The Potomac Aquifer Recharge Oversight Committee Draft Meeting Minutes September 26, 2022

In attendance: Whitney Katchmark (Committee Chair), Jim Bennett (remote), Mark Bennett, Jay Bernas, Ryder Bunce, Marcia Degen (remote), KC Filippino, Lance Gregory (remote), Julie Henderson, Dan Holloway, Hadi Khatami (remote), Mark Kram (remote), Scott Kudlas (remote), William Mann (remote), Jamie Mitchell, Scott Morris (remote), Harry Post, Doug Powell (remote), Leila Rice (remote), Gary Schafran, Tony Singh (remote), Mark Widdowson, Chris Wilson, Lauren Zuravnsky

Ms. Katchmark called the meeting to order at 11:30 am.

The minutes of the previous meeting were approved as distributed.

Dr. Widdowson (PARML) presented the timeline and planning stages for the Potomac Aquifer Recharge Monitoring Laboratory (PARML). There was some discussion on the groundwater monitoring wells being installed at James River plant. Mr. Powell mentioned that James City County is doing monitoring and offered to coordinate with PARML efforts.

Funding was received and approved at both ODU and VA Tech for the next three years. The James River plant should be in full scale operation in 2026. PARML is interested in developing a strategic plan with stakeholder input from PAROC. Current studies are at laboratory scale, but with a full-scale plant, adjustments will need to be made for monitoring, infrastructure, and student involvement. The strategic planning process would benefit from having a facilitator and suggestions were provided from participants. A facilitator familiar with Hampton Roads, the technical importance of PARML, and with strong facilitation skills was recommended. Several options were thrown out including an HRSD employee, someone from UVA's Institute for Engagement and Negotiation (IEN), Division of Consolidated Laboratory Services (DCLS), or an academic. Ms. Katchmark asked if there were funds for facilitation, that isn't clear. The group will continue discussion on finding the appropriate candidate.

Mr. Holloway (HRSD) presented an overview of the new research well drilled at the SWIFT facility. It is performing much better than the old well and they will start recharge in October. Many lessons were learned from the old well about how to avoid clogging and loss of recharge capacity. The new well is larger in diameter, packed differently to prevent clogging (silica beads with gravel), and should last indefinitely. The new well is a similar design as what to expect for a full scale recharge well.

Ms. Zuravnsky (HRSD) presented on the James River SWIFT construction progress and the Advanced Nutrient Reduction Improvements (ANRI) planned there. They have transitioned from design to construction and the JR SWIFT plant should be complete by April 2026. One design build contractor was hired for ease in funding and transition. A combination of loans and grants from WIFIA, CWRLF, and WQIF were used to fund the \$468M facility. The ANRI upgrades will improve water quality for SWIFT treatment and/or discharge. VDH asked if the diffusers would be moved so as not to impact any shellfish growing areas but there is no plan to move them and the current closures will stay in place. There is constant communication with James City County parks staff as construction progresses.

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Ms. Zuravnsky then discussed the full-scale implementation update for all HRSD plants. By 2025, Boat Harbor's connection to Nansemond should be complete. Some of the land at Boat Harbor will be kept but HRSD will have a smaller footprint. The pump station will be moved to higher ground. The force main will go under the James River and environmental assessments still need to be made as the permit is acquired. Strategic Planning is ongoing for VIP, York, and Williamsburg plants. A full-scale Nansemond plant will be complete before VIP.

Dr. Schafran (PARML) presented on results of aquifer isotope ratio monitoring. Oxygen and hydrogen isotope ratios serve as groundwater tracers to track movement of recharge water. There is evidence of SWIFT recharge water in the Upper Potomac Aquifer layer but no linear trend in the middle or lower layers. Other organic compounds (1,4-dioxane, nitrosamines, PFAS) were measured at various stages of treatment in the SWIFT water and in the aquifer. Removal appears to be complete in SWIFT water (following UV treatment) for most compounds. PARML will continue to monitor isotope ratios as tracers of recharge water and they will continue to monitor for 1,4 dioxane and nitrosamines as well as other organic compounds.

There were no public comments.

The meeting adjourned at 2:00 p.m.

Approved:

Date:

Committee Chair

Committee Members:

- Mike Rolband, Director of Virginia DEQ
- Dr. Colin Greene, Virginia State Health Commissioner
- Dr. William Mann, Governor Appointee
- Doug Powell, Governor Appointee
- Whitney Katchmark, HRPDC
- Harry Post, Director 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 Virginia and West Virginia Water Science Center
- Leslie Gillespie-Marthaler, Deputy Director Water Division, US EPA Region 3