COMMUNITY WATER QUALITY MONITORING

Chesapeake Monitoring Cooperative

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Izaak Walton League of America

June 05, 2026

CHESAPEAKE MONITORING COOPERATIVE (CMC)

We aim to provide **technical, logistical, and outreach support** for the integration of **volunteer-based** and nontraditional water quality and benthic macroinvertebrate monitoring data into the Chesapeake Bay Program (CBP) partnership.

Service Provider Partners

Chesapeake Bay Program
Science. Restoration. Partnership.

ALLIANCE for the Chesapeake Bay

Alliance for Aquatic Resource Monitoring ALLARM est. 1986

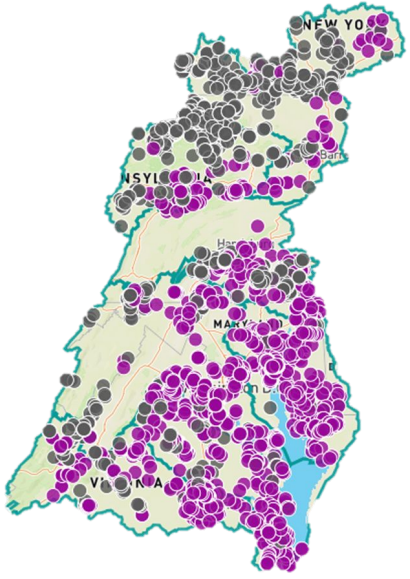
The Izaak Walton League of America

Dickinson

CHESAPEAKE BAY NATIONAL ESTUARINE RESEARCH RESERVE VIRGINIA

University of Maryland Center for Environmental Science

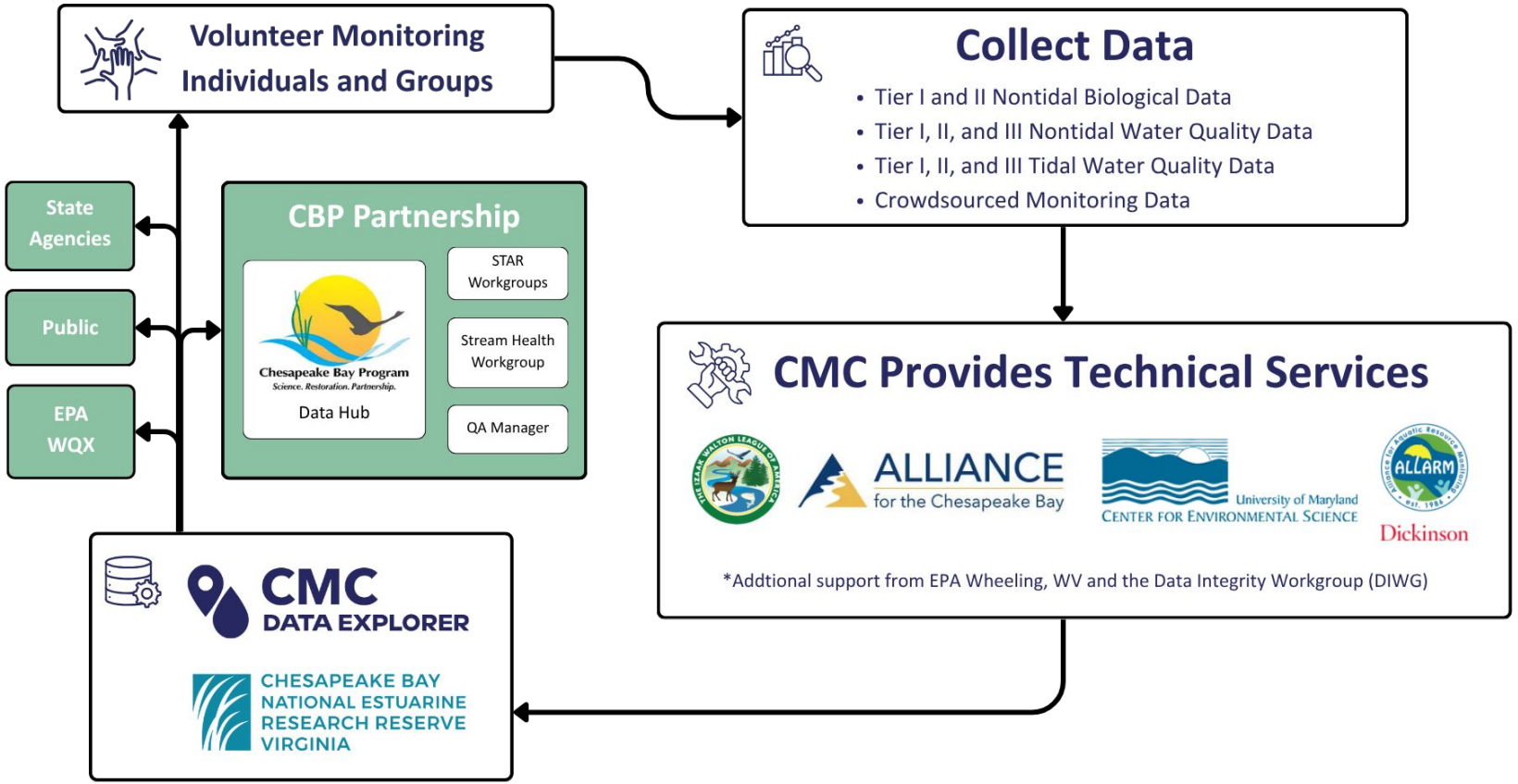
Monitoring Network



TECHNICAL SUPPORT SERVICES

- Study Design Workshops
- Methods Review and Evaluation
  - Quality Assurance Project Plans
- Water Quality:
  - Monitor and Coordinator Certification Trainings
- Benthic Macroinvertebrate:
  - Monitor and Coordinator Certification Trainings
- Data Interpretation
  - Report Card Workshops
- Support for data upload to CMC Data Explorer

CHESAPEAKE MONITORING COOPERATIVE (CMC)



CMC TIERS - DATA REQUIREMENTS

Tier 1

- Methods Manual
- Set Sites
- Set Sampling Rate
- Upload to CMC Data Explorer

Tier 2

- Program Manual or QAPP
- Field Checks
- Calibration
- Training
- Tier 1 Requirements

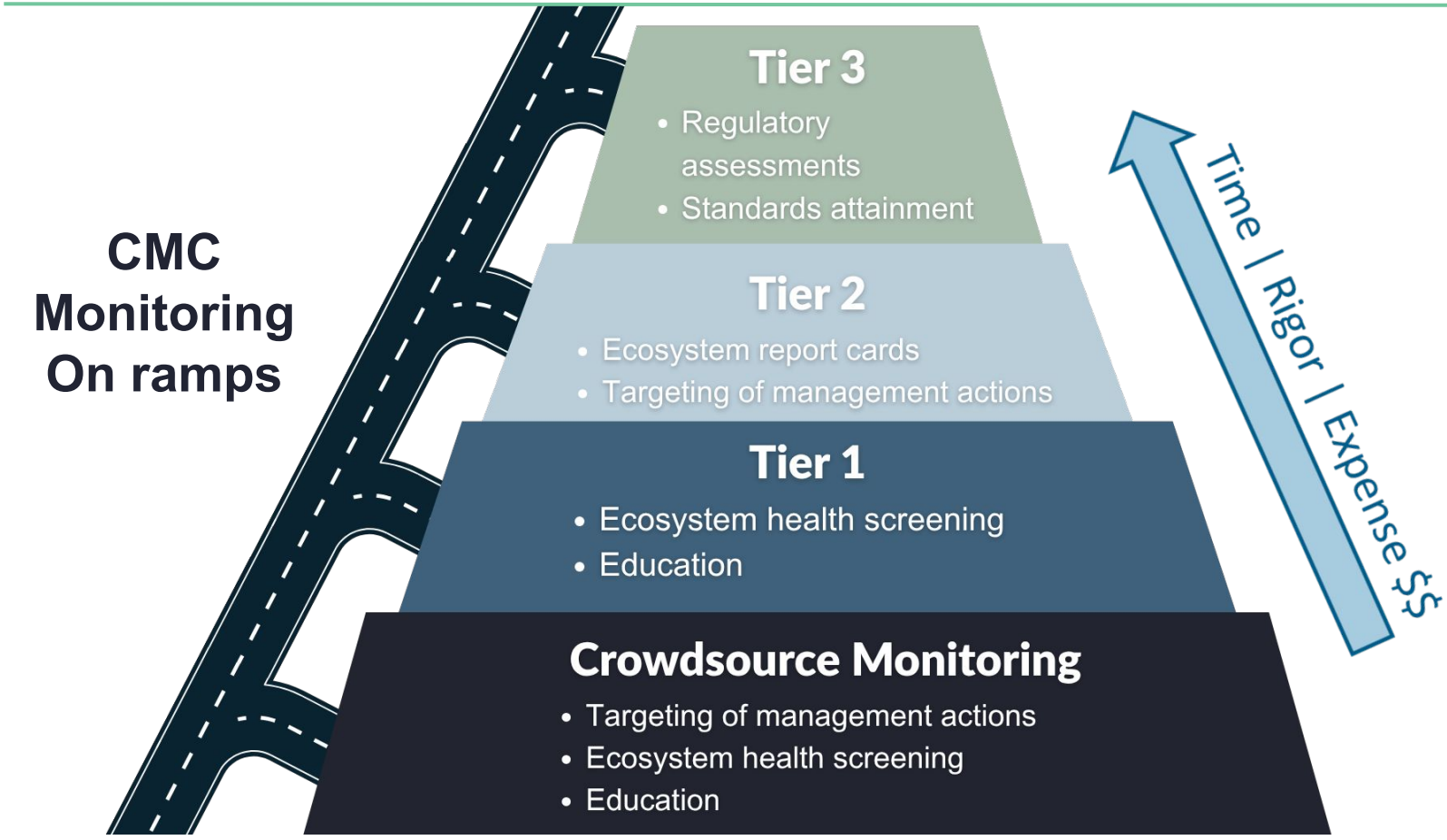
Tier 3

- Program QAPP
- Field Audit
- Certified Lab
- Tier 1 and 2 Requirements

Crowdsourced Monitoring

- Follow kit instructions
- Upload to the Clean Water Hub

CMC TIERS - INTENDED DATA USE



CASE STUDIES

Seven case studies highlighting success stories from Pennsylvania, Maryland, DC and Virginia.

Goals:

1. Highlight the real community impact
2. Inspire broader engagement
3. Showcase effective local action

LIMESTONE BRANCH (VA)

Loudoun Wildlife Conservancy volunteers discovered drastically different macroinvertebrate scores (using the VA SOS method) upstream and downstream of a wastewater treatment facility.

- LWC partnered with Friends of the Shenandoah River and the Potomac Riverkeeper network to do bacterial testing which revealed high concentrations of E. coli originating from the treatment facility.
- EPA-mandated actions to address the wastewater issues.
- Additionally, they installed water filtration systems for local community members

Volunteers collecting benthic macroinvertebrate samples.
Photo Credit: Amy Ulland

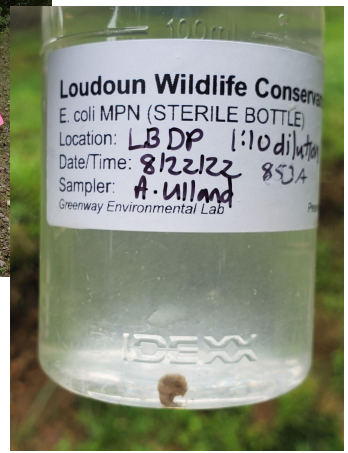


Photo Credit: Amy Ulland

KREUTZ CREEK (PA)

During a routine sampling day a volunteer with ALLARM's Stream Team noticed an unusual brownish-red discharge in the creek, which was found to be from an effluent pipe from a local landfill.

- Partnered with the Lower Susquehanna Riverkeeper Association to do follow up monitoring for heavy metals and PFAs and found elevated levels of boron, nitrates, manganese, and PFAS.
- The Landfill was informed of the issue by EPA and is constructing a $23M water treatment facility in order to comply with EPA standards.

Outfall pipe at Kruetz Creek.
Photo Credit: Cindy Pizziketti

Water sample collection for nitrate and heavy metals testing.
Photo Credit: Daniella Heminghaus

QUESTIONS?

THANK YOU!

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https://www.chesapeakemonitoringcoop.org/