STAC FY2021 WORKSHOP OVERVIEW

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STAR: 3/26/2021

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FY21: June 1, 2021- May 31, 2022

Workshops are convened to gather critically needed scientific or technical information related to protection and restoration of the Chesapeake Bay and its watershed. Outcomes from workshops include a report, presentations to relevant partners, outreach/communication materials, and/or fact sheets

2 types of Workshops

- **Programmatic**: Workshop outcomes will provide the CBP and the Partnership with actionable recommendations. Workshop participants will assess where, when, who, and how science can be implemented within the Partnership and prioritize these recommendations. Recommendations should follow the SPURR format which will provide the CBP partnership with clear next-steps.
- **State of the Science**: A STAC Workshop organized to focus on gathering various stakeholders to examine a topic from an interdisciplinary perspective with an aim to assess the state of the science, gaps in knowledge, and science needs. Recommendations should include research recommendations, strategies to address gaps in the science, and any actionable recommendations relevant to the CBP Partnership.

STAC PROPOSAL TIMELINE

On March 23rd, STAC Members voted to approve all proposals we received, totaling $46,000 of workshop funding for FY21.

Dec 1, 2020	RFP is distributed to Partnership
Feb 16, 2021	Preliminary proposals due
Feb 17-19, 2021	STAC Staff pre-screen proposals
Feb 22, 2021	Comments on draft proposals returned to proposers
Mar 1, 2021	Final proposals due, STAC Staff distributes proposals to STAC members for scoring
Mar 9, 2021	STAC Members submit proposal scores to STAC staff
Mar 16, 2021	Proposal scores distributed to STAC members prior to March meeting
Mar 23-24, 2021	STAC membership reviews proposals at quarterly meeting and select proposals to be funded and determine funding level
Jun 1, 2021	Funds available for approved workshops
May 31, 2022	Workshops must be completed by this date to receive funding

Improve the Understanding and Coordination of Science Activities for PFAS in the Chesapeake Watershed (State of the Science)

Objectives:

- **Summarize the current understanding and analyses of the sources, occurrence, and fate of PFAS**. The focus would be on the unique Chesapeake Bay ecosystem settings, such as freshwaters to tidal waters, differing land uses, and the affecting resources in each.
- **Identify current efforts and approaches to inform the potential effects on fish and wildlife, and their consumption.** Selected fish and wildlife species, including those common for human consumption in the Chesapeake watershed, would be chosen for focus in the workshop.
- **Consider study designs, and comparable sampling and analysis methods, for a more coordinated PFAS science effort.** Recommendations would be developed to have a more coordinated science effort to address objectives 1 and 2; and strive to have an integrated and cost-effective approach for monitoring, modeling, and innovative methods across the watershed.

Timing: Fall 2021-Spring 2022

Relevant CBP group(s): Toxic Contaminants Workgroup, STAR

Evaluating a Systems Approach to BMP Crediting (Programmatic)

Objectives:

- Evaluate opportunities to incentivize habitat benefits in relation to TMDL and water quality outcomes, and that are part of Chesapeake Bay Agreement commitments
- Examine the efficacy of a more holistic “systems approach” to BMP accounting, specifically how wetlands are considered in multiple BMPs and multiple workgroups and GITs, and how wetland BMP functions are influenced by other BMP types in the connected landscape.
- Recommendations from this workshop would include suggestions for how to approach restoration projects at a systems level (e.g. creek, shoreline reach, watershed) in order to maximize synergies for multiple ecological outcomes and accurately calculate pollutant reductions along with habitat value to restoration projects that include multiple habitats, as well as recommend policies to incentivize habitat benefits and outcomes in addition to nitrogen, phosphorus, and sediment reduction goals.

Timing: Winter or early Spring 2022

Relevant CBP group(s): Wetlands Workgroup, WQGIT, Habitat GIT, Healthy Watershed GIT, STAR, CBP Watershed Model data scientists

Improving modeling and mitigation strategies for poultry ammonia emissions across the Chesapeake Bay Watershed (State of the Science and Programmatic)

Objectives: Ensuring that our modeling approaches are accurately estimating this growing source of nitrogen and that mitigation strategies are explored and implemented are key to protecting water quality in the Chesapeake Bay and its tributaries.

- Summarize best estimates of ammonia deposition and identify important knowledge gaps for the partnership to address.
- Summarize efficacy of mitigation strategies and identify important knowledge gaps.
- Summarize CBP modeling of ammonia emissions, identify important knowledge gaps and recommend strategies to improve.
- Identify obstacles to implementation of BMPs and provide recommendation to improve adoption.
- This workshop will be a combination of assessing the 'state of the science' and providing 'programmatic' recommendations

Timing: Summer 2021

Relevant CBP group(s): WQGIT, Ag Workgroup; local and state government partners

Rising Watershed and Bay Water Temperatures—Ecological Implications and Management Responses (Programmatic)

Objectives:

Water temperature increases are occurring in Chesapeake Bay tidal waters and in streams and rivers across the Bay's watershed and are expected to continue. Water temperature increases have significant ecological implications for Bay and watershed natural resources and could undermine progress toward Chesapeake Bay Program (CBP) Partnership goals for fisheries management, habitat restoration, water quality improvements, and protecting healthy watersheds. There is a critical need for insights into what the CBP Partnership might do now–within the scope of its current goals, policies and programs–to actively prevent, mitigate or adapt to some of the adverse consequences. This STAC workshop is proposed to meet these needs through these primary objectives:

- Summarize major findings on the ecological impacts of rising water temperatures, including science-based linkages between causes and effects; and
- Develop recommendations on how to mitigate these impacts through existing management instruments, ranging from developing indicators, identifying best management practices, and adapting policies.

Timing: Fall 2021-Spring 2022

Relevant CBP group(s):WQGIT and its Forestry and Urban Stormwater Workgroups; Habitat Restoration GIT and its Stream Health, Wetlands and SAV Workgroups and Brook Trout Action Team; Maintain Healthy Watersheds GIT; Sustainable Fisheries GIT; STAR and its Climate Resiliency and Status and Trends Workgroups; Citizens Advisory Committee

Advancing Monitoring Approaches to Enhance Tidal Chesapeake Bay Habitat Assessment including Water Quality Standards for Chesapeake Bay Dissolved Oxygen, Water Clarity/SAV and Chlorophyll a Criteria (Programmatic)

Objectives: This workshop will produce actionable recommendations for expanded, cost-effective monitoring and assessment capacities recognized by, and adopted formally into CBP outcome assessment applications to improve accuracy in condition assessments, reducing uncertainty in the understanding of Bay status and trend assessment in response to management actions.

Guiding Questions:

- What new or previously unused data sources are available annually beyond the traditional monitoring to inform a modernized assessment of habitat conditions in Chesapeake Bay?
- What is the status of algorithm development for interpreting aerial-based data to improve efficiencies in the habitat assessments?
- What new protocols for assessment require outlines and documentation to formalize their use in the habitat assessment framework
- What sampling efforts/designs are needed beyond the traditional long term water quality monitoring program?
- Which data are most suitable for calibration and verification of bay models?
- Can we prioritize the adoption of data uses? What is the first data we can ingest into the monitoring program for the next 3-year assessment of water quality? What is the timeline for other sources confirmed and to be formally adopted in annual updates on water quality/habitat assessments? What QA plans are needed for establishing annual integrity of the data sources? What are the data management needs associated with new data sources and integrating diverse resources with a new assessment tool?

Timing: 3 phases, finishing in Winter 2022

Relevant CBP group(s): WQGIT; Criteria Assessment Protocol Workgroup; STAR and its Modeling WG and Status and Trends WG

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Thank you!

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Useful Links

- FY21 Workshop RFP
- Workshop Overview
- Workshop/Proposal Protocol
- STAC Workshop Webpage– Upcoming workshop details posted here