Integrating Citizen Science into the Chesapeake Bay Program

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Partners

Goals

- Expand volunteer and non-traditional monitoring Chesapeake Bay watershed-wide

- Provide standardized technical support to ensure high-quality data collection

- Integrate citizen collected data into the Chesapeake Bay Program monitoring network
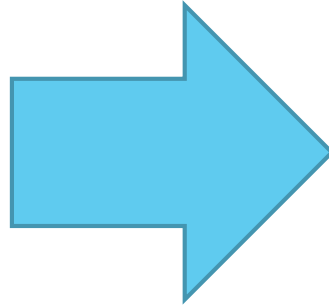
- Help inform Bay restoration decision-making

- Track local river trends

- Engage local communities

Timeline

2015
- Inventory monitoring groups and identify data gaps and needs
- Develop tiered framework for data integrations into CBP network

2016
- Develop protocols for monitoring methods and data reporting
- Develop user-friendly database and data entry tools
- Research and develop data-based indictors and metrics
- Develop training materials and begin integrating priority monitoring groups

2017
- Develop online toolkit for monitoring groups
- Conduct trainings and integrate monitoring groups
- Provide training on data analysis, synthesis, and communication

2018 – 2020
- Conduct trainings and integrate monitoring groups
- Provide training on data analysis, synthesis, and communication

2015-2016 Work Plan

Timeframe	Tasks	Outputs/Goals	CBP Contact	Status
May - Oct 2015	Develop and advertise RFP; award contract for database and data entry tools	Secure database contractor	Mike, Brian, Guy	RFP in development
May-15	Facilitate project partner and CBP coordination	kick-off meeting	Julie W, Peter	kick off meeting on 6/4 w/ CBP and Partners; partner meeting 7/21
May - Dec 2015	Collect information on monitoring groups; identify spatial and temporal gaps; develop strategies to fill gaps	Report cataloging & prioritizing monitoring programs	Peter, Mindy, Scott	kickoff session at MAVMC; survey in draft
May - Dec 2015	Develop tiered framework for monitoring program integrations into CBP network	CBP-approved document on tiered-approach for data uses	Mary Ellen	
May - Dec 2015	Develop QMP and QAPP for data acquisition, QA, data submittal, and data use	CBP/EPA approved QMP and QAPP	Mary Ellen	
May - Dec 2015	Identify priority/ready groups that can be integrated into CBP network	Begin CBP integration		
May 2015 - June 2016	Develop scientifically-valid and user-friendly protocols for monitoring methodologies and data reporting	CBP approved protocol document	Peter, Mary Ellen	

2015-2016 Work Plan cont.

Timeframe	Tasks	Outputs/Goals	CBP Contact	Status
Jan - Dec 2016	Develop CBP/monitoring group partnership agreement; support the hosting of an event for public release of agreement	CBP/monitoring group partnership agreement w/ watershed-wide support		
Jan 2016 - June 2017	Develop user-friendly database and tools for data entry that are integrated with CBP network	Online database and data entry tools	Mike, Brian, Guy	
Jan - Dec 2016	Research, develop, and test data-based indicators/metrics for measuring effectiveness of management actions	Indicator effectiveness matrix		
Jan - Dec 2016	Prepare methods document for monitoring groups to interpret data and develop data communication tools	Methodology document for data synthesis and communication		
Jan - Dec 2016	Develop training materials for monitoring groups; conduct volunteer recruitment and training targeted to priority areas; develop/implement TTT model	8 training sessions		
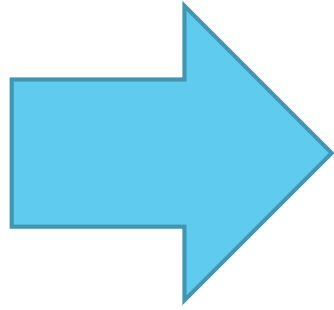
Volunteer Monitoring Community → CBP Monitoring Network

- Variety of programs: protocols vary in sophistication; some groups have quality assurance project plans

- Data collected: basic water quality, benthic macroinvertebrates, bacteria, nutrients, stream health observations…

- Site locations: most are in nontidal streams, some are tidal

- Sampling frequency varies too

- Volunteers want their data used and are willing to follow quality assurance plans, but also want monitoring to be easy. We need to be realistic about what they can monitor, where they can monitor, and how often.

- Valuing volunteers and their data. $750,000 of in-kind costs. Stewardship.

- How might these existing protocols/programs fit into the CBP?
  - CBP quality assurance needs
  - CBP temporal and geographic data gaps
  - Flexibility to meet volunteers where they are

- Provide tiered system for data usage to keep volunteers involved on the level that works best for them and to take advantage of historical data sets and known protocols while meeting CBP data needs

- Develop tools and resources to help the volunteer monitoring community to submit their data to the CBP