Water Right Conditions Tracking Slip

Groundwater/Hydrology Section

FILE ## G-17485

ROUTED TO: Water Rights

TOWNSHIP!
RANGE-SECTION: 195/47 E-17 &

CONDITIONS ATTACHED? Hyes [] no REMARKS OR FURTHER INSTRUCTIONS:

Reviewer Mike Zwart

WATER RESOURCES DEPARTMENT Sept. 14,200 1 **MEMO** Application G- 17485 TO: GW: Mike Zwart (Reviewer's Name) FROM: Scenic Waterway Interference Evaluation SUBJECT: YES The source of appropriation is within or above a Scenic Waterway YES 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. Feb Mar Jul Jan Apr May Jun Aug Sep Oct Nov Diec

PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS TO: Water Rights Section Date September 14, 2011 FROM: Ground Water/Hydrology Section Michael Zwart Reviewer's Name Application G- 17485 Supersedes review of _____ SUBJECT: Date of Review(s) **PUBLIC INTEREST PRESUMPTION; GROUNDWATER** OAR 690-310-130 (1) The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525. Department staff review ground water applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. This review is based upon available information and agency policies in place at the time of evaluation. A. GENERAL INFORMATION: Applicant's Name: James, Charles & Margaret Farmer County: Malheur Al. Applicant(s) seek(s) 1.35 cfs from one well(s) in the Malheur Basin, Snake River subbasin Quad Map: Nyssa Proposed use: Irrigation Seasonality: March 1 to October 31 A2. A3. Well and aquifer data (attach and number logs for existing wells; mark proposed wells as such under logid): Applicant's Proposed **Proposed** Location Location, metes and bounds, e.g. Well Logid Well# Aquifer* Rate(cfs) 2250' N, 1200' E fr NW cor S 36 (T/R-S QQ-Q) **MALH 1860** 1 Alluv./Bedrock 1.35 19S/47E-17 SE-SE 380' N, 445' W fr SE cor S 17 2 3 4 * Alluvium, CRB, Bedrock Well First Well Well Seal Liner Perforations Draw Casing SWI. SWL Test Well Water Elev Depth Interval Intervals Intervals Or Screens Yield Down ft bls Date Type (ft) (ft) (ft) ft msl ft bls (ft) (ft) (gpm) (ft) 2167 22 12 4/18/70 175 0-20 0-82 None 33-82 595 100 P Use data from application for proposed wells. Comments: Well is gravel packed from land surface to 78 feet; apparently open-hole below the casing at 82 feet. A5. Provisions of the Malheur Basin rules relative to the development, classification and/or management of ground water hydraulically connected to surface water \square are, or \boxtimes are not, activated by this application. (Not all basin rules contain such provisions.) Comments:

, ____, tap(s) an aquifer limited by an administrative restriction.

A6. Well(s) #____

Name of administrative area:

Comments:

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	ND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-0	10,410-00/0								
Bas	sed 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 an 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 gr i. The permit should contain condition #(s) 7E 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;	ound water resource:								
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 water reservoir between approximately ft. and ft. below land	ground surface;								
d.	 Well reconstruction is necessary to accomplish one or more of the above conditions. To occur with this use and without reconstructing are cited below. Without reconstruction issuance of the permit until evidence of well reconstruction is filed with the Departmen Water Section. Describe injury —as related to water availability—that is likely to occur without well reconstruction water rights, not within the capacity of the resource, etc): 	, I recommend withholding t and approved by the Groun onstruction (interference w/								
	senior water rights, not within the capacity of the resource, etc).									
	ound water availability remarks: The nearest State Observation Wells (# 576, 577 & tant, but they are displaying relatively stable water levels.	584) are several miles								
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Date: September 14, 2011

Application G-17485

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Application	G-17485	

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Date: September 14, 2011	Date: September	14, 2011	
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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	Qal and Tig of Groundwater Report #34		\boxtimes

Basis for aquifer confinement evaluation: GW Report 34 states that the alluvium is poorly confined to unconfined. Alluvial wells in the study area typically penetrate into the underlying Glenns Ferry Formation (Tig), which is usually not a very productive aquifer unless significant sand layers are present. I consider the groundwater in this formation to be semiconfined to confined. The heads in both aquifers are similar, but the Glenns Ferry may have a slightly higher head in this area, and this well may demonstrate that. The reported static water level rose from 15 to 12 feet after penetrating sand layers within the Glenns Ferry, the top of which is interpreted to be 43 feet below land surface. My finding here is based on the well construction which clearly is targeting the alluvium, although there may be some production from the Glenns Ferry Formation given that the screened interval extends into the formation.

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	Snake River	2155	2159±	2000				
				1					

Basis for aquifer hydraulic connection evaluation: <u>Data and graphs in Groundwater Report #34 indicate that the shallow alluvial aquifer is in good hydraulic connection with local creeks and canals.</u>

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?
1	1			_			22767-		<25%	
							(Aug.)			
							-			

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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?
					_			<u> </u>
						<u> </u>		<u> </u>
Comments: _								

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.

	istributed		F-1-	1.6	A	N (T	T., 1	A	0	O -4	NT	ъ.
Well	SW#_	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q					_								
Interfere	ence CFS												
Distrib	uted Well	s	_							_			_
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q a	as CFS											_	
Interfere	ence CFS				_								
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q a	as CFS		_										
Interfere	nce CFS								.,`				
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q a	as CFS												
Interfere	ence CFS												_
		%	%	%	%	%	%	%	%	. %	%	%	%
Well Q a	as CFS											_	
Interfere	ence CFS												
		%	%	. %	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
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		%	%	%	%	%	%	%	%	%	%	%	%
Well Q											•		
Interfere	ence CFS												
(A) = To	tal Interf.											_	_
• •	% Nat. Q												_
(C) = 1 %	% Nat. Q												
(D) = (A)) > (C)	√	V	<u></u>	√	√		√	√	√	_	· V	√
	/ B) x 100	%	%	%	%	%	%	%	%	%	%	%	%

(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:	
690-09-040 (5) (b) The potential to impair or detrim Rights Section.	nentally affect the public interest is to be determined by the V
☐ If properly conditioned, the surface water source(s) car under this permit can be regulated if it is found to substation. ☐ The permit should contain condition #(s) ☐ The permit should contain special conditions.	n be adequately protected from interference, and/or ground water ntially interfere with surface water:
ii. The permit should contain special condition	(s) as indicated in "Remarks" below;
W / GW Remarks and Conditions	
	·
References Used: Nearby well logs; nearby previous rev	views; Ground Water Report #34 by Marshall Gannett, 1990
deferences Used: Nearby well logs; nearby previous rev	views; Ground Water Report #34 by Marshall Gannett, 1990
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App	lication G-1	17485	continued	Date: September 14, 2011	
D. V	WELL CO	ONSTRUCTION	. OAR 690-200		
D1.		: <u>1</u>		Н 1860	
D2.	a.	review of the we field inspection report of CWRE	oy	andards based upon:	.;
D3.	a b c	commingles wat permits the loss permits the de-w	Ith threat under Division 200 rule er from more than one ground wa	ter reservoir;	
D4.	тне у	WELL construction	n deficiency is described as foll	ows:	
					_
					_
D5.	THE	WELL a. □	original construction or most re		
D6.		to the Enforceme	ent Section. I recommend withho	lding issuance of the permit until evidence of well reconstruction ent Section and the Ground Water Section.	
TH	IS SECTI	ON TO BE CO	MPLETED BY ENFORCEM	ENT PERSONNEL	_
D7.	☐ Well c	onstruction deficie	ncy has been corrected by the foll	owing actions:	_
					_
		<u> </u>			_
					_
					_
					_
		(Enforcement Se	ction Signature)	, 200	
	-				
D8.	∐ Route	e to Water Rights	Section (attach well reconstruct	ion logs to this page).	
					=

Oregon Water Resources Department Hydrograph for State Well MALH 2147, State Observation Well # 584

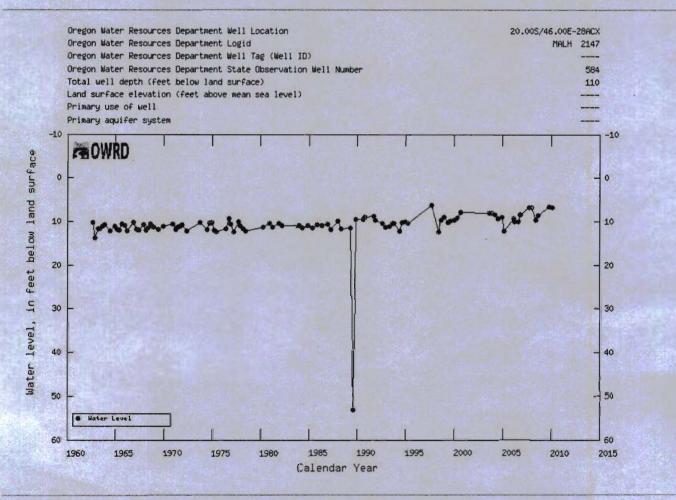


Table showing water-level data for State Well MALH 2147, State Observation Well # 584

Ground Water Oregon Water Resources Department (503)378-4455 • 158 12th St. NE. Salem, OR 97310 (503)378-4455 • 158 12th St. NE. Salem,

Oregon Water Resources Department Hydrograph for State Well MALH 1222, State Observation Well # 576

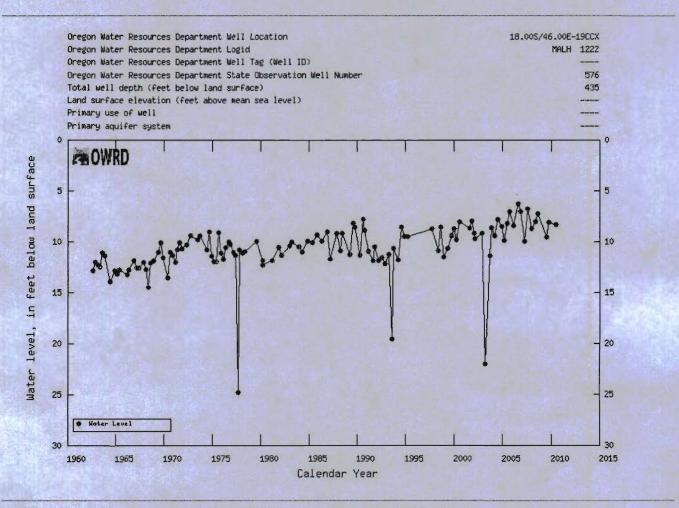


Table showing water-level data for State Well MALH 1222, State Observation Well # 576

Ground Water COUNTY Oregon Water Resources Department (503)378-8455 - 158 12th St. NE. Salem, OR 97310

Oregon Water Resources Department Hydrograph for State Well MALH 1236, State Observation Well # 577

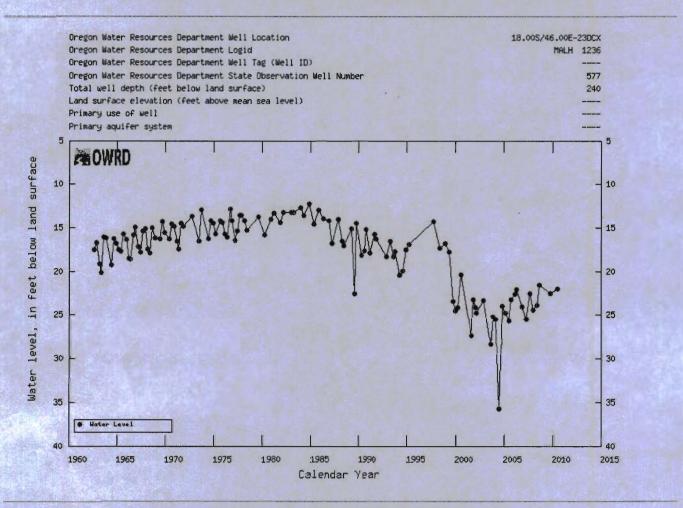


Table showing water-level data for State Well MALH 1236, State Observation Well # 577

