## PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO:		Wate	r Rights S	ection					Date	e	April 16.	2008		
FROM		Grou	nd Water/	Hydrology	Section	Micha	ael '	<b>Z</b> wart						
					Decition _	Revi	ewer'	's Name						
SUBJE	CT:	Appl	ication G-	16956		Su	pers	edes re	view of		N/A	Date of Re	view(e)	
												Date of Re	vicw(s)	
OAR 69 welfare, to deter the pres	90-310-1 safety at mine who umption	30 (1) ind heal ether the criteria	The Depart th as descri e presumpt . This revie	ibed in ORS ion is estable ew is based	resume the 537.525. I shed. OAI upon avai	nt a proposi Department R 690-310- lable infor	ed g t stat 140 mat	ff review allows th tion and	ater use will ground wate ne proposed agency poli	er app use be icies i	olications use modified n place at	nder OA or condi the time	R 690-31 tioned to of evalu	0-140 meet
A. GEI	NEKAL	INFU	<u> PRMATIO</u>	<u> </u>	pplicant's	Name:	IVI1	ke & C	arolyn Dav	<u> </u>	Co	unty: <u>W</u>	asco	
A1.	Applica	nt(s) se	ek(s) _1.4	9 cfs fro	m <u>two</u>	well(	(s) ir	n the	Deschutes					_ Basin,
		White 1	River			subb	asin	Qu	ad Map: Po	ostag	e Stamp B	utte		
			_						• —					
A2. A3.									<u>March 1 te</u> rk proposed			ınder log	nid):	
113.	W CII all	a aquii								1 11 011.				
Well	Logi	id	Applicant Well #		oposed quifer*	Propose Rate(cf			Location R-S QQ-Q)	i			and boung fr NW cor	
1	WASC 5	51079	1	_	drock*	0.745	_		3E-35 SE-S	E		<u></u>	fr SE cor	
2	Propo	sed	2	Ве	drock	0.745	5				880' W, 2000' N fr SE cor S 35			S 35
3														
5							$\dashv$						-	
	ım, CRB,	Bedroc	k	ļ										
	Well	First			Well	C1	1 ,	71	Liner	D	forations	Well	Draw	
Well	Elev	Wate	, SWL	SWL	Depth	Seal Interval		Casing itervals	Intervals	I	Screens	Yield	Down	Test
,	ft msl	ft bls		Date	(ft)	(ft)		(ft)	(ft)		(ft)	(gpm)	(ft)	Туре
2	1300 1420	193	175	5/20/02	525	0-18	0-	18	0-370	220	-225	75		Air
-	1420				-									$\vdash$
											+			
							_							-
Use data	from ann	lication	for proposed	i wells	1					l				-
A4.	Comme	ents: <u>W</u>	/ell #2 is p	roposed to l					‡1, so it is lil ibed in Wat			d be dee	per due 1	the
		2.0		•										
-														
A5. 🛚	manage (Not all	ment o basin ı	rules contai	ater hydrauli n such prov	cally conn	ected to sur	rface	e water	iles relative t □ are, or 🗵	are	not, activa	ated by th	is applic	
A6. 🗌	Name o	f admii	nistrative aı	rea:	122				p(s) an aquif	er lin	nited by an	administ	rative res	striction.

<u>ROUN</u>	ND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070								
Bas	sed upon available data, I have determined that ground water* 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 ground water 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 ground water 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 ground water resource; or								
d.	will, if properly conditioned, avoid injury to existing ground water rights or to the ground water resource:  i.   The permit should contain condition #(s) 7C;  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;								
a.	Condition to allow ground water production from no deeper than ft. below land surface;								
b.	Condition to allow ground water production from no shallower than ft. below land surface;								
c.	Condition to allow ground water production only from the ground water reservoir between approximately ft. and ft. below land surface;								
d.	<ul> <li>■ 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 Ground Water Section.</li> <li>■ 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):</li> </ul>								
app	ound water availability remarks: The requested rate will not likely be possible from only two wells. The olicant may need to amend the application to add additional wells. SOW #917, south of Tygh Valley, may develop Dalles Formation. Its hydrograph indicates that the water level is relatively stable.								
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## C. GROUND WATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

C1. 690-09-040 (1): Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1,2	Sandstone, probably Dalles Formation	$oxed{\boxtimes}$	

	SWL is above the first water-bearing zone, but not by a large amount. It
may be more accurate to describe the aquit	fer as semiconfined.
· · · · · · · · · · · · · · · · · · ·	

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 trib.	1125	1350	1200				
1	2	White River	1125	1060	5700				
2	1	Unnamed trib.	1125	1400	200				
2	2	White River	1125	1060	7300				

Basis for aquifer hydraulic connection evaluation: The local and downgradient reaches of the creeks are not likely incised to the water-bearing zone. Complex local geology and high relief make assessment of hydraulic connection problematic. Mapped dips of beds is to the south, which suggests that hydraulic connection may be with upgradient reaches of north-south flowing intermittent creeks where they cross the Dalles Formation to the north, rather than with the White River to the south. It is not possible to estimate the distance(s) where hydraulic connection is likely to occur.

Water Availability Basin the well(s) are located within: WHITE R > DESCHUTES R - AT MOUTH (70088).

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?
<u></u>										

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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.

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	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: _	This section does not apply.		

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-Dis	stributed	Wells										•	
Well	SW#	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		9/0	™	%	%	%	%	%	%	"∕₀	%	%	%
Well Q as	s CFS												
Interferen	nce CFS									İ			
Distrik	ıted Well												
Well	SW#		Esh	Mas	A	Man	Trans	f1	A	C	0-4	Man	D
well	5W#	Jan %	Feb	Mar %	Apr %	May %	Jun %	Jul %	Aug	Sep %	Oct	Nov %	Dec
W-11 O	- 050	70	70	70	"/0	70	70	70	%	70	70	70	%
Well Q as													
Interferer	nce CFS												
		%	%	%	%	%	%	%	%	%	1/6	%	%
Well Q as													
Interferen	nce CFS				j								
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as	s CFS					25							
Interferen	nce CFS												
		%	%	%	%	%	0/a	0/0	%	%	%	º/o	%
Well Q as	s CFS												
Interferen													
		n/o	9/0	0/6	%	1/0	0/n	º/a	%	%	9/0	%	%
Well Q as	s CES			, , , , , , , , , , , , , , , , , , ,		- ''-							
Interferen													
		9/0	9/0	0/6	%	%	9/0	1/0	%	%	⁰/₀	u/o	%
Well Q as	e CES	731	- ,0	/*	7.0	,,,	74	710	/5		/11	/10	70
Interferen				<del>                                     </del>									
mterieren	ice Cr3					ļ		ļ					
(A) = Tota	al Interf.												
(B) = 80 %	% Nat. Q									i			
(C) = 1 %	Nat. Q												
(D) = (A)	> (C)	1	V.	1	<b>√</b>	√	1	1	1	1	1	√.	1
	B) x 100	%	%	9/0	%	%	%	%	º/a	º/o	9/6	9/0	%

(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.

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The state of the s	
Basis for impact evaluation:	
690-09-040 (5) (b) The potential to impair or detrimer Rights Section.	ntally affect the public interest is to be determined by the W
under this permit can be regulated if it is found to substant	
<ul> <li>i.  The permit should contain condition #(s) 7</li> <li>ii.  The permit should contain special condition(s)</li> </ul>	/J
ii. The permit should contain special condition(s)	) as indicated in Remarks below;
V / GW Remarks and Conditions	
	*****
\$40,000000 Marc 4	
	<u></u>
	5.20 M HP50.018
	1912 = 53
	11 Sept. 12 (12)
	N. C.
ferences Used: Local well logs; Recon. Geologic Map o	of the Dufur Quadrangle, by Waters, 1968; Ground-Water
sources in the Hood Basin, Oregon, by Grady, 1983; revi	iew of local applications.

D. <u>Y</u>	<u>WEI</u>	L CO	ONSTRUCTION, OAR 690-200	
D1.		Well #:	:Logid:	_
D2.		a.	WELL does not meet current well construction standards based upon:  review of the well log;  field inspection by report of CWRE other: (specify)	_;
D3.		a.	WELL construction deficiency:  constitutes a health threat under Division 200 rules;  commingles water from more than one ground water reservoir;  permits the loss of artesian head;  permits the de-watering of one or more ground water reservoirs;  other: (specify)	
D4.		THE W	WELL construction deficiency is described as follows:	
D5.		THE W	<ul> <li>WELL <ul> <li>a. □ was, or □ was not constructed according to the standards in effect at the time of original construction or most recent modification.</li> <li>b. □ I don't know if it met standards at the time of construction.</li> </ul> </li> </ul>	
D6.			e to the Enforcement Section. I recommend withholding issuance of the permit until evidence of well reconstruction with the Department and approved by the Enforcement Section and the Ground Water Section.	l
TH	IS S	ECTIO	ON TO BE COMPLETED BY ENFORCEMENT PERSONNEL	_
D7.		Well co	onstruction deficiency has been corrected by the following actions:	_
				_
				_
			(Enforcement Section Signature) , 200_	<u></u>
D8.		Route	e to Water Rights Section (attach well reconstruction logs to this page).	

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## WATER RESOURCES DEPARTMENT April 16,200 8 **MEMO** Application G-16956 TO: GW: Mike Zwart (Reviewer's Name) FROM: SUBJECT: Scenic Waterway Interference Evaluation YES The source of appropriation is within or above a Scenic Waterway Use the Scenic Waterway condition (Condition 7J) NO Per ORS 390.835, the Ground Water 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 Ground Water 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 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



## Hydrograph for State Well WASC 3630, State Observation Well # 917

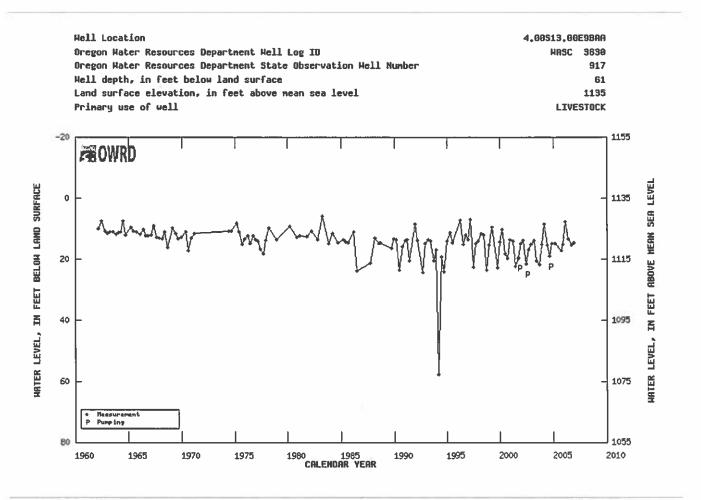


Table showing water-level data for State Well WASC 3630, State Observation Well # 917

