



2024 ANNUAL REPORT

POTOMAC RIVER BASIN DRINKING WATER SOURCE PROTECTION PARTNERSHIP

A coalition of water utilities and state, interstate, and federal authorities working together to amplify regional source water protection since 2005.

Coordinated by the Interstate Commission on the Potomac River Basin
www.potomacdwspp.org | partnership@icprb.org



MESSAGE FROM THE CO-CHAIRS

KISHIA L. POWELL, WSSC WATER (OUTGOING CHAIR)

JAYNE BROWN, DC DEPARTMENT OF ENERGY AND ENVIRONMENT (INCOMING CHAIR)

Seven million people drink water sourced from the Potomac River. Its waters flow over four states and the District of Columbia, passing through rocky gorges, rolling pastures and urban centers. Through the collaborative resources of utilities and governments, DWSPP protects this vital drinking water source by exploring the man-made and natural phenomena that threaten the integrity of the river.

In 2024 DWSPP focused on expanding members' capacity to swiftly respond to chemical spills on the Potomac by initiating new relationships with transport companies and cleanup agencies. DWSPP continued studying well-known and emerging contaminants. In the face of challenging new PFAS limits and the extremely high cost of PFAS treatment, it is a 2024 landmark that the DWSPP began collaborative projects to understand where and how PFAS contamination occurs. We hope to build on our knowledge in 2025 by creating new data sharing tools and funding mechanisms for timely research in this vast watershed.

DWSPP members faced plenty of environmental challenges in 2024 as well. Weeks of severe drought necessitated low-flow monitoring. The CO-OP responded with a renewed look at drought contingency plans for a future under climate change uncertainty. Record heat waves contributed to algal blooms in the Potomac that complicated routine operations. DWSPP members shared resources to overcome these obstacles, including at the 2nd Annual Small Water Systems Roundtable.

Where challenges arise, DWSPP members see opportunities. For twenty years the partnership has collaborated as stewards of public health and environmental protection. We look forward to the next twenty.



Thank you to the outgoing chair, Kishia L. Powell, General Manager of WSSC Water, for her leadership throughout 2024!





2024 MEETINGS AND SPECIAL EVENTS

- **Quarterly Meeting: February 7** (hybrid) – [Meeting Minutes](#)
 - Delaware Valley Early Warning System and its Role in Supporting the Trinseo Chemical Spill – Kelly Anderson, Philadelphia Water Department
 - Oil Spill Exercise: After Action Report – Laura Casillas, EPA Region 3
- **Cybersecurity and Infrastructure Security Agency: National Capital Region Water Supply Exercise** (March 21)
- **Quarterly Meeting: May 1** (hybrid) – [Meeting Minutes](#)
 - Understanding the Factors Affecting PFAS Variability in the Potomac River Watershed – Brad Schmitz, Loudoun Water; Priscilla To and Laura O'Donnell, WSSC Water
 - Monitoring for Contaminants of Emerging Concern in the Potomac and Beyond – Erik Rosenfeldt, Hazen & Sawyer
 - Insights on PFAS Monitoring for the Potomac DWSPP – Alex Gorzalski, One Water Engineering
- **Small Systems Roundtable in August County, VA** (May 21)
- **Quarterly Meeting: August 7** (virtual) – [Recording: Climate resilience and impacts to water quality in source water protection](#)
- **Source Water Protection Week** (Sept. 29 – Oct 5)
- **Annual Meeting: November 6** (in-person) – [Meeting Minutes](#)
 - Public Perception of Drinking Water – Samantha Zuhlke, University of Iowa
 - Salt Watch: Monitoring & Communications – Abby Hileman, Izaak Walton League of America
 - Communication about Beaverdam Reservoir Park – Mark Peterson and Susan Crosby, Loudoun Water



SPECIAL PROJECT

UNDERSTANDING THE FACTORS AFFECTING PFAS VARIABILITY IN THE POTOMAC RIVER WATERSHED

DWSPP members were awarded funding from The Water Research Foundation for a multi-year project to better understand the variability of PFAS in the Potomac River Basin.

RESEARCH OBJECTIVE

Identify the factors affecting the presence and variability of per- and polyfluoroalkyl substances (PFAS) and precursor compounds in the Potomac River to serve as a model for region-wide source water monitoring to inform mitigation strategies.

The project team will host a series of workshops throughout the project, which will serve as a mechanism for the project team to communicate goals and milestones, share data and key findings, and receive guidance from key stakeholders.

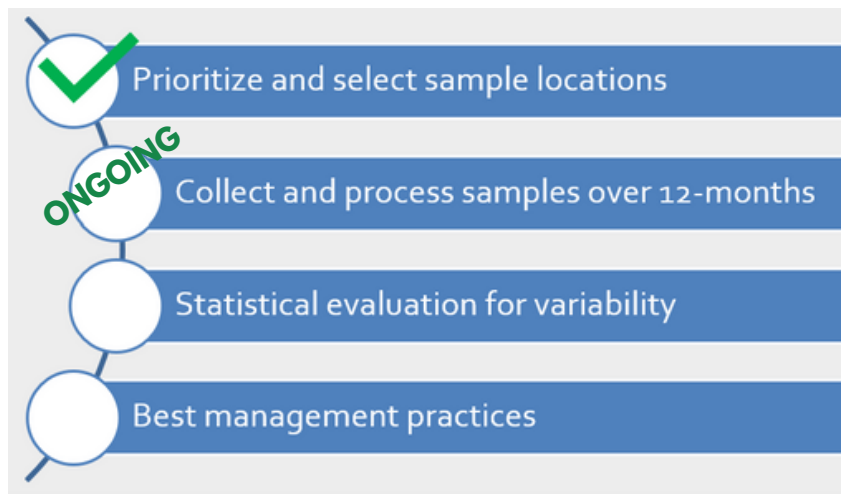
THE RESEARCH TEAM

- Bradley Schmitz (Principal Investigator, Loudoun Water, and Contaminants of Emerging Concern workgroup chair)
- Priscilla To and Laura O'Donnell (co-PI, WSSC Water)
- Christina Davis (co-PI, Loudoun Water)
- Collaboration with researchers from the Johns Hopkins University/Stantec Alliance and George Mason University.



2024 ACTIVITIES

A workshop was held on May 2 to share maps and collect feedback from DWSPP stakeholders on potential PFAS sampling sites. Ultimately, 11 sample locations were selected.



NEXT STEPS

- CONTINUE MONTHLY SAMPLING (11 MONTHS)
- COMPARE RESULTS TO ENVIRONMENTAL DATA
- WORKSHOPS & PROJECT UPDATES

PARTICIPATING UTILITIES & ORGANIZATIONS

- DC Water (DC)
- Fairfax Water (VA)
- Town of Leesburg (VA)
- City of Hagerstown (MD)
- Washington Aqueduct (DC)
- Frederick County (MD)
- Berkeley County (WV)
- City of Rockville (MD)
- Interstate Commission on the Potomac River Basin*
- Metropolitan Washington Council of Governments**

*Non-utility partner †Providing Funding



WORKGROUPS

EARLY WARNING AND EMERGENCY RESPONSE (EW/ER)

WORKGROUP CHAIR: ANNE SPIESMAN, FAIRFAX WATER

ACTIVITIES

This workgroup focuses on improving DWSPP members' response and communications during a water supply emergency. As part of this, DWSPP maintains a listserv of water suppliers and government agencies to utilize during a spill in the river. The listserv allows for efficient communication among organizations.

CISA EXERCISE

In March, DWSPP members of the Early Warning and Emergency Response workgroup helped coordinate a regional [water supply exercise](#) in partnership with the Cybersecurity and Infrastructure Security Agency (CISA), DC Homeland Security Emergency Management Agency (HSEMA) and the Metropolitan Washington Council of Governments (COG). The exercise concentrated on strengthening communications among organizations as well as expediting emergency response and recovery.

NEXT STEPS

- Work towards better integrating water utilities into the larger spill response incident command structure.
- Leverage mapping – (for example, EPA Region 3 PFAS sources, spill response tools such as boat launch locations, etc).
- Coordinate with the Water Quality Workgroup on the following projects:
 - Update Regional Utility Spill Response Plan (draft Incident Action Plans, maps)
 - Improve pre-planning for Colonial pipeline spills

CISA Exercise in March (Photo credit: WSSC Water)



WATER QUALITY (WQ)

WORKGROUP CHAIR: NIFFY SAJI, FAIRFAX WATER

ACTIVITIES

- Completed data collection for an online map of salt monitoring locations.
- Completed the updates for Utility Laboratory Capabilities Spreadsheet which is part of the Utility Spill Response Plan.
- Organized an information session with Colonial Pipeline where DWSPP members could learn about pipeline operations, plans, and spill response strategies.

NEXT STEPS

- Collaborate with the Reaching Out Workgroup to develop the map of salt monitoring locations and create a story map to share online.
- Continue to track water quality monitoring information as needed.
- Study emerging water quality issues and their sources.
- Participate in webinars and workshops on water quality issues.
- As appropriate, sponsor an information session on water quality issues.
- Assist EW/ER workgroup as needed to update the Utility Spill Response Plan.

CONTAMINANTS OF EMERGING CONCERN (CEC)

WORKGROUP CHAIR: BRADLEY SCHMITZ, LOUDOUN WATER

ACTIVITIES

The CEC Workgroup members focused on the PFAS variability study (see page 3), which kicked off in March.

Accomplishments include:

- Prioritized and selected PFAS sample locations
- Workshop with participating utilities in May to identify 10 sites in Potomac for the WRF project (see page 4)
- Finished 'Initial Demonstration of Capability' for methods
- Started sampling in October

NEXT STEPS

- Sampling will continue through September 2025.
- Statistical analysis will begin after sampling is wrapped up.

PFAS Sampling (Photo credit: ICPRB)



REACHING OUT (RO)

WORKGROUP CHAIR: VIRGINIA HOGSTEN, U.S. EPA REGION 3

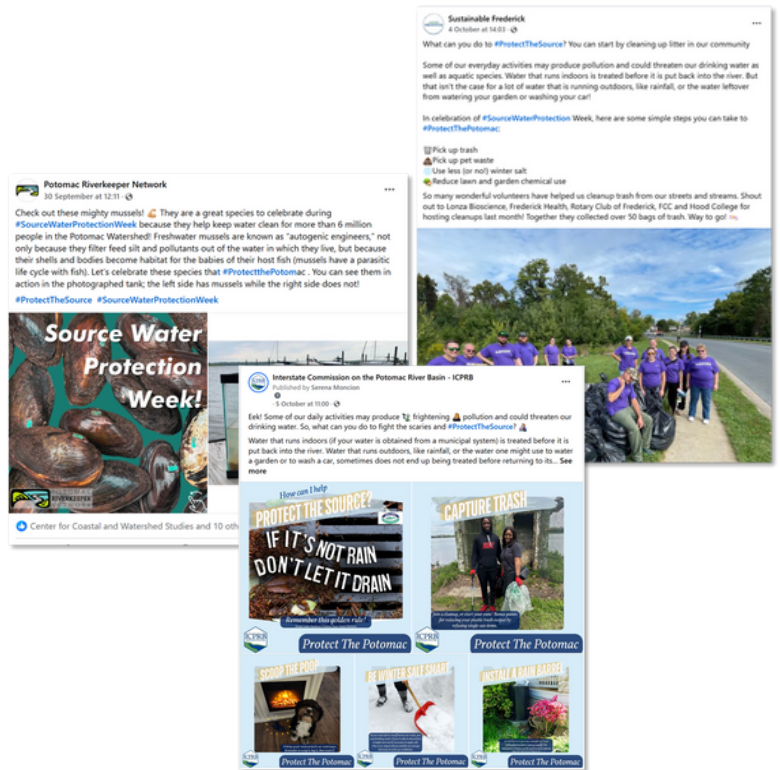
ACTIVITIES

- Planned the 2nd Annual Small Systems Roundtable in Virginia.
- Created and shared a social media guide for all organizations that work in the Potomac River basin (govt, NGO, etc.).
- Created the DWSPP 2023 Annual Report.

Sample social media posts for 2024 Source Water Protection Week

NEXT STEPS

- Plan a 2025 Small Systems Roundtable.
- Create additional social media content for the 2025 Source Water Protection Week.
- Work with other workgroups
 - Interactive maps (PFAS, HABs, sodium) for Water Quality WG.



2ND ANNUAL SMALL SYSTEMS ROUNDTABLE

The RO Workgroup members organized the 2nd annual Small Systems Roundtable in Augusta County, Virginia, on May 21. Around 25 people attended this annual meeting for small water systems. The event included presentations on small water systems' specific needs, including information on PFAS, harmful algal blooms, and funding/grant opportunities.

Attendees:

DWSPP members: Loudoun Water, Virginia Department of Health, Town of Leesburg, Interstate Commission on the Potomac River Basin

Nonmember water utilities: City of Harrisonburg Public Utilities, Town of Mount Jackson, Eastside, Rockingham County Public Works, City of Staunton, Town of Bridgewater, Massanutten Public Service Corporation, Town of Purcellville, Town of Lovettsville, Headwaters SWCD, Town of Strasburg, City of Winchester

*Small Systems Roundtable, Augusta County, VA
(Photo credit: ICPRB)*



URBAN AND INDUSTRIAL ISSUES (U&II)

WORKGROUP CHAIR: GREG PRELEWICZ, FAIRFAX WATER

CLEAN WATER ACT TOOLS

Applying Clean Water Act tools and resources to protect the source is one of the top priorities of this workgroup. The Urban and Industrial Issues workgroup continued its long-standing practice of tracking and commenting on regional NPDES permits.

ACTIVITIES

- Salt/Sodium Issues
 - MS4 permit language, issue tracking and review
 - U&II Workgroup members attended meetings, webinars, and shared information on freshwater salinization
- Support for EPA Region 3 PFAS source maps
- Support for MWCOG/WaterSuite GIS Contaminant Tracking Tool
 - Update Tier 2 chemical storage
- NPDES Permits Reviewed and Discussed
 - Dulles Airport (VA)
 - Warrior Run Power Plant (MD)
 - Alliant Techsystems (WV)
 - Lycra Company (VA)
 - New Market Poultry (VA)
 - Fairlawn Hydroelectric (WV/MD)
 - Millville Quarry (WV)
- Workgroup members attended a WaterSuite User Update webinar in November
- U&II Workgroup members attended a Source Water Collaborative webinar: [How to Participate in Clean Water Act Permits to Protect Drinking Water Sources](#)

NEXT STEPS

- Continue NPDES Permit Reviews
- State Water Quality Standards updates/process
- Continue to improve WaterSuite/GIS Contaminant Tracking
- Track regulatory changes/updates (for example, industrial sources)
- Continue ongoing efforts to reverse freshwater salinization
- Provide support for new PFAS workgroup

(Photo credit: Getty Images)



AGRICULTURAL ISSUES (AG)

WORKGROUP CHAIR: PAM KENEL, LOUDOUN WATER

ACTIVITIES

- The Agricultural Issues Workgroup engaged in a strategic planning exercise to identify goals and action items and to consider a new, more descriptive workgroup name. The workgroup agreed to the following objectives:
- Chair Pam Kenel served as a moderator for the "Ag Impacts on Water Quality & Funding to Mitigate Impacts" webinar, sponsored by ICPRB in January.
- The workgroup collaborated with the Reaching Out Workgroup to plan the 2024 Small Water Systems Roundtable, which was held in the Shenandoah Valley of Virginia in May.
- Workgroup members continued to participate in Maryland NRCS State Technical Committee Meetings.
- The workgroup developed and expanded its work in Virginia by joining the Virginia Forests & Water Partners organization and the Virginia NRCS Source Water Protection Subcommittee.

NEXT STEPS

- Continue partnering with NRCS to strengthen source water protection
- Select a new workgroup name and share the name with DWSPP members and external partners
- Identify water quality conditions and source water challenges that may be affected by land use/land cover (e.g., agriculture, forested, impervious surface) and climate. Possible water quality conditions of concern include: algal blooms (both HABs and nuisance), sediment, nutrients, natural organic matter, water temperature, and contaminants associated with diffuse stormwater runoff.
- Understand and quantify changes over time in (1) land use/land cover; (2) nutrients and sediment; (3) natural organic matter; (4) algal blooms; (5) salts; and (6) climate trends.

(Photo credit: Getty Images)



DWSPP COORDINATION

DWSPP is coordinated by the Interstate Commission on the Potomac River Basin (ICPRB). In 2024, ICPRB welcomed a new DWSPP Coordinator, Renee Thompson, to the team. We would like to thank the previous coordinator, Christina Davis, for her years of dedication to the success of the organization.



ABOUT DWSPP



MISSION

To serve as a cooperative and voluntary partnership working towards the goal of improved source water protection of the Potomac River in recognition of the vital role of the river in supplying drinking water to millions of people within the Potomac watershed and in support of the multi-barrier approach to safeguarding the drinking water supply for public health.



GOVERNMENT AGENCIES

- District of Columbia Department of Energy & Environment
- Interstate Commission on the Potomac River Basin
- Maryland Department of the Environment
- Pennsylvania Department of Environmental Protection
- United States Environmental Protection Agency, Region 3
- United States Geological Survey
- Virginia Department of Environmental Quality
- Virginia Department of Health
- West Virginia Department of Health and Human Resources
- West Virginia Department of Environmental Protection

WATER SUPPLIERS

- Berkeley County Public Service Water District (WV)
- City of Frederick (MD)
- City of Hagerstown (MD)
- City of Rockville (MD)
- Corporation of Harpers Ferry (WV)
- DC Water (DC/VA)
- Fairfax Water (VA)
- Frederick County (MD)
- Loudoun Water (VA)
- Town of Leesburg (VA)
- Town of Romney (WV)
- Town of Shepherdstown (WV)
- Washington Aqueduct (DC/VA)
- Washington County (MD)
- WSSC Water (MD)

