



Chesapeake Bay Program's (CBP)  
Scientific and Technical Advisory Committee (STAC) Workshop  
**State of the Science of Salinity Risks in the Chesapeake Bay and Its Tributaries:  
Connecting Monitoring, Modeling and Management**  
National Conservation Training Center  
Shepherdstown, WV  
Room 1511-West/Lemon Building ([campus map](#))  
**May 26-27, 2026**

**\*\*Exact Times Are Subject to Change\*\***

*This meeting will be recorded to assure the accuracy of meeting notes.*

**Workshop Objective:** Assess salinization risks across the Chesapeake Bay watershed, from headwaters to tidal waters; evaluate long-term trends, the frequency and magnitude of extreme salinity events, and their impacts on water quality, ecosystems, and communities; and identify monitoring, modeling, and management strategies to better anticipate and address these risks.

- **Day 1 Objective:** Build a shared understanding of salinization drivers, processes, and trends across tidal and non-tidal systems, and how they interact to affect watershed and Bay outcomes.
- **Day 2 Objective:** Develop and prioritize actionable recommendations for monitoring, modeling, and management approaches to reduce salinization risks, with attention to both short-term and long-term strategies.

The [Workshop Webpage](#) includes presenter-shared resources and a registration link for remote participation

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**Monday, May 25, 2026**

**5:30 pm**      **Dinner at Headwaters Lodge**  
Dinner will be served in the Headwaters Lodge dining room from 5:30–7:30 pm for participants staying onsite. Guests arriving after 7:30 pm may pick up a boxed dinner at the Front Desk.

**Tuesday, May 26, 2026**

**6:30 am**      **Breakfast at Headwaters Lodge**  
Breakfast will be served on the second floor from 6:30–9:00 am. Please plan to arrive in the workshop room by 8:45 am.

**9:10 am**      **Welcome and Introductions – Steering Committee members**  
Steering Committee members/co-chairs will kick off the workshop with a welcome and introductions and outline the objectives of the workshop.

**Session I: Salinity Trends & Pulses in the Watershed**

**9:30 am**      **Trends, Effects, and Chemical Aspects of Increasing Salinity – Sujay Kaushal (UMD)**

**9:45 am**      **Impacts of Increasing Salinity Sources on Drinking Water – Stanley Grant (VT)**

**10:00 am**      **Chesapeake Bay Watershed Trends in Salinity – Rosemary Fanelli (USGS)**

**10:15 am**      **Break (15-minutes)**

**10:30 am**      **Effect of Urban-Related Increases in Salinity on Freshwater Macroinvertebrates and Fish Degraded Ability to Detect Changes in Stream Health – Matt Baker (UMBC)**

- 10:45 am**      **Aquatic Chemistry, Nutrient Effects of Salinization in Estuarine Waters**  
– *Steve Goldsmith (Villanova)*
- 11:00 am**      **Characterizing the Social-Ecological System for Inland Freshwater Salinization: Implications for Collective Management** – *Megan Rippy (VT)*
- 11:15 am**      **Panel & Discussion: Uses and Thresholds**  
– *Moderated by Stanley Grant; Rosemary Fanelli, Steve Bieber, Sujay Kaushal*
- What thresholds or “safe operating spaces” exist for different uses?
  - Where and when are salinity trends increasing above these thresholds?
  - How can sensors and routine monitoring be combined?
  - What are the key unknowns? Are there critical monitoring gaps?
- 12:00 pm**      **Lunch at Headwaters Lodge**  
Lunch will be served in the Dining Hall within the Headwaters Lodge complex. Hot food is available until 1 pm.
- Session II: Salt Water Intrusion & Estuarine/Tidal Risks**
- 1:15 pm**      **Advancing Phosphorus Modeling: Integrating pH and Salinity Predictors in Chesapeake Bay Watershed Modeling** – *Conor Keitzer (UMCES), Joseph Delesantro (KGS-EPA)*
- 1:30 pm**      **Saltwater Intrusion Impacts on Coastal Landscapes** – *Greg Noe (USGS)*
- 1:45 pm**      **Identification and Characterization of Surface Water Intakes on the Chesapeake Bay**  
– *Raymond Najjar (PSU)*
- 2:00 pm**      **Estimating Salt Water Intrusion in the Chesapeake under SLR** – *Y. Joseph Zhang (VIMS)*
- 2:15 pm**      **Presentation Q&A**
- 2:30 pm**      **Break (30-minutes)**
- 3:00 pm**      **Observations of Coastal Salinization** – *Holly Michael (UDEL)*
- 3:15 pm**      **Ghost Forests as Indicators of Salinity Change** – *Rebecca Epanchin-Niell (UMD)*
- 3:30 pm**      **Panel & Discussion: Risks and Futures**  
– *Moderated by Greg Noe, Lew Linker, Peter Tango, Kaylyn Gootman*
- Looking ahead (e.g., 2050/2100), what are the most plausible salinity trajectories and key uncertainties?
  - At what salinity levels do impacts begin in your system, and what indicators provide early warning?
  - From a management perspective, what planning horizons are being used, what steps are underway now, and where are the biggest gaps?
  - What are the key unknowns? Are there critical monitoring gaps?
  - What added value can models and integrated datasets provide to support actionable decisions?
- 4:15 pm**      **Recess**

- 5:00 pm**      **Evening Poster Session at Headwaters Lodge**  
Poster session will take place on the first floor, in the Roosevelt Room and Headwaters Lobby.
- 5:30 pm**      **Optional Drinking Water Test at Headwaters Lodge**  
Megan Rippey (VT) will lead interested participants in an optional taste test in the Roosevelt Room located on the first floor of Headwaters Lodge.
- 5:30 pm**      **Dinner at Headwaters Lodge**  
Dinner will be served on the second floor from 5:30–7:30 pm.

**Wednesday, May 27, 2026**

- 6:30 am**      **Breakfast at Headwaters Lodge**  
Breakfast will be served on the second floor from 6:30–9:00 am. Please plan to arrive in the workshop room by 8:45 am.
- 9:10 am**      **Recap of Day 1 & Framing for Day 2 – Steering Committee**  
Summary of Day 1 outcomes and Framing Day 2 focus: recommendations and next steps

**Session III: Food, Water, Infrastructure**

*What future conditions are you planning for? At what salinity levels do impacts begin (thresholds), and what indicators show that? What actions are realistic on relevant planning horizons, and what gaps limit your ability to act?*

- 9:25 am**      **Saltwater Intrusion Impacts on Agriculture – Kate Tully (UMD)**
- 9:40 am**      **Drinking Water Impacts: Delaware River Basin Region – Amy Shallcross (Delaware River Basin Commission)**
- 9:55 am**      **Drinking Water Impacts: DC Region – Lisa Ragain (MWWCOG)**
- 10:10 am**      **Break (20-minutes)**
- 10:30 am**      **Drinking Water impacts: Northern Virginia – Rebecca Murphy (NVRC)**
- 10:45 am**      **Panel & Discussion: Risks and Futures**  
– Moderated by Sujay Kaushal, Steve Bieber, Kate Tully, Greg Noe, Paul Mayer
- Looking ahead (e.g., 2050/2100), what are the most plausible salinity trajectories and key uncertainties?
  - At what salinity levels do impacts begin in your system, and what indicators provide early warning?
  - From a management perspective, what planning horizons are being used, what steps are underway now, and where are the biggest gaps?
  - What are the key unknowns? Are there critical monitoring gaps?
  - What added value can models and integrated datasets provide to support actionable decisions?
- 11:30 am**      **Lunch at Headwaters Lodge**  
Lunch will be served in the Dining Hall within the Headwaters Lodge complex. Hot food is available until 1 pm.

**Session IV: Management Strategies & Freshwater Salinization Syndrome**

- 12:30 pm**      **Policies and Priority Research Needs for Managing Saltwater Intrusion Risks in Maryland –**  
*Jason Dubow (Maryland Dept of Planning)*
- 12:45 pm**      **Agricultural Economic Losses from Salinization –** *Pinki Mondal (UDEL)*
- 1:00 pm**      **Presentation Q&A**
- 1:05 pm**      **Drinking Water Management in Major Cities**
- **Philadelphia –** *Molly Hesson (Philadelphia Water)*
  - **New York City –** *Adam Bosch (NYC DEP)*
  - **District of Columbia –** *Rabia Chaudhry (DC Water)*
- 1:50 pm**      **Presentation Q&A**
- 2:00 pm**      **Water Management in Counties**
- **Anne Arundel County, MD –** *James Howard (AA County DPW)*
  - **Hampton Roads, VA –** *KC Filippino (HRPDC)*
- 2:30 pm**      **Presentation Q&A**
- 2:40 pm**      **Break (10-minutes)**
- 2:50 pm**      **MDE Smart Salting Training Program in Maryland –** *Camryn Arnstein (MDE)*
- 3:05 pm**      **Fairfax County Chloride TMDL and Salt Management Strategy (SAMS) –** *Martin Hurd (Fairfax County, VA)*
- 3:20 pm**      **Izaak Walton League of America’s Salt Watch Monitoring –** *Abby Hileman (IWLA)*
- 3:35 pm**      **Managing Salt – A Utility’s Perspective –** *Robin Forte (WSSC Water)*
- 3:55 pm**      **Road Salt Transport Through Stormwater Basins and Its Effect on Metals and Water Quality –** *Lauren McPhillips (Penn State)*
- 4:10 pm**      **Presentation Q&A**
- 4:20 pm**      **Final Recommendations Plenary**  
*Moderators: Megan Rippy, KC Filippino, Conor Keitzer, Paul Mayer*
- 5:00 pm**      **Closing Remarks and Workshop Conclusion –** *led by workshop Co-Chairs*
- 5:05 pm**      **Adjourn**