# INTEGRATE YOUR DATA **INTO A WATERSHED-WIDE PROJECT**

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## OVERALL GOAL

We are working, in partnership with the Chesapeake Bay Program, to build a Monitoring Program that includes data from diverse sources from all over the watershed. In addition to water quality data collected by citizens and watershed organizations, we want to compile data from localities, academic institutions, soil and water conservation districts, and other organizations that can help us track our progress to meet Chesapeake Bay Agreement goals.

"The Chesapeake Bay Program has long been interested in capturing the data that is collected by individuals and organizations throughout the watershed to supplement our own monitoring network. This additional information will help better focus on priority areas and inform our restoration -Nicholas DiPasquale, Director, decisions." Chesapeake Bay Program

# **PROJECT TIMELINE**

- Inventory monitoring groups and identify data gaps and needs • Develop tiered framework for data integrations into CBP network
- Develop protocols for monitoring methods and data reporting
- Develop user-friendly database and data entry tools
- Research and develop data-based indicators and metrics
- Develop training materials and begin integrating priority monitoring groups
- Develop online toolkit for monitoring groups
- Conduct trainings and integrate monitoring groups



2015

2016

2017

- Provide training on data analysis, synthesis, and communication
- Conduct trainings and integrate monitoring groups
- Provide training on data analysis, synthesis, and communication

## IMPROVE MONITORING NETWORKS BY PROVIDING LOCAL ASSESSMENT AND FILLING DATA GAPS

### TIDAL WATER QUALITY

The Bay Program's tidal water quality monitoring network is the backbone from which all other monitoring programs have grown. With budget cuts and priorities moving into the watershed, there is a need to find partner organizations who can monitor water quality parameters using Bay Program protocols.

#### Watershed Investments

- 1. Watershed long-term water quality monitoring network
- 2. Small watershed studies
- 3. Document historical description of watershed
- 4. Provide support for partner monitoring
- 5. Develop a stream health indicator

#### WATERSHED TRENDS

The Chesapeake Bay watershed is 64,000 square miles and covers six states and the District of Columbia. In order to determine long-term trends (Is the watershed health improving or degrading over time?), multiple data sources will be pieced together to provide the data density required for statistical confidence.

#### DATA GAPS

Upper Eastern Shore

monitoring sites

Chester River watershed

• Chesapeake Bay Program

Despite the breadth and scope of the Chesapeake Bay monitoring network, there are still areas of the Bay and watershed that cannot be covered by federal and state agencies. Data gaps exist in both temporal and spatial realms. Citizen monitoring, local jurisdictions, soil and water conservation districts, and others can help us fill the gaps.





#### **Tidal Dis-Investments**

- 1. Reduced shallow water monitoring network
- 2. Suspended phytoplankton monitoring network
- 3. Reduced benthic monitoring network
- 4. Reduced funding for ecosystem processes analysis 5. Reduced tidal stations in Elizabeth River

Chester River Association monitoring sites

## START WITH THREE KEY AREAS AND EXPAND TO OTHERS OVER TIME

Tidal Network

#### TIDAL DISSOLVED OXYGEN



## **BASELINE NITRATE**



### TRENDS IN STREAM HEALTH



A citizen scientist collects a water sample to measure dissolved oxygen in the Nanticoke River, Maryland.

Labeled water samples are placed in a cooler with ice to preserve the integrity of the sample.

Trends in nitrogen and other parameters can help us determine if best management practices are working.

Alliance for the Chesapeake Bay Chesapeake Bay Program A Watershed Partnershi



**INTERESTED IN SHARING YOUR DATA?** 

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