

Improving the CBP Monitoring Networks: Monitoring Gaps



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What gaps need to be filled to improve the CBP monitoring networks?

CBP Strategy Review System (SRS)

- Cohorts of workgroups for each outcome report progress to Management Board
- Workgroups develop and update short-term action plans for achievement of long-term goals
- **Strategic Science & Research Framework** tracks and assesses science needs across the partnership



Assessing Monitoring Gaps

Total # of monitoring
related science needs:

110



Existing Monitoring Networks' Science Needs

Tidal & Nontidal	41
SAV	5
Benthic	1
Citizen Science	2
Vertical Profile	1

Total # of science needs
connected to monitoring review:

64



Categories of Cross-GIT science needs aligning with existing networks (14)

Climate Change
Indicators
Rise in Water Temperature
Development of New Monitoring Plans

Nontidal Monitoring Science Needs

CBP Outcome	Need	Status of Need
Water Quality Standards Attainment and Monitoring	Adjust, sustain and grow monitoring programs that are supporting water quality modeling and monitoring assessments	In Progress
Water Quality Standards Attainment and Monitoring	Improve understanding of bay nutrient response to loads and BMPs	Ongoing
Water Quality Standards Attainment and Monitoring	Improve understanding of source sector contributions to N,P,S loading	In Progress
Water Quality Standards Attainment and Monitoring	Exploring new monitoring technology	In Progress
Water Quality Standards Attainment and Monitoring	Update nontidal trends through 2020	In Progress
Water Quality Standards Attainment and Monitoring	Better describe patterns of nutrient and sediment trends and analyze patterns of trends in major sources sectors: agricultural, urban, air deposition	In Progress

How can existing monitoring data and analysis be used to address gaps?

Cross-GIT Monitoring Opportunities

CBP Outcome	Need	Status of Need
Climate Resiliency	Climate Resiliency Monitoring and Assessment	River Flood Frequency Indicator
Climate Resiliency	Climate Resiliency Monitoring and Assessment	River Flood Magnitude Indicator
Climate Resiliency Monitoring and Assessment	Better understanding of precipitation changes with regards to intensity, annual amounts, seasonal impacts, storm events and stormwater management	In Progress
Forest Buffers	Water Temperature Increases in Bay tidal and non-tidal areas	Forest Buffers
Climate Resiliency Monitoring and Assessment	Data and research needs for impacts of SLR, storm surge, increased temperatures, extreme precipitation events and saltwater inundation on BMP climate resilience (i.e., maintenance, shelf life, siting and design, etc.)	Climate Resiliency Monitoring and Assessment
Brook Trout	Cross-GIT collaboration on monitoring efforts (e.g. eDNA, stream health, fish passage, GIT project funding)	Brook Trout

Biggest takeaway:

- Not all needs identified through current workgroup discussions are captured in the Science Needs Database
- Examples:
 - **Water Quality Standards:** PSC Monitoring Review
 - **Toxic Contaminants:** Explore opportunities for integrated mercury monitoring network to assess trends
 - **Climate Resiliency:** Carbonate chemistry

1. Review Monitoring Science Needs Spreadsheet.
2. Are there any Nontidal monitoring gaps missing?
3. Are there synergies between Nontidal work and Cross-GIT monitoring gaps?

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Questions?



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