

Groundwater Application Review Summary Form

Application # G- 18429

GW Reviewer M. Thomas Date Review Completed: 07-19-17

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).

OK
KJ

MEMO

To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Joel Jeffery, Well Construction Program Coordinator
Subject: Review of Water Right Application ~~G-18429~~ G-18419 GJ
Date: October 16, 2018

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 Log.

Applicant's Well #1 (JACK 19353): Based on a review of the well report, Applicant's Well #1 does not appear to comply with current minimum well construction standards (See OAR 690 Division 210). The diameter of the borehole to the bottom of the annular seal is not adequate and there was not enough grout used for the annular seal. In order to meet minimum well construction standards, the well must be properly resealed with an approved grout.

My recommendation is that the Department not issue a permit for Applicant's Well# 1 (JACK 19353) 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 Applicants Well# 1 into compliance with minimum well construction standards may not satisfy hydraulic connection issues.

NOTICE TO WATER WELL CONTRACTOR

The original and first copy of this report are to be filed with the

STATE ENGINEER, SALEM, OREGON 97301 within 30 days from the date of well completion.

WATER WELL REPORT JACK 19353 RECEIVED

STATE OF OREGON

(Please type or print)

(Do not write above this line)

State Well No. 305/1E-3

OCT 14 1976

State Permit No.

WATER RESOURCES DEPT.

(1) OWNER:

Name KENT E. STOVER Address 9130 Hwy 140 EAGLE POINT, ORE.

(2) TYPE OF WORK (check):

New Well [X] Deepening [] Reconditioning [] Abandon []

(3) TYPE OF WELL:

Rotary [X] Cable [] Driven [] Jettied [] Bored []

(4) PROPOSED USE (check):

Domestic [X] Industrial [] Municipal [] Irrigation [] Test Well [] Other []

(5) CASING INSTALLED:

6" Diam. from 0 ft. to 30 ft. Gage 250

(6) PERFORATIONS:

Type of perforator used Size of perforations in. by in. perforations from ft. to ft.

(7) SCREENS:

Well screen installed? [] Yes [X] No Manufacturer's Name Type Model No. Diam. Slot size Set from ft. to ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level Was a pump test made? [] Yes [X] No If yes, by whom? gal./min. with ft. drawdown after hrs. AIR RETURN 60 gal./min. with 48 ft. drawdown after 1 hrs.

(9) CONSTRUCTION:

Well seal - Material used Pressure Cement Grout Well sealed from land surface to 19 ft. Diameter of well bore to bottom of seal 9.5 in. Diameter of well bore below seal 6 in. Number of sacks of cement used in well seal 4 7.2-5.85 sacks Number of sacks of bentonite used in well seal Brand name of bentonite Number of pounds of bentonite per 100 gallons of water Was a drive shoe used? [] Yes [X] No Size: location ft. Did any strata contain unusable water? [] Yes [X] No Type of water? depth of strata Method of sealing strata off Was well gravel packed? [] Yes [X] No Size of gravel: Gravel placed from ft. to ft.

(10) LOCATION OF WELL:

County JACKSON Driller's well number 1/4 S.E. 1/4 Section 3 T. 36 S. R. 1 E. W.M. Bearing and distance from section or subdivision corner APPROX. 2400' W. AND 800' N. FROM S.E. CORNER

(11) WATER LEVEL: Completed well.

Depth at which water was first found 57 ft. Static level 28 ft. below land surface. Date 10-6-76 Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing 6" Depth drilled 76 ft. Depth of completed well 76 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

Table with 4 columns: MATERIAL, From, To, SWL. Rows include SOIL, BLACK; BROKEN ROCK, BROWN; BASALT, BROWN; CLAYSTONE, BLUE; CLAYSTONE, LIGHT RED; CLAYSTONE, BLUE HARD.

Work started 10-6 1976 Completed 10-6 1976 Date well drilling machine moved off of well 10-6 1976

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief. [Signed] Ronald Martinson Date 10-6, 1976

Drilling Machine Operator's License No. 622

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name MARTINSON WELL DRILLING (Person, firm or corporation) (Type or print)

Address 81 BALL RD. EAGLE POINT, ORE.

[Signed] J.W. Martinson (Water Well Contractor)

Contractor's License No. 406 Date 10-6, 1976

(USE ADDITIONAL SHEETS IF NECESSARY)

For Official Use Only by The Oregon Water Resources Department:

Received Date:

Well Log Number:

Well Identification Tag #:

RECEIVED

JACK 19353

L93511

MAR 15 2006

WATER RESOURCES DEPT. SALEM, OREGON

APPLICATION FOR A WELL IDENTIFICATION TAG

For wells not located on your property see attached instructions. This is well # 1 of 1 wells on this property.

Do not complete form if your well already has a tag attached to the casing.

LANDOWNER INFORMATION

PLEASE PRINT

Current landowner's name and mailing address: Margaret Fay, 10,000 Hwy 140, Eagle Point, OR 97524

Mail tag and paperwork to: (current landowner or realtor, or to buyer if property has closed in escrow)

Application submitted by: (name & phone, fax # or e-mail) Ron Galbreath @ John L. Scott, 541-734-5294, fax # 541-772-2910, email rsg@johnlscott.com

WELL LOCATION INFORMATION

Township #: 36 (North or South) Range #: 1 (East or West)

Section # 3 Tax Lot #: 1300 County Jackson

Street address & city of well: 10,000 Hwy 140, Eagle Point

Owner at time the well was drilled, if known: (see attached instructions) Kent Sauer

If the property had a different street address in the past, please indicate it, if known:

If known: 1/4 1/4 Lot# Block# 2 Subdivision

WELL INFORMATION

(You do not need to complete this section if the well report is attached - see instructions to obtain well report.)

Type of Well (i.e.; domestic, irrigation, commercial, industrial, monitoring, etc.):

Date Well Constructed: 10-6-76 Well Depth: 57' Casing Diameter: 6"

Other Information:

Applications can be mailed to: Oregon Water Resources Department - 725 Summer Street N.E., Suite A - Salem, OR 97301-1271 OR fax to 503-986-0902. Applications are processed and tags mailed every Tuesday. Thank you for participating in Oregon's Well Identification Program!

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date July 19, 2017
 FROM: Groundwater Section Michael Thoma
 Reviewer's Name
 SUBJECT: Application G- 18419 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: Russell Webb County: Jackson

A1. Applicant(s) seek(s) -0.03 cfs from 1 well(s) in the Rogue Basin,
Little Butte Cr subbasin

A2. Proposed use Irrigation (15 ac) Seasonality: April 1 – October 31 (214 d)

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	JACK 19353	Well #1	Bedrock	0.03	36S/01E-3 SWSE	1955' N, 1401' W of SE cor S3
2						
3						

* Alluvium, CRB, Bedrock

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	1580	57	28	10/6/1976	76	0-19	0-20			60	48	A

Use data from application for proposed wells.

A4. **Comments:** _____

A5. **Provisions of the Rogue (OAR 690-515)** 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); 7J (Scenic); 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 no OWRD Observation Well data in the area of the proposed POA so groundwater over-appropriation cannot be determined. There are also no permitted groundwater POAs within 1 mile of the proposed POA so injury to existing permitted groundwater users is unlikely. Taxlot density is low surrounding the proposed POA so significant interference with existing domestic wells is unlikely.

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	Volcanics of Roxy Fm.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer confinement evaluation: Water-bearing zones in the Roxy Fm. rocks are generally in brecciated or fractured, horizontally stratified zones which often produce confined aquifer conditions; well logs for the surrounding area and of similar depths as the applicant's proposed report SWL near or above First Water indicating at least partially-confined aquifer conditions

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	Little Butte Cr.	-1550	1460-1490	2900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Lick Cr.	-1550	1460-1500	2210	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

Basis for aquifer hydraulic connection evaluation: GW elevations are estimated to be above SW elevations suggesting that groundwater is flowing towards and discharging to surface water

Water Availability Basin the well(s) are located within: Little Butte Cr > Rogue R – At Mouth (ID# 263)

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	<input type="checkbox"/>	<input type="checkbox"/>	MF262	20.0	<input type="checkbox"/>	23.3	<input type="checkbox"/>	**	<input type="checkbox"/>
1	2	<input type="checkbox"/>	<input type="checkbox"/>	NA	NA	<input type="checkbox"/>	23.3	<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"/>

Comments: **Interference @ 30 d could not be estimated because the complex geology (fractured bedrock aquifer juxtaposed with alluvial deposits) do not meet model assumptions of the widely accepted techniques for determining stream depletion (e.g., Hunt 1999, 2003)

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?
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

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 beyond 1 mile were evaluated											
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:

- 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:** The applicant's proposed well would be producing from an aquifer that has been found to be hydraulically connected to surface water, specifically Little Butte and Lick Creeks, at distances of < 1 mile. However, there is not a preponderance of evidence to assume that the proposed use will have the Potential for Substantial Interference (PSI) with surface water

References Used:

Hunt, B. 1999. *Unsteady Stream Depletion from Ground Water Pumping*. Journal of Hydrologic Engineering, Vol 8(1), pp 12-19

Hunt, B. 2003. *Unsteady Stream Depletion when Pumping from a Semiconfined Aquifer*. Journal of Hydrologic Engineering, Vol 8(1), pp 12-19

Smith, J. G., N. J. Page, M. G. Johnson, B. C. Moring, F. Gray. 1982. *Preliminary Geologic Map of the Medford 1 by 2 Degree Quadrangle, Oregon and California*. USGS Open-file Report 82-955

OWRD Well Log Database – Accessed 7/19/2017.

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.**

E. ATTACHMENTS

Water-Level Trends in Nearby Wells

There are no nearby wells with water-level data.

Water Availability Tables

Water Availability Analysis Detailed Reports

**LITTLE BUTTE CR > ROGUE R - AT MOUTH
ROGUE BASIN**

Water Availability as of 7/19/2017

Watershed ID #: 263 (Map)
Exceedance Level: 80% ▾

Date: 7/19/2017
Time: 1:11 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	133.00	44.20	88.80	0.00	100.00	-11.20
FEB	206.00	55.30	151.00	0.00	100.00	50.70
MAR	236.00	58.90	177.00	0.00	100.00	77.10
APR	297.00	17.80	279.00	0.00	100.00	179.00
MAY	141.00	30.90	110.00	0.00	60.00	-50.10
JUN	82.50	48.90	33.60	0.00	20.00	13.60
JUL	73.90	69.80	4.05	0.00	20.00	-15.90
AUG	70.70	56.70	14.00	0.00	20.00	-6.03
SEP	45.90	35.40	10.50	0.00	120.00	-109.00
OCT	23.30	12.00	11.30	0.00	120.00	-109.00
NOV	34.40	22.10	12.30	0.00	100.00	-87.70
DEC	60.80	37.90	22.90	0.00	100.00	-77.10
ANN	153,000.00	29,600.00	123,000.00	0.00	57,800.00	82,800.00

Well Location Map

