Implementing PSC recommendations: Stream Health, Climate, and Toxic Contaminants Outcomes

Breck Sullivan (USGS)

May 18, 2023

10 Watershed Agreement Goals

Chesapeake Bay Program
Science. Restoration. Partnership.

- Sustainable Fisheries
- Climate Resiliency
- Vital Habitats
- Land Conservation
- **Water Quality**
- Stewardship
- Toxic Contaminants
- Public Access
- Healthy Watersheds
- Environmental Literacy

Maintain Success of Existing Monitoring Network

12 Outcomes

Examples
Blue Crabs
Oysters

Enhance Efficiency and Capacity of Monitoring Network

12 Outcomes

Examples
Wetlands
Stream Health

Establish a New Coordinated Monitoring Network

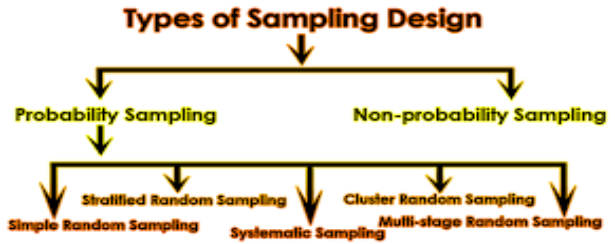
7 Outcomes

Examples
Climate
Local Leadership

Process of developing recommendations for outcome monitoring needs

Needs assessments from Science Needs Database and meetings with Goal Implementation Teams

Structure of need by group varies from topic of interest to monitoring design considerations



Develop costs for need based on proposed designs

COST MANAGEMENT CATEGORY	Year 1
Salaries and Wages (Data management, regression development)	$21,520
Salaries and Wages (Installation of QW sondes)	$ 21,300
Equipment and Installation Supplies	$105,000

Collate cost estimates

Total cost

Which outcomes does your agency have interest to better coordinate monitoring or address other needs?(Nontidal)

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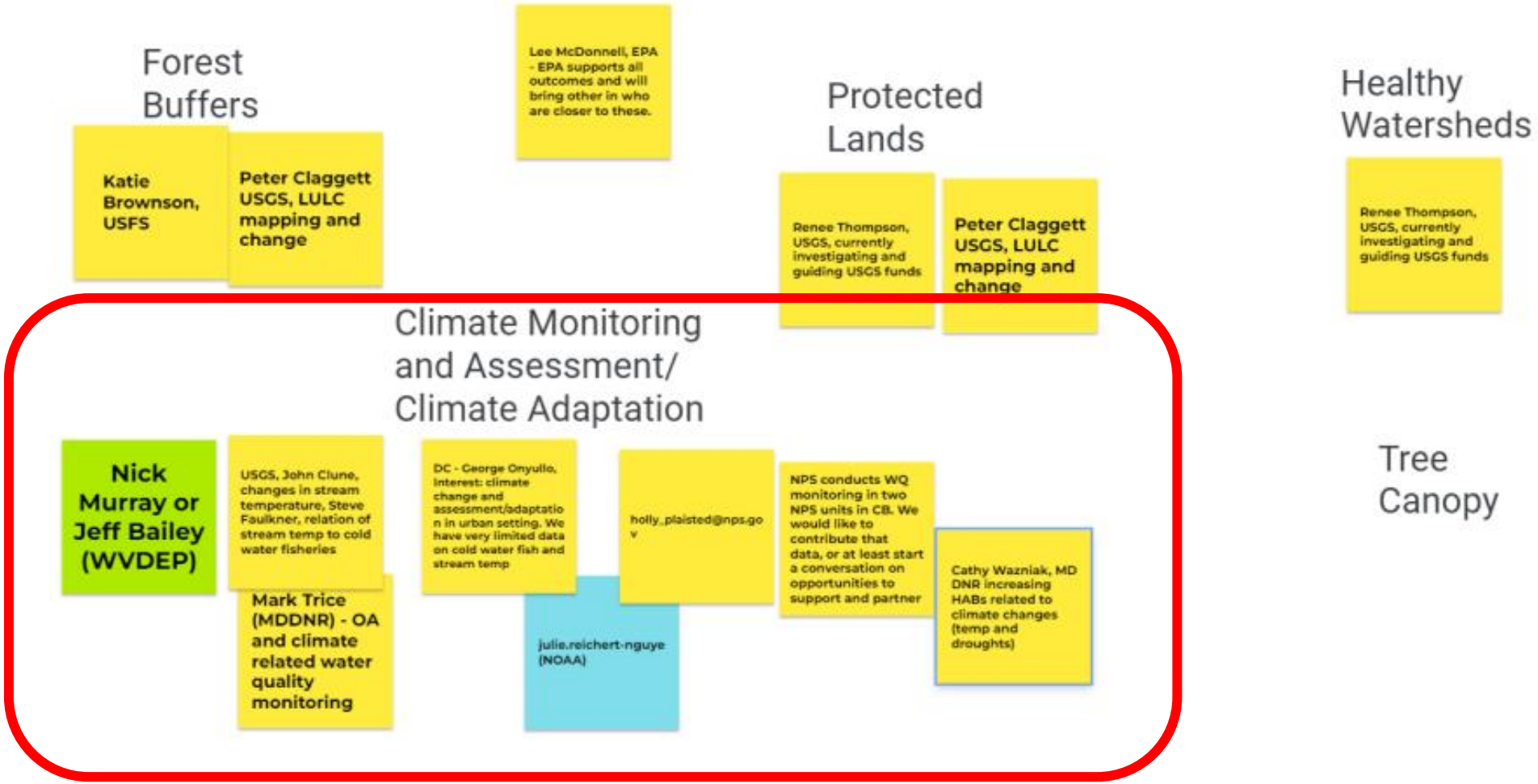
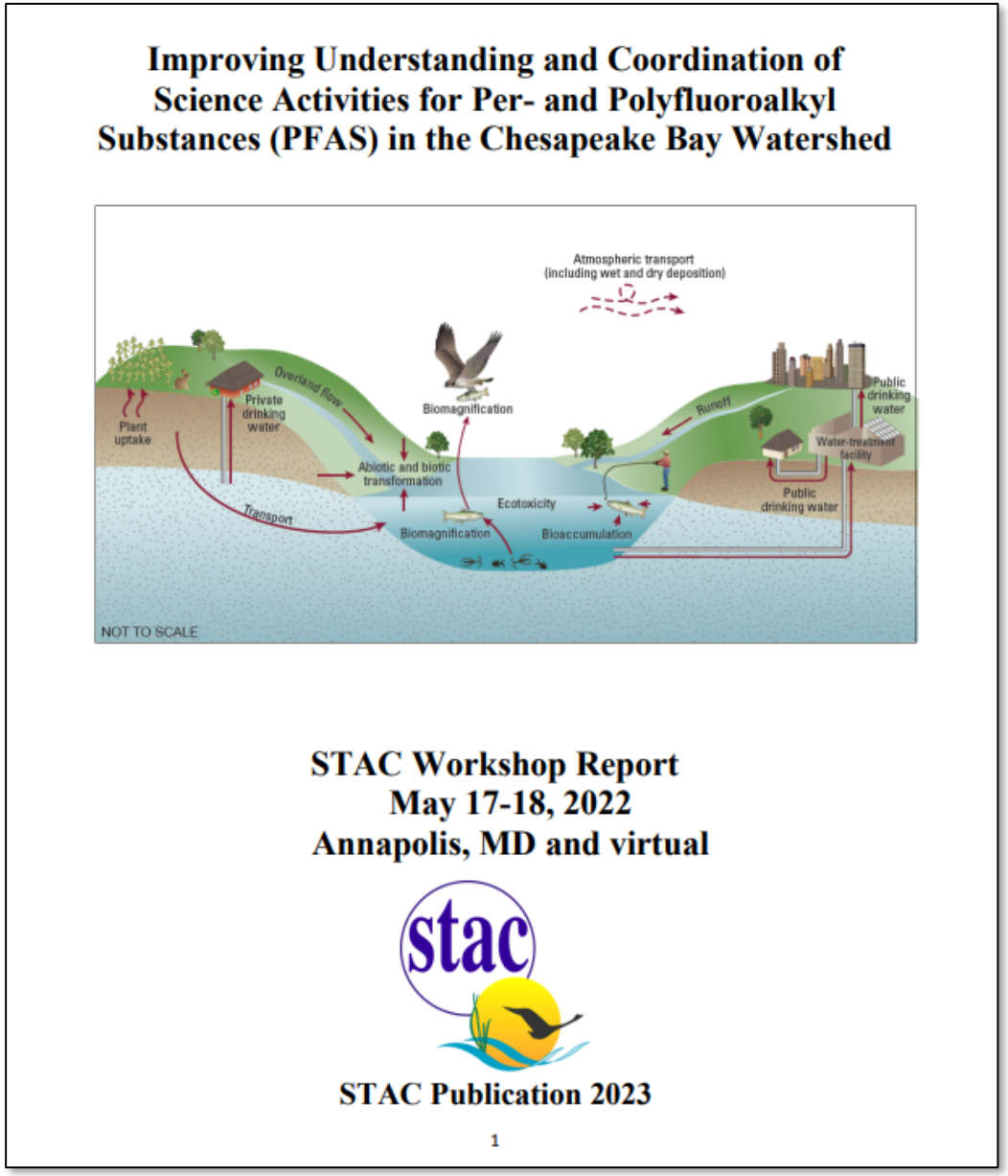


Toxic Contaminant Outcome

- A STAC Workshop gathered speakers to better understand the state of the science and purpose approaches to improve knowledge of PFAS including considering study designs and comparable sampling and analysis methods for a more coordinated PFAS science effort.



Improving Understanding and Coordination of Science Activities for Per- and Polyfluoroalkyl Substances (PFAS) in the Chesapeake Bay Watershed

STAC Workshop Report
May 17-18, 2022
Annapolis, MD and virtual

STAC Publication 2023

1

USGS Opportunity to Support Outcome Monitoring Needs

Stream Health Need

More monitoring needs to prioritize

- Fill gaps to enhance watershed representation and expand Chessi BIBI (spatial monitoring)
- Design long-term monitoring network (temporal monitoring)
- Site selection for restoration (restoration monitoring)

Approach

- Multi-day workshop OR Devote time during SHWG agenda
  - Write report to identify what monitoring need to design network around, how to accomplish multiple needs, identify gaps, identify areas for new stations or relocation of stations

USGS Opportunity to Support Outcome Monitoring Needs

Still Need

- Personnel to coordinate workshop and report
  - USGS has the funding
  - Looking into CESU and UMBC MOU

USGS Opportunity to Support Outcome Monitoring Needs

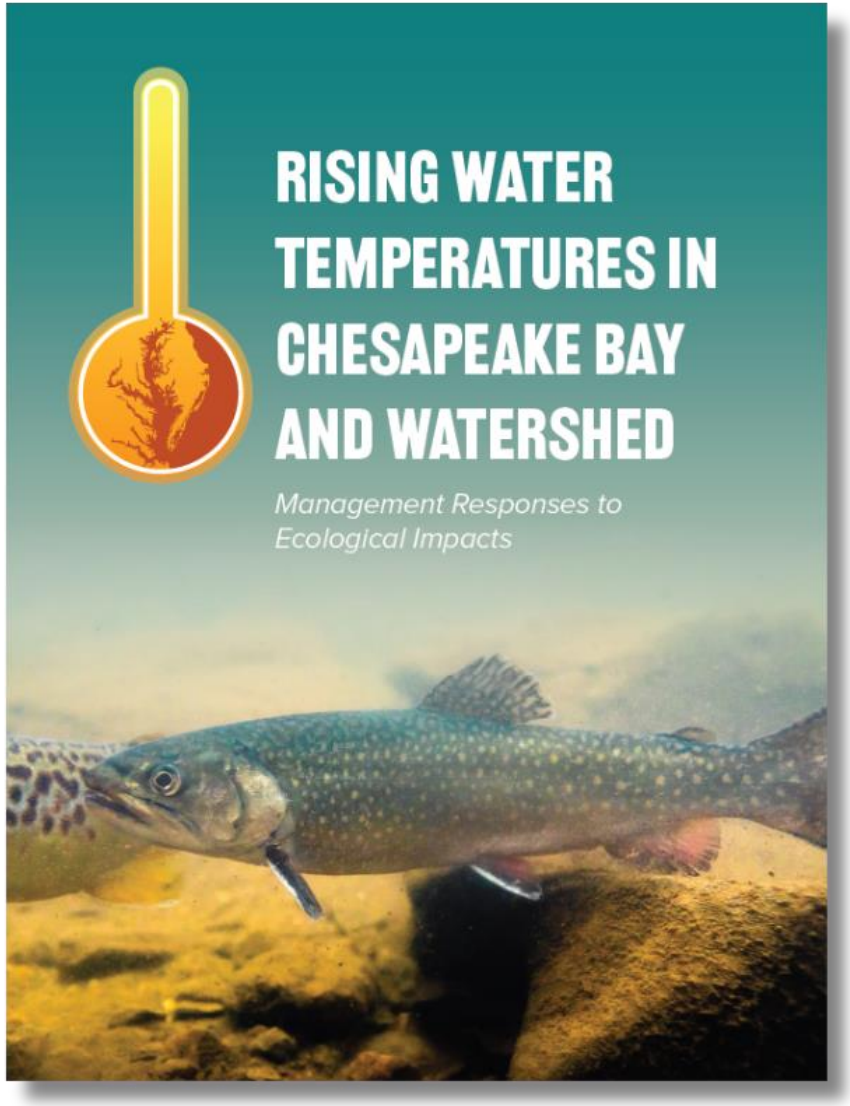
Chesapeake Bay Program
Science. Restoration. Partnership.

Climate Need

Better characterization of headwater and coldwater climate refugia at a better management-relevant scale

Approach

Collaboration within USGS



USGS Opportunity to Support Outcome Monitoring Needs

Chesapeake Bay Program
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Toxic Contaminant Need

Status of PFAS monitoring effort and gap analysis to inform considerations related to developing a more integrated PFAS network

Approach

New USGS Hire

- Funding for FY23 and FY24

Maintain Success of Existing Mo[illegible]work

12 Ou[illegible]

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Biennial Meeting Information

Status Reporting for “Uncertain” Outcomes and those in Need of Data Support

Likely to have indicators AND off course/on course status by 2025

- Healthy Watersheds
- Environmental Literacy and Planning
- Student MWEEs
- Stewardship
- Diversity
- Forage Fish
- Toxic Contaminants Research

Indicator development may not be complete before 2025

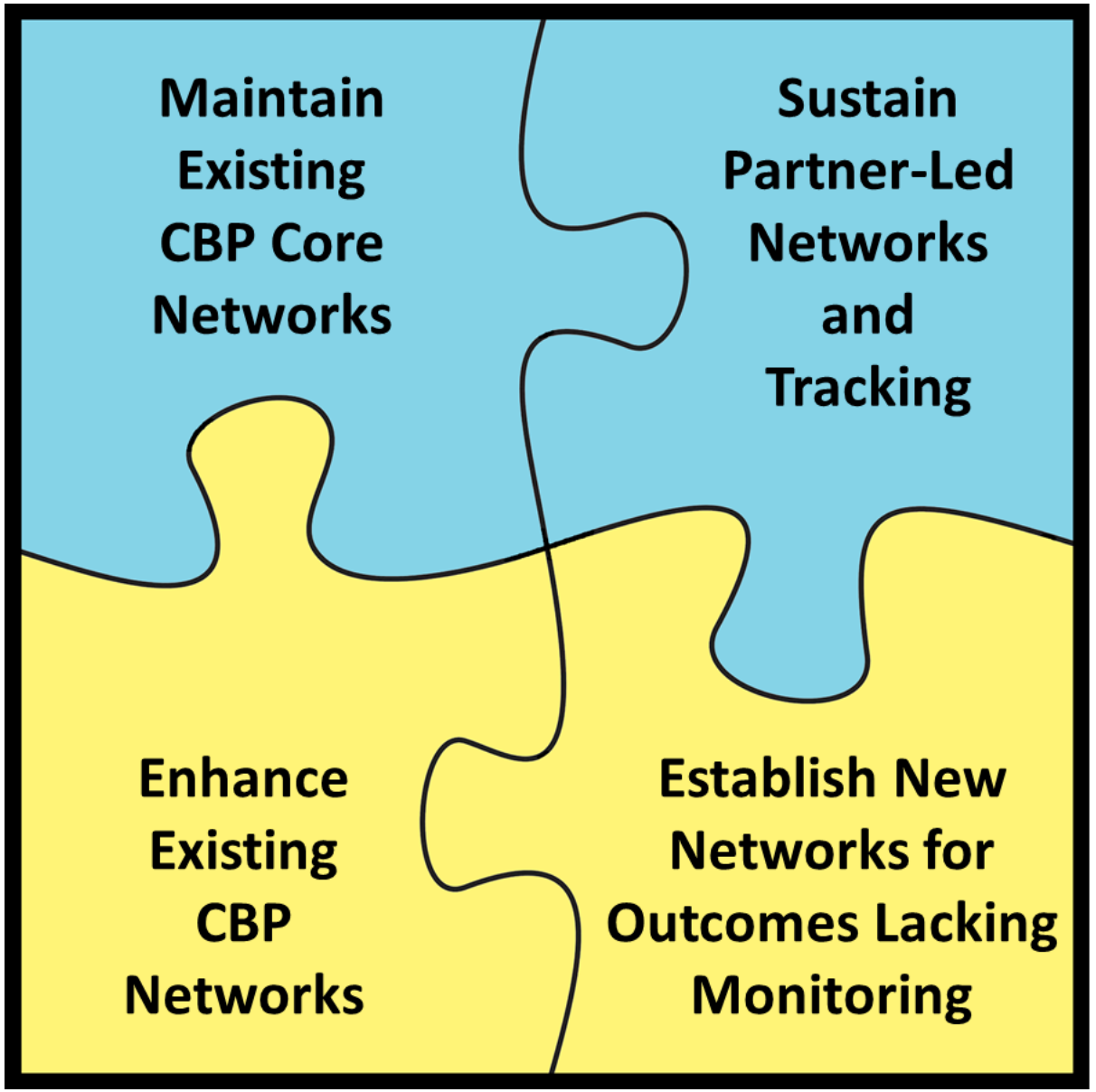
- Black Duck
- Climate Adaptation
- Fish Habitat
- Land Use Options and Evaluation
- Brook Trout

Efficient Monitoring for all outcomes is a challenge for the partnership

Monitoring networks and identified metrics are critical to characterize status and assess progress to outcome and goal achievement.

Photo Credit: Will Parsons (Alliance)

Which CBP outcomes does your agency have interest in that requires more coordinated monitoring?



Bireley, 2022

Questions?

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