# Water Right Conditions Tracking Slip

Groundwater/Hydrology Section

FILE## G 17287 ROUTED TO: Brook Geffen
ROUTED TO: Brook Geffen
TOWNSHIP/ RANGE-SECTION: 365/3W - 4
CONDITIONS ATTACHED ?: Xyes [] no
REMARKS OR FURTHER INSTRUCTIONS:
Reviewer: Jen Woody
Reviewer. Jen Wood

### WATER RESOURCES DEPARTMENT

MEM	0							De	C.		200 9
TO: FROM		GW:_	Sention (	Woo viewer's N	ame)		luation				
<u> </u>	YES  The source of appropriation is within or above a Scenic Waterway  NO  YES  Use the Scenic Waterway condition (Condition 7J)  NO										
	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.											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

#### PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS TO: Water Rights Section Date 11/30/2009 FROM: Ground Water/Hydrology Section \_\_\_\_\_ Jen Woody Reviewer's Name SUBJECT: Application G- <u>17287</u> Supersedes review of \_\_\_\_\_\_n/a 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: Kellogg Kin, Inc. County: Jackson A1. Applicant(s) seek(s) 0.11 cfs from 1 well(s) in the Middle Rogue River Basin, Sardine Creek subbasin Quad Map: Gold Hill Proposed use: Irrigation Seasonality: March 1- 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 Location Location, metes and bounds, e.g. Well Logid Proposed Aquifer\* Well# Rate(cfs) (T/R-S QQ-Q) 2250' N, 1200' E fr NW cor S 36 **JACK 32837** 1 Bedrock 0.11 36S/3W-4 SW SW 1260' N, 423' E fr SW cor S 4 2 3 4 5 \* Alluvium, CRB, Bedrock Well First Well Seal Casing Liner Perforations Well Draw **SWL SWL** Test Well Elev Water Depth Interval Intervals Intervals Or Screens Yield Down ft bls Date Type ft msl ft bls (ft) (ft) (ft) (ft) (ft) (gpm) (ft) 10/20/1993 20 1275 37 0-500 - 50n/a 35-46 90 n/a A Use data from application for proposed wells. A4. **Comments:** A5. Provisions of the Rogue 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: <u>n/a</u>

Application:	G- 17287	continued
ipplication.	0-1/20/	continucu

Date: 12/01/2009\_\_\_\_

#### 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.	$\square$ is over appropriated, $\square$ is not over appropriated, or $\square$ 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) 7J, 7C

i. 

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;

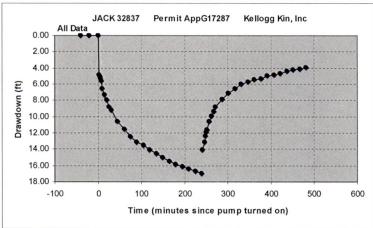
d. Well reconstruction is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed 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: The applicant's well is located in an area that is characterized by dry summers, steep slopes, low-yield bedrock aquifers of the Applegate Group and runoff-dominated streams. Well logs describe 5 to 10 ft of decomposed bedrock or alluvial deposits at the surface, transitioning into fractured metavolcanics that are increasingly confined with depth. The applicant's well is open to water-bearing zones in the fractured bedrock.

There are only 10 well logs in section 4, and the median yield is 8 gpm (according to OWRD's well log database).

The pump test conducted by Hydro-Flow, Inc. on 11/9/2001 shows continuing decline throughout 4 hours of pumping at 50 gpm and incomplete recovery in the well after 4 hours (see graph below). This suggests the well may not yield 50 gpm in the long term.



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Date: 12/01/2009\_\_\_\_

Version: 08/15/2003

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C. GROUND WATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

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?
L										
L										
	2-05									

Date: 12/01/2009

Comments: \_\_\_\_There is no readily available model to calculate stream interference in a fractured system. Other pump tests in similar fractured-aquifer environments show steep but narrow cones of depression that are limited to relatively small areas around the pumping well. Therefore, stream impacts (at this distance) in a fractured system are likely to be relatively small after 30 days because the cone of depression is unlikely to intercept the stream over any broad reach.

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-Di	istributed V	Vells											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS			7									
Interfer	ence CFS												
	uted Wells												
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfer	ence CFS									1.			
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well O	as CFS												
	ence CFS												
	T	%	%	%	%	%	%	%	%	%	%	%	%
Well O	as CFS	,,,	70	70	,,,	70	70	,,,	70	70	,,	70	,,,
	rence CFS												
111101101	1	%	%	%	%	%	%	%	%	%	%	%	%
Well O	as CFS	70	/0	70	70	70	70	70	70	/0	70	70	,,,
	rence CFS												
merrer	chec Cr 5												
(A) = T	otal Interf.												
(B) = 80	) % Nat. Q	4		-									
(C) = 1	% Nat. Q												
(D) = (.	A) > (C)	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	✓	✓	✓	√
	A / 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: No tool is available to evaluate impact greater than 1 mile from the wells.

pplication: G- 17287 continued	Date: 12/01/2009	
- <del>1</del>		
4b. 690-09-040 (5) (b) The potential to impair or det Rights Section.	trimentally affect the public interest is to be determined	by the Water
under this permit can be regulated if it is found to sult.  i. The permit should contain condition #(s)	)	nd water use
ii.   The permit should contain special condi	tion(s) as indicated in "Remarks" below;	
5. SW / GW Remarks and Conditions:		4
		,
References Used:		
Beaulieu, J.D., and P.W. Hughes, 1977. Land Use Geolo of Geology and Mineral Industries.	gy of Central Jackson County, Oregon. Bulletin 94, Oregon	Department
University, George R. Priest, DOGAMI; additional help	tzig, Ray E. Wells, U.S. Geological Survey, Alan R. Niem, by Darrick E. Boschmann, Marie W. Brophy, Christina L. Foregon Geospatial Data Compilation (OGDC Release- 5), Oddatafiles.	urnari, Olivia
OWRD well log database, accessed November 30, 2009.		
		<u> </u>

App	licati	ion: G- 17287	continued	Date: 12/01/2009	. 6
D. <u>y</u>	WEI	LL CONSTRUCT	TION, OAR 690-200		
D1.		Well #:	Logid:		
D2.			not meet current well construction s	andards based upon:	
		a. review of t			
		c. report of C	WRF		;
		d. dother: (spe	cify)		
D3.		b. commingle c. permits the d. permits the	ruction deficiency: a health threat under Division 200 rules water from more than one ground was closs of artesian head; de-watering of one or more ground weify)	ater reservoirs;	
D4.		THE WELL const	ruction deficiency is described as fol	lows:	
2 .,					9103-
D5.			<ul> <li>a.  was, or was not constructed original construction or most and are standard to the standard or the</li></ul>		
D6.				olding issuance of the permit until evidence of well reconstrument Section and the Ground Water Section.	ction
TH	IS S	ECTION TO BE	COMPLETED BY ENFORCEM	MENT PERSONNEL	
D7		Wall construction d	aficianay has been corrected by the fo	lowing actions:	
<i>D</i> /.	Ш	wen construction a	efficiency has been corrected by the for	lowing actions.	
				, 20	0
		(Enforcem	ent Section Signature)	,20	·
D8.			ights Section (attach well reconstruc	ction logs to this page).	

Application:	G-	17287		continued
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Date: 12/01/2009\_\_\_\_\_

Water Availability

## SARDINE CR > ROGUE R - AT MOUTH ROGUE BASIN

Water Availability as of 11/30/2009

Watershed ID #: 275

Exceedance Level:

Watershed Characteristics

80% 🕶

Date: 11/30/2009

Time: 11:23 AM

Water Availability Calculation Consumptive Uses and Storages

Water Rights

Instream Flow Requirements

Reservations

**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	9.08	0.73	8.35	0.00	12.00	-3.65
FEB	16.40	0.73	15.70	0.00	12.00	3.67
MAR	14.20	0.73	13.50	0.00	12.00	1.47
APR	6.61	1.12	5.49	0.00	12.00	-6.51
MAY	2.87	1.35	1.52	0.00	4.00	-2.48
JUN	1.25	1.60	-0.35	0.00	1.00	-1.35
JUL	0.62	1.90	-1.28	0.00	1.00	-2.28
AUG	0.48	1.69	-1.21	0.00	1.00	-2.21
SEP	0.34	1.36	-1.02	0.00	8.00	-9.02
OCT	0.46	0.92	-0.46	0.00	8.00	-8.46
NOV	1.17	0.73	0.44	0.00	12.00	-11.60
DEC	4.19	0.73	3.46	0.00	12.00	-8.54
STO	8,510.00	822.00	7,880.00	0.00	5,710.00	3,870.00

#### Well Location Map

