

Groundwater Application Review Summary Form

Application # G- 18586

GW Reviewer M. Thorne Date Review Completed: May 20 2019

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.

dl 5/21/19

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).

MEMO

May 20, 2019

FROM: GW: M. Thoma
(Reviewer's Name)

SUBJECT: Scenic Waterway Interference Evaluation

☐ YES

NO

The source of appropriation is within or above a Scenic Waterway

☐ 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.**

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 _____ Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.

[illegible]

MEMO

ok.
HJQ

To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Joel Jeffery, Well Construction Program Coordinator
Subject: Review of Water Right Application G-18586
Date: May 28, 2019

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Mike Thoma reviewed the application. Please see Mike's Groundwater Review and the Well Reports.

Applicant's Well #1 (COOS 52085). Based on a review of the Well Report, Applicant's Well #1 seems to protect the groundwater resource.

The construction of Applicants Well #1 may not satisfy hydraulic connection issues.

Applicant's Well #SUMP. There is no construction report associated with Applicants Well #Sump, and therefore no way to determine whether Applicants Well #SUMP is actually a sump, per definition, or if it is a dug well.

My recommendation is that the Department **not issue** a permit for Applicant's Well #SUMP unless it is brought into compliance with current minimum well construction standards, or information is provided showing that it meets the definition of a sump per OAR 690-200-0050(103).

Bringing Applicant's Well #SUMP into compliance with minimum well construction standards may not satisfy hydraulic connection issues.

Applicant's Well #2 (COOS 53715). Based on a review of the Well Report, Applicant's Well #2 does not appear to comply with current minimum well construction standards (See OAR 690 Division 210). The oversize steel sleeve placed over the plastic casing does not meet the Department's minimum well construction standards. In order to meet minimum well construction standards, the steel sleeve must extend at least four feet into the ground within the annular space.

My recommendation is that the Department **not issue** a permit for Applicant's Well #2 (COOS 53715) unless it is brought into compliance with current minimum well construction standards, or information is provided showing that it is in compliance with current minimum well construction standards.

Bringing Applicant's Well #2 into compliance with minimum well construction standards may not satisfy hydraulic connection issues.

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

COOS 53715
10-24-2006

Page 1 of 2

WELL LABEL # L 80263

START CARD # 182710

(1) LAND OWNER

Owner Well I.D. 1148

First Name Paul

Last Name Sogn

Company

Address 628 St Andrews Loop

City Creswell

State OR

Zip 97426

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Conversion

☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD

☐ Rotary Air ☒ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud

☐ Reverse Rotary ☐ Other

(4) PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Community

☐ Industrial/ Commercial ☐ Livestock ☐ Dewatering

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION

Special Standard ☐ (Attach copy)

Depth of Completed Well 56.00 ft.

BORE HOLE

Dia	From	To	Material	From	To	Amt	sacks/ lbs
12.25	0	56	Bentonite	0	26	26	S
6	56	60					

How was seal placed:

Method ☐ A ☐ B ☐ C ☐ D ☐ E

☒ Other Pour from surface

Backfill placed from ft. to ft. Material

Filter pack from 26 ft. to 46 ft. Material Sand Size 10/20

Explosives used: ☐ Yes Type Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
☒	☒	8	☒	1.16	41	Sch40	☒	☒	☒	☐
☒	☒	8	☐	51	56	Sch40	☒	☒	☒	☐
☒	☒	10	☒	1.25	3	.250	☒	☒	☒	☐
☐	☐		☐				☐	☐	☐	☐
☐	☐		☐				☐	☐	☐	☐

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s)

Temp casing ☐ Yes Dia From To

(7) PERFORATIONS/SCREENS

Perforations Method

Screens Type Johnson V-Wire Material Stainless Steel

Perf/	Casing/ Screen	Dia	From	To	Scr/slot width	Slot length	# of slots	Tele/ pipe size
Screen		8	41	47	.031			8
Screen		8	47	51	.051			8

(8) WELL TESTS: Minimum testing time is 1 hour

☒ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
25	13	52	1
30	18	52	2

Temperature 53 °F Lab analysis ☒ Yes By Bandon Well & Pump Co.

Water quality concerns? ☐ Yes (describe below)

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County Coos Twp 29.00 S N/S Range 14.00 W E/W WM

Sec 5 NW 1/4 of the NW 1/4 Tax Lot 902

Tax Map Number Lot

Lat " or DMS or DD

Long " or DMS or DD

☒ Street address of well ☐ Nearest address

no # vacant, Rosa Road, Bandon (in back of 54651 Rosa Road)

(10) STATIC WATER LEVEL

Date SWL(psi) + SWL(ft)

Existing Well / Predeepening			
Completed Well	10-20-2006		26

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES

Depth water was first found 26

SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)
10-18-2006	26	51	30		26

(11) WELL LOG

Ground Elevation 300

Material	From	To
Sandy clay brown	0	2
Cemented sand brown	2	5
Sand fine tan	5	11
Sandy clay orange	11	12
Sand fine tan	12	14
Sandy clay orange	14	15
Sand fine tan	15	33
Sandy clay gray	33	35
Sand fine medium w/gravel fine gray	35	47
Gravel fine-medium w/ sand fine-medium gray	47	51
Clay gray	51	53
Claystone gray	53	60

Date Started 09-12-2006

Completed 10-20-2006

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1759 Date 10-24-2006

Electronically Filed

Signed CHRISTOPHER L KERSEY (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1493 Date 10-24-2006

Electronically Filed

Signed JAMES A MACK SR (E-filed)

Contact Info (optional) BANDON WELL & PUMP COMPANY (541) 347-7867

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version: 0.88

(5) BORE HOLE CONSTRUCTION

[illegible]

FILTER PACK

From	To	Material	Size
46	60	Sand	8/12

(6) CASING/LINER

Casing Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									
									

(7) PERFORATIONS/SCREENS

[illegible]

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(10) STATIC WATER LEVEL

Water Bearing Zones

[illegible]

(11) WELL LOG

[illegible]

Comments/Remarks

WELL DRILLED BY:
BANDON WELL & PUMP COMPANY
(541) 347-7867

ORIGINAL - WATER RESOURCES DEPARTMENT FIRST COPY - CONSTRUCTOR SECOND COPY - CUSTOMER

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 05/20/2019
 FROM: Groundwater Section Michael Thoma
 Reviewer's Name
 SUBJECT: Application G- 18586 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: Paul Sogn; Wintersogn Farms County: Coos

A1. Applicant(s) seek(s) 0.111 cfs from 3 well(s) in the South Coast Basin,
Johnson Creek subbasin

A2. Proposed use Cranberry (10 acres) Seasonality: March 1 – Nov 15;
 Proposed use Domestic / Irrigation Seasonality: Year Round

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

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	COOS 52085	1	Alluvium	0.111	29S/14W-5 NW-NW	180'S, 500'E fo NW cor S 5†
2	SUMP	Sump	Alluvium	0.111	29S/14W-5 NW-NW	260'S, 360'E of NW cor S 5†
3	COOS 53715	2	Alluvium	0.111	29S/14W-5 NW-NW	870'S, 1065 E of NW cor S 5†
4						

* Alluvium, CRB, Bedrock

†There were several maps submitted with the application but none adequately provided meets and bounds of the proposed POAs. Therefore locations entered in the above table are estimated from general locations from the maps, aerial imagery, and distances relative to other map elements (e.g., property lines)

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	140	18	18	06/20/2001	50	0-30	+2-38		38-48	20		A
2	140	*	26									
3	140	26	26	10/20/2006	60	0-26	+1.16-41		41-51	25		P

Use data from application for proposed wells.

A4. **Comments:** Well #2 is a sump and depth is not reported on the application. The well report for Well #1 has an error in the reported Township and reports the taxlot that does not match with the application map (well log lists tl 800 but map places well in tl 900). It cannot be determined whether the well log for Well #1 actually represent the well referred to on the application map given the error(s) on the log.

A5. ☒ **Provisions of the** South Coast (OAR 690-517) 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: _____

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) 7C (7-yr SWL); Medium Water-use Reporting;
 - 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 _____ 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:** There are limited water level data in the aquifer and vicinity of the applicant's proposed POA so Capacity of the Resource cannot be determined and water-level reporting conditions in B1(d) are recommended. There are several permitted groundwater rights within 1 mile of the applicant's proposed POA with the nearest groundwater POA being approx. 1000 ft away. However, given the hydrogeologic properties of the aquifer system in the area it is unlikely that the applicant's use would result in injury to these permitted water rights. However, standard interference conditions should be applied

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	Quaternary Marine Terrace Deposits	☐	☒
2	Quaternary Marine Terrace Deposits	☐	☒
3	Quaternary Marine Terrace Deposits	☐	☒
		☐	☐

Basis for aquifer confinement evaluation: groundwater elevations are similar to reported "First Water" on well logs for the area; unconsolidated, coarse nature of the sediments

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
1	1	Johnson Creek	114	60-90	3124	☒	☐	☐	☐	☒
2	1	Johnson Creek	114	60-90	2990	☒	☐	☐	☐	☒
3	1	Johnson Creek	114	60-90	3440	☒	☐	☐	☐	☒
						☐	☐	☐	☐	☐

Basis for aquifer hydraulic connection evaluation: Groundwater elevations are above surface water elevations implying that groundwater is flowing towards and discharging to surface water. Distances are measured to the upstream end of the Instream Right IS70228, upstream from this point Johnson Cr. is not considered a surface water source for the purposes of 690-009 and this review.

Water Availability Basin the well(s) are located within: Johnson Cr > Pacific Ocean – At Mouth (ID# 70228)*

*Although the PODs are near the edge of the WAB boundary, the HUC-12 places the PODs exclusively within the Johnson Cr. watershed.

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 source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and 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	☐	☐	IS70228A	1.00	☒	1.60	☒	<< 25%	☒
2	1	☐	☐	IS70228A	1.00	☒	1.60	☒	<< 25%	☒
3	1	☐	☐	IS70228A	1.00	☒	1.60	☒	<< 25%	☒
		☐	☐			☐		☐		☐

Comments: The applicant's proposed rate of 0.11 cfs is greater than 1% of the Instream Right and 80%-exceedance

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: _____

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		No surface water sources were evaluated beyond 1 mile											
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
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:
- ☐ The permit should contain condition #(s) _____;
 - ☐ The permit should contain special condition(s) as indicated in "Remarks" below;

C6. **SW / GW Remarks and Conditions:** The applicant's proposed POAs would be producing from an aquifer that has been found to be hydraulically connected to surface water – specifically Johnson Creek – at a distance of less than 1 mile. The proposed maximum rate of appropriation is greater than 1% of the pertinent adopted minimum perennial streamflow (80%-exceedance) and also greater than 1% of the adopted instream water right (IS 70228). Per OAR 690-009-0040(4) the POAs are assumed to have the Potential for Substantial Interference. If the rate were reduced to ≤ 0.01 cfs (6.460 gallons/day = below the instream flow and 80%-exceedance flow) the automatic finding of PSI would not be required.

References Used:

OWRD Well Log Database. https://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx. Accessed 05/20/2019

Wiley, T. J., et al., Geologic Map of the Southern Oregon Coast between Port Orford and Bandon, Curry and Coos Counties, Oregon. <https://www.oregongeology.org/pubs/ofr/p-O-14-01.htm>

D. WELL CONSTRUCTION, OAR 690-200

- D1. Well #: _____ Logid: _____
- 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.

Water Availability Tables

Water Availability Analysis

Detailed Reports

JOHNSON CR > PACIFIC OCEAN - AT MOUTH

SOUTH COAST BASIN

Water Availability as of 5/20/2019

Watershed ID #: 70228 (Map)

Exceedance Level: 80%

Date: 5/20/2019

Time: 9:01 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	9.57	1.74	7.83	0.00	17.00	-9.17
FEB	13.00	3.57	9.43	0.00	17.00	-7.57
MAR	11.10	3.69	7.41	0.00	17.00	-9.59
APR	9.62	2.76	6.86	0.00	10.00	-3.14
MAY	6.25	3.59	2.66	0.00	4.00	-1.34
JUN	3.86	2.52	1.34	0.00	4.00	-2.66
JUL	2.56	2.94	-0.38	0.00	1.00	-1.38
AUG	2.33	1.19	1.14	0.00	3.00	-1.86
SEP	1.60	0.96	0.64	0.00	2.00	-1.36
OCT	1.93	1.06	0.87	0.00	2.00	-1.13
NOV	4.73	0.43	4.30	0.00	8.00	-3.70
DEC	6.06	1.28	4.78	0.00	17.00	-12.20
ANN	7,660.00	1,550.00	6,110.00	0.00	6,130.00	345.00

Well Location Map

