Water Right Conditions Tracking Slip Groundwater/Hydrology Section

FILE # # _ G-17522 ROUTED TO: Water Rights - J. Eastman TOWNSHIP/
RANGE-SECTION: 55/2E-4,5 CONDITIONS ATTACHED?: [17/es [] no
REMARKS OR FURTHER INSTRUCTIONS: Sec conditions in page 2.
Reviewer: Karl C. Weenick

WATER RESOURCES DEPARTMENT

MEM	10							Juna	2 7		2 0 0 <u>20</u> / 2
TO:	M:		ication K.a			. <u>k</u>					
SUBJ	ECT:		• .		,	nce Eva	luation	1			
	_YES _NO	The so	ource of	approp	riation i	is withir	or abo	ve a Sco	enic Wa	terway	·
	_YES _NO	Use th	e Sceni	c Water	way coi	ndition ((Conditi	ion 7J)			
	interfection calculation calcu	erence wated into RS 390. Erence we proper the prop	vith surferences 835, the vith surferent is un osed us	ace wat e is dist Ground ace wat nable to e will n	er that cributed d Water er that co find the	Section contributed below. Section contributed thereby reduced by reduced by section contributed by reduced b	is unal tes to a se is a produce the	Scenic Y ble to conscenic v reponde	Waterw alculate vaterwa erance e water	ground y; there of evide flows	water e fore,
Calcula calculai informin Exerci Waterv	te the per ted, per c ng Water se of th way by	riteria in Rights th is permi	of consum 390.835, at the De t is calc owing an	nptive use do not fit partment ulated t nounts	e by mont ill in the to is unable o reduce	h and fill able but c e to make e month ed as a p	heck the a Prepon ly flows	"unable" nderance s in	option a of Evider	bove, thu ice findin	s g. Scenic
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO:		Water	Rights S	ection				Date	<u>Jun</u>	e 7, 2012		
FROM	:	Groun	d Water/	Hydrology	Section		Vozniak					
SUBJE	CT:	Applic	cation G-	17522		Revi Su	ewer's Name persedes r	eview of		Date o	f Review(s)	
OAR 69 welfare, to determent the press	90-310-1 safety and mine who umption	30 (1) The state of the criteria.	he Depart h as descr presumpt This revie	ibed in ORS ion is establi ew is based	resume that 537.525. D shed. OAR upon avail	a propos epartment 690-310- able infor	ed groundv t staff revie 140 allows mation an	water use will on the ground water the proposed of the ground agency policy	er applications are be moderated in the contract of the contra	ons under diffied or co	OAR 690-3 nditioned to	10-140 meet
A. <u>GE</u>	NERAL	INFO	<u>RMATI(</u>	<u>ON</u> : A _l	oplicant's N	lame:	Roy or Kr	<u>isti Moorhou</u>	se	_ County	: Clacka	m <u>as</u>
A1.			ek(s) <u>1.2</u>	7 cfs from	n2	well((s) in the	Willamette				_ Basin,
		<u>Molalla</u>				subb	asin Q	uad Map: <u>M</u>	<u>olalla</u>			
A2. A3.								March 1 – 0 ark proposed			logid):	
Well	Logic		Applicant Well #	Propos	ed Aquifer*	Prop Rate	(cfs)	Location (T/R-S QQ-	-Q)	2250' N, 12	netes and bou	cor S 36
2	CLAC 20 CLAC 51		3 4		luvium luvium	1.2 1.2		05S/02E-04 SV 05S/02E-05 N			0' E fr W1/4 o 50' W fr NE o	
3 4												
5 * Alluviu	ım, CRB,	Bedrock										
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)	ens Yiel	d Down n) (ft)	Test Type
2	316	36	13	02/16/1995	410	0-38	+2-340	+2-338	100-12 148-21 276-30- 100-15- 172-21	8 4 6 650		Р
									292-30			
Use data	from app	lication f	or proposed	i wells.								
A4.	perfora	tions fro	m 101-304	is an alterated and an inneterval of the	er gravel pa	ck betwee	n the 8-incl	n an 8-inch inn h liner and the	12-inch ca	as installed asing. The	from +2-33 se changes o	8 ft with lid not
A5. 🗆	manage (Not all Comme	ment of basin ru	ules contai e pertinent	ater hydrauli n such provi rules (OAR	sions.) .690-502-0	240) do no	rface water ot apply be	rules relative t are, or cause the well	are not,	activated b	y this applic	cation.
A6. □	Name o	of admin	istrative ar	rea:				tap(s) an aquif			nistrative re	estriction.

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

a. □ is over appropriated, ☑ is not over appropriated, or □ 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) _ TC_ Large water use reporting with a meter on each well ii. □ The permit should be condition #(s) _ TC_ Large water use reporting with a meter on each well iii. □ The permit should 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 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 injuryas 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): Ground water availability remarks: Water-level trends in the area show no obvious declines. Over 100 feet of saturated sands and gravels occur beneath the proposed wells sites. These facts suggest that there is		sed upon available data, I have determined that ground water* for the proposed use:
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:	a.	period of the proposed use. * This finding is limited to the ground water portion of the over-appropriation
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)	b.	
i. The permit should contain condition #(s) 7C. Large water use reporting with a meter on each well 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; a. Condition to allow ground water production from no deeper than	c.	\square will not or \square will likely to be available within the capacity of the ground water resource; or
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): Ground water availability remarks: Water-level trends in the area show no obvious declines. Over 100 feet of saturated sands and gravels occur beneath the proposed wells sites. These facts suggest that there is an adequate supply of ground water	d.	 i. The permit should contain condition #(s) 7C, Large water use reporting with a meter on each well ii. The permit should be conditioned as indicated in item 2 below.
c. Condition to allow ground water production only from the 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): Ground water availability remarks: Water-level trends in the area show no obvious declines. Over 100 feet of saturated sands and gravels occur beneath the proposed wells sites. These facts suggest that there is an adequate supply of ground water	a.	Condition to allow ground water production from no deeper than ft. below land surface;
d.	b.	Condition to allow ground water production from no shallower than ft. below land surface;
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): Ground water availability remarks:	c.	Condition to allow ground water production only from the ground water reservoir between approximately ft. and ft. below land surface;
sands and gravels occur beneath the proposed wells sites. These facts suggest that there is an adequate supply of ground water		
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		Describe injury -as related to water availability- that is likely to occur without well reconstruction (interference w/
	sanc	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):
	sanc	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):
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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	Alluvium		
2	Alluvium		
		_	

Basis for aquifer confinement evaluation: Well logs indicate semi-confined to confined conditions.

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 ½ 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	Un-named trib to Molalla R	300	275-360	1340		
2	1	Un-named trib to Molalla R	300	275-360	1340		

Basis for aquifer hydraulic connection evaluation: <u>Heads in the wells are essentially equivalent to elevations of adjacent stream reaches.</u> Also, according to the USGS 7.5-minute quad map, the un-named stream becomes perennial about 1 mile upstream of the wells. This indicates that groundwater flows toward and discharges into the stream in the adjacent reach.

Water Availability Basin the well(s) are located within: 70747 Molalla R>Willamette R-AB Milk Cr. CLAC 50138 falls just inside the Molla R>Willamette R-At Mouth WAB (69796) but pumping impacts are largely expected to impact the nearest stream which is in WAB 70747. Therefore, only WAB 70747 was evaluated for both wells.

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						54.50	\boxtimes	<25%	\boxtimes
2	1						54.50	\boxtimes	<25%	
							_			

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									

Comments: A model was not run to determine interference at 30 days but modeling in similar circumstances indicates that the
presence of silts and clays between the first water-bearing zone and the bed of the stream should keep interference well below
25% in the first 30 days of pumping.

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 Well	istributed SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WCII	<u> </u>	%	%	%	%	%	%	%	%	%	%	%	%
Wall C	as CFS	70	70	/0	70	/0		- /0	- /0		70		
	ence CFS												
Interier	ence CFS												
Distrib	uted Wells	 s											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul_	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well (as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	
Well (as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	-%	%	%	%	%	%
Well (as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	9/
Well (Q as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	9/
Well	Q as CFS												
Interfer	rence CFS												
		%	%	%	%	%	%	%	%	%	%	%	
Well	Q as CFS												
Interfe	rence CFS								_	<u>, </u>	1011		
(A) = T	otal Interf.												
) % Nat. Q												
	% Nat. Q												
				√			V		_			<u>√</u>	√
	(A) > (C)	√	✓ <u> </u>					%	<u> </u>	%	- %	%	
$(\mathbf{E}) = (A$	(A / B) x 100	%	%	%	%	%	%	%	%	70			70

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690-09-040 (5 Rights Secti	(b) The potential to impair or	detrimentally affect the p	public interest is to be o	determined by the Wate
under this pern	editioned, the surface water source it can be regulated if it is found to be permit should contain condition	substantially interfere with	ected from interference, surface water:	and/or ground water use
ii. 🗖 Th	e permit should contain special co	ondition(s) as indicated in "I	Remarks" below;	
W / GW Remark	and Conditions			
W / GW Remark	and Conditions			
W / GW Remark	and Conditions			
W / GW Remark	and Conditions			
W / GW Remark	and Conditions			
W / GW Remark	and Conditions			
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	and Conditions			
eferences Used:_		a, N.B., Fisher, B.J., Morga	n, D.S., Lee, K.K., and	Hinkle, S.R., 2005,
eferences Used:_ onlon, T.D., Woz round-water hydro	iak, K.C., Woodcock, D., Herrer logy of the Willamette Basin, Or	a, N.B., Fisher, B.J., Morga egon: U.S. Geological Surv	n, D.S., Lee, K.K., and ey Scientific Investigation	Hinkle, S.R., 2005, ons Report 2005-5168.
eferences Used:_ onlon, T.D., Wozi round-water hydro annett, M. W. and	iak, K.C., Woodcock, D., Herrer	a, N.B., Fisher, B.J., Morga egon: U.S. Geological Surv framework of the Willamette	n, D.S., Lee, K.K., and ey Scientific Investigation	Hinkle, S.R., 2005, ons Report 2005-5168.
eferences Used:_ onlon, T.D., Wozi round-water hydro annett, M. W. and /ashington: U.S. (iak, K.C., Woodcock, D., Herrer logy of the Willamette Basin, Or Caldwell, R.R., 1998, Geologic to declogical Survey Professional Profe	a, N.B., Fisher, B.J., Morga egon: U.S. Geological Surv ramework of the Willamette per 1424-A, 32p.	n, D.S., Lee, K.K., and ey Scientific Investigation to low land aquifer system	Hinkle, S.R., 2005, ons Report 2005-5168.
eferences Used:_ onlon, T.D., Wozz round-water hydro annett, M. W. and /ashington: U.S. 6 ampton, E.R., 197	iak, K.C., Woodcock, D., Herrer logy of the Willamette Basin, Or Caldwell, R.R., 1998, Geologic	a, N.B., Fisher, B.J., Morga egon: U.S. Geological Surv ramework of the Willamette per 1424-A, 32p.	n, D.S., Lee, K.K., and ey Scientific Investigation to low land aquifer system	Hinkle, S.R., 2005, ons Report 2005-5168.
eferences Used:_ onlon, T.D., Wozi round-water hydro annett, M. W. and /ashington: U.S. (ampton, E.R., 197) eological Survey /oodward, D.G., (iak, K.C., Woodcock, D., Herrer logy of the Willamette Basin, Or Caldwell, R.R., 1998, Geologic a deological Survey Professional Page 12, Geology and ground water of the	a, N.B., Fisher, B.J., Morga egon: U.S. Geological Surv framework of the Willamett aper 1424-A, 32p. the Molalla-Salem slope are:	n, D.S., Lee, K.K., and ey Scientific Investigation e lowland aquifer system a, northern Willamette w	Hinkle, S.R., 2005, ons Report 2005-5168. n, Oregon and ralley, Oregon: U.S.

D.	WELL	CONS	<u> </u>	CTION,	OAR	<u>690-200</u>

D1.	Well #:	Logid:	
D2.	a. review b. field ins c. report of	oes not meet current well construction standards based upon: of the well log; aspection by of CWRE (specify)	:
D3.	a. constitu b. commir c. permits d. permits	onstruction deficiency: utes a health threat under Division 200 rules; ngles water from more than one ground water reservoir; s the loss of artesian head; s the de-watering of one or more ground water reservoirs; (specify)	
D4.		onstruction deficiency is described as follows:	
D5.	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. don't know if it met standards at the time of construction. 	struction
	is filed with the l	Department and approved by the Enforcement Section and the Ground Water Section.	
THI	S SECTION TO	BE COMPLETED BY ENFORCEMENT PERSONNEL	
D7.	Well constructio	on deficiency has been corrected by the following actions:	
D8.		cement Section Signature) er Rights Section (attach well reconstruction logs to this page).	, 200

Water Availability Tables

MOLALLA R > WILLAMETTE R - AB MILK CR WILLAMETTE BASIN

Water Availability as of 6/7/2012

Watershed ID #: 70747

Exceedance Level:

Date: June 7, 2012

80% ▼

Date: 6/7/2012

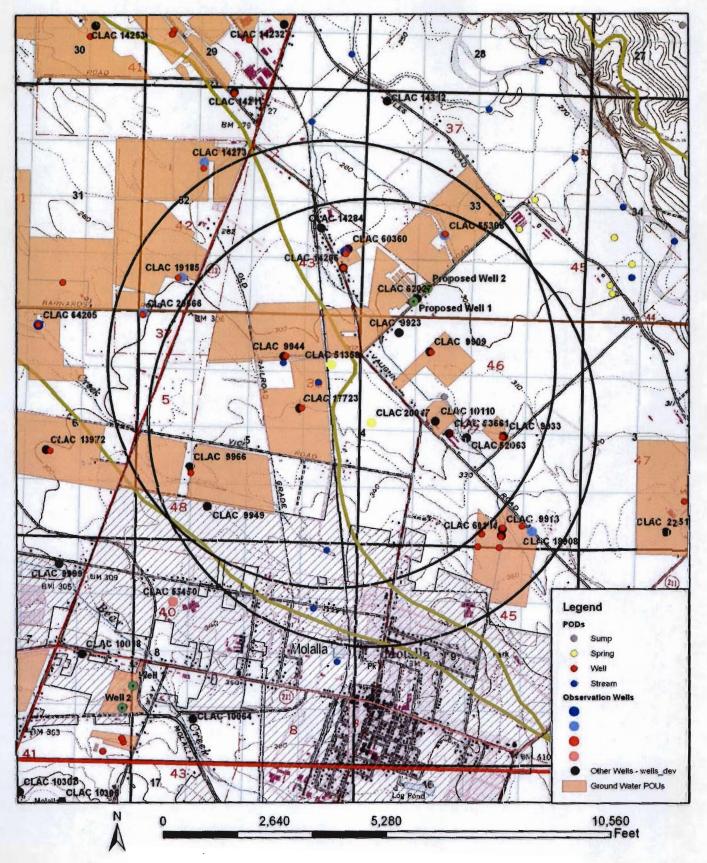
Time: 8:20 AM

Water Availability Calculation

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

Month	Natural Stream Flow	Consumptive Uses and S Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	531.00	1.29	530.00	0.00	300.00	230.00
FEB	541.00	1.27	540.00	0.00	300.00	240.00
MAR	569.00	1.30	568.00	0.00	300.00	268.00
APR	591.00	1.57	589.00	0.00	300.00	289.00
MAY	466.00	4.87	461.00	0.00	300.00	161.00
JUN	207.00	6.85	200.00	0.00	200.00	0.15
JUL	85.90	12.10	73.80	0.00	100.00	-26.20
AUG	55.70	9.81	45.90	0.00	78.70	-32.80
SEP	54.50	4.00	50.50	0.00	88.90	-38.40
OCT	90.40	1.38	89.00	0.00	166.00	-77.00
NOV	273.00	1.25	272.00	0.00	300.00	-28.30
DEC	560.00	1.30	559.00	0.00	300.00	259.00
ANN	454,000.00	2,850.00	451,000.00	0.00	165,000.00	287,000.00

G-17084, Dinsdale



Water Levels in Nearby Wells

