

Groundwater Application Review Summary Form

Application # G- 19445

GW Reviewer Dennis Orlowski Date Review Completed: January 7, 2025

Summary of GW Availability and Injury Review:

☒ Groundwater for the proposed use is either over appropriated, will not likely be available in the amounts requested without injury to prior water rights, OR will not likely be available within the capacity of the groundwater resource per Section B of the attached review form.

Summary of Potential for Substantial Interference Review:

☐ There is the potential for substantial interference per Section C of the attached review form.

Summary of Well Construction Assessment:

☒ The well does not appear to meet current well construction standards per Section D of the attached review form. Route through Well Construction and Compliance Section.

(NOTE: applicable only to an existing well, MULT 2198, proposed as a POA. The other proposed POA does not yet exist).

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations and for conditions that may be necessary for a permit (if one is issued).

WATER RESOURCES DEPARTMENT

MEMO

January 7, 2025

TO: Application G- 19445

FROM: GW: Dennis Orlowski
(Reviewer's Name)

SUBJECT: Scenic Waterway Interference Evaluation

☐ YES The source of appropriation is hydraulically connected to a State Scenic
☒ NO Waterway or its tributaries

☐ YES
☒ NO Use the Scenic Waterway Condition (Condition 7J)

☐ Per ORS 390.835, the Groundwater Section is **able** to calculate ground water interference with surface water that contributes to a Scenic Waterway. The calculated interference is distributed below

☐ Per ORS 390.835, the Groundwater Section is **unable** to calculate ground water interference with surface water that contributes to a scenic waterway; **therefore, the Department is unable to find that there is a preponderance of evidence that the proposed use will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway**

DISTRIBUTION OF INTERFERENCE

Calculate the percentage of consumptive use by month and fill in the table below. If interference cannot be calculated, per criteria in 390.835, do not fill in the table but check the "unable" option above, thus informing Water Rights that the Department is unable to make a Preponderance of Evidence finding.

Exercise of this permit is calculated to reduce monthly flows in [Enter] Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section
 FROM: Groundwater Section Dennis Orlowski
 Date January 7, 2025
 SUBJECT: Application G- 19445 Supersedes review of _____
 Reviewer's Name
 Date of Review(s)

PUBLIC INTEREST PRESUMPTION; GROUNDWATER

OAR 690-310-130 (1) *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525. Department staff review groundwater applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. This review is based upon available information and agency policies in place at the time of evaluation.*

A. GENERAL INFORMATION: Applicant's Name: Sester Farms Inc. County: Multnomah

A1. Applicant(s) seek(s) 0.8555 cfs from 2 well(s) in the Sandy River Basin,
Beaver Creek subbasin

A2. Proposed use Nursery, 45.1 acres Seasonality: 1/1-12/31 (year-round)

A3. Well and aquifer data (attach and number logs for existing wells; mark proposed wells as such under logid):

POA Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	MULT 2198 (see A4, note 1)	Sherwood Basalt W1	CRBG (see A4, note 1)	0.8555	T1S/R4E-16 SE-NE	1840' S, 1040' W fr NE cor S16
2	To be drilled	Sherwood Basalt W2	CRBG	0.8555	T1S/R4E-16 SE-NE	1860' S, 1040' W fr NE cor S16

* Alluvium, CRB, Bedrock

POA Well	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Drawdown (ft)	Test Type
1	1031	0-30	+1-630, 584-1014	--	456-469, 489-497, 533-537, 563-567, 620-625, 1014-1031	384	20	Pump
2	1700 (est)	0-1025	0-1025	--	1025-1700	TBD	TBD	TBD

POA Well	Land Surface Elevation at Well (ft amsl)	Depth of First Water (ft bls)	SWL (ft bls)	SWL Date	Reference Level (ft bls)	Reference Level Date
1	672	-	450	8/14/1969		
2	670	TBD	TBD	TBD	TBD	TBD

Use data from application for proposed wells.

A4. **Comments:** The proposed POA/POU are located about 5-6 miles east-southeast of the City of Gresham.

Note 1: in 2019 the applicant's agent inquired about the potential use of proposed Well 1, MULT 2198, as an APOA for certificate 28123. The prospect of using MULT 2198 as an authorized POA was proposed again by the agent in 2021. At both of those times OWRD responded that MULT 2198 does not meet current water well construction requirements (OAR 690-200) for the reason discussed below, and thus would not be acceptable as an authorized POA.

Throughout portions of the Portland Basin the USGS has identified several discrete alluvial aquifer systems: the uppermost "Troutdale Gravel Aquifer" (TGA), the intermediate "Troutdale Sandstone Aquifer" (TSA), and the deepest "Sand and Gravel Aquifer" (SGA). In most areas Confining Unit 1 (CU1) separates the TGA from the TSA, and Confining Unit 2 (CU2) separates the TSA from the SGA; these separations are most pronounced in more central portions of the Portland Basin nearer to the Columbia River, but are also generally present in the POA/POU area. Underlying these alluvial deposits is bedrock comprised of basalt of the Columbia River Basalt Group (CRBG) (Swanson and others, 1993; McFarland and Morgan, 1996).

Beginning approximately 1.5 miles south of the POA/POU location is the Sandy-Boring Groundwater Limited Area (GWLA). Within this GWLA groundwater from the "Shallow Troutdale" aquifer system is classified for only exempt uses, whereas the "Deep Troutdale" aquifer can supply non-exempt uses such as irrigation (OAR 690-503-0050). The Shallow Troutdale corresponds to the USGS' Troutdale Gravel Aquifer (TGA), and the Deep Troutdale to the Troutdale Sandstone Aquifer (TSA) and other alluvial deposits below CU1. Although not within the GWLA, these OWRD-designated alluvial aquifer systems are also present at the POA/POU location and are thus used in this discussion.

OWRD has previously concluded that MULT 2198 commingles (1) the Shallow and Deep Troutdale aquifers, and also (2) the Deep Troutdale aquifer with the underlying CRBG aquifer system. As such, MULT 2198 is not compliant with current well construction standards (OAR 690-200-0043).

In 2019 when informed that MULT 2198 would not be acceptable as an authorized POA for this reason, the applicant's agent proposed modifications to MULT 2198 which consisted of retroactive well sealing to eliminate the commingling of aquifers. At that time, and again in 2021, OWRD confirmed that these changes to MULT 2198 *would* make it compliant with well construction requirements (a related 2021 email string that summarizes these discussions, together with a schematic diagram of well modifications proposed by the applicant's agent, are attached to this review).

Because OWRD has not received notification that MULT 2198 (proposed "Sherwood Basalt W1") has been modified to bring it into compliance with current well construction standards, it remains unacceptable as a potential authorized POA for this proposed application.

Therefore, only proposed Well 2 (to-be-drilled "Sherwood Basalt W2") is considered for the remaining technical analyses of this review.

A5. ☒ **Provisions of the Sandy Basin rules** relative to the development, classification and/or management of groundwater hydraulically connected to surface water ☐ **are**, or ☒ **are not**, activated by this application. (Not all basin rules contain such provisions).

Comments: The proposed aquifer (CRBG) is not hydraulically connected to surface waters within ¼ mile of the proposed POA. Therefore the relevant Sandy Basin Rules (OAR 690-503-0050) are not activated.

A6. ☐ **Well(s) # _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.**
Name of administrative area: N/A
Comments: N/A

B. GROUNDWATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

B1. **Based upon available data**, I have determined that groundwater* for the proposed use:

- a. ☐ is over appropriated, ☒ is not over appropriated, or ☐ cannot be determined to be over appropriated during any period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;
- b. ☐ will not or ☒ will likely be available in the amounts requested without injury to prior water rights. * This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;
- c. ☒ will not or ☐ will likely to be available within the capacity of the groundwater resource; or
- d. ☒ will, if properly conditioned, avoid injury to existing groundwater rights or to the groundwater resource:
 - i. ☒ The permit should contain condition #(s) 7RLN (with Sandy Basin Special Permit Conditions, i.e., old 7G/OAR 690-503-0060); CRBG limitations for Willamette Basin (old 7D).
 - ii. ☒ The permit should be conditioned as indicated in item 2 below (“Special CRBG Well Construction”).
 - iii. ☐ The permit should contain special condition(s) as indicated in item 3 below;

- B2.
- a. ☐ **Condition** to allow groundwater production from no deeper than _____ ft. below land surface;
 - b. ☐ **Condition** to allow groundwater production from no shallower than _____ ft. below land surface;
 - c. ☒ **Condition** to allow groundwater production only from the Columbia River Basalt Group (CRBG) groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
 - d. ☐ **Well reconstruction** is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Groundwater Section.

Describe injury –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc): _____

- B3. **Groundwater availability remarks:** Proposed POA Well 2 (“Sherwood Basalt W2”) will obtain groundwater from the CRBG aquifer system, which at this location is overlain by approximately 1000 feet of alluvial sediments (Swanson and others, 1993; McFarland and Morgan, 1996). Only three other CRBG wells are known to exist in this general area: MULT 74054 (~9100 feet northeast), MULT 73257 (~11,300 feet north-northwest), and CLAC 935 (~11,400 feet south). All three of these CRBG wells are authorized POA for irrigation or nursery uses.

The proposed construction for POA Well 2 (“Sherwood Basalt W2”) would be most similar to that of CLAC 935, specifically the cased-and-sealed portions and total depths. Furthermore, proposed POA Well 2 would be sealed below, or very near, the bottoms of both MULT 73257 and MULT 74054. Therefore, only CLAC 935 would likely be susceptible to injury due to the proposed use of POA Well 2. However, despite the relatively very deep static water levels (~560 ft bls) in CLAC 935, there remains over 1200 feet of available drawdown in that well (see attached hydrograph). CLAC 935 is also located about 2.2 miles south of the proposed POA Well 2 location. Consequently, it is unlikely that the proposed use of POA Well 2 will cause enough additional drawdown in CLAC 935 to prevent its authorized use.

Historic static water levels in all three CRBG wells in the area have shown generally sustained declines, on the order of 15-20 feet over the past ~20-25 years (see attached hydrograph). These declines have occurred despite the relatively low use of this aquifer system, and suggests that recharge of the deep CRBG aquifer system in this area is not sufficient to meet even these very few groundwater uses. Also, special permit conditions for the Sandy Basin (OAR 690-503-0060) state that use of water from a well “shall be regulated if the well displays: (a) an average water level decline of three or more feet per year for five consecutive years; or (b) a total water level decline of fifteen or more feet.” Based on the water level trends observed in existing nearby CRBG wells, it is likely that this proposed use of POA Well 2 would trigger the Sandy Basin decline conditions within perhaps 15 years or less. **These factors suggest that the capacity of the local groundwater resource is not sufficient to support this proposed use.**

Special CRBG Well Construction Condition

Proposed Well 2 ("Sherwood Basalt W2") is planned to have a 675-foot open interval, from 1025 to 1700 ft bls. OWRD has adopted a policy for CRBG wells which instead limits an open interval to no greater than 100 feet, unless additional information is provided by the applicant. Therefore, it is recommended that the following CRBG well construction condition also be included in the permit, if granted:

A. Each basalt well shall be open to a single aquifer of the Columbia River Basalt Group and shall meet the applicable well construction standards (OAR 690-200 and OAR 690-210).

In addition, the open interval in each well shall be no greater than 100 feet. An open interval of greater than 100 feet may be allowed if substantial evidence of a single aquifer completion can be demonstrated to the satisfaction of the Department Hydrogeologists, using information from a video log, downhole flowmeter, water chemistry and temperature, or other downhole geophysical methods. These methods shall characterize the nature of the basalt rock and assess whether water is moving in the borehole. Any discernable movement of water within the well bore when the well is not being pumped shall be assumed as evidence of the presence of multiple aquifers in the open interval.

If during well construction, it becomes apparent that the well can be constructed to eliminate the commingling of aquifers and/or interference with hydraulically connected streams in a manner other than specified in this permit, the permittee can contact the Department Hydrogeologist for this permit or the Groundwater Section Manager to request approval of such construction. The request shall be in writing and shall include a rough well log and a proposed construction design for approval by the Department. The request can be approved only if it is received and reviewed prior to placement of any permanent casing and sealing material. If the request is made after casing and seal are placed, the requested modification will not be approved. If approved, the new well depth and construction specifications will be incorporated into any certificate issued for this permit.

B. A dedicated water level measuring tube shall be installed in each well. The measuring tube shall meet the standards described in OAR 690-215-0060. When requested, access to the wells shall be provided to Department staff in order to make water level measurements.

C. For any wells constructed under this or subsequent permits, the permittee shall coordinate with the driller to ensure that drill cuttings are collected at 10-foot intervals and at changes in formation in each well. A split of each sampled interval shall be provided to the Department.

D. If any geologic and hydrogeologic reports are completed for the permittee during the development of permitted wells, including geophysical well logs and borehole video logs, then copies of the reports shall be provided to the Department. Except for borehole video logs, two paper copies or a single electronic copy shall be provided of each report. Digital tables of any data shall be provided upon request.

C. GROUNDWATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040**C1. 690-09-040 (1):** Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
2	CRBG	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer confinement evaluation: The CRBG aquifer system in this area is strongly confined by more than 1000 feet of overlying alluvial sediments, much of which consists of low-permeability silt and clay deposits (including CU1 and CU2). Furthermore, dense flow interiors in the CRBG system further confine lower water-bearing/interflow zones.

C2. 690-09-040 (2) (3): Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ¼ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
2	1	N. Fork Beaver Creek	Est 100-120	510-550	3000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	2	E. tributary to Sandy River	Est 100-120	75-585	970	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	3	Sandy River	Est 100-120	50-75	2900	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Basis for aquifer hydraulic connection evaluation: Estimated groundwater elevations for Well 2 are based on recent water level data from similarly-constructed CLAC 935.

Estimated ranges of stream elevations are for the nearest perennial reaches within approximately 1 mile of Well 2.

Despite the relationships of estimated groundwater elevations to elevations for SW2 and SW3 (i.e., partially coincident with and above, respectively), it is highly unlikely that Well 2 would be hydraulically connected to either of these stream reaches. Well 2 is proposed to be cased and sealed to a depth of 1025 ft bls, or approximately elevation -355 ft msl; this elevation is at least several hundred feet below any of the listed stream reaches, and indeed far below *any* stream reaches. Therefore water-bearing interflow zones within the CRBG aquifer at the Well 2 location would also be separated from the streams by similar or greater amounts, and thus not hydraulically connected (also, the fact that nearby wells completed in the CRBG aquifer system have experienced consistent water-level declines, despite low overall pumping stresses, suggests an absence of local recharge from area streams). The relatively-high heads estimated for Well 2 (based on those measured in CLAC 935) are due to the very highly-confined nature of the CRBG aquifer system in this area.

Water Availability Basin the well(s) are located within: SW1: WID 71545, Beaver Creek > Sandy River – at mouth; SW2 and SW3: WID 72145, Sandy River > Columbia River – above unnamed stream.

C3a. 690-09-040 (4): Evaluation of stream impacts for each well that has been determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water (SW) source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that SW source, not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% *natural* flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked ☒ box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

	SW #		Q _w > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Q _w > 1% ISWR?	80% Natural Flow (cfs)	Q _w > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Comments: N/A (not hydraulically connected).

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

(A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.

Basis for impact evaluation: N/A

C4b. **690-09-040 (5) (b)** The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.

- C5. ☐ **If properly conditioned**, the surface water source(s) can be adequately protected from interference, and/or groundwater use under this permit can be regulated if it is found to substantially interfere with surface water:
- ☐ The permit should contain condition #(s) _____;
 - ☐ The permit should contain special condition(s) as indicated in "Remarks" below.

C6. SW / GW Remarks and Conditions: None.

References Used: Water rights documents: application G-19445; groundwater technical review for applications G-18865, T-14360, T-14378.

McFarland, W.D., and Morgan, D.S., 1996, Description of the Ground-Water Flow System in the Portland Basin, Oregon and Washington, Water Supply Paper 2470-A, 58 p: U. S. Geological Survey, Reston, VA.

Swanson, R. D., McFarland, W. D., Gonthier, J. B., and Wilkinson, J. M., 1993, A description of hydrogeologic units in the Portland Basin, Oregon and Washington, Water-Resources Investigations Report 90-4196, 56 p.: U. S. Geological Survey, Reston, VA.

Theis, C.V., 1935, The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, American Geophysical Union Transactions, vol. 16, p. 519-524.

United States Geological Survey, 2014, National Hydrography Dataset (NHD), 1:24,000, U. S. Department of the Interior, Reston, VA.

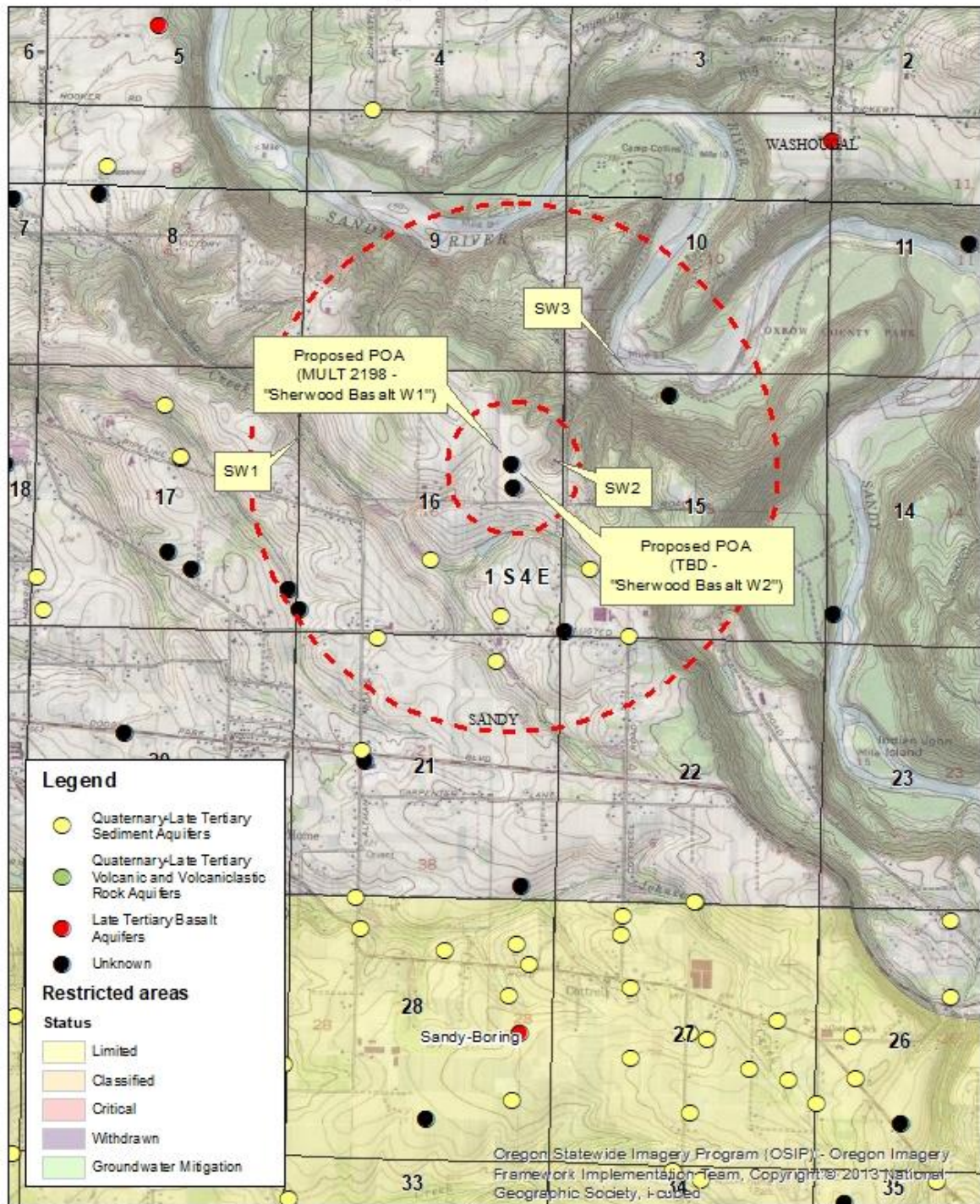
United States Geological Survey, 2017, Sandy quadrangle, Oregon [map], 1:24,000, 7.5 minute topographic series, U.S. Department of the Interior, Reston, VA.

D. WELL CONSTRUCTION, OAR 690-200

- D1. Well #: 1 Logid: MULT 2198
- D2. **THE WELL does not appear to meet current well construction standards based upon:**
- a. ☒ review of the well log;
 - b. ☐ field inspection by _____;
 - c. ☐ report of CWRE _____;
 - d. ☒ other: (specify) **multiple previous communications between OWRD and the applicant's agent in 2019 and 2021 that pertained to non-compliance of MULT 2198, summarized in attached email string.**
- D3. **THE WELL construction deficiency or other comment is described as follows:** **commingling of multiple aquifers, as explained in Section A4 of this review.**
- D4. ☒ **Route to the Well Construction and Compliance Section for a review of existing well construction.**
-
-

Well Location Map

Application G-19445, Sester Farms T1S, R4E, Section 16




0 1,300 2,600 3,900 5,200 6,500 7,800 9,100 10,400 11,700 13,000 14,300

Feet

Service Layer Credits: Copyright © 2013 National Geographic Society, Inc.



Water Availability Tables

 Oregon Water Resources Department
Water Availability Analysis

[Main](#) [Help](#)
[Return](#) [Contact Us](#)

Water Availability Calculation


Water Rights

Consumptive Uses and Storages

Instream Flow Requirements

Reservations

Watershed Characteristics

 Oregon Water Resources Department
Water Availability Analysis

[Main](#) [Help](#)
[Return](#) [Contact Us](#)

Water Availability Calculation

Water Rights

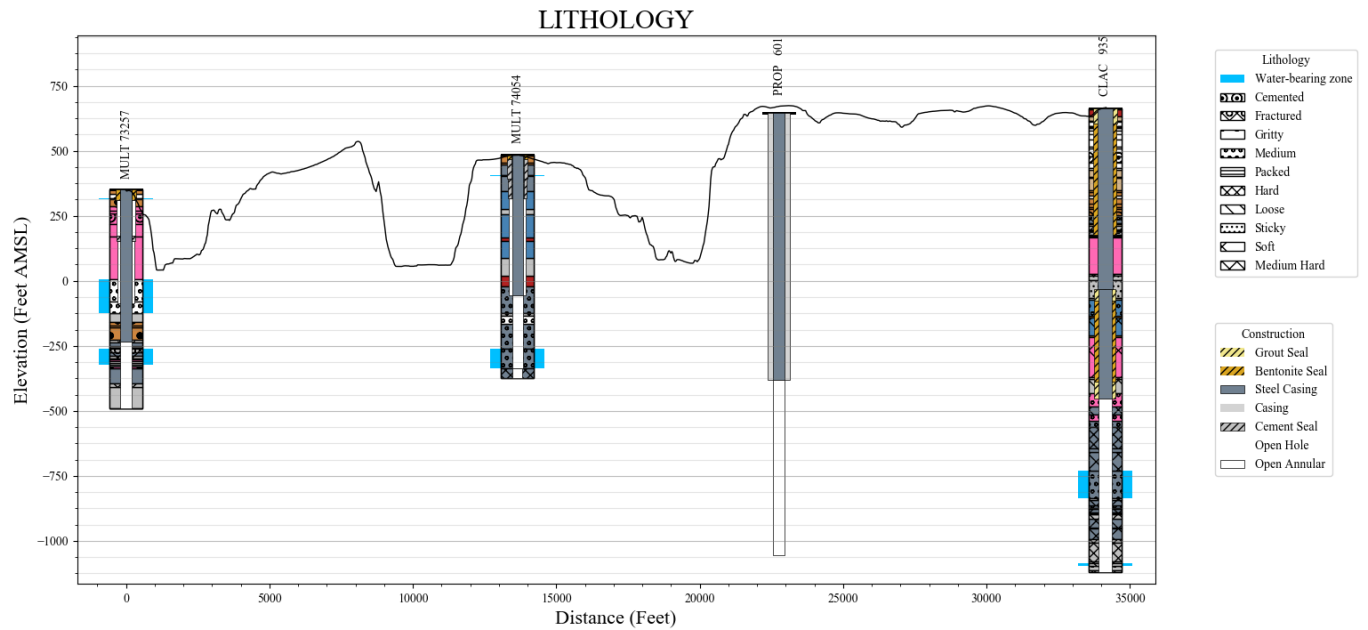
Consumptive Uses and Storages

Instream Flow Requirements

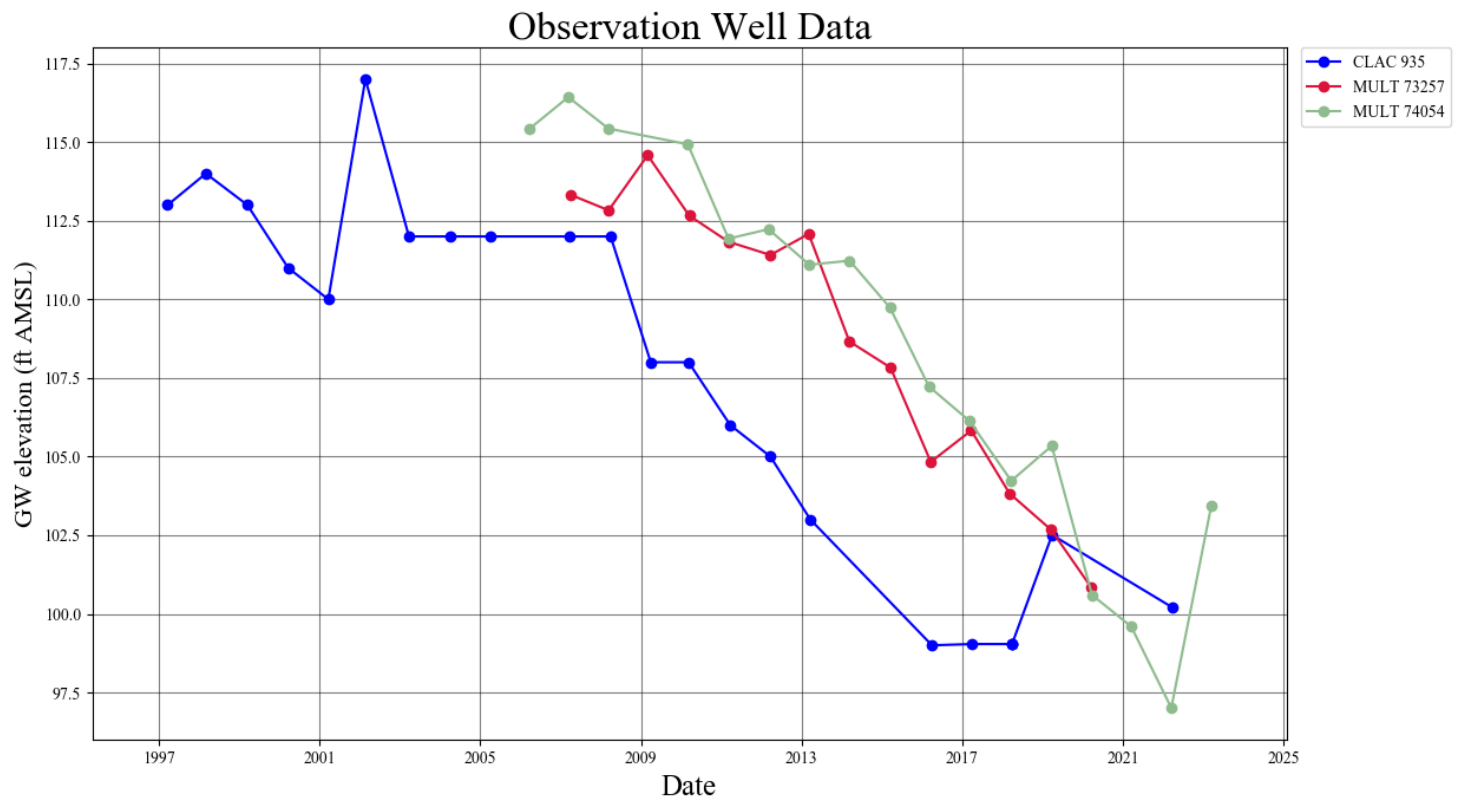
Reservations

Watershed Characteristics

Cross-section of nearby CRBG wells only (PROP601 is proposed POA Well 2; three low-lying areas/valleys correspond to nearby sections through Sandy River)



Hydrograph - Water-Level Measurements in Nearby CRBG Wells



Copy of 2021 e-mail communications between OWRD and applicant's agent related to non-compliance of MULT 2198 (Well 1, "Sherwood Basalt W1")

ORLOWSKI Dennis R * WRD

From: BROWN Travis C * WRD
Sent: Monday, September 9, 2024 1:55 PM
To: ORLOWSKI Dennis R * WRD
Subject: FW: Groundwater in east Portland

Dennis –

Here's the email chain with Ted Ressler re: MULT 2198.

Cheers,
Travis

Travis Brown, RG | Hydrogeologist – Groundwater Section

Pronouns: He/him/his

Email: Travis.C.Brown@water.oregon.gov | Phone: 971-301-3088

Address: 725 Summer St. NE, Suite A, Salem, OR 97301



Integrity | Service | Technical Excellence | Teamwork | Forward-Looking

From: Ted Ressler <tressler@gsiws.com>
Sent: Tuesday, May 11, 2021 1:29 PM
To: BROWN Travis C * WRD <Travis.C.Brown@oregon.gov>
Cc: KELLY Travis N * WRD <Travis.N.Kelly@oregon.gov>
Subject: RE: Groundwater in east Portland

Travis

Thanks for clarifying so that we are all on the same page.

Ted

From: BROWN Travis C * WRD [<mailto:Travis.C.Brown@oregon.gov>]
Sent: Tuesday, May 11, 2021 1:22 PM
To: Ted Ressler <tressler@gsiws.com>
Cc: KELLY Travis N * WRD <Travis.N.Kelly@oregon.gov>
Subject: RE: Groundwater in east Portland

Hi Ted,

Thanks for double-checking on this. Based on my notes from our conversation on 3/25/2021, I indicated that we ***would*** require a downhole velocity profile of MULT 2198 in order to leave open the section from ~585-1013 ft bls. This was based on the characterization of the well stratigraphy in USGS Water Resources Investigation Report 90-4196 (Swanson et al., 1993), which indicated the bottom of the Troutdale Sandstone (lower Troutdale) in MULT 2198 as 87 ft amsl (585 ft bls).

The velocity profile would be necessary to demonstrate that water-bearing zones above and below 585 ft bls are part of the same source for purposes of the Transfer review (per OAR 690-380-2110(2)), regardless of any well construction considerations. Without the velocity profile data, we would have to default to the USGS characterization as the best available evidence and would, therefore, require that MULT 2198 be backfilled/sealed-off below 585 ft bls as a condition of approving the Transfer.

However, we also discussed the possibility of the applicant constructing a replacement well instead of trying to repair MULT 2198. If the applicant pursued this approach, they would be able to submit detailed measurements of water level with depth as the well is advanced in order to demonstrate same source / single aquifer completion, in lieu of the downhole velocity profile.

I hope this clarifies our previous discussion and the Department's process. I have cc'd Travis Kelly to ensure he's in the loop. If you have any questions or concerns, please let me know.

Thank you,
Travis

Travis Brown, RG | Hydrogeologist – Groundwater Section

Pronouns: He/him/his

Email: Travis.C.Brown@oregon.gov | Phone: 971-301-3088 | Fax: 503-986-0902



725 Summer St. NE, Suite A | Salem, OR 97301



*****Teleworking. Apologies for any inconvenience.*****

From: Ted Ressler <tressler@gsiws.com>

Sent: Tuesday, May 11, 2021 11:41 AM

To: BROWN Travis C * WRD <Travis.C.Brown@oregon.gov>

Subject: RE: Groundwater in east Portland

Travis

Following up on my email below and our subsequent discussion of this well and the potential repair vs. construction of a new well. I am in the process of developing cost estimates and pro/cons for both options for review with the water right holder and I wanted to confirm my notes from our previous discussion.

Given the Travis has confirmed that he will back Joel's previous approval of the well repair (per PDF attached), if the well is repaired as indicated, would the Department consider the repaired well to be completed in the same aquifer as the existing POA for Certificate 28213 (MULT 2531) in absence of a downhole velocity profile? I have in my notes that you would want to evaluate the ambient groundwater movement the alluvium if a new well was constructed to be open to such a large thickness of the alluvium as MULT 2198, but it is not clear in my notes whether this would be required for the repaired well option (given that OWRD has previously approved the repair plan for the well that included only sealing off the upper 270 ft of the alluvium and the basalt at the bottom of the well).

Thanks
Ted

From: Ted Ressler
Sent: Thursday, March 25, 2021 1:02 PM
To: BROWN Travis C * WRD <Travis.C.Brown@oregon.gov>
Subject: RE: Groundwater in east Portland

Travis

I had talked with the Department back in 2019 about a potential transfer for Certificate 28213, which is a groundwater right associated with the deeper Troutdale (POA is MULT 2531). There was another well on the property that the land owner wanted to use as an additional POA (MULT 2198), but there were several construction deficiencies with the well. I had previously discussed the potential repairs with both the well construction section (Joel Jeffery) and the groundwater section (Dennis Orłowski), and at the time, we had arrived at a repair approach (see attached email and well schematic). I have since revisited the repair with Travis Kelly (he was accepting of the approach given that Joel had approved it), but I also wanted to re-review the proposed repair with the groundwater section to make sure there was still concurrence on the repair (specifically as it related to target aquifer completion for use under Certificate 28213) before going through the effort of preparing the transfer application.

I would be happy to discuss by phone after you have had a chance to review.

Thanks
Ted

From: BROWN Travis C * WRD [<mailto:Travis.C.Brown@oregon.gov>]
Sent: Thursday, March 25, 2021 10:22 AM
To: Ted Ressler <tressler@gsiws.com>
Subject: RE: Groundwater in east Portland

Hi Ted,

Yes, that is within my focus area. What can I help you with?

Cheers,
Travis

Travis Brown, RG | Hydrogeologist – Groundwater Section

Pronouns: He/him/his

Email: Travis.C.Brown@oregon.gov | Phone: 971-301-3088 | Fax: 503-986-0902



725 Summer St. NE, Suite A | Salem, OR 97301



Teleworking. Apologies for any inconvenience.

From: Ted Ressler <tressler@gsiws.com>
Sent: Thursday, March 25, 2021 10:02 AM
To: BROWN Travis C * WRD <Travis.C.Brown@oregon.gov>
Subject: Groundwater in east Portland

Hi Travis

Good morning. Are you still the point contact for groundwater reviews in the east Portland Metro area (east of Gresham, west of the Sandy River)? I have a question related to a well and water right in that area.

Thanks
Ted

Theodore R. Ressler
RG, CWRE, PG
Hydrogeologist and Water Resources Consultant
direct: 971.200.8509 | mobile: 503.701.4535
55 SW Yamhill St., Suite 300, Portland, OR 97204
GSI Water Solutions, Inc. | www.gsiws.com

Please note: GSI is open for business, although most of us are working remotely. I'm available by phone or email, as always.

Schematic of modifications to MULT 2198 proposed by applicant's agent to rectify non-compliant construction**As-built schematic
MULT 2198**