Water Right Conditions Tracking Slip

Groundwater/Hydrology Section

FILE # # G-17641

ROUTED TO: Water Rights - Kerry

TOWNSHIP/
RANGE-SECTION: 23S/32.5E-13 cb

CONDITIONS ATTACHED?: [X] yes [ ] no

REMARKS OR FURTHER INSTRUCTIONS:

Reviewer: Mike Zwart

WATER RESOURCES DEPARTMENT

MEMO June 20, 2003

TO: **Application G-** 17641

FROM: **GW:** Mike Zwart
(Reviewer's Name)

SUBJECT: **Scenic Waterway Interference Evaluation**

_____YES
✓ NO — The source of appropriation is within or above a Scenic Waterway

_____YES
✓ NO — Use the Scenic Waterway condition (Condition 7J)

_____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 **June 20, 2013**

FROM: Ground Water/Hydrology Section **Michael Zwart**
Reviewer's Name

SUBJECT: Application G- **17641** 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: **Fred E. Teutsch** County: **Harney**

A1. Applicant(s) seek(s) **1.0** cfs from **one** well(s) in the **Malheur Lake** Basin, **Malheur Slough** subbasin Quad Map: **Carson Point**

A2. Proposed use: _____ Seasonality: **March 1 to October 31**

A3. Well and aquifer data (**attach and number logs for existing wells; mark proposed wells as such under logid**):

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	**HARN 51532**	**1**	**Sediments**	**1.0**	**23S/32.5E-13 NW-SW**	**1840' N, 660' E fr SW cor S 13**
2						
3						
4						
5						

* Alluvium, 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)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	**4124**	**35**	**14**	**02/11/09**	**300**	**0-50**	**0-98**	**None**	**None**	**2000**		**Air**

Use data from application for proposed wells.

A4. **Comments:** _____

A5. ☒ **Provisions of the Malheur Lake** 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: _____

A6. ☐ **Well(s) #** _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
Name of administrative area: _____
Comments: _____

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. ☐ **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) 7N;
   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;

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 Region Manager and Groundwater Section Manager typically recommend use of condition 7N in this basin.**

This application is for additional acres of irrigation from the same well authorized under Permit G-16434. Since 2008, when that file was reviewed, there has been considerable development of groundwater in the Malheur Lake Basin for irrigation. The well here is about eleven miles northwest of a part of the Malheur Lake Basin, just northwest of Crane, which has been the subject of concern about the groundwater resource by local water users for several years. As a result, the Department selected several wells in that area for quarterly water-level monitoring. In addition, one of those wells was instrumented with continuous water-level recording equipment. Most of those wells are clearly displaying year-to-year water-level declines. The positive findings here are based on the significant distance from that area of the basin and on the lack of local water-level data with an adequate period of record to conclude whether or not water levels are stable. However, given the documented water-level declines there, and elsewhere in the basin, and the fact that some nearby permitted groundwater rights are not yet developed, it is possible that the proposed use here, in combination with other nearby permitted uses, will result in water-level declines that may eventually exceed one or more of the triggers in the measurement condition that is being recommended.

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)**	☐	☒
		☐	☐
		☐	☐
		☐	☐
		☐	☐

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

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	**Malheur Slough**	**4110**	**4123**	**1600**	☐	☒	☐	☐	☒
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐

Basis for aquifer hydraulic connection evaluation: 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.

Water Availability Basin the well(s) are located within: Malheur Sl. > Malheur Lake ab Ninemile Sl. (31200107).

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 < ¼ 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?
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐

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?
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: **This section 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-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(E) = (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:

C4b. **690-09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.**

C5. ☐ **If properly conditioned**, the surface water source(s) can be adequately protected from interference, and/or ground water use 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;

C6. **SW / GW Remarks and Conditions**

References Used: **Local well logs; local recent reviews; GW Report 16, by Leonard, 1970; Greene, Walker, and Corcoran, 1972, Geologic Map of the Burns Quadrangle, Oregon, USGS Miscellaneous Geologic Investigations Map I-680; Memo by Ivan Gall, 1/15, 2008, Stream Assessment for Division 9 Review in the Malheur Lakes Basin.**

Application G-17641 continued Date: June 20, 2013

D. WELL CONSTRUCTION, OAR 690-200

D1. **Well #:** 1 **Logid:** HARN 51532

D2. **THE WELL does not meet current well construction standards based upon:**

a. ☐ review of the well log;
b. ☐ field inspection by _____;
c. ☐ report of CWRE _____;
d. ☐ other: (specify) _____

D3. **THE WELL construction deficiency**:

a. ☐ constitutes a health threat under Division 200 rules;
b. ☐ commingles water from more than one ground water reservoir;
c. ☐ permits the loss of artesian head;
d. ☐ permits the de-watering of one or more ground water reservoirs;
e. ☐ other: (specify) _____

D4. **THE WELL construction deficiency is described as follows:** I have no issues with the construction of this well.

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. ☐ I don't know if it met standards at the time of construction.

D6. ☐ **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: _____

_____ _____, 200____.

(Enforcement Section Signature)

D8. ☐ **Route to Water Rights Section (attach well reconstruction logs to this page).**

HARN 51532

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

WELL LABEL # L 98098

START CARD # 199655

Instructions for completing this report are on the last page of this form.

(1) LAND OWNER Owner Well I.D. _____
First Name FRED Last Name TEUTSCH
Company _____
Address 70112 N. NEWTON RD.
City BURNS State OR Zip 97720

(2) TYPE OF WORK ☑ New Well ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD ☑ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud ☐ Reverse Rotary ☐ Other _____

(4) PROPOSED USE ☐ Domestic ☑ Irrigation ☐ Community ☐ Industrial/Commercial ☐ Livestock ☐ Dewatering ☐ Injection ☐ Thermal ☐ Other _____

(5) BORE HOLE CONSTRUCTION Special Standard: ☐ Yes (attach copy)
Depth of Completed Well 300 ft.

BORE HOLE Dia	From	To	Material	SEAL From	To	Amount	Sacks/lbs
20"	0	98	BENTONITE	0	50	78	SACKS

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☑ Other POURED DRY
Backfill placed from 50 ft. to 98 ft. Material BENTONITE
Filter pack from _____ ft. to _____ ft. Material _____ Size _____
Explosives used: ☐ Yes Type _____ Amount _____

(6) CASING/LINER

Csng	Linr	Dia	+	From	To	Gauge	Steel	Plastic	Welded	Thrd
✓		14"	+	2	98	.250	✓		✓	

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s) _____
Temporary casing ☐ Yes Diameter _____ From _____ To _____

(7) PERFORATIONS/SCREENS
Perforations Method _____
Screens Type _____ Material _____

Perf	Scrn	Csng	Linr	Screen Dia	From	To	Screen/ slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☑ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
2000+		290	1½ hr.

Temperature 51 °F Lab analysis ☐ Yes By _____
Water quality concerns? ☐ Yes (describe below)

From	To	Description	Amount	Units

RECEIVED
FEB 17 2009
WATER RESOURCES DEPT
SALEM, OREGON

(9) LOCATION OF WELL (legal description)
County HARNEY Twp 23 N or S Range 32½ E or W W.M.
Sec 13 SW 1/4 of the SW 1/4 Tax Lot 1200
Tax Map Number _____ Lot _____
Lat ___° ___' ___.___" or ___.___ DMS or DD
Long ___° ___' ___.___" or ___.___ DMS or DD
Street Address of Well (or nearest address) 70112 N. NEWTON RD

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL (ft)
Existing Well/Predeepening				
Completed Well	2-11-09		-	14'

Flowing Artesian? ☐ Yes Dry Hole? ☐ Yes

WATER BEARING ZONES Depth water was first found 17'

SWL Date	From	To	Est Flow	SWL (psi)	+	SWL (ft)
2-03-09	17'	18'	½ gal		-	13
	35	300	2000+		-	14

(11) WELL LOG Ground Elevation _____

Material	From	To
CLAY LOAM TOPSOIL	0	3
BROWN CLAY	3	10
SANDY BROWN CLAY	10	17
BROWN CLAY	17	25
GRAY CLAY & SAND LAYERS	25	95
FRACTURED BLACK SANDSTONE	95	155
BROWN CLAY	155	160
FRACTURED BLACK SANDSTONE	160	178
FRACTURED BROWN CLAYSTONE	178	195
FRACTURED BLACK SANDSTONE	195	248
GRAY PUMICE STONE	248	300

Date Started 2-03-09 Completed 2-11-09

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1739 Date 2-11-09
Signed _____

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1355 Date 2-11-09
Signed _____
Contact Info. (optional)

ORIGINAL – WATER RESOURCES DEPARTMENT ONE COPY FOR CONSTRUCTOR ONE COPY FOR CUSTOMER
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK 10/16/2006

Application G-17641, Fred E. Teutsch