

## **Sustaining and Growing the Chesapeake Bay and Watershed Water Quality Monitoring Networks to Meet Chesapeake Bay Program Partnership Priorities through 2025.**

**Overview:** A three-staged review of the Chesapeake Bay water quality monitoring programs has been proposed in order to address CBP monitoring priorities in a climate of fiscal constraints. The Stage I process was a short term effort dealing with a 2013 Federal funding gap of 945K. Stage II is a proposed process to review the water quality monitoring strategies, the business models and operations of the programs, understanding customer expectations, then optimizing networks and integrating decisions to sustain and build the networks out to 2025. Stage III is expected to consider CBP monitoring program beyond water quality to support the breadth of commitments in the new Chesapeake bay Agreement.

### **Stage I. Monitoring Review: Sustaining the Monitoring networks under a Federal funding gap in program support. June – September 2013 Summary.**

The Chesapeake Bay Program Partnership's water quality monitoring program was under budgetary pressures in 2013 resulting in a 945K funding gap to sustain the CBP tidal and nontidal monitoring networks (N. DiPasquale June 2013 memo). Federal budgetary policy conditions that impacted available 2013 CBP monitoring program funding remain in effect. Further reductions in federal funding are inherently possible in the near future.

To address the 2013 funding shortfall, CBP-STAR and its workgroups worked with the partnership from June into August in reviewing and developing short-term options that addressed the funding shortfall. Four scenarios were derived with multiple levels of reduced Federal funding. Each scenario outlined the ability of monitoring programming at that funding level to preserve monitoring and analysis functions supporting CBP priorities for assessing water quality standards in the Bay and tracking management progress and targeting efforts in the watershed. In August 2013, the Management Board selected Option 2 of 4 options to reduce tidal and nontidal network support while meeting the new Federal level of funding. However, the states, Washington DC, USGS and EPA further coordinated on gap filling measures after the Management Board meeting to preserve the monitoring networks. The combined gap-filling efforts with financial resources of the partnership focused on the watershed and resulted in retaining all but four stations of the 126 station nontidal network for one more year. In the Bay, one winter water quality cruise is being cut from the program and nutrients will not be collected during two summer cruises in both MD and VA. Additionally, there was no financial support available for the proposed benthic index of biotic integrity recalibration effort.

- **The Stage I process revealed financial and operational thresholds under the existing business model that threaten the long-term sustainability of Bay and basinwide monitoring to address CBP priorities.**

**Stage II. Sustaining and Building CBP Water Quality Monitoring Networks: Monitoring Strategy, Business and Operations Models to Further Leverage Existing CBP Partnership Resources: Proposed September 2013- February 2015.**

The CBP-STAR leadership team held a meeting on August 22, 2013, 9am – 12pm outlining a Stage II approach toward addressing long term sustainability of the water quality monitoring program to meet CBP priorities under foreseeable future fiscal constraints. **The Stage II approach consists of three components:**

- 1. Assessment of a sustainable business model to support Chesapeake Bay and basin monitoring programs**
  - Estimate the full costs of the monitoring network (breaking them into individual components) out through 2025
  - Project available funding through 2025 under several scenarios
  - Evaluate different models and mechanisms for funding the continued operation of the Partnership's monitoring networks
- 2. Assess the primary products that the monitoring program is expected to deliver to its customers**
  - Evaluate monitoring required to assess standards
  - Evaluate monitoring and interpretive products required to assess progress
  - Evaluate how this information is delivered to the Partnership
- 3. Optimization of the network; re-designing the network to meet funding shortfalls**
  - Identify and evaluate alternative operational models for conducting the monitoring in each of the networks
  - Identify and evaluate alternative business models for conducting the monitoring in each of the networks
  - Develop optimal monitoring networks, reflective of existing funding restraints, which meet Partnership needs
  - The effectiveness of this review process to provide a strong implementation plan that will give a stable funding foundation to sustaining the work of the Bay and watershed monitoring networks will require a 14 month timeline. An additional 4 months will be required for implementation prior to the FY15/16 grant applications deadline
  - This means we need to ask the partnership to operate monitoring networks in FY2014 under the same projected federal funding levels available in FY2013.
  - Understanding the generosity of the partnership to largely fill the 945K 2013 Federal funding gap, we would be asking the community for an additional year of cooperative support in FY2014 under the existing business and operational models for sustaining the networks.

The proposed schedule for CBP-STAR led plan development and implementation process, in cooperation with CBP-STAC, leading to Management Board decisions that implement monitoring program updates for FY15 is:

- **September-December 2013.** *Assessment of Sustained Business and Operations Model Supporting Chesapeake Bay and Basin Water Quality Monitoring Programs.*
  - 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.)
- **January-April 2014.** *Customer Expectations.*
  - Working with the Communications WG, having network support for products from the Monitoring Program.
- **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 status, assisting us in improving linkage assessments for factors affecting trends.
- **August-October 2014.** *Options Developed on Monitoring Design, Monitoring Strategy Operations and Funding Support.*
  - Options to evolve the current water quality monitoring networks in the Bay and watershed toward its next generation design implemented through 2025.
- **November 2014-February 2015.** *Decision-making and Integrating Findings into Monitoring Program Operations.*
  - *March 1, 2015-January 1, 2016.* 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.

**Stage III. Expanded Monitoring in Support of the New Chesapeake Bay Agreement.**  
**Timeline TBD.**

- Commitments under the new Bay Agreement have monitoring needs that go beyond water quality. The CBP-STAC has expressed interest in working on outlining monitoring programming needs to address the additional priorities of the partnership. CBP STAR will coordinate with CBP-STAC on their needs and timelines.