

Water Right Conditions Tracking Slip

Groundwater/Hydrology Section

FILE # # G - 17730

ROUTED TO: Water Rights - Mary

TOWNSHIP/

RANGE-SECTION: 21S/35E - 5, 6 + 7

CONDITIONS ATTACHED?: ☒ yes ☐ no

REMARKS OR FURTHER INSTRUCTIONS:

Reviewer: Mike Zwart

[illegible]

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date December 12, 2013

FROM: Groundwater Section Mike Zwart
Reviewer's Name

SUBJECT: Application G- 17730 Supersedes review of _____
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: Bernard M. Hanson County: Harney

A1. Applicant(s) seek(s) 6.7 cfs from five well(s) in the Malheur Basin,
Stinkingwater Creek subbasin Quad Map: Drewsey

A2. Proposed use Irrigation, 402 acres Seasonality: April 1 to October 1

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	Proposed	1	Alluv/Basalt**	6.7	21S/35E-7 SE-SE	1320' N, 1310' W fr SE cor S 7
2	Proposed	2	Alluv/Basalt**	6.7	21S/35E-7 SW-NE	2000' S, 1320' W fr NE cor S 7
3	Proposed	3	Alluv/Basalt**	6.7	21S/35E-7 NW-NE	1000' S, 1320' W fr NE cor S 7
4	Proposed	4	Alluv/Basalt**	6.7	21S/35E-6 SE-SE	1320' N, 1310' W fr SE cor S 6
5	Proposed	5	Alluv/Basalt**	6.7	21S/35E-5 SW-SW	1320' N, 1310' E fr SW cor S 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	3590											
2	3590											
3	3590											
4	3590											
5	3595											

Use data from application for proposed wells.

A4. Comments: **The well construction and the aquifer are not specified, but are proposed to be based on a small

basalt and andesite (Tba) of Greene, et al, 1972. There is unknown thickness of alluvial deposits overlying the basalt in this area. Given the lack of a definitive proposed aquifer, the following findings are based on relatively shallow alluvial wells with minimal seal depths.

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

Version: 07/26/2013

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
All	Alluvial sands and gravels	☐	☒
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Basis for aquifer confinement evaluation: It is assumed that the wells will be alluvial wells which will develop an unconfined aquifer.

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?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Stinkingwater Creek	3575±	3575	900	☒	☐	☐	☒	☐
2	1	Stinkingwater Creek	3575±	3570	1200	☒	☐	☐	☒	☐
3	1	Stinkingwater Creek	3575±	3570	1100	☒	☐	☐	☒	☐
4	1	Stinkingwater Creek	3575±	3565	1200	☒	☐	☐	☒	☐
5	1	Stinkingwater Creek	3575±	3565	1350	☒	☐	☐	☐	☒
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐

Basis for aquifer hydraulic connection evaluation: For wells developing an unconfined aquifer and less than one-quarter mile from surface water, the Division 9 rules require an assumption of hydraulic connection. This is the case for wells 1 – 4. For well 5, the shallow alluvial aquifer likely has a relatively efficient hydraulic connection with the creek.

Water Availability Basin the well(s) are located within: Stinkingwater Creek > Malheur R at mouth (31011641).

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?
5	1	☐	☒			☐	0.35	☒	<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?
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: _____

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													
(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 application reviews; Greene, Walker, and Corcoran, 1972, Geologic Map of the Burns Quadrangle, Oregon, USGS Miscellaneous Geologic Investigations Map I-680.

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: _____ Logid: _____

D2. **THE WELL does not appear to 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 or other comment is described as follows:** _____D4. ☐ **Route to the Well Construction and Compliance Section for a review of existing well construction.**

Water Availability Tables

Water Availability Analysis Detailed Reports

STINKINGWATER CR > MALHEUR R - AT MOUTH
MALHEUR BASIN

Water Availability as of 12/12/2013

Watershed ID #: 31011641 ([Map](#))

Date: 12/12/2013

Exceedance Level: 80% ▼

Time: 9:00 AM

Water Availability Calculation	Consumptive Uses and Storages	Instream Flow Requirements	Reservations
Water Rights		Watershed Characteristics	

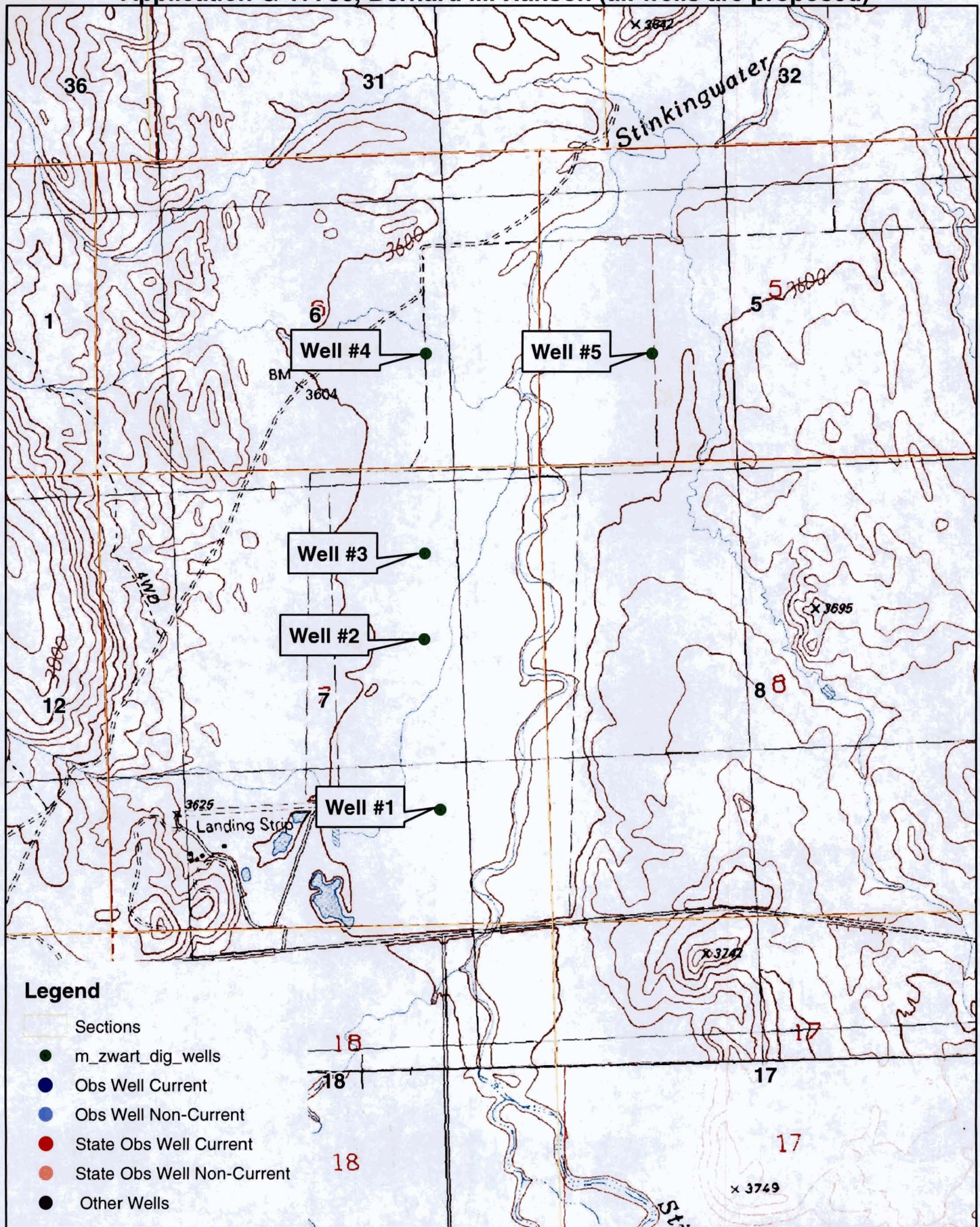
Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second
Annual Volume 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	1.72	4.67	-2.95	0.00	0.00	-2.95
FEB	5.37	14.70	-9.30	0.00	0.00	-9.30
MAR	9.40	31.60	-22.20	0.00	0.00	-22.20
APR	10.60	25.80	-15.20	0.00	0.00	-15.20
MAY	5.86	21.00	-15.10	0.00	0.00	-15.10
JUN	4.15	14.80	-10.60	0.00	0.00	-10.60
JUL	0.71	4.49	-3.78	0.00	0.00	-3.78
AUG	0.35	1.91	-1.56	0.00	0.00	-1.56
SEP	0.36	1.19	-0.83	0.00	0.00	-0.83
OCT	0.53	1.01	-0.48	0.00	0.00	-0.48
NOV	0.81	1.40	-0.59	0.00	0.00	-0.59
DEC	1.42	2.76	-1.34	0.00	0.00	-1.34
ANN	6,860.00	7,530.00	838.00	0.00	0.00	838.00

Download Data ([Text - Formatted](#), [Text - Tab Delimited](#), [Excel](#))

Application G-17730, Bernard M. Hanson (all wells are proposed)



0 0.5 1 Miles