# 

Reviewer: Mike

## WATER RESOURCES DEPARTMENT

MEN	Ю							Dec	embe	<u> </u>	2012
TO: FRO SUB	M: JECT:	GW:	ication <u>M. L</u> c Wate	e Z	Wav† Name)	nce Eva	aluation	1			
	_YES _NO	The so	ource of	approp	riation i	is withir	ı or abo	ve a Sco	enic Wa	terway	
	_YES	Use th	ne Sceni	c Water	way con	ndition (	(Condit	ion 7J)			
	interfection interfection interfection interfection that the Description in the Descripti	erence vated into RS 390. Erence was partmonder properties with the properties of th	835, the vith surferference 835, the vith surferent is unosed us maintai	ace wat e is dist e Ground ace wat nable to e will n	er that or ributed d Water er that of find the reasura	contribut below.  Section ontributat ther bly red	tes to a  is una tes to a  e is a pi  uce the	Scenic `ble to cascenic versionda	Waterwalculate vaterwa erance e water	ground y; there of evide flows	water
Calcula calcula informi Exerci Water	ite the pe ted, per c ng Water se of th way by	rcentage riteria in Rights th is permi the follo	INTER of consum 390.835, at the De it is calc owing an	nptive use do not fit partment sulated t mounts	e by mont. Il in the to is unable o reduce	able but c to make e month	heck the a Prepon ly flows	"unable" iderance s in	option a of Eviden	bove, thu ce findin	s g. Scenic
an	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov -	Dec
						ļ			1		

## PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO:		Wate	r Rights Sec	tion		Date December 3, 2012							
FROM	[:	Grou	nd Water/H	ydrology	Section _		ael Zwart						
SUBJE	ECT:	Appl	ication G	17593			iewer's Name persedes r	eview of	_				
											Date of Re	view(s)	
OAR 6 welfare to deter	<b>90-310-1</b> , <i>safety a</i> mine wh	30 (1) and head ether th	<i>lth as describ</i> e presumption	ent shall p ed in ORS n is establ	resume th 537.525. ished. OA	at a propos Departmen R 690-310-	ed ground t staff revie 140 allows	water use will w ground wat the proposed d agency poli	er app	olications u e modified	ınder OA l or condi	R 690-31 tioned to	10-140 meet
A. <u>GE</u>	NERAL	INFO	<u>ORMATION</u>	<u>Y</u> : A	pplicant's	Name:	Don Nien	ke and Edw	<u>in E</u>	nsz (	County:	Harney	7
A1.	Applica	ant(s) se	eek(s) <u>1.78</u>	_ cfs from	m <u>one</u>	well	(s) in the _	Malheur I	<u>ake</u>				_ Basin,
		Malhet	ır Slough			subb	asin Q	uad Map: <u>C</u>	arsor	<u>Point</u>			
A2.	Propose	ed use:	Irrig	ation, 135	acres	Seas	sonality:	March 31	to Oc	tober 31			
A3.	Well an	nd aquif	er data (attac			for existin	ng wells; m	ark proposed	well				
Well	Log	id Applicant's Proposed Well # Aquifer*				Propos Rate(c		Location [/R-S QQ-Q)			n, metes a N, 1200' E		
1	Propo	sed*	1		ley Fill	1.78		32.5 E-23 NE-	SE		i, 2352' E		
3				-			<del></del>						
4													
5 * Alluvi	um, CRB,	Bedroc											
											*** !!		
Well	Well Elev ft msl	First Water ft bls	r SWL	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)		forations Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	4124				300	0-20	0-20				(5)	(4.5)	
										<u> </u>			_
		-											
Use data	from app	lication	for proposed w	ells.									
A4.								ars that HAI					
								tment in Apr					as not
	<u>u ili tile</u>	арриса											
A5. 🛚	manage (Not all	ment of basin r	ules contain s	r hydrauli such provi	cally conn sions.)	ected to sur	rface water	ules relative t	are	not, activa	ated by th	ification a	and/or ation.
A6. 🗌	Name o	of admir	nistrative area	:				ap(s) an aquif					triction.
	Comme	ents:											

Version: 08/15/2003

8. <u>G</u> R	OUN	ND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070										
31.	Bas	Based upon available data, I have determined that ground water* for the proposed use:										
	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)										
2.	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):										
3.	Gro	ound water availability remarks: The Region Manager recommends use of Condition 7N in this area.										

Date: December 3, 2012

Application G-17593

\_\_\_\_\_ continued

Application G-17593	continued	Date: December 3, 2012
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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	Basin-fill sediments (Qal and Tvs of GW Report #16)		$\boxtimes$

Basis for aquifer confinement evaluation: <u>Ground water in the basin fill is generally unconfined to semiconfined and is hydraulically connected to surface water, including Malheur and Harney Lakes.</u>

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 Subst. Inte Assume YES	erfer.
1	1	Malheur Slough	4098±	4122	4700			$\boxtimes$

Basis for aquifer hydraulic connection evaluation: <u>Ground water likely is discharging to lower reaches of Malheur Slough and/or Malheur Lake. Malheur Slough is dry in most years and therefore is not considered for Division 9 reviews, per memo by Ivan Gall, January 15, 2008.</u>

Water Availability Basin the well(s) are located within: 31200107 MALHEUR SL> MALHEUR L- AB NINEMILE SL

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.

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?
		片							
				SW Well < Qw > Water # 1/4 mile? 5 cfs? Right	SW Well < Qw > Water Water	SW   Well $<$   Qw $>$   Water   Water   $\frac{QW}{100}$	SW   Well $<$   Qw $>$   Water   Water   $\frac{QW}{10}$   Natural	SW   Well <   Qw >   Water   Water   Qw   Natural   of 80%	SW   Well <   Qw >   Water   Water   Water   Natural   of 80%   metretence   20 days

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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.

	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?
				_						
Comme	nts: _	This sect	ion 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.

Non-Dis			- 1							~			_
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as													
Interferen	ce CFS												
Distribu	ted Well												
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as	CFS												
Interferen													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as	CFS		_										
Interferen													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as	s CFS												
Interferen													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as	CFS												
Interferen	ice CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as	CFS												
Interferen	ice CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as	CFS												
Interferen	ce CFS												
(A) = Tota	l Interf.												
(B) = 80 %		<del></del>											
(C) = 1 %													
(D) = (A):	> (C)	, , , , , , , , , , , , , , , , , , ,	<b>√</b>	·/		,	J.			J	,	,,'	- ,*
$(\mathbf{D}) = (\mathbf{A})^{\frac{1}{2}}$		%	<u>~</u>	·/ %	%	%	%	%	·/	%	%	%	%
$(\mathbf{E}) = (\mathbf{A} / 1)$	B) x 100	70	70	70	70	70	70	70	70	70	70	70	%

(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.

rbbu	cation G-1/393continued	Date: December 3, 2012
	Basis for impact evaluation:	
b.	600 00 040 (5) (b) The material to immain an action of	Here 60 and the country of the head of the NAME AND
ο.	690-09-040 (5) (b) The potential to impair or detrimenta Rights Section.	ily affect the public interest is to be determined by the Wa
	g	
_	7	
L	If properly conditioned, the surface water source(s) can be a	
	under this permit can be regulated if it is found to substantiall	-
	<ul> <li>i.  The permit should contain condition #(s)</li> <li>ii.  The permit should contain special condition(s) as</li> </ul>	indicated in "Pamarks" below:
	ii. The perint should contain special condition(s) as	s indicated in Remarks below,
S	W / GW Remarks and Conditions	
_		
_		
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R	eferences Used: Local well logs; local recent reviews, espec	vially G-17061 and G-17071: GW Report 16, by Leonard.
	970; Greene, Walker, and Corcoran, 1972, Geologic Map of	
G	eologic Investigations Map I-680; Memo by Ivan Gall, 1/15,	2008, Stream Assessment for Division 9 Review in the
	Ialheur Lakes Basin.	
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Appl	lication G- <u>17593</u>	continued	Date: December 3, 2012
D. <u>V</u>	VELL CONSTRUCT	ION, OAR 690-200	
D1.	Well #:	Logid:	
D2.	<ul><li>a.  review of t</li><li>b.  field inspec</li><li>c.  report of C</li></ul>	WRE	tandards based upon: ;
D3.	b. commingle c. permits the d. permits the	ruction deficiency: a health threat under Division 200 rules water from more than one ground we loss of artesian head; de-watering of one or more ground weify)	ater reservoir;
D4.	THE WELL const	ruction deficiency is described as fo	llows:
D5.	THE WELL	<ul> <li>a.  was, or was not construct original construction or most</li> <li>b.  don't know if it met standar</li> </ul>	
D6.			olding issuance of the permit until evidence of well reconstruction ment Section and the Ground Water Section.
TH	IS SECTION TO BE	COMPLETED BY ENFORCE	MENT PERSONNEL
D7.	☐ Well construction d	eficiency has been corrected by the fo	llowing actions:
	(Enforcem	ent Section Signature)	
D8.	☐ Route to Water R	ights Section (attach well reconstru	ction logs to this page).

### HARN 51835

STATE OF OREGON WATER SUPPLY WELL REPORT (as required by ORS 537.765 & OAR 690-205-0210)

04-12-2012

Page 1	of 1

WELL LABEL # L	107667
START CARD #	1016209

(1) LAND OWNER Owner Well I.D.	(9) LOCATION OF WELL (legal description)		
First Name John Last Name Ensz	County Harney Twp 23.00 S N/S Rar	nge 32.50 E E/W WM	
Company	Sec 23 NE 1/4 of the SE 1/4 T	'ax Lot 3200	
Address 10606 North Road V	Tax Map Number	ot	
City Ulysses State KS Zip 67880	Lat ° ' "or	DMS or DD	
(2) TYPE OF WORK New Well Deepening Conversion	Long or	DMS or DD	
Alteration (repair/recondition) Abandonment	Street address of well Nearest add	ress	
	38324 Palomino Lane		
(3) DRILL METHOD	Burns, Or. 97720		
Rotary Air Rotary Mud Cable Auger Cable Mud	(10) STATIC WATER LEVEL Date SWI		
Reverse Rotary Other		L(psi) + SWL(ft)	
(4) PROPOSED USE Domestic Irrigation Community	Existing Well / Predeepening		
Industrial/Commericial Livestock Dewatering	Completed Well 04-06-2012 Flowing Artesian? Dry		
Thermal Injection Other		Hole?	
	WATER BEARING ZONES Depth water was f		
(5) BORE HOLE CONSTRUCTION Special Standard Attach copy)		SWL(psi) + SWL(ft)	
Depth of Completed Well 290.00 ft.  BORE HOLE SEAL sacks/	04-06-2012 50 290 1,000	26	
Dia From To Material From To Amt Ibs			
18 0 18 Bentonite Chips 0 18 25 S.			
14 18 290			
	(11) WELL LOG Ground Elevation		
	Ground Elevation	<u> </u>	
How was seal placed: Method A B C D E	Material	From To	
Other poured & tamped	topsoil sandy loam clay yellow	0 1	
Backfill placed from         ft. to         ft. Material           Filter pack from         ft. to         ft. Material	clay grey	1 25 25 32	
	clay green	32 50	
Explosives used: Yes Type Amount	sand black	50 70	
(6) CASING/LINER	clay grey	70 90	
(6) CASING/LINER Casing Liner Dia + From To Gauge Stl Plste Wld Thrd	sand black	90 98	
● O 14 × 2 135 .250 ● O ×	clay gravel sand	98 128	
	pumice stone claystone brown	128 145	
	sand coarse	145 180	
	claystone grey	180 190 190 205	
	sandstone brown	205 226	
Shoe Inside Outside Other Location of shoe(s)	claystone brown	226 250	
Temp casing Yes Dia From To	sand medium	250 280	
(7) PERFORATIONS/SCREENS	claystone green	280 290	
Perforations Method			
Screens Type Material			
Perf/S Casing/ Screen Scrn/slot Slot # of Tele/	D. C. J		
creen Liner Dia From To width length slots pipe size	Date Started 04-03-2012 Completed 0	4-06-2012	
	(unbonded) Water Well Constructor Certification		
	I certify that the work I performed on the construction		
	abandonment of this well is in compliance with		
<del></del>	construction standards. Materials used and information the best of my knowledge and belief.	n reported above are true to	
	· •		
(8) WELL TESTS: Minimum testing time is 1 hour	License Number Date		
Pump Bailer • Air Flowing Artesian	Electronically Filed		
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)	Signed		
950 290 1	(bonded) Water Well Constructor Certification		
	I accept responsibility for the construction, deepening		
TO THE CONTRACT VICE DO	work performed on this well during the construction dat performed during this time is in compliance with		
Temperature 60 °F Lab analysis Yes By Water quality concerns? Yes (describe below)	construction standards. This report is true to the best of		
Water quality concerns? Yes (describe below) From Description Amount Units	'	-2012	
	Electronically Filed	-2012	
	Signed TIMOTHY K RILEY (E-filed)		
	Contact Info (optional)		

