PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO:		Water	r Rights S	ection				Date	e October	25, 200	6	
FROM	COM: Ground Water/Hydrology Section						ael Zwart					
SUBJE	ECT:	Appli	cation G-	16670		Revi Su	view of	N/A	Date of Re	view(s)		
OAR 6 welfare to deter the pres	90-310-1 , safety a mine who sumption	30 (1) 7 nd heal ether the criteria	The Depart th as descr presumpt	ibed in ORS ion is establi ew is based	resume the 537.525. I ished. OAF upon avai	at a propos Department R 690-310- ilable infor	ed groundwa t staff review 140 allows t mation and	v ground wat he proposed	ensure the preser applications to use be modified icles in place at	under OA I or condi	R 690-31 tioned to of evalu	10-140 meet
A1.	Applica	ınt(s) se	ek(s) <u>1.8</u>	94_ cfs fro	m <u>one</u>	well(subb		Malheur I ad Map:D	ake og Mountain			Basin,
A2. A3.				igation, 155 tach and nu				May 1 to C	October 15 wells as such	under loş	gid):	
Well	Log	id	Applican Well #		oposed quifer*	Propos Rate(ci		Location /R-S QQ-Q)	Location	n, metes :	and bound	ds, e.g.
1	HARN:	51259	1		anic Seds	1.894		30E-28 SE-N		·	fr NE cor	
3												
4												
5 * Alluvi	um, CRB,	Bedroc	k	ŀ								
Well	Well Elev ft msl	First Water	r SWL	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	4136	58	43	2/12/06	207	0-21	0-90	None	60-80	335	86?	P
A4.			for propose feet may		he pumpii	ng level; if	so. drawdo	wn was 43 f	eet.			_
A5. 🗵	manage (Not all	ment of	f ground w rules conta	ater hydraul in such prov	ically conn isions.)	ected to su	rface water	are, or 🛭	to the developm	ated by th	nis applica	ation.
A6. 🗌	Name o	of admir	nistrative a	rea:					er limited by an			striction.

oplic	ation	G-16670 continued	Date: October 25, 2006
<u>G</u>	ROUN	ND WATER AVAILABILITY CONSIDERATIONS, OAR	690-310-130, 400-010, 410-0070
1.	Bas	ased upon available data, I have determined that ground water* for the	he proposed use:
	a.	is over appropriated, ☐ is not over appropriated, or ☐ cannot period of the proposed use. * This finding is limited to the grodetermination as prescribed in OAR 690-310-130;	ot be determined to be over appropriated during any ound water portion of the over-appropriation
	b.	■ will not or ■ will likely be available in the amounts requeste is limited to the ground water portion of the injury determ	d without injury to prior water rights. * This finding mination as prescribed in OAR 690-310-130;
	c.	will not or will likely to be available within the capacity o	f the ground water resource; or
	d.	will, if properly conditioned, avoid injury to existing ground i. The permit should contain condition #(s) 7N ii. The permit should be conditioned as indicated in item iii. The permit should contain special condition(s) as indi-	2 below.
2.	a.	Condition to allow ground water production from no deeper the	nan ft. below land surface:
	b.	Condition to allow ground water production from no shallowed	
	c.	Condition to allow ground water production only from the water reservoir between approximately ft. and	
	d.	Well reconstruction is necessary to accomplish one or more o occur with this use and without reconstructing are cited below. issuance of the permit until evidence of well reconstruction is fi Water Section.	Without reconstruction, I recommend withholding
		Describe injury —as related to water availability— that is likely to senior water rights, not within the capacity of the resource, etc):	occur without well reconstruction (interference w/
	Gro <u>Har</u>	round water availability remarks: <u>There is increasing local concurrence of vet.</u>	ern about ground-water availability in the
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	_		
	-		
	-		
	-		4

Date: October 25, 2006

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	Late Tertiary to Quaternary alluvium and volcaniclastic sedimentary rocks		

Basis for aquifer confinement evaluation:	Regionally, the aquifer may be more semiconfined to unconfined. The
confining clay layers may be limited areall	
N	

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 GW Elev ft msl Distance (ft)		(lydraulically Connected? NO ASSUMED	Potentia Subst. Int Assum YES	erfer.		
1	1	Weaver Spring outflow creek	4093	4138	1600				
1	2	Weaver Spring	4093	4149	2800				\boxtimes
1	3	Harney Lake	4093	4098*	33300	\boxtimes			

Basis for aquifer hydraulic connection evaluation: *Elevation from quad map (1983). It is general	ly accepted that
Harney and Malheur Lakes are regional discharge areas for the ground-water system in the basin.	
interference will likely be very diffuse.	

Water Availability Basin the well(s) are located within: N	<u>No WAB in this ar</u>	ea.
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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?
			_	90						
-							<u> </u>			

Version: 08/15/2003

Date:	October	25.	2006	
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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.

S	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.

	stributed	Wells								-			
Well	SW#	Jan	Feb	Маг	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	11/0	%	%	%	%	%	%	1/0	0/6	%	%
Well Q as	s CFS												
Interferen	nce CFS												
TD1 4 11	. 1377.01												
Well	ited Well		T-L	Man	A						0.	N	
well	SW#	Jan %	Feb	Mar %	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
W-II O	CEC	70	70	70	70	%	1/0	%	%	9∕11	n/a	%	%
Well Q as													
Interferen	ice CFS	º/u	%	%	9/6	%	g/ ₀	0/	97	n/	n/	0/	
<u> </u>	ore	70	70	70	70	76	70	%	9/0	1/4	"∕₀	%	%
Well Q as													
Interteren	ice CFS	41.4	0.7	0.4									
11/ 11/0	OPG	%	%	%	9/10	⁰⁄₀	1/4	%	11/0	%	1/4	%	%
Well Q as													
Interferen	ice CFS	1											
		%	°/a	%	%	%	%	9/0	1/0	%	%	%	%
Well Q as													
Interferen	ice CFS												
		1/0	%	·/a	%	%	%	9/0	%	%	%	%	%
Well Q as													
Interferen	ice CFS								_				
		%	11/4	9/0	%	%	1/0	%	%	9/6	0/0	%	%
Well Q as													
Interferen	ice CFS												
(A) = Tota	l Interf.						- I						
(B) = 80 %													
(C) = 1 %													
(D) = (A)		V.	V.	16	1	1	V.	1	V	6	1	V	V
(E) = (A / 1)	B) x 100	1/0	%	1%	9/6	9/6	%	%	%	%	9/6	1/6	%

(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:		untions. This continu libraly applies	but since the meteotical intenference in library difference and many
690-09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the W Rights Section. If properly conditioned, the surface water source(s) can be adequately protected from interference, and/or ground water 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;	basis ioi milpact evan Indirect I believe it is	inappropriets to attempt calculate	ion of the natestial interference is likely diffuse and poss-
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V / GW Remarks and Conditions	ii. The peri	mit should contain special condition((s) as indicated in "Remarks" below:
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ferences Used: GW Report 16; USGS WSP 841; USGS Map I-680; local well logs; recent reviews in the basin.			***
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Application G-16670 continued

	Well #:1	Logid: HARN 51259
D2.	THE WELL does not me	eet current well construction standards based upon:
	a. review of the wel	l log;
	b. ifield inspection b	y
	c. report of CWRE	
	d.	
D3.	THE WELL construction	n deficiency:
		th threat under Division 200 rules;
		er from more than one ground water reservoir;
	c. permits the loss o	
		atering of one or more ground water reservoirs;
D.4	TOTAL STITLE I	
D4.	THE WELL construction	n deficiency is described as follows:
	_	
D5.	THE WELL a.	was, or was not constructed according to the standards in effect at the time of original construction or most recent modification.
	b. 🗆	I don't know if it met standards at the time of construction.
D6.	Route to the Enforcement is filed with the Department	nt Section. I recommend withholding issuance of the permit until evidence of well reconstruction nt and approved by the Enforcement Section and the Ground Water Section.
THIS	S SECTION TO BE COM	IPLETED BY ENFORCEMENT PERSONNEL
	☐ Well construction deficien	acy has been corrected by the following actions:
	(Enforcement Sec	, 200

Date: October 25, 2006

Application G-16670 continued

WATER RESOURCES DEPARTMENT

MEN	10							_Oc	tober	25,	2006
TO: FRO: SUB:	M: JECT:	GW:	Micho (F c Wate	el Zu	Name)	nce Ev	aluation	1			
V	_YES _NO	The so	ource of	approp	riation i	is withir	or abo	ve a Sce	enic Wa	terway	4
V	_YES	Use th	ne Sceni	c Water	way co	ndition ((Conditi	ion 7J)			
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 Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.											
an	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

