Lightning Round: Beyond 2025

STAC Member Expertise Contribution

Matthew Baker

Expertise

1. Landscape Ecology
2. Hydrology/Water Quality
3. Stream Ecology/Geomorphology
4. Geospatial Applications
5. Quantitative Analysis

Beyond 2025 Recommendation to contribute to

Recommendation

1. Optimize monitoring, modeling, analysis
2. Prioritize research addressing knowledge gaps in existing and emerging challenges
3. Support system-scale conservation and restoration planning and implementation for habitats and communities

John Bovay

Expertise

1. Agricultural economics and policy

2. Economics of climate-smart agriculture
   a) Incentives for adoption of climate-smart practices
   b) Food labels and consumer demand for sustainable food production

3. Connections to Virginia Cooperative Extension network

Beyond 2025 Recommendation to contribute to

Recommendation

CW1. Using social science to improve understanding of behavioral drivers of natural resource use, management, and decision-making

P5. Evidence-based quantitative research

C3. Co-benefits of agricultural conservation practices for climate and watershed health

C5. Market-based approaches to systemic change to support regenerative regional food systems

P2. Communication and outreach about the importance of the environment for all watershed stakeholders

Anthony Buda

Expertise

1. Watershed hydrology
2. Water quality monitoring
3. Nutrient management

Beyond 2025 Recommendation to contribute to

Recommendation

1. CLEAN WATER (consideration 3)

   Enhance coordination and use of monitoring and assessment results to guide implementation

2. CLEAN WATER (consideration 4)

   Increase and incentivize nonpoint source management implementation and identify, track, and address nutrient imbalances

3. HEALTHY WATERSHEDS (consideration 1)

   Use partnership approved monitoring data, assessment, and tools to characterize and track watershed health

Shirley Clark

Expertise

1. Urban stormwater quality
2. Interaction of land development, soils, and stormwater runoff quantity
3. Changing rainfall patterns and impacts of flooding and soils
4. (wearing an ASCE/EWRI hat) – upcoming changes in development standards and activities in NbS

Beyond 2025 Recommendation to contribute to

Recommendation

1. Clean Water: Use of Monitoring and Assessment Results
2. Climate: Resilience of Communities
3. Healthy Watersheds: Data, Tools, and Monitoring

Chesapeake Bay Program
Science. Restoration. Partnership.

KC Filippino

Expertise

1. Nonpoint source pollution (urban Stormwater)

2. Water Quality Monitoring

3. Local government policy and engagement

4. Climate resilience

Beyond 2025 Recommendation to contribute to

Recommendation

1. Revise the Accountability Framework (CW1), Increase & incentivize NPS mgmt. implementation (CW4)

2. Enhance Coordination & use of monitoring and assessment (CW3), Data, Tools & Monitoring (HW1), Improve understanding & habitat function under changing conditions (SW2)

3. Expand support for local government capacity (CW5), Planning: support strategic GI planning (HW2), Increase local engagement and capacity building (HW3), Create intentional partnerships w/ networks focused on issues related to Agreement goals (People 4)

4. Improve resilience of communities to key regional climate vulnerabilities (Climate 2)

Carl Friedrichs

Expertise

1. Monitoring and analyzing water quality in shallow and open water estuarine habitats.

2. Factors controlling water quality in shallow and open water estuarine habitats.

3. Especially for water quality issues involving estuarine water clarity and/or fine sediment dynamics (e.g., SAV habitat).

Beyond 2025 Recommendation to contribute to

Recommendations

1. SCI1: "[M]aintain the integrity of core monitoring networks and pursue opportunities for enhancements in monitoring."

2. SCI2: [A]ccelerate progress by … prioritizing water quality attainment and living resource response in shallow and open waters…"

3. CW3: "Enhance coordination and use of monitoring and assessment results with an emphasis on guiding implementation through documenting performance."

4. SW1: "Design and implement shallow water habitat restoration on an ecosystem scale…"

5. SW2: "Improve the understanding of connectivity and habitat function… by expanding… monitoring and modeling to include shallow water habitats."

Kathy DeBusk Gee, P.E., Ph.D.

Expertise

1. Urban stormwater runoff
2. Stormwater best management practices (control measures)
3. Water quality monitoring design, implementation, data analysis

Beyond 2025 Recommendation to contribute to

Recommendation

1. Healthy Watershed Consideration 2: Support strategic green infrastructure planning for watershed health at multiple scales
2. Clean Water Consideration 3: Enhance coordination and use of monitoring and assessment results
3. Healthy Watersheds Consideration 1: Data, Tools, and Monitoring
4. Clean Water Consideration 4: Increase and incentivize NPS management implementation

Christine J. Kirchhoff, Ph.D.

Expertise

- Water policy and governance
- Actionable knowledge
- Climate change adaptation, mitigation, and resilience

Beyond 2025 Recommendation to contribute to

Recommendation

- EC Rec. #2 & Partnership Rec. #4 – regarding [*science informed*] improvements to governance structure and process including enabling adaptive/science-based decision making and… fostering a collaborative organizational culture that includes diverse voices

- SGF CW & P: studies of other collaborations & governance structures

- Part III: resources rec - Strategic plan to enhance the use and impact of social science

Scott Knoche, Morgan State

Expertise

1. Environmental Economics
2. Social Science Survey Research
3. Non-market Valuation
4. Human Dimensions of Fish and Wildlife Management
5. Economics of Outdoor Recreation
6. HBCU/MSI experience

Beyond 2025 Recommendation to contribute to

Recommendation

1. Developing and adopting approaches to better incentivize practices that maximize benefits to living resources and people.
2. Commit to inclusive and meaningful engagement of people and communities that have been historically underrepresented, under resourced, and underserved.
3. Ensure the priorities of the Chesapeake Bay Program partnership reflect the needs of people and the impacts of a changing environment at the most local level.
4. Create a budget and staffing allocation plan to support the strategic application of social science best practices, research, and synthesis to advance goal achievement and ensure partnership impact.

Ellen Kohl

Expertise

1. Intersections of environmental policy and systemic oppressions (Intent vs. Impact)
2. Science-Policy Interface
3. Activist/Advocates/Community-Government Interactions

Beyond 2025 Recommendation to contribute to

Recommendation

1. **Diversity, Equity, Inclusion and Justice (DEIJ) must be a key lens through which the Chesapeake Bay Program's work is established and carried out.** (Recommendation 3)

2. *3. Strengthen the Program's capacity to ensure watershed restoration is relevant to all communities.* **The Program and partnership should commit to inclusive and meaningful engagement of people and communities that have been historically underrepresented, under resourced, and underserved**. (pg 14)

3. **Create intentional partnerships with networks focused on issues related to Watershed Agreement goals to learn from those networks and accelerate outcome attainment in collaboration with their members.** (Recommendation 4)

Yusuke Kuwayama

Expertise

1. Environmental and natural resource economics
2. Decisionmaking under uncertainty
3. Program evaluation

Beyond 2025 Recommendation to contribute to

Recommendation

1. Prioritize research that addresses knowledge gaps in existing and emerging challenges

2. Improve the Program's holistic approach to planning, prioritization, progress-tracking and

3. Adopt a systems approach to streamline governance and structure

Erin Letavic

Expertise

1. Landowner connections in the PA part of the Bay watershed where BMPs have been installed so that monitoring can occur and benefits can be measured
2. County-scale stormwater and co-benefit planning
3. MS4 permit-driven stream restoration/urban BMP design/permit/construction experience

Beyond 2025 Recommendation to contribute to

Recommendation

1. Clean Water - Considerations 1, 3
2. Healthy Watersheds – Consideration 3
3. Shallow Waters – Consideration 1
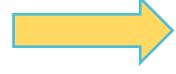
Theo Lim

Expertise

1. Environmental policy and planning
2. Science-Policy Interface
3. Use of scientific models in environmental governance

Beyond 2025 Recommendation to contribute to

Recommendation

1. Partnership: Systems approach to governance and structure
2. Partnership: Communications and Transparency
3. Partnership: ensure watershed restoration is relevant to all communities

David Martin, TNC

Expertise

1. Decision science
2. Facilitation + expert elicitation
3. Adaptive management

Beyond 2025 Recommendation to contribute to

Recommendation

1. Improving adaptive and science-based decision making

2. Integrating findings into decision making, resource allocation, and management strategies

3. Tools for climate adaptation and decision making

4. Developing decision support frameworks

Greg Noe, USGS

Expertise

1. Wetlands
2. Streams
3. Water quality

Beyond 2025 Recommendation to contribute to

Recommendation

1. Climate #1, #3, #4 (impacts, carbon, RAD)
2. Shallow Waters #1, #2, #5 (restore, monitor, systems approach)
3. Clean Water #3 (document performance)

Kenneth Rose

Expertise

1. Member of Shallow Water Habitat Team
2. Attended Beyond 2025 Symposium (SRBC, Harrisburg); invited by Lee McDonnell from the Clean Water Group
3. One of the leads on implementing test case for using habitat in shallow waters to determine/influence restoration actions ("bang for the buck").
4. Writing group member for CESR
5. Lead author on supporting document to CESR on how assess living resource responses to CBP actions.

Beyond 2025 Recommendation to contribute to

Recommendation

1. All listed under Shallow Waters in the Beyond-2025-SmallGroup recommendations report.

2. All listed in Beyond-2025 report (A Critical Path Forward…) that resulted or were supported by CESR. Although CESR is not explicitly cited in most of these.

Michael Runge (USGS)

Expertise

1. Decision analysis
2. Value of information
3. Adaptive management

Beyond 2025 Recommendation to contribute to

Recommendation

1. Science #2 ("Integrate existing and new science findings in decision making, resource allocation, …")

2. Science #1 ("Optimize monitoring, modeling, and analysis")

3. Partnership #1 ("Adopt a systems approach to streamline governance and structure", notably, "…revisit its adaptive management principles…")

Amir Sharifi (DC GOV)

Expertise

1. TMDL Monitoring
2. TMDL Biogeochemistry
3. Local Government

Beyond 2025 Recommendation to contribute to

Recommendation

1. Consideration 3
2. Consideration 4
3. Consideration 5

Tess Thompson (VT)

Expertise

1. Stream restoration
2. Wetlands restoration
3. Urban stormwater management

Beyond 2025 Recommendation to contribute to

Recommendation

1. Establishing new local level stream monitoring, modeling, and analysis

2. Update urban stormwater management regulations (integrate science into policy)
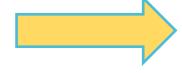
3. Planning stream restoration

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Emily Trentacoste – EPA

Expertise

1. WQ and watershed data integration
2. Integrating science for decision-making
3. Social science & behavioral change*
4. Community capacity building and resilience*
5. Blue carbon sequestration*

*I have included here expertise that I have access to through EPA's Office of Research & Development

Beyond 2025 Recommendation to contribute to

Recommendation

1. Consideration CW3, HW1, Science rec #1
2. Consideration HW1, HW5, Science re #1 and #2
3. Consideration CW4, Science rec #3, Restoration rec #3
4. Consideration CW5, HW3, C2, Partnership rec #3
5. Consideration C3

Denice H. Wardrop

Expertise

1. Anthropogenic effects on aquatic systems

2. Monitoring/Condition assessment

3. Adaptive management

Beyond 2025 Recommendation to contribute to

Recommendation

1. Restoration #1: Support System-Scale Conservation and Restoration Planning

2. Science #1. Optimize monitoring, modeling, and analysis

3. Science #2. Integrate existing and new science findings

Valerie Were

Expertise

1. Social Science - Sociology
2. Community Engagement
3. Environmental Science

Beyond 2025 Recommendation to contribute to

Recommendation

1. Ensure the priorities of the Chesapeake Bay Program partnership reflect the needs of people and the impacts of a changing environment at the most local level.

2. Diversity, Equity, Inclusion and Justice (DEIJ) must be a key lens through which the Chesapeake Bay Program's work is established and carried out.

3. Create intentional partnerships with networks focused on issues related to Watershed Agreement goals to learn from those networks and accelerate outcome attainment in collaboration with their members.