

April 14, 2025

Robert Fraley  
Portland Water Bureau  
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Portland, Oregon 97204

Via email: Robert.Fraley@portlandoregon.gov

Regarding: Effect of Development Related to Migration of Contaminated Soil  
Bull Run Filtration Facility  
Gresham, Oregon  
PBS Project 24433.000

Dear Mr. Fraley:

This letter addresses the potential for soil conditions to affect natural resources east of Gresham, Oregon, at the planned Portland Water Bureau (PWB) Bull Run Water Filtration Facility project. The project is sited on a 96-acre property (the Filtration Facility Site), located east of the intersection of SE Cottrell Road and SE Carpenter Lane, and along the associated raw water pipeline alignment (located east of the Filtration Facility Site) and finished water pipeline alignments (located west of the Filtration Facility Site), including an above ground Intertie site (collectively, the Pipeline Sites). The Pipeline sites are located adjacent to or in the vicinity of SE Carpenter Lane, SE Lusted Road, and SE Dodge Park Boulevard, which will in general be constructed in existing right-of-way adjacent to or beneath roadways or along farm roads. The Filtration Facility Site and Pipeline Sites are depicted on the Site Vicinity figure provided as Attachment A.

Specifically, PBS evaluated the potential for soil previously identified as containing low levels of persistent pesticides to mobilize across and from the Filtration Facility Site and Pipeline Sites and potentially affect natural resources. Natural resources in the area include nearby surface waterways, including Johnson Creek (in the vicinity of the Site), Sandy River (located approximately 0.4 miles northeast of the Site), and Beaver Creek (in the vicinity of the Pipeline Sites), and could include other areas that are adjacent to or near the identified sites. This letter further addresses whether the final proposed land use of the sites will result in a greater likelihood of mobilization of contaminated soil to areas of potential natural resources than would have occurred without the development of the water filtration facility and pipelines project.

## **Background**

The Filtration Facility Site has historically been utilized for agricultural activities, including, most recently, a landscape tree propagation nursery. Agricultural activities have also occurred near or on certain segments of the Pipeline Sites. Site assessment activities completed in November 2023 consisting of Incremental Sampling Method (ISM) large scale composite sample and analysis of composite soil samples for organochlorine pesticides, chlorinated herbicides, 17 agricultural metals and total petroleum hydrocarbons, identified residual concentrations of several persistent pesticides in near-surface soil at the Filtration Facility Site and Finished Water Pipeline Sites, including 4,4-DDD, 4,4-DDE, 4,4-DDT, and dieldrin at concentrations exceeding Oregon Department of Environmental Quality (DEQ) Clean Fill Screening Levels (CFSs). All other analytes were either below laboratory detection limits or were detected at concentrations below CFSs. Samples collected in the vicinity of the Raw

Exhibit N.62

Water Pipeline did not contain concentrations of these compounds above laboratory detection limits. Although the presence of these compounds in property used solely for agricultural operations is exempt from regulation by DEQ, the change in use of the Filtration Facility Site to allow for development of the water filtration facility triggered a requirement to manage excavated soil containing compounds at these concentrations under DEQ standards.

Soil was further evaluated in vertical units based on the anticipated presence of residual pesticides typically limited to the zone of disturbance associated with farming activities such as plowing and tilling within the upper 1.5 feet of soil. Testing of two vertical zones of soil, 0 to 1.5 feet below ground surface (bgs) and 1.5 to 5 feet bgs, indicated the distribution of these contaminants at concentrations greater than CFSLs was limited to the 0 to 1.5 feet bgs interval. PBS concluded that soil requiring excavation from this depth interval of soil would require management under DEQ standards.

Groundwater beneath the site was not sampled during prior investigations and was not suspected to be affected. No areas of groundwater contamination at or adjacent to the Filtration Facility Site or sites with the potential to have released contamination to groundwater were identified during prior document review.

PBS assisted PWB staff in applying to DEQ for two Beneficial Use Determinations (BUDs) for the Filtration Facility Site (BUD 20240906, dated April 3, 2024, and updated September 6, 2024) and Pipeline Sites (BUD 20240418, dated May 7, 2024, and updated September 6, 2024) that would allow for permanent management of the excavated material in a controlled manner. Conditions of that reuse required implementation of placement of clean fill material on stockpiled soil at the Filtration Facility Site at thicknesses from 1 to 3 feet. In addition to the option of placement of the material at the site, the BUDs allowed for the beneficial reuse of the soils at an agricultural property located several miles east of the site in Damascus, in Clackamas County. PWB elected off-site beneficial reuse in Damascus to manage contaminated soil not meeting CFSLs rather than permanently stockpiling on site.

### **Filtration Facility Site Considerations**

PWB contractors excavated approximately 120,000 cubic yards of soil pursuant to the BUDs in June and July 2024 by removing the upper 18 inches of soil from 66 acres of the Filtration Facility Site in areas of planned development. The soil was then collected in a managed stockpile that was reshaped for long-term erosion control and hydroseeded. Transport of this soil off-site consistent with the BUD was initiated in December 2024 and paused during the land use remand process.

Following completion of construction of the filtration facility, soils not meeting the criteria for consideration of clean fill will have been removed from 68 of the 96 acres of the Filtration Facility Site. Once construction is complete, PWB will plant grasses, shrubs, and trees in those acres used during construction. The extensive plantings will minimize migration of soil from the property by surface water or wind erosion processes. Portions of the site, such as steep forested slopes that were never disturbed, were left intact without improvement or modification. The steep forested areas were not included in prior sampling completed for the Sites. The permanent management of the planted vegetation will retain topsoil on the site and mitigate erosion in a manner superior to standard agricultural practices for row crops (including the pre-development condition of this site) which often rely on tilling of soil and periods of time where little to no vegetation is present.

## Pipeline Sites Considerations

Excavated soil from the Pipeline Sites not meeting clean fill screening levels will be transported to a non-hazardous Resource Conservation and Recovery Act (RCRA) subtitle D disposal facility or the offsite management site identified in the BUD. Following construction of pipelines, these areas are anticipated to be restored to their previous conditions as roadside, shoulder, or agricultural land. Removal of these soils from the pipeline alignments will result in a lower ecological risk, and therefore, the activities will have a positive impact to natural resources within or adjacent to the pipelines.

## Conclusion

The presence of low levels of pesticides like those found in near-surface soils is common on agricultural properties that were in active use between the 1940s and 1970s when these chemicals were commonly used. Once applied, these chemicals are very stable, bind to soil particles, and degrade at slow rates, resulting in the persistent presence of these compounds in soil for decades. These properties also make it unlikely that the pesticides would migrate vertically to the groundwater table by way of leaching. Similar properties within the area that have been in agricultural use for extended periods of time similar to the Filtration Facility Site (including agricultural properties abutting the Filtration Facility Site) are likely contributing to the transport of low-level contaminated sediment to areas of natural resources.

In this case, PBS has concluded that the change in use on the Filtration Facility Site and Pipeline Sites will result in a reduction of the potential for mobilization of contaminated soil to areas of potential natural resources to occur when compared to the potential for the sites to adversely affect natural resources in their pre-development state. This conclusion is influenced by two factors:

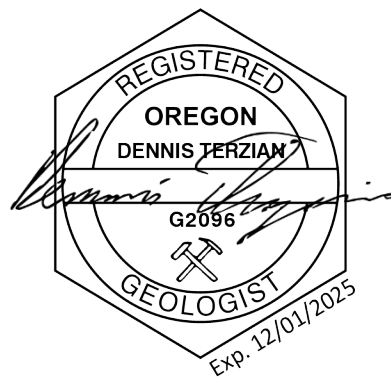
1. Approximately two-thirds of the contaminated soil at the Filtration Facility Site and all excavation soil from the Pipeline Sites that were present at the sites before development have been or will be removed, significantly reducing the overall mass of soil that contains residual pesticides at DEQ-defined levels of concern.
2. Development of the properties is likely to reduce the mobilization of remaining soil with residual pesticides compared to the conditions of the properties before development, due to the implementation of site improvements.

Sincerely,

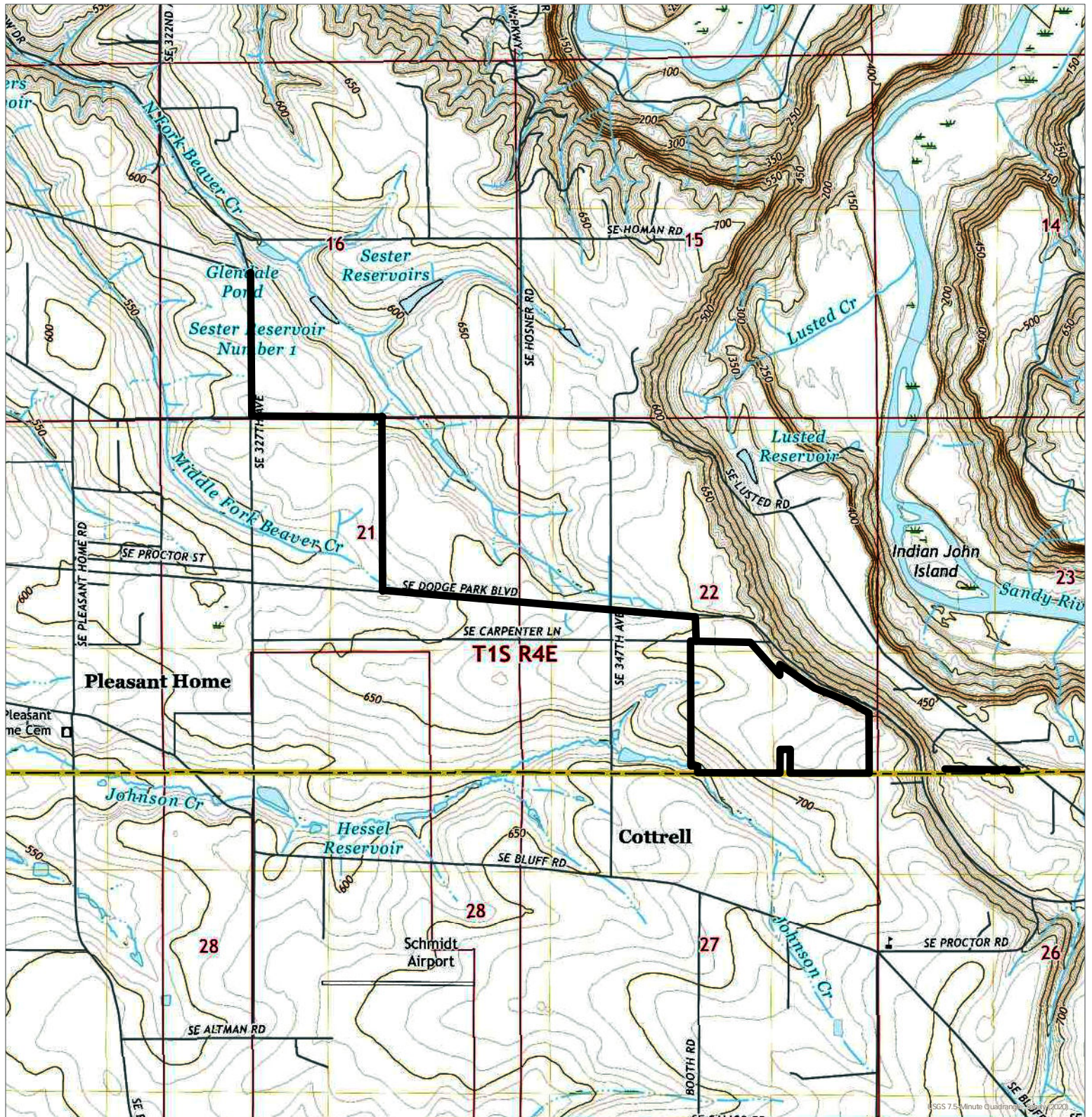
  
Dennis Terzian RG  
Principal Geologist

Attachments: Attachment A: Site Vicinity

DT:tl





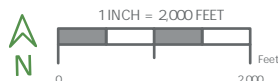


## Site Vicinity

Bull Run Filtration Facility  
Date: August 2023 | Project: 24433.000

Figure: 1

 Site Boundary



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