

# Groundwater Application Review Summary Form

Application # G- 19389

GW Reviewer Stacey Garrison Date Review Completed: 5/7/2024

## 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

May 7 2024

TO: Application G- 19389

FROM: GW: Stacey Garrison  
(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 Date 5/7/2024  
 FROM: Groundwater Section Stacey Garrison  
 Reviewer's Name  
 SUBJECT: Application G- 19389 Supersedes review of \_\_\_\_\_  
 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: Sokol Blosser Winery County: Yamhill

A1. Applicant(s) seek(s) 0.67 cfs from 4 well(s) in the Willamette Basin,  
Coast Range subbasin

A2. Proposed use Agricultural, Irrigation Seasonality: Year-round, March 1 through October 31

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	YAMH 5157	1	CRB	0.67	4S/3W-3 NW-SW	2370' N, 880' E fr SW cor S 3 <sup>a</sup>
2	PROP 456	2	CRB	0.67	4S/3W-4 SE-NE	3390' N, 835' W fr SE cor S 4 <sup>a</sup>
3	YAMH 5168	3	CRB	0.67	4S/3W-3 SW-SW	790' N, 290' E fr SW S 3 <sup>a</sup>
4	PROP 457	4	CRB	0.67	4S/3W-4 NE-SE	2345' N, 995' W fr SE cor S 4 <sup>a</sup>

\* 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	204	0-19	+1-19	2-204	186-202	50	NA	Air
2	350	0-50 <sup>b</sup>	0-50 <sup>b</sup>	TBD	TBD			
3	182	0-63	0-63			15	62	Comp
4	350	0-50 <sup>b</sup>	0-50 <sup>b</sup>	TBD	TBD			

Use data from application for proposed wells.

A4. **Comments:** The proposed POAs/POU are 2.4 miles northeast of Dayton, Oregon

<sup>a</sup> There appears to be a discrepancy in the Public Lands Survey System (PLSS) projection used in the application map and that used by Department. The "metes-and-bounds" location description provided in the application for: POA 2 is 100 ft southeast of the mapped location, but the mapped location is on the road, so the applicant's metes-and-bounds location is used for this review; POA 3 is 707 ft northwest of the mapped location and off of the applicant's tax lot, the mapped location is used but has been adjusted based on aerial imagery; POA 4 is 70 ft southeast of the mapped location, the mapped location is used.

<sup>b</sup> The applicant proposes a seal depth of at least 20 ft, however, in accordance with Special Conditions for Basalt Wells in the Willamette Valley, seal must be at least 50 ft (see Section B3, below). Furthermore, additional requirements in OARs 690-200 and 690-210 apply, i.e., 690-210-0155(1): "sealed at least five feet into the confining interval immediately overlying the artesian water-bearing zone". Special Conditions for Basalt Wells in the Willamette Valley also specify that the "open interval in each well shall be no greater than 100 feet" and "open to a single aquifer of the Columbia River Basalt Group". See Well Construction Section for full description of additional Well Construction concerns.

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 POAs develop/are anticipated to develop a confined aquifer; therefore, per OAR 690-502-0240, the relevant Willamette Basin Rules (OAR 690-502-0100) do not apply.

- A6. ☐ **Well(s) #** \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, tap(s) an aquifer limited by an administrative restriction.  
 Name of administrative area: \_\_\_\_\_  
 Comments: \_\_\_\_\_

## **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 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. **Special Conditions:** The conditions detailed in B1(d)(i) and B2(c), above, are recommended for any permit issued pursuant to this application in order to protect the groundwater resource and senior users. In addition, the following Special Conditions should be applied:

1. Any well constructed or deepened under this or subsequent permits 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 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 Ground Water/Hydrology 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.

2. For any well constructed under this or subsequent permits, 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.
3. For any wells constructed or deepened under this or subsequent permits, the applicant shall coordinate with the driller to ensure that drill cuttings are collected at 10 ft intervals and at changes in formation in each well. A split of each sampled interval shall be provided to the Department.
4. 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.

**Groundwater availability remarks:** The POAs/POU are on the Dundee Bench, an eastward tilting landslide deposit of Columbia River Basalt Group (CRBG) overlying marine bedrock (Price, 1967; Wells et al., 2018). Four POAs are proposed, POA 1 (YAMH 5157) and 3 (YAMH 5168) are already constructed while POAs 2 (PROP 456) and 4 (PROP 457) are not yet constructed. POAs 1 and 3 develop and the proposed POAs 2 and 4 are anticipated to likewise develop water-bearing zones of the CRBG, with the Winter Water member of the Grand Ronde Basalt at the surface (Beeson and Tolan, 1980; Wells et al., 2018; Martin et al., 2013). Aquifers in the CRBG are typically thin interflow zones between lava flows and confined by thicker flow interiors that have low porosity and low permeability (Conlon et al 2005, Gannett & Caldwell 1998, Reidel et al 2002). The thickness of the Dundee Bench CRBG ranges from feather-thin on the westernmost exposure, where the contact with the underlying marine bedrock is exposed, to 500 ft on the eastern extent of the exposure (Conlon et al., 2005). . There are multiple faults within one mile of the POAs, likely resulting in compartmentalization of aquifers (Wells et al., 1983; Beeson and Tolan, 1980; Wells et al., 2020). The degree of compartmentalization due to nearby faults, which is unknown at this time, may exacerbate well-to-well interference and longer-term water level declines in the local basalt aquifer. A review of statistics for nearby well records was completed and compared with the proposed rate of 0.668405 (300 gpm). for this application (see Well Statistics). The median reported well yield is 21 gpm and the maximum reported well yield is 200 gpm. The proposed rate for this application is 1429% of the median and 150% of the maximum reported yield. A further inspection of CRBG wells within one mile of the POAs reveals a 315 gpm reported yield (YAMH 5175), but this was an air test and the well is open to three distinct water-bearing zones that may represent different aquifers with an open interval of 376 ft; this well was constructed in 1973 and would not meet current well construction standards for a CRBG well in the Willamette Basin. Review of construction of a 260 gpm-yield well (YAMH 50763) demonstrates similar disparities with current well construction standards intended to prevent commingling and de-watering of aquifers. All remaining wells within a mile of the POAs have reported yields of less than 150 gpm. POA 1 (YAMH 5157) and 3 (YAMH 5168) report yields of 50 gpm and 15 gpm, respectively. **The proposed rate of use of 0.668405 cfs (300 gpm) is not likely within the capacity of the groundwater resource.**

Water levels in nearby observation wells are steady (see Water Level Measurements in Nearby Wells). Within one mile, there were 22 CRBG observation wells in the Department's database. However, due to the compartmentalization anticipated from faulting, only three of the wells were identified as likely to demonstrate water level records applicable to the proposed POAs: YAMH 51607, YAMH 2807, YAMH 51038. Water levels in these three wells are steady. There are 25 POAs for 27 groundwater rights within 1 mile of the proposed POA, but the relatively stable water levels in the vicinity of the proposed POAs indicate the resource is not over appropriated.

The nearest groundwater user to POA 1 is the exempt domestic well serving tax lot 400 at 5060 NE Breyman Orchard Rd, at an elevation of 436 ft amsl and 690 ft northwest of POA 1. The nearest groundwater user to POA 2 is YAMH 7947, an exempt domestic well at an elevation of 504 ft amsl and 495 ft east of POA 2. The nearest groundwater user to POA 3 is the exempt domestic well serving tax lot 900 at 18400 Highway 99W, at an elevation of 182 ft amsl and 750 ft southeast of POA 3. The nearest groundwater user to POA 4 is YAMH 50136, an exempt domestic well at an elevation of 390 ft amsl and 185 ft east of POA 4.

It is likely the proposed use would cause some degree of well-to-well interference with the respective nearest groundwater users. To assess the degree of drawdown, a Theis drawdown analysis was conducted for the proposed use (see attached Theis Drawdown Analysis). Because only the distance is expected to vary between the POA and the nearest groundwater user, only the POA-groundwater user pair with the shortest distance (in this case, POA 4 and YAMH 50136) and the greatest distance (POA 3 and tax lot 900) were analyzed quantitatively for well-to-well interference. All other POA-groundwater user pairs would presumably result in interference intermediate between that anticipated for POA 3-tax lot 900 and POA 4-YAMH 50136. **Results indicate that the proposed use is likely to cause well-to-well interference that exceeds the threshold under the standard condition for CRBG aquifers in the Willamette Basin, and therefore is not in the capacity of the resource.**

Based on this analysis of the available data and under the assumptions previously identified, groundwater for the proposed use is likely within the capacity of the resource; if a permit is issued for this application, the conditions in B1(d)(i) and B2(c) are recommended to protect senior users and the groundwater resource.

NOTE: This evaluation considers a conservative scenario for the nearest authorized POA not owned by the applicant. Other authorized POAs in the area may also experience an increase in interference as a result of this application, although to a lesser extent than the scenario evaluated here.

**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	CRBG	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	CRBG	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	CRBG	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	CRBG	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Basis for aquifer confinement evaluation:** The static water level (SWL) is reported above the respective water-bearing zones (WBZ) in POAs 1 (YAMH 5157) and 3 (YAMH 5165) and in 36 other wells within 1 mile of the POAs\*; the CRBG aquifer is confined. A few wells (YAMH 4647, YAMH 825, YAMH 826/2801, YAMH 5278, YAMH 5168) report SWL below the top of the WBZ.

\*Groundwater elevation calculated from static water level and WBZs reported in well logs and/or latest static water level reported for YAMH 5280, YAMH 5171, YAMH 5161, YAMH 50117, YAMH 4640, YAMH 1701, YAMH 2802, YAMH 456, YAMH 4652, YAMH 50307, YAMH 50281, YAMH 50763, YAMH 51038, YAMH 51569, YAMH 51607, YAMH 52493, YAMH 52744, YAMH 53274, YAMH 0454, YAMH 54279, YAMH 52273, YAMH 54642, YAMH 465, YAMH 5175, YAMH 51318, YAMH 2807, YAMH 50585, YAMH 53886, YAMH 54600, YAMH 58748, YAMH 59117, YAMH 5157, YAMH 50136, YAMH 7947.

**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 <sup>b</sup>	Distance (ft)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Unnamed trib to Willamette R	247	134-290	1,757	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	1	Unnamed trib to Willamette R	525 <sup>a</sup>	148-290	2,320	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	1	Unnamed trib to Willamette R	114	135-290	3,352	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	1	Unnamed trib to Willamette R	239 <sup>a</sup>	148-290	2,975	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Unnamed trib to Yamhill R	247	81-200	1,730	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	2	Unnamed trib to Yamhill R	525 <sup>a</sup>	140-200	3,593	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	2	Unnamed trib to Yamhill R	114	81-200	1,128	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	2	Unnamed trib to Yamhill R	239 <sup>a</sup>	115-200	3,230	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	3	Miller Creek	247	114-623	2,895	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	3	Miller Creek	525 <sup>a</sup>	160-708	1,294	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	3	Miller Creek	114	76-497	2,495	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	3	Miller Creek	239 <sup>a</sup>	104-708	868	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	4	Yamhill River	247	63-65	4,522	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	4	Yamhill River	525 <sup>a</sup>	64-77	2,581	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	4	Yamhill River	239 <sup>a</sup>	63-64	5,177	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Basis for aquifer hydraulic connection evaluation:** Elevation of WBZ for POA 1 is 177 to 197 ft amsl, and for POA 3 is 32 to 155 ft amsl. The proposed wells, POA 2 and 4, will likely have WBZ elevations ranging from 345 to 484 ft amsl<sup>a</sup> and 58 to 85 ft amsl<sup>a</sup>, respectively. Within a mile of the POAs, the local streambed of SW 1 (Unnamed tributary to the Willamette River) is from 134 to 290 ft amsl, of SW 2 (Unnamed tributary to the Yamhill River) is from 81 to 200 ft amsl, of SW 3 (Miller Creek) is 76 to 708 ft amsl, and of SW 4 (Yamhill River) is 63 to 77 ft amsl. SW 1, SW 2, and SW 3 are flowing on exposed CRBG, while SW 4 (Yamhill River) is flowing on Quaternary sedimentary deposits and has not likely incised into the underlying CRBG; groundwater from the uplands likely discharges to surface water as evidenced by springs in the area, providing baseflow to sustain SW 4 (Yamhill River). POA 1 (YAMH 5157) is not adequately cased and sealed to prevent hydraulic connection given the reported static water level of 130 ft bsl (247 ft amsl); this head elevation is coincident with elevations for SW 1 (Unnamed tributary to the Willamette River), SW 2 (Unnamed tributary to the Yamhill River), SW 3 (Miller Creek), and above the elevation of SW 4 (Yamhill River) indicating hydraulic connection. POA 3 has a WBZ coincident with surface water elevations with all 4 SWs and is likewise hydraulically connected to all four surface water sources identified within one mile.

POA 2 is anticipated to have WBZs coincident with surface water elevations with SW 1 (Unnamed tributary to the Willamette River), SW 2 (Unnamed tributary to the Yamhill River), and SW 3 (Miller Creek); the WBZ is above the elevation of SW 4 (Yamhill River) but POA 2 is not within one mile of this surface water source. POA 4 can potentially be constructed to avoid hydraulic connection with SW 1 (Unnamed tributary to the Willamette River), SW 2 (Unnamed tributary to Yamhill River) and SW 3 (Miller Creek) if a sufficiently deep WBZ is developed and the casing/seal placed deep enough; hydraulic connection with the Yamhill River cannot likely be avoided, but is not anticipated to be efficient due to the thick layer of clay/silt in the streambed.

<sup>a</sup> Groundwater elevation and elevation of WBZs estimated for POA 2 from YAMH 51038, and for POA 4 from YAMH 50136.

<sup>b</sup> Surface water elevations were estimated from land surface elevations along stream reaches (Watershed Sciences, 2009; USGS, 2013).

**Water Availability Basin the well(s) are located within:**

SW 1: WILLAMETTE R>COLUMBIA R-AB MOLALLA R

SW 2, SW 3, SW 4: YAMHILL R>WILLAMETTE R-AT MOUTH

- 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	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	3,830	<input type="checkbox"/>	*	<input type="checkbox"/>
2	1	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	3,830	<input type="checkbox"/>	*	<input type="checkbox"/>
3	1	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	3,830	<input type="checkbox"/>	*	<input type="checkbox"/>
1	2	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
2	2	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
3	2	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
1	3	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
2	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
3	3	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
1	4	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
3	4	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
4	4	<input type="checkbox"/>	<input type="checkbox"/>	IS73547A	31.7	<input checked="" type="checkbox"/>	56.5	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>

**Comments:** The proposed maximum rate 0.668405 cfs (300 gpm) is greater than 1 percent (0.565 cfs) of the 80 percent Natural Flow (56.5 cfs) for SW 2 (Unnamed tributary to the Yamhill River), SW 3 (Miller Creek), and SW 4 (Yamhill River). Therefore, there is PSI with all four SW sources OAR 690-009-0040(4)(c).

The proposed maximum rate of 0.668405 cfs (300 gpm) is greater than 1 percent (0.317 cfs) of the Instream Water Right (31.7 cfs) for SW 4 (Yamhill River). Therefore, there is PSI with SW 4 (Yamhill River) per OAR 690-009-0040(4)(c). POA 2 is within 0.25 miles of SW 3 (Miller Creek), a stream it is in hydraulic connection with, and therefore there is PSI with SW 3 (Miller Creek) per OAR 690-008-0040 (4)(a).

\*There is no appropriate model to estimate streamflow depletion from pumping in CRBG interflow zones that are incised by streams. Therefore, the percentage of interference at 30 days was not calculated.



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 <sub>w</sub> > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Q <sub>w</sub> > 1% ISWR?	80% Natural Flow (cfs)	Q <sub>w</sub> > 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"/>

Comments: N/A-Q not distributed

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-streams within 1 mile evaluated above

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: \_\_\_\_\_

References Used: \_\_\_\_\_

Application File: G-19389

Pumping Test Files: YAMH 1820, YAMH 2802, YAMH 2859, YAMH 4550, YAMH 4640, YAMH 50117, YAMH 50763, YAMH 51799, YAMH 52744, YAMH 54279

Well Reports: YAMH 4647, YAMH 5280, YAMH 5171, YAMH 5161, YAMH 50117, YAMH 825, YAMH 826/2801, YAMH 4640, YAMH 1701, YAMH 2802, YAMH 456, YAMH 4652, YAMH 50307, YAMH 50281, YAMH 50763, YAMH 51038, YAMH 51569, YAMH 51607, YAMH 52493, YAMH 52744, YAMH 5278, YAMH 53274, YAMH 454, YAMH 54279, YAMH 52273, YAMH 54642, YAMH 465, YAMH 5175, YAMH 51318, YAMH 2807, YAMH 50585, YAMH 53886, YAMH 54600, YAMH 58748, YAMH 59117, YAMH 5168, YAMH 5157, YAMH 50136, YAMH 7947, YAMH 1820, YAMH 2859, YAMH 4550, YAMH 51799

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## **D. WELL CONSTRUCTION, OAR 690-200**

- D1. Well #: 1, 3 Logid: YAMH 5157, YAMH 5168
- D2. **THE WELL does not appear to meet current well construction standards based upon:**
- ☒ review of the well log;
  - ☐ field inspection by \_\_\_\_\_;
  - ☐ report of CWRE \_\_\_\_\_;
  - ☐ other: (specify) \_\_\_\_\_
- D3. **THE WELL construction deficiency or other comment is described as follows:** POA 1 (YAMH 5157) is not cased/sealed to at least 50 ft below land surface as specified in Special Condition (1). POA 3 (YAMH 5168) has an open interval from 63 to 182 ft bls, which is greater than the 100 ft maximum in Special Condition (2).
- D4. ☒ **Route to the Well Construction and Compliance Section for a review of existing well construction.**

Water Availability Tables



Oregon Water Resources Department  
Water Availability Analysis

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Water Availability Analysis  
Detailed Reports

WILLAMETTE R > COLUMBIA R - AB MOLALLA R  
WILLAMETTE BASIN

Watershed ID #: 182 [\(Map\)](#)

Water Availability as of 3/21/2024

Exceedance Level: 80%  
Time: 3:13 PM

Water Availability Calculation

Consumptive Uses and Storages

Instream Flow Requirements

Reservations

Water Rights

Watershed Characteristics

Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second  
Annual Volume at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	21,400.00	2,300.00	19,100.00	0.00	1,500.00	17,600.00
FEB	23,200.00	7,490.00	15,700.00	0.00	1,500.00	14,200.00
MAR	22,400.00	7,260.00	15,100.00	0.00	1,500.00	13,600.00
APR	19,900.00	6,910.00	13,000.00	0.00	1,500.00	11,500.00
MAY	16,600.00	4,250.00	12,300.00	0.00	1,500.00	10,800.00
JUN	8,740.00	1,980.00	6,760.00	0.00	1,500.00	5,260.00
JUL	4,980.00	1,810.00	3,170.00	0.00	1,500.00	1,670.00
AUG	3,830.00	1,650.00	2,180.00	0.00	1,500.00	681.00
SEP	3,890.00	1,390.00	2,500.00	0.00	1,500.00	997.00
OCT	4,850.00	754.00	4,100.00	0.00	1,500.00	2,600.00
NOV	10,200.00	888.00	9,310.00	0.00	1,500.00	7,810.00
DEC	19,300.00	974.00	18,300.00	0.00	1,500.00	16,800.00
ANN	15,200,000.00	2,250,000.00	13,000,000.00	0.00	1,090,000.00	11,900,000.00

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Water Availability Analysis  
Detailed Reports

WILLAMETTE R > COLUMBIA R - AB MOLALLA R  
WILLAMETTE BASIN

Watershed ID #: 182 [\(Map\)](#)

Water Availability as of 3/21/2024

Exceedance Level: 80%  
Time: 3:09 PM

Water Availability Calculation

Consumptive Uses and Storages

Instream Flow Requirements

Reservations

Water Rights

Watershed Characteristics

Detailed Report of Instream Flow Requirements

Instream Flow Requirements in Cubic Feet per Second

Application #	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MF182A	APPLICATION	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
Maximum		1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00

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Water Availability Analysis  
Detailed Reports

YAMHILL R > WILLAMETTE R - AT MOUTH  
WILLAMETTE BASIN

Watershed ID #: 30200801 [\(Map\)](#)

Water Availability as of 3/20/2024

Exceedance Level: 80%  
Time: 10:15 AM

Water Availability Calculation

Consumptive Uses and Storages

Instream Flow Requirements

Reservations

Water Rights

Watershed Characteristics

Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second  
Annual Volume at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	1,840.00	70.30	1,770.00	0.00	31.70	1,740.00
FEB	2,070.00	68.00	2,000.00	0.00	31.70	1,970.00
MAR	1,760.00	44.20	1,720.00	0.00	31.70	1,680.00
APR	1,060.00	51.20	1,010.00	0.00	31.70	977.00
MAY	523.00	67.00	456.00	0.00	31.70	424.00
JUN	232.00	87.60	144.00	0.00	31.70	113.00
JUL	108.00	111.00	-2.98	0.00	31.70	-34.70
AUG	66.90	98.30	-31.40	0.00	31.70	-63.10
SEP	56.50	62.80	-6.26	0.00	31.70	-38.00
OCT	72.50	16.50	56.00	0.00	31.70	24.30
NOV	462.00	38.20	424.00	0.00	31.70	392.00
DEC	1,670.00	66.80	1,600.00	0.00	31.70	1,570.00
ANN	1,180,000.00	47,200.00	1,130,000.00	0.00	23,000.00	1,110,000.00

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Water Availability Analysis  
Detailed Reports

YAMHILL R > WILLAMETTE R - AT MOUTH  
WILLAMETTE BASIN

Watershed ID #: 30200801 ([Map](#))  
Date: 3/20/2024

Water Availability as of 3/20/2024

Exceedance Level: 80% [v](#)  
Time: 10:16 AM

Water Availability Calculation

Consumptive Uses and Storages

Instream Flow Requirements

Reservations

Water Rights

Watershed Characteristics

Detailed Report of Instream Flow Requirements

Instream Flow Requirements in Cubic Feet per Second

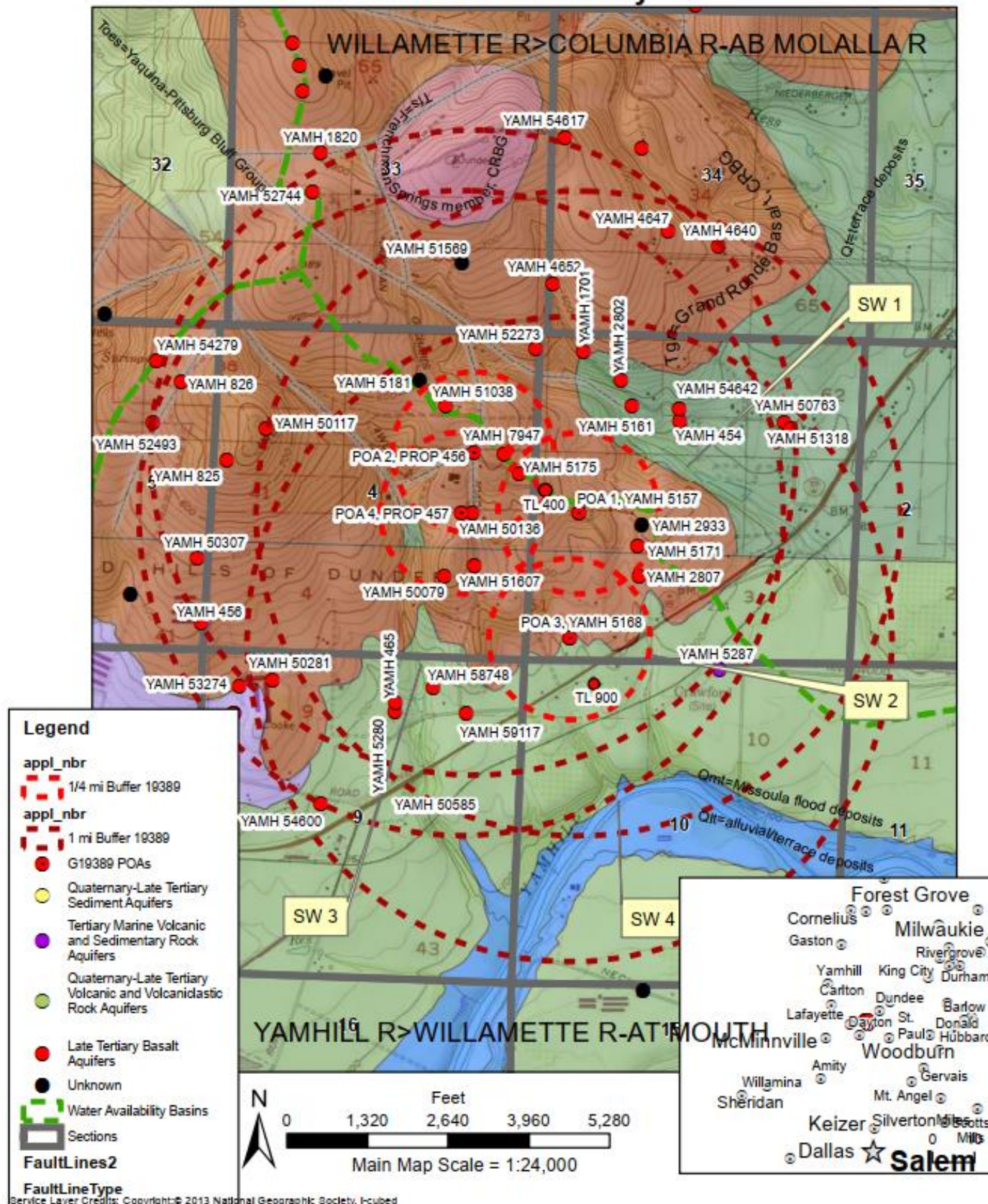
Application #	Status	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
IS73547A	CERTIFICATE	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70
IS73548A	CERTIFICATE	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50
Maximum		31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70	31.70

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## Well Location Map

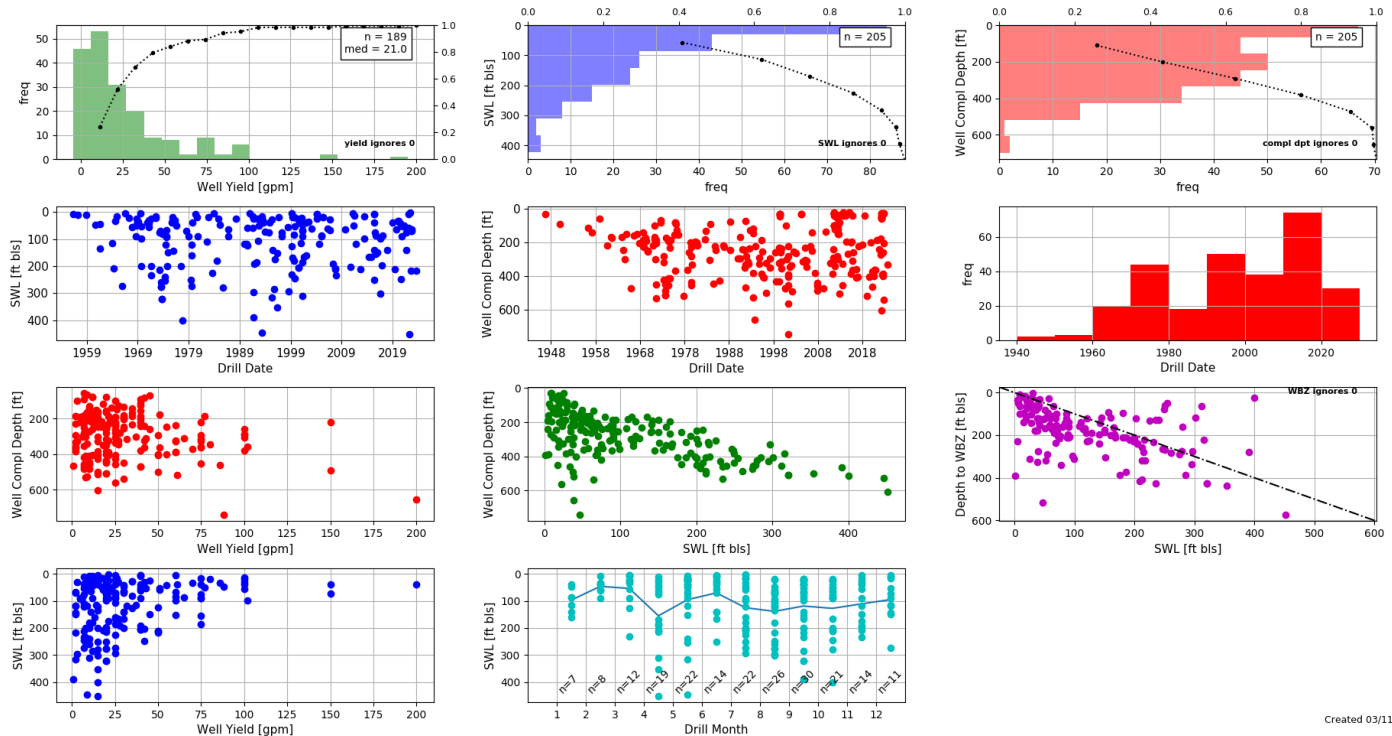
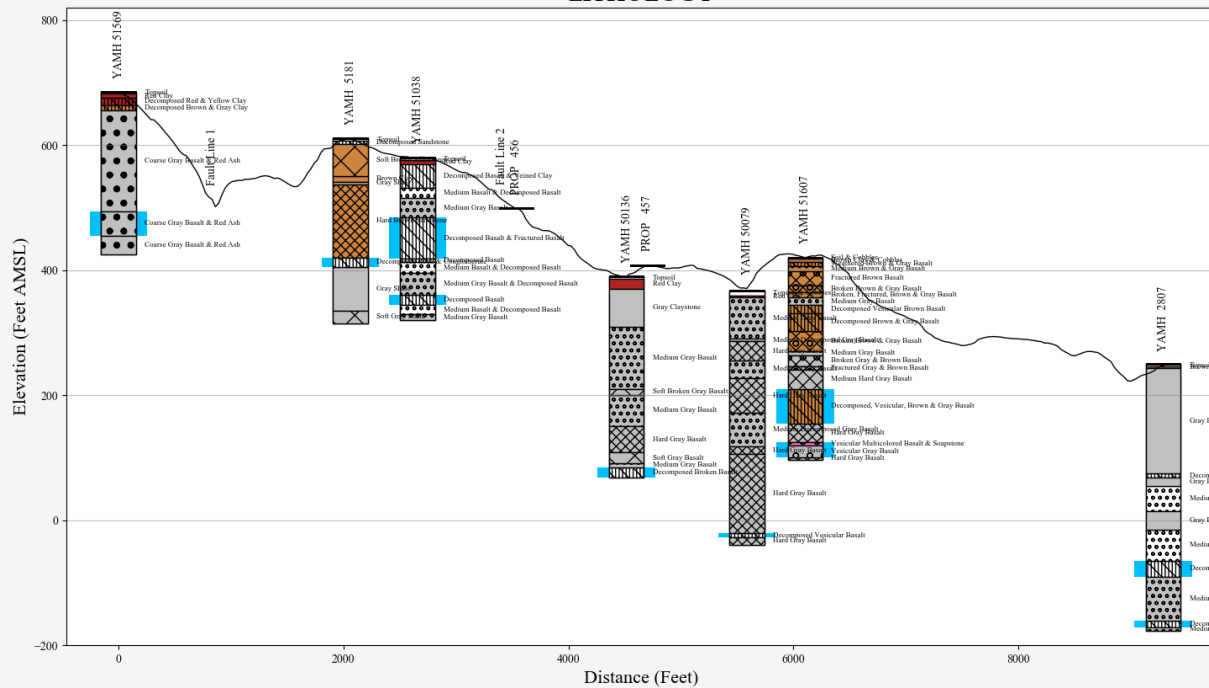
# G-19389

## Sokol Blosser Winery

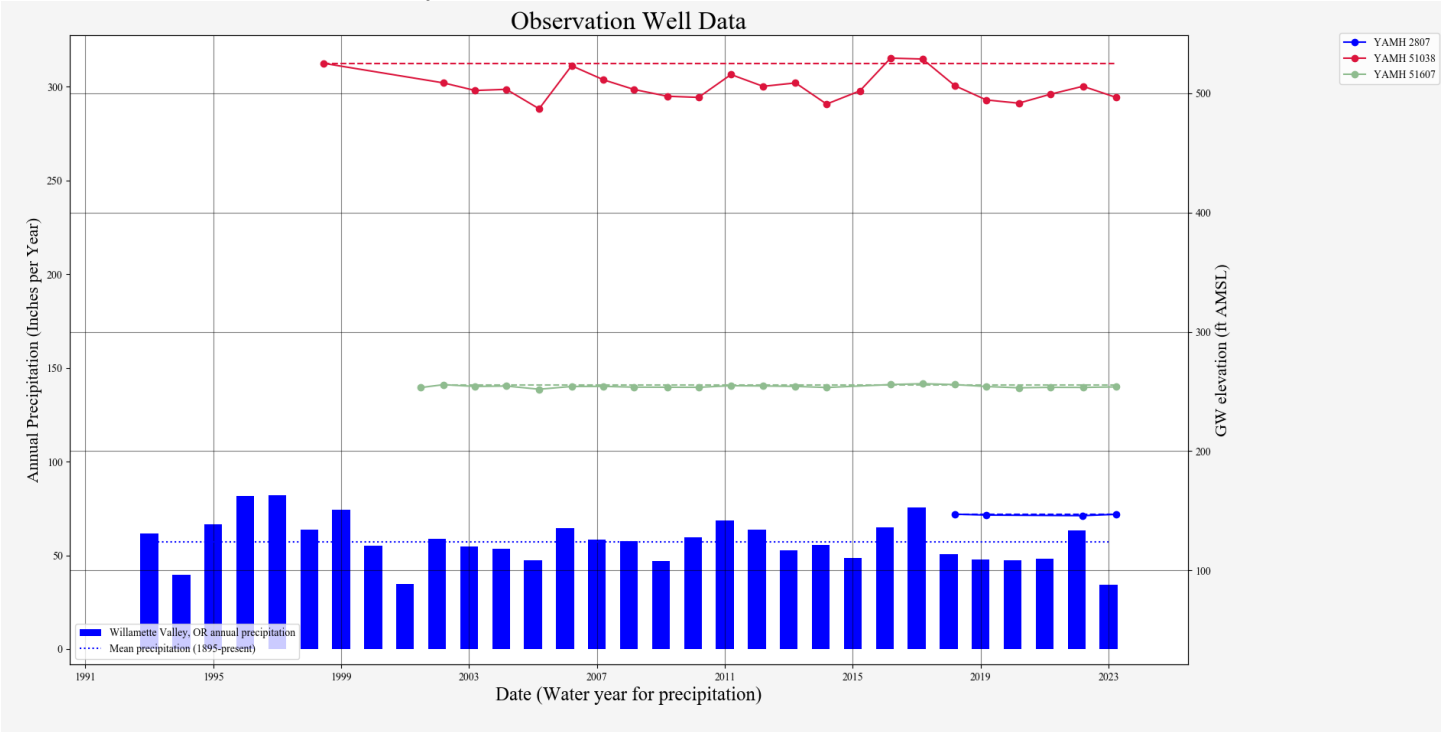




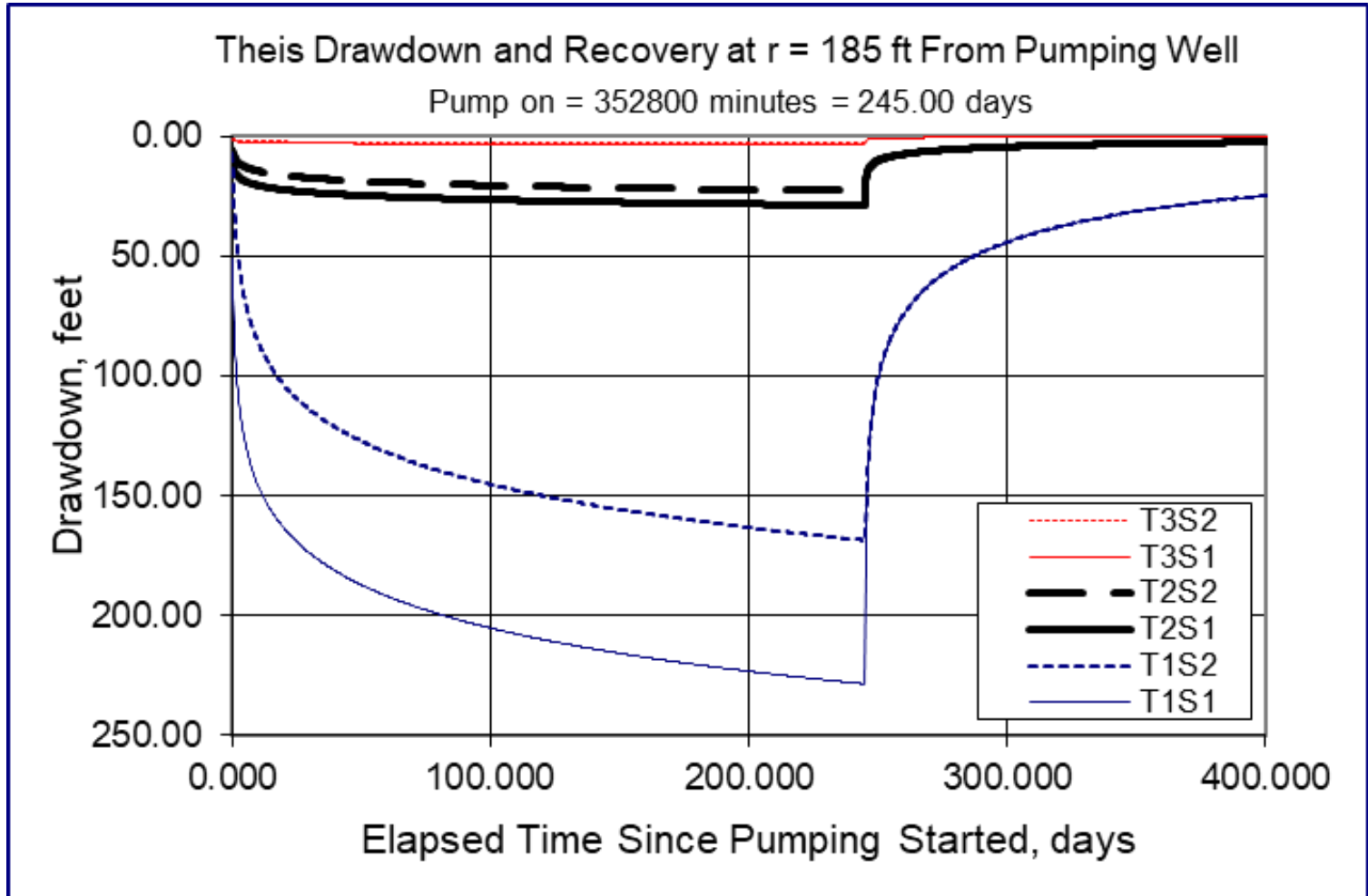
## LITHOLOGY



Water-Level Measurements in Nearby Wells (with Reference Levels)



**Theis Interference Analysis**  
**POA 4-YAMH 50136**



Radial distance from pumping well ( $r$ )=185 ft [estimated radial distance from POA 4 to nearest user, YAMH 50136]

**Pumping Rate ( $Q$ )= 0.151662 cfs (~68 gpm)\***

Aquifer Transmissivity ( $T_1$ )= 299 gpd/ft (40 ft<sup>2</sup>/day), ( $T_2$ )=2,992 gpd/ft (400 ft<sup>2</sup>/day), ( $T_3$ )= 29,920 gpd/ft (4,000 ft<sup>2</sup>/day) [McFarland and Morgan 1996, Conlon et al., 2005, OWRD Pump Test and Well Log Database]

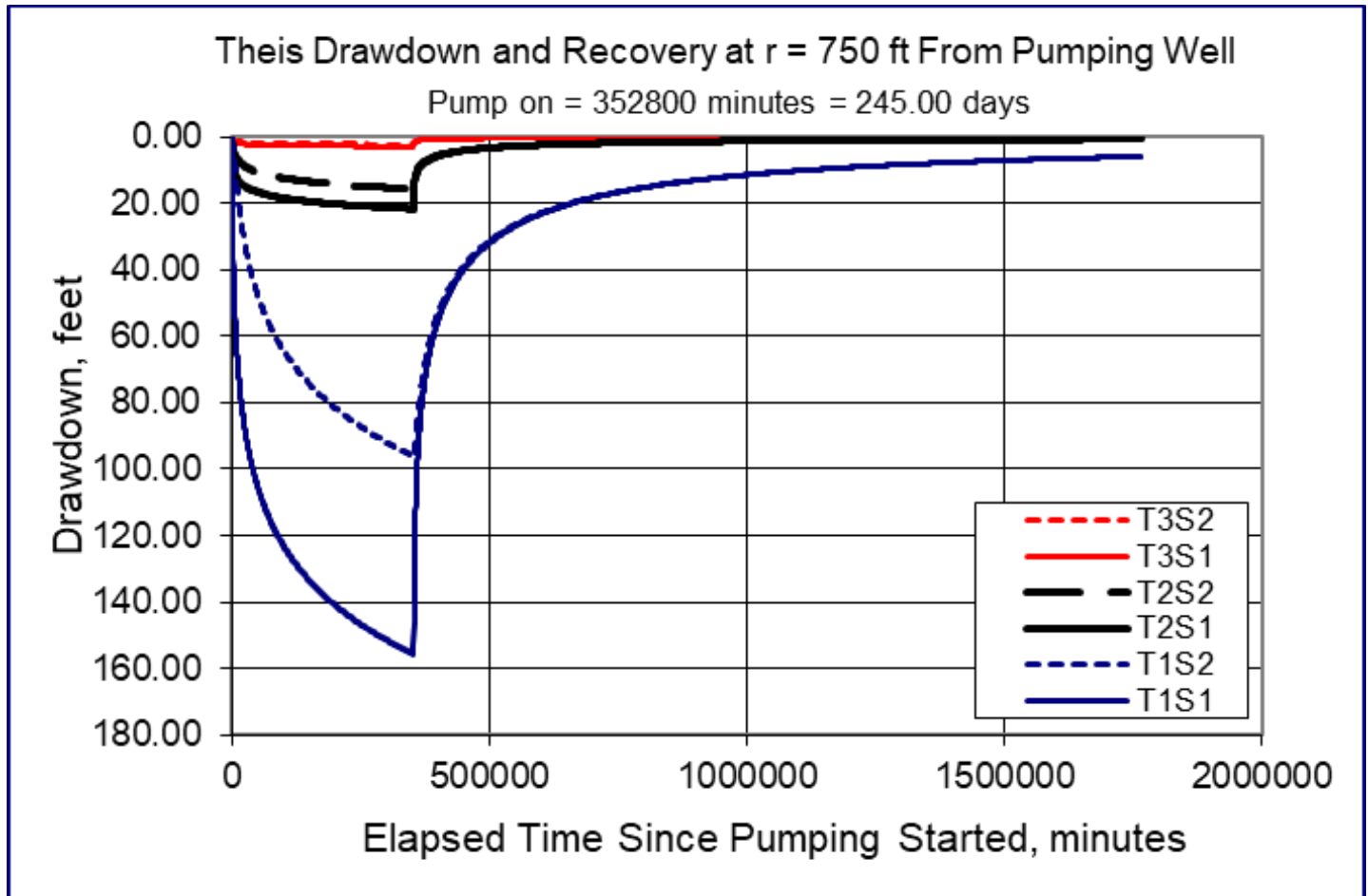
Storativity ( $s_1$ ) = 0.0001, ( $s_2$ ) = 0.001 [McFarland and Morgan 1996, Conlon et al., 2005 values for Columbia River Basalt Group]

Total pumping time=245 days

\* The full pumping rate could not be utilized continuously for the entire 245-day period of use without exceeding the 73.7 ac-ft maximum allowed duty. For the maximum allowed duty of 73.7 ac-ft, continuous pumping would occur for 246 days at a rate of 0.151662 cfs (~68 gpm). However, scenarios where drawdown exceeds the total well depth (200 ft) are not feasible because there would be no water left in the well to pump.



## POA 3-Taxlot 900



Radial distance from pumping well ( $r$ )=750 ft [estimated radial distance from POA 3 to nearest user, Taxlot 900 at 18400 Highway 99W]

**Pumping Rate ( $Q$ )= 0.151662 cfs (~68 gpm)\***

Aquifer Transmissivity ( $T1$ )= 299 gpd/ft (40 ft<sup>2</sup>/day), ( $T2$ )=2,992 gpd/ft (400 ft<sup>2</sup>/day), ( $T3$ )= 29,920 gpd/ft (4,000 ft<sup>2</sup>/day) [McFarland and Morgan 1996, Conlon et al., 2005, OWRD Pump Test and Well Log Database]

Storativity ( $s1$ ) = 0.0001, ( $s2$ ) = 0.001 [McFarland and Morgan 1996, Conlon et al., 2005 values for Columbia River Basalt Group]

Total pumping time=245 days

\* The full pumping rate could not be utilized continuously for the entire 245-day period of use without exceeding the 73.7 ac-ft maximum allowed duty. For the maximum allowed duty of 73.7 ac-ft, continuous pumping would occur for 246 days at a rate of 0.151662 cfs (~68 gpm). However, scenarios where drawdown exceeds the total well depth (200 ft) are not feasible because there would be no water left in the well to pump.