



**Chesapeake Bay Program's (CBP)
Scientific and Technical Advisory Committee (STAC)
March 23-24, 2021 Quarterly Meeting Minutes
Webinar Meeting**

Tuesday, March 23rd

Attendance:

Members: Adel Shirmohammadi, Andy Miller, Brian Benham, Bill Dennison, Chanceé Lundy, Deidre Gibson, Ellen Gilinsky, Eric Smith, Greg Noe, Hamid Karimi, Jason Hubbard, Jeremy Testa, JK Bohlke, Katherine Bunting-Howarth, Kathy Boomer, Kirk Havens, Kenny Rose, Kurt Stephenson, Lara Fowler, Larry Sanford, Leah Palm-Forster, Leonard Shabman, Mark Monaco, Mike Runge, Tess Thompson, Tom Ihde, Tom Johnson, Tony Buda, Weixing Zhu, Zach Easton

Guests: Ben Lewis (VA DGIF), Bo Williams (EPA), Breck Sullivan (CRC, STAR), Briana Yancy (CRC), Brooke Landry (MD DNR), Caitlyn Johnstone (The Alliance), Gary Shenk (USGS), Jeff Seltzer (Deputy Director, DOEE), Jennifer Starr (The Alliance), Jess Blackburn (The Alliance) Joe Wood (Chesapeake Bay Foundation), Julie Lawson (Mayor's Office of the Clean City, Washington DC), Julie Reichert-Nguyen (NOAA), Mark Bennett (USGS), Megan Ossman (CRC), Melissa Fagan (CRC), Meryem Karad (Assistant Secretary of Natural Resources, VA), Pam Mason (VIMS), Peter Tango (USGS), Rebecca Hanmer (EPA)

Administration: Annabelle Harvey, Denice Wardrop, Meg Cole

Call to Order, Announcements—Andy Miller (STAC Chair – UMBC)

Andy Miller (UMBC) called the meeting to order at 1 pm. Miller requested a motion to approve the December 2020 Quarterly Meeting Minutes and the March 2021 Executive Board Meeting Minutes. Both documents are approved.

DECISION: The December 2020 Quarterly Meeting Minutes and March 2021 Executive Board Minutes are approved.

Recap of STAC December 2020 Quarterly Meeting—Andy Miller (UMBC)

Miller (UMBC) recapped recent STAC business with major action items resulting from the STAC December 2020 Quarterly Meeting and a summary of the March [Principals' Staff Committee](#) (PSC) meeting. Starting with the December STAC Quarterly meeting, Miller highlighted STAC's commitment to increased collaboration across Chesapeake Bay Program (CBP) advisory groups. On Day 1, the Local Government Advisory Group (LGAC) and Citizens Advisory Committee (CAC) provided updates on their current business, and LGAC will work with STAC Staff to host a mini-workshop on the [impacts of COVID-19 on Local Governments](#). This workshop will be the first in a series of three virtual workshops on the affect the pandemic has had on 1) local government, 2) fisheries, and 3) nutrient dynamics, respectively. Similarly, Miller suggested STAC Members

revisit December action items requesting Member feedback to the larger Bay Program, including reviewing the [Clean Water Cohort Science Needs](#) Presentation and the [Science Needs database](#). The CBP Communications Team also requested STAC members reach out to their Office with any new research papers, reports, and/or discoveries they would like communicated to the public. Day 2 of the December Quarterly Meeting was devoted to the STAC Comprehensive Evaluation of System Response (CESR) effort. To preface the discussion, Carl Hershner (VIMS) and Kirk Havens (VIMS) presented on adaptive management in the Chesapeake Bay, and Mike Runge (USGS) on identifying decision-relevant uncertainty. This conversation is important to the ongoing STAC CESR effort in understanding which identified uncertainties and gaps are decision-relevant.

Miller reviewed important takeaways from the March [Principals' Staff Committee](#) (PSC) meeting and the Management Board meeting, with input from Kathy Boomer (FFAR), STAC Vice-Chair. Miller noted there was extensive discussion regarding the DEI-focused Community Advisory Board (CAB) at the PSC meeting, with recommendations to slow down its establishment in order to solicit feedback from underrepresented groups. There was some additional debate on whether the DEI CAB should be a standalone group or absorbed into an existing CBP advisory board. This conversation may have larger implications on DEI policy within the Program and are relevant to current STAC business surrounding membership nomination and selection. Additionally, Miller noted there are two Executive Council (EC) meetings this year, one of which is focused on climate change. At the PSC, there were additional discussions on adaptation and litigation, soil health, and resilience of BMPs against climate change. During the PSC meeting, Miller mentioned that STAC has two relevant synthesis reports forthcoming. To STAC, Boomer commented on her disappointment in the Biden administration's omission of watershed management in its approach to climate change as presented by Vicki Arroyo (EPA), as well as her concern that the CBP is too narrowly focused and neglects potential impacts to nontidal regions. Highlighting possible points of interest for STAC, Boomer shared slides previously presented by Lee McDonnell (EPA) at the PSC meeting on the CBP Partnership Monitoring Networks and suggested McDonnell speak with STAC Members at an upcoming meeting regarding the various networks.

Finally, Miller provided updates on the Conowingo WIP and informed Membership the financing plan will be publically available at the end of Summer 2021. The project is funded by private and public capital, and as discussed at the PSC meeting, private capital will be brought to the table by recommendation of expert panels. Miller raised a concern to STAC that expert panels may potentially create incentives other than for the benefit of the Bay.

[STAC Membership Update](#)—*Annabelle Harvey (CRC), Andy Miller (UMBC)*

Annabelle Harvey (CRC) presented an update on STAC Membership and the upcoming changes to the membership process. As of March 2021, there was one at-large vacancy on the Executive Board and two Pennsylvania Gubernatorial vacancies; by September 2021, five additional at-large vacancies will become available. In order to fill these positions, STAC Staff has historically solicited feedback from STAC using a survey which focused on expertise and requested nominations based on personal professional experience. STAC Staff will develop a plan for soliciting nominations from a wider, more-diverse network by working in conjunction with the Diversity Workgroup and with input from the DEI Action Team. The DEI Action Team is

currently working on guidance for Bay Program Advisory Committees on increasing diversity in membership, as well as other DEIJ principles throughout our documents. STAC Member interested in providing comments and/or feedback are suggested to email Harvey (harveya@chesapeake.org). STAC as a whole will be updated on further details of this new process in June 2021.

STAC Workshop RFP FY21 Results – Annabelle Harvey (CRC)

Recent approved changes to STAC workshop protocol in the [FY21 Request for Proposals](#) (RFPs) included a new requirement that all workshop RFPs address the possibility of convening virtually, and workshops are now labeled as either ‘programmatic’ or ‘state of the science’ workshops. The [Workshop Overview](#) and [Workshop/Proposal Protocol](#) document were both recently updated.

All five received FY21 workshop proposals were approved by STAC Membership. Ellen Gilinsky (Gilinsky, LLC.) recommended the proposal, *Improve the Understanding and Coordination of Science Activities for PFAS in the Chesapeake Bay Watershed*, add additional expertise to the Steering Committee and continue to focus workshop objectives. Regarding the proposal, *Systems Approach to BMP Crediting*, Boomer requested the proposal utilize already published research such as previous STAC and expert panel efforts as a springboard for the workshop, and pointed out the opportunity for this effort to emphasize the connection between the natural processes. Gilinsky seconded Boomer and stated similar work has been completed on ecosystem services of restored wetlands as a best management practice (BMP) in the Great Lakes, the Mississippi River, Iowa, and elsewhere. Adel Shirmohammadi (UMD) suggested constructed wetlands in addition to tidal and nontidal wetlands should be considered, and Tess Thompson (VT) requested the proposal be more detailed in describing the type and context of wetland. Zach Easton (VT) stated the title was overly general and the proposal is about wetlands and not BMPs in general.

Tom Ihde (Morgan State) commented on the narrow focus of the proposal, *Improving Modeling and Mitigation Strategies for Poultry Ammonia Emissions Across the Chesapeake Bay Watershed*, and suggested a funded research project may be a better avenue than a workshop; Shirmohammadi disagreed and reinforced the number of linked issues including air emissions and health impacts. Similarly, Tom Ihde suggested examining the cumulative effects and not simply singular impacts in the proposal, *Rising Watershed and Bay Water Temperatures— Ecological Implications and Management Responses*.

DECISION: All five FY21 STAC Workshop Proposals were approved for funding, contingent that each reviews the comments and suggestions provided by the STAC membership.

[Science Needs of the Chesapeake Bay Program: Climate Change and Resiliency Cohort](#)—Breck Sullivan (STAR, CRC); Outcome leads

Breck Sullivan (STAR) along with representatives from the Climate Change and Resiliency Cohort presented on the group’s current science needs and Strategy Review System (SRS) progress. The Climate Change and Resiliency Cohort has four outcomes: Wetland, Black Duck, Climate Monitoring and Assessment, and Climate Adaptation. This cohort presented their progress to

Management Board in November and submitted final workplan materials for the Wetlands and Black Duck outcomes in March, with an extension for climate-related outcomes to late April.

Following a summary of Wetlands outcomes, Denice Wardrop (CRC) requested that for future discussions, cohorts quantify for STAC Membership their science need as either a request for knowledge, tools, and/or resources. For the last two identified Wetlands Cohort science needs, Wardrop volunteered to help fill the knowledge gap by sharing current projects and data evaluating similar concerns. Kenny Rose (UMCES) recommended CBP Workgroups avoid terms such as ‘tools’, ‘understand’, and ‘access’ as these terms have multiple meanings and may be too vague to be actionable. In response to the impacts of Sea Level Rise (SLR) on Wetlands science need, Boomer noted a lack of addressing climate change risks to nontidal regions and emphasized the importance of assessing these changes for the purposes of urban and agricultural planning. Mark Bennett (USGS) reported out on the climate outcomes and solicited STAC for funding strategies related to meeting these needs –Thompson suggested reaching out to the Chesapeake Bay Trust to discuss their Pooled Monitoring program as a potential model for funding applied research.

ACTION: STAC members are requested to submit feedback on the Climate Change and Resiliency Cohort, the Impact of climate change on BMPs Science Need, and the Impacts of sea level rise Science Need. Please either email STAC Staff or Breck Sullivan (bsullivan@chesapeakebay.net) directly with your comments and suggestions on the following questions:

- Do you or any of your colleagues have interest in contributing to addressing one of these needs?
- Do you want more information to come back to STAC from any groups on specific needs/projects?
- Are these needs appropriate? Do you see something missing?
- Do you have recommendations on ways to improve our engagement with you through this process?

All Science Needs are available on the database, [accessed here](#).

DEIJ Action Team Update—*Jeff Seltzer (Deputy Director, DOEE), Bo Williams (EPA)*
Representatives of the DEIJ Action Team, Jeff Seltzer (DOEE) and Bo Williams (EPA), spoke to STAC on the Chesapeake Bay Program DEIJ Action Team, including the development of the DEIJ strategy, team “vision”, draft implementation plan, and the establishment of the Community Advisory Board (CAB). STAC Member feedback largely supported the effort of incorporating DEIJ principles into the Program but debated whether the CAB should be integrated into an existing group. Gilinsky stressed the need for STAC to expand outreach and recruitment by inviting community leaders/scientists to sit on the Committee, and Kirk Havens (VIMS) added incorporating indigenous researchers and their knowledge into the Program would be beneficial.

ACTION: STAC members are encouraged to provide additional feedback on the DEIJ Action Team Implementation Plan. Please log your feedback using [this form](#). Questions to consider are as follows:

- What steps would STAC (and other advisory committees) need to take to implement these actions?
- Are these actions feasible? How likely are they to be implemented?
- Are additional resources, training, or guidance necessary to implement these actions?
- Are action timelines reasonable and accurate?

STAC Workshop Report-Out: SAV Monitoring Program—Brooke Landry (MD DNR), Peter Tango (USGS)

Brooke Landry (MD DNR) reported out on the STAC FY19 workshop entitled, *Exploring Satellite Image Integration for the Chesapeake Bay SAV Monitoring Program*. This effort was conducted in part to bolster the Program’s long-term sustainability and efficiency by examining if high-resolution Commercial Satellite Imagery (CSI) could replace fixed-wing aircraft aerial imagery. This workshop was multi-session, although the fourth session was cancelled due to COVID-19. Peter Tango (USGS), STAC Co-Coordinator, followed Landry with a presentation on implementing the recommendations resulting from the SAV monitoring workshop. The expectation for the Water Quality Monitoring Outcome is to continue to sustain and grow our ability to assess the Bay. Mark Monaco (NOAA) inquired about the increase in accuracy when moving to machine learning techniques and the accepted accuracy for interpretation, Monaco also offered his expertise on accuracy assessment offline. Greg Noe (USGS) asked about remote sensing of spatial and temporal gradients of suspended sediments in the Bay.

Wednesday, March 24th

Members: Adel Shirmohammadi, Andy Miller, Brian Benham, Bill Dennison, Chanceé Lundy, Deidre Gibson, Ellen Gilinsky, Eric Smith, Greg Noe, Hamid Karimi, Jason Hubbart, Jeremy Testa, JK Bohlke, Katherine Bunting-Howarth, Kathy Boomer, Kirk Havens, Kenny Rose, Kurt Stephenson, Lara Fowler, Larry Sanford, Leah Palm-Forster, Leonard Shabman, Mark Monaco, Mike Runge, Tess Thompson, Tom Ihde, Tom Johnson, Tony Buda, Weixing Zhu, Zach Easton

Administration: Annabelle Harvey, Denice Wardrop, Meg Cole

STAC’s Comprehensive Evaluation of System Response: CESR

– Kurt Stephenson (VT), Zach Easton (VT)

All of Day 2 was used for the Comprehensive Evaluation of System Response (CESR) effort. Kurt Stephenson (VT) began the meeting with an overview of CESR objectives and direction, after which the CESR Steering Committee members and workgroup leads reported out on their respective progress. Workgroups met to work on their sections during the first workgroup breakout and at the second, representatives from each workgroup joined others to provide feedback on current products and make connections across sections. At the end of the meeting, there was a STAC-wide discussion to identify themes, outcomes, and next steps. Wardrop offered to champion the effort within the Bay Program and assume the role of “seamstress”. A number of CESR SC Members welcomed the offer and Wardrop will continue to work with

Stephenson to craft the CESR document in this position. Wardrop commented on the visuals in the Estuary Workgroup document, describing them as especially helpful for the audience the CESR document is targeting and discussed funding for the development of similar graphics for the other two workgroups.

After the three workgroups provided an overview of their current status, workgroups met to work internally on draft documents in breakout groups and then later in inter-workgroup breakouts. For the Living Resources document, Rose stated the importance of individual workgroup conclusions to the overall document tone and messaging going forward. Monaco (NOAA) agreed and suggested this group reach out to Wardrop to help craft the final stages of this document. Dennison and Mike Runge (USGS) discussed the Estuary section next steps, mainly the addition of supplemental materials in the introductions and conclusion/implication section. Runge recounted one of the fundamental objectives as defining management actions within the watershed, some of which are affected by the TMDL and some not. Future work on this section will emphasize missing processes in estuary relevant to the long-term conversation of management goals. Easton discussed the watershed existing document, including topics identified for further analysis (i.e. sediment) and recommendations needing more detail. Jeremy Testa (UMCES) summarized synergies across workgroups from the Estuary perspective, identifying adaptive management, monitoring gaps in management actions, and climate change impacts as important themes across all workgroup sections.

ACTION: CESR Steering Committee will continue to meet to examine framing, messaging, and connections within the document.

ACTION: Each workgroup will provide a timeline of when to expect iterations of their draft section by late April. Workgroups can contact the CRC to begin producing graphics and conceptual diagrams.

Wrap Up

The [June STAC quarterly](#) meeting will be remote and take place on June 15th and 16th. At this meeting, there will be updates on the following: the development of the Conowingo WIP and Exelon/MDE Agreement, the STAC COVID-19 mini-workshop sessions, and the STAC Climate Synthesis. The Acting Regional Administrator for EPA Region 3, Diana Esher, will be joining STAC for an introduction and Q&A session. Prior to the meeting, STAC Staff will solicit STAC Members for questions via an online survey. The majority of Day 2 is reserved for an update and progress on the CESR report.