



**Management Board
Program Update
December 9, 2021**

CBPO Calendar

Dec. 9	Management Board meeting
Dec 10	BMP Verification Ad-Hoc Action Team Meeting, December 2021
Dec 13	Water Quality GIT Conference Call
Dec 13-14	Joint CRWG and WWG December Meeting
Dec 15	Chesapeake Executive Council Meeting
Dec 16	Joint C/S/STAR Science Needs Discussion
Dec 16	CAST 2021 Webinar
Dec 21	Urban Stormwater Workgroup Conference Call
Jan 7-8	Chesapeake Bay Commission Meeting
Jan 21	Management Board meeting

Program Updates

Experts Find Average Size, though Longer Lasting ‘Dead Zone’ in Chesapeake Bay in 2021 – The “dead zone” in the Chesapeake Bay – an area of little or no oxygen for Bay life – was average in size in 2021, but longer in duration, the Chesapeake Bay Program announced on November 30. The Chesapeake dead zone forms annually as a consequence of the amount of pollution—particularly nitrogen and phosphorus—that enters the Bay from its watershed. But weather impacts its spread and how long it will last each year. Meaning that if [climate change](#) continues to negatively impact the Bay, the dead zone may stay around even longer and become more severe in the years to come. In a press release, Acting CBPO Director Michelle Price-Fay said, “This year’s estimate of the Chesapeake’s dead zone illustrates the challenge between Chesapeake Bay Program management actions and climate change that brings increased volume and river flows. While the long-term trend is toward a reduction in hypoxia due to management actions taken throughout the watershed, warming from climate change is a headwind that may increase hypoxia’s duration and extent.”

Contact: Tom Damm, 215-814-5560

Largest Oyster Restoration Project in World Is Completed in Virginia

Oyster reefs in two Virginia rivers—the Great Wicomico and Piankatank—have been officially restored as of November 30, 2021, marking progress toward the Oysters Outcome in the *Chesapeake Bay Watershed Agreement*. Thanks to the work of federal and state agencies and other organizations, the Piankatank River is now home to 438 acres of healthy oyster reef. It is currently the world’s largest completed oyster restoration project. The Great Wicomico River now has 127 acres of healthy oyster reef. In late 2020, Virginia announced \$10 million in new funding to support oyster restoration in the Chesapeake Bay. This marked the first time that capital funds, which are typically reserved for infrastructure projects, were explicitly designated to restore Virginia’s natural resources. This pursuit of

clean water benefits a variety of marine life and gets us closer to swimmable, fishable rivers across the Chesapeake watershed. For more information:
https://www.chesapeakebay.net/news/blog/the_worlds_largest_oyster_restoration_project_is_completed_in_virginia

EPA, NFWF Announces Grants to Benefit Pennsylvania and the Chesapeake Bay

EPA and the National Fish and Wildlife Foundation (NFWF) held a virtual press conference on Wednesday, November 17 to announce more than \$2.5 million for 10 grants in areas of Pennsylvania that will provide the greatest clean water benefit to the downstream Chesapeake Bay. The "Most Effective Basins" grants, when combined with the \$8.5 million in EPA-NFWF grants announced earlier this year for Pennsylvania, will together generate \$20 million in matching contributions for a total conservation impact of more than \$31 million. Region III Administrator Adam Ortiz represented EPA at the press conference.

Contact: Tom Damm, 215-814-5560

Advisory Committee Updates

Local Government Advisory Committee

The purpose of the LGAC is to advise the Executive Council on how to effectively implement projects and engage the support of local governments to achieve the goals of the Bay Agreement.

LGAC met December 2 and 3. On December 2 (or prior), each of the members met with their jurisdiction PSC member(s) to share LGAC 2021 Annual EC Recommendations as well as discuss watershed and local government commonalities. Some of the in-person meetings included state association representatives and jurisdiction staff to allow a broader conversation. On December 3, LGAC met virtually to discuss the outcomes of these conversations. In addition, LGAC heard from EPA Regional Administrator Adam Ortiz to share his thoughts with members and there was a conversation about new land use data, as well as regular business.

LGAC Chair Jasmine Gore will present LGAC's 2021 Recommendations to the Chesapeake EC at its annual meeting December 15 in Richmond, VA.

LGAC still seeks a New York representative.

If there are MB asks or requests to get LGAC feedback during future quarterly meetings, please contact the LGAC Coordinator, Jennifer Starr at jstarr@allianceforthebay.org. To be added to the Interested Parties list, please contact LGAC Staff at lgac@allianceforthebay.org.

Citizens' Advisory Committee

The Citizens Advisory Committee (CAC) is charged with responsibility for representing residents and stakeholders of the Chesapeake Bay watershed in the restoration effort and advising the Chesapeake Bay Program Partnership on all aspects of restoration.

- The CAC held their final quarterly meeting of 2021 on Dec 1-2 in Harrisburg, PA.
- CAC Subcommittees for Water Quality, Emerging Issues; Stewardship and Engagement continue to meet and discuss their recommendations that will be included in the annual report to the Executive Council.

- There are 2 PA gubernatorial vacancies and 2 DC mayoral vacancies.
- The CAC officers are Julie Lawson (DC), Chair and Ann Jurczyk (VA), Vice-Chair.

To be added to CAC's Interested Parties List, please contact: Adam Bray abray@allianceforthebay.org for program questions, contact Jessica Blackburn jblackburn@allianceforthebay.org

Scientific and Technical Advisory Committee (STAC)

For any inquiries, or to be added to STAC's Interested Parties list, contact STAC Coordinator, Annabelle Harvey (harveya@chesapeake.org)

Visit the STAC website at www.chesapeake.org/stac

STAC FY2022 Request for Proposals: Proposals due February 16, 2022

The Chesapeake Bay Program's (CBP) Scientific and Technical Advisory Committee (STAC) is accepting proposals for STAC-sponsored workshops for the STAC fiscal year 2022 budget cycle (beginning June 1, 2022). Workshops are convened to gather critically needed scientific or technical information related to protection and restoration of the Chesapeake Bay and its watershed. Workshops funded through this RFP must be convened by May 31, 2023. The total amount allocated by STAC will not exceed \$10,000 for each workshop activity.

As an independent advisory committee to the entire Chesapeake Bay Partnership, STAC reserves funds for two categories of workshops:

1. **Programmatic Workshop:** 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. This will provide the CBP Partnership with a clear next-step to take action on the recommendations.
2. **State of the Science Workshop:** A STAC Workshop with the 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 and strategies to address gaps in the science.

The current STAC membership list can be found [here](#).

Proposals are due to STAC Coordinator, Annabelle Harvey (harveya@chesapeake.org) by COB February 16, 2022.

Materials linked on STAC Website:

- [STAC Workshop FY2022 Request for Proposals](#) (also attached)
- [STAC Workshop Overview](#)
- [STAC Workshop Protocol](#)
- [STAC Publications Protocol](#)

STAC December Quarterly Meeting: December 7, 2021

STAC will meet virtually on December 7, 2021, to further work on the CESR effort, be updated on recent STAC workshops and membership processes, and strategically plan for the next two years of STAC activities and priorities. STAC will also hear from the new EPA Region 3 Director, Adam Ortiz. More information, agenda, and materials can be found on the [STAC December Meeting Page](#).

Approved STAC 2022 Quarterly Meeting Dates

March 8-7, 2022

June 14-15, 2022

September 13-14, 2022

December 6-7, 2022

Upcoming STAC Workshops: Follow links to workshop webpage for additional information

December 9, 2021 [**Session 1: Advancing Monitoring Approaches to Enhance Tidal Chesapeake Bay Habitat Assessment**](#)

January 12, 2022 [**Day 1: Rising Watershed and Bay Water Temperatures—Ecological Implications and Management Responses: A Proactive Programmatic CBP STAC Workshop**](#)

March 22 - 23, 2022 [**Evaluating a Systems Approach to BMP Crediting: A STAC Programmatic Workshop**](#)

STAC Reports

Upcoming Reports:

STAC is working to finalize the following reports. Information regarding workshops held prior to January 2018 can be found on the [STAC archived workshop homepage](#). STAC Staff and the Executive Board are working with leads of reports from prior to FY2018 to potentially produce fact sheets or other products that would quicken the process of getting recommendations out to the Partnership. **Reports in bold are undergoing final review stages and will be released within the next quarter.**

1. Linking Wetland Workplan Goals to Enhance Capacity, Increase Implementation (FY2015)
2. Assessing Uncertainty in the CBP Modeling System (FY2015)
3. Comparison of Shallow Water Models for Use in Supporting Chesapeake Bay Management Decision-making (FY2015)
4. An Analytical Framework for Aligning Chesapeake Bay Program Monitoring Efforts to Support Climate Change (FY2016)

Several workshop steering committees are in the process of drafting activity reports and other workshop outcomes that will be distributed to the Partnership over the next few months. More information on recent workshop reports can be found on the [STAC past workshop webpage](#).

Goal Implementation Team, STAR and Communication Workgroup Updates

Sustainable Fisheries Goal Implementation Team

The Sustainable Fisheries GIT focuses on advancing ecosystem-based fisheries management by using science to make informed fishery management decisions that cross state boundaries.

- **Goal Team Membership Meeting:** The Fisheries GIT plans to host a virtual membership on January 6th and 7th of 2022. As is the usual winter theme, the meeting will be heavily focused on oyster restoration progress, ongoing oyster science, and emerging science needs/opportunities. A save-the-date will be distributed in the coming weeks.
- **SRS:** The Fish Habitat Action Team submitted their final materials for the next iteration of a two year action plan for acceptance at the December 9 Management Board Meeting. The oyster, forage, and blue crab outcomes, presented two-year progress at the November Management Board meeting. Action plan drafting for these outcomes is in progress.
- **Hypoxia Collaborative:** Coordination continues between NOAA and the Bay Program monitoring team as vertical DO profilers are being deployed for a late fall pilot. The team plans to utilize this initial deployment to gather lessons learned and to take note of operation costs and maintenance requirements. More will be heard about this undertaking during the winter PSC monitoring review

Contact: Bruce Vogt; bruce.vogt@noaa.gov

Habitat Goal Implementation Team

The Habitat GIT works to restore a network of land and water habitats to afford a range of public benefits and to support priority species.

- **HABITAT GIT:** The Habitat GIT Fall Meeting was held on November 9th and 10th, and featured presentations and discussions on workgroup projects and activities, cross-GIT collaboration, monitoring, DEIJ, local engagement, social science, urban habitat restoration, and more. The Meeting Minutes are being finalized and will be distributed in the near future. A workgroup chairs meeting will be held in February or March - details to follow.
- **WORKGROUP UPDATES/EVENTS:**
 - The Wetland and Climate Resiliency Workgroups will host a joint meeting scheduled for December 13th and 14th. The goals of the meeting are to exchange information on living shoreline projects involving threshold setting, targeting criteria, and social behavior, and discuss projects in the context of potential application to assist with assessing shoreline vulnerability, resilience, and promoting restoration action.
 - The Wetland Workgroup, Climate Resiliency Workgroup, SAV Workgroup, EPA ORD staff, and others have been meeting to share research interests and needs and discuss collaboration opportunities regarding Blue Carbon. The last meeting was held on November 30th.
 - A steering committee has been meeting weekly to plan the two workshops that will address increasing the implementation of tidal and nontidal wetland restoration.
 - Devereaux Consulting was chosen as the contractor that will develop a new and efficient method of tracking progress towards the wetland and black duck outcomes. The kick-off meeting was held on November 30th.
 - The next Stream Health Workgroup meeting is scheduled for December 10th.

- The Brook Trout Workgroup will be meeting with the CBP IT Team in the near future for discussions on IT support for on the development of a database tracking system.
- **GIT FUNDING:** The Brook Trout, Fish Passage, Stream Health, and Wetlands workgroups all submitted project proposals for the upcoming GIT Funding Cycle. The scoring period is now over and the final list of proposed projects to fund will be released shortly.
- **STRATEGIC REVIEW SYSTEM (SRS):**
 - As part of the Healthy Watersheds Cohort, the Stream Health and Fish Passage workgroups are almost complete with the SRS process. The updated workgroup Logic & Action plans will be presented to the Management Board on December 9th.
 - The Brook Trout Workgroup, also part of the Healthy Watersheds Cohort has been approved for a deadline extension for final SRS deliverables and will now be following the submission deadline calendar for the Aquatic Life Cohort. The workgroup's updated Logic & Action Plan will be submitted for Public & Signatory Feedback in February 2022.
 - The SAV Workgroup is part of the Aquatic Life Cohort and is preparing to share their science needs at the STAR meeting on December 16th, as well as start to revise their workplan and management strategy.
- **MANAGEMENT BOARD REQUESTS:** The Stream Health and Brook Trout workgroups have submitted specific requests for the Management Board for assistance related to outcome progress. Management Board members will be meeting with jurisdictional workgroup members and will be filling out surveys in response to these discussions. More information to follow, as these surveys are due November 18th (Stream Health) and December 17th (Brook Trout), and survey results will be distributed shortly thereafter.

Habitat GIT Contact: Megan Ossmann (ossman.megan@epa.gov) and Katlyn Fuentes (fuentesk@chesapeake.org)

Water Quality Goal Implementation Team

The Water Quality GIT works to evaluate, focus, and accelerates the implementation of practices, policies and programs that will restore water quality in the Chesapeake Bay and its tidal tributaries to conditions that support living resources and protect human health.

The WQGIT held a meeting on October 12, 2021. A subset of topics discussed includes:

- James Webber presented findings from a synthesis product with emphasis on strengthening decision making using modeling and monitoring; factors affecting water quality, including climate; and placement/targeting of practices.
- Peter Tango and Qian Zhang presented the water quality standards attainment indicator and attainment deficit results through 2019.
- Rebecca Murphy presented the Potomac tributary summary and story map, as an example linking estuary response to watershed loading.
- Lee McDonnell and Scott Phillips facilitated a discussion on approaches to enhance stakeholder engagement.

The WQGIT held a 2-day all-virtual meeting on October 25 and 26, 2021. A subset of topics discussed includes:

DAY 1:

- Dave Montali and Mark Bennett discussed why we use the modeling tools: to improve water quality. It is observed data that delists water bodies. However, we need data systems and models to track implementation progress and help plan policies, programs, and practices for water quality improvements; and to provide those setting the policies (legislators), programs (agencies), and practices (local governments, planners, and private entities) a means by which to make informed decisions with the latest available scientific data.
- Olivia Devereux discussed what happens in a CAST update versus a Phase update
- Lew Linker and Gary Shenk highlighted key updates/enhancements/functionalities that have been added to the models over the years and the various decisions that drove development of versions of the modeling tools over the years.
- Gary Shenk and Ken Hyer briefed the WQGIT on the role of monitoring data in model development.
- Lew Linker discussed three plans for the estuarine model to evaluate climate change and shallow water.
- Olivia Devereux discussed CAST functionality, with a focus on trends over time, WIP and scenario comparison, tributary summaries, and optimization interface.
- Peter Claggett presented the land change modeling workplan.
- Gary Shenk discussed the current watershed model workplan based on the feedback from other partnership groups.

DAY 2:

- Denice Wardrop and Kurt Stevenson presented STAC's assessment of system response and science needs and recommended strategies for integrating scientific and technical analysis with adaptive management to aid in decision-making under uncertainty.
- James Martin provided an overview of the charge to the Modeling Workgroup by the PSC to assess 2025 climate change conditions by 2025.
- Lew Linker and David Wood presented the management actions and associated deliverable that are responsive to climate change.
- Dave Montali and Mark Bennett provided an overview of the Phase 7 development timeline.
- James Martin and Ed Dunne provided an overview of the Phase 7 review process.
- WQGIT began discussions of the Phase 7 timeline and prioritization list.

The WQGIT will hold a meeting on December 13, 2021. A subset of topics to potentially be discussed includes:

- Phase 7 development timeline, work plan, and prioritization
- BMP Expert Panel Protocols
- Ag Mortality BMP Expert Panel Report
- WQGIT chair, vice-chair and at-large nominees

Water Quality GIT Contact: Hilary Swartwood (swartwood.hilary@epa.gov)

Healthy Watersheds Goal Implementation Team

The goal of the Maintain Healthy Watersheds Goal Implementation Team (GIT 4) is to maintain local watershed health across a range of landscape contexts. With this goal, GIT 4 intends to bring attention to the challenge of protecting streams and watersheds that are healthy today. This initiative complements the "dirty waters" approach which focuses on restoring impaired waters.

- The HWGIT has updated our Management Strategy and Logic & Action Plan. Our Management Strategy has been updated to include language on our commitment to The Chesapeake Executive Council's Diversity, Equity, Inclusion and Justice (DEIJ) Statement. The HWGIT Logic & Action Plan has been updated with current efforts, gaps, and metrics. Both documents have been submitted as final for acceptance at the December 9, Management Board Meeting.
- Table 1 for our GIT proposal, Chesapeake Healthy Watersheds Assessment 2.0 (CHWA 2.0) has been submitted. This project will further improve, refine, and finalize the Chesapeake Healthy Watersheds Assessment. The outcomes of the CHWA 2.0 include updated metrics for all Chesapeake Healthy Watersheds Assessment data layers, improved visualization, analysis, and filtering functionality to meet user needs, computed change statistics for appropriate metrics related to land use and vulnerability metrics and user customized fact sheets including interpretation of results. Lastly, we have been working on a Maintain Healthy Watersheds Story Map collection. Within the [collection](#) there are five Story maps including one on Chesapeake Healthy Watersheds, Adaptive Management, Chesapeake Healthy Watersheds Assessment, and Co-Benefits and Collaboration.

Healthy Watersheds GIT Contact: rthompso@chesapeakebay.net

Fostering Chesapeake Stewardship Goal Implementation Team

The Fostering Chesapeake Stewardship GIT promotes individual stewardship, supports environmental education for all ages, and assists residents, communities, local governments and other stakeholders in undertaking initiatives to achieve restoration and conservation in the Chesapeake region. It aims to build public support of restoration efforts and increase engagement and active stewardship.

Chesapeake Conservation Partnership / Protected Lands Workgroup

- The CCP is proceeding with the FY20 GIT Funded Project titled "Developing Standards and Metrics to Target the Conservation of 'Green Spaces' in Diverse and Low-Income Urban Communities."
- The workgroup continues to add Chesapeake Conservation Success Stories to its new platform success.chesapeakeconservation.org. Management Board Members can email Olivia Wisner (wisnero@chesapeake.org) if they have a Conservation Success Story that they'd like to be developed.

Stewardship Workgroup

- The Stewardship Workgroup anticipates the release of the Chesapeake Behavior Change web-tool which will house and promote the use of the stewardship index data in the coming months. This project (generously supported by GIT funding) will ensure the development of a hub for social science tools and information for the Chesapeake Bay Program.
- The Stewardship Workgroup's next meeting will be held on January 25th, 2022.

- The Stewardship Workgroup is currently seeking a chair to lead the workgroup alongside current chair Suzanne Etgen, Anne Arundel County Watershed Stewards Academy. Details for the voluntary position can be found on the [Stewardship Workgroup webpage](#). Please distribute this opportunity to appropriate candidates. The deadline is extended until the position is filled.
- The workgroup is proceeding with the FY20 GIT Funded Project titled “Chesapeake Bay Program Social Science Assessment and Integration Road Map Development” which will determine ways to strategically integrate social science into the Chesapeake Bay Program.

Education Workgroup

- The Education Workgroup continues to develop the Regional Outdoor Learning Network (ROLN). ROLN aims to 1) increase communication across partners and local implementation networks to support environmental literacy, including more and better designed MWEs and 2) increase the number of teacher-supported systemic environmental literacy programs occurring in priority school districts.
- The Education Workgroup has been working closely with the Chesapeake Bay Program Web Team to update elements of [baybackpack.com](#), an Environmental Literacy teaching resource for formal and non-formal educators in the watershed.
- The NOAA Chesapeake Bay Office and Education Workgroup are supporting the inaugural Chesapeake Bay Program Youth Initiative hosted by the National Park Service Chesapeake Bay Office. The Student Ambassadors will be meeting with the Management Board members to share their perspective on the work of the Chesapeake Bay Program at the Oct Management Board meeting.
- The Outdoor Learning Network Initiative (OLNI) was launched in September, 2019 to increase sustained and systemic Environmental Literacy instruction in underserved districts. The first local networks included (1) Berkely, Jefferson and Morgan Counties, WV, and (2) Lancaster County, PA. The geographic locations of the second round of geographic locations will be announced in 2021. OLNI project is advised by the Education Workgroup and consistent with Stewardship GIT goals.

Public Access Workgroup

- The Public Access Workgroup is proceeding with the FY20 GIT Funded Project titled “Public Access Research - Benefits and Barriers Across the Watershed” which will determine how residents in the Chesapeake Bay Watershed utilize public access sites and what barriers prevent traditionally underserved populations from utilizing public access sites. A small subset of the workgroup has agreed to work with the selected contractor OpinionWorks to advise this project as it goes forward.
- The Public Access will be conducting it’s annual call for newly opened public access sites in December of this year.
- The Public Access workgroup is coordinating with the Protected Lands Workgroup to determine appropriate connections between their GIT Funded Projects (FY20 Scope #1 and Scope #10), to find efficiencies and avoid duplication. Both projects address equity at community levels and involve identifying under-resourced communities, to help with decision-making on future project priorities for practitioners.

Fostering Chesapeake Stewardship contact: Olivia Wisner; wisnero@chesapeake.org

Diversity Workgroup

The Diversity Workgroup held a meeting on November 19, where we prepared for SRS. We reviewed our work plan and discussed what actions and other initiatives we need to be aware that will make the workgroup even more successful in reaching out outcome. We have submitted applications to host a Chesapeake Conservation Corps Member and two CStREAM interns to provide more experiences for youth to engage with the Diversity Workgroup and Chesapeake Bay Program.

The Diversity Workgroup would like to congratulate the DEIJ Action Teams on their final presentation of the DEIJ Implementation Plan to the PSC last week. We also thank the PSC for approving the plan and keeping the momentum on this important partnership effort.

Diversity workgroup contact: Briana Yancy; yancy.briana@epa.gov (Staffer)

Enhance Partnering, Leadership and Management Goal Implementation Team

The goal of the Enhance Partnering, Leadership and Management GIT is to continually improve the governance and management of the CBP Partnership.

- **2021 GIT Funding Program** – Following an extensive review of the GIT Funding Program by a volunteer team of stakeholders, GIT 6 has finalized the 2021 GIT Funding Program Manual. Changes for the coming round of funding include allowance for one project request per Outcome in the Chesapeake Bay Watershed Agreement and an expanded set of project evaluation criteria. The Scoring and Funding Decisions meeting was held on November 4, 2021, providing project overviews followed by a brief Q&A. Project scores were due in the Trust portal on November 10, 2021. Project decisions will be made in Winter 2021.
- **Governance Document Action Team (GDAT)** – The GDAT meets biweekly to work through needed adjustments to the CBP Governance Document. A draft of the revised document and proposed language will be presented to the Management Board for concurrence at the November 2021 QPM meeting. Example changes to the document include insertion of the DEIJ Directive, clarified responsibilities regarding the Strategy Review System and refinement of guidance on decision making.
- **Organizational Analysis** – A plan has been developed to use a published survey instrument to measure the culture of trust across the CBP. This initiative responds to several occasions when GIT 6 has gotten feedback that trust is an important factor in CBP member perceptions of the program. In addition, trust is known to be one of the essential factors in efficient, high-performing organizations. The survey is targeted to be released to CBP leaders and members in Fall 2021.

Contact: Greg Allen (Coordinator), allen.greg@epa.gov; and Kristin Saunders (ksaunders@umces.edu)

Budget and Finance Workgroup - The Budget and Finance Workgroup (BFWG) Summer Quarterly Meeting took place on July 28, 2021 as a conference call. During the meeting, Maggie Cunningham from Region 03 presented on a new EPA Grant program and provided an update from the STAC/Local government mini workshop that took place in May. The workgroup adopted the BFWG charge. Agenda topics included: a discussion on the workplan draft, an update on the Citizen's Advisory Committee (CAC) 2020 EC Recommendation, a discussion on the USDA-NRCS-EPA Collaborative Grant Conditions Memo, and an update on the Conowingo Finance Strategy Update. The BFWG Fall Quarterly meeting was postponed due to lack of substantive updates.

Contact: Martha Shimkin (Co-Chair), shimkin.martha@epa.gov; Dr. Elliott Campbell (Co-Chair), elliott.campbell@maryland.gov

Local Leadership Workgroup The Local Leadership Workgroup (LLWG) held its quarterly meeting on November 9, 2021 themed around Land Use. The meeting explored how new land use data can support local government decision-making, identified tools and resources for strategic land use planning, and included speakers on policy toolkits and a land use case study. The dates for the 2022 LLWG quarterly meetings will be announced shortly. Efforts to roll out A Local Government Guide to the Chesapeake Bay continue in partnership with state agencies and local government associations.

Contact: Caroline Johnson (Staffer), johnson.caroline@epa.gov; Laura Cattell Noll (Coordinator), lnoll@allianceforthebay.org; Shannon Moore (Chair), SMoore@FrederickCountyMD.gov; or Heidi Bonnaffon (Vice Chair), hbonnaffon@mwkog.org

GIT 6 Contact: Caroline Johnson (Staffer) johnsonc@chesapeake.org

Scientific, Technical Assessment, and Reporting Team

The purpose of STAR (Scientific, Technical Analysis and Reporting) is to facilitate productive deployment of scientific resources, to provide timely, quality information to managers, and to expand communication between workgroups.

Scientific, Technical Assessment and Reporting Team (STAR)

The [November](#) STAR meeting began with an overview of the 2020 Tidal Trends and where to access them by Breck Sullivan, followed by an introduction to the University of Maryland, Baltimore County (UMBC) Interdisciplinary Consortium for Applied Research in the Environment (ICARE) as one potential route to match Chesapeake Bay Program (CBP) science needs and mentors with UMBC faculty and incoming students. Peter Tango led discussion on the desired scope and messaging for the monitoring needs section of the report to the PSC (Principal Staff Committee), focusing on how to present the unmet monitoring needs that are not covered by existing CBP networks. STAR plans to give a presentation on the PSC request for improving CBP monitoring networks at the January Management Board meeting. Renee Thompson and John Wolf reviewed highlights from the Healthy Watershed Assessment StoryMaps and requested feedback from membership. The next STAR meeting is on December 16th, 2021 and will focus on Aquatic Life Cohort Science Needs.

Modeling Workgroup

The Modeling Workgroup completed its [October Quarterly Review](#) of CBP Modeling and Analysis. The 12 presentations ranged from optimization efforts, to the initial set up of the James and Patuxent Estuarine Models, to an overview of the Phase 7 Watershed Model options. Throughout the two-day meeting, discussion of the resolution and scale of the Main Bay Model, Multiple Tributary Models, Watershed Model, and Airshed Model were considered. Modelers also presented at the two-day [Water Quality Goal Implementation Team \(WQGIT\) meeting](#) and discussed the Phase 7 Watershed model options. The Modeling Ad Hoc team met to debrief and review feedback from the WQGIT. The Modeling Ad Hoc team meets weekly to continue working on improving the models. In the upcoming months, the

Modeling Team and Workgroup anticipate detailed direction from the WQGIT regarding the desired Phase 7 modeling revisions and development timeline. The next modeling quarterly is a two-day meeting on January 4th and 5th 2022.

Integrated Trends and Analysis Team (ITAT)

The [November](#) Integrated Trends and Analysis Team (ITAT) meeting began with a presentation by Rebecca Murphy on the 2020 Tidal Trends in the Chesapeake Bay, in which she also summarized observed changes from the 2019 Tidal Trends and COVID-19 related impacts to the water quality sampling process. The 2020 Tidal Trends results are available on the ITAT webpage, [here](#). Mike Lane is currently authoring the Rappahannock Tributary Summary and shared his progress. ITAT members are currently providing feedback on the summary as requested. The meeting concluded with a discussion of recommendations and considerations from the Modeling Team regarding the tributary summaries. The next meeting is scheduled for January 26th, 2022.

Climate Resiliency Workgroup (CRWG)

The next Climate Resiliency workgroup meeting is a [joint meeting](#) with the Wetland Workgroup and will be held on December 13th and 14th focused on living shoreline and marsh adaptation projects. Presentations will focus on projects related to ranking methodologies to incentivize the protection and creation of nature-based features, social behavior studies regarding implementation of living shorelines, shoreline metrics, shoreline erosion control best practice recommendations, and an update on the marsh migration data synthesis project.

Data Integrity Workgroup

The Data Integrity Workgroup does not have any new updates since last month. The Data Integrity Workgroup held its quarterly virtual meeting on September 30, 2021. The meeting materials have been uploaded and can be found [here](#). The meeting was presided by Cindy Johnson from VADEQ. All jurisdictions provided an update on monitoring efforts during the pandemic and plans moving forward. Peter Tango provided an overview of the presentation given to PSC on funding for the water quality monitoring program. The response to PSC comments, coordinated by STAR will address questions about the core monitoring networks for tidal water quality, nontidal nutrient and sediment, submerged aquatic vegetation, tidal benthic organisms, and citizen monitoring efforts. The final product delivered to PSC is expected to include a summary of the extended network portfolios and long-term budget needs. Caroline Donovan provided updates for the citizen science groups working with CMC as well as current progress on QAPPs, data uploads, and audits. Potential uses for Chlorophyll A data collected by groups were also discussed. Caroline requested workgroup members to provide input on prioritization areas that CMC could address over the term of their second EPA-funded award. Durga Ghosh provided an update on the status of audits and other QA considerations for the water quality monitoring program. Mike Mallonee presented the coordinated split sample results for the Chesapeake Bay

mainstem and tributaries. CBL performance testing blind audit program schedules were provided by Jerry Frank. The next quarterly meeting is tentatively scheduled for January 2022.

Bay Oxygen Research Group (BORG) - 4-D Water Quality Interpolator

The Leadership Team met in October to discuss insights from October's Water Quality GIT meeting, to provide a documentation status update, and to determine next steps. A case study is underway by the analysts. Exploratory tests of methods are being conducted to inform a decision on the interpolator development path going forward. Development of a requirements document is ongoing, and the Leadership Team plans to meet again in December or January to 1) review progress on the case study, 2) revisit the interpolator development timeline, 3) revisit capacity to support interpolator development based on any changes regarding the development timeline, and 4) discuss a plan, outline an agenda, and propose a date for the next full BORG meeting in 2022.

Nontidal Network Workgroup

The [October](#) meeting started with updates from Peter Tango on the PSC Monitoring Review and a following discussion. The workgroup then listened to Jamie Shallenberger present on the Susquehanna River Basin Commission's (SRBC) new StoryMap "Stories in Water Data". Workgroup members provided feedback on the StoryMap and explored connections with their work. The next Nontidal Network Workgroup meeting is scheduled for January 19th, 2022. The agenda is still being finalized at this time.

Criteria Assessment Protocol Workgroup

Planning for the STAC workshop Advancing Monitoring Approaches to Enhance Tidal Chesapeake Bay Habitat Assessment Water Clarity/SAV is moving forward. This is a STAC workshop with invited technical and management personnel convened to review and determine the gaps and cost challenges limiting habitat assessments as outlined by the water quality standards under the TMDL for dissolved oxygen, water clarity/SAV and chlorophyll a. The objective is to develop actionable recommendations on adaptive monitoring and assessment for the next generation Chesapeake Bay Program tidal monitoring program. This workshop will include three separate sessions on dissolved oxygen, water clarity/SAV and chlorophyll a, and a final two-day synthesis effort (four sessions total). The first session on Water Quality/SAV will be a one-day virtual meeting on December 9th. It will focus on continuing the exploration of satellite image integration for the Chesapeake Bay SAV Monitoring Program and quantification of blue carbon burial in seagrass ecosystems from high resolution commercial imagery. If interested in participating in the workshop, please reach out to Peter Tango (ptango@chesapeakebay.net) or Meg Cole (colem@chesapeake.org.) The next Criteria Assessment Protocol Workgroup meeting is scheduled for December 2021, which will focus on a recap of the STAC workshop.

Status and Trends Workgroup (STWG) update

The workgroup had a meeting on [November 12th](#) that focused on establishing metrics for more qualitative outcomes and progress on the new Land Use Methods and Metrics Indicator. There were also a few final comments made on the workplan and they are currently being incorporated. Once finalized, the workplan will be posted to the workgroup page on chesapeakebay.net, along with other existing documents that are of use to members such as the [indicators framework](#), [indicator update process](#), and [guiding questions for GITs when developing new indicators](#). The workgroup plans to meet again on December 15th to approve the finalized workplan.

STAR Contacts: Breck Sullivan; bsullivan@chesapeake.org (Coordinator), Amy Goldfisher (Staffer); agoldfisher@chesapeake.org, Alex Gunnerson (Staffer); gunnersona@chesapeake.org

December 2021 Management Board Indicators Update

December MB Indicators Update

Since the November MB meeting, we have not updated any additional indicators on ChesapeakeProgress.

We anticipate finalizing the following indicator updates in advance of the January MB meeting:

- Forest Buffers – update with 2020 data

Contact: Katheryn Barnhart, barnhart.katheryn@epa.gov

Communications Workgroup

The Communications Workgroup provides strategic planning and expert advice to support the communication needs of the Chesapeake Bay Program partners, and spur public action through consistent messaging, expanded media coverage, use of multimedia and online tools, comprehensive branding and promotion, outreach to stakeholders, and coordinated internal and external communications.

Communications Workgroup

On December 1, the Communications Workgroup held its monthly meeting where we coordinated shared messaging around the first day of winter and the holidays. Additional shared messaging content can be found at:

https://www.chesapeakebay.net/channel_files/41869/12_december_comwg_shared_messaging.pdf

Adrianna Berk, Tetra Tech, presented an overview of the Chesapeake Bay Program's new case study database created by Tetra Tech and the Chesapeake Bay Program Communications Office. Rachel Felver, Alliance for the Chesapeake Bay, discussed upcoming enhancements to the Workgroup to better align with CBP priorities and needs. The Workgroup will take a short hiatus while we reassess its direction.

Communications Office

On November 30, the Communications Office published the hypoxia end-of-year press release.

- Access the press release:
https://www.chesapeakebay.net/news/pressrelease/changing_weather_patterns_mix_up_size_duration_of_annual_dead_zone
- Access the blog:
https://www.chesapeakebay.net/news/blog/experts_find_an_average_chesapeake_bay_dead_zone_in_2021

The following blogs were published in November:

- Experts find an average Chesapeake Bay dead zone in 2021
https://www.chesapeakebay.net/news/blog/experts_find_an_average_chesapeake_bay_dead_zone_in_2021
- There's a better place for those Thanksgiving leftovers
https://www.chesapeakebay.net/news/blog/theres_a_better_place_for_those_thanksgiving_leftovers
- Chesapeake Bay researchers go with the flow
https://www.chesapeakebay.net/news/blog/researchers_measure_stream_flow_as_a_new_indicator_of_biological_health
- Fly fishing ties together military veterans in the Chesapeake region
https://www.chesapeakebay.net/news/blog/fly_fishing_ties_together_military_veterans_in_the_chesapeake_region