

Recommendations for Re-Alignment of CBP Investment in Water Quality Monitoring

A summary for the CBP Management Board

10 Nov 2009

by Carlton Haywood & Denice Wardrop

STAC Review

- STAC review of CBP monitoring (2008) asked senior managers what are key information needs and are they getting what they need
 - Delisting the tidal segments of the Bay and determining the effectiveness of management actions in the watershed should be the priorities of the CBP funded monitoring programs; and
 - The current allocation of monitoring resources does not reflect these priorities and there should be some rebalancing.
- CBP monitoring team developed options for “rebalancing”. (March 2009)
- Management Board accepted STAC findings but wanted more information about options.

MB Charge to the Action Team

- Monitoring Re-Alignment Action Team (MRAT) created by Management Board to develop a refined rebalancing option
 - Preserve findings of STAC review
 - Involve STAC
 - Open process
 - Adaptive management to better align monitoring activities with priorities
 - Integrate tidal and non tidal monitoring
 - \$1 Million as target for shifting as driver for real change
 - Present to Management Board in October (November)
 - Change (if any) to take effect Jan 1, 2010

MRAT Process

- April 1: Synthesis Team forms
- May 20-21: Kickoff workshop, Watersheds, Partnerships, Communications, Optimization teams
- Summer: Near weekly conference calls, open participation
- Jul-Sep: Team reports written and reviewed by community
- October 7: Summit workshop
- November 10: Synthesis report to Management Board, includes STAC and community comments.

Unanticipated Wild Cards

- President's Executive Order introduced prospect of substantial new resources becoming available
 - MRAT responds with “full funding” option which can become basis for Congressional “Asks”
- Budget crisis in MD and VA results in programs being cut before MRAT process complete
 - MRAT leaves “cut” programs in options list as placeholders
- Forecast of continued budget difficulty at state level
- Cardin bill contains large increase in monitoring \$
- **A VERY FLUID FUNDING ENVIRONMENT!**

Findings: Watershed Team (App. D)

- Detailed recommendations on monitoring & data analysis to address management questions
 - Maintain existing network – improve data mgmt
 - Enhanced analysis of CBP and partner data to document, explain, and communicate changes in water quality
 - Enhanced data collection on watershed landscape characteristics
 - New monitoring stations targeting small basins: agric. and urban
- Prioritized recommendations Appendix D, pp 30-35. Highest priority \$1.059 million listed in Synthesis Report, Table 1.
- Current funding, \$0.9 million, is only 20% of full funding needs, ~\$4.6 million.

What are those watershed priorities?

- Table 1 (highest priority for funding)
 - Data mgmt and analysis of existing long term monitoring network. **\$300k**
 - Three new small watershed monitoring stations **\$435k**
 - Analysis / synthesis of existing small watershed studies **\$535k**
 - Initial investment to document and assemble historical info for complete description of watershed **\$606k**
 - Larger investment to document and assemble historical info for complete description of watershed **\$807k**
 - Add five more small watershed monitoring stations **\$1,032k**
 - Provide support to partner monitoring **\$1,057k**

What are those watershed priorities?

- Table 3 (additional investments for full funding)
 - Additional investments in small watershed monitoring stations
 - Analysis of data from small watershed monitoring stations
 - Support for other agency's small watershed studies
 - Develop stream health indicator for targeting purposes
 - Support watershed modeling tools
 - Develop techniques to enable incorporating state and other agency data

Findings: Partnership Team (App. E)

- Almost 300 monitoring programs identified.
- Nearly $\frac{3}{4}$ in watershed - good for watershed, but few tidal opportunities.
- Partner programs can provide useful information but, in general, cannot answer the specific, strategic, questions asked by CBP management.
- Partners are not free! Require either direct match or additional cost for QA, data mgmt, etc.
- Changes to CBP monitoring may impact partner monitoring.

Findings: Communications Team (App. F)

- Documented multiple uses of monitoring data for communication
- Communication priorities
 - Linking restoration activities to pollution reduction
 - Identify success stories
 - Identify struggling situations
 - Look at smaller scale systems, i.e. “my” watershed
 - Highlight long term trends

Findings: Optimization Team (App. G)

- CBP funded tidal monitoring has enabled huge advances in understanding of Bay ecosystem.
- All elements of current tidal monitoring have value, but some elements may be more critical to CBP management moving forward.
- Identified potential (and actual) dis-investment opportunities and identifies consequences of cuts
- Proposes creation of a Data Synthesis Center to facilitate periodic intensive analysis to answer specific questions.

What are those tidal dis-investments (1)?

- Already done
 - (MD & VA) Reduce shallow water monitoring effort
 - (MD & VA) Eliminate phytoplankton monitoring program
 - (MD) Benthic monitoring: eliminate spring sampling
 - (VA) Reduce # stations in Elizabeth River.
 - (MD) Reduce funding for ecosystem processes analysis

\$472k

What are those tidal dis-investments (2)?

- Potential additional
 - (MD) Reduce # of shallow water monitoring stations to 15
 - (MD) Reduce # of mainstem cruises from 16 to 14
 - (MD & VA) Further reduce shallow water monitoring effort so total program cost is \$115k each state. **\$606k**
 - (MD) Eliminate funding for MD Ecosystem Processes Analysis Program **\$796k**
 - (MD & VA) Eliminate funding for status and trends **\$896k**
 - (MD & VA) Reduce mainstem nutrient sampling by 50% **\$1,008k**
 - (MD & VA) Reduce mainstem nutrient sampling by 50% **\$1,059k**

Synthesis

- Given the CBP monitoring objectives defined by Senior Managers, MRAT has provided the Management Board with
 - Prioritized list of watershed monitoring investments required to assess effectiveness of management actions in the watershed up to a “full funding” level of ~\$4.6-4.9 million
 - List of potential (actual) tidal dis-investments to reallocate funds to watershed monitoring
 - List of tidal investments should new funds become available up to a “full funding” level of ~\$5.3-5.65 million.
 - List of communications priorities
 - Extensive documentation of other monitoring programs which may be used when looking for data & partnership opportunities

Synthesis Report Recommendations

- 1) CBP adopt Synthesis Report Table 1 as highest priority for allocation of reallocated or new funds
- 2) Use Table 3 as a guide for allocation of additional funds
- 3) Amount approximating \$864,000 be dis-invested from tidal programs in Table 2
- 4) Small workgroup be formed to determine most expeditious way to disinvest
- 5) STAC consider how frequently to repeat a review of monitoring investments
- 6) The TSS consider how to undertake similar process to establish monitoring priorities for living resources and habitat restoration goals. Necessarily directed toward new funding

Reconsidering the re-alignment recommendation with no new EPA \$

- (refer to funding lines on slides 10, 16, 17)
- **Option 1: Do nothing**
 - Tidal monitoring already dis-invested to \$472,000 level
 - Watershed monitoring new investment: \$0 made available
- **Option 2: Re-align at the \$606,000 level**
 - Tidal monitoring already dis-invested to \$472,000 level
 - Additional reductions taken in tidal mainstem and shallow water monitoring (\$134,000 EPA funds).
 - Watershed monitoring new investment: \$134,000 + “up to” \$134,000 in match funds
- **Option 3: Re-align at the \$796,000**
 - Tidal monitoring already dis-invested to \$472,000 level
 - Additional reductions taken in tidal mainstem and shallow water monitoring totaling \$134,000 EPA funds.
 - Additional reductions to MD & VA Shallow Water Monitoring.
 - Watershed monitoring new investment: \$324,000 + “up to” \$324,000 in match funds

Reconsidering the re-alignment recommendation with new EPA \$

- Accept tidal monitoring reductions already made
- Additional tidal monitoring reductions to mainstem monitoring & SWM (up to “\$606k level”)
- New \$ should go first to funding watershed monitoring needs listed in Table 1 of Synthesis report.
- After Table 1 programs are funded, then new \$ should go to Table 3 programs.
 - MRAT did not prioritize watershed versus tidal in Table 3.
 - Delegate this problem to Technical & Support Services, with this guidance: Criteria for allocating new funding in tidal waters is relevance to supporting listing / delisting decisions.
 - Add phytoplankton program to Table 3 list of potential re-investments