### PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO:	Water Rights Section						Date March 10, 2008							
FROM	:	Grou	nd Water/F	Iydrology	Section _									
SUBJE	CT:	Appl	ication G	16867				s Name edes rev	view of		N/A	Date of Re	vicw(s)	
OAR 69 welfare, to deter the pres	90-310-1 safety a mine who umption	30 (1)  nd heal  ether th  criteria	th as descrite presumption. This revie	nent shall p bed in ORS on is establ w is based	oresume the 5 537.525. I ished. OAI upon avai	nt a propos Departmen R 690-310- ilable info	t staf 140 a	f review allows th ion and	nter use will e ground wate ne proposed u agency polic	r app ise b cies i	olications use modified n place at	nder OA or condi	R 690-31 tioned to	0-140 meet
<b>A. <u>GE</u>]</b> A1.														
A2. A3.	Propose Well an	ed use: id aquif	Irri er data (atta	gation, 160 ch and nu	acres (P) mber logs	Seas	sonal	lity: ells; maı	March 1 to	Oct well	ober 31 s as such ı	ınder log	gid):	<b></b>
Well	Log		Applicant' Well #	A	oposed quifer* anic Seds.	Propos Rate(c:		(T/	Location R-S QQ-Q)	37		, 1200' E	fr NW cor	S 36
1 2 3 4	Propo	sea	1	Vole	anic Seds.	2.0		268/3	1E-5 NE-N\	<i>N</i>	2620' E, 90' S fr NW cor S 5			35
5	ım, CRB,	Bedroc	k											
Well	Well Elev ft msl 4102	First Wate ft bls	r SWL	SWL Date	Well Depth (ft) 350±	Seal Interval (ft) 0-20	In	Casing tervals (ft)	Liner Intervals (ft)		forations Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
A4.	Comm	ents: <u>A</u>		ion inform										
A5. 🛚	manage (Not all	ment o	f ground warules contain	er hydraul such prov	ically conn isions.)	ected to su	rface	: water [	les relative to  ☐ are, or ☑	are	not, activa	ited by th	is applica	ation.
A6. 🗌	Name o	f admii	nistrative are	a:,	,	,	. 7. S.	, tar	p(s) an aquife	er lin	nited by an	administ	rative res	triction.

В. <u>G</u>	ROUN	ND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070											
B1.	Bas	Based upon available data, I have determined that ground water* 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 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											
	đ.	will, if properly conditioned, avoid injury to existing ground water rights or to the ground water resource:  i.   The permit should contain condition #(s)											
B2.	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/</li> </ul>											
		senior water rights, not within the capacity of the resource, etc):											
B3.	the me:	ound water availability remarks: <u>East Region Manager Ivan Gall advocates use of condition 7N in this area;</u> re is some local concern about ground water availability in the Harney Basin, which also suggests use of a asurement condition is appropriate. HARN 1990 has declined since the mid-1990s, but this well may develop a re limited resource.											
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continued

#### 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	Alluvium and valley-fill sediments (Qal) and possibly		$\boxtimes$
	volcanic, pyroclastic and sedimentary rocks (Tvs)		

Basis for aquifer confinement evaluation: The shallow casing and seal make it likely that an unconfined aquifer will be penetrated. Deeper water-bearing zones may be semiconfined to confined.

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	Harney/Mud Lake	4070	4090±	23500		YES NO
	_						

Basis for aquifer hydraulic connection evaluation:	Harney and Malheur Lakes are regional discharge areas for the
aquifer system.	

Water Availability Basin the well(s) are located within: No WAB in this a	Water A	vailability Ba	in the well(s	) are located 1	within: No	WAB in t	this area
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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 < ½ 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?
					_					

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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.

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.
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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-Distr		Wells											
Well S	W#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		1/0	%	1/6	%	%	%	%	%	%	%	%	%
Well Q as (	CFS		-										
Interference	e CFS												
Distribute	od Wall	c										•	
	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		θ/u	9/0	11/0	%	9%	9/0	9/0	%	9/6	%	%	%
Well Q as (	CFS										V.C		
Interference													
		9/0	11/0	1/0	1/0	9/0	9/0	%	%	9/0	%	%	9/11
Well Q as (	CFS												
Interference													
		9/0	0/0	%	n/a	%	9/0	%	1/0	9/0	%	%	%
Well Q as (	CFS												
Interference	e CFS												
		%	9/0	0/6	0/0	%	9/0	%	%	9/0	%	%	9/11
Well Q as (	CFS												
Interference	e CFS												
		9/0	0/0	n/a	0/0	%	%	%	%	%	%	%	%
Well Q as 0													
Interference	e CFS												
		8∕₀	%	1/0	1/6	9/0	9/0	%	%	%	%	<sup>0</sup> /n	%
Well Q as (						-							
Interference	e CFS												
(A) = Total	Interf.												
(B) = 80 % l	Nat. Q												
(C) = 1 % N	int. Q						-						
(D) (A):	(0)	1	- 2"	~/		-/	1		7	- /		-0/	7
(D) = (A) >		%	%	0/0	%	8/0	%	%	0/n	u/u	%	%	%
(E) = (A / B)						70 Tanna 808/			i		-41.0	. = 4 000/	70

(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.

unnec	essary to attempt calculation of interference.
27	
2000	
-	
690-	09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the ghts Section.
unde	<b>coperly conditioned</b> , the surface water source(s) can be adequately protected from interference, and/or ground water 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;
	_ ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
	, , , , , , , , , , , , , , , , , ,
38/ / CS	
SW / GV	V Remarks and Conditions
SW / GV	
Reference	
Reference	V Remarks and Conditions
Reference	V Remarks and Conditions
Reference	V Remarks and Conditions

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Appl	ication G- <u>16867</u>	continued	Date: March 10, 2008	
D. W	VELL CONSTRUC	TION, OAR 690-200		
D1.	Well #:	Logid:		
D2.		not meet current well construction st	andards based upon:	
	a. review of			
	c. report of	CWRE		
	d. dother: (sp	ecify)		
D3.	THE WELL cons	truction deficiency:		
		s a health threat under Division 200 rule		
		es water from more than one ground wa e loss of artesian head;	ter reservoir;	
		e de-watering of one or more ground wa	ter reservoirs:	
		ecify)		-/
D4.	THE WELL cons	truction deficiency is described as foll	ows:	
	95			
		CONT. 100.00		
D5.	THE WELL	a. was, or was not constructe original construction or most re	d according to the standards in effect at the time of ecent modification.	
		b. I don't know if it met standard	s at the time of construction.	
D6.			olding issuance of the permit until evidence of well reconstrainent Section and the Ground Water Section.	ruction
ТНІ	S SECTION TO BI	COMPLETED BY ENFORCEM	IENT PERSONNEL	
D7.	☐ Well construction	deficiency has been corrected by the foll	owing actions:	
			owning actions.	7.3
	(- <u></u>	45		
	-			
				200
	(Enforcen	nent Section Signature)		200
D8.			tion logs to this mass)	
טט.	Koute to water I	Rights Section (attach well reconstruct	ion iogs to this pagej.	

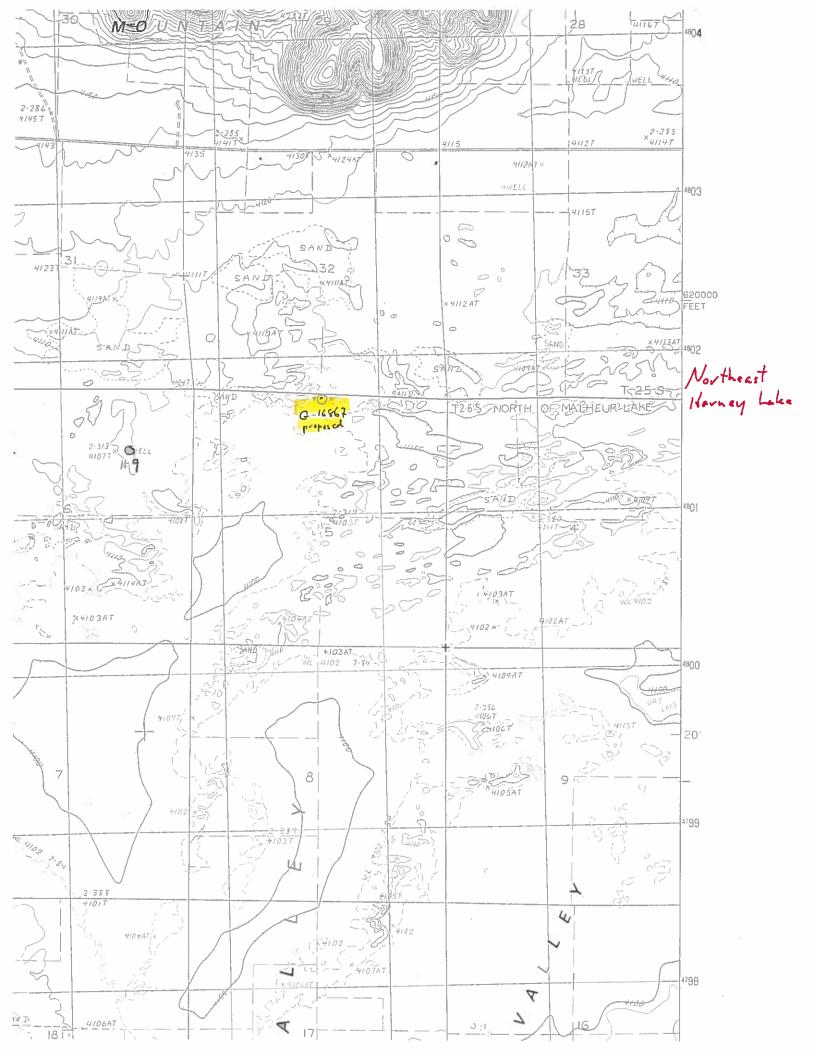
# WATER RESOURCES DEPARTMENT March 10 ,200 8 **MEMO** TO: Application G- /6867 GW: Mike Zuart (Reviewer's Name) FROM: SUBJECT: Scenic Waterway Interference Evaluation YES The source of appropriation is within or above a Scenic Waterway NO Use the Scenic Waterway condition (Condition 7J) Per ORS 390.835, 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.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec



## 9 8 9 Regulated GW Area Critical GW Area Ö w H ın N 13 0 Ţ Conditioned, permitted well(s) in this 1/4-1/4 section within 5 mi. radius of application well(s) 3-0-E OWMD Observation well and well-id within 5 mi, radius of application well(s) æ ы Т 17 . ര 0 4 0 0 0 Well(s) identified in this 1/4-1/4 section from OWRD's well log database within 1 mi. radius of application well(s) Permitted well(s) in this 1/4-1/4 section within 1 mi. radius of application well(s) 15 195 > 111 17 Application well(s) in this 1/4-1/4 section Well(s) identified in this soction from OWRD's well log database within 1 mi. radius of application well(s) Ф ىە 3

#### WELL LOGS WITHIN 1 MILE OF APPLICATION G 16867

	ABANI	OON:	17	•								
RECONDITIONED:			20	)								
	REPAIR	RED:	16	}								
	CONVERS	ON:	(	)								
	DEEPENIN	NGS:	11									
	NEW CONSTRU	JCT:	193	j								
	COMMUNITY	USE:		4								
	DOMESTIC	USE:	14	4								
	INDUSTRIAL	USE:		0								
	INJECTION	USE:		0								
	IRRIGATION	USE:	4	7								
	THERMAL	USE:		0								
	LIVESTOCK	USE:		8								
	4	****	*****	**	*****	***	****	***	***	***	***	***

PERMITTED WELLS WITHIN 1 MILE OF APPLICATION G 16867

\$RECNO	APPLICATION		N PERMIT		CLAIM			LOC-QQ	USE_CODE	
1								25.00S31.00E30SESW		
2 3								25.00S31.00E30SESE		
	G	14974	G	13822		(	0	25.00S31.00E28SWSW	DN	
4								25.00S31.00E29SESE		
5	G	15141		0		{	0	25.00S31.00E33NENW	IS	
5	G	15141		0		(	0	25.00S31.00E33NENW	IS	
6								25.00S31.00E33NWNW		
7								25.00S31.00E34SWNW		
8								25.00S31.00E32SWNE		
9	G	16867		0		(	0	26.00S31.00E 5NENW	IR	
10								26.00S31.00E 6SENE		
11	G	16868		0		(	0	26.00S31.00E 6SESW	IR	
12	G	16868		0		(	0	26.00S31.00E 7SWNE	IR	
13	G	16868		0				26.00S31.00E 7NWSE	IR	
14								26.00S30.00E 2SWNW		
15								26.00S30.00E11NENW		
16								26.00S30.00E10SWSW		
17	G	16867		0		(	0	26.00S31.00E 5NENW	IR	
18								26.00S31.00E 6SENE		
19	G	16868		0		(	0	26.00S31.00E 6SESW	IR	
20	G	16868		0				26.00S31.00E 7SWNE	IR	
21	G	16868		0				26.00S31.00E 7NWSE	IR	
22								26.00S30.00E 2SWNW		
23								26.00S30.00E11NENW		
24								26.00S30.00E10SWSW		
	**	*****	***	****	*****	****	* *	*****		

NO CONDITIONED WELLS WITHIN 1 MILE OF APPLICATION G 16867

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APPLICATION G 16867 FALLS WITHIN THESE QUAD(S)

THE NARROWS NORTHEAST HARNEY LAKE THE NARROWS NORTHEAST HARNEY LAKE

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