



Scientific, Technical Assessment and Reporting (STAR) Team

Thursday, December 18th, 2025
10:00AM – 12:00PM

[Join the meeting via Microsoft Teams](#)

Meeting ID: 248 392 161 717 4 | **Passcode:** XS3D2hc6
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[Visit the meeting webpage for meeting materials and additional information.](#)

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Please read the following information carefully, as our meeting policies have changed:

- All meeting attendees' cameras and microphones will be muted at the start of the meeting.
- To request access to the microphone and camera, all meeting participants will be required to use the raised hand feature on Teams. Once access has been granted by the meeting organizer, you will then be allowed to unmute your mic and turn on your camera. Unless instructed otherwise, once a participant has microphone or camera access, they will have this permission for the remainder of the meeting.
- Access to chat will be provided as well. Should it be necessary, the Q&A feature on Teams will be utilized to field participant questions.

Compromised Meeting Plan: If the meeting's privacy is compromised, the meeting staffer and coordinator will send an email to all Members, alternates, staffers, coordinators, and interested parties. Within the email, you will find a new meeting link, instructions on sharing this information with external partners, and any necessary adjustments to the meeting schedule. Please do NOT share this information publicly or post it to the Chesapeakebay.net webpage.

Purpose: This is the monthly meeting of the Scientific, Technical Assessment and Reporting Team. This meeting will highlight some of the incredible scientific work happening within the Chesapeake Bay Program partnership. The group will be hearing from Rebecca Murphy (UMCES) and Jimmy Webber (USGS) on 2024 trend data, Qian Zhang (UMCES) on the STAC artificial intelligence/machine learning workshop, Jun Suk Byun (UMCES) on nutrient management, and Matthew Baker (USGS) on high resolution data and urban forests.

Agenda

- I. Welcome, Introductions & Announcements (10:00 – 10:10)**
*Lead: **Ken Hyer** (U.S. Geological Survey, USGS) STAR Chair, **Breck Sullivan** (USGS) STAR Coordinator, and **Peter Tango** (USGS) CBP Monitoring Coordinator.*

Upcoming Conferences, Meetings, Workshops and Webinars

- [Choose Clean Water Conference](#) – May 18-20, 2026. Lancaster, Pennsylvania.
- [Chesapeake Community Research Symposium](#) – June 1-3, 2026. Annapolis, Maryland.
Abstracts due February 13, 2026.

II. 2024 Tidal Trends and 2024 River Input Monitoring (RIM) Trends (10:10 – 10:45)

*Lead: **Rebecca Murphy** (University of Maryland Center for Environmental Science, UMCES) and **Jimmy Webber** (USGS)*

Rebecca Murphy will provide a presentation on bay-wide summaries of water quality trends in the tidal waters. [Click here](#) to access the full summary. Additional tools are available to explore the tidal trends results including [baytrendsmap](#) and the [Watershed Data Dashboard](#).

Jimmy Webber will provide a brief presentation of 2024 RIM station trends. See the full data release [here](#).

III. Briefing on the STAC AI/ML Workshop Recommendations and MB Responses (10:45 – 11:10)

*Lead: **Qian Zhang** (UMCES)*

Qian will provide an overview of the key recommendations from the STAC Artificial Intelligence (AI)/Machine Learning (ML) workshop and summarize the Management Board's responses, highlighting priority areas and discussing opportunities to strengthen AI/ML coordination, improve data integration and modeling, and support future collaboration across the partnership.

IV. Improving Nutrient Management in the Chesapeake Bay Watershed through System and Transdisciplinary Approaches (11:10 – 11:35)

*Lead: **Jun Suk Byun** (UMCES)*

To address the limited progress in nutrient management in the Chesapeake Bay watershed, this study explored the nutrient management gaps on and beyond croplands through both a system and transdisciplinary approach. Through a system approach, we analyzed the historical and spatial patterns of Nitrogen and Phosphorus management using a novel nutrient budgeting framework and identified pathways toward improvement across the human-natural system. Through a transdisciplinary approach, we engaged with various stakeholder groups to better understand how they perceive nutrient pollution in the watershed and to discover challenges and opportunities in enhancing nutrient management.

V. Leveraging High Resolution Data to Develop Insight about Urban Forests (11:35 – 12:00)

*Lead: **Matthew Baker** (University of Maryland, Baltimore County, UMBC)*

This talk will describe how researchers, nonprofits, and citizen scientists are working together to augment understanding of urban forests using extensive rapid field surveys, high resolution land cover, lidar, and imagery in Baltimore and DC.

VI. Adjourn (12:00)

Next Meeting: *January 29th, 2025, from 10 AM – 12 PM.*