PORTLAND WATER BUREAU
FROM FOREST TO FAUCET

Bull Run TREATMENT PROJECTS

Memorandum

Subject: Response to Testimony Related to Stormwater and Groundwater

Project #s: PWB: W02563 BC: 152606

Date: May 5, 2025

To: Dan Hogan, Project Manager / Portland Water Bureau

From: Mark Graham, P.E. Project Manager, Stantec

Prepared by: Brad Phelps, Jacobs, Mark Havekost, Delve Underground, and Robyn Cook, R.G., and Ken Lite, R.G., GSI Water Solutions

Reviewed by: Michelle Cheek, Deputy Program Manager / Portland Water Bureau

Copy to: Brad Phelps, P.E, Project Manager
Jacobs

This memorandum responds to a selection of public comments related to stormwater or groundwater issues entered into the land use record at or before the Multnomah County April 16, 2025, Remand Public Hearing.

The responses below are intended to broadly address the themes and concepts in this selection of public comments. For that reason, these responses are likely to also be applicable to other public comments now in the record or that are placed in the record after the date of this response.

Protecting groundwater resources for water supply is a central tenet of the Portland Water Bureau's mission as a public water utility, and PWB works extensively to prevent groundwater impacts from both Bureau operations and activities conducted by others. Groundwater from the Columbia South Shore Well Field (CSSWF), which includes wells that tap the Troutdale Formation, is an important part of the drinking water supply for Portland and the metro region. The Water Bureau has experience safely operating a water treatment facility in the vicinity of water supply wells, as Portland's Groundwater Pump Station sits in the center of the CSSWF and includes treatment chemical handling similar to the inventory planned for the filtration facility.

The Water Bureau has a long history of active groundwater protection dating back to the original development of the well field in the early 1980s. The goal of the Water Bureau's groundwater protection work is to prevent future groundwater contamination and to discover and remediate pre-existing contamination. The Water

Bureau also provides technical assistance to businesses managing hazardous materials and educates the public on how to help protect groundwater. The Water Bureau monitors groundwater quality regularly at all active municipal supply wells and more than 80 additional monitoring wells around the City's well field. This allows the Water Bureau to characterize the water quality throughout the well field and provide an early warning for previously unknown contaminants.

Groundwater quality at the Filtration Facility site has also been tested. To evaluate the potential for pesticide contaminants of concern to be present in water discharged from the dewatering system for the deep excavation on the west side of the property, or, after operations, from the underdrains of the project buildings, the City of Portland collected a representative sample from the dewatering system. The sample was collected by Thomas Krause from the City of Portland on April 24, 2025, from a header pipe for the construction dewatering system. Prior to sampling, the pump for the system was energized to provide a low flow from a system sampling port. Prior to collection several gallons of water were allowed to flow from the sampling port.

The sample was placed in laboratory-provided sampling containers and transported to Apex Laboratories of Tigard, Oregon for analysis of the following pesticide compounds by US Environmental Protection Agency (EPA) Method 8081B: 4,4,-DDE, 4,4,-DDT, dieldrin, endosulfan I, endosulfan II, endosulfan sulfate, and endrin. None of these compounds were detected at concentrations greater than the laboratory reporting limit of 0.00943 micrograms per liter (mg/L).

Comment 1: Exhibit N.6: Courter comments dated April 1, 2025

> "The PWB started pumping one million gallons of ground water per day at the site and dumping it into Johnson Creek. Removing the ground water itself is devastating enough and putting that water, now contaminated with chemicals from the building of the facility, directly into Johnson Creek which flows directly into the Willamette River was and continues to be unconscionable."

Response to Comment 1:

> **This comment is about construction water management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).**
>
> The removal of shallow perched groundwater does not have a long-term impact that will extend beyond construction. Post construction, the shallow perched groundwater conditions will revert to preconstruction drainage patterns and will be driven by surficial recharge (precipitation).
>
> Additionally, although outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B):
>
> - The water handling during construction consists of a system that collects, treats, and discharges water. The claim of a negative impact from the quantity of water discharged to Johnson Creek – referenced in this and other comments as "one million gallons per day" – is not supported by a comparison of the temporary construction site water management and the pre-construction conditions.
> - Construction activities to manage water include handling both stormwater and perched groundwater seeping into excavations. This water has been discharged towards Johnson Creek as regulated and permitted by the Oregon Department of Environmental Quality (DEQ). Issues

with sediment transport noted by commentors and shown in videos provided in the record were also reviewed by DEQ. The Water Bureau proposed, and DEQ approved, corrections and process improvements to address the temporary issue. The DEQ approval letter is attached to this memorandum. Those DEQ-approved corrections and process improvements have been implemented at the construction site.

- Additionally, as one of the DEQ process improvements, water quality samples taken from Johnson Creek show no exceedance of DEQ's standard for turbidity, which allows up to a 10% cumulative increase in downstream turbidities. This testing will continue for the duration of the construction of the facility site. Furthermore, the Filtration Facility site makes up only a small portion (about 11%) of the Johnson Creek watershed that feeds the reach of Johnson Creek adjacent to the Filtration Facility site.[1] *See* the attached *Johnson Creek Upper Watershed Figure.* Accordingly, the overall impact of the construction-related flows from the DEQ-reviewed event, relative to total flow at Johnson Creek in a storm event, was small. Note that, post-construction, the impervious areas of the project will make up an even smaller portion (about 3.5%) of the Johnson Creek watershed that feeds the reach of Johnson Creek adjacent to the Filtration Facility site.

- If or when construction resumes after this remand proceeding, the construction water management systems will be further modified for improved performance (that is, beyond what DEQ has required). The lenses of perched groundwater have now largely been drained, so the quantity of water removed from excavations will be lower than during the initial construction period. Recharge of these lenses, and therefore future dewatering flows, will follow the same pattern as precipitation events. Two points of discharge will be employed – the current discharge at the flow spreader (Point of Discharge #2) and the culvert discharge on the western property line (Point of Discharge #1) – with up to a maximum of approximately 500 gpm (1.1 cfs) discharged to each location. This maximum can be maintained up to the 25-year recurrence, 24-hour duration storm event. Discharge from the flow spreader will generally correlate with the timing of runoff from precipitation events. As shown in the table below, these discharge rates are significantly lower than the pre-development 2-year storm event peak discharge rates – 17% of the 2-year event at Point of Discharge #1 and 24% of the 2-year event at Point of Discharge #2. As described in Exhibit N.58 *Filtration Facility Site Stormwater Drainage Report*, the flow control requirements outlined in the Multnomah County Design and Construction Manual (MCDCM) align with the flow control performance standards in the Portland Bureau of Environmental Services Stormwater Management Manual (SWMM) that are designed to address potential hydromodification (the alteration of natural flow patterns that results in the degradation of a stream) impacts by limiting the post-development flow to 50% of the pre-development flow for design storm events (beginning with the 2-year design storm). These construction stormwater discharge rates will be well below that standard. As the permanent

[1] Note that this reach is sometimes referred as the "headwaters" of Johnson Creek in the record. The term "headwaters" is somewhat misleading in this situation, as it does not refer to a ready source of water such as a spring. Instead, runoff from the proposed site and the surrounding uplands (shown in the attached *Johnson Creek Upper Watershed Figure*) feeds the stream channel of Johnson Creek that passes by the Filtration Facility site. Above the reach of Johnson Creek near the Filtration Facility site, the Johnson Creek stream channel is underground in a pipeline under a commercial nursery field in Clackamas County. Above the reach under the nursery field (to the south of Bluff Road), there are areas where the stream is above ground. That is, there is a significant length of Johnson Creek above the reach near the Filtration Facility site – most of which is severely impacted by existing agricultural uses and other development.

stormwater facilities are completed, they will be put into use and follow the operations described in Exhibit N.58 *Filtration Facility Site Stormwater Drainage Report*.

Construction Stormwater Discharge Compared to 2-Year Storm Event		
	Peak Flow (cfs)	
Point of Discharge	2-year Design Storm Event, Pre-Development	Following Resumption of Construction
#1 – Western Culvert	6.4	1.1
#2 – Flow Spreader/ Johnson Creek	4.6	1.1

- As described further in Response to Comment 3, modifications to the construction water release systems, if or when construction resumes, will also remove the rip rap and instead establish the plantings described in Exhibit N.59 below the flow spreader. This will be done during the next available window appropriate for plantings (for example, that is generally winter for bare root plants) and provide irrigation during the establishment period.
- Over the past few years, the Water Bureau has embarked on a planting program within the SEC zone in the southwest corner of the Filtration Facility site, with the objective of creating an area that functions as a riparian forest even while construction is ongoing, providing both habitat and water quality protection. This work will be ongoing during the construction period.
- The post construction conditions must be compared to the pre-development conditions of the site. Prior to construction, the area closest to Johnson Creek -- including inside of the County's Significant Environmental Concern ("SEC") overlay zone – was largely cultivated crop land, with very limited erosion and sediment control, which caused significant turbidity and other impacts to Johnson Creek during runoff events.

Comment 2: Exhibit N.6: Courter comments dated April 1, 2025

"The site sits on an immense aquifer deep under the tremendous mound of dirt which forms a huge hill of earth. This influences all of the rest of the natural resources. The web of that aquifer's influence is diverse and almost immeasurable. That aquifer contributes to the health of the surrounding area. It's trees, shrubs and all the flora are impacted problematically by the construction. "….

"The aquifer also has impact on the soils surrounding the site. All the flora, including Western Red Cedar, Doug Fir, and Maples and other trees get their water from this aquifer."

Response to Comment 2:

Robyn Cook and Ken Lite, GSI Water Solutions (Resumes attached to this memorandum) provide the following information:

This comment is about construction water and soil management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).

The primary aquifers underlying the Filtration Facility site are within the Springwater and Troutdale geologic formations. The Springwater Formation extends to depths around 200 feet and is partially consolidated in this area (this Formation is also included in the OWRD designation for the "shallow Troutdale Formation" in the Sandy Basin Plan, but for the sake of understanding we will refer to it as the Springwater Formation). Water is present at various depths within the Springwater Formation where the geologic material is poorly consolidated or unconsolidated, starting in some locations from about 8 feet below land surface (i.e., isolated areas of groundwater are present where more permeable material is present within the clay unit). Regionally, the Springwater Formation is primarily recharged through precipitation and applied irrigation water. Based on various studies, the average recharge in this area is likely 16 to 18 inches per year (Woodward, et al, 1998, and Conlon et al, 2005).

The much deeper Troutdale Formation underlies the Springwater Formation and extends to just above the Sandy River, where it overlies the Sandy River Mudstone in this area. The Troutdale Formation consists of a mostly consolidated sandstone in the upper part and a mostly unconsolidated sand and gravel in the lowermost part of the unit. The lower Troutdale Formation sand and gravel hosts a water-bearing zone that is isolated from the Springwater Formation water-bearing zones by the overlying consolidated sandstone. The thickness of this consolidated sandstone locally is greater than 200 feet.

As noted, this comment is about construction water and soil management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B). The construction-related mound of dirt is not a permanent feature. The post-construction grading and topography will be as shown on proposed project plans. Excavation, movement, or mounding of soils during construction will have no long-term impact on the fundamental structure or the function of either the Springwater or Troutdale aquifers. Instead, the Troutdale Formation (where water wells in the area source water from) will be entirely unaffected by the project – as it is separated from the Springwater and any project areas by a consolidated layer of approximately 200 feet of sandstone – and the surface level groundwater of the Springwater will continue to cycle, recharging and draining water in soils in the area in the same way as under pre-construction conditions.

This comment expresses a concern that the movement or mounding of soils on the ground surface during construction will harm the Springwater Formation or the Troutdale Formation. This is incorrect. The movement or mounding of soils on the ground surface – or for that matter excavation of portions of the soils on the ground surface -- does not alter the fundamental structure or the function of either the Springwater or Troutdale aquifers, as explained above.

The trees and flora mentioned in the comment obtain water from water infiltrating through the soil. Well logs in the vicinity of the Filtration Facility site indicate that the upper 30 to 60 feet of material are clay and cemented boulders (the Springwater Formation), and that the first significant water-bearing zones are encountered at 50 feet. Therefore, surface vegetation is obtaining water that is infiltrating through the Springwater Formation from precipitation events. Surface vegetation (including trees) at the site do not obtain water from groundwater aquifers directly and therefore the removal of some groundwater from the site during construction will not have an adverse effect on the trees and flora.

Comment 3: Exhibit N.14: Hart comments dated April 14, 2025 including three videos (2s, 3a, and 3b)

"I have sent in a couple video's for the record, of water being pumped and disbursed all over the ground and entering Johnson Creek. This has been the PWB's plan all along after doing some reviewing the Stormwater Management Plan (Land Use Permits and Plans, T1-2024-0004 page 13). This is currently, adversely effecting Johnson Creek and its habitat."

"When the Plant is in operation PWB will continue to dump stormwater in Johnson Creek. This southwest corner of the plant is a SEC-Water Resource Area. PWB cannot mitigate the stormwater. This is a violation of MCC 39.77515(B) and Chapter 5 of the Multnomah Comprehensive Plan. Therefore the condition Use permit must be denied."

Response to Comment 3:

The first paragraph provided above from this comment is about construction water management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B). Although outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B), this is also addressed in the "Response to Comment 1" above.

The videos do show a short time period when the flow spreader was not functioning as designed. Because of permitting delays, there was not enough time between construction of the flow spreader and the commencement of discharge to have planting established below the flow spreader. Instead, a section of rip rap was placed below the flow spreader to protect against erosion. The rip rap was improperly placed, resulting in a concentration of discharge for a period of time. The issue was identified and remedied with submersible pumps. As noted in "Response to Comment 1" above, if or when construction resumes after this remand proceeding, the construction water release systems will be modified so that peak discharges from the flow spreader to Johnson Creek will be even lower, on the order of 500 gallons per minute (gpm), and will generally correlate with the timing of runoff from precipitation events. This limit can be maintained up to the 25-year recurrence, 24-hour duration storm event. Modifications to the construction water release systems, if or when construction resumes, will also remove the rip rap and instead establish the plantings described in Exhibit N.59 below the flow spreader. This will be done during the next available window appropriate for plantings (for example, that is generally winter for bare root plants) and provide irrigation during the establishment period. Establishment of the plantings will involve adaptive management, which may include the use of coir fabric mats or other groundcover that will prevent erosion and sediment transport while plants are established and/or a temporary perforated pipe flow spreader below the areas where vegetation is actively being established. Overall, this strategy will establish the ultimate flow spreader design, including the extensive riparian plantings much earlier in the construction period, preventing adverse impacts on Johnson Creek.

The second paragraph addresses operations but does not raise any new issues that need further response beyond the information previously provided in the record.

Comment 4: Exhibit N.28: Hart comments dated April 15, 2025

"The daily pumping of around a million gallons of groundwater, overflow pond water and storm water thru a Flow Spreader into Johnson Creek adversely affects and alters the ecosystem of the Creek. This is happening in the Southwest corner of the Plant. Discharging water defies MCC 39.7515(8) and the

Comprehensive Plan Chapter 5. This area is inventoried as Significant Environmental Concern- Water Resource."

"**See Attached Approved Plans (Storm Water Management Plan Filtration Facility and Erosion Control Construction Plan) that shows Johnson Creek will be used for dumping Stormwater when the Filtration Plant is in operation. This violates MCC 39.7515(8) and the Multnomah Comprehensive Plan."

Response to Comment 4:

The first paragraph provided above from this comment is about construction water management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).

Although outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B), this is also addressed in the "Response to Comment 1" and "Response to Comment 3" above. Additionally, the facility's overflow basins ("overflow pond") are being used as intended during construction to collect and store water for processing before being discharged. Pumping is being used in the construction water management system to move the water collected in the basins through a treatment system before discharge.

The second paragraph addresses operations but does not raise any new issues that need response.

Comment 5: Exhibit N.33: Courter comments dated April 15, 2025

"PWB is pumping water out of the plant site to prevent their overflow ponds from overflowing and that is what they plan on continuing to do even after the plant is completed. That water flows directly into Johnson Creek at the headwaters after traversing agricultural land containing "contaminated soil."

"The filtration plant will always need to pump water out of the facility in order to prevent their overflow ponds from actually overflowing. This procedure will not end when construction ends and the endangered salmon and other wildlife dependent on Johnson Creek will continue to be affected. Besides the contaminated water, dirt and erosion sediment is also being deposited altering the shape and flow of the creek forever. When construction is completed and the plant is up and running there will be chemicals on site that could end up in that same overflow water."

Response to Comment 5:

The majority of this comment is about construction water management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).

Although outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B), this is also addressed in the "Response to Comment 1" and "Response to Comment 3" above. Additionally, as noted in "Response to Comment 4" the facility's overflow basins ("overflow ponds") are being used as intended during construction to collect and store water for processing before being discharged. Pumping is being used in the construction water management system to move the water collected in the basins through a treatment system before discharge. It is not accurate to say that the contractor is "pumping water out of the plant site to prevent … overflow ponds from overflowing[.]"

A portion of this comment addresses operations but does not raise any new issues that need response.

Comment 6: Exhibit N.33: Courter comments dated April 15, 2025

> "Another natural resource system that is altered by their need to pump water is the naturally occurring springs in the area that are now drying up. We have always had several springs flowing on our property. One would consistently surface near our paved driveway and run downhill next to the pavement freezing over in winter. This winter there was no spring and no frozen water on the ground and there won't be again in the future because of their pumping."

Response to Comment 6:

This comment is about construction water management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).

The referenced spring location is East of Point of Discharge #3 described in Exhibit N.58. This point is a low-lying area of the site where stormwater drains toward the southeast corner property line by sheet flow and shallow concentrated flow. The general drainage pathway is illustrated in Sub Basin 6 on Figure 1 of Exhibit N.58. The water collects at the low point and ephemerally seeps across the adjacent property towards daylighting topography. The drainage pathways will be restored to Point of Discharge #3 under post-construction conditions, including sheet flow and shallow concentrated flow that will manifest as ephemeral spring observations as described in the comment. Therefore, any impacts to these "springs" (really daylighting stormwater) are limited to the construction time period and outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).

Also as noted by *Robyn Cook and Ken Lite, GSI Water Solutions,* spring flows are driven by water flowing along preferential pathways through geologic material. The elevation of the groundwater present in the Springwater Formation at the Filtration Facility site is approximately 615 ft above mean sea level (amsl). It appears that the elevation of the springs in question is around 700 ft amsl, which supports the springs being fed by surface (stormwater) recharge, rather than from the regional aquifer. This further supports the conclusion that any impacts to these "springs" (really daylighting stormwater) are limited to the construction time period. Moreover, the winter of 2024-2025 (November through January) was the driest of the past 5 years (with 15.73 inches of precipitation measured at PDX, compared to an average of 19.27 for the prior 4 years). The timing and duration of winter precipitation events likely contributes to the volume of water present in the springs. Accordingly, it is not clear that construction of the Filtration Facility had anything to do with the Courter's spring observations.

Comment 7: Exhibit N.43: Cottrell CPO & PHCA Adverse Effects Report dated April 15, 2025, Page 11, Figure 3.

> "Stormwater collection and facility retention basins were intentionally sited 200 ft from the creek to facilitate discharge of excess storm water into the creek, away from the site. The creek is also currently being used to convey pumped groundwater from the local aquifer out from the construction site."

Response to Comment 7:

This comment is about construction water management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).

Although outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B), this is also addressed in the "Response to Comment 1" and "Response to Comment 3" above. Additionally, as noted in "Response to Comment 4" the facility's overflow basins ("facility retention basins") are being used as intended during construction to collect and store water for processing before being discharged. The water in the basins is a combination of stormwater and groundwater from the shallow perched groundwater around the excavations – not pumping groundwater from the local aquifer as this commentor states. Pumping is being used in the construction water management system to move the water collected in the basins through a treatment system before discharge.

Comment 8: Exhibit N.43: Cottrell CPO & PHCA Adverse Effects Report dated April 15, 2025, Page 11 and 12

"The topographical change of the ~90 acres has dramatically altered overland flow patterns during storm events. Prior to construction, storm runoff that did not infiltrate into the farmland soil naturally mobilized toward portions of the property with the lowest elevation. These portions were the SW corner toward Johnson Creek's riparian area, the western edge of the property, and at the SE corner. At the western edge of the property, overland flow previously ran off into a small draw that led into an ephemeral tributary of Johnson Creek (Figure 4). Extensive earthwork during site preparations has permanently filled in this draw and it no longer exists. As a result, overland flow and runoff patterns have permanently changed from its previous existence (Exhibit H.1, pg. 24, demonstrates elevation and overland flow prior to construction). Stormwater from the construction site and groundwater being pumped out of extensive 20-30 foot deep excavations (estimated 1,600 gallons per minute at 11 hours per work day; personal communication MWH-Kiewit foreman Mr. Goldschmidt January 30, 2025) are solely directed to the southwest corner of the property. Aerial imagery and engineering site plans indicate that Johnson Creek was deliberately selected to channel stormwater and facility overflow (Figure 3, Figure 5, and Exhibit H.1). At the SE corner of the property, near the raw water pipeline portal, a shallow draw existed. During the winter and spring months, overland flow mobilized from the PWB's property and into the neighboring residential property to the east via the draw. The topographical lines in Figure 4 show the natural contour that previously favored drainage at the SE corner of the property prior to construction. Following PWB's excavations, mounding of excess spoils, and the leveling of the property, this drainage no longer exists."

Response to Comment 8:

This comment is about construction water management and grading/earthwork, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B). A portion of this comment purports to show a permanent change but does not raise any new issues that need response.

Comment 9: Exhibit N.43: Cottrell CPO & PHCA Adverse Effects Report dated April 15, 2025, Page 21.

"In the winter of 2025, residents observed a substantial volume of water being discharged into Johnson Creek following several days of dry weather (Figure 12). Upon inquiry, the onsite foreman for Kiewit, Mr. Goldschmidt, explained that groundwater was being pumped from the construction site into the creek at a rate of approximately 1 million gallons per day, or 3-4 cubic feet per second (cfs) over a typical 11-hour workday. This operation was occurring daily and was expected to continue as long as groundwater infiltrated excavated sections of the construction site. In short, PWB is using Johnson Creek like a cannel

instead of respecting it as a natural waterway. It should be noted that this section of Johnson Creek is designated by the County as an area of Significant Environmental Concern. The headwaters of Johnson Creek typically experience flows ranging from 1-10 cfs. Rapid fluctuations in stream flow, such as those caused by PWB's groundwater pumping activities, can have significant ecological consequences for fish, macroinvertebrates, and amphibians. These impacts stem from changes in flow dynamics, water temperature, dissolved oxygen levels, and potential shifts in water chemistry. Unfortunately, PWB and its contractors appeared to be unaware of these effects. When neighbors raised concerns with foreman Goldschmidt, he remarked that the groundwater discharge was "good for the creek," revealing a startling lack of understanding of stream ecology and the potential risks of sudden, unnatural flow changes."

Response to Comment 9:

This comment is about construction water management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).

Although outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B), this is also addressed in the "Response to Comment 1" and "Response to Comment 3" above.

Comment 10: Exhibit N.43: Cottrell CPO & PHCA Adverse Effects Report dated April 15, 2025, Page 24-26.

"Within 1,000 feet of the pipeline corridors and excavation zones, thirteen domestic wells have been identified, including the Walter Well and the Courter Well, which are located approximately 500 feet east of the tunnel portal. These two named wells are the most proximate to the vertical shaft and other major excavation activities at the main Plant. The owners of the Walter Well reported changes in water quality and quantity, including sediment, reduced pressure, and/or pump cycling issues following drilling conducted nearby by PWB for geologic testing. The PWB finally accepted responsibility and drilled a replacement well in 2021…"

"Table 1 provides a summary of nearby wells, including well ID numbers, owner names, and available static depth data. Figure 13 shows the mapped locations of these wells relative to project features. The table includes long-term local residents and a mix of well depths, with some wells, such as the Dugger well, as shallow as 50 feet—making them particularly vulnerable to construction-related disturbance such as Plant well dewatering, and Plant and pipeline excavation and blasting."

Response to Comment 10:

Table 1 and Figure 13 included in Exhibit N.43 with this comment identify 13 nearby wells of concern. Wells 1-9 are not applicable to the project as they are adjacent to a previously considered alignment in Clackamas County (Hudson Raw Water Pipeline) that is not being constructed as part of the project (nor as part of any proposed project in Clackamas County). This includes the Dugger well, which is over 1/3 mile away from any construction activities. The Hudson Raw Water Pipeline (shown in red on Figure 13 running generally south and east) would have been an alternative raw water alignment, but it was not selected and therefore is irrelevant.

Wells indicated as #10 and #11 are near the connection with the existing conduits. The wells are downslope of the connection and, with depths of 150' and 165', are well below the pipe trench bedding depth of 22' and will not be affected by the project.

The balance of this comment does not raise any new issues that need response.

Comment 11: Exhibit N.43 Cottrell CPO & PHCA Adverse Effects Report dated April 15, 2025, Page 56"

"Large, paved surfaces, such as the facility proposed at the headwaters of Johnson Creek**"**

Response to Comment 11:

As shown on the attached *Johnson Creek Watershed Figure*, the impervious surface of the Filtration Facility in post construction represents only about 3.5% of the area that feeds the reach of Johnson Creek adjacent to the Filtration Facility site.

Comment 12: Exhibit N.69: Richter, Cottrell CPO comments dated April 15, 2025, Page 6

- "Retention and filtration of stormwater will not remove the fine sediment inputs in Johnson Creek that are created by operation of the new asphalt and concrete surfaces."

Response to Comment 12:

Fine sediment is a component of total suspended solids (TSS). The project stormwater system, as described in Exhibit N.58 Filtration Facility Site Stormwater Drainage Report, will address water quality concerns (including fine sediment) from impervious surfaces including asphalt and concrete surfaces.

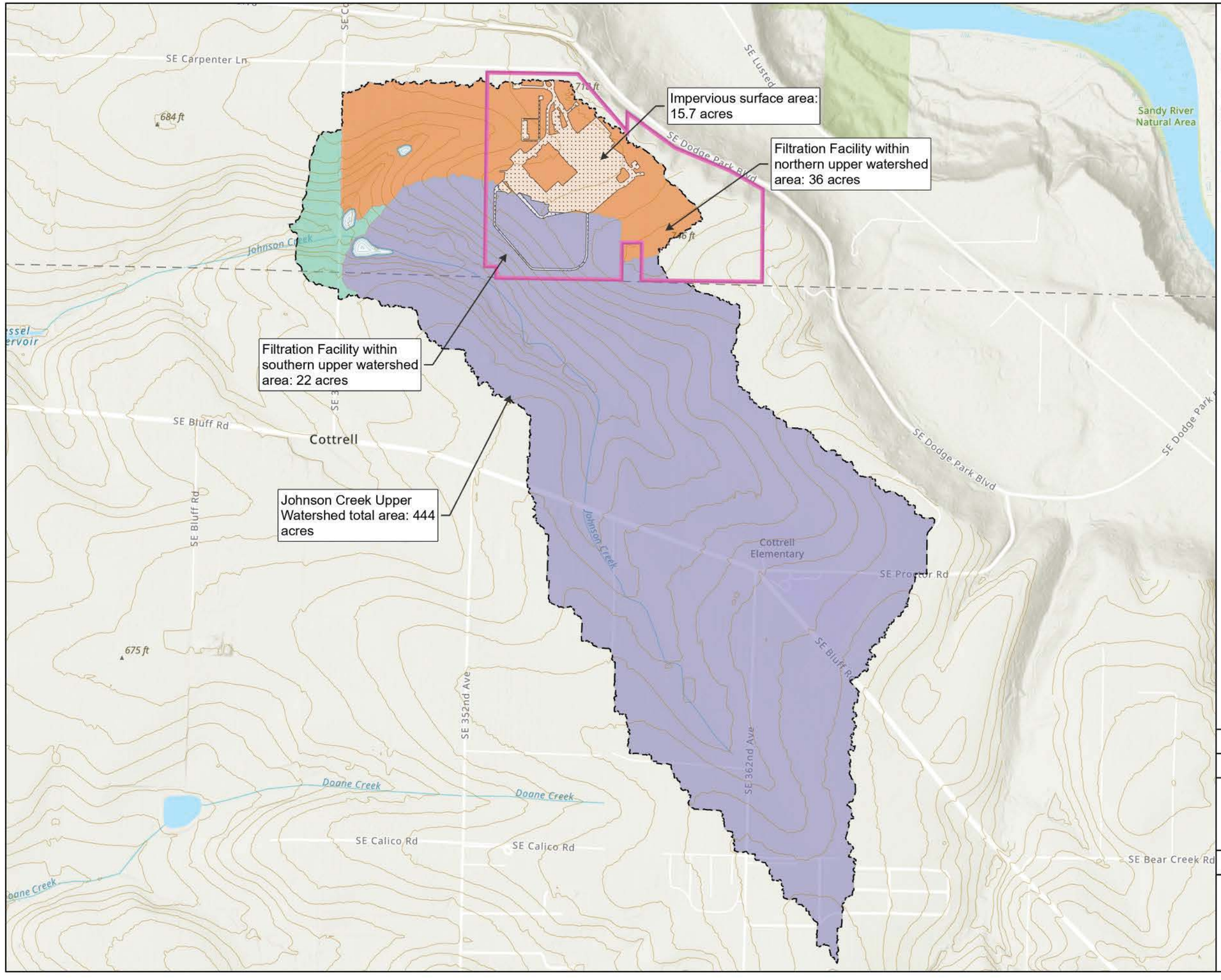
Comment 13: Exhibit N69: Richter, Cottrell CPO comments dated April 15, 2025, Page 6

- "Groundwater pumping reduces water table levels, changes discharge from seeps and springs into the Sandy River and Johnson Creek and creates shortages in the supply available for use in nearby adjacent domestic wells."

Response to Comment 13:

The comment is about construction water management, and as such is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B).

Although outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B), this is also addressed in the "Response to Comment 1" (groundwater pumping) and "Response to Comment 6" (seeps and springs) above.



EXPLANATION

- Contour (10 Foot Interval)
- Property
- Impervious Surface
- Johnson Creek Upper Watershed
- Western Area
- Northern Area
- Southern Area
- Pond

Note: Johnson Creek Upper Watershed is assumed to be the areas above the existing pond retention structures that block natural flow in Johnson Creek in the western limits of the watershed area.

Elevation data source: DOGAMI LiDAR

1 inch = 900 feet

0 450 900 1,800 Feet

Coordinate System: NAD 1983 2011 Oregon Statewide Lambert Ft Intl; Map Units: Foot

JOHNSON CREEK UPPER WATERSHED

DELVE underground

Oregon
Tina Kotek, Governor

Northwest Region Portland Office/Water Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100
(503) 229-5263
FAX (503) 229-6957
TTY 711

4/29/2025
Robert Fraley
Portland Water Bureau

RE: Corrective Action Completion Letter (2025-WLOTC-9714)
Portland Water Bureau Filtration Facility
DEQ PLC Number: 22137
NPDES 1200-CA Construction Stormwater Permit for Public Agencies

DEQ has reviewed and approved the corrective action report provided on April 4, 2025, in response to the issued Warning Letter with Opportunity to Correct 2025-WLOTC-9714. The responsible party has satisfied all conditions of the corrective action requirements listed in the warning letter and their project is now in compliance.

The Warning Letter with Opportunity to Correct will be closed out and no further action is required.

Should you have any questions about the content of this letter, contact me in by phone 971-303-4646 or by email at trevor.ureno@deq.oregon.gov.

Sincerely,

Trevor Ureno
Water Quality Specialist
Oregon Department of Environmental Quality – Northwest Region

Multnomah County

LUP Hearings <lup-hearings@multco.us>

Applicant's First Open Record Period Submission -- T3-2022-16220

Zoee Powers <zpowers@radlerwhite.com> Mon, May 5, 2025 at 11:47 AM
To: LUP Hearings <lup-hearings@multco.us>
Cc: "Peters, David" <David.Peters@portlandoregon.gov>, Renee France <rfrance@radlerwhite.com>, Zoee Powers <zpowers@radlerwhite.com>

Multnomah County Staff,

At this link, please find the applicant's submissions into the record for the First Open Record Period of T3-2022-16220 on remand:

https://radlerwhite.sharefile.com/d-sc32887acc9964f03b16e192384a89def

I have personally endeavored to make sure these are all searchable, unlocked/editable, and of a proper size. I understand that in our last submission we missed recognizing that one of the documents was locked by an engineer's stamping procedure and it caused additional work for staff. Please let me know if you have that issue again and I will have the document corrected.

Thank you,

Zoee Lynn Powers

Partner

RADLER WHITE PARKS ALEXANDER LLP
ATTORNEYS AT LAW

Direct Telephone: 971.634.0215

E-Mail: zpowers@radlerwhite.com

Address: 111 SW Columbia Street, Suite 700, Portland, OR 97201

Website: www.radlerwhite.com

Pronouns: She/her

Work Hours: I work normal business hours all days except for Tuesdays. On Tuesdays, I work until 2:30 PM and then return around 7 PM. If you have an urgent matter on a Tuesday afternoon between 2:30 PM and 7 PM, please call my legal assistant, Brittany, at 971.634.0216. Brittany will be able to contact me.