Water Right Conditions Tracking Slip
Groundwater/Hydrology Section
FILE # # G - 17748
ROUTED TO: Water Rights - Mary
TOWNSHIP/ RANGE-SECTION: 75/39E-3+4
CONDITIONS ATTACHED?: Hyes [] no
REMARKS OR FURTHER INSTRUCTIONS:
Reviewer: Mike Zwat

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#### WATER RESOURCES DEPARTMENT

**MEMO** 

January 23,20 14

**TO:** Application G-<u>17748</u>

FROM: GW: <u>Mike Zwart</u> (Reviewer's Name)

### **SUBJECT: Scenic Waterway Interference Evaluation**

YES

The source of appropriation is within or above a Scenic Waterway

- YES
   Use the Scenic Waterway condition (Condition 7J)
   ☑ NO
- Per ORS 390.835, the Groundwater 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 Groundwater 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
	}										
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PUB	PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS												
TO:		Wat	er Rights S	ection				Dat	e <u>Jar</u>	<u>1uary 23, 2</u>	<u>014</u>		
FROM	M:	Gro	undwater S	ection			Zwart		_				
SUBJ	FCT.	Δnn	lication G-	17748			iewer's Nam	e review of					
2011	LCI.	лүү		1//40		Su	perseues			Date of	Review(s)		
OAR welfar to dete the pre	690-310-1 e, safety a ermine whe esumption	.30 (1) nd hec ether t criteri	The Depart alth as descr he presumpt a. This revi	ment shall ibed in OR ion is estab ew is based	S 537.525. De lished. OAR l upon availa	a proposi epartment 690-310- able infor	ed ground t staff rev 140 allow r <b>mation a</b>	dwater use will iew ground wat wis the proposed and agency pol	er applica use be me icies in pl	tions under odified or co ace at the t	OAR 690-3 nditioned to me of eval	10-140 o meet uation.	
A. <u>G</u>	UNERAL	<u> I</u> NF	ORMATIO	<u>JN</u> : P	Applicant's N	ame:	Matt M	<u>cElligott</u>		County	: Baker		
A1.	Applica	ant(s) s	eek(s) <u>4.5</u>	* cfs fro	om <u>two</u>	well(	(s) in the	Powder				Basin,	
						subb	asin	Quad Map: <u>H</u>	laines				
A2. A3.	2. Proposed useIrrigation, 140 acres (S) Seasonality:March 1 to October 31												
Well	Logi	d	Applicant	's Propo	sed Aquifer*	Prop			Location		Location, metes and bounds, e.g		
1	Propos		Well # 1		Bedrock		(cfs) 25	(T/R-S_QQ 7S/39E-3 NV		2250' N, 1200' E fr NW cor S 3 3100' S, 240' E fr NW Cor S			
2	Propos		2		Bedrock	2.2		7S/39E-4 SI			0' W fr <u>NE</u>		
3													
4						<u> </u>							
-	ium, CRB,	Bedro											
	Well	Firs		SWL	Well	Seal	Casing		Perforat			Test	
Well	Elev ft msl	Wate ft bl	r ft ble	Date	Depth (ft)	Interval (ft)	Interval (ft)	s Intervals (ft)	Or Scre (ft)			Туре	
1	3322		3		375	0-20;	0-375	None	200-3			†]	
2	3322				375	<u>180-200</u> 0-20;	0-375	None	200-3	75			
		 				180-200							
<u> </u>	<u> </u>	<u> </u>				<u> </u>						┼───┦	
	_												
Use dat	a from app	licatior	for proposed	wells.									
A4.	Use data from application for proposed wells. A4. Comments: <u>*The application requests a considerably higher rate and duty than would be customary for 140 acres.</u>												
A5. 🛛	manage (Not all	ment o basin	rules contai	ater hydrau n such prov	lically conne visions.)	cted to sur	rface wate	n rules relative t er <b>are</b> , or <b>[</b>	🛛 are not	, activated b	ssification y this appli	and/or cation.	
A6. 🗌	Well(s) #,,,,, tap(s) an aquifer limited by an administrative restriction. Name of administrative area:, Comments:												

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

- B1. Based upon available data, I have determined that ground water\* for the proposed use:
  - a. is over appropriated, is not over appropriated, or a 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.  $\square$  will not or  $\square$  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) <u>7N</u>
    - 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;

#### 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. 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.

**Describe injury** –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc):

# B3. Ground water availability remarks: <u>There are no nearby current State Observation Wells</u>. <u>The nearest non-current</u> well is an alluvial well (BAKE 79) and water levels were reasonably stable during the period of record.

Special permit condition language: The well shall be cased and sealed into competent bedrock.

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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
1,2	Bedrock, likely Tertiary basalt, andesite (Tab) or granite		

Basis for aquifer confinement evaluation: <u>Bedrock aquifers in the general vicinity are usually confined based on well</u> logs.

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 1/4 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	Elev Elev (ft) Connected?			Potentia Subst. In Assum YES	terfer.	
1	1	Warm Springs Creek	3270±	3318	5700				$\boxtimes$
2	1	Warm Springs Creek	3270±	3316	4550				$\boxtimes$
1	2	Powder River	3270±	3278	7800				$\boxtimes$
2	2	Powder River	3270±	3278	8900				$\square$

Basis for aquifer hydraulic connection evaluation: The bedrock aquifer is likely below the elevation of the nearby reaches of the creek and river and is inefficiently hydraulically connected with them.

Water Availability Basin the well(s) are located within: Powder R > Snake R above unnamed stream (72191).

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 < ¼ 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?
				-						

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.

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.

Well	<b>istributed</b> SW#	vv elis Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
wen	500	Jan %	<u>100</u> %	wiai %	-дрі %	wiay %	5ull %	- Jui %	Aug %	3ep %	<u>%</u>	%	9
Well (	) as CFS	70			710		710	70	70		710		7
	ence CFS										····		
merier	enec er s		., .,						かんよう			A CONTRACTOR	
Distrib	outed Well	s											
Well	SW#	Jan	Feb	Mar _	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	
Well (	Q as CFS									•			
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	Q as CFS												
Interfer	ence CFS												_
		%	%	%	%	%	%	%	%	%	%	%	
Well (	Q as CFS												
Interfer	rence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Weil (	Q as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	9
	Q as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
	Q as CFS												
Interfer	ence CFS												
(A) _ T-	tal Interal												197 /2
	otal Interf.												
	% Nat. Q												
(C) = 1	% Nat. Q												
(D) - (			1	C = C = C = C = C = C = C = C = C = C =	C_1,2,2,2,3,3	280805-522555 √	1	$\checkmark$	<u></u>		<u>√</u>		<u></u>
	$(\mathbf{A}) > (\mathbf{C})$									·			
$(\mathbf{E}) = (\mathbf{A}$	/ B) x 100	%	%	%	%	%	%	%	%	%	%	%	%

Application G-17748

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	(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:
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Ь.	690-09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the Wa Rights Section.
	If properly conditioned, the surface water source(s) can be adequately protected from interference, and/or ground water u 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;
. SV 	V / GW Remarks and Conditions
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Gr	ferences Used: <u>Geology of the Oregon Part of the Baker 1° by 2° Quad, Brooks, McIntyre and Walker, 1976; OWR</u> ound Water Report #6; Ground Water Resources of Baker Valley, Baker County, Oregon, by Frederick D. Trauger
<u> </u>	ound Water of Baker Valley, Baker County, Oregon, by Lystrom, Nees and Hampton, 1967; Nearby well logs and plication reviews,

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## D. WELL CONSTRUCTION, OAR 690-200

D1.	Well #:	Logid:		
D2.	<ul> <li>a. review of the</li> <li>b. field inspect</li> <li>c. report of CW</li> <li>d. other: (speci</li> </ul>	e well log; ion by VRE fy)	onstruction standards based upon:	i
D3.	THE WELL constru		ent is described as follows:	
D4. [	Route to the Well C	Construction and Compliance Sec	tion for a review of existing well construction.	

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Water Availability Tables

