PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS TO: Water Rights Section Date <u>October 12, 2010</u> FROM: Ground Water/Hydrology Section ____ Marc Norton Reviewer's Name SUBJECT: Application G- 17252 Supersedes review of October 22, 2009 **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: Randy Marshall County: Wasco Applicant(s) seek(s) 1.0 cfs from 1 well(s) in the Deschutes River A1. White River _____ subbasin Quad Map: Wamic ____ Irrigation 135.3 acres A2. Proposed use: Seasonality: March 1 to October 31 Well and aquifer data (attach and number logs for existing wells; mark proposed wells as such under logid): A3. Applicant's Proposed Proposed Location Location, metes and bounds, e.g. Well Logid Well # Aquifer* Rate(cfs) (T/R-S QQ-Q) 2250' N, 1200' E fr NW cor S 36 1 WASC51459 1 Volcanic 1.0 04S/12E-28 SE SW 1170' N, 1930' E fr SW cor S 28 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 bls (ft) (ft)(ft) (ft) ft msl (ft) (gpm) (ft) 500 2/20/05 1 1925 699 865 0 - 180 - 18300 Air Use data from application for proposed wells. A4. Comments: Olivine basalt On October 7, 2010, a down-hole video log was done by the Department to verify that the well met well construction standards. There was no evidence of cascading water or inner-bore-hole flow. Requested discharge rate is 448 gpm = 1.0 cfs. A5. Provisions of the Deschutes River 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: Lower Main Stem Deschutes River – River mile 46 where White River enters the Deschutes River.

Name of administrative area:

Comments:

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

	asec	d 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 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)
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):
		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): Ind water availability remarks: The well develops water from volcanic rocks. The closest observation well is set five miles to the north east.
		nd water availability remarks:

Application G-17252_____continued

Date October 12, 2010

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Volcanic rock	\boxtimes	
		<u>_</u>	
	or aquifer confinement evaluation: Ground water level i	ose above the depth where gro	und water was
encoun	tered (well log),		

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

Basis for aquifer hydraulic connection evaluation: Ground water levels and the confined aquifer are well below Rock Creek at one mile and below the White River at two miles. The aquifer is not hydraulically connected within a one mile
radius.
Water Availability Basin the well(s) are located within: WHITE R > DESCHUTES R - AT MOUTH

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?
			<u> </u>							
			<u> </u>							

Application G-17252	continued
rippireation G-17232	Continucu

Date	October 12, 2010

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

	ID	Right Q (cfs)	ISWR?	Flow (cfs)	Natural Flow?	@ 30 days (%)	Interfer. Assumed?

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	istributed	Wells											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
Distril	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	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfer	ence CFS					Parketter with a second							
$(\mathbf{A}) = \mathbf{T}\mathbf{c}$	otal Interf.					1							
$(\mathbf{B}) = 80$	% Nat. Q												
(C) = 1	% Nat. Q												
(D) = (A	A) > (C)	1	1	1	1	1	V	1	V	1	1	1	1
	/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.

Application	on G-17252	continued		Date	October 12, 2010
Ba	isis for impact eval	uation:			
_					
C4b. 6 9	90-09-040 (5) (b) Rights Section.	The potential to impair or	detrimentally affect the	e public interest is to	be determined by the Water
C5. 🔲 I	under this permit ca	n be regulated if it is found to	substantially interfere wi	ith surface water:	nce, and/or ground water use
	ii. The per	mit should contain condition in mit should contain special con	ndition(s) as indicated in	"Remarks" below;	
26. SW /	GW Remarks and	Conditions			
Defe		Deer C. W. O. Marked and M.	C. Carlania Manager	1001	
Keie	rences Used: <u>Wa</u>	lker, G. W. & MacLeod, N.	S., Geologic Map of Or	regon, 1991.	
_					

01.	Well #: Logid:
D2.	THE WELL does not meet current well construction standards based upon: a. review of the well log; b. field inspection by report of CWRE d. other: (specify)
03.	THE WELL construction deficiency: a.
D4.	THE WELL construction deficiency is described as follows:
O5.	THE WELL a. □ was, or □ was not constructed according to the standards in effect at the time of original construction or most recent modification. b. □ I don't know if it met standards at the time of construction.
06.	Route to the Enforcement Section. I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Enforcement Section and the Ground Water Section.
THIS	SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL
D7.	Well construction deficiency has been corrected by the following actions:
	(Enforcement Section Signature) , 200_
	(Entereement Section Signature)

Application G-17252 continued

Date _____ October 12, 2010

