# Water Right Conditions Tracking Slip

Groundwater/Hydrology Section

FILE # # 6-17410
ROUTED TO: Water Right
TOWNSHIP/
RANGE-SECTION: 35/1W-27

CONDITIONS ATTACHED?: [Yes [] no

REMARKS OR FURTHER INSTRUCTIONS:

See comments in A4 and conditions on page 2.

Reviewer: Karl Wozniak

### WATER RESOURCES DEPARTMENT

MEM	(0							Sept	1 2	4	200 2	1010	
								2					
TO:		Appli	cation (	G-17	410								
FROM	M:	GW:	/ 4 (Re	y	Wozu	nisk							
SUBJ	ECT:					nce Eva	luation						
	YES					. 4			•				
	The source of appropriation is within or above a Scenic Waterway												
V	NO												
	YES												
V	Use the Scenic Waterway condition (Condition 7J)												
	_1,0												
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.													
Calcula	ite the per ted, per c	rcentage ( riteria in	390.835,	nptive use do not fil	by mont	able but c	heck the	ble below "unable" iderance	option a	bove, th	us	u.	
Water	way by	the follo		mounts		e month ed as a			e const	umptive	Scenic e use by		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Ngy	Dec	7	
- 311.		1.144	. Jr.				-0					-1	

## PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO:		Wate	r Rights Sec	ction				Dat	e <u>Septe</u>	mber 24, 2	010	
FROM	:	Grou	nd Water/H	ydrology	Section	Karl W	/ozniak					
SUBJE	CCT:		cation G	-		David	aver's Name	eview of				
										Date of Re	view(s)	
OAR 69 welfare, to deter	90-310-1 safety armine when umption	30 (1) Ind healther the criteria.	<i>th as describ</i> e presumption	ent shall p ed in ORS n is establi v is based	resume that 537.525. D shed. OAR upon avail	a propose epartment 690-310-1 able infor	ed grounds staff revie 140 allows mation an	water use will w ground wat the proposed d agency pol	er application use be modificies in place	ns under OA fied or condi e at the time	R 690-31 tioned to e of evalu	0-140 meet ation.
A1.	Applica	ant(s) seek(s) <u>0.446</u> cfs from <u>1</u> well(s) in the <u>Willamette</u>										_ Basin,
						subba	asin Q	uad Map: <u>S</u>	nerwood			
A2. A3.	Propose Well an			ery ch and nui	mber logs f	Seas	onality: _ g wells; m	Year Roun ark proposed	d wells as suc	ch under log	gid):	
Well	Logid		Applicant's Well #		ed Aquifer*	Propo Rate(	(cfs)	Location (T/R-S QQ 3S/IW-27 NE	-Q) 2	Location, metes and bounds 2250' N, 1200' E fr NW cor 50' S, 250' W fr C1/4 cor S		
3										5,250 11		
4												
* Alluvii	ım, CRB,	Bedrock				<u> </u>						
Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforation Or Screen: (ft)	1	Draw Down (ft)	Test Type
1	168				220	0-50						
Use data	from app	lication	for proposed v	vells.								
A4.	Comme	ents: <u>T</u>	he applicant	requests a	eady includ	ed in perm	it G-8355	s) from a sing which is serve	ed by CLAC	8613 which	also proc	Most of luces
A5. 🗌	Provisions of the Willamette Basin rules relative to the development, classification and/or management of ground water hydraulically connected to surface water are, or are not, activated by this application. (Not all basin rules contain such provisions.)  Comments: At the proposed location the well will produce from a confined aquifer so the pertinent rules do not apply.											
A6. 🗌	Name o	f admin	istrative area	1:				ap(s) an aquif				

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

200	ised	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 operiod of the proposed use. * This finding is limited to the ground water portion of the determination as prescribed in OAR 690-310-130;	
b.		will not or will likely be available in the amounts requested without injury to prior is limited to the ground water portion of the injury determination as prescribed	
c.		will not or will likely to be available within the capacity of the ground water resour	rce; or
d.		will, if properly conditioned, avoid injury to existing ground water rights or to the gro i. The permit should contain condition #(s) 7C 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;	und 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 alluvial	ground
		water reservoir between approximately ft. and ft. below land s	<del>:urtace;</del>
		Describe injury —as related to water availability—that is likely to occur without well recosenior water rights, not within the capacity of the resource, etc):	nstruction (interference w/
10 gre thr	00 f eate	feet is Willamette Silt. Productive sand and gravel beds are common from about 100-200 feet ter depths. Several nearby wells (MARI 165 & MARI 173) show about 10 feet of annual warugh 2008. However, water levels seem to be relatively stable in wells that have more recent of	et but increasingly rare at ter-level decline from 1999
pro	<u>oba</u>	erlying sands and gravels and the lack of progressive trends in the broader surrounding area so bably not over appropriated. A water-level measurement condition is recommended to monitorelepoper on the local alluvial aquifer system.	uggests that groundwater is
pro	<u>oba</u>	erlying sands and gravels and the lack of progressive trends in the broader surrounding area so bably not over appropriated. A water-level measurement condition is recommended to monitor elopment on the local alluvial aquifer system.	uggests that groundwater is
pro	<u>oba</u>	pably not over appropriated. A water-level measurement condition is recommended to monitor	uggests that groundwater is
pro	<u>oba</u>	pably not over appropriated. A water-level measurement condition is recommended to monitor	uggests that groundwater is
pro	<u>oba</u>	pably not over appropriated. A water-level measurement condition is recommended to monitor	uggests that groundwater is
pro	<u>oba</u>	pably not over appropriated. A water-level measurement condition is recommended to monitor	uggests that groundwater is
pro	<u>oba</u>	pably not over appropriated. A water-level measurement condition is recommended to monitor	uggests that groundwater is
pro	<u>oba</u>	pably not over appropriated. A water-level measurement condition is recommended to monitor	uggests that groundwater is
pro	<u>oba</u>	pably not over appropriated. A water-level measurement condition is recommended to monitor	uggests that groundwater is

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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	Alluvial Aquifer		

Basis for aquifer confinement evaluation: The productive sand and gravel beds at depth are confined by bout 80 feet of saturated Willamette Silt.

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	Willamette River	110	60	1900		

Basis for aquifer hydraulic connection evaluation: Published water-level maps show that the alluvial aquifer system flows toward and discharges into the Willamette River. The streambed and the aquifer system are composed of permeable sediments, These facts indicate that the alluvial aquifer is hydraulically connected to the Willamette River.

Water Availability Basin the well(s) are located within: 182: Willamette R > Columbia R - Ab Molalla R

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 \( \subseteq \) 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?
1	1			MF182A	1500		3830		<25%	

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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.

evariation and in								
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: The presence of interbedded silts and clays in the aquifer between 100 and 200 feet will buffer pumping effects on the river. Modeling in similar circumstances suggests that interference will be less than 25% at 30 days.

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	istributed SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WCII	3 W #	3dii %	%	%	<b>Ар</b> г	%	% Jun	<del>3u1</del> %	Aug %	З <b>с</b> р	<del>%</del>	%	<u> </u>
Wall C	) CFC	%			<del>%</del> 0	%	70	<del>%</del> 0	70		70	70	
	Q as CFS						_						
Interter	ence CFS												
Distrib	uted Well	s								-			
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well	Q as CFS												
Interfer	ence CFS						_					8	
		%	%	%	%	%	%	%	%	%	%	%	%
Well	Q as CFS												
Interfer	ence CFS			_									
		%	%	%	%	%	%	%	%	%	%	%	9/
Well (	Q as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	9/
Well (	Q as CFS												
Interfer	rence CFS												
		%	%	%	%	%	%	%	%	%	%	%	9/
	Q as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%_	9/
	Q as CFS												
Interfer	rence CFS												
(A) T	- 4 - 1 I - 4 C					=11)2							
	otal Interf.												
<u> </u>	% Nat. Q												
(C) = 1	% Nat. Q												
(D) =	(A) > (C)	1	1	1	1	1	1	1	1	1	1	1	1
		1.50	0.4	070	0.	0/	0/	0/		- 17	0/	9/	%
$(\mathbf{E}) = (\mathbf{A}$	/B) x 100	%	%	%	%	%	%	%	%	%	%	%	9/

(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.

Version: 08/15/2003

Basis for impact evaluation:	
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<ol> <li>690-09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the Rights Section.</li> </ol>	ie W
If properly conditioned, the surface water source(s) can be adequately protected from interference, and/or ground w 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;	ater ı
SW / GW Remarks and Conditions	
	_
References Used:	
Conlon, T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 200 Ground-water hydrology of the Willamette Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2005-	<u>5,</u> 5168
Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Was U.S. Geological Survey Professional Paper 1424-A, 32 p.	
Woodward, D.G., Gannett, M.W., and Vaccaro, J.J., 1998, Hydrogeologic framework of the Willamette Lowland aquifer	syst
Oregon and Washington: U.S. Geological Survey Professional Paper 1424-B, 82 p.	
Organization Westington, H.C. Controlled Co., D. C. Controlled Co.	

Date: September 24, 2010

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Application G-17410

#### D. WELL CONSTRUCTION, OAR 690-200

D1.	Well #:	Logid:
D2.	a.	ELL does not meet current well construction standards based upon: review of the well log; field inspection by
D3.	a.	ELL construction deficiency: constitutes a health threat under Division 200 rules; commingles water from more than one ground water reservoir; permits the loss of artesian head; permits the de-watering of one or more ground water reservoirs; other: (specify)
D4.		ELL construction deficiency is described as follows:
D5. D6. [		original construction or most recent modification.  b.  I don't know if it met standards at the time of construction.  to the Enforcement Section. I recommend withholding issuance of the permit until evidence of well reconstruction
		with the Department and approved by the Enforcement Section and the Ground Water Section.
		Instruction deficiency has been corrected by the following actions:
D8. [	Route	(Enforcement Section Signature)  to Water Rights Section (attach well reconstruction logs to this page).

#### Water Availability as of 9/24/2010

Watershed ID #: 182

Date: 9/24/2010

Exceedance Level:

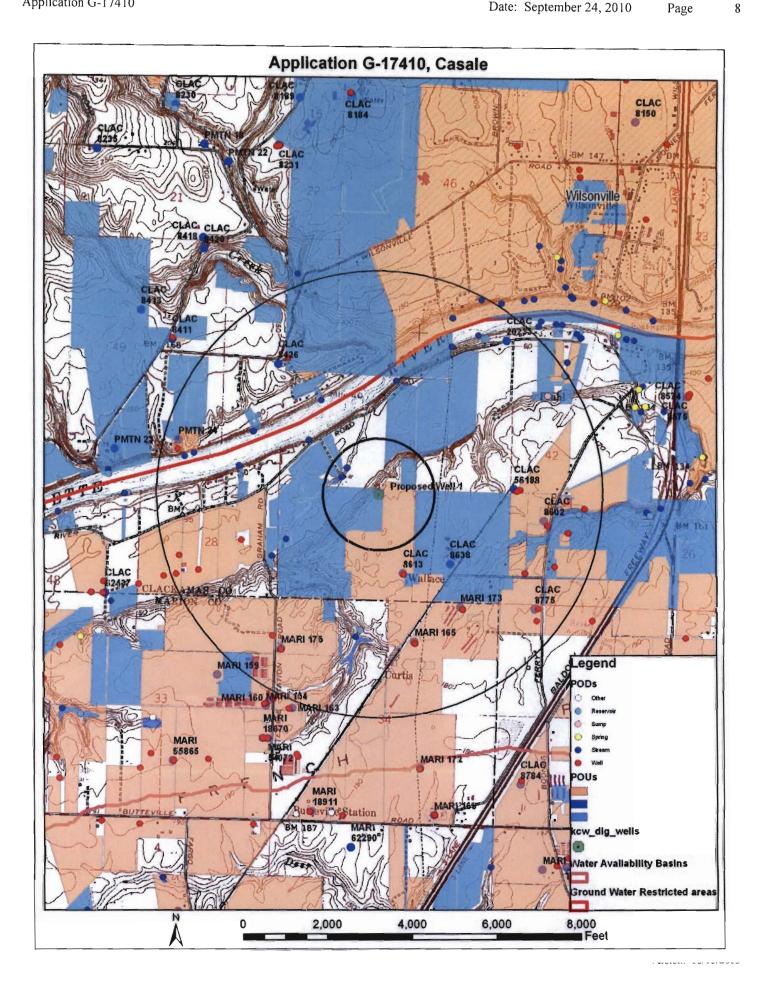
80% 🔻

Time: 11:36 AM

# **Water Availability Calculation**

Monthly Streamflows in Cubic Feet per Second Storage at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	21,400.00	2,250.00	19,100.00	0.00	1,500.00	17,600.00
FEB	23,200.00	7,440.00	15,800.00	0.00	1,500.00	14,300.00
MAR	22,400.00	7,220.00	15,200.00	0.00	1,500.00	13,700.00
APR	19,900.00	6,870.00	13,000.00	0.00	1,500.00	11,500.00
MAY	16,600.00	4,200.00	12,400.00	0.00	1,500.00	10,900.00
JUN	8,740.00	2,050.00	6,690.00	0.00	1,500.00	5,190.00
JUL	4,980.00	1,870.00	3,110.00	0.00	1,500.00	1,610.00
AUG	3,830.00	1,720.00	2,110.00	0.00	1,500.00	614.00
SEP	3,890.00	1,470.00	2,420.00	0.00	1,500.00	918.00
OCT	4,850.00	717.00	4,130.00	0.00	1,500.00	2,630.00
NOV	10,200.00	851.00	9,350.00	0.00	1,500.00	7,850.00
DEC	19,300.00	924.00	18,400.00	0.00	1,500.00	16,900.00
STO	15,200,000.00	2,250,000.00	13,000,000.00	0.00	1,090,000.00	11,900,000.00



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Date: September 24, 2010

#### Water Levels in Nearby Wells

