



# CMC

## Chesapeake Monitoring Cooperative

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# Your Virginia CMC Service Providers



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# Chesapeake Monitoring Cooperative

A partnership that aims 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.

## Cooperative Agreement



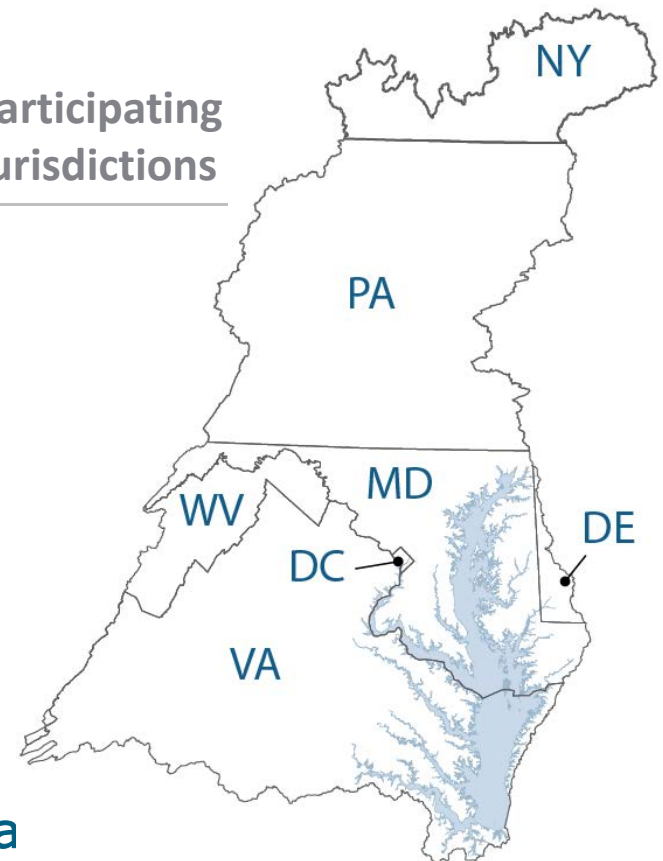
CMC

## CMC development team partners & service providers



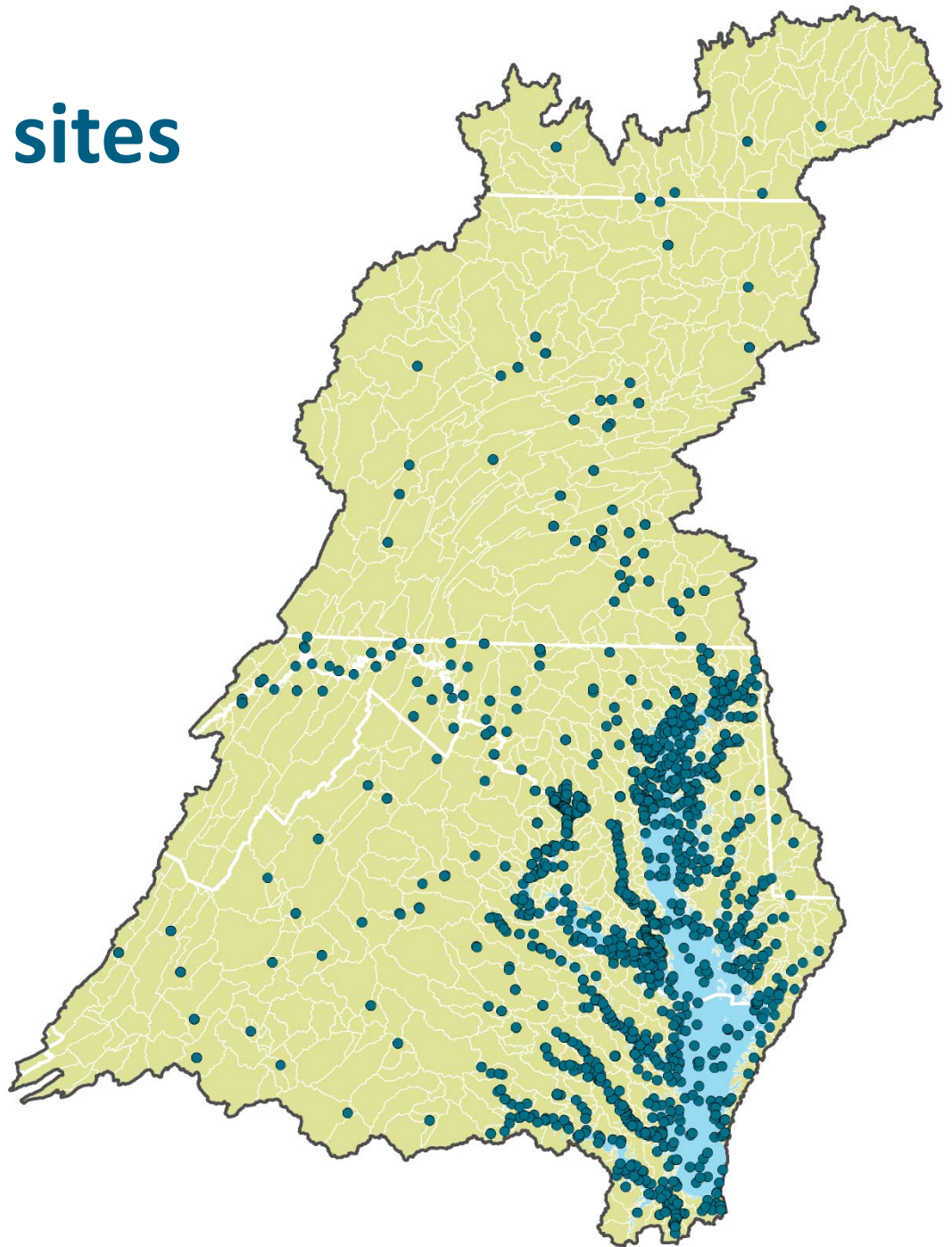
University of Maryland  
CENTER FOR ENVIRONMENTAL SCIENCE

## Participating Jurisdictions

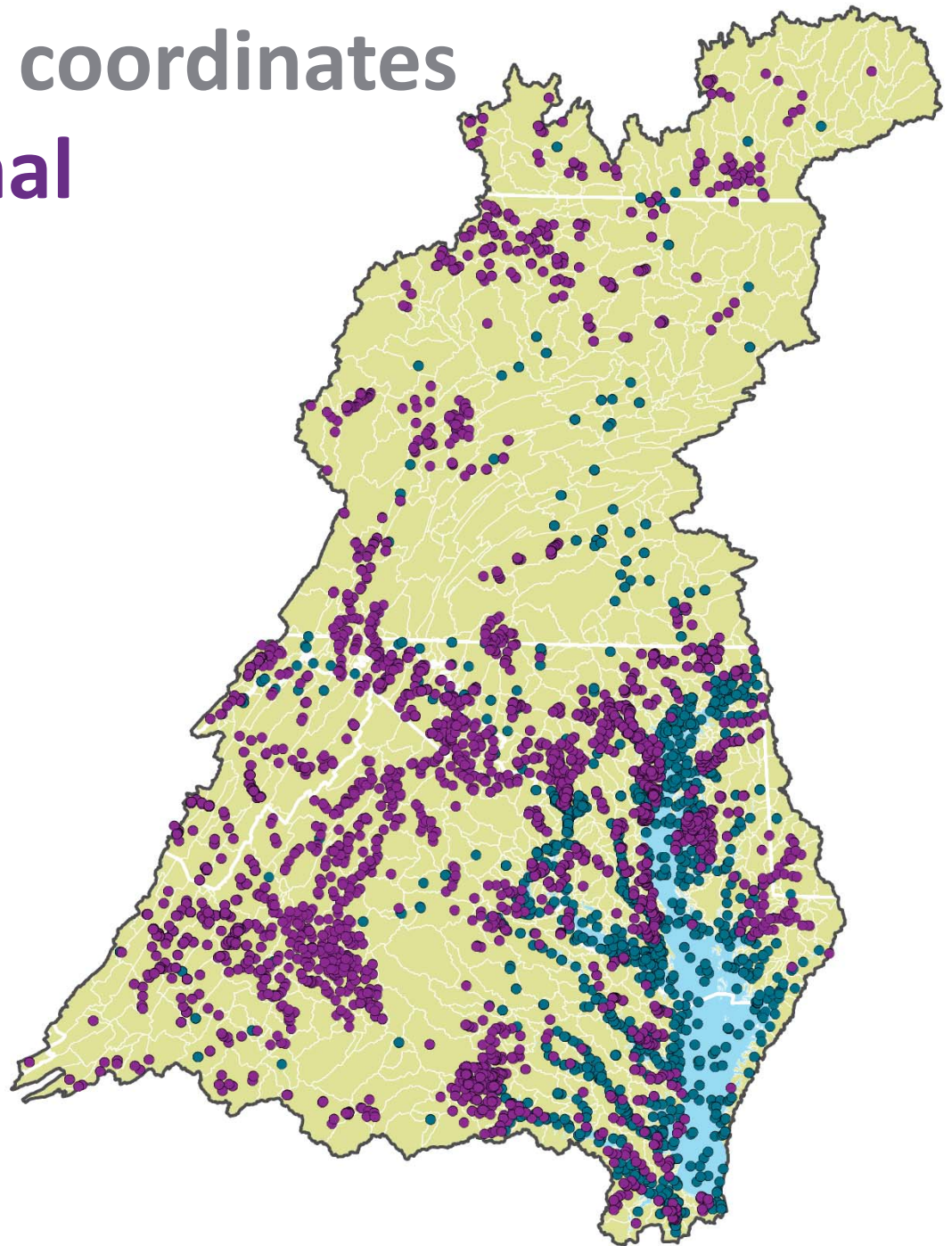


Chesa

# CBP monitoring sites



# Preliminary site coordinates of non-traditional monitoring





# Foundational Resources Developed

- Quality Assurance Project Plans – Tier 1 & 2
- Standard Operating Procedures (SOPs) – Tier 1 & 2
- User-friendly Methods Manuals
- Indicator Fact Sheets
- Tiered Framework: 3 tier set up that determines the quality of the data collected
- Prioritization Report: How volunteer and nontraditional monitoring can help fill data gaps in the Chesapeake Bay Watershed

# STEPS TO BECOME A CMC PARTNER

# Application for Assistance

## To apply for assistance:

### STEP 1

- 1) Complete the brief Application form.
  - i. Basic organizational and contact information
  - ii. Checklist of technical assistance needs
  - iii. Open-ended Q's about the purpose for technical assistance
  - iv. Identify service providers you've previously worked with
- 2) Email the completed form to Liz Chudoba at: [lichudoba@allianceforthebay.org](mailto:lichudoba@allianceforthebay.org).

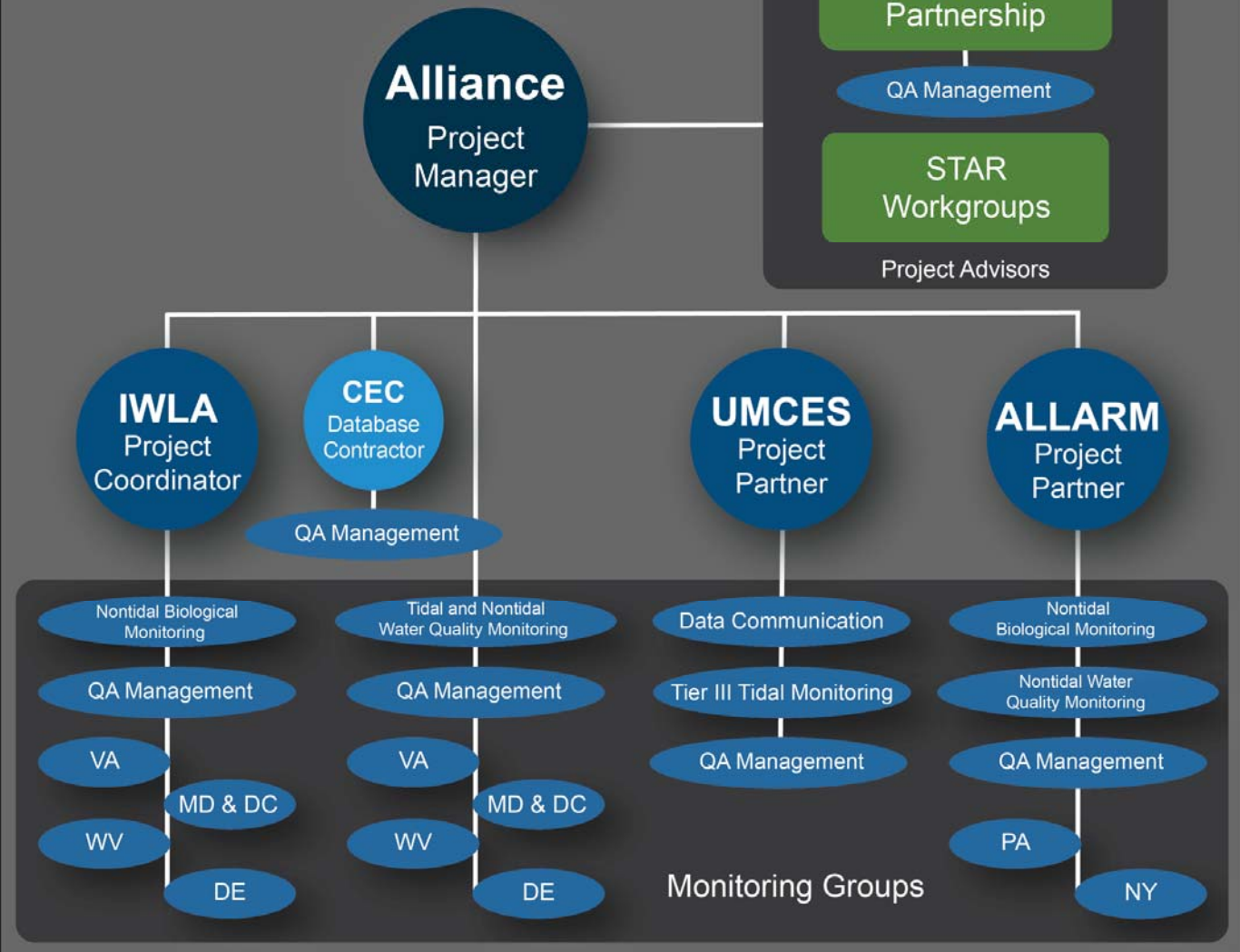


# Connect with a CMC Service Provider

## STEP 2

CMC

### QA and Technical Support Services Organizational Chart



# On Boarding

STEP

3

**New Monitoring Groups** – the CMC service provider works with each group to conduct a Study Design workshop, Training workshops and equipment selection.

OR

**Existing Monitoring Groups** – the CMC service provider works with each group to review current quality assurance and standard operating procedures to determine Tier level.

# Technical Support **Services**

- Study Design Workshops
- Water Quality and Benthic Macroinvertebrate Monitoring Trainings, Certifications, and Re-certs
- Benthic Macroinvertebrate Order Level Identification
- Equipment and Equipment Suggestions
- QA trouble shooting
- Data Interpretation and Report Card Workshops
- Data Verification & Quality Control
- Support for Data Cleaning and Data Uploads

# Enter Data into Chesapeake Data Explorer

STEP

4

Minimum eligibility requirements:

- GPS coordinates of your monitoring sites
- Documented methods
- Documented quality assurance procedures



# Chesapeake Data Explorer



Admin

Data ▾

Profile

Manage ▾

## CMC Data Manager

Good Evening, Elizabeth

Upload Water Quality

Edit & Review Water Quality

Upload Macroinvertebrates

Submit Station



 273  
MONITORS

 527  
MONITORING HOURS

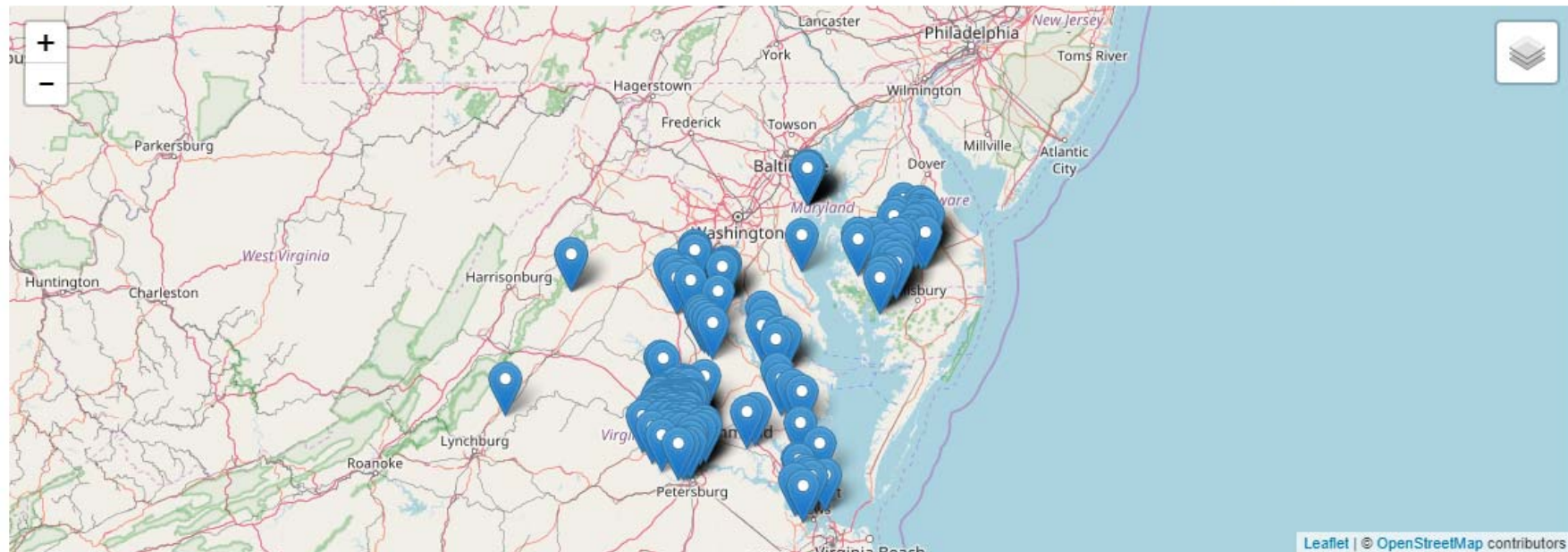
 43  
ORGANIZATIONS

[chngcoop.org](http://chngcoop.org)

# Data Usage Public

## Welcome to the Chesapeake Data Explorer!

This is your gateway into data collected by a Chesapeake Basin-wide network of monitors. Use the map below to explore the efforts of our monitoring community



## Database Statistics

What's new this quarter?



5

NEW MONITORS



3


NEW ORGANIZATIONS




4

NEW STATIONS

# Data Usage EPA Chesapeake Bay Program



**Chesapeake Bay Program**  
*Science. Restoration. Partnership.*




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Discover the Chesapeake | Learn the Issues | State of the Chesapeake | Take Action | In the News | Who We Are | What We Do

WHAT WE DO > PUBLICATIONS, DATA & MAPS > DATA

## Data

Our data hub offers access to a multitude of monitoring and modeling data, past and present.






Photo Credit: Molek/Shutterstock

This interface provides access to several types of data related to the Chesapeake Bay. Bay Program databases can be queried based upon user-defined inputs such as geographic region and date range. Each query results in a downloadable, tab- or comma-delimited text file that can be imported to any program (e.g., SAS, Excel, Access) for further analysis. Comments regarding the interface are encouraged. Questions in reference to the data should be addressed to the contact provided on subsequent pages.

To insure data accuracy, the Bay Program maintains a Quality Assurance Program that monitors and tracks several environmental data sets that look at pollutants, water quality, land use, algae, fish, crabs and submerged aquatic vegetation.



# Where we are now

- Study Design Workshops
  - 6 completed
- Water Quality Monitoring Training
  - 11 completed
- Macroinvertebrate Training
  - 11 completed
- Data Interpretation Workshops
  - 2 completed







# What can you do?

- 1) Sign up for our e-newsletter
- 2) Request Assistance
- 3) Request a training or workshop

# Upcoming Trainings

## Benthic Macroinvertebrate Workshops

- April 7<sup>th</sup>- Lynchburg, VA
- April 8<sup>th</sup>- Richmond, VA
- April 8<sup>th</sup>- West Augusta, VA

## Water Quality Workshops

- May 8<sup>th</sup> - RiverTrends Recertification, Richmond, VA
- June 2<sup>nd</sup> – New Monitor Training, Richmond, VA



Questions?

Credit: Chesapeake Bay Program