The Potomac Aquifer Recharge Oversight Committee
Meeting Minutes
June 8, 2026

All-Virtual Meeting attendance: Brian Campbell, Weedon Cloe, Bailey Davis, Sarah Desmarais, Jason Early, Bob Edelman, Lance Gregory, Dan Holloway, Preston Kirby, Mark Kram, William Mann, Bryant Mountjoy, Ivy Ozmon, R. Mack Pearce, Chris Pomeroy, Harold Post, Doug Powell, Jennifer Reitz, Paul Retel, Leila Rice, Gary Schafran, Sydney Turner, Greg Voigt, Mark Widdowson, Chris Wilson.

Ms. Ozmon (HRPDC) led the meeting for Ms. Katchmark due to a scheduling conflict. Ms. Ozmon called the meeting to order at 11:02 a.m. and led introductions.

The committee postponed approval of the March 30, 2026, meeting summary due to a lack of a quorum for voting.

Dr. Mark Widdowson and Dr. Gary Schafran (PARML) provided updates on ongoing PARML monitoring, modeling, laboratory, and coordination activities. PARML continues research and routine monitoring at the SWIFT Research Center (SRC), focusing on groundwater quality trends and evaluating indicators of SWIFT recharge water movement within the Potomac Aquifer. Dr. Widdowson reviewed experimental designs for Soil Aquifer Treatment (SAT) Column studies to evaluate travel times of groundwater constituents and for well-screen column research to investigate screen clogging mechanisms.

Dr. Sydney Turner (VT-PARML) presented an update on the development of a coordinated communications framework to support responses to SWIFT-related inquiries. Dr. Turner noted that the framework is in development and not yet final, and represents a current working approach to improving coordination among PARML, HRSD, and PAROC. The proposed framework introduces a tiered system for categorizing and responding to inquiries, including:

- Tier 1: General informational questions (e.g., basic descriptions of managed aquifer recharge)
- Tier 2: Technical or project-specific questions requiring subject matter expertise
- Tier 3: High-priority inquiries involving health concerns, regulatory implications, or media attention requiring coordinated review

The framework recognizes that communication needs vary by audience and emphasizes tailoring responses to each audience.

A key element of the approach is the creation of a centralized tracking system to log incoming inquiries, assign responsibility for responses, and document final responses and supporting materials. Committee members emphasized the importance of maintaining complete records of responses, including any data, figures, or correspondence, to support future reuse and consistency.

Dr. Turner clarified that this effort is not intended to replace or override existing communication protocols within partner agencies such as HRSD, DEQ, or VDH. Instead, the framework is intended to coordinate responses to SWIFT-specific inquiries and identify appropriate responding entities, while enhancing transparency and consistency.

Discussion included how to capture inquiries received independently by partner agencies (e.g., DEQ or VDH) and incorporate them into the shared system. Members acknowledged potential logistical challenges but agreed on the value of documenting inquiries. Additional discussion addressed opportunities to improve publicly available information, including highlighting fact sheets (e.g., SWIFT costs and funding sources) and expansion of website content.

Dr. Gary Schafran provided an update on groundwater monitoring, data interpretation, and laboratory activities being conducted by PARML to support SWIFT. PARML continues evaluating water quality monitoring data to determine whether SWIFT recharge water has reached the USGS monitoring well nest at Nansemond. He highlighted the use of multiple indicators, such as total organic carbon (TOC), bromide, isotopes, and trace organic compounds, to identify potential breakthrough of recharge water. He noted that increases in certain parameters observed in upper aquifer wells may be associated with the movement of recharge water. However, interpretation requires careful consideration of well location and proximity to recharge wells.

He also described ongoing efforts to enhance data integration and real-time response capabilities, including connection to operational data systems (e.g., Enterprise Data Systems). This will allow PARML to better respond to operational changes or process upset conditions and align sampling with system performance.

Dr. Widdowson discussed the refinement of groundwater modeling tools used to evaluate travel times and plume behavior from managed aquifer recharge wells. Modeling scenarios demonstrate sensitivity to injection distribution across well screens and aquifer zones, reinforcing the importance of understanding vertical flow distribution and aquifer heterogeneity when interpreting monitoring results.

Dr. Schafran also provided an overview of PARML's planned monitoring framework for James River SWIFT, noting that it is intentionally designed to complement monitoring required by permit. The PARML plan will include a broader set of parameters than regulatory requirements and allow for adaptive frequency adjustments based on observed trends. PARML will coordinate with HRSD sampling schedules to capture temporal variability in recharge water quality.

Dr. Schafran and other committee members responded to questions regarding alternative indicators of recharge (e.g., land subsidence or physical changes). They noted that hydraulic or geotechnical changes (e.g., subsidence) and geochemical indicators serve different purposes. PARML's efforts focus primarily on tracking the movement and chemical signature of recharge water rather than pressure-related system responses. Identifying SWIFT recharge water in the aquifer is complex and requires multiple complementary indicators.

Mr. Mack Pearce, HRSD's SWIFT Treatment Process Engineer, provided an update on the James River SWIFT project and ongoing preparation for startup. HRSD continues commissioning and startup activities across treatment processes and infrastructure. Progress includes operation and testing of treatment units, continued refinement of process controls, and coordination for monitoring infrastructure. Updates were provided on treatment performance and process optimization, including nitrogen removal and polishing processes, ozone system integration, and

operational testing of process components. HRSD noted that treatment performance metrics such as TOC, total nitrogen (TN), bromide, and PFAS-related parameters continue to be evaluated as systems are brought online.

Construction also continues on monitoring wells, extensometers, and observation wells. HRSD and USGS are coordinating the installation and instrumentation of monitoring systems to establish baseline conditions before initiating recharge. These systems will support evaluation of aquifer responses, including groundwater quality, pressure changes, and vertical land motion.

Commission and startup activities will continue to fully integrate system controls and complete functional testing of treatment processes and recharge infrastructure.

The committee discussed planning for future PAROC meetings, including potential presentation topics and meeting locations. Suggested topics included continued updates on the JR SWIFT startup from HRSD, monitoring results from HRSD and PARML, and groundwater modeling and monitoring advancements from DEQ and USGS.

No public comments were received. The meeting adjourned at 1:08 PM with the next PAROC meeting scheduled for September 10, 2026.

Approved: Date:

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Committee Chair

Committee Members:

- Mike Rolband, Director of Virginia DEQ
- Dr. Cameron Webb, Virginia State Health Commissioner
- Dr. William Mann, Governor Appointee
- Doug Powell, Governor Appointee
- Whitney Katchmark, HRPDC
- Dr. Stanley Grant, Director of Occoquan Watershed Monitoring Laboratory
- Dr. Mark Widdowson, Co-Director of the Potomac Aquifer Recharge Monitoring Lab
- Dr. Gary Schafran, Co-Director of the Potomac Aquifer Recharge Monitoring Lab

Non-voting members:

- Mark Bennett, Director of the Virginia and West Virginia Water Science Center, USGS
- Greg Voigt, Deputy Director, Water Division, US EPA Region 3