WATER RESOURCES DEPARTMENT

МЕМО	August 20,20\$4
TO:	Application G-17885
FROM:	GW: Mike Zunt (Reviewer's Name)
SUBJECT:	(Reviewer's Name) Scenic Waterway Interference Evaluation
YES	
	The source of appropriation is within or above a Scenic Waterway
NO	. *
YES	
NO	Use the Scenic Waterway condition (Condition 7J)
interfe	RS 390.835, the Ground Water Section is able to calculate ground water rence with surface water that contributes to a Scenic Waterway. The ated interference is distributed below.
interfe the De that th	RS 390.835, the Ground Water Section is unable to calculate ground water rence with surface water that contributes to a scenic waterway; therefore, partment is unable to find that there is a preponderance of evidence are proposed use will measurably reduce the surface water flows ary to maintain the free-flowing character of a scenic waterway.
Calculate the per calculated, per cr	ON OF INTERFERENCE reentage of consumptive use by month and fill in the table below. If interference cannot be iteria in 390.835, do not fill in the table but check the "unable" option above, thus Rights that the Department is unable to make a Preponderance of Evidence finding.
	s permit is calculated to reduce monthly flows inScenic he following amounts expressed as a proportion of the consumptive use by

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

which surface water flow is reduced.

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO:		Wat	er Rights S	ection				Date	eAu	gust 2	20, 201 <u>4</u>		
FROM	1 :	Grou	undwater S	ection			Zwart						
SUBJ	FCT.	Δnn	lication G-	17885			ewer's Name	review of					
зору.	LC1.	АРР	neation G-	17005		Suj	perseucs	icview oi			Date of Re	view(s)	
oar of welfard to dete	690-310- e, safety or ermine whe esumption	130 (1) and hea nether the criteri	The Depart alth as descr he presumpt	ibed in ORS ion is establi ew is based	resume that 537.525. Do ished. OAR upon availa	a propose epartment 690-310- able infor	ed ground staff revion 140 allow mation a	water use will eme ground water the proposed agency police. D Farms	er applica use be m cies in p	ations a odified lace at	under OA I or condi	R 690-3 tioned to of evalu	10-140 meet a tion .
				<u> </u>	•								
A1.	Applic							Malheur					_ Basin,
		Willo	w Creek			subb	asin (Quad Map: <u>W</u>	illower	еек			
A2.				igation, 22				March 15				4 1	
A3.	Well a	nd aqui			mber logs f			nark proposed					
Well	Log	id	Applicant Well #	's Propos	ed Aquifer*	Prop Rate		Location (T/R-S QQ			tion, mete N, 1200'		
1	MALH		1		ary Seds.	3.	78	17S/44E-21 SI	E-SW	30	' N, 1820' I	E fr SW co	r S 21
3	MALH Propo		3		iary Seds.	3.7		17S/44E-21 SI 17S/44E-21 SI			0' S, 1245' 0' S, 1185'		
4	ТТОРС	<u>scu</u>		Tert	ary Beas.	3.	,,,						
5 * Δllm	ium, CRB	Redro	<u> </u>			<u> </u>			i .				
Allu											·		
Well	Well Elev	Firs	SWL	SWL	Well Depth	Seal Interval	Casing Intervals	Liner Intervals	Perfora Or Scr		Well Yield	Draw Down	Test
	ft msl	ft bl	s It bls	Date	(ft)	(ft)_	(ft)	(ft)	(ft))	(gpm)	(ft)	Type
2	2545 2618	140 140		06/28/2009 01/05/2013	328 520	0-50 0-50	0-328 0-520	None None	100-3 140-5		900 1950		Air Air
3	2622				520±	0-50±							
Use dat	ta from ap	plication	n for proposed	l wells.	<u> </u>		<u> </u>				<u> </u>		
A4.				<u>ell #3 will r</u> ion G-1770		e constru	icted simi	larly to well #	2. Well ‡	#1 was	previous	sly revie	wed
A5. 🔀	(Not a	II basin	rules contai	n such provi	sions.)			rules relative t					
A6. [Name	of adm	inistrative a	rea:				tap(s) an aquif					striction.

B. GROUND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

Base	ed 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
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) 7N 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 thanft. 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
С.	Condition to allow ground water production only from the ground water reservoir between approximately ft. and ft. below land surface;
	senior water rights, not within the capacity of the resource, etc):
<u>allu</u>	ound water availability remarks: The nearby observation wells (MALH 220 and 122) penetrate an overlying availability for the deeper aquifer (Glenns ry Formation) penetrated here.

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
All	Glenns Ferry Fm. or equiv. (Tig in GW Rpt. 34)		

Basis for aquifer confinement evaluation:	The water-bearing zones in the Glenns Ferry Formation are relatively deep
relative to the static water level.	

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	Haymaker Gulch	2470	2530	2050		
2	1	Haymaker Gulch	2490	2560	1850		
3	1	Haymaker Gulch	2490±	2560	1800		

Basis for aquifer hydraulic connection evaluation: The aquifer developed likely discharges to the overlying or adjacent alluvial deposits and therefore is in indirect and inefficient hydraulic connection with nearby surface water sources.

These wells are over two miles from Willow Creek.

Water	· A vailahility l	Rasin the v	well(s) are loc	ated within:	Willow Cr >	Malheur R 2	at mouth (31011901).

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?
									- 4	

Date: August 20, 2014

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?	Water Right ID	Water Right Q (cfs)	Qw > 1% ISWR?	Natural Flow (cfs)	of 80% Natural Flow?	Interference @ 30 days (%)	for Subst. Interfer. Assumed?
							*	

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												
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfere	ence CFS												
D	3 777 11	*											
	uted Well		Б.1	14	A		T	71		G.	0	NT	ъ.
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	0770	%	%	%	%	%	%	%	%	%	%	%	%
	as CFS	:											
Interfere	ence CFS												
		%	%	%	%	%	%	. %	%	%	%	%	%
	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	. %	%	%
	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfere	ence CFS												
(A) - To	tal Interf.												
	% Nat. Q							-					
	% Nat. Q							****					
(0)-1	70 Tide Q												
$(\mathbf{D}) = ($	A) > (C)	S.	V	N.	r.	6	4	y "			1	5	
$(\mathbf{E}) = (\mathbf{A} / \mathbf{A})$	/ B) x 100	%	%	%	%	%	%	%	%	%	%	%	%

	(B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed mark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.
Basis for impact eval	luation:
690-09-040 (5) (b) Rights Section.	The potential to impair or detrimentally affect the public interest is to be determined by the W
under this permit ca	ioned , the surface water source(s) can be adequately protected from interference, and/or ground water in be regulated if it is found to substantially interfere with surface water:
i. The per	rmit should contain condition #(s) rmit should contain special condition(s) as indicated in "Remarks" below;
ii. 🔝 The per	The should contain special condition(s) as indicated in Remarks below,
References Used: Gro	und Water Report #34 by Marshall Gannett; local well logs; local reviews.
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D. WELL CONSTRUCTION, OAR 690-200

D1.	Well #:	Logid:	
D2.	a. review ofb. field inspect. report of	not appear to meet current well construction standards based upon: the well log; ection by CWRE ecify)	
D3.	THE WELL cons	truction deficiency or other comment is described as follows:	
D4. [Route to the Wel	l Construction and Compliance Section for a review of existing well co	nstruction.
Water	Availability Tables		

Version: 07/26/2013

