Groundwater Application Review Summary Form

Application # G- _19477_

GW Reviewer _Gabriela Ferreira_ Date Review Completed: _December 29, 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.

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 **December 29, 2025**

TO: **Application** G-**19477**

FROM: **GW:** **Gabriela Ferreira**
(Reviewer's Name)

SUBJECT: Scenic Waterway Interference Evaluation

☐ **YES**
☒ **NO** The source of appropriation is hydraulically connected to a State Scenic 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 Date December 29, 2025

FROM: Groundwater Section Gabriela Ferreira
Reviewer's Name

SUBJECT: Application G- **19477** Supersedes review of December 19, 2024
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: **Sauvie Island Wholesale Nursery Inc., attn: Julie Holmason**
County: **Multnomah**

A1. Applicant(s) seek(s) 0.24 cfs from 1 well(s) in the Willamette Basin,

A2. Proposed use: Nursery (9.4 acres) Seasonality: Year-Round (Nursery)[a]

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 32	1	Alluvium	0.24	2N / 1W 11 SE-SW	1260' N 1650' E fr SW cor S 11

* 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	232	20	+1 - 226	221 – 227	Screen 227 – 232	120	0	Bailer

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	25[a]	201	120	7/12/1990	TBD	TBD

Use data from application for proposed wells.

A4. **Comments:** The proposed POA/POU is located on the southeast side of Sauvie Island, approximately 1 mile downstream from where the Willamette River converges with the Columbia River, and approximately 0.5 mile west of the Oregon state boundary in the middle of the Columbia River. The application proposes use by one well already constructed, MULT 32. This re-review evaluates the proposed use of Nursery on 9.4 acres, with a maximum instantaneous rate of 0.24 cfs and maximum annual volume of 47.0 acre-feet.

[a] Land surface elevation estimated to nearest 5-foot interval from LIDAR at the proposed well site (OLC, 2016).

A5. ☒ **Provisions of the** Willamette 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 POA is within ¼-mile from the nearest stream or surface water source (Columbia River) and produces groundwater from an unconfined alluvial aquifer; therefore, the relevant Willamette Basin rules (OAR 690-502-0150) are activated.

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

ii. ☐ The permit should be conditioned as indicated in item 2 below.

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 **Alluvial** 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:** The proposed POA is located within the Unconsolidated Sedimentary Aquifer (USA), which is approximately 125 feet thick in the vicinity of the proposed POA and underlain by an undifferentiated fine-grained unit. The Columbia River Basalt Group is encountered approximately 1200 feet below land surface (bls) (Swanson and others, 1993; Gannett and Caldwell, 1998; Conlon and others, 2005; Wells and others, 2020). Sauvie Island is an alluvial deposit immediately downstream of the confluence of the Willamette River and the Columbia River. The island is maintained by a flood levee.

Within two miles of the POA, there are approximately 20 water rights mostly for irrigation and nursery use with some pond maintenance and storage rights. Several other domestic wells are also nearby. Most wells near the proposed POA also produce from the USA. Reported maximum yields in nearby alluvial wells, mostly domestic, range from 20 to 400 gpm with two wells reporting yields ~700 – 1000 gpm (well statistics attached). Well deepenings are not prevalent. The well report indicates that yield was approximately 120 gpm with no drawdown (based on a bailer test), which is greater than the requested rate (~108 gpm).

The nearest groundwater user was identified as MULT 74192, a nursery well associated with Permit G-15632, located approximately 0.7 mile southwest of the proposed POA. Despite not fully penetrating the alluvial aquifer system, potential impacts on the well were modeled using the attached Theis drawdown analysis and assuming the full duty and rate of the proposed POA. Transmissivity values are based on a nearby well test (MULT 1597) and published values (Freeze and Cherry

1979; Conlon and others, 2005). It appears unlikely that interference would produce drawdown at the proposed well in excess of the typical permit condition limits

Water level data from the alluvial aquifer is provided in the attached hydrograph for MULT 1580 (1.8 miles northwest), MULT 134712 (1.8 miles northwest), COLU 50066 (6 miles northwest), and COLU 3379 (9 miles northwest). The water levels for all four wells are generally stable with seasonal variation of ~5 to 10 feet, likely correlated to precipitation. Based on the observed water level behavior, effective hydraulic connection with nearby surface water sources, and large storage capacity and permeability of the USA, the groundwater reservoir is not over-appropriated.

In order to support future understanding and management of the groundwater resource in this area, the conditions listed in Item B1(d)(i) and Item B2(c) are recommended.

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
1	**Alluvial**	☐	☒

Basis for aquifer confinement evaluation: The well report indicates the well is sealed to 20 feet bls and the first water-bearing zone is encountered at ~201 feet bls, with a static water level of 16 feet bls at time of drilling. Geologic mapping indicates the Unconsolidated Sedimentary Aquifer is approximately 125 feet thick in this area and the well report indicates fine sand is present from approximately 38 to 201 feet bls. Nearby well logs indicate shallow water bearing zones are present at shallow depths ranging from 20 – 50 feet bls (see attached Well Statistics). Although the aquifer tapped by the proposed POAs and some nearby wells might be under semi-confined conditions, the overlying low-permeability deposits are not laterally extensive on Sauvie Island (Conlon and others, 2005; Gannett and Caldwell, 1998). Therefore, the alluvial aquifer is considered unconfined.

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? YES NO ASSUMED			Potential for Subst. Interfer. Assumed? YES NO	
1	**1**	**Columbia River**	**5 – 15[a]**	**5 – 10[b]**	**1,285**	☐	☐	☒	☒	☐

Basis for aquifer hydraulic connection evaluation: [a] The range of groundwater elevations was estimated based on the well report and nearby groundwater level data.

[b] Estimated ranges of surface water elevations are based on LIDAR data for the surface water sources within approximately 1 mile of the proposed POA (OLC, 2016)

Well 1 is considered in hydraulic connection with SW#1 based on the lack of aquifer confinement of the USA and similar elevations of water levels. Furthermore, hydraulic connection was assumed for SW #1 according to rules because Well 1 is less than ¼ mile from the SW#1 as defined by the ordinary high-water levels and produces from an unconfined aquifer.

Water Availability Basin the well(s) are located within: None established

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?
1	**1**	☒	☐	**N/A**	**N/A**	☐		☐		☒

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 #		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?
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: No WAB is established for the location of the proposed POAs, so potential for substantial interference was not evaluated using Division 9 criteria. The finding of "assumed potential for substantial interference" is based on the proposed POA producing from an unconfined aquifer within ¼ mile of SW#1.

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:

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:

i. ☐ The permit should contain condition #(s)_____;

ii. ☐ The permit should contain special condition(s) as indicated in "Remarks" below;

C6. **SW / GW Remarks and Conditions:** _____

References Used: Application File: G-19477

OWRD well reports and data: MULT 32, MULT 1580, MULT 1597, MULT 134712, COLU 3379, COLU 50066

Conlon, T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 2005, Ground-water hydrology of the Willamette Basin, Oregon, Scientific Investigations Report 2005-5168: U. S. Geological Survey, Reston, VA.

Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-A, 32 p.

Oregon Lidar Consortium (OLC), 2016, OLC metro 2014 lidar project, Oregon Department of Geology & Mineral Industries, Portland, OR, November 30.

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.

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

Wells, R.E., Haugerud, R.A., Niem, A.R., Niem, W.A., Ma, L., Evarts, R.C., O'Connor, J.E., Madin, I.P., Sherrod, D.R., Beeson, M.H., Tolan, T.L., Wheeler, K.L., Hanson, W.B., and Sawlan, M.G., 2020, Geologic map of the greater Portland metropolitan area and surrounding region, Oregon and Washington: U.S. Geological Survey Scientific Investigations Map 3443, pamphlet 55 p., 2 sheets, scale 1:63,360, https://doi.org/10.3133/sim3443.

Willamette/Columbia River Ordinary High Water [SDE Image]. City of Portland Bureau of Planning and Sustainability. Published 2013, updated 2020. <https://www.portlandmaps.com/metadata/index.cfm?action=DisplayLayer&LayerID=53396>

D. WELL CONSTRUCTION, OAR 690-200

D1. **Well #:** 1 **Logid:** MULT 32

D2. **THE WELL does not appear to meet current well construction standards based upon:**

a. ☐ review of the well log;

b. ☐ field inspection by _____;

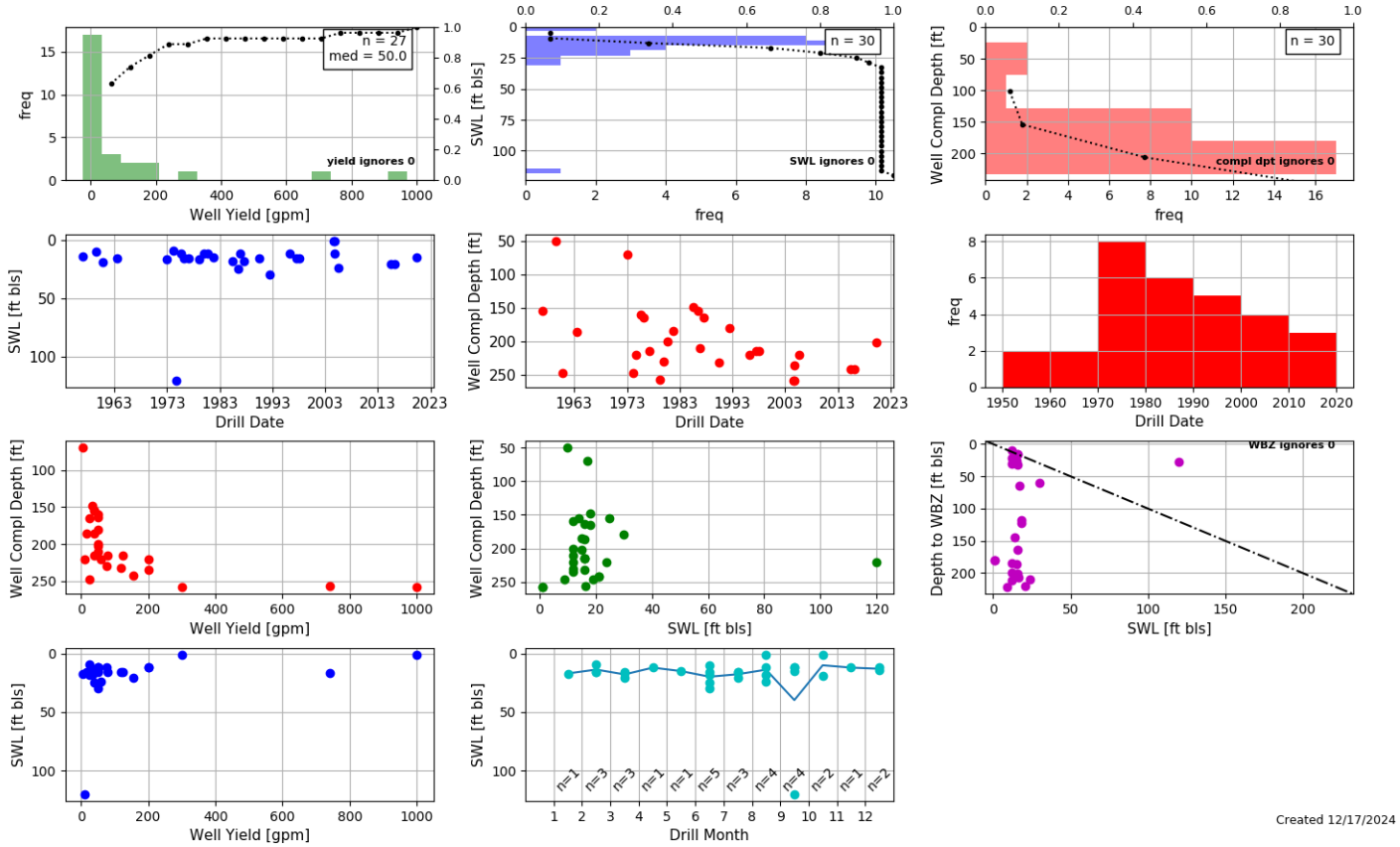
c. ☐ report of CWRE _____;

d. ☐ other: (specify) _____

D3. **THE WELL construction deficiency or other comment is described as follows:** _____

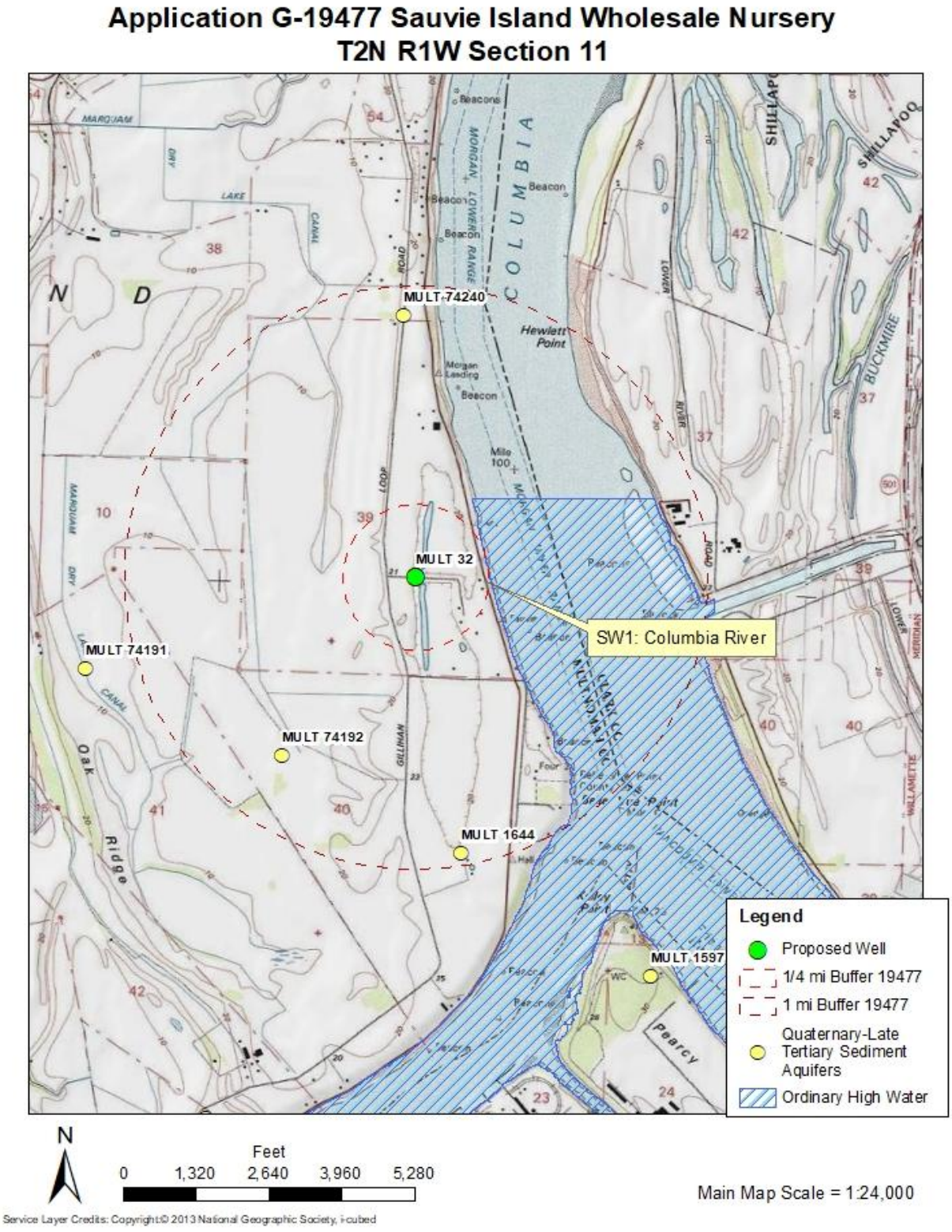
D4. ☒ **Route to the Well Construction and Compliance Section for a review of existing well construction.**

Well Statistics

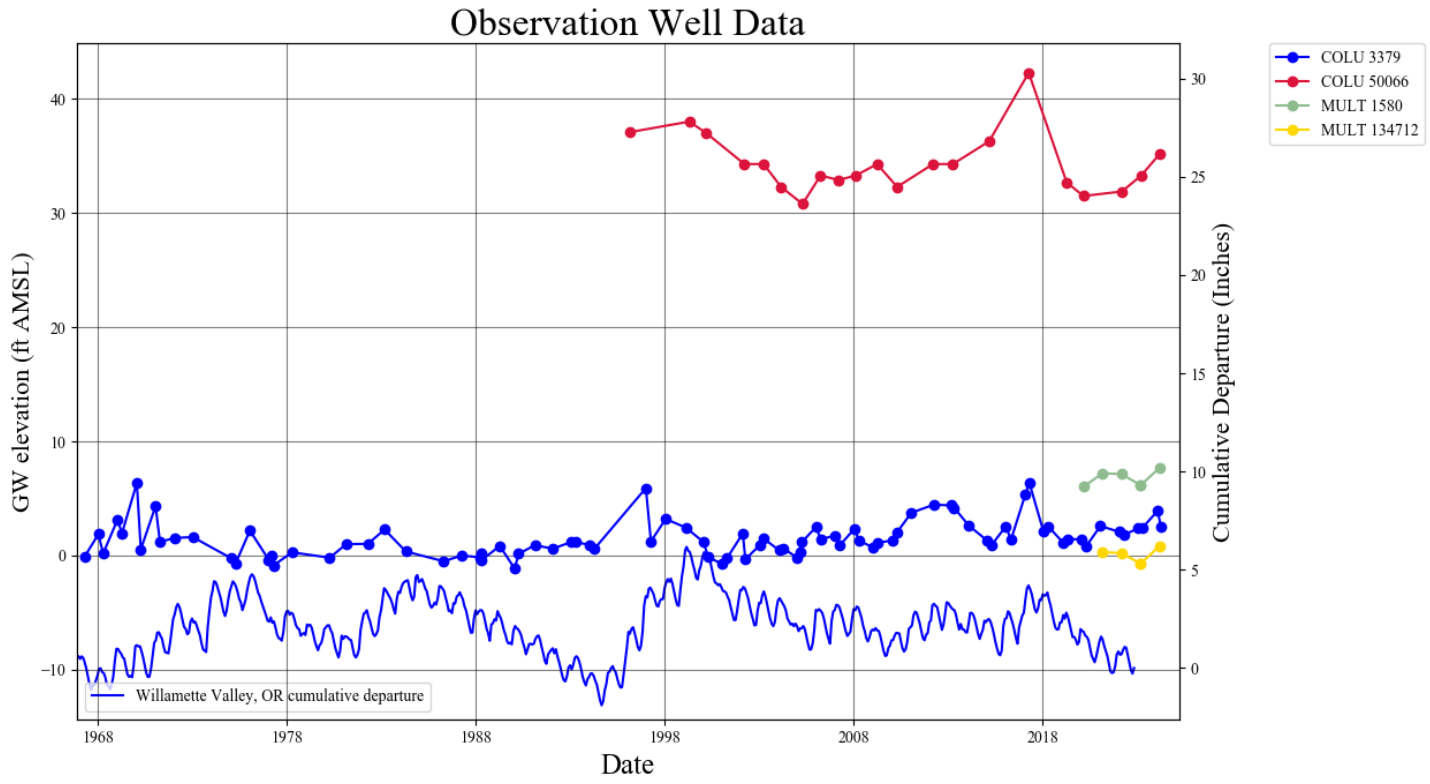


Created 12/17/2024

Well Location Map



Water-Level Measurements in Nearby Wells



Theis Interference Analysis

Theis Time-Drawdown Worksheet v.5.00

Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance, r, from a pumping well for 3 different T values and radial distance, r, from a pumping well for 3 different T values and 2 different S values.
Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

Input Data:	Var Name	Scenario 1	Scenario 2	Scenario 3	Units	
Total pumping time	t		365		d	
Radial distance from pumped well:	r		3700		ft	Q conversions
Pumping rate	Q		0.24		cfs	107.71 gpm
Hydraulic conductivity	K	100	500	1000	ft/day	0.24 cfs
Aquifer thickness	b		100		ft	14.40 cfm
Storativity	S_1		0.01			20,736.00 cfd
	S_2		0.1			0.48 af/d
Transmissivity Conversions	T_f2pd	10000	50000	100000	ft2/day	
	T_ft2pm	6.9444444	34.722222	69.444444	ft2/min	Recalculate
	T_gpdpft	74800	374000	748000	gpd/ft	

Use the Recalculate button if recalculation is set to manual