



Chesapeake Bay Program's (CBP)
Scientific and Technical Advisory Committee (STAC)

June 2025 Strategic Planning Meeting Minutes

June 16-18, 2025; in-person format

National Conservation Training Center (NCTC), Shepherdstown, WV

[Meeting Webpage](#)

Attendance:

W = webinar – **W**

Members: Matt Baker (UMBC), Kathy Boomer (FFAR), John Bovay (VT), Chris Brosch (DE DA), Tony Buda (USDA-ARS – **W**), Kathy Bunting-Howarth (NY Sea Grant), Shirley Clark (PSU), Bill Dennison (UMCES), KC Filippino (HRPDC), Carl Friedrichs (VIMS), Ben Hayes (Bucknell University), Jeni Keisman (USGS), Christine Kirchhoff (PSU), Scott Knoche (Morgan State, PEARL), Ellen Kohl (UMBC), Yusuke Kuwayama (UMBC), Erin Letavic (Herbert, Rowland, & Grubic, Inc. [HRG]), Theo Lim (UBC SCARP – **W**), Mark Monaco (NOAA-NCCOS – **W**), Greg Noe (USGS), Efeturi Oghenekaro (DOEE – **W**), Leah Palm-Forster (UD), Joe Reustle (Hampton University – **W**), Kenny Rose (UMCES), Mike Runge (USGS), Larry Sanford (UMCES), Tess Thompson (VT), Joe Wood (CBF – **W**), Weixing Zhu (Binghamton University)

Guests: Doug Bell (EPA), Jess Blackburn (Alliance for the Chesapeake Bay; Stakeholders' AC), Laura Costadone (ODU – **W**), Melissa Ann Ehrenreich (ICC), Melissa Fagan (CRC), Rachel Felter (Alliance for the Chesapeake Bay), Julia Fucci (CRC), Gabriella Giordano (CRC), Kaylyn Gootman (EPA), Alex Gunnerson (USGS – **W**), Ken Hyer (USGS, STAR), Anna Killius (CBC), Laura Cattell Noll (Alliance for the Chesapeake Bay; LGAC), Daphne Pee (GWU; Stakeholders' AC – **W**), Kristin Saunders (UMCES – **W**), Hans Schmidt (MD DA; AAC – **W**), Desiree Shelley (ICC – **W**), Vamsi Krishna Sridharan (Tetra Tech), Kurt Stephenson (VT), Breck Sullivan (USGS, STAR), Peter Tango (USGS), Sophie Waterman (USGS – **W**), John Wolf (USGS – **W**), Maggie Woodward (CBC)

Administration: Meg Cole (CRC), Tou Matthews (CRC), Denice Wardrop (CRC)

Meeting Overview

STAC convened for its June 2025 Meeting to identify the most important science for the committee to consider for advising the Bay Program in the next year and to reflect on STAC's qualities and achievements in order to contemplate its future. While presentations and discussions of each day generally fit into a theme – Day 1: "STAC's Strength and Strategy," Day 2: "Power of the Partnership," Day 3: "Pushing for Progress" – strategic conversations and members' lightning talks were spread throughout the meeting.

These minutes are organized thematically to best connect meeting insights and summarize continuous conversations.

STAC Business

Call to Order, STAC Business

STAC Chair Larry Sanford (UMCES) called the meeting to start at 10:35AM with a round of introductions and an update on upcoming membership changes: Kathy Boomer (FFAR) and Tess Thompson (VT) will be cycling off of STAC in September 2025, opening two At-Large membership positions; STAC Leadership will cycle in September 2025, with Sanford becoming Past Chair, Bill Dennison (UMCES) becoming Chair, and a Vice Chair will be nominated and approved by STAC; Emily Trentacoste (EPA) will be stepping down from her position with EPA and vacating her STAC Federal appointment; and STAC Staff is working with jurisdictions to appoint West Virginia and Maryland Gubernatorial Appointees. STAC Staff introduced Kaylyn Gootman (EPA), Breck Sullivan (USGS), and Rachel Felver (Alliance for the Chesapeake Bay) as the new STAC Liaison Team.

Approval Requests

Previous Meeting Minutes

Sanford recalled discussions from the March Quarterly Meeting and Executive Board calls since the previous meeting. Denice Wardrop (CRC) reminded members that Executive Board carries out STAC business between meetings and approval of the minutes is approval of Executive Board decisions. The March 2025 STAC Quarterly Meeting Minutes and March, April, and May 2025 Executive Board Meeting Minutes were approved without comment.

DECISION: March 2025 Quarterly Meeting Minutes approved; March 2025 Executive Board Meeting Minutes, April 2025 Executive Board Meeting Minutes, and May 2025 Executive Board Meeting Minutes approved.

Governing Documents

STAC Staff gave a brief overview of proposed revisions to the STAC Bylaws (meeting restructure, temporary leave of absence policy) and STAC Operational Guidelines (updated liaison description). The Executive Board will plan revisions to the STAC Workshop Proposal process. Approval of these revised documents will be requested at the September 2025 Meeting.

Restructure of STAC Meetings

At the September 2024 Quarterly Meeting, STAC discussed the most efficient content for different meeting formats, members' capacities and availabilities, and the objectives of STAC meetings. During the December 2024 Quarterly Meeting, Gary Shenk (former STAC Liaison) proposed a restructure of STAC meetings:

- Strategic Planning Retreat: STAC will meet in a mandatory 3-day in-person annual retreat to conduct strategic planning (short- and long-term planning for STAC and the CBP), education, and networking.

- Workshop Meeting: STAC will hold an annual full-day hybrid meeting to review workshop reports from the previous year, discuss current-year workshop planning updates, and address important STAC business.
- Topical Meetings: STAC will convene 2-3 half-day virtual meetings annually to discuss priority topics. These meetings may include administrative discussions such as workshops or correspondence with the CBP.

STAC voted to fully transition to the meeting restructure. Members offered suggestions to improve virtual/hybrid meeting experiences; STAC Staff will assess logistics. A poll gathered member availability for the November 2025 Topical Meeting and Summer 2026 Strategic Planning Retreat.

DECISION: STAC Meetings restructure approved, effective immediately.

DECISION: The November 2025 Topical Meeting will be held virtually on Tuesday, November 18, 2025.

DECISION: The June 2026 Strategic Planning Meeting will be held Monday, June 15 – Wednesday, June 17, 2026, at the National Conservation Training Center (NCTC) in Shepherdstown, WV.

STAC Members' Lightning Talks Summaries

Throughout the meeting, in-person STAC members delivered short lightning talks to highlight their expertise and current work, showcasing STAC's breadth of knowledge and experience for fellow committee members and Bay Program partners. Talks were loosely grouped by related expertise, with many members noting interdisciplinary work. Following each group, STAC discussed how the shared expertise could inform Bay Program efforts.

Below, members are ordered alphabetically. [View Lightning Talk Presentation Slides here.](#)

Matt Baker

Matt Baker is a Professor of Geography & Environmental Systems at the University of Maryland, Baltimore County (UMBC). Focusing on how physical processes relate to ecological outcomes, his fields of expertise include landscape ecology, riparian buffers, stream ecology, hydrogeomorphology, forest ecology, restoration, applied GIS/RS, and quantitative analysis and modeling. Some of his research includes quantifying ecological community thresholds to understand how they relate to environmental gradients, using novel mapping technologies to characterize ecological and biophysical phenomenon, and assessing the condition of urban forests and the ecosystem services they provide. His current projects are producing hyper-resolution hydrography maps and detecting flow in ungauged watersheds.

[Kathy Boomer](#)

Kathy Boomer is the Scientific Program Director for the Foundation for Food & Agriculture Research (FFAR). Her fields of expertise include wetland function, the effect of surface- and groundwater on nutrient dynamics, and plant health across various types of wetlands. Her previous work involved creating and testing conceptual models of system functions and mapping stream corridors to study land-water connections and the effect of near-surface groundwater on shallow water systems of the Chesapeake Bay. Using structured decision-making and an adaptive management approach, she has engaged with landowners and producers on the Eastern Shore to optimize their farm operations. In her current work funding research grants, Boomer elevates water and water management as a driver of agroecosystem services and watershed health, recognizes and honors local knowledge holders as invaluable technical experts, and promoting conceptual modeling opportunities to facilitate knowledge integration.

[John Bovay](#)

John Bovay is an Associate Professor in Agricultural and Applied Economics at Virginia Tech (VT). His fields of expertise include economics of food and agricultural policy, food safety, food loss and waste, climate-smart agriculture, and hydroponics. He uses empirical economic methods to analyze public policies related to food and agriculture, focusing on human health impacts, the distribution of welfare outcomes, and effects on the environment. He has studied how incentives can cause behavior change in producers of chicken, the effect that requiring adoption of costly practices has through the supply chain, and strategies to mitigate fraudulent responses in online surveys. Bovay is currently involved in identifying causes of on-farm loss and waste of vegetables, incentivizing farmers to adopt climate-smart practices and evaluating the market potential for climate-smart agricultural products, and exploring the effect that expanding controlled environment agriculture has on markets.

[Chris Brosch](#)

Chris Brosch is the Deputy Secretary of the Delaware Department of Agriculture and Co-Director of LEADelaware. His fields of expertise include soil fertility and conservation, nutrient management, emerging contaminants, agriculture and aquaculture policy, emergency response, extension education, professional leadership, mental health, and cycling infrastructure. He was a part of the Bay Program modeling workgroup during the establishment of the Total Maximum Daily Load (TMDL) and assisted in developing Delaware's Phase III Watershed Implementation Plan (WIP). His current work focuses on advancing the professional leadership program of LEADelaware.

[Kathy Bunting-Howarth](#)

Kathy Bunting-Howarth is Associate Director of the New York Sea Grant and Assistant Director of the Cooperative Extension at Cornell University. Her fields of expertise include coastal management, marine policy, public engagement, social science methods, and water resource

management. Her work has focused on supporting healthy coastal ecosystems, resilient coastal communities and economies, sustainable fisheries and aquaculture, and environmental literacy and workforce development by helping staff in using social science methods to improve their extension programs and products. She has studied socio-ecological resilience to chronic flooding and was part of the [People on the Move in a Changing Climate](#) project, in which partners from various regions collaborated to increase understanding of and address research gaps and policy needs related to people moving into or out of an area. Bunting-Howarth is also involved in: establishing methods to measure the ecological function, structural integrity and hazards, and social component of Natural and Nature Based Solutions (NNBS); connecting marine carbon dioxide removal to law and policy; proposing ways to improve flood water, water quality, and public health; and examining the social aspects of PFAS and other emerging contaminants.

[Shirley Clark](#)

Shirley Clark is a Professor of Environmental Engineering at Pennsylvania State University (PSU) and is a part of the American Society of Civil Engineers and the National Oceanic and Atmospheric (ASCE-NOAA) Task Force. Her fields of expertise include urban hydrology, the effect of climate change on urban hydrology, urban runoff quality, urban infrastructure design, and performance of stormwater control measures. She has studied stormwater quality fate, transport, and treatment by analyzing sedimentation and filtration devices for treatment of sediment, nutrients, metals, organics, salt, and radionuclides. Her current work focuses on the effect of land development practices (e.g., compaction) on urban flooding in climate change conditions through demonstrating the impacts of such practices in modeling of urban hydrology. Clark is also investigating the effect of urban infrastructure and land development on flooding, water quality, and public health as well as how the loss of federal data will impact design, operation, and maintenance of infrastructure.

[Bill Dennison](#)

Bill Dennison is a Professor of Marine Science and Vice President for Science Application at the University of Maryland Center for Environmental Science (UMCES). He is a lead in producing the annual [Chesapeake Bay Report Card](#) and presented on the most recent report.

[KC Filippino](#)

KC Filippino is a Senior Water Resources Planner at the Hampton Roads Planning District Commission (HRPDC). Her fields of expertise include water quality, stormwater, nutrient cycling, harmful algae blooms, and local government coordination. She does regional coordination between local governments and translates the science behind Bay restoration into clear, workable policies that local governments can adopt. She is involved in a [regional water quality monitoring program](#) which is collecting data to be used in Bay Program stormwater modeling, implementing shoreline restoration on industrial property, retrofitting the office parking lot to showcase permeable pavement and native plants supported by bioretention.

Filippino has worked extensively with the Bay Program through the land use workgroup, urban stormwater workgroup, water quality GIT, and LGAC; outside of the Bay Program, she is contributing to developing Hampton Roads' first Climate Action Plan, identifying risks of toxic pollutants to climate change impacts, and collecting land use and land cover data throughout Southwest Virginia.

[Carl Friedrichs](#)

Carl Friedrichs is a Professor of Marine Science and Associate Director of the Chesapeake Bay National Estuarine Research Reserve in Virginia (CBNERR-VA) at the Virginia Institute of Marine Science (VIMS). His fields of expertise include estuarine and coastal sediment dynamics, water quality and clarity, water quality monitoring networks, remote sensing, and criteria attainment. He has previously served on STAC and contributed to multiple workshop and synthesis reports, including a recent publication on dissolved oxygen in shallow waters. His recent project analyzed Chesapeake Bay water clarity using the responses of total suspended solids, diffuse light, Secchi depth, and algae growth to nutrient and sediment trends.

[Ben Hayes](#)

Ben Hayes is a Professor of Watershed Sciences and Engineering at Bucknell University. His fields of expertise include fluvial geomorphology, hydrogeology, and stream restoration; he also has a scholarly background in thought and ethics. Hayes works through the lens of landscape system science, wherein rivers and stream systems are understood to hold "memory" of formative landscapes. His work includes mapping stream morphology, temperature variability, alluvial architecture, sediment continuity, and more to better understand how to restore and protect streams. He also assesses thousands of restoration projects to identify socio-ecologic factors preventing adaptive management.

[Jeni Keisman](#)

Jeni Keisman is the Hydrologic Impacts Branch Chief at the U.S. Geological Survey (USGS) Water Resources Mission Area. Her fields of expertise include factors affecting water availability and use, strategic science planning, research integration and synthesis, and multi-disciplinary team leadership. The purpose of her research is to advance process understanding for predictive modeling. Starting from conceptual frameworks, she identifies the drivers, factors, stressors, and effects in order to develop predictive models.

[Christine Kirchhoff](#)

Christine Kirchhoff is an Associate Professor of Civil and Environmental Engineering and an Associate Professor and Director of Law, Policy, and Engineering at Pennsylvania State University (PSU). Her fields of expertise include sustainability science, natural resources policy, and civil engineering. Her work involves supporting professional development in civic science, adapting infrastructure to climate changes, and directing the Law Policy and Engineering Initiative, a program that partners graduate students with NGOs. She also studies the

knowledge-to-action gap, exploring the intersections and interdependencies between people, institutions, and the environment, and collaborative water governance.

[Scott Knoche](#)

Scott Knoche is the Director of the Patuxent Environmental and Aquatic Research Lab (PEARL) at Morgan State University. His fields of expertise include non-market valuation, social science survey research methods, regional economic impact analysis, coupled social-ecological models, and research co-production. He applies quantitative social sciences to understand the preference and economic values related to outdoor recreation, environmental restoration, public access and urban coastal greenspace, aquaculture production and seafood consumers, and trash in urban waterways. He is currently working on Baltimore Blue Core, a project in which the community is a partner in determining the research questions, developing and conducting the research, and applying findings to develop and improve access to coastal green and blue spaces.

[Ellen Kohl](#)

Ellen Kohl is an Assistant Professor in Geography and Environmental Systems at the University of Maryland, Baltimore County (UMBC). Her fields of expertise include environmental justice, intersectional geographies, environmental governance, and science-policy interface. She studies the interactions between scientist, policy makers, and activists to understand how policy perpetuates injustices and how activists contest unjust policies. Kohl was involved in developing [Kitchen Table Reflexivity](#), an intersectional methodological approach that intentionally recognizes the context and impacts of research, and is part of the [Environmental Data Governance Initiative](#), which examines the implications of the current federal administration on climate change, public health, and environmental justice, and is currently examining the use of children's environmental health research and environmental justice in creating policy regulatory policy.

[Yusuke Kuwayama](#)

Yusuke Kuwayama is an Associate Professor of Public Policy at the University of Maryland, Baltimore County (UMBC). His fields of expertise include water quality valuation, managed aquifer recharge, connected groundwater-surface water systems, and societal value of scientific information. His work seeks to characterize how people interact with water resources of varying quality and quantifying the value places on those interactions, and he focuses on recreational and property values. He uses two methods for water quality valuation: combining data on human behavior, such as where and how far people travel for recreational fishing, and water quality monitoring data to correlate the probability of an individual visiting a site with water quality as well as the impact of travel cost on visitation probability; and evaluating the effect of water quality of nearby water bodies on property values.

[Erin Letavic](#)

Erin Letavic is the Team Leader of Municipal and Water Resources at Herbert, Rowland, and Grubic, Inc. (HRG). Her fields of expertise include agriculture stormwater, municipal engineering, fundraising, public outreach, and building teams. She previously worked on improving stormwater infrastructure, consulting on municipal separate storm sewer system (MS4) permits, working with elected officials, engaging with the public, and moderating collaborative groups. She now partners with a variety of organizations and manages several counties in implementing Pennsylvania Countywide Action Plans. Letavic also provides support for the Center for Conservation Assistance Training through her involvement in developing the [Practice Approval System](#), a certification system that will allow local conservation staff can design and oversee their own projects.

[Greg Noe](#)

Greg Noe is a Research Ecologist with the U.S. Geological Survey (USGS) and the Florence Bascom Geoscience Center. His fields of expertise include wetland ecology, ecosystem ecology, plant ecology, biogeochemistry, sediment transport, soils, hydrogeomorphology, wetlands, streams and rivers, and estuaries. His early work was focused on studying the influence of floodplain wetlands on nutrient and sediment loads and then developing spatially explicit models to guide where floodplain management and restoration should occur. His current projects are assessing the influence of BMP implementation on local, non-tidal streams as lead of the Chesapeake Stream Team and studying the effect of sea level rise on tidal swamps.

[Kevin Orner](#)

Kevin Orner is an Assistant Professor in Environmental Engineering at the West Virginia University (WVU). His fields of expertise include wastewater treatment, organic waste management, resource recovery, sustainable development, life cycle assessment and life cycle cost analysis, and artificial intelligence and machine learning. He has worked on integrating geographical information systems, life cycle assessment, and techno-economic analysis to improve organic waste management. He is involved in projects to remove nutrients and wastewater from lagoons, sustainably treat wastewater in Costa Rica with both environmental engineering and anthropology students, provide technical assistance and training to Appalachian communities, and recruiting for the Appalachia water workforce.

[Leah Palm-Forster](#)

Leah Palm-Forster is an Associate Professor of Applied Economics and the Director of the Center for Experimental and Applied Economics at the University of Delaware (UDel). Her fields of expertise include farmer decision-making, BMP and tech adoption, agri-environmental programs, and adaptation to changing conditions in coastal landscapes. In her work, she uses economic experiments to analyze resource management and climate change adaptation decisions in coastal contexts, examines farmer decision-making related to nutrient and water management and adoption of climate-smart practices, and informs the design of cost-effective

programs that enhance ecosystem services and resilience to hazards exacerbated by climate change. In a recent project, Palm-Forster trialed policy implementation for a group of farmers to engage in collective action to achieve streambank restoration, leveraging insights from behavioral economics to encourage collaboration; however, the driving force for participation was not financial incentive, but the shared goals and social connections. Her current project [Risks, Impacts, and Strategies for Coastal Communities \(RISCC\)](#) focuses on understanding farmers' response to various risks related to salinization of agricultural land.

[Kenny Rose](#)

Kenny Rose is a Professor in Sustainable Ecosystem Restoration at the University of Maryland Center for Environmental Science (UMCES) Horn Point Laboratory (HPL). His fields of expertise include fisheries management, habitat assessment, modeling, and population dynamics. In his work, he uses simulation modeling to quantify how environmental variation and inter-specific interactions affect population and food web dynamics. Rose was a major contributor to the living resources component of the CESR report and continues that work with the development of a living resources habitat suitability model.

[Mike Runge](#)

Mike Runge is a Senior Scientist at the U.S. Geological Survey (USGS) Eastern Ecological Science Center (EESC). His fields of expertise include decision analysis, adaptive management, quantitative ecology, endangered species, and waterfowl harvest management. He uses the principles and tools of decision analysis to help federal, state, and tribal management agencies navigate the science-policy interface. His work has contributed to designing adaptive programs, managing species relocation caused by climate change, allocating resources for endangered species recovery, managing disease outbreak, and improving decision-making in conservation.

[Larry Sanford](#)

Larry Sanford is the Vice President for Education at the University of Maryland Center for Environmental Science (UMCES) and a Professor at the UMCES Horn Point Laboratory (HPL). His fields of expertise include graduate education, sediment transport, turbulence, estuarine physics, waves, and physical-biological interactions. He has conducted research in flow and sediment transport through and around bottom cage aquaculture farms, numerical modeling of particle attachment to marsh plant stems, influence of the Susquehanna Flats grass bed on flow and sediment transport during storms, and suspended sediment characteristics in upper Chesapeake Bay.

[Tess Thompson](#)

Tess Thompson is a Professor in Biological Systems Engineering at Virginia Tech (VT). Her fields of expertise include stream restoration, wetlands restoration, urban streams, and streambank erosion and role of vegetation. Her research focuses on the role of vegetation in flow resistance and streambank erosion resistance, mitigating the impacts of urban development on stream

stability, and predicting the onset and rate of streambank erosion. Her current project is developing backyard streambank repair program, educating and working with private landowners to improve the health of small streams.

[Weixing Zhu](#)

Weixing Zhu is a Biology Professor at Binghamton University (SUNY). His fields of expertise include ecosystem ecology and biogeochemistry. He has studied the impacts of stormflow on inorganic nitrogen dynamics in an urban wetland, the impacts of deicing salt on soil nitrogen and carbon cycling, diversity of aquatic insects across land use, and the effect of human subsidies on litter decomposition in urban riparian forest. His current work involves reducing headwater nutrients and sediments and assessing the effect of stormflow on BMP efficiency.

Considering Context and Perspective

The Value of STAC

STAC viewed a video of a collage of interviews from individuals with insights into STAC's role in the Bay Program and Chesapeake watershed conservation, created through [Green Fin Studio](#). Those interviewed were: Lee McDonnell, Acting Director of the Chesapeake Bay Program and Science Analysis and Implementation Branch Chief of the EPA; Hilary Harp Falk, President and CEO of the Chesapeake Bay Foundation (CBF); Carl Blankenship, Editor-At-Large at the Bay Journal; Lisa Wainger, Research Professor at UMCES and former STAC Member, having served as STAC Chair from 2015 to 2017; Josh Kurtz, Maryland Secretary of Natural Resources and current Chair of the CBP Principals' Staff Committee; Kate Fritz, CEO of the Alliance for the Chesapeake Bay; Don Boesch, Professor at and President Emeritus of UMCES; and Lara Fowler, Director of Penn State Sustainability and former STAC Member. The responses highlighted the uniqueness and strengths of STAC and provides feedback to guide STAC's future decisions.

Sanford and Wardrop led a discussion of STAC's strengths, weaknesses, opportunities, and threats (SWOT analysis). Below are significant items from each category:

- **Strengths:**
 - Possesses great amount of scientific expertise and has huge networks of outside expertise to draw upon.
 - Is independent - not governed by institution, organization, agency, etc. that would influence conclusions and recommendations.
 - Is willing to adapt and be flexible.
 - Is both reactive to issues and proactive in raising attention to issues.
 - Serves as a vehicle of communication between the Bay Program and institutions.
 - Synthesizes knowledge across wide diversity of fields.
 - Develops work products (e.g., reports, reviews, etc) and performs expert reviews.

- Weaknesses:
 - Must often consider uncertainty as conditions and knowledge are constantly changing.
 - Seen as a “Debbie Downer” when pointing out things that aren’t working.
 - Struggles with follow-through after reports published.
 - Improperly communicates to most audiences by using complex language.
 - Lacks diversity within perspectives and ideas.
- Opportunities:
 - Can address the knowledge-to-action gap.
 - Can increase diversity of STAC’s perspectives and ideas.
 - Can evaluate STAC’s past and current engagement with the Bay Program to increase effectiveness.
- Threats:
 - A lack of trust in science from “general public” and attacks on universities.

DECISION: STAC Leadership will draft a *Value Statement* highlighting STAC’s strengths and contributions to the Bay Program and Bay and watershed conservation efforts.

Navigating Uncertainties

Among the many ongoing uncertainties for STAC, the Bay Program, and watershed conservation is the current national administration, which released an [Executive Order on “Restoring Gold Standard Science”](#) on May 29, 2025. Members also noted that uncertainties extend beyond federal leadership, including governance capacity, funding liability, and long-term science needs of the partnership. STAC gave thought to challenges that may continue to rise in the near- and far-future and discussed ways to build resilience in a changing landscape.

The Era of CESR

[CESR Debrief – Presentation Slides](#)

Wardrop and Kurt Stephenson (VT) debriefed STAC on the full effort of the [Comprehensive Evaluation of System Response \(CESR\) report](#). It was initially proposed in March 2019 with the intent to identify gaps and uncertainties in system response that impact efforts to attain water quality standards, and STAC formed three workgroups to assess nutrient and sediment reductions (Watershed), water quality response to nutrient and sediment reductions (Estuary) and living resource response to water quality (Living Resources). Each workgroup developed separate reports that were later published as supplemental documents to the CESR report so as not to lose any of the information contained. The committee valued consensus for the Summary and Implications section and developed a process with several feedback loops between the various groups so that all members’ voices were heard and considered. Stephenson and Wardrop delivered numerous presentations to various Bay Program and partnership groups prior to publication of the CESR report to begin socializing the ideas

emerging and over 70 presentations since the report was released in May 2023. In response to questions about approaching opportunities mentioned in the CESR report, a Prospectus for Tiered Implementation to the Chesapeake Bay TMDL was written, with the first step of implementation having been initiated in the Living Resources Feasibility Charette described below.

Reflecting on the years-long effort, Wardrop shared lessons learned and other factors that contributed to the success of the CESR effort. Major points included:

- Managing expectations realistically, given the enormous and initially unplanned investment of time, was critical.
- Champions – those who are passionate about the messages and in a befitting professional position – were needed to step up and lead the effort (as Wardrop and Stephenson did for CESR).
- The socialization of messages before releasing the CESR report was a double-edged sword: while it initiated difficult conversations and prompted anticipation for the report, people developed their own expectations of what the report would contain.
- The messages from CESR “opened the floodgates” and liberated many conversations across the program, allowing people to say what they had been too scared to voice.
- STAC’s established reputation of being highly regarded in the Bay Program contributed to the interest in and reception to messages from the CESR report.
- The timing of the publication of the CESR report was fortuitous as it overlapped with initiation of Beyond 2025 efforts.
- Follow-up, which initially comprised of continuous repetition and refinement of the messages, after the report’s release was critical to maintaining momentum.
- To facilitate change, there needs to be both push and pull – pushing on the bottom (e.g., workgroups, GITs) and pulling on the top (e.g., EC, PSC, MB).
- Policymakers were willing to work with scientists because the CESR report was policy-relevant and met them halfway.
- The most significant factor in the success of the CESR effort was the continued and substantive engagement by past and present STAC members.
- Additional enabling factors noted included the role of unexpected champions (e.g., Ann Swanson, MD Senator Elfreth), fresh leadership, professional communications support, and a willing community of contributors.

Potential Future STAC Products

The committee shared thoughts on the process utilized to produce the CESR report, suggested changes for potential future STAC products, and considered if another product is necessary and feasible. Members are interested in the long-term impacts of the CESR report such as its influence on conversations, management strategies, prioritization of restoration actions, and broader Bay Program decision-making. If STAC were to undertake another product like the CESR

report, it will need to consider the opportunity cost of reducing support for other STAC activities (e.g., workshops) being coordinated at the same time, the opportunities to highlight other STAC products, the appropriateness of the timing for the Bay Program to be receptive, the bandwidth to produce concise Report-in-Brief summaries in a timely manner, and the availability and passion for members to champion the effort. A feasible endeavor for STAC at this time would be to apply the lessons learned from the CESR effort to other STAC activities and improve communication of findings and recommendations from workshop reports, technical reviews, and more.

[CESR Updates – Presentation Slides](#)

Kenny Rose (UMCES) and Mark Monaco (NOAA) presented an update on consideration of living resources in Chesapeake Bay restoration, which was highlighted by the CESR report and is being informed by the [Living Resources supplemental document](#). The Bay Program's conservation strategy so far has focused on achieving dissolved oxygen levels in the deep segments of the Bay; the CESR report proposed targeting and prioritizing improvements in water quality to benefit living resource habitats, which are of greater abundance in shallow waters. Rose and Monaco wrote an implementation plan that encompasses the habitat suitability model effort below.

[Living Resources Feasibility Charette Debrief – Presentation Slides](#)

Kaylyn Gootman (EPA) provided a debrief on the discussions, outcomes, and next steps from the Living Resources Feasibility Charette that convened May 6-7, 2025. One of the recommendations from the CESR report, which became a priority project for the Bay Program, was to complete a living resources habitat suitability model for the 92 tidal segments of the Chesapeake Bay by 2026. This model will be used to identify target areas for [tiered implementation of the Bay TMDL](#) and the first step to implementing the Fish Habitat Outcome under the revised Watershed Agreement. The Charette brought together key individuals to define project outcomes, assess the feasibility of different analytical approaches, and develop a draft workplan to link water quality management decisions with living resources responses. Compilation of water quality, habitat, and fish data is currently underway and a draft model is anticipated by January 2026.

Rose clarified that creating the habitat suitability model does not call for collecting new data or changing monitoring programs; rather, it is bringing together existing data and developing maps showing relationships between habitat and living resources. The team is piloting three species – juvenile striped bass, bay anchovy, and Atlantic croaker – to test the proof of concept.

Ongoing and Upcoming CBP Activities – [Presentation Slides](#)

[Phase II of Beyond 2025](#)

Breck Sullivan (USGS) and Rachel Felter (Alliance) presented on [Phase II of Beyond 2025](#), the Bay Program's effort to reevaluate the [2014 Watershed Agreement](#) and update its operational

model. Following the [EC Charge to the PSC](#) and the [PSC Process for Implementing](#), revisions have been made to all sections of the Watershed Agreement to elevate conservation as a key pillar of the partnership, address both water quality and living resources, place a greater emphasis on engaging all communities of the watershed, ensure goals and outcomes are measurable and time-bound, and ground them in the most current science. The revisions propose condensing the ten Goals into four: Thriving Habitats and Wildlife, Clean Water, Healthy Landscapes, and Engaged Communities. Each of the 31 Outcomes was evaluated for language updates, consolidation, removal, replacement, or reclassification; Sullivan gave an overview of the Outcome decisions that resulted in a proposed 21 Outcomes. The [draft revised Watershed Agreement](#) will be open for public comment July 1 – September 1, 2025.

Phase II of Beyond 2025 also calls for revision to the structure and governance of the Bay Program. The [Enhance Partnering, Leadership and Management Goal Implementation Team \(GIT6\)](#) has identified three top priorities: developing best practices for meeting operations to improve timeliness and transparency, reviewing the structure of similar geographic programs and considering what might be successfully applied to the Bay Program, and identifying the expertise and resources needed for the Bay Program to establish a logical framework and governance structure that supports the vision of the Watershed Agreement. Erin Letavic (HRG, Inc.) attended the [June Management Board meeting](#) and explained to STAC the proposal for a small team to plan, prioritize, manage, and review the Management Board's work in advancing Bay Program governance and accountability. This small team will influence the context and content of the Watershed Agreement and set the stage for governance and accountability in the Bay Program moving forward. Only one representative will be allowed from STAC, so a workgroup to support the representative through expanding and collating will be considered later in the meeting. Doug Bell (EPA) recalled the [ERG program evaluation](#) that highlighted issues of governance and accountability, then clarified the small team's focus as moving forward with changes to Bay Program operations and planning.

Fundamental Strategies

Sullivan also presented on Fundamental Strategies, proposed frameworks to operationalize the Principles identified in the Watershed Agreement. Of the proposed Fundamental Strategies, STAC championed two: [Braiding Knowledge Streams](#) to “continually improve our ability to braid together scientific, Indigenous, and local knowledge towards restoring ecological integrity, promoting community well-being, and fostering sustainable land and water management practices;” and, in partnership with STAR, *Changing Environmental Conditions* to emphasize “integrating science on changing environmental conditions into all of the outcomes.” Unfortunately, the suggestion to reference Fundamental Strategies within the Principles could not be made before the comment period closed. Sullivan pointed out that, through Beyond 2025 conversations, it has become apparent that the Bay Program struggles to operationalize the Principles; STAC agreed on the importance of continuing to advocating for and advise on methods to incorporate the Fundamental Strategies into Bay Program discussions and efforts.

The committee discussed potential avenues to include these frameworks and what accountability measures are needed to facilitate durable and systemic change.

Phase 7 Suite of Models

Kaylyn Gootman (EPA) presented on the [Phase 7 Suite of Models](#). The Bay Program has been developing and improving models of the Chesapeake Bay watershed since the mid-1980s. The Phase 7 suite of models will integrate high-resolution land use and watershed data, agricultural nutrient inputs, and optimization into the existing [Chesapeake Assessment Scenario Tool](#) (CAST) and watershed modeling, feeding into estuarine modeling and criteria assessments. The Phase 7 Models are anticipated to be ready for review in Fall 2026, with the Bay Program requesting STAC to conduct the review, and for implementation in 2030.

Other asks to STAC from the Bay Program include weighing in on [manure treatment technology](#) in Fall/Winter 2025, reviewing the Living Resources Habitat Suitability Model in February 2026, and reviewing the [4-D Interpolator](#) in Summer 2026.

Perception of Knowledge Activity

The [Social Science Workgroup \(SSWG\)](#) is a STAC-led workgroup charged with promoting and advising the integration of social science into the Bay Program. The SSWG agreed that in order for the *Braiding Knowledge Streams* Fundamental Strategy to be successfully incorporated into Bay Program efforts, STAC and the partnership need to be informed on the various ways of knowledge production and the importance of co-designing efforts with people who hold alternative knowledge. In this session designed by SSWG members Christine Kirchhoff (PSU), Ellen Kohl (UMBC), Theo Lim (UBC SCARP), and Daphnee Pee (Stakeholders' AC, GWU), STAC reflected on their own ways of knowing while analyzing a real-world case study in small breakout groups.

A sticky-note activity demonstrated that of the five identified ways of knowing, STAC primarily drew upon *scientific and technical* ways of knowing followed by *experiential, local, embodied* ways of knowing, some *emotional* ways of knowing, very little *political* ways of knowing, and even less *Indigenous* ways of knowing. An investigation of the case study revealed how the exclusion of certain perspectives can hinder the production and quality of knowledge in decision-making. Facilitated discussion led STAC to reflect on knowledge production in the Bay Program and its relationship to CBP management and actions.

Setting the Science Agenda

Formation of Ad-Hoc Workgroups

As part of the restructure of STAC meetings approved during the STAC Business item, the committee will form ad-hoc workgroups during the annual retreat. While a standing workgroup

is typically long-term and formed to proactively address major CBP scientific and technical issues, an ad-hoc workgroup is short-term and typically created to reactively tackle a specific issue. Bay Program issues to address had been identified throughout the current meeting and the committee discussed the appropriateness of a STAC ad-hoc workgroup for each issue. Members volunteered for an ad-hoc workgroup and convened through a working lunch to begin discussing their goals and timelines.

DECISION: The STAC ad-hoc workgroups formed during the June 2025 Meeting were:

- CESR Impact Assessment and Application Workgroup
- Inform Governance and Accountability Workgroup
- Phase 7 Model Review Workgroup

[CESR Impact Assessment and Application Workgroup](#)

The purpose of the CESR Impact Assessment and Application Workgroup is to: 1) assess the impact of the CESR report by documenting direct and indirect references to CESR in media, legislation, Bay Program discussions and documents, programs, and more; and 2) propose ways to apply the lessons learned from the CESR process to future STAC activities to increase their impact. The workgroup anticipates sunseting at the STAC June 2026 Meeting.

[Inform Governance and Accountability Workgroup](#)

The purpose of the Inform Governance and Accountability Workgroup is to provide scientific and technical expertise to the Governance and Accountability Team, which has been tasked with developing recommendations on accountability and governance for Management Board and PSC review, consideration, and approval. The workgroup anticipates sunseting at the STAC June 2026 Meeting.

[Phase 7 Model Review Workgroup](#)

The purpose of the Phase 7 Model Review Workgroup is to develop and coordinate the review process for the Phase 7 Suite of Models. The Phase 7 Model is predicted to be ready for review in Fall 2026. Prior to Fall 2026, the Phase 7 Model Review workgroup will work with the Bay Program to determine the scope and best structure for the review process and explore additional considerations for the modeling suite. The workgroup does not anticipate sunseting until at least Summer 2027.

Science Topics of Interest

With the restructure of STAC meetings approved during the STAC Business item, the committee will have topical meetings in November 2025, February 2026, and April 2026. STAC discussed topics of interest that arose during the current meeting's discussions and from STAC members' Lightning Talks. Members voted on their top three topics of interest.

DECISION: The focus of STAC Topical Meetings to be held in November 2025, February 2026, and April 2026 will be:

- Decision-making and how it affects governance
- Co-production of knowledge
- Holistic review of the Outcomes

Expertise Gaps on STAC

STAC currently has several Gubernatorial vacancies and will have two At-Large vacancies come September 2025. Following the last of the STAC Member Lightning Talks, the committee identified scientific expertise that was underrepresented or missing on STAC and discussed how those additional perspectives would enhance and clarify STAC's work. While expertise in living resources, artificial contaminants, and developing models would greatly benefit the ongoing conservation work in the Chesapeake Bay watershed, much of the discussion highlighted a need for expertise among the social sciences and humanities. Of particular interest were experience interfacing between science, management, and policy (knowledge-to-action) and insights on how different communities are likely to receive and respond to recommendations. Overall, members agreed that the committee needs to recruit with the intention to diversify its perspectives.

Collaboration with Bay Program Groups

Collaboration with Advisory Committees

STAC was joined by representatives from the other Advisory Committees (ACs) to gain an overview of their structures and then discuss how the ACs can collaborate to provide the most relevant and useful advice as the Bay Program's structure and strategy evolve. The structure of the [Stakeholders' Advisory Committee](#) (see [Brief](#)), shared by its Coordinator Jess Blackburn (Alliance for the Chesapeake Bay), consists of six subcommittees and all members are required to participate in at least one. While the operational subcommittees are responsible for internal decision-making, the topical subcommittees make the Stakeholders' AC both reactive to what is happening in the Bay Program and proactive based on what they see in their communities. The structure of the [Local Government Advisory Committee](#) (LGAC), shared by its Coordinator Laura Cattell Noll (Alliance for the Chesapeake Bay), consists of an executive committee, state subcommittees, and ad-hoc committees formed when needed. While the executive committee is responsible for setting the direction and agenda for LGAC, each state subcommittee addresses state-specific issues due to significant operational differences between jurisdictions.

Over the past year, the AC Coordinators and Staff have met regularly, bringing in Chairs several times, to share updates and coordinate similarities in messaging. As part of this coordination, the 2024 AC Letters to the EC presented the same top-level recommendation from each committee's respective point of view, displaying a united front of the ACs and emphasizing the significance of the recommendation. While strategic for the ACs to leverage each other and

elevate common messages, it is important for the committees to draw upon the different expertise within their memberships to maintain a distinct voice for each committee. It is also important for ACs to recognize where their perspectives differ in order to have a more well-rounded concept of certain issues. LGAC explained their concept of the “power of aftercare” – following up a letter or briefing with conversations to answer questions, offer support, and encourage members to submit additional letters – to reinforce the seriousness of issues raised, demonstrate their commitment to address the issues, and leave a record of their efforts. For ongoing collaboration, STAC is able to answer the other ACs requests for scientific background related to Bay Program efforts so that their recommendations are more informed, and the other ACs are able to provide social context so STAC can have a better understanding of Bay Program decision-making.

An update on the [Agricultural Advisory Committee](#) (AAC), provided by Hans Schmidt (MD Dept. of Ag.), recognized that the AAC is currently still developing and a Chair, Vice Chair, and Coordinator were to be confirmed soon. The AAC consists of two members, most of whom are farmers, from each jurisdiction and their priorities are to highlight soil health efforts and build coordination with the other ACs and Bay Program agricultural workgroups. The AAC is eager to collaborate and provide input to help the Bay Program meet its goals.

[Collaboration with STAR – Presentation Slides](#)

Ken Hyer (USGS) and Breck Sullivan (USGS), Chair and Coordinator of the [Scientific, Technical Assessment and Reporting \(STAR\) Team](#) respectively, presented an overview of STAR’s role in the Bay Program and discussed opportunities for STAC and STAR to collaborate while working towards Bay Program goals. The STAR team coordinates monitoring, modeling, and analysis across the partnership to help make progress towards all Goals and Outcomes, with emphasis on water quality and ecosystem response, and folds this work into the adaptive management process. STAR also manages and coordinates the [Strategic Science and Research Framework \(SSRF\)](#) to identify, track, and address Bay Program science needs, interacts with GITs to coordinate science partnerships and identify new opportunities, and manages Bay Program-funded monitoring networks to ensure data comparability, completeness, and integrity. In discussion, Hyer highlighted the importance of looking at Beyond 2025 as an opportunity to continue strengthening STAR–STAC connections, while Wardrop raised whether STAR had ever requested a STAC-led technical review or workshop. Sullivan noted STAR’s frequent participation in workshops via letters of support and Steering Committee service, though leadership has not directly requested one. Questions were also raised about STAR’s size and structure, with Sullivan explaining that STAR supports eight workgroups (plus GIS and the data center), all volunteer-based except for the Coordinator and Staffer. Wardrop emphasized the structural difference between STAR’s interface with GITs and STAC’s advisory channel to CBP leadership.

Both STAC and STAR connect science providers with the science needs of the Bay Program, but where STAC serves an advisory role to CBP leadership through guidance and review, STAR serves a coordination role by providing data and support to the GITs and workgroups. Within the [Strategy Review System](#), the Bay Program's adaptive management process, the roles of STAC and STAR are complementary; STAC provides independent review to address big-picture questions and STAR provides day-to-day operational support to increase science capacity. Committee members discussed how collaboration could evolve with revisions to the Watershed Agreement. Hyer pointed to the need to think more holistically across the four Goals and 21 Outcomes to address interconnections, while Sullivan explained STAR's new database for tracking priority needs and science gaps. Dennison reflected on STAR's original co-chair structure, suggesting that reinstating an academic co-chair could strengthen dissemination to the research community. Discussion also touched on funding: Hyer noted that goal team funds were once a critical engine for workgroups, with Sullivan adding that these funds often advanced STAC recommendations into pilot projects. Runge and others raised concerns about resource allocation, governance, and capacity, which create pressure on both STAR and STAC. Finally, members including Kirchhoff, Hyer, and Tango emphasized the need for stronger incorporation of social science to address the "knowledge-to-action gap," noting the lack of social scientists engaged in CBP and the opportunity for STAC's Social Science Workgroup to help build this capacity.

Additional Meeting Segments

Informative Presentations

[The ICC and Indigenous Data Sovereignty](#)

Melissa Ann Ehrenreich (ICC), Executive Director of the [Indigenous Conservation Council \(ICC\) of the Chesapeake Bay](#), shared background on the ICC. The ICC is composed of the seven federally recognized tribes of Virginia and supports Tribal Nations in rematriating and caring for their lands in a manner that reinforces sovereignty and self-determination. The Bay Program lacks tribal sovereignty and the ICC has developed a resolution, [A Declaration of Tribal Nations as Sovereign Governments Committed to the Protection and Restoration of Ancestral Lands and Waters through the Chesapeake Bay Program Partnership](#), in which 1) partnership would be developed with Sovereign Nations by creating signatory status for Tribal Nations via the ICC, 2) a new [Indigenous Guardians Program](#) would be created, and 3) Indigenous Knowledge would be honored in the Bay Program. In recognizing and respecting the rights of Indigenous Peoples, the ICC operates with [free, prior, and informed consent](#) (FPIC).

Desiree Shelley (ICC), Indigenous Knowledge and GIS Specialist at the ICC, presented on Indigenous Data Sovereignty. Indigenous Peoples' Data refers to data of significance to Indigenous Peoples and is often relational and tied to land, identity, and communal rights; it is multifaceted and includes many interconnected types of data. In respecting Indigenous

communities, research should follow both FAIR (findable, accessible, interoperable, reusable) and [CARE](#) (collective benefit, authority to control, responsibility, ethics) principles. One mechanism Indigenous scientists have developed for using Indigenous Data are [Traditional Knowledge and Biocultural labels](#), which indicate how tribes allow knowledge to be accessed and used. [Community-based participatory research](#) best practices can be applied to collaborative research partnerships with Indigenous peoples, tribes, and communities.

The Future of the C-StREAM Program – [Presentation Slides](#)

Gabriella Giordano (CRC), Coordinator for the [Chesapeake Student Recruitment, Early Advisement, and Mentoring \(C-StREAM\) program](#), presented an overview of the current iteration of the program and ways that the program can continue to support the career development of qualified students in the Chesapeake Bay watershed through a changing landscape. The C-StREAM program matches selected undergraduate students with meaningful summer fellowships and mentors at a partnered academic institution or government agency with the goal of providing continued mentoring and support during the following academic years. Through the program, students develop core competencies of multicultural awareness, ethical reasoning, systems thinking, professional development, and civic responsibility.

Started in 2017, C-StREAM began with the intention of creating an entry point for diverse students into the environmental workforce; in the following years, it steadily grew in applicants, internship positions, funding, and capacity. Milestones included: first cohort in 2018, NSF funding and a program coordinator in 2021, and NFWF funding with program development in 2024. For Summer 2025, reductions in federal funding limited support capacity to three positions. Giordano reached out to local NGOs and organizations hosting interns to create a collaborative cohort, enabling opportunities for peer networking and increasing access to professional development. The cohort included six students overall.

Moving forward, Giordano intends to evolve C-StREAM into a network-driven program resilient to changes in federal leadership and priorities. As such, the newly named “Chesapeake Bay Internship Program” will feature a three-month summer internship and coordinate students participating in high-impact engagement experiences at state and federal agencies, NGOs, and CRC member institutions across the Chesapeake Bay Watershed into a single Chesapeake Bay Intern cohort. This builds on previous knowledge to foster a resilient, network-driven program. Next steps include seeking funding, developing partnerships with NGOs, member institutions, and state/federal agencies, and evolving C-StREAM programming for the new Chesapeake Bay Internship Program.

STAC members drew upon experience to provide suggestions and considerations for the development of the internship program.

[*Environmental Decision Support Tools – Presentation Slides*](#)

As part of the Geospatial Science and Applications Team (GSAT), Alex Gunnerson (USGS) and Sophie Waterman (USGS) have been conducting user research for the environmental decision support tools created by the Bay Program to better understand the motivations and needs of target audiences related to conservation and restoration decisions. Gunnerson and Waterman provided a brief demonstration of several environmental decision support tools currently used by the partnership, including the [Chesapeake Healthy Watersheds Assessment 2.0](#), Tree Canopy Fact Sheets, the [Chesapeake Data Portal](#), the [Watershed Data Dashboard](#), and the [Chesapeake Bay Targeting Tools Portal](#). They also presented an overview of the users interviewed so far. The broad categories of users are state governments, local governments, land trusts, non-profits and NGOs, and scientists; common themes and interests that have emerged thus far are parcel scale metrics, BMP implementation suitability maps, an overall desire for greater recognition of implemented conservation and restoration actions through increased spatial representation, relatively frequent use of CBP/Chesapeake Conservancy's Conservation Innovation Center (CIC) 1m LULC data, and request for datasets to include case studies and lessons learned in how to apply each resource.

The final report will be published and findings shared later in Summer 2025 and a new decision support portal will be prototyped in Fall 2025 with user testing through the end of the year. STAC members gave feedback on their experiences with decision support tools, asked questions about the research process, and provided suggestions for improving the tools and the planned portal.

[*Nature-Based Solutions and Capital Accounting – Presentation Slides*](#)

STAC Synthesis funding was approved to support the project proposal “*Evaluating the performance of nature-based coastal protection solutions for natural capital accounting in the Chesapeake Bay*,” which will be conducted by Old Dominion University in partnership with Tetra Tech, by the STAC Science Synthesis Subcommittee in January 2025. The [Climate Resiliency Workgroup](#) will be supporting the synthesis project and Julia Fucci (CRC) gave a brief overview of how the project contributes to the Adapting to Changing Environmental Conditions Outcome.

Vamsi Sridharan (Tetra Tech) presented background information on nature-based solutions and natural capital accounting in the Chesapeake Bay, an outline of the synthesis project, and progress of the project. Nature and nature-based solutions (NNBS) are strategies that utilize natural coastal ecosystems to protect coastlines from erosion, flooding, and other hazards, while also providing ecological and social benefits (e.g., oyster reefs, living shorelines, marsh restoration); barriers to implementing NNBS include concerns about long-term performance, implementation cost, lack of supportive policy and regulatory framework, and cost-effectiveness over time. Natural Capital Accounting (NCA) is a standardized method for tracking and valuing natural assets, which helps quantify how changes in ecosystems impact human

well-being and economy as well as supports data-driven decision-making for resource management. Addressing a [Climate Science Need](#) that arose from the [STAC Rising Temperatures Workshop](#), the synthesis project will identify metrics to assess the performance of previously implemented NNBS and gain understanding of what management goals are being met, then use those performance metrics to develop a framework for guiding future NNBS implementation and to account for how the NNBS can potentially be valued.

So far, Sridharan's team has reviewed STAC recommendations on types of metrics from various previous synthesis projects and established eight categories of metrics that can be associated with NNBS. These include both quantitative and qualitative data (such as aerial imagery, habitat connectivity, field observations, and stakeholder feedback) as well as broader outcomes like storm-induced vegetation loss and socio-economic dynamics. Recognizing variability and gaps in post-implementation monitoring data, the team is developing a matrix framework to categorize geographical and environmental contexts, NNBS typologies, monitored variables, and interactions across ecological, technological, and socio-economic systems. This matrix will help identify critical knowledge gaps and inform performance indicators to assess NNBS effectiveness pre- and post-implementation, with the final goal of generating a robust framework that enhances regional monitoring efforts and supports future decision-making.

Meeting Summary (Public Webinar)

Guests: James Ammerman (Long Island Sound Study), Karl Blankenship (Bay Journal), Don Boesch (UMCES), JK Bohlke (USGS), Katie Brownson (USFS), Ruth Cassilly (UMD), Sherry Dudas (A-NPDC), Amanda Garzio-Hadzick (Stroud Water Research Center), Tom Graupensperger (Dewberry), Jason Halbert (Oak Hill Fund), Jeremy Hanson (CRC), Kirk Havens (VIMS), Julie Reichert-Nguyen (NOAA), Bailey Robertory (MD DNR), Natalie Snider (MD DNR), Kathy Stecker (MDE), Patrick Thompson (Energy Works), Allison Welch (CRC), John Wolf (USGS), Madeleine Youngs (UMD)

The final session was open for the public to join virtually. Sanford provided an overview of the meeting activities and discussions, along with the STAC decisions for the coming year. A full meeting summary is available to the public on the meeting website.

The [STAC September Workshop Meeting](#) will take place Tuesday, September 16, 2025. This is a hybrid meeting with in-person meeting space at the Chesapeake Bay Program Office in Annapolis, MD. The agenda will include review of workshop reports from the previous year, updates on current-year workshop planning, discussion of membership vacancies, preparation of the 2025 STAC Letter to the CBP Executive Council, updates from the newly formed STAC Ad-Hoc Workgroups, and observation of the committee Chairship rotation with a vote on the Vice Chair nominee.

Minutes Approved by STAC at the [September 2025 Meeting](#).