



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 30th

- 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** **Demo: AI for identifying BMP opportunities on farms** – *Alex Echols (Campbell Foundation)*
- 2:15 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)
 - Brian Erickson (OSU)
 - Charles Bott (HRSD)
- 2:40 pm** **Panel Q&A**
- 2:55 pm** **10-minute Break**
- 3:05 pm** **Breakout Groups**
- 3:35 pm** **Breakout Group Report-out & Synthesis**

3:45 pm

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.

4:00 pm

Wrap-Up and Next Steps

Adjourn