

Pooled Monitoring Initiative's Restoration Research Award Program

Pools resources to support scientists who answer key restoration questions and then provides those answers back to those that asked the question



Scientific Technical Assessment and Reporting (STAR) Team Meeting: 9/25/25, 10:05 to 10:35 am



Empowering People.
RESTORING NATURE.

About the Chesapeake Bay Trust

The Chesapeake Bay Trust is a nonprofit grantmaking organization dedicated to improving the Chesapeake, Coastal Bays, and Youghiogheny watersheds. Our mission is to restore and protect our natural resources by focusing on three core objectives: environmental education, community outreach, and on-the-ground restoration.

Each year, the Trust awards millions of dollars in grants to support healthier local communities and a cleaner environment. We engage more than 250,000 individuals annually who are making a positive impact on our waterways and the natural resources of our region.

We believe that empowering people to take action is the key to protecting forests, streams, rivers, bays, wildlife, and more—right in their own communities.



Our Mission

To engage and empower diverse groups to take actions that enrich natural resources and local communities of the Chesapeake Bay region.

Our Vision

The Chesapeake Bay and local watersheds are healthy and safe, our waters are fishable and swimmable, local communities benefit from these healthy resources, and everyone participates in restoring and protecting our natural resource treasures



Purpose, Agenda, & Meeting Materials

10:05 – 10:35 AM - Overview of the Chesapeake Pooled Monitoring Program, Latest Research, and What's Next – Sadie Drescher (Chesapeake Bay Trust)

Description: A brief overview of the Chesapeake Pooled Monitoring Program will be provided. Sadie will share a snapshot of the latest research recently supported, research questions for the next round of proposals, and how participants may find out more information about any of the projects. Some of the latest supported projects include work on eDNA, social science, and living shoreline trade-offs.

Pooled Monitoring Initiative's Restoration Research webpage has the latest reports/products, past forum presentations, past Qs, and program info at: <https://cbtrust.org/grants/restoration-research/>

Pooled Monitoring Initiative - A novel approach that pools funding to support research answering key restoration questions vs site/project specific monitoring in the Chesapeake Bay

- Funders pool resources to answer restoration questions posed by regulatory community & practitioners
 - **Many partnerships and collaborations** make this effort successful
- We all want to support the best, most cost-effective practices at the most optimal sites, but differences of opinion sometimes exist, and questions about the performance and function of some of these practices persist
- Use science to increase power, objectiveness, and ability to know what works
- Bring science back to those that can use it for their work



Pooled Monitoring Initiative Provides Solutions

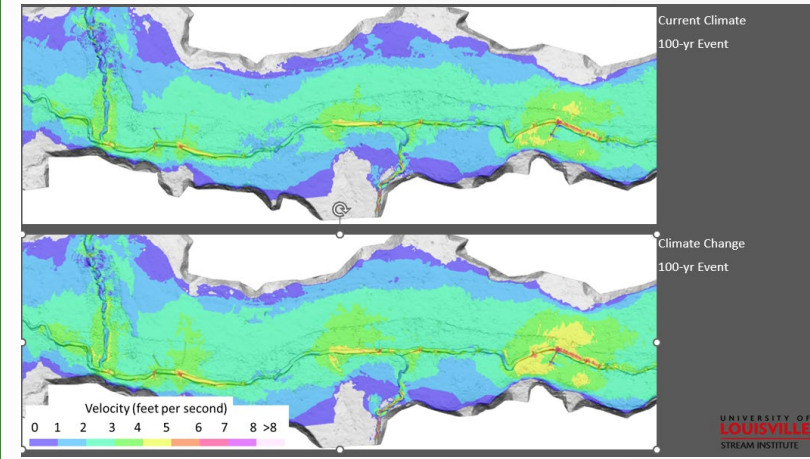
- Regulators prioritize their concerns with input from practitioners
- Funders “pool” resources
- Top restoration questions issued in the Restoration Research Request for Proposals (RFP) in FY15 administered by the Chesapeake Bay Trust
- Scientific teams research these questions and deliver answers back to the regulators
- Results used in decisions, policy, practices, etc.



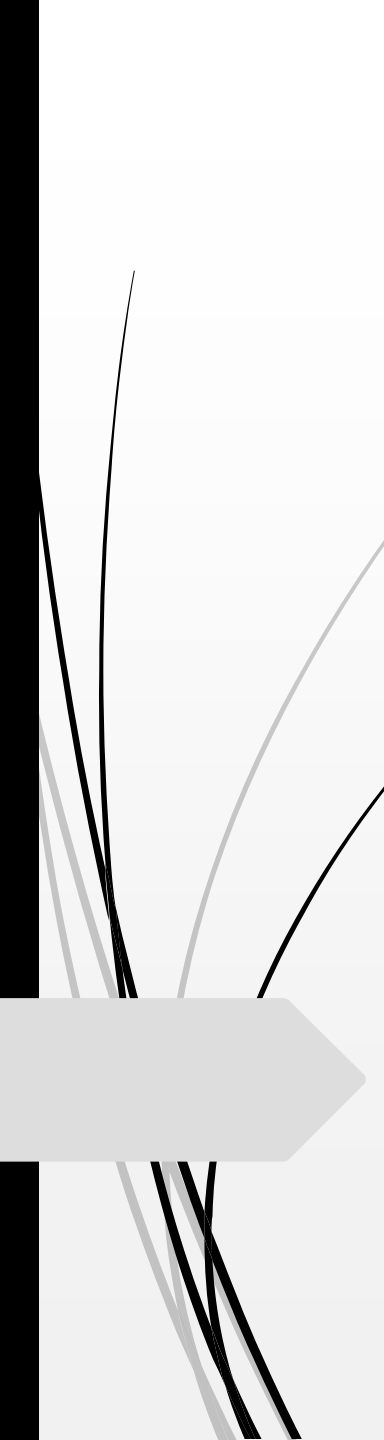
Ecosystem Planning and Restoration, “Work in the Wet Versus Work in the Dry for Stream Restoration: A Comparison of Downstream Turbidity and Sediment Loads” (2025 forum presentation [here](#), final report [here](#), and fact sheet [here](#))

Restoration Research Award Program

- Supported 59 projects since FY 15 at \$11.1M
- Guided by the Pooled Monitoring Advisory Committee
- RFP open to any organization – looking for best groups to answer your questions
- Uses scientific reviewers across the world to vet applications
- Runs all applications through a “management review”
- Projects are managed as contracts
- Questions are cycled off/on the RFP each year
- All awards, progress, and program products are online at: <https://cbtrust.org/grants/restoration-research/>



Art Parola, “Reliability of Two-Dimensional Hydrodynamic Models for Assessing Susceptibility of Stream Restorations to Flood Damage and Potential Effects of Climate Change” (Just added! – Final report [here](#), and fact sheet [here](#))



Award Amount	Organization	Project Title
\$ 50,000	The Pennsylvania State University	Optimizing eDNA protocols for stream restoration biodiversity assessments in Maryland: a comprehensive literature review and gap analysis
\$ 350,995	University of Maryland Baltimore County	Evaluation of SmartSWM Continuous Monitoring and Adaptive Control Technology for Improving BMP Effectiveness
\$ 167,540	University of Maryland Center for Environmental Science	Co-creating solutions for environmental stewardship in communities
\$ 298,519	Virginia Polytechnic Institute and State University	Stream Floodplain Restoration to Counter Increased Peak Flows from Climate Change at Watershed Scales
\$ 311,526	Virginia Institute of Marine Science	Trade-offs in ecosystem services between living shorelines and unrestored shallow water habitats
\$ 49,832	Virginia Polytechnic Institute and State University	Environmental DNA as a tool for monitoring restoration success in Chesapeake streams
\$ 287,485	EA Engineering, Science, and Technology, Inc., PBC	Developing a Novel eDNA-Based Ecosystem Health Metric for Monitoring Ecological Uplift in the Chesapeake Watershed: A Combined Literature Review and Field Study
\$ 50,000	Virginia Polytechnic Institute and State University	Literature Review of Ecosystem Services Affected by Stream Restoration
\$ 233,254	The Pennsylvania State University	Urban Forests for All: Advancing Urban Tree Adoption and Maintenance in Pennsylvania Communities
\$ 68,170	Thriving Coasts Consulting, LLC	Bridging Science and Policy to Accelerate Chesapeake Bay Restoration Success

Last Round (FY 25) Awards

Research Qs:

- BMP Effectiveness
- Watershed Restoration Assessment
- Biological Community Restoration
- Climate Change
- Social Science
- Pollutants of Emerging Concern
- Restoration trade-offs
- New research topic each year TBD by the Pooled Monitoring Advisory Committee

Pooled Monitoring Initiative's Restoration Research Award Program



Pooled Monitoring Initiative's Restoration Research Award Program
FY 25 Request for Proposals

The Chesapeake Bay Trust, the Maryland Department of Natural Resources, the Environmental Protection Agency's Chesapeake Bay Program Office, Anne Arundel County, Baltimore City, Charles County, Frederick County, Harford County, Montgomery County, Prince George's County, and the Maryland Department of Transportation State Highway Administration, and other partners, such as Maryland Department of the Environment, announce a Request for Proposals for its Restoration Research award program. The goal of this research program is to answer several key restoration questions that are a barrier to watershed restoration project implementation. Funding partners hope that answering these questions will ultimately lead to increased confidence in proposed restoration project outcomes, clarification of the optimal site conditions in which to apply particular restoration techniques, how to bolster practice adoption using social science, information useful to regulatory agencies in project permitting, and information that will help guide monitoring programs. This program supports the Pooled Monitoring Initiative which is designed to connect key stormwater and stream restoration questions posed by the regulatory and practitioner communities with researchers. This program also supports research for pollutants of emerging concern, social science, "trade-offs" and more. Each year the top research questions are added to this RFP and some years past research questions are cycled off while we await findings to inform the next question's iteration. The Pooled Monitoring Initiative pools funding resources to answer your top research questions and deliver the results back to you for use.

Program Status: CLOSED

Deadline was January 23 2025 at 4pm EST

[Click Here to View the previous Request for Proposals \(RFP\)](#)

Manage an Existing Award

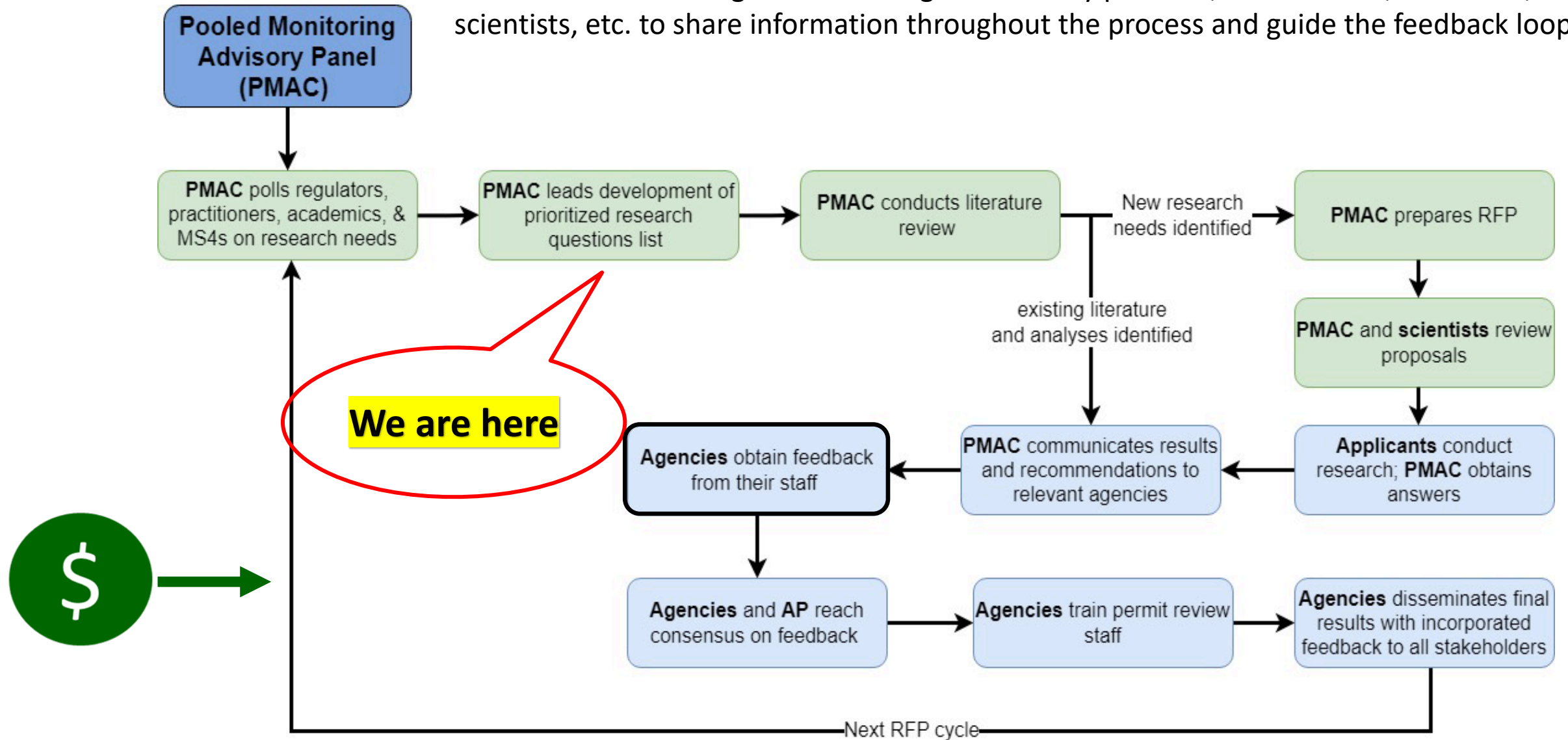
Manage an existing grant or continue an application

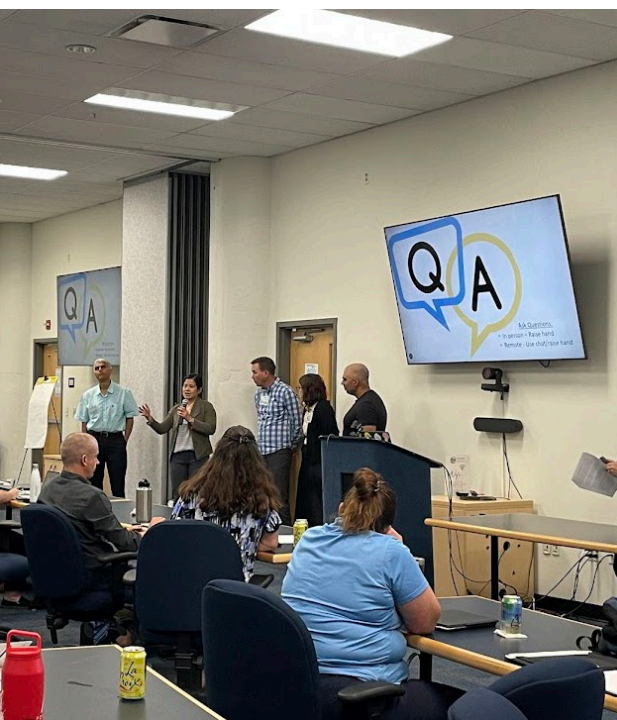
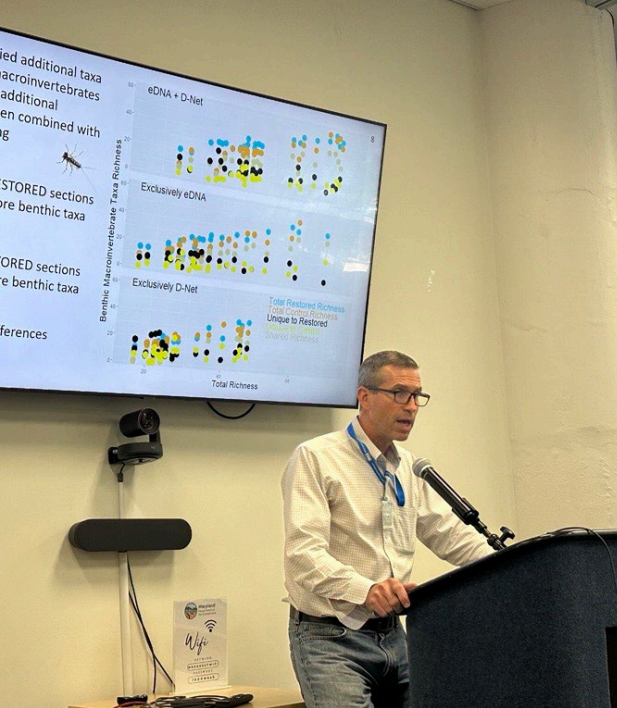
[Manage Awards](#)

Landing page <https://cbtrust.org/grants/restoration-research/>

Process is Inclusive and Transparent

The Pooled Monitoring Initiative integrates the key partners, stakeholders, end-users, scientists, etc. to share information throughout the process and guide the feedback loop





2025 Pooled Monitoring Forum

- Tenth annual
- Thanks to everyone who participated and especially those who helped present
- 216 attendees

Pooled Monitoring Forum Agenda

9-9:30 am	Morning Session: Welcome (Sadie Drescher) and opening plenary speaker <u>Science Leading the Way with Secretary Joshua Kurtz, Maryland Department of Natural Resources</u> , facilitated by Jana Davis
9:30 am-12:20 pm (w/ 20 min break)	Birthe Kjellerup (University of Maryland), Eric Schott (University of Maryland Center for Environmental Science (UMCES)), Ibrahim Fagbohun (The Pennsylvania State University), & Bob Hildebrand (UMCES)
12:20-1:20 pm	Lunch Break – <i>provided by the Chesapeake Bay Trust</i>
1-4:20 pm (w/ 20 min break)	Bryan Seipp (Ecosystem Planning and Restoration) & Carol Wong (Center for Watershed Protection), Joe Galela (University of Delaware), Gabrielle Ripa (Virginia Tech), & Sujay Kaushal (University of Maryland)
4:20-4:45 pm	Input from audience – What did you hear today that you can use? What are your research needs?
5 pm to ?	Checkerspot Brewery Brewing Company, 1421 Ridgely Street, Baltimore, MD 21230 – <i>provided by the Chesapeake Bay Trust</i>

Meeting Materials

- The recording and presentations are posted on the Pooled Monitoring Initiative website at:
<https://cbtrust.org/grants/restoration-research/>
- Additional Information → Restoration Research Forum → 2025 Forum

Additional Information

Awarded Projects and Final Products

Restoration Research Forum

Restoration Research Webinars

RFP FAQs

Past RFPs

Additional Resources

100 ▾ entries per page

Search:

Year ▾	Award Amount ▾	Organization ▾	Project Title ▾	Project Description ▾	Research Question(s) ▾	Final Products ▾	Primary Contact(s) ▾
2024	\$224,110	Research Foundation of CUNY- Advanced Science Research Center	Watershed-scale evaluation of BMP effects on stream incision and chemistry in the Baltimore metropolitan area	Geomorphic degradation of stream channels is a widespread effect of urbanization. Efforts to mitigate this degradation have included upland Best Management Practices (BMPs) and stream/riparian restorations. The value of these site-specific efforts has been difficult to evaluate at the watershed scale. We propose to take advantage of two recent methodological	FY24 Q2 (Watershed Restoration Assessment): What are the effectiveness of stormwater and stream restoration programs at the watershed/catchment scale?	TBA	Dr. Peter Groffman



Stay in Touch!

We'd love to stay connected! Follow us on social media for the latest updates on our grant programs, inspiring stories from our grantees, behind-the-scenes looks at our work, and opportunities to get involved with the Trust.

You can also visit our website to explore helpful resources, learn more about our grant offerings, discover the story behind the beloved Bay Plate, and find even more ways to make a difference.



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What were your top take away messages from the Pooled Monitoring Forum?



- There is a wide range of good research and monitoring occurring with the Chesapeake Bay watershed that informs policy, public health, restoration and scientific method and understanding.
- Bob Hildebrand's presentation in particular was incredibly important for updating monitoring to better characterize the outcomes of restoration work.
- The e-DNA work and the need for future work looking at recolonization of restoration sites as well as potential effectiveness of best practices like leaf baskets.
- Research progress continues to inform approaches to management and monitoring of watersheds.
- Collaboration gets results, \ and can be very informative for all types of stakeholders.
- We have to find a way to harmonize improvement in water quality with all these ecological aspects to ensure desired restoration outcomes.
- Interesting findings on eDNA, bacteria/sewage, and PCB sources.
- We need continued funding to help advance the science.
- That eDNA helps us see the signal of improved benthic populations post-restoration
- Molecular methods are now contributing in a meaningful way to regulatory and scientific work on MD waterways
- Lots of great work being done and the continuity and building off of previous work is starting to come together to produce a robust record of work from the pool!
- All the presentations and presenters were fantastic.

June 2025 Pooled Monitoring Forum – Survey says that the information was used

- How have you or could you use the research:
 - The watershed trade off presentation provided by Dr Kaushal was excellent and plan to dig more into his initial finding and integrate it into project planning.
 - Topics such as stream restoration trade offs and macroinvertebrate colonization provided helpful information when needed to consider and respond to public comments/concerns on projects.
 - It helps confirm the need for our team to publicize our relocation study.
 - I will use the information on benthic monitoring using paired methods and assessing post restoration riparian vegetation.
 - The information shared at this forum will be very helpful in future stream restoration projects that I manage as this, and previous forum information, shares best practices and lessons learned to be implemented in future restoration projects.
 - We have already opened discussions with DOT to change to PCB free road paint!
 - I have used data from stream restoration research in the past for permitting purposes. ANY new data is useful to be able to innovate sustainable and resilient ideas and solutions for making our world a better place. Environmental research, whether data or field testing, is not often funded enough to be able to make better decisions, so this program is invaluable.