



Chesapeake Bay Program's (CBP)  
Scientific and Technical Advisory Committee (STAC)  
STAC Topical Meeting | Virtual  
April 30, 2026

***AI and Machine Learning for Chesapeake Bay Science and Management:  
Opportunities, Constraints, and Next Steps***  
[Meeting Webpage](#) | [RSVP](#)

**Thursday, April 30<sup>th</sup>**

- 1:00 pm**      **Meeting Introduction** – *STAC Chair Bill Dennison (UMCES), Vice Chair Erin Letavic (HRG)*
- 1:05 pm**      **Setting the Stage** – *STAC Chair/Vice Chair; Meeting Facilitator*  
Provide background on the current landscape of AI/ML in environmental science and management and set the discussion in the context of STAC's advisory role to the Chesapeake Bay Program. *Where can AI/ML be meaningfully and responsibly implemented to support Chesapeake Bay decision-making, management, monitoring, and communication, and what conditions need to be in place for that implementation to be useful and credible?*
- 1:10 pm**      **Expert Panel 1: Current and emerging AI applications in Chesapeake Bay science & management**  
A panel of speakers working at the intersection of environmental science, monitoring, modeling, and management to highlight where AI/ML is already being applied, where it appears most promising, and where its value for Chesapeake Bay work is still uncertain.
- Qian Zhang (UMCES-CBPO)
  - Sarah McDonald (USGS-CBPO)
  - Victoria Coles (UMCES)
- 1:35 pm**      **Panel Q&A**
- 1:50 pm**      **AI for identifying BMP opportunities on farms** – *Alex Echols (Campbell Foundation) and John Dawes (The Commons)*
- 2:15 pm**      **10-minute Break**
- 2:25 pm**      **Expert Panel 2: Using AI responsibly in practice: opportunities, tradeoffs, and guardrails**  
This panel looks at how AI may be used in real-world environmental and agency settings, alongside the risks, limits, and conditions that should shape its use. Discussion will include operational applications, public-facing decision processes, stakeholder needs, and the guardrails needed to support responsible implementation.
- Matt Royer (Penn State Agriculture and Environment Center)
  - AI and Public Comments: Concerns, Hopes, and Current Uses – Brian Erickson (Oregon State University)
  - Implementation of Digital Water at HRSD – Charles Bott (HRSD)
- 2:50 pm**      **Panel Q&A**
- 2:55 pm**      **10-minute Break**
- 3:00 pm**      **Breakout Groups**  
Participants will break out into small discussion groups.

**3:30 pm**

**Breakout Group Report-out & Synthesis**

Each breakout group will briefly report key points from its discussion. Meeting facilitator will synthesize common themes across groups and note areas of convergence or unresolved tension.

**Facilitated Plenary Discussion**

Full-group discussion to reflect on key takeaways from the panels and breakout groups and consider what practical, near-term actions may be most valuable.

**3:55 pm**

**Wrap-Up and Next Steps – STAC Chair Bill Dennison (UMCES)**

**4:00 pm**

**Adjourn**