

# **Building and Sustaining Integrated Networks (BASIN):**

## **Sustaining the Chesapeake Bay and Watershed Water Quality Monitoring Networks through 2025**

Prepared by the Science and Technical Analysis and Reporting  
Team (STAR)

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CBP Partnership Management Board  
September 12, 2013

# Overview/ Decisions Requested

- Phase I FY13 monitoring networks funding decision and subsequent actions
- Introduce Phase II Monitoring Networks “BASIN” review process and schedule
- Maintain current operations of Chesapeake Bay/ Watershed Monitoring networks for another year: **decision requested** at October MB Mtg
- Approval of a 14-month BASIN review process led by STAR with cooperation of STAC to develop recommendations on sustaining the monitoring networks to meet CBP priorities through 2025: **decision requested** at October MB Mtg

# August 2013 Management Board Decision on the CBP Water Quality Monitoring Program Budget Reduction Options

Reduction Option 2		
	<u>Tidal</u>	<u>Nontidal</u>
<b>Amount</b> (Tot=\$755,000) (Gap=\$189,000)	\$55,000	\$700,000
<b>Action</b>	<ul style="list-style-type: none"> <li>Virginia (\$27.5K) Maryland (\$27.5K) <ul style="list-style-type: none"> <li>Eliminate January cruise</li> <li>Eliminate nutrients from 2 summer cruises</li> <li>Eliminate planned benthic analysis</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>14 station reduction*</b></li> <li>MD-3, <b>PA-4</b>, VA-2, DC-2, NY-2, WV-1</li> <li>44% reduction in support for expanded monitoring.</li> <li>Target Source Sectors affected <ul style="list-style-type: none"> <li>Urban</li> <li><b>Agriculture</b></li> </ul> </li> </ul> <p>* (The list of stations cut TBD by NTW)</p>
<b>Impact</b>	<ul style="list-style-type: none"> <li>2017 mid-point evaluation will not include a reevaluation of benthic IBI-derived reference curves for dissolved oxygen assessment</li> <li>Loss of critical data linking winter production with summer oxygen conditions</li> <li>Reduced ability to the strengthen the Bay water-quality model</li> </ul>	<ul style="list-style-type: none"> <li>Loss long-term trend information at 5 locations with greater than 10 years of history.</li> <li>Loss of trend and load assessment capabilities in key settings needed for TMDL and Mid-point assessment</li> <li>Inability to strengthen WSM for targeted source sectors</li> </ul>

# **Funding Gap Filling Activities Following the MB Decision**

- The final list of potential non-tidal network site losses included 18 stations
- Additional funding from EPA (\$300,000), USGS (\$100,000), and state partners reduced network losses to 4 sites (for 2013)
- Tidal monitoring cruise and sampling reductions remained the same as MB decided

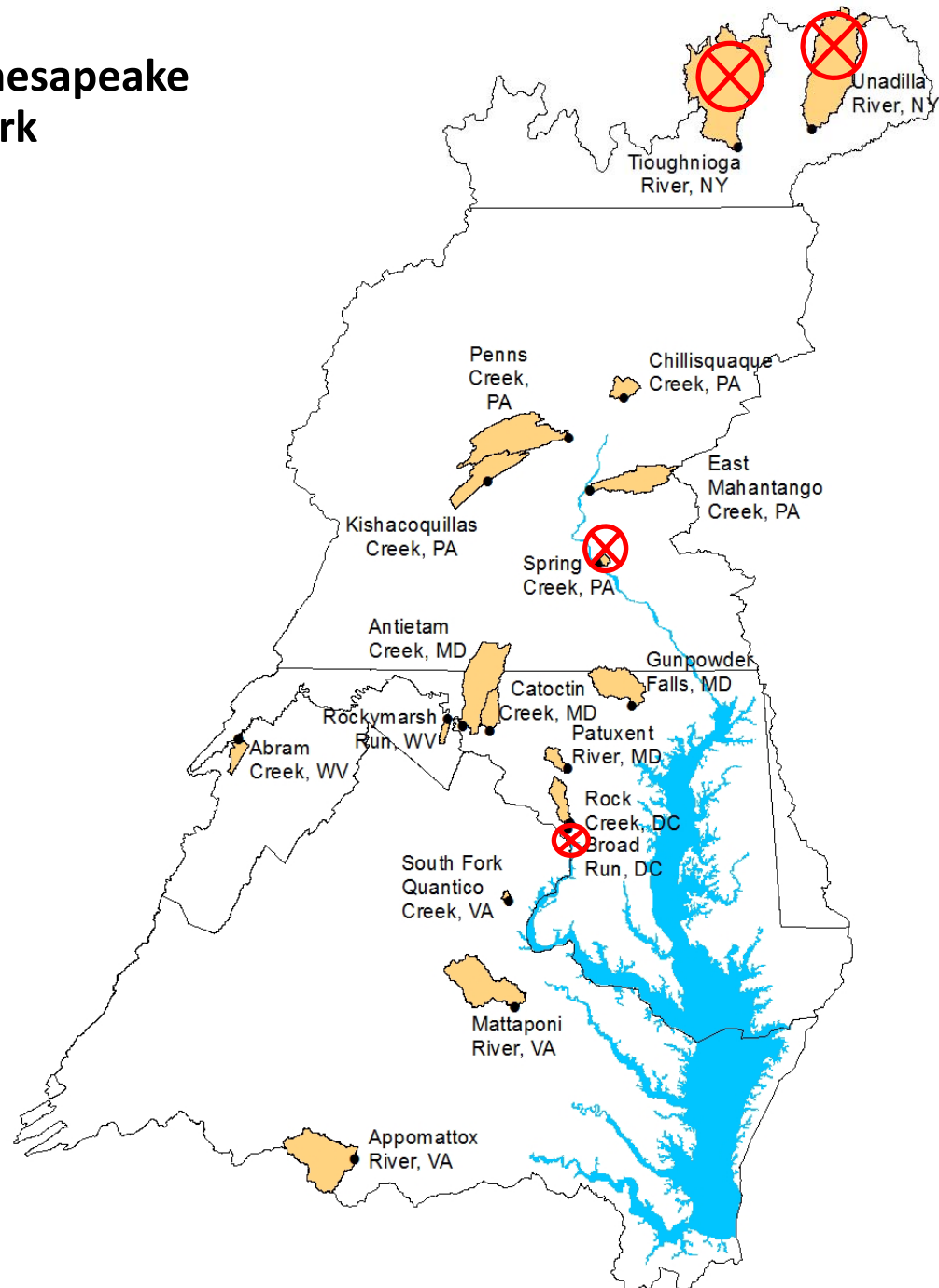
## Proposed Station Cuts to the Chesapeake Bay Nontidal Monitoring Network (Option 1-August 2013)

### Possible Cuts By Jurisdiction

- Maryland-4
- Pennsylvania – 5
- Virginia 3
- District of Columbia- 2
- New York -2
- West Virginia- 2



**Update September 2013:**  
4 Sites actually cut in FY13



# Phase I Findings/Implications

- Identified financial/operation thresholds below which the networks can't be sustained
- The Partnership must evaluate alternative monitoring network business and operations models in order to sustain our shared networks in the coming decade
- The previously envisioned 6-month Phase II process is not workable given these findings

# Phase II BASIN Process

1. Assessment of sustainable business models to support Chesapeake Bay and watershed monitoring programs over the next decade
2. Re-assess the primary products that the monitoring networks are expected to deliver to its customers
3. Optimization of the networks—re-designing the networks to meet funding realities and Partnership management needs over the next decade

# Phase II BASIN Schedule

- **September-December 2013:** *Evaluation of Alternative, Sustainable Business Models for Bay and Watershed Monitoring Networks*
  - Three, 3-hour sessions, for 9 case-studies (e.g. Puget Sound, Upper Mississippi, San Francisco Bay, Gulf of Maine, Great Lakes, Morton Bay Australia, Great Barrier Reef, Everglades, Boston Harbor)
- **January-April 2014:** *Re-assessing Customer Expectations and Network Products*
  - Working with the Communications Workgroup, re-evaluate monitoring and interpretive products required to assess progress and how this information is delivered to the Partnership
- **February-July 2014:** *Optimizing Monitoring Strategies to Support CBP Priorities*
  - Review ‘Lessons Learned’ and other new science reporting that may influence the strategies we use to monitor and improve the accuracy of our estimates of Bay and watershed responses to management actions and improving linkage assessments for factors affecting trends.
- **August-October 2014:** *Options Developed on Monitoring Network Design, Monitoring Network Operations, and Funding Support*
  - Options to evolve the current water quality monitoring networks in the Bay and watershed toward their next generation designs to be implemented through 2025.
- **November 2014-February 2015:** *Partnership Decision-making and Integrating Findings into Monitoring Program Operations.*
  - Implementation of decisions affecting any changes to the networks, their funding and operations, will go into FY15/16 grants/IAGs starting with April 1, 2015 grant applications through January 1, 2016.



# Decisions Requested

At the October Management Board meeting, following STAC's review of proposed Phase II BASINS Process/Schedule at their September 17-18 meeting:

- **DECISION:** Maintaining the current operations of the Chesapeake Bay Program Partnership Monitoring networks—tidal, shallow-water, watershed, SAV, benthos—for another year at the existing funding levels.
- **DECISION:** Approval of the proposed 14-month BASIN review process led by STAR, with cooperation of STAC, to develop recommendations on sustaining the monitoring networks to meet CBP priorities through 2025.