

—— Making a difference, together ——

Changes in the Regulatory Landscape Impacting BMP Implementation: A Perspective from MD

SEPTEMBER 4, 2025

Local Government Advisory Committee



The Anne Arundel County's Regulatory Mandates

- Municipal Separate Storm Sewer System (MS4)
 Permit (issued by MDE).
- Previous permit required treatment of 20% of the untreated impervious area in the county during the permit cycle. (4,996 acres)
- Used TN/TP/TSS credits generated at the County's WWTPs to achieve permit compliance.
 Burned off nutrient trade in fall 2020
- Current permit, issued on November 5, 2021 requires the treatment of another 2,998 acres. (permit is through 2026)
- Stormwater work funded by the County's Watershed Protection and Restoration Fee
- A key component of the Chesapeake Bay TMDL (along with WRF upgrades and septics)

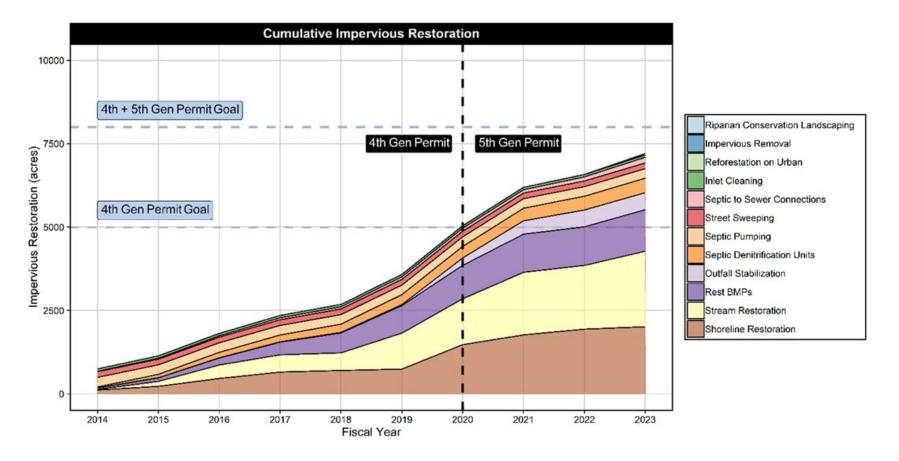




Stormwater Restoration & Impervious Surface Treatment









The past decade has involved an ongoing evolution of practice and success metrics





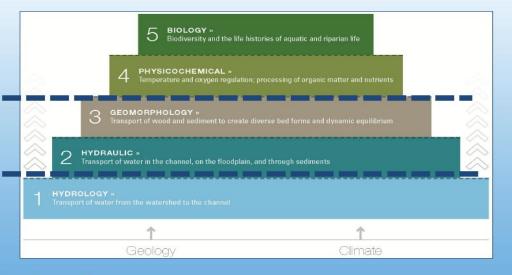


From Harman, 2013

Site Selection

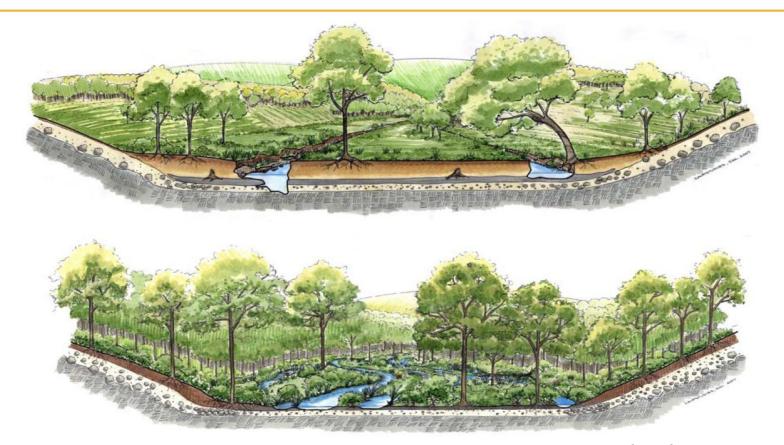
Reach Scale Improvements

Generally Independent Variables.



May be altered in headwater streams.





Images via Land Studies



Dispute over "conversion" - Circa 2010























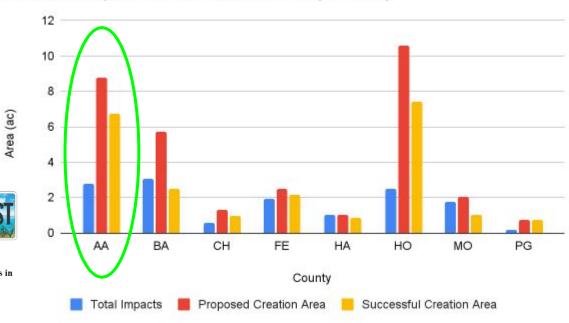
Ruth Parker Eason Outfall (Patapsco tidal watershed)







Wetland Impacts vs Creation Area by County





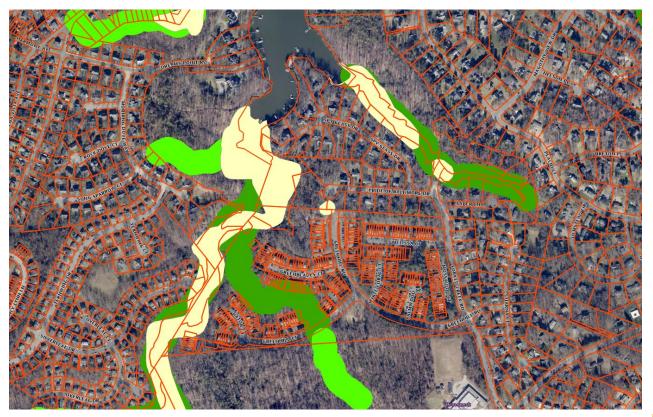


Verification of No Net Loss Goals for Nontidal Wetlands in Maryland: Rapid Assessment Study

> Prepared for the Maryland Department of the Environment Wetlands and Waterways Protection Program



Waiver of environmental modifications - Circa 2023





COUNTY COUNCIL OF ANNE ARUNDEL COUNTY, MARYLAND

Legislative Session 2023, Legislative Day No. 3

Bill No. 10-23

Introduced by Mr. Smith, Chair (by request of the County Executive)

By the County Council, February 6, 2023

A BILL ENTITLED

AN ORDINANCE concerning: Floodplain Management, Erosion and Sediment Control, and Stormwater Management – Subdivision and Development – Water Quality Improvement Projects

FOR the purpose of defining "water quality improvement project"; exempting certain water quality improvement projects from the prohibition against development in natural feature areas; exempting certain water quality improvement projects from the site development plan process; and generally relating to floodplain management, erosion and sediment control, and stormwater management, and subdivision and development.



Infrastructure Projects



Glen Burnie park outfall







State concerns about forest impacts - Ongoing













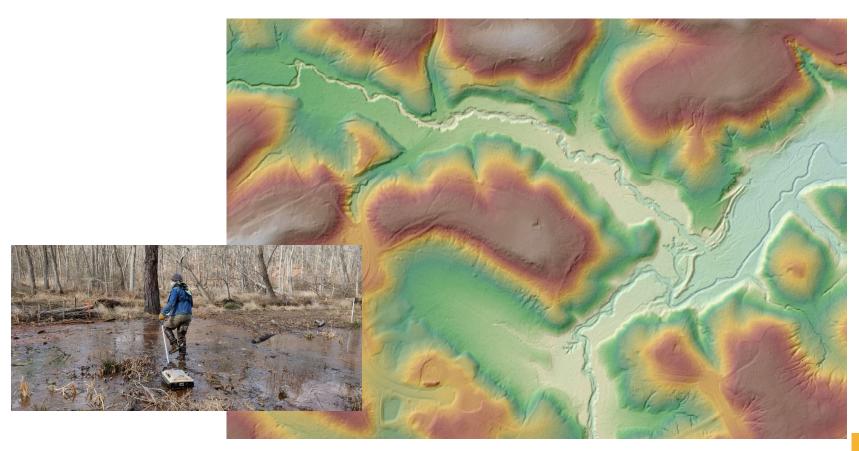
Crofton Golf - 1 day after end of diversion







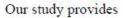






Hidden legacies: investigating buried pre-colonial stream corridors in the Mid-Atlantic Coastal Plain, Maryland, USA

Matthew J Cashman^{1A*}, Zach Clifton^{2B}, Bryan Landacre^{3C}, Christopher E. Bernhardt^{3D}, Alex C. Wiedenhoeft^{4E}, Christopher J. Victoria⁵



evidence of buried, precolonial riparian ecosystems with dates ranging between 750 years to 8000 years Before Present. These valley bottom ecosystems were likely a dynamic patch mosaic, largely dominated by dense *Alnus* (alder) scrub swamps with variable Poaceae (grass) and Cyperaceae (sedge) dominated meadows and both multi-threaded and single-threaded channel forms. These precolonial floodplains are buried by vast amounts of legacy sediment to the extent that pre-colonial sediments are largely not exposed in the modern valley bottom.





Facilitating Intra-Jurisdictional Cooperation

P01459 C-1

MEMORANDUM OF UNDERSTANDING
Chesapeake Bay Watershed Implementation Plan Activities
By and Between
Anne Arundel County
and the
Maryland State Highway Administration

ERSTANDING (MOU), executed in duplicate,
, 2016, by and between the State
epartment of Transportation, acting for and on behalf
("SHA"), and the Anne Arundel County Department
Anne Arundel County, Maryland, a body corporate (Y").

WHEREAS, the State of Maryland is required by the U. S. Environmental Protection Agency ("EPA") to reduce the flow of nutrients and sediment to the Chesapeake Bay as part of the requirements of the Chesapeake Bay Total Maximum Daily Load ("TMDL") established by EPA on December 29, 2010 and local waterway TMDLs; and

WHEREAS, the Maryland Department of the Environment ("MDE") issues National Pollutant Discharge Elimination System ("NPDES") and Municipal Separate Storm Sewer System ("MS4") discharge permits to municipalities and other large property owners to control runoff from their properties and to reduce pollutants entering local waterways; and



Questions?

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