



THE ABSTRACT

A Monthly Update from the Scientific and Technical Advisory Committee

November 2016

Table of Contents

- [Recent STAC News](#)
 - [December 2016 STAC Quarterly Meeting](#)
 - [Upcoming STAC Quarterly Meetings](#)
 - [Other Activity Updates](#)
- [Key Events](#)
- [Scientific, Technical Assessment and Reporting Team \(STAR\) Updates](#)
- [Goal Implementation Team \(GIT\) Updates](#)
- [New Chesapeake Research Consortium \(CRC\) Communications and Outreach Program](#)

Recent STAC News

December 2016 STAC Quarterly Meeting

December 6-7, 2016

Crowne Plaza - Annapolis, MD

STAC will host its third quarterly meeting of FY16 on December 6-7th at the Crowne Plaza hotel in Annapolis, MD. STAC Vice-Chair, Brian Benham (VT) will lead this meeting in the absence of STAC Chair, Lisa Wainger (UMCES). The STAC Executive Board (EB) hosted a call on October 25th to discuss themes, presenters, and topics for the upcoming meeting. STAC staff and the Chair/Vice-Chair have worked over the past month to prepare a finalized draft agenda and are currently contacting presenters. STAC members should have received the draft agenda, but may also access it and other meeting information on the [December 2016 STAC quarterly meeting webpage](#).

Upcoming STAC Quarterly Meetings

- **2017 STAC Quarterly Meeting Dates**
 - March 14-15th
 - June 13-14th
 - September 12-13th
 - December 5-6th

Other Activity Updates

STAC FY16 Workshops

STAC will be hosting the following four workshops in FY16. Planning is underway for several of these upcoming activities.

- 1) *An Analytical Framework for Aligning Chesapeake Bay Program (CBP) Monitoring Efforts to Support Climate Change*
- 2) *Legacy Sediment, Riparian Corridors, and Total Maximum Daily Loads (TMDLs)*
- 3) *Quantifying Ecosystem Services and Co-Benefits of Nutrient and Sediment Reducing Best Management Practices (BMPs)*
- 4) *Understanding and Explaining 30+ Years of Water Clarity Trends in the Bay's Tidal Waters*

For more information on these workshops, contact STAC Staff, Renee Kelly (CRC) at kellyr@si.edu.

FY15 Workshop Reports

STAC distributed a workshop report entitled "The Development of Climate Projections for Use in CBP Assessments" on October 21, 2016. This report summarizes the findings from a March 2016 workshop focused on assessing the applicability of available climate data, downscaling techniques, projections, and scenarios to establish an approach for the future application of climate in Chesapeake Bay Program (CBP) assessments. Workshop consensus was that all aspects of climate change, and their impacts on living resources, should be addressed as soon as possible. The report also contains recommendations on immediate and future management actions regarding impacts to Bay water quality. Click [here](#) for the full report.

STAC is working to finalize five reports from the following FY15 workshops. The workshop steering committees are in the process of drafting reports that will be distributed to the Partnership over the next few months. Information regarding each workshop – including agendas, presentations, and reports (as available) – can be found on the [STAC workshop webpage](#).

- 1) *Linking Wetland Workplan Goals to Enhance Capacity, Increase Implementation*
- 2) *Assessing Uncertainty in the CBP Modeling System*
- 3) *Cracking the WIP: Designing an Optimization Engine to Guide Efficient Bay Implementation*
- 4) *Integrating and Leveraging Monitoring Networks to Support the Assessment of Outcomes in the New Bay Agreement*
- 5) *Comparison of Shallow Water Models for Use in Supporting Chesapeake Bay Management Decision-making (Part I and II)*

For more information on the above reports, contact STAC Coordinator, Rachel Dixon (CRC) at dixonra@si.edu.

Update on STAC Peer Reviews

STAC distributed a review report entitled "Scientific and Technical Advisory Committee Peer Review for the James River Chlorophyll-*a* Criteria Re-evaluation" on November 7th, 2016. Click [here](#) for the full report.

STAC has four additional review activities currently in progress. Details of those reviews are listed below.

Chesapeake Bay Water Quality Criteria Addendum

The STAC Criteria Addendum review panel is still finalizing its review of the 2015 Chesapeake Bay Water Quality Criteria Addendum. The review panel suggested a clarifying re-write of the addendum. The review panel is in the process of working with the CBP to produce a new and improved document incorporating the panel's comments.

Phase 6 Chesapeake Bay Watershed Model

The review panel convened in late September to discuss the material to be reviewed with CBP representatives. The panel is currently working to finalize their report summarizing the findings and recommendations from their review. The panel will continue to work with the CBP over the next two months to complete all aspects of the request.

General Additive Models (GAMs) Approach on Tidal Trends

In late September, STAC approved the review request on Generalized Additive Model (GAM) approach for tidal trends from the WQGIT and STAR's Integrated Trends Analysis Team. The panel is currently conducting their review, which will take place over the next two months.

Boat Wake Wave Impacts on Shoreline Erosion

STAC approved the Chesapeake Bay Commission (CBC) requested STAC technical review of potential impacts of boat generated waves on shoreline stability and attendant ecosystem properties, and provide advice on available policy actions to minimize adverse effects. The review panel is currently working to finalize its review. Currently, the panel is getting input from external reviewers, and will be working to finalize their report during the month of December.

Upcoming Reviews

STAC is working closely with CBP representatives to plan for four additional STAC-sponsored independent scientific peer reviews by spring 2017. These STAC reviews will help inform the Partnership's 2017 Midpoint Assessment (MPA). The remaining review requests are expected in the coming months.

- 1) ***Application of WRTDS to watershed WQ trend analysis and explanations***
- 2) ***Chesapeake Bay Water Quality/Sediment Transport Model (WQSTM)***
- 3) ***Approach being taken to factor climate change considerations into the 2017 Chesapeake Bay TMDL MPA***
- 4) ***Phase 6 Land Use Hind Cast Methodology***

For additional information regarding the reviews above, contact STAC Coordinator, Rachel Dixon at dixonra@si.edu or visit the [STAC review webpage](#).

Key Events

There are a number of relevant conference calls and meetings to which STAC members should pay special attention. All upcoming CBP related events can be found on the [CBP meeting calendar](#). Each listing provides logistical information and meeting materials, when available.

STAR Updates

STAR held a meeting on October 27th. STAC Coordinator, Rachel Dixon (CRC) and STAC Executive Secretary, Bill Ball (CRC) presented highlights of the workshops and reviews currently underway, an overview of the STAC Review Process for ongoing MPA Reviews, and other relevant STAC priorities and activities going into FY17. This presentation (available [here](#)) and the discussion that followed were used to encourage further communication between STAR, STAC and the GITs. The meeting also included a discussion with STAR regarding any responses to the STAC presentation, as well as a review of the Status and Trends workplan. The next STAR meeting is scheduled for December 1st.

A Climate Change Webinar was hosted by the STAR Team's Modeling Workgroup and Climate Resiliency Workgroup Co-Chairs and Coordinators on October 18th. This webinar aimed to increase understanding of what current science, research, modeling and assessments are telling us about climate change and its impacts on Chesapeake Bay water quality standards attainment. It reviewed the preliminary modeling results and provided insight into how impacts could influence expectations for the states nutrient and sediment pollutant load reductions between 2018 and 2025. It also explored options for how to integrate consideration of climate change into the Phase III Watershed Implementation Plans (WIPs) and reviewed the Partnership's timeline for deciding when and how to factor climate change considerations into the Phase III WIPs. Click [here](#) to learn more about the webinar and view all available presentation slides. Please note, there is no recording of this webinar available due to technical difficulties. A second Climate Change Webinar will be scheduled for March 2017.

On October 20th, a Conowingo Webinar was hosted by a team of experts, convened by the STAR Team and its Modeling Workgroup. This webinar focused on monitoring trends and early model scenario results for the lower Susquehanna River watershed and Conowingo Reservoir to more fully understand the impacts to Chesapeake Bay water quality changes from the loss of the Dam's trapping capacity. The webinar featured a presentation from the Modeling Workgroup on the proposed assessment of Bay water quality impacts from Conowingo infill using the Partnership's Phase 6 Chesapeake Bay Watershed Model and Chesapeake Bay Water Quality/Sediment Transport Model (WQSTM). This combination of enhanced modeling capability and explanation of long term monitoring trends will help inform upcoming Partnership decisions on Phase III WIP planning targets and expectations to offset additional loads from Conowingo Dam. To listen to the webinar and/or view presentation slides, click [here](#).

If you have any questions regarding STAR activities, please contact STAR Coordinator, Peter Tango at ptango@chesapeakebay.net or visit [STAR's webpage](#).

GIT Updates

***The following updates are provided by the CBP. Some GITs do not have recent updates to provide at this time.**

Sustainable Fisheries Goal Implementation Team (GIT 1)

The Sustainable Fisheries will be hosting their [biannual full goal team meeting](#) on December 6th at the Chesapeake Bay Foundation's (CBF) Philip Merrill Environmental Center and December 7th at the CBP Fish Shack in Annapolis, MD. Meeting topics will focus on oyster restoration, ecosystem services, and research in the Chesapeake Bay, as well as blue crabs, forage, and fish habitat.

The CBP approved two Fisheries [GIT-funded projects](#), which are set to be awarded to bidders this December. These two projects include a study on oyster shell/habitat loss dynamics in the Bay and an evaluation of ecosystem factors on the blue crab population. In addition, the Fisheries GIT collaborated with the Habitat GIT for a project on citizen monitoring submerged aquatic vegetation (SAV) beds, which includes a pilot study component to test forage sampling gear.

Additionally, an oyster indicator and dashboard are in development by the Fisheries GIT. The dashboard seeks to communicate progress toward the [Oyster Restoration Outcome](#) of restoring 10 tributaries by the year 2025. This dashboard names all selected tributaries, quantifies the amount of completed in-water restoration acreage and target acreage and reports the progress of each tributary. The proposed indicator is acres of in-water restoration, defined as reef construction or seeding practices in tributaries. These metrics and communication tools will be available online at [Chesapeake Progress](#).

Lastly, the Fisheries GIT's Forage and Fish Habitat Action Teams met for their quarterly meeting in September to review current efforts, receive updates from team members, and plan next steps for tracking and moving forward on workplan actions.

For more information on the Fisheries GIT, contact Kara Skipper (CRC) at kara.skipper@noaa.gov or visit the [Sustainable Fisheries GIT webpage](#).

Habitat Goal Implementation Team (GIT 2)

The Habitat GIT will hold their fall 2016 meeting at the National Conservation Training Center (NCTC) in Shepherdstown, WV on November 14th. The GIT will be moving forward on coalescing the shared state actions and tools into a watershed-wide, landscape-scale vision to further the Chesapeake Conservation Design concept. An extension of the Habitat GIT meeting will take place on November 15-16th at NCTC for members of the SAV Workgroup and the Black Duck Action Team as Tetra Tech and the Climate Resiliency Workgroup present decision making workshops on their Climate Resiliency Assessment and Decision-Making Matrix project.

The Habitat GIT Chairs and Workgroup Chairs participated in a series of Regional Conservation Opportunity Areas (RCOA) webinars throughout August and September. The Habitat GIT worked with the webinar Steering Committee members to think of ways that Workgroups can benefit from using the RCOA tool and to provide feedback for the North Atlantic Landscape Conservation Cooperative (NALCC) on how to tailor a workshop specifically for Chesapeake Bay restoration practitioners. The RCOA tool will be used to help the Habitat GIT move forward with integrating the concept of Chesapeake Conservation Design in their work.

Members of the Brook Trout Action Team and Habitat GIT met in October to identify a new Brook Trout Outcome indicator with which to monitor progress. The CBP's Brook Trout Outcome indicator will be the Eastern Brook Trout Joint Venture (EBTJV) 3-5 year occupancy census clipped to the Chesapeake Bay Watershed. CBP will use a map produced by the EBTJV to identify key geographies within the Chesapeake Bay Watershed where individual states intend to focus their work for reporting annual updates and interim progress on two-year milestones.

For more information regarding the Habitat GIT, please contact Kyle Runion (CRC) at Runion.Kyle@epa.gov or visit the [Habitat GIT webpage](#).

Water Quality Goal Implementation Team (GIT 3)

The Water Quality GIT (WQGIT) held a two-day in person meeting on October 24-25th in Hershey, PA. This two-day meeting focused on overall upcoming decisions to be made through spring 2017. On day one, the GIT discussed the following topics: 1) Phase III WIP Planning Targets Methodology, 2) Findings from Running of Initial Ranging Scenarios Through the Watershed and Bay Water Quality Models, 3) Understanding the Effects of the Conowingo Dam and Reservoir on Bay Water Quality, 4) Base Conditions for Phase III WIPs, and 5) Expanding the Role of Observed Monitoring Trends in Development of the Phase III WIP Planning Targets. Day two featured the following discussions: 1) Options for Factoring in Consideration of Climate Change into the Phase III WIPs, 2) the Partnership's Local Area Planning Targets Task Force's Preliminary Recommendations, and 3) Options for Addressing Best Management Practice (BMP) Expert Panel Reports Beyond Phase 6 Model Deadlines. Click [here](#) to review the decisions and actions that came out of this meeting.

For more information regarding the WQGIT, please contact Lucinda Power (EPA) at power.lucinda@epa.gov or visit the [WQGIT webpage](#).

Maintain Healthy Watersheds Goal Implementation Team (GIT 4)

The Healthy Watersheds GIT is planning for their next meeting. The main objectives will be to obtain updates from stakeholder groups on important priorities related to the diversity workplan to engage non-traditional groups and to track progress on 2016 workplan activities. The next Healthy Watersheds GIT meeting is scheduled for November 18th.

For more information regarding the Healthy Watersheds GIT, please contact Renee Thompson (USGS) at rtompson@chsapeakebay.net or visit the [HW GIT webpage](#).

Fostering Stewardship Goal Implementation Team (GIT 5)

The Stewardship GIT met on November 1st. The agenda included discussions on the Cross-GIT Project: Identifying Geographic Areas that Benefit Multiple CBP Outcomes and the Biennial Strategy Review Process. The group also shared workplan and GIT-funded project updates. The Stewardship Indicator Sub-Workgroup met in September to review the updated analysis of the stewardship performance and stewardship factors influencing indicator based on last meeting's discussion. The stewardship indicator tool is near completion and baseline data will be collected in 2017. The survey will ultimately track stewardship performance to develop a type of stewardship index.

The Environmental Literacy's Education Workgroup will hold a meeting on November 10th to update and engage the Workgroup on new and ongoing projects concerning School Grounds for Learning, the urban

stormwater project, the Environmental Literacy Indicator Tool (ELIT), and the Meaningful Watershed Educational Experience (MWEE) How-To Guide. In addition, the Environmental Education Leadership Workgroup will convene at NCTC on December 14-15th to receive state workplan updates, revisit the ELIT, and review a grant assigned to state and regional sustainable schools.

The Public Access team is continuing to make progress on the Public Access site development. The team will meet November 18th to review management strategies and progress towards the 300 site goal.

The Chesapeake Conservation Partnership's steering committee held its annual meeting on October 13-14th to discuss what is required collectively and individually to "bend the curve" and increase acres conserved and other conservation outcomes. Federal and state partners discussed the status of funding mechanisms available to expand on approaches for increasing revenue for land conservation. The group continues to work to credit land conservation in the total maximum daily load (TMDL) formula and develop messaging about the Partnership's goals using a "network of networks" approach.

For more information regarding the Fostering Stewardship GIT, please contact Amy Handen (NPS) at ahanden@chesapeakebay.net or visit the [Fostering Stewardship GIT webpage](#).

Enhancing Partnering, Leadership, and Management Goal Implementation Team (GIT 6)

The Enhancing Partnering, Leadership, and Management GIT has been working with other GITs, STAC, and other members of the Partnership to develop a Biennial Strategy Review System (SRS). The system is being designed to fulfill the expectations set forth in the 2014 Chesapeake Watershed Agreement for a two-year cycle that updates the program's management strategies. A draft version of the SRS was presented to the Management Board (MB) on September 15th for review and comment, and to the Principals Staff Committee (PSC) on October 26th. Next steps include expanding on key system meeting details and developing system templates. The GIT plans to present a final recommendation to the MB in November or December 2016.

A final selection of FY16 GIT Funding projects took place in August 2016; fifteen projects were approved for funding, with a total requested amount of \$894,000. Detailed statements of work for each proposal were submitted to the Chesapeake Bay Trust (CBT) on September 20th. The CBT issued a Request for Proposals (RFP) to seek bidders in early October 2016, with a submission deadline of November 18th, after which, the winning bidders will be selected and work with the GIT technical leads will begin.

The Budget and Finance Workgroup has formed an Action Team to coordinate the Program's response to University of Maryland Environmental Finance Center's "Environmental Finance Symposium Report and Recommendations." The Action Team will develop a proposal on how to proceed with the high priority recommendations, reporting periodically to the MB and the PSC on their progress.

The Local Leadership Workgroup is working with a small group of members, contractors (EcoLogix), and external parties with experiences in local outreach to develop a series of survey questions aimed at understanding the information needs and preferred delivery mechanisms of local elected officials in the Bay watershed. The Workgroup is planning to use existing forums within Bay jurisdictions (i.e., Maryland Association of Counties), as well as targeted outreach to individuals, to conduct "focus group" style sessions in an effort to gather responses from a diverse set of local elected officials.

