 18-NT-3029, 18-NT-3029, 18-NT-3029
Restoration Reason(s): RBP is related to TMDL/WIP
Document(s): [18-NT-3029, received: 01/25/2018](#)
[18-NT-3029, received: 03/04/2019](#)
[18-NT-3029, received: 02/21/2020](#)

Year 1 (As-Built) Post-Construction Monitoring Report
**Font Hill Tributary
Stream Restoration Project**
MDE/USACE Permit Tracking # 18-NT-3029 / 2018-60123



September 29, 2022

Prepared for:

Howard County Government
DPW Bureau of Environmental Services
Stormwater Management Division
9801 Broken Land Parkway
Columbia, Maryland 21046



Prepared by:

**McCORMICK
TAYLOR**
509 South Exeter Street, 4th Floor
Baltimore, Maryland 21202
(410) 662-7400



Restoration Mapper Future Tasks

Current limitations:

- Data stored in MDE's ETS system (internal database)
- Project location info partly available in MDE's Interactive Search Portal.
- Monitoring reports remain only in ETS unless certain actions are taken

Scope:

- Focus initially on projects with monitoring requirements and/or reports submitted since 1/1/23
- Older projects and additional info may be added over time



Restoration-Related Efforts

- **Ecological Restoration Permitting Study** (submitted August 6, 2024)
 - [ERP Study Report](#)
- **Summer Intern Projects** (2023, 2024, & 2025)
 - Organization and field verification of post-construction monitoring reports, Marsh Maintenance Report tracking
- **CCCC Projects**
 - Living Shoreline assessments (2021, 2022)
 - Internal database improvements for post-construction monitoring
 - Assessment of wetland “no net loss” (2025)



More Information

MDE Whole Watershed Act Permitting Page:

<https://mde.maryland.gov/programs/water/WetlandsandWaterways/Pages/Whole-Watershed-Act.aspx>

MDE Stream Restoration Page:

https://mde.maryland.gov/programs/Water/Pages/Stream_Restoration.aspx

DNR Whole Watershed Act & Fund Page: <https://dnr.maryland.gov/Pages/whole-watershed-fund.aspx>

MDE Living Shoreline Page:

<https://mde.maryland.gov/programs/water/WetlandsandWaterways/Pages/ProtectingShorelines.aspx>

DNR Living Shoreline Page: <https://dnr.maryland.gov/ccs/pages/livingshorelines.aspx>

MDE Living Shoreline Assessment Mapper (MSSM):

<https://maryland.maps.arcgis.com/apps/mapviewer/index.html?webmap=964e95df470a4826931bf5a361e8dcec>

QUESTIONS?

Contact Info:

Danielle Spendiff

Regulatory & Customer Service Division Chief

410-537-4023

danielle.spendiff1@maryland.gov



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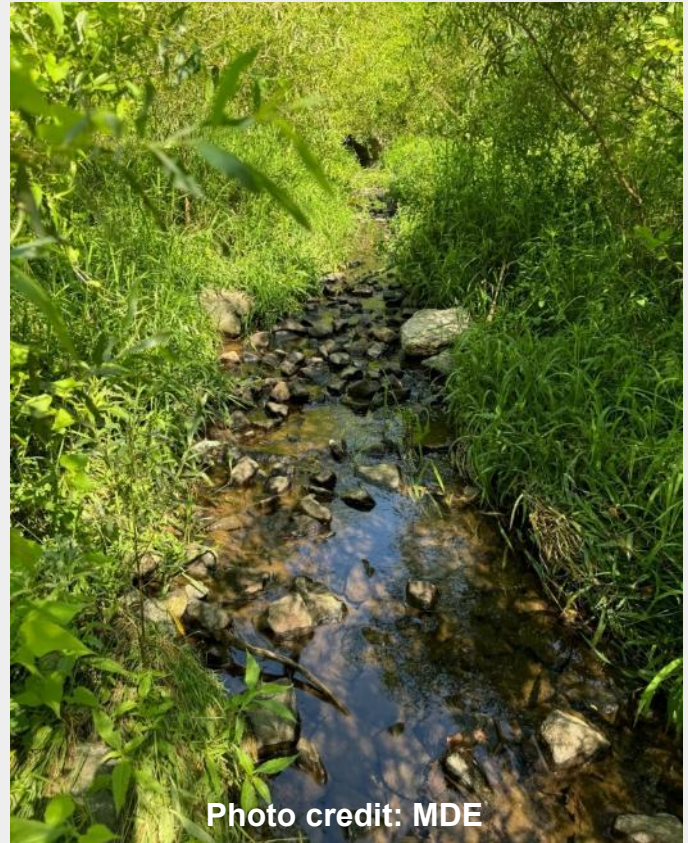


Photo credit: MDE