## PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO:		Water	r Rights S	ection				Date	e6/3	/2015			
FROM	:	Grou	ndwater S	ection				Jen Woody					
SUBJE	CT:	Appli	cation G-	17949			ewer's Name persedes 1	review of	11/	14/20	14 Date of Re	view(s)	
OAR 69 welfare, to determ the press	safety armine when	30 (1) The state of the criteria.	The Departa th as describe presumpt This revio	ibed in ORS ion is establi ew is based  ON:  Ap	resume that 537.525. D shed. OAR upon avail oplicant's N	t a propose epartment 690-310- able infor	ed ground staff revie 140 allows mation an Norton L	water use will ever groundwate sthe proposed agency policy.	r applications application of the cies in place.	tions u odified lace at	nder OAl or condi the time County:	R 690-310 tioned to of evalu	0-140 meet nation.
A1.				22 cfs fron River				Applegate ]  Quad Map: Ri					
A2. A3.	Propose Well an	d use_ d aquife	Irri er data ( <b>att</b>	gation ach and nur	nber logs f	Seas	onality: _ g wells; n	May 1 - Oc nark proposed	t. 31 wells as	such ı	ınder log	gid):	
Well	Logic  JACK 54		Applicant' Well #	Propose	ed Aquifer*	Prop Rate	(cfs)	Location (T/R-S QQ- 39S/03W-04 SV	·Q)	2250	' N, 1200'	s and bour E fr NW c E fr SW cor	cor S 36
3													
4 5 * Alluviu	ım, CRB,	Bedrock											
Well	Well Elev ft msl 1960	First Water ft bls 60	SWL ft bls	SWL Date 09/15/1995	Well Depth (ft) 80	Seal Interval (ft) 0-19	Casing Intervals (ft) 0-19	Liner Intervals (ft) 0-80	Perfora Or Scro (ft) 40-8	eens	Well Yield (gpm) 40	Draw Down (ft) 80	Test Type air
Use data	from ann	ication	for proposed	wells									
A4.	Comme	ents: <u>*</u>	*No well le	og can be loc construction	standards a	ccompany	this appli	a in A3 is base cation see Se I other identific	ction D.	JACK	54401 ha	s been id	
A5. 🗌	manage (Not all	ment of basin r	groundwa ules contain AR 690-51:	ter hydraulic n such provis 5-0030 apply	ally connections.)  only to su	cted to sur	face water	rules relative to	are not	, activa	ted by th	is applica	ation.
A6. 🗌	Name of	f admin	istrative ar	ea:,		,	, 1	tap(s) an aquife	er limited	by an	administ	rative res	

Version: 08/15/2003

Date: 6/3/2015

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

1.	Bas	ed upon available data, I have determined that groundwater* for the proposed use:
	a.	is over appropriated, is not over appropriated, or is 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) 7E (reference level)  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;
2.		Condition to allow groundwater production from no deeper than 100 ft. below land surface;
۷.	a.	
	b.	Condition to allow groundwater production from no shallower than ft. below land surface;
	c.	Gondition to allow groundwater production only from the groundwater reservoir between approximately ft. and ft. below land surface;
		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):
3.	may the this yiel	bundwater availability remarks: The proposed land is on a hillslope underlain by dense, low-yielding bedrock sified into the Western Hayfork Terrain by Donato (1995). Groundwater in this material occurs within fracture zones that be solitary or of limited areal extent. Wells completed in this area and material, several of which can be found < 1 mi to north of the applicant's site, range in depth from 10s to 100s of feet and generally yield < 10 gpm. Limited production of and similar, fractured aquifers in the region lead to conditions where water availability is limited by the well yields; ds are not high enough to cause significant long-term drawdown and interference with other wells typically does not ur except where well density is high, which it is not near the applicant's well.
	***	
	-	
	-	

Application G-17949 Date: 6/3/2015 Page 3

#### 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	Bedrock*		$\boxtimes$

Basis for aquifer confinement evaluation: With no well log it is difficult to determine confined/unconfined conditions. Well logs from nearby wells indicated SWL depths significantly above depths of water bearing zones (representative of confined aquifers), but these wells are mostly > 200 ft deep. Shallower wells would likely encounter less confined conditions and some nearby well logs, specifically JACK 18295 and JACK 18285 (125 and 110 ft deep, respectively) indicate unconfined conditions. For the purpose of this application the well will be treated as 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	Unnamed stream in Rock Gulch	1945	1600-2600	1700		

Basis for aquifer hydraulic connection evaluation: The applicant's well likely produces from fractures within the bedrock aquifer which are of limited extent and where conditions are not favorable to rapid or extensive expansion of the cone of depression (hence low well yields). Additionally, head in the well (according to information provided in the application – see A3) does not match surface water elevations within a distance where the cone of depression will intersect the stream.

Water Availability Basin the well(s) are located within: Applegate R > Rogue R-AB Joe G (Watershed ID # 250)

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 < 1/4 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?

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: The well was determined not to be hydraulically connected to surface water	

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.

Well	stributed ' SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WEIL	SWII						%	%	Aug %	%	%	%	9
W II O	CEC	%	%	%	%	%	%	%	%	%	%	%	
Well Q				-								-	
Interfere	nce CFS												
Distribu	ited Wells	5											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	9
Well Q	as CFS												
Interfere	nce CFS												
		%	%	%	%	%	%	%	%	%	%	%	4
Well Q	as CFS												
	nce CFS												
		%	%	%	%	%	%	%	%	%	%	%	9
Well Q	as CFS												
	nce CFS												
		%	%	%	%	%	%	%	%	%	%	%	9
Well O	26 CFS												
	nce CFS												
		%	%	%	%	%	%	%	%	%	%	%	9
Well O	as CFS												
	nce CFS												
***	375.2	%	%	%	%	%	%	%	%	%	%	%	9
Well Q	as CFS												
	nce CFS												
(A) = Tot	tal Interf.		12 322			3 2 2 2 2 2 2 2 2					- SP23		
(B) = 80	% Nat. Q												
(C) = 1	% Nat. Q												
(D) = (A	A) > (C)	· V	V			Y	V	<b>V</b>	7	- /	V	- 4	-
$(\mathbf{E}) = (\mathbf{A}.I)$	B) x 100	%	%	95	970	%	%	%	%	%	%	%	9/

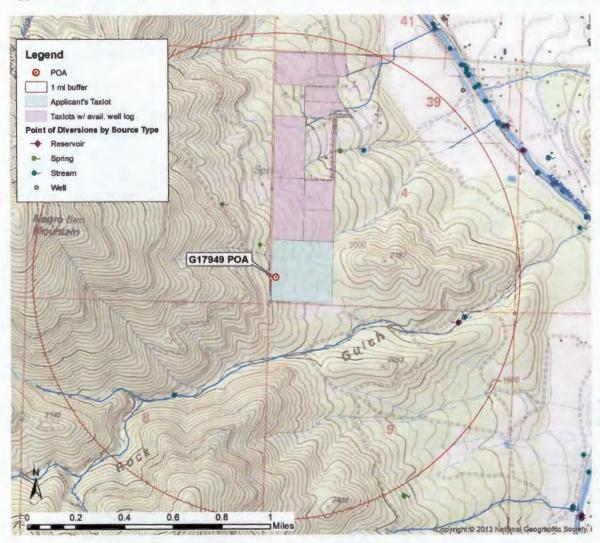
5 Date: 6/3/2015 Page Application G-17949 (A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage. Basis for impact evaluation: \_ 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 well is not determined to be hydraulically connected to surface water. References Used: Donato, M. M. 1995. Preliminary geologic map of part of the Ruch quadrangle, Jackson County, Oregon.

USGS Open-File Report OF-95-640.

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

	appear to meet current well construction standards based upon:
a. review of the w	by
	E
d.  other: (specify)	no well log can be found for this well
	ion deficiency or other comment is described as follows: No well log describing the applicants

#### **Application Review Map**



#### INTEROFFICE MEMORANDUM

TO:

Joel Jeffery, Well Construction and Compliance Section

FROM:

Kerri H. Cope, Water Rights Section

DATE:

6/1/15

RE:

G-17949, Greg Brown (formerly Norton Smith)

Please review well log and determination regarding well construction compliance, and route your review to me. Determination previously could not be made due to lack of well log, but apparently well log was misfiled due to error on well log.

Thanks, Kerri Cope

Return to me after Alreants Kerri

# STATE OF OREGON WATER WELL REPORT (as required by ORS 537.765) Instructions for completing this report are on the last page of this form.

instructions for completing this report are on the last page or this form.					
(1) OWNER: Well Number	(9) LOCATION OF V		ription:		
Name Norton Smith Well Number	County Jack	Latitude	Loi	ngitude	
Address GOX 1927	Township 38	N or S Range_	, 3	E o ( V	/. <b>)</b> wм.
City Jack on Ville State OR Zip 97530	Section 4	1/4	MW	1/4	
(2) TYPE OF WORK	Tax Lot 1900 Lo	otBlock		ubdivision_	
New Well Deepening Alteration (repair/recondition) Abandonment	Street Address of Well	(or nearest address)	CC CC	mtra	il_
(3) DRILL METHOD:	SACEXMUL	ic (Bent	ton B	utte)	
Rotary Air Rotary Mud Cable Auger	(10) STATIC WATER			~	
Other	18 ft. belo	w land surface.	I	Date 9-	15-95
(4) PROPOSED USE:	Artesian pressure	lb. per squar	e inch.	Date	
Domestic Community Industrial Irrigation	(11) WATER BEARIN				
Thermal Injection Livestock Other					
(5) BORE HOLE CONSTRUCTION:	Depth at which water was	first found			
Special Construction approval Yes No Depth of Completed Well ft.					
Explosives used Yes No Type Amount	From	To	Estimated	d Flow Rate	SWL
HOLE SEAL	60'	75'	40	)	18
Diameter From To Material From To Sacks or pounds					
10" 019 BENDONIX 2 19" 12505					
64 19 80					
	(12) WELL LOC.				
How was seal placed: Method A B C D E	(12) WELL LOG:	Elevation			
Other Rowers in DRY	Ground	Elevation			
Backfill placed from ft. to ft. Material	Material		From	To	SWL
Gravel placed from ft. to ft. Size of gravel	Chay	Brown	Troin	Ž	341
(6) CASING/LINER:	CLAUSTONE	BROWN	3	11	
Diameter From To Gauge Steel Plastic Welded Threaded	SANDSTONE	CEAM	11	2	
1 1 10 12 21 5 5	DIORITE	GRAM	77	20	18
Casing:	17/DICT TO	(2017)		00	10
				+	
				1	
Liner: 4" 0 80 160					
Lines.					
Final location of shoe(s)				<u> </u>	
(7) PERFORATIONS/SCREENS:				-	
[Uperforations Method Specifications]			+	<del> </del>	
Screens Type I'P.V.C. 160 Material, P.V.C.			-	++	
Ch. A	RECE			+	
From To Number Diameter size Casing Liner				+	
40 80 4 x12" 44	16000	0004	+	++	
		8 2001	+	++	
			<del>+</del>	-	
		URCES DEPT.		<del> </del>	
	SALEM,	OREGON	+	-	
(8) WELL TESTS: Minimum testing time is 1 hour	0.5		eted 9		
(6) WELL LESTS: Williamum testing time is I nour	Date started 9-15-			12-1	2
Flowing	(unbonded) Water Well (				
Pump Bailer Artesian	I certify that the work 1 of this well is in compliance				
Yield gal/min Drawdown Drill stem at Time	Materials used and informa	ation reported above are	true to the b	est of my kno	owledge
40 80 80' Ihr.	and belief.				
	Giana I		WWC Nun		
	Signed			Date	
Temperature of water Depth Artesian Flow Found	(bonded) Water Well Con				
Was a water analysis done? Yes By whom	I accept responsibility for performed on this well duri	or the construction, alte	ration, or aba	ndonment we	ork rk
Did any strata contain water not suitable for intended use?	performed during this time	is in compliance with (	Oregon water	supply well	
Salty Muddy Odor Colored Other	construction standards. Th	is report is true to the b		1214	belief.
Depth of strata:		) /	WWC Nur		1
	Signed			Date 9-2	25