Improving Chesapeake Bay Program Monitoring Networks

Principals' Staff Committee Meeting: July 21st, 2023

Update on monitoring networks covered in "Enhancing the Chesapeake Bay Program Monitoring Networks" Report

Tidal

- ✓ Three multi-sensor vertical water quality monitoring arrays are deployed to monitor hypoxia with data reported every 10 minutes. Exploratory data analysis in progress. Funding: NOAA & EPA; Operations: NOAA
- ⏳ Deployments of ten multi-sensor vertical water quality arrays to monitor hypoxia planned by 2025.
- ⏳ 4-Dimensional (4-D) Interpolator development on schedule for 2026-27 launch. Development by Bay Oxygen Research Group (BORG).
- ✓ 2-year Nutrient Limitation Study underway. Funding: EPA Grantee: UMCES

Nontidal

- ✓ Continuous Monitors (Con-Mons) at River Input Monitoring stations operating (Choptank, Mattaponi, Appomattox, and Rappahannock; Patuxent @ Bowie: pending)
- ⏳ Small agricultural watershed monitoring, 5 sites. Funding: EPA, USGS, & NRCS. In talks with states for operations & maintenance. Future: Additional Funds
- ⏳ Integration of discrete and continuous data with loads and trends calculations in development by USGS.

Land Use

- ⚠ Need continuation of high-resolution (1-m squared) data to support these Outcomes:
  - Tree Canopy
  - Forest Buffers
  - Protected Lands
  - Land Use Methods and Metrics
  - Land Use Options Evaluation
  - Public Access

Submerged Aquatic Vegetation

- ✓ Advanced monitoring RFA for Satellite based assessment methods, summer 2023. Funding: EPA.

Community Science

- ✓ Funding distributed in FY24: EPA. New group approved for Tier 3 Monitoring: Anne Arundel Rivers Federation.

Toxics

- ✓ PFAS: Researcher tackling questions from STAC PFAS Workshop. Funding: USGS

Other Monitoring Updates:

Stream Health

- ⏳ Workshop being planned to identify priority monitoring needs, identify permanent vs ephemeral water flow, & help target locations for riparian buffers. Funding: USGS with CESU

Climate

- ⏳ Sea Level Rise Indicator in development by Climate Resiliency Workgroup.

Forest Buffers

- ✓ State of the Chesapeake Forests report Phase 1 update complete using high-resolution (1-m squared) data.

Photo Credits: Will Parsons (CBP)

For more information, contact:

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