



Scientific and Technical Advisory Committee (STAC)

to the Chesapeake Bay Program (CBP)

[February 2026 Meeting](#) | Topical Meeting

February 20, 2026 | virtual

Meeting Minutes

Attendance:

STAC Members: Anthony Buda (USDA-ARS), Brent Murry (WVU), Bill Dennison (UMCES), Carl Friedrichs (VIMS), Charles Bott (HRSD), Chris Brosch, Christine Kirchhoff (Penn State), Dave Martin (TNC), Efeturi Oghenekaro (DC DOEE), Ellen Kohl (UMBC), Erin Letavic (HRG), Greg Noe (USGS), Jeni Keisman (USGS), John Bovay (VT), Kathy Gee (OptiRTC), KC Filippino (HRPDC), Kenneth Rose (UMCES), Kevin Orner (WVU), Larry Sanford (UMCES), Leah Palm-Forster (UDel), Matt Baker (UMBC), Mike Runge (USGS), Molly Mitchell (VIMS), Robert Sabo (EPA), Scott Knoche (Morgan State, PEARL), Shirley Clark (Penn State), Theo Lim (UBC, SCARP), Valerie Were (CIRA), Yusuke Kuwayama (UMBC)

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

Guests: Lili Badri (UMCES), Marisa Baldine (CRC), Doug Bell (EPA), Patrick Bitterman (Kent State University), Jess Blackburn (Alliance for the Chesapeake Bay [Alliance]; Stakeholders' AC), Renee Bourassa (ICPRB), Kathryn Brasier (Penn State), Kevin DuBois (US DoD), Melissa Fagan (CRC), Rachel Felver (Alliance), Alexandra Fries (UMCES), Lara Fowler (Penn State), Carissa Gervasi (UMiami), Gabriella Giordano (CRC), Taylor Goelz (The Aspen Institute), Kaylyn Gootman (EPA), Amy Handen (EPA), Jeremy Hanson (CRC), Emily Heller (EPA), Marel King (CBC), Meredith Lemke (CRC), Lew Linker (EPA), Dot Lundberg (USGS), Kristal McKelvey (VA Dept. of Conservation and Recreation), Fatima Midrar (Penn State), Rick Mittler (Alliance), Phoebe Murrell (Elizabeth River Project), Peter Oyewole (Kent State University), Don Phillips, Amanda Rockler (UMD), Kristen Saacke-Blunk (Headwaters LLC), Michelle Selzer (MDARD), Desiree Shelley (ICC), Xoco Shinbrot (Delta Stewardship Council), Rachel Stahlman (York County Planning Commission), Erin Sonnenburg (EPA), Peter Tango (USGS), Patrick Thompson (EnergyWorks Group), David Trimbach (WA Dept. of Fish and Wildlife), Lisa Wainger (UMCES), Bo Williams (EPA), Faren Wolter (USFWS), Julia Wondolleck (UMich), Maggie Woodward (CBC)

Meeting Overview

The STAC February 2026 Topical Meeting examined how social science and knowledge co-production can strengthen Chesapeake Bay restoration. Organized by STAC's Social Science Workgroup (SSWG), the meeting featured speakers from three peer watershed programs, Puget Sound, the Sacramento-San Joaquin Delta, and the Western Lake Erie Basin, as well as practitioners working on co-production in coastal and fisheries contexts. Recurring themes included trust-building, environmental justice, the pace and resource demands of genuine co-production, and how STAC might more deliberately integrate social science into its own work.

Setting the Stage

[The STAC Social Science Standing Workgroup](#) (SSWG) Co-Chairs Dr. Christine Kirchhoff (Penn State) and Dr. Ellen Kohl (UMBC) opened the meeting. Kirchhoff noted that the SSWG was established in October 2024 and has 17 members spanning economics, sociology, governance, environmental justice, public policy, and

planning. Kohl added that the group's goal is not to simply "add and stir" social science into existing STAC frameworks, but to fundamentally shift how social science is understood and used within STAC.

Kirchhoff noted that the CBP has made real progress on the ecological science (nutrient dynamics, land use modeling, water quality tracking) but that achieving the Bay's restoration goals ultimately comes down to human dimensions: what practices farmers choose, how communities manage stormwater, whether residents participate in stewardship, and how institutions coordinate across jurisdictions. These are social science questions, and they have historically received less systematic attention. She emphasized that social science is not a communication tool or an afterthought, but a means of understanding the drivers behind the decisions that determine whether restoration succeeds or fails.

Kohl introduced co-production as "a process that brings together diverse groups to iteratively create new knowledge and practice." She was direct about the implications: co-production disrupts the linear model of scientists doing research and then delivering results to stakeholders. Instead, stakeholders help define the questions, shape data collection, and determine how findings are used from the very beginning. It is harder and slower than traditional research. It requires building trust, paying attention to power dynamics, and thinking about partnerships before the research even starts. Kohl also noted that the panel deliberately did not include examples of co-production with tribal nations, because integrating Indigenous and Western scientific knowledge requires focused, intentional effort that cannot be addressed through a single example and those conversations are coming.

Participants were asked to keep three questions in mind throughout the meeting: What stood out? What are you still confused about or want to learn more about? What could we apply at STAC? These questions also guided the breakout discussions. Resources shared by speakers ahead of the meeting are available on the meeting's webpage.

[Panels](#)

[Sister Programs](#)

The first panel brought together three practitioners working in large-scale watershed programs that have moved further along the path of social science integration than the CBP. Speakers were David Trimbach (Washington Department of Fish and Wildlife, Puget Sound Partnership), Xoco Shinbrot (Delta Stewardship Council, Sacramento-San Joaquin Delta), and Michelle Selzer (Michigan Department of Agriculture and Rural Development, Western Lake Erie Basin). Each gave a brief overview of their program's governance and geography, then the panel opened to discussion.

[Puget Sound](#)

David Trimbach (Washington Department of Fish and Wildlife) presented on the [Puget Sound Partnership's](#) integration of social science into recovery planning. Trimbach spent five years as an EPA-funded in-house postdoc at the Partnership focused specifically on social science integration, and now holds a conservation social scientist position at the Washington Department of Fish and Wildlife. The program operates across 12 counties, involves many federally recognized tribes, and spans an international boundary with Canada. He noted that the program's social science foundation was built on Washington State's statutory recovery goals ([RCW 90.71.300](#)), which include not only ecological objectives such as healthy water quality, functioning habitat, and thriving species, but also a healthy human population and vibrant quality of life. This governance

framework helped create a science-policy environment in which human wellbeing became an explicit component of ecosystem recovery.

A central component of this effort has been the development of an Integrated Conceptual Model and a suite of ecological and human wellbeing "[Vital Signs](#)" indicators used to track recovery progress ([Harguth et al. 2015](#)). Trimbach explained that human wellbeing indicators became a primary mechanism for integrating social science into restoration efforts and were developed alongside ecological indicators using an ecosystem services framework ([Trimbach and Biedenweg 2025](#)). The term "Vital Signs" was intentionally selected because it is more accessible to broader audiences and helps communicate the relationship between ecosystem health and human wellbeing.

Trimbach also discussed the establishment and evolution of the Social Science Advisory Committee ([SSAC](#)), which has been active since 2011 and helped normalize social science as a core part of the Partnership's work. Trimbach highlighted community workshops with historically underrepresented populations, including Asian American and African American communities, designed to surface priorities and close gaps in who is included in monitoring and recovery planning. Social science efforts have since expanded to include community-engaged research on how residents perceive environmental conditions. He noted that there are currently only two non-economics social science positions across Washington State's natural resource agencies, and that his own position took over a decade to create and fund. [Lessons learned from Puget Sound](#) included: find champions at every level; shift from one-off project relationships to long-term ones; embed social scientists inside the institutions doing recovery work; and pursue epistemic diversity - don't rely only on economists or psychologists. During Q&A, Trimbach noted that knowledge co-production dramatically changed how the Partnership approached integration: working closely together, rather than running social science as a parallel track, was the turning point.

[Sacramento-San Joaquin Delta](#)

Xoco Shinbrot (a conservation social scientist at the Delta Stewardship Council) presented on California's Sacramento-San Joaquin Delta—a low-lying estuary spanning four counties that supplies water to 27 million Californians and supports four million acres of agricultural land. It is a highly managed system, with water sent via aqueducts all the way to Southern California. Shinbrot described the [Delta Stewardship Council](#)'s role as a boundary-spanning organization (established in 2009) that connects federal, state, local, Tribal, academic, and nongovernmental partners through activities including research funding, science synthesis, peer review, adaptive management support, and science communication.

Shinbrot explained that many of the Delta's social science efforts originated from recommendations by the Delta Independent Science Board ([Delta ISB](#)), which identified social science within the region as "sparse and sporadic." In response, the Delta Science Program partnered with UC Davis Coastal and Marine Sciences Institute to convene an independent [Social Science Task Force](#), which developed, "[A Social Science Strategy for the Sacramento-San Joaquin Delta](#)" (Biedenweg et al. 2020). The strategy provided a roadmap for expanding social science capacity, professional networks, research activities, and funding opportunities throughout the Delta science enterprise. Subsequent efforts included hiring dedicated social science staff and extension specialists, establishing a [Social Science Community of Practice](#), and incorporating social science into the [Delta Research Awards program](#).

Shinbrot highlighted three concrete examples of social science impact within the Delta. These included a [Tribal and Environmental Justice \(TEJ\) Issue Paper](#) (Delta Stewardship Council 2025) informed by interviews with Tribal representatives and environmental justice organizations, a [Delta Residents Survey](#) with more than 2,000 respondents examining wellbeing, concerns, priorities, and climate risk perceptions, and interdisciplinary research initiatives designed to strengthen collaboration across disciplines. Findings from these efforts improved understanding of trusted messengers and community concerns and helped identify disparities in access to resources and climate resilience across the region. Shinbrot also mentioned efforts to fund social science research directly, including studies examining farmer decision-making, trusted information sources, and collective action challenges.

[*Western Lake Erie Basin*](#)

Michelle Selzer (Western Lake Erie Basin Strategist, Michigan Department of Agriculture and Rural Development) described the challenge of meeting phosphorus reduction targets in the WLEB largely through voluntary action, Michigan has no meaningful regulatory tools for nonpoint sources. Selzer presented on social science integration within the [Western Lake Erie Basin](#) (WLEB), where partners have recognized that meeting water quality goals requires understanding the human factors behind conservation decisions. She highlighted work by the WLEB Science Panel and the partnership with the University of Michigan Water Center, which serves as a neutral boundary organization between the state and the agriculture community.

A major component of this work was the establishment of a 60-member [Community Advisory Group](#), designed to create a meaningful two-way communication channel between agencies and watershed communities. The group was intended to move beyond traditional outreach approaches by providing opportunities for stakeholders to identify concerns, inform restoration priorities, and provide direct feedback on implementation efforts. Selzer noted that these conversations helped improve understanding of how stakeholders perceive water quality issues, evaluate restoration programs, and make land management decisions that ultimately influence environmental outcomes.

Selzer drew on two recent reports ([WLEB 2023](#)) and the report *A Mixed-Methods Approach to Conduct Program Evaluation and Monitor Social Indicators of Behavioral Change Over Time in the Western Lake Erie Basin* ([WLEB 2025](#)) to establish frameworks for tracking behavioral change and evaluating program effectiveness. Key lessons: the messenger matters as much as the message; farmers are experiencing survey fatigue and engagement strategies need to be tailored accordingly; and the private sector (e.g., ag retailers) may be more effective delivery channels for conservation messages than government programs alone.

[*Aspirational Co-Production*](#)

The second panel focused specifically on co-production. Speakers were Julia Wondolleck (University of Michigan; NERRS Science Collaborative), Carissa Gervasi (University of Miami; Shrimp Futures), and Taylor Goelz (Aspen Institute; Maryland Oyster Futures). The panel was framed as “aspirational,” not a prescription that everyone should adopt co-production, but an invitation to imagine different possibilities for how research can work and what that might mean for STAC.

[*National Estuarine Research Reserve System Science Collaborative*](#)

Julia Wondolleck (University of Michigan) presented on the National Estuarine Research Reserve System ([NERRS](#)) Science Collaborative, a program that has funded 115 co-production projects over the past decade across 30 National Estuarine Research Reserves (two of which are in the Chesapeake Bay system). Wondolleck

described how co-production differs from traditional stakeholder engagement: intended users are involved from the start, not consulted after the questions have already been set.

The Collaborative's model has three key features that set it apart from traditional research funding. First, it is needs-driven: research proposals must respond to priority knowledge needs identified by the reserves themselves, not the researchers. Second, it requires genuine collaboration, not checkbox collaboration. Wondolleck described a recurring problem early on where researchers would promise to collaborate and then engage minimally. The program now requires evidence of prior consultation in proposals, and shortlisted teams participate in video calls where intended users are asked to describe the project and its importance before the researchers are even asked to speak. Third, each project must have a designated "collaborative lead" with experience managing a co-production process. Wondolleck noted that this approach often changes both the questions being asked and the resulting products, producing information that is more directly relevant to decision-makers. Drawing on examples from the Collaborative, Wondolleck emphasized that successful co-production depends on dedicated facilitation, flexibility, trust-building, and sustained investments in relationships among researchers, managers, practitioners, and community members ([Trueblood et al. 2019](#)).

Wondolleck emphasized that co-production is not appropriate for every research question and can be resource intensive. However, she argued that involving intended users throughout the research process increases the likelihood that findings will inform management decisions and be viewed as credible by those expected to use them. Lessons learned included the importance of trust, clearly defined roles and expectations, early engagement, and recognizing multiple forms of expertise and knowledge throughout the research process.

[Shrimp Futures Initiative](#)

Carissa Gervasi (University of Miami) presented on the [Shrimp Futures Initiative](#) (NOAA), a collaborative project focused on helping Gulf shrimp fishing communities navigate environmental, economic, and social change. The initiative brought together shrimpers, researchers, extension specialists, seafood industry representatives, and other stakeholders to explore potential futures for the fishery and identify adaptation strategies. Gervasi described how the project used scenario planning and facilitated discussions to create space for participants to share concerns, local knowledge, and lived experience while jointly considering emerging challenges.

Gervasi noted that meaningful participation required investing time in relationships, understanding stakeholder priorities, and creating opportunities for participants to shape the direction of discussions and research activities. Rather than treating stakeholders as recipients of scientific information, the project sought to position them as contributors to the process of knowledge generation and future planning. Reflecting on lessons learned, Gervasi emphasized that co-production is often messy, time-intensive, and difficult to fit within traditional research timelines. However, she argued that these investments ultimately improve the relevance and legitimacy of scientific information while strengthening stakeholder capacity to respond collectively to future challenges.

[Maryland Oyster Futures](#)

Finally, Taylor Goelz (Aspen Institute) presented on [Maryland Oyster Futures](#), a collaborative effort designed to bring together diverse stakeholder groups involved in oyster management, including commercial harvesters, aquaculture interests, scientists, resource managers, nonprofit organizations, and policy

practitioners. Goelz described the initiative as an effort to create productive dialogue around a contentious and complex resource management issue while improving understanding among groups that often interact through conflict rather than collaboration.

The Maryland Oyster Futures process focused less on achieving consensus and more on developing a shared understanding of values, priorities, tradeoffs, and areas of disagreement. Through facilitated workshops, interviews, and structured conversations, participants were encouraged to identify common concerns, clarify assumptions, and explore potential pathways forward. Goelz noted that many participants entered the process with skepticism but gradually became more willing to engage with perspectives different from their own. Goelz shared two papers on the social networks of the OysterFuture process: [Goelz et al. 2020a](#) and [Goelz et al. 2020b](#).

Despite starting with deep skepticism, participants eventually produced a list of recommendations to Maryland DNR on oyster management in the Choptank. Goelz noted that the most important outcomes were not the technical recommendations themselves but the strengthened relationships and increased capacity for future dialogue among groups that had primarily interacted through conflict. Transparency, neutrality, and trust in the process were the foundation.

Panel Q&A:

Following the presentations, participants engaged panelists in a facilitated discussion.

- Erin Letavic (HRG): Is “Vital Signs” a term that has been used for a long time, and how effective has it been in communicating restoration goals to the public?
 - Trimbach: The term vital signs I believe has been around since the beginning when the indicators were initially established or at least finalized and approved ~10 years ago. I think for some audiences "vital signs" is more accessible than biophysical and social indicators; although I have conducted non-scientist public workshops on the indicators and monitoring, and that is already challenging to communicate with or without vital signs language.
- KC Filippino (HRPDC): What does an adaptive management liaison do?
 - Shinbrot: Projects in the Delta must comply with the Delta Plan and are required to have adaptive management plans. Adaptive management staff help communicate what successful adaptive management looks like and convene events, such as the Adaptive Management Forum, to highlight effective examples.
- Molly Mitchell (VIMS): The Adaptive Management Forum sounds really interesting and something that we should adopt in the Chesapeake Bay.
 - Shinbot: If you do end up organizing something, we would love to attend - or potentially we could even co-host a day. If you're interested in the 2023 AM Forum Summary you can [find it here](#). The recording and other materials including the agenda are available on [this website](#).
- Bo Williams (EPA): How is Puget Sound measuring ecosystem services, and has that framework been useful for communicating the connection between ecosystem health and human wellbeing?
 - Trimbach: Puget Sound uses an ecosystem services framework to conceptualize the social-ecological system and to support development of human wellbeing indicators. The framework has helped create a shared understanding of why both natural and social sciences are needed for recovery.

- Kirchhoff: That echoes our thinking on the SSWG. Diversity of expertise. Conversations/relations matter.
- Faren Wolter (USFWS): Conservation Standards strategic planning process can also include identification of human wellbeing targets related to ecosystems services and how to measure/monitor it. [Link here](#).
- Shinbrot: Plugging our Social Science Community of Practice - it includes member-led workshops and sessions, presentations on things like salmon governance, and in person networking; if you are interesting in joining our quarterly meeting you can email SocialScience@deltacouncil.ca.gov.
- Jeni Keisman (USGS): Is there an important distinction between co-producing tools and co-producing knowledge, or is the process essentially the same in both contexts?
 - Wondolleck: Co-production is about generating actionable knowledge to meet a management or research need. Sometimes the product is a tool, but intended users need to be involved because they are the ones who will apply it.
 - Gervasi: Stakeholders can provide knowledge scientists may not be able to obtain independently. In fisheries, stakeholders often provide timely, on-the-water observations that complement slower formal data collection.
 - Lisa Wainger (UMCES): Even though the watermen were somewhat dismissive of the model their knowledge often lined up well with the model, providing a reality check. Also, I was surprised that the deep engagement and willingness of the science team to listen objectively to watermen was effective in getting them to accept empirical results that contradicted one of their conceptual models
 - Goelz: Maryland Oyster Futures showed how watermen and aquaculturists helped refine scientific models and identify where models could not fully capture local knowledge. Models are one tool, not the end-all-be-all.
 - Keisman: It requires a fundamental shift in understandings of the role of the scientists. I particularly like this [engagement with definitions of co-production](#) and here is a [link to the paper](#) where I got the definition of co-production I used in the introduction
- Wainger: Observed that the Delta's efforts to build trust with Tribal communities improved consultation and engagement. She noted that investments in understanding governance structures also helped strengthen interactions among scientists and improve understanding of policy audiences.
 - Gervasi: Agree that relationship-building requires significant time and effort and noted that trusted intermediary organizations and long-standing community relationships can help overcome capacity and engagement challenges.
 - Shinbot: One of the reasons the Council began to integrate social science is because of it's Independent Science Board who identified social science as a major gap - sparse and sporadic were the words they used. Lisa is one of the major contributors as part of our Delta Independent Science Board to uplifting and communicating social science.
- Larry Sanford (UMCES): When a program has mandated environmental outcomes, such as water quality requirements, how important is stakeholder buy-in? How does social science function when the goal itself cannot change?
 - Wondolleck: Mandates alone often lead to resistance. Co-production can help people understand the need for change, discuss what the mandate means for them, and identify possible responses. Learning through those conversations can support behavioral change.
 - Selzer: In Michigan, most nonpoint source nutrient reduction goals must be achieved through voluntary action. Michigan has limited regulatory tools for agriculture, so the program relies on

proactive outreach, watershed prioritization, private-sector partners, and trusted messengers to encourage conservation practice adoption.

- Filippino: I think this conversation is going in the direction I expected with that question, especially with 'the model shouldn't be the end all be all' comment. We're not quite in that spot yet but maybe trying to get there. Larry is getting at what I was asking.
- Leah Palm-Forster (UDel); Joe Wood (CBF): How do co-production efforts address limited time, competing incentives, capacity constraints, and the pressure to move quickly while still taking time to ask the right questions?
 - Trimbach: Co-production takes time, intention, and care, which can conflict with short funding cycles and rapid project timelines. Puget Sound tries to build long-term relationships rather than starting from scratch for each project. [Washington's HEAL Act](#) and participant compensation policies also help reduce barriers to engagement.
 - Wainger: The Delta improved Tribal engagement by stepping back from project-specific outreach and focusing first on relationship-building. Some Tribal representatives had felt agencies were coming too late and not listening; relationship-building made later engagement more effective.
 - Gervasi: Shrimp Futures relies heavily on Sea Grant and other trusted intermediaries who already have relationships with fishing communities. These partners help reduce the burden on participants and overcome skepticism toward regulatory agencies.
 - Wondolleck: Co-production is difficult at first, but participants learn over time. Repeated engagement helps build relationships, shared experience, and greater capacity to work collaboratively.
 - Shinbrot: Rapid response and co-production can be in tension. Using invasive species response in the Delta as an example, she noted that agencies are better able to ask for urgent action when they have already built relationships and trust.
- Filippino: How do regulations help or hinder your ability to adapt, co-produce knowledge, and incorporate social science?
 - Selzer: Regulations can create tension, particularly when agencies are viewed as the “enemy.” In fisheries, stakeholders may not oppose the goal of a regulation, but may object to how it is implemented or enforced. Co-production can help agencies understand those concerns and make regulations easier to follow.
 - Trimbach: Puget Sound's early social science work was partly enabled by statutory requirements for human wellbeing indicators. Over time, that opened the door to broader social science and co-production. Washington's HEAL Act has also supported community-based social science and environmental justice work.
 - Gervasi: Regulations can create tension, but co-production helps agencies understand stakeholder concerns and improve implementation of regulatory requirements.
 - Palm-Forster: Finding “connectors” is often critical.
- Kevin DuBois (DoD): Has anyone tapped into retired professionals to address capacity issues?
 - Dennison: UMCES is developing a program to connect emeritus faculty with graduate students. Recent retirements from federal agencies may also create opportunities to engage experienced professionals in advisory and support roles.
- Wood: Does the pressure to implement programs quickly get in the way of collaborative approaches, and how do you balance moving fast with taking the time to ask the right questions?

- Trimbach: Meaningful co-production requires time, intention, and care, creating an inherent tension with short funding cycles and rapid project timelines. To address this challenge, Puget Sound focuses on building and maintaining long-term relationships with partners rather than establishing new collaborations for individual projects. Washington State's HEAL Act and participant compensation programs are helpful, these institutional supports help agencies engage communities more effectively and reduce barriers to participation.
 - Wainger: This is the key tension. Wanting fast results and the time it takes to establish trust and co-production solutions that work for businesses and policy actors. But if you look at the history of the Ches Bay restoration, I think many of the quick approaches don't work or don't persist over the long term. The solutions that emerge through co-production can be more sustainable (but not always); yes! to David's comments about establishing relationships outside of an immediate need. So many successful co-production exercises depend on long-established relationships
 - Kirchhoff: I would add that these long-term relationships can also raise very interesting research questions. Going back to sometimes the most interesting questions are not arising from scientists but from other knowledge holders.
- Dennison: This discussion reminds me of the adage "If you want to go fast, go alone; if you want to go far, go together"
- Gervasi: Although co-production can be time-intensive and difficult to fit within traditional project timelines, the relationships built through the process are often among its most valuable outcomes and can support future collaboration and decision-making.
- Kirchhoff: Could you say more about the importance of the RFP and review process in supporting co-production goals within the NERRS Science Collaborative?
 - Wondolleck: The Science Collaborative uses the proposal and review process to ensure projects demonstrate genuine co-production. Applicants must show evidence of prior engagement with intended users, shortlisted teams participate in video calls with intended users and reviewers, and each project must include a collaborative lead to support the co-production process.
- Letavic: How do you bring new people into an ongoing co-production effort when original participants move on? How do you keep the effort moving while "the bus is driving down the road"? Gervasi's co-production example reminded me of Pennsylvania's Countywide Action Plan process. PADEP recently [published a case study](#) outlining it and how it could be replicated in other geographies.
 - Wondolleck: Transitions need to be anticipated and deliberately managed. A "passing the baton" period, where outgoing and incoming participants overlap for a few months, can help transfer project context, relationships, and institutional knowledge.
 - Fowler: Abrupt transitions are increasingly common, which makes succession planning and transition management important to sustaining collaborative efforts.
 - Wondolleck: Observed that co-production becomes easier over time as participants gain experience working together. Long-running collaborations often develop stronger relationships, shared norms, and a greater capacity to navigate turnover and change.
 - Shinbrot: Social science and co-production efforts often face capacity constraints and participant fatigue. Important to leverage existing information, relationships, and networks rather than repeatedly asking the same stakeholders to contribute their time and expertise.
 - Trimbach: Important to maintain long-term relationships and institutional support structures so that collaborative efforts are not dependent on a single individual. Representation, dedicated

positions, and sustained investment help preserve continuity as people move into and out of programs.

- Kohl: From the outside, Puget Sound and the Delta appear to have integrated social science well. What barriers and challenges are you still working to overcome?
 - Shinbrot: Challenges include repeatedly explaining what social science is, limited recognition of social science expertise within natural resource agency classifications, difficulty building social science capacity, and public records requirements that can complicate protection of confidential research data.
 - Trimbach: Barriers include limited understanding of social science, communication challenges across disciplines, different methods and units of analysis, and confusion between social science, outreach, communications, economics, and behavior change. Deep institutional barriers, including the long process required to create dedicated social science positions and inequities in funding and support compared to the natural sciences.

Breakout Group Report-out and Synthesis

Following the panel discussion, participants divided into facilitated breakout groups to reflect on three questions: (1) What stood out? (2) What are you still confused about or want to learn more about? and (3) What could STAC apply from these examples? Groups were facilitated by members of the Social Science Workgroup (SSWG), with notes captured by designated notetakers. A summary of the breakout groups report outs below.

Participants noted that programs such as Puget Sound, the Sacramento San Joaquin Delta, and the Western Lake Erie Basin have made substantial investments in integrating social science into restoration planning and decision making. Examples discussed included dedicated social science staff, formal social science strategies, social indicators, adaptive management programs, and governance structures that explicitly incorporate human dimensions. Several groups observed that these programs appeared further along than the CBP in institutionalizing social science and creating pathways for social science findings to inform management actions.

Trust and relationship building emerged as a common theme across breakout discussions. Participants highlighted examples involving Tribal engagement, fisheries management, and agricultural conservation programs, noting that many successful efforts were built on long standing relationships and repeated interactions rather than project specific outreach. Groups also discussed the importance of understanding who is represented in collaborative processes, the role of trusted messengers, and how different forms of knowledge can be incorporated into restoration planning and implementation.

Several groups focused on the role of social science within restoration programs. Some participants emphasized its value for implementation, including understanding stakeholder motivations, barriers to participation, and factors influencing behavior change. Others focused on the contribution of social science to problem formulation, research design, adaptive management, and decision making. Participants generally agreed that social science extends beyond communications and outreach and can provide information that shapes both scientific and management priorities.

Participants also discussed challenges associated with applying these approaches within a large, multi-jurisdictional partnership such as the CBP. Questions were raised about scale, stakeholder fatigue, community capacity, compensation for participation, and how to determine when co production approaches are most appropriate. Potential applications for STAC included incorporating social science considerations earlier in workshops and reviews, increasing collaboration across disciplines, expanding social science expertise within STAC activities, and continuing discussions on the role of social science in supporting CBP decision making and adaptive management.

Facilitated Plenary Discussion

Following the breakout report outs, participants reconvened for a facilitated discussion led by Fowler. Discussion focused on the role of social science in restoration decision making and the extent to which social science should inform problem formulation, research design, implementation, and adaptive management.

Participants discussed distinctions between stakeholder engagement, public participation, and co production, and considered when each approach may be most appropriate. Discussion also returned to several recurring themes from the panels and breakout groups, including the challenges of applying co production approaches within a large partnership such as the CBP, incorporating Indigenous knowledge and other forms of expertise, and identifying opportunities for social science to inform restoration outcomes alongside ecological objectives.

Fowler concluded by noting that the examples presented throughout the meeting demonstrated multiple pathways for integrating social science into restoration programs and highlighted opportunities for continued discussion within STAC and the CBP. Recommendations will be included in the synthesis document to be published in the months following the meeting.

Post-Meeting

Following the meeting, the [February 2026 Meeting Synthesis](#) document was drafted by the [STAC Social Science Workgroup](#) and shared with STAC, meeting participants, and the broader partnership.

The [STAC April 2026 Meeting](#) will take place virtually on Thursday, April 30, 2026.