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

A summary for the CBP Management Board
10 Nov 2009
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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.
  – (MD) Eliminate funding for MD Ecosystem Processes Analysis Program
  – (MD & VA) Eliminate funding for status and trends
  – (MD & VA) Reduce mainstem nutrient sampling by 50%
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