PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO:): Water Rights Section						Dat	e <u>Septeml</u>	oer 28, 2	009			
FROM	:	Grou	nd Water/	Hydrology	Section _								
SUBJE				17232		Reviewer's Name Supersedes review of Date of Review(s)							
OAR 6 welfare to deter	90-310-1 , <i>safety a</i> mine wh	30 (1) <i>I nd heal</i> ether th	The Depart th as descr e presumpt	ribed in ORS ion is establ	oresume the 537.525. Iished. OA	<i>at a propos</i> Departmen R 690-310-	sed groundw t staff reviev 140 allows	w ground wa the proposed	ensure the prester applications use be modifie	under OA d or cond	ÅR 690-3 litioned to	10-140 o meet	
A. <u>GE</u>	NERAL	INFO	RMATIO	<u>ON</u> : A	pplicant's	Name:	William 8	c Cindy Ro	mans	County:	Malheu	ır	
A1.		nnt(s) se Willow		7 cfs fro			(s) in the	Malheur ad Map: V	Villowerook			_Basin,	
A2. A3.	Propose	ed use:	Irr	igation, 132	2.8 ac, (P &	<u>k S)</u> Seas	sonality:	March 1 t	o November 30		aid):		
Wel l	Log	-	Applican s Well #	t' Pro	oposed quifer*	Propos Rate(cf	ed	Location /R-S QQ-Q)	Location	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36			
1	MALH	53544	1		edrock	1.67	1.67 17S/44E-22 SW-SE		SE 1690	1690' S, 110' E fr Ctr S 22			
3													
4 5													
_	um, CRB,	Bedrocl	ζ.										
Well	Well Elev ft msl	First Water ft bls	ft bls	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	2410	65	35	4/25/09	160	0-50	0-170	None	80-160	700		Air	
Use data	from app	lication	for proposed	d wells.									
A4.					ses within	the Glenn	s Ferry For	mation (Tig) as described i	in GW R	eport #3	4.	
-													
-													
A5. 🛛	manage	ment of		eur ater hydraul n such prov	ically conr	nected to su	Basin ru	ules relative	to the developm	ent, class vated by t	ification his applic	and/or cation.	
A6. 🗌	Name o	of admir	nistrative an	rea:			, ta		er limited by an	administ	rative res	striction.	

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	Das	ed upon available data, I have determined that ground water* for the proposed use:							
	bas a.	\square is over appropriated, \square is not over appropriated, or \square cannot be determined to	he over appropriated during an						
•	a.	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;							
1	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; will not or will likely to be available within the capacity of the ground water resource; or							
(c.	will not or will likely to be available within the capacity of the ground water r	esource; or						
(d.	will, if properly conditioned, avoid injury to existing ground water rights or to the i. The permit should contain condition #(s)7C	e ground water resource:						
i	a.	Condition to allow ground water production from no deeper than	ft. below land surface;						
b.	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 water reservoir between approximately ft. and ft. below l	ground and surface;						
d	d.	☐ Well reconstruction is necessary to accomplish one or more of the above condition occur with this use and without reconstructing are cited below. Without reconstruction is suance of the permit until evidence of well reconstruction is filed with the Departs Water Section.	tion, I recommend withholding						
		Describe injury —as related to water availability— that is likely to occur without well senior water rights, not within the capacity of the resource, etc):	reconstruction (interference w						
	Cwa	and water evallability remarks. There are no walls populating the Clanes Form	Townstion in the visinity wi						
ļ	long	und water availability remarks: <u>There are no wells penetrating the Glenns Ferry-term records. A Glenns Ferry well (MALH 52088) about one mile to the south were level which was within two inches of that reported on the well log.</u>							
ļ	long	-term records. A Glenns Ferry well (MALH 52088) about one mile to the south w							
ļ	long	-term records. A Glenns Ferry well (MALH 52088) about one mile to the south w							
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C. GROUND WATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

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

Wel 1	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Sand lenses within the Glenns Ferry Formation (Tig)	\boxtimes	

Basis for aquifer confinement evaluation: <u>The SWL is above the depth water was first found; GW Report #34 reports evidence that, in many parts of the area, the potentiometric surface of the Glenns Ferry is above that in the overlying shallow gravel aquifer.</u>

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	Willow Creek	2375	2315	4650		

Basis for aquifer hydraulic connection evaluation: The Glenns Ferry Formation is likely in indirect hydraulic connection with surface water sources at lower elevations. Hydraulic connection there is laterally with the overlying shallow gravel aquifer which is, in turn, directly hydraulic connected with local surface water sources. This aquifer is in very poor hydraulic connection with nearby surface water sources at higher elevations due to the depth at which water occurs and the low permeability of the overlying clays and silts.

Water Availability Basin the well(s) are located within: Willow Cr > Malheur R at mouth (31011901).

C3a. **690-09-040** (4): Evaluation of stream impacts for <u>each well</u> 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 \boxtimes 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?

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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.						

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-D	Distributed	Wells											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
			l						l				
Distril	buted Wel	ls											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well O	as CFS												
	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
,	rence CFS												
$(\mathbf{A}) = \mathbf{T}\mathbf{c}$	otal Interf.												
(B) = 80	% Nat. Q												
(C) = 1	% Nat. Q												
(D) = (A	A) > (C)	/	√	√	√	√	√	√	/	√	√	√	√
$(\mathbf{E}) = (\mathbf{A}$	(A / B) x 100	%	%	%	%	%	%	%	%	%	%	%	%

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CFS; (I	D) = highlight the checks	nark for each month where	ral flow at 80% exceed. as CFS; $(C) = 1\%$ of calculated natural flow at 80% exceed. as (A) is greater than (C) ; $(E) =$ total interference divided by 80% flow as percentage.
- - -			
- - -			
- - -			
C4b.	690-09-040 (5) (b) Rights Section.	The potential to impair	or detrimentally affect the public interest is to be determined by the Wate
C5. 🗌	under this permit car	be regulated if it is foun	ource(s) can be adequately protected from interference, and/or ground water used to substantially interfere with surface water: ion #(s)
	ii. The peri	nit should contain specia	l condition(s) as indicated in "Remarks" below;
<u>cor</u> cor	nnected, at best, to W charge to the shallow nceptual model, the u	illow Creek. This form alluvial aquifer which o	developed in the Glenns Ferry Formation is indirectly hydraulically ation is not itself exposed in the bed of the creek, but likely provides some overlies and pinches out laterally against the uplands. Based on this odel to calculate the potential interference with the river will likely grossly e.
	erestimate the magni	tude of that interiorence	·
Re	ferences Used: Gro	ound Water Report #34	by Marshall Gannett; local well logs.
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D1.	Well #:1		Logid: _	MALH 53544			
D2.	a. reviewb. field inc. report	of the well log; spection by of CWRE			ased upon:		
D3.	a. constitution communication communication communication communication constitution constitutio	ingles water from s the loss of arte s the de-watering	eat under Division n more than one gr sian head; g of one or more gr	200 rules; round water reservo	irs;		
D4.	THE WELL c	onstruction defi	ciency is describe	ed as follows:			
D5.	THE WELL			onstructed according or most recent modi	g to the standards in effication.	fect at the time of	
		b. 🗌 I de	on't know if it met	standards at the tim	e of construction.		
					nce of the permit untinant and the Ground Wat	l evidence of well reco er Section.	onstruction
THIS S	ECTION TO	BE COMPLE	TED BY ENFO	PRCEMENT PEI	RSONNEL		
D7. 🗌	Well constructi	on deficiency ha	s been corrected by	y the following acti	ons:		
							, 200
	(Enfor	cement Section S	Signature)				_, 200

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