



Oregon

Tina Kotek, Governor

Department of Environmental Quality

Northwest Region Portland Office

700 NE Multnomah St Ste 600

Portland, OR 97232-4100

(503) 229-5263

FAX (503) 229-6957

TTY 711

June 2, 2025

Torrey Lindbo
City of Gresham

Re: DEQ Comments on *Sampling and Analysis Plan Gresham Fire Training Facility – PFAS Investigation*
Gresham Fire Training Center
Cleanup Project ID No. 6458

Dear Torrey Lindbo:

The Department of Environmental Quality (DEQ) has reviewed the May 20, 2025 Sampling and Analysis Plan (SAP) prepared by GSI Water Solutions, Inc. (GSI) for the facility at 19204 NE San Rafael St. in Gresham, Oregon. The SAP was prepared at the request of DEQ to support site investigation and conceptual site model (CSM) development for the Gresham Fire Training Center (FTC) site. DEQ has the following comments on the SAP, and is requesting a revised plan be provided that addresses our comments.

General Comments

Comment 1 – The document header includes, “Error! no text of specified style in document.” Please fix this error in the final SAP.

Specific Comments

Title Page – The final SAP must be stamped by a professional engineer or registered geologist (e.g., Rick Ernst of GSI).

Section 2.0 - The work plan should include a more detailed discussion of site geology and hydrogeology as determined from the expanded preliminary assessment (XPA) investigation, general information sources (e.g., US Geological Survey publications), and local well logs. Please identify the expected depth to groundwater in this section, the named aquifer unit (e.g., upper Troutdale Gravel Aquifer [TGA], etc.), presence or absence of perched groundwater conditions, surmised groundwater flow direction, etc. It would be helpful to include and discuss well logs generated during the XPA, and the well log for Rockwood well Cascade 5.

Section 2.1 – GSI notes that the facility is generally flat. Please clarify that there is also a high, steep bank leading up to NE 192nd Ave along the western boundary of the facility as well as a wooded area at the north end of the facility (adjacent to NE San Rafael St).

Section 2.3.

- GSI notes that “the City is now transitioning to non-PFAS alternatives, a shift that began sometime between 2022 and 2023.” Please clearly state whether PFAS-containing aqueous film-forming foam (AFFF) is still used onsite during trainings, including general frequency (e.g., monthly, annually) and product name/specification. For example, Gresham previously provided documentation for Ansulite ARC 3% AR-AFFF Concentrate.
- The Port of Portland has previously indicated to DEQ that AFFF was phased out of use at Portland International Airport facility (now using fluorine-free foams). Please confirm that Gresham Fire Dept. still maintains their stocks at the airport.

Section 2.4 – Please remove or revise the text “Based on our review of readily available documentation including DEQ’s 2023 XPA (DEQ, 2023), there are no reported incidents of PFAS releases at the Site.” This is misleading. Historical (and ongoing) uses of PFAS-containing AFFF at the site for fire suppression training are incidents of PFAS releases of PFAS. Beyond this use, other releases may have occurred without documentation (e.g., inadvertent spills).

Section 3.1.1.2.

- See Section 2 comment above; please name the specific aquifer(s) that will be encountered at 80 ft bgs and note relevant aquifer characteristics, as appropriate. DEQ presumes that wells will be in either the Unconsolidated Gravel Aquifer or upper TGA.
- DEQ notes that the roughly linear configuration of monitoring well locations will limit the utility of well head data for determining groundwater flow direction. Depending on the results of the investigation (i.e., PFAS levels), additional shallow and deep wells may be needed to develop our understanding of the areal extent, depth, and primary flow direction of PFAS contaminants in groundwater associated with the Gresham FTC site.
- Please discuss how it will be discerned during well construction that wells are installed in the uppermost unconfined water table aquifer versus localized perched groundwater.

Section 3.1.1.4.

- Please describe what visual cues will be used to identify presence of PFAS in soil, and provide supporting information (e.g., citations) on any methods for visual identification. This does not appear in the Appendix A standard operating procedures.
- Please clarify how the smear zone will be characterized and at what point during the investigation this will be known. If seasonal changes in groundwater elevation are needed to specify the smear zone elevation, would soils from initial boring still be within the 90-day holding time for EPA 1633?

Section 3.1.1.5.

- DEQ recommends that both filter pack and annular seal material be placed using a tremie pipe or similar method given the depth of the wells and potential for bridging. Also, coated bentonite pellets should not be used given the potential for them to contain PFAS.
- Please confirm that the (default) filter pack materials proposed for use are consistent with geologic materials expected to be encountered. Per Driscoll and others, the filter pack should be selected to retain at least 90% of native formation materials, and the screen slot sized to retain a similar percentage of filter pack material.

Section 3.2 – With regard to the statement “GSI will evaluate whether an adequate volume of solids is available”, please explain what that volume is, how it relates to required mass for PFAS analysis, and when and how frequently this will be checked.

Section 3.3.1 – Provide a citation or justification for the 10-ft movement area (e.g., geographic positioning system equipment uncertainty) and a clarification of whether moved locations might overlap grid cells within the decision unit.

Section 3.7 – Prior to transporting investigation-derived wastes, please inform DEQ of the manner and location of proposed disposal. Any profiling results and waste manifests should be included in the investigation report.

Section 5 – The SAP does not currently reference all EPA regional screening levels available for PFAS (as of November 2024) that are analyzed by EPA method 1633A. All relevant RSLs should be incorporated into the screening of site soils.

Figures – Figures 1 and 2 reference “19203 NE San Rafael”, but the official location of the site is 19204 NE San Rafael. Please correct the address in the figures.

Tables.

- See Section 5 comment above - Table 2 does not include RSLs for all EPA 1633A target PFAS included in EPA’s November 2024 update. Please review that table and incorporate missing RSLs.
- Table 3 should clarify that the MCL for perfluorobutane sulfonic acid (PFBS), when included in the hazard index calculation, is 2,000 ng/L.

If you have questions or want to discuss these comments further, please contact me by phone at (503) 830-4442 or email (brian.church@deq.oregon.gov).

Sincerely,



Brian Church
Project Manager
Northwest Region Cleanup Program

ec:

Ken Thiessen, DEQ
Wes Thomas, DEQ
Joseph Sherrod, GSI
Rick Ernst, GSI