Responding to the PSC Request to Improve the CBP Monitoring Networks

Maintain Healthy Watersheds GIT Meeting
August 9, 2021
Breck Sullivan, CRC
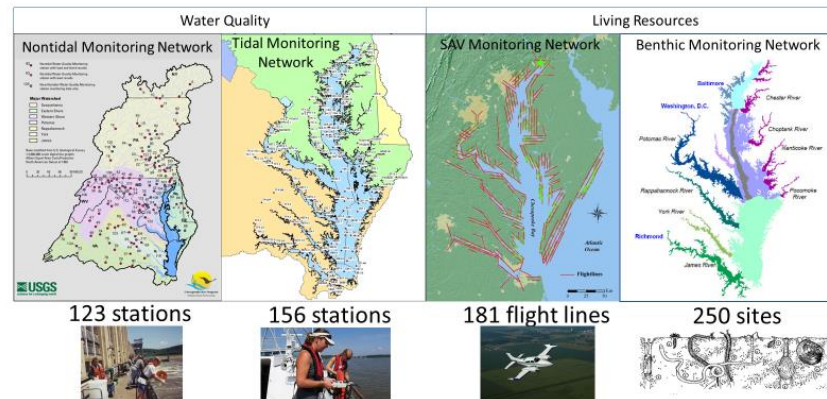
Reminder: Monitoring Presentation to the PSC

- SAIB Branch Chief Lee McDonnell provided a presentation on March 2nd
  - Help them understand CBP budget and funding for monitoring

- CBP Monitoring Networks
  - Tidal Water Quality
  - Nontidal Nutrients and Sediment
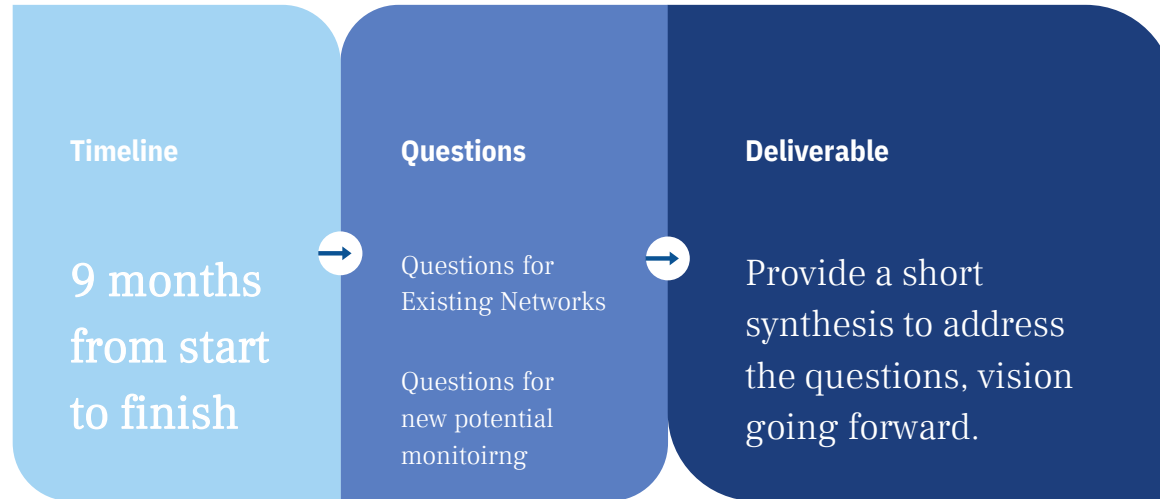 - SAV
  - Benthic
  - Citizen Monitoring

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PSC Request

1) An overview of current status and threats to the networks, and

2) What is needed to address the monitoring networks capacity shortfalls

CBP Partnership Monitoring Networks: Annual Monitoring

Water Quality | Living Resources

Nontidal Monitoring Network — 123 stations
Tidal Monitoring Network — 156 stations
SAV Monitoring Network — 181 flight lines
Benthic Monitoring Network — 250 sites

Process

Timeline

9 months from start to finish

Questions

Questions for Existing Networks

Questions for new potential monitoirng

Deliverable

Provide a short synthesis to address the questions, vision going forward.

Opportunities and Benefits of the PSC reqest

◎ Over a decade since the last CBP monitoring evaluation

◎ Address CBP Outcome: Water Quality Standards Attainment and Monitoring Outcome

◎ **Address selected monitoring needs of other CBP outcomes**

◎ Consider new technologies and innovation

◎ Identify priority improvements and fill gaps

Identify Monitoring Needs

Science Needs Database

Capture monitoring gaps identified through Strategic Science and Research Framework.

Discussion Paper

Answer 6 key questions to prioritize and focus types of monitoring proposed.

Discussion Paper for Monitoring

1) Need for monitoring (relation to CBP goals and outcomes)

2) Monitoring Objectives

3) Monitoring Design Considerations

4) Existing Monitoring that can be Utilized

5) Remaining Gaps

6) Options to Address the Gaps

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TCW *Prioritization* of the Monitoring Needs

◎ PCBs and emerging contaminants

◎ Addressing contaminants of widespread concern

◎ Mercury

Monitoring Objectives

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◎ Determine if programs are reducing the amount of PCS that will not harm aquatic systems and humans

◎ Monitoring in areas of impairments to see if PCB levels are reducing

◎ Monitor PCBs in air deposition to better define as potential source

Some Guiding Principles

Need to prioritize monitoring.

The monitoring objectives need to be specific to help focus types of monitoring that is proposed.

Take advantage of ongoing monitoring as a foundation for a network.

Potential HWGIT Monitoring Needs

◎ Investigate the potential to harness community-based monitoring to target monitoring in watersheds identified as "threatened" through the CHWA.

◎ Explore developing new watershed characteristics of health and vulnerability using high resolution imagery and track them over time.

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Potential HWGIT Monitoring Needs

◎ Develop and apply tools or methods that integrate various inputs to characterize watershed vulnerability to future high-level risks including development and climate related stressors

◎ Determine a way to identify and track "marginally healthy" water and watersheds

◎ Increased capacity for individual jurisdictional efforts to monitor, assess, and determine watershed health

Suggested Next Steps

Update Monitoring Needs

Brainstorm HWGIT monitoring needs if interested in contributing to overall PSC deliverables. **Update language in Science Needs Database**.

Develop Discussion Paper

Tackle **first two questions** on prioritization and monitoring objectives. Use meetings or have a small team to lead effort.

Coordinate with STAR

HWGIT with STAR decide and propose priority needs to be addressed, opportunties to **coordinate existing monitoring**, and identify remaining gaps and **recommendations to fill them**.

Questions?

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8 Questions to address in this 9-month review

1. Network Status?

2. Vulnerabilities to sustaining network operation?

3. Program management strategy?

4. Monitoring information gaps?

5. Monitoring program options for filling gaps with existing resources?

6. What innovations are available?

7. Who are the partners on operationalizing the innovations?

8. Financial perspective on sustaining, growing and innovation needs for our networks?

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CMC
Chesapeake Monitoring Cooperative

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