

# Water Right Conditions Tracking Slip

Groundwater/Hydrology Section

FILE # # G-17705

ROUTED TO: Water Rights - Mary

TOWNSHIP/  
RANGE-SECTION: 23S/32E-10+14

CONDITIONS ATTACHED?: ☒ yes ☐ no

REMARKS OR FURTHER INSTRUCTIONS:

Superseding review; new  
conditions is recommended

Reviewer: Mike Zwart

# PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date March 21, 2014

FROM: Groundwater Section Mike Zwart  
Reviewer's Name

SUBJECT: Application G- 17705 Supersedes review of August 28, 2013  
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: Oregon Dept. of State Lands County: Harney

A1. Applicant(s) seek(s) 5.8 cfs from six well(s) in the Malheur Lake Basin,  
subbasin Quad Map: Ninemile Slough

A2. Proposed use Irrigation, 347.8 acres 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    | Proposed | 1                  | Valley Fill       | 1.7825             | 23S/32E-10 SE-SE      | 150' N, 136' W fr SE cor S 10                                    |
| 2    | Proposed | 2                  | Valley Fill       | 1.7825             | 23S/32E-10 NW-SE      | 1323' N, 1328' W fr SE cor S 10                                  |
| 3    | Proposed | 3                  | Valley Fill       | 1.7825             | 23S/32E-14 NW-NW      | 227' S, 280' E fr NW cor S 14                                    |
| 4    | Proposed | 4                  | Valley Fill       | 1.7825             | 23S/32E-14 SW-NW      | 1323' S, 1304' E fr NW cor S 14                                  |
| 5    | Proposed | 5                  | Valley Fill       | 1.7825             | 23S/32E-10 SE-NE      | 1323' S, 1137' W fr NE cor S 10                                  |
| 6    | Proposed | 6                  | Valley Fill       | 1.7825             | 23S/32E-10 SE-NE      | 1328' S, 179' W fr NE cor S 10                                   |

\* 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    | 4127             |                    | 125±       |          | 300             | 0-26               | 0-100                 |                      |                              |                  |                |           |
| 2    | 4130             |                    | 125±       |          | 300             | 0-26               | 0-100                 |                      |                              |                  |                |           |
| 3    | 4127             |                    | 125±       |          | 300             | 0-26               | 0-100                 |                      |                              |                  |                |           |
| 4    | 4126             |                    | 125±       |          | 300             | 0-26               | 0-100                 |                      |                              |                  |                |           |
| 5    | 4131             |                    | 125±       |          | 300             | 0-26               | 0-100                 |                      |                              |                  |                |           |
| 6    | 4128             |                    | 125±       |          | 300             | 0-26               | 0-100                 |                      |                              |                  |                |           |

Use data from application for proposed wells.

A4. Comments: The map failed to label the wells. It is not clear which well is #5 versus #6. The metes and bounds are not all labeled either, so I made some estimates.

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:
- ☒ The permit should contain condition #(s) 7N;
  - ☐ The permit should be conditioned as indicated in item 2 below.
  - ☒ 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: Condition 7N is typically used in this part of the Malheur Lake Basin. There are no reasonably close wells with sufficient water-level records. This application is about 4.5 miles north of G-17698, which was recently filed by the same applicant. These are located in an area where there has not been as much recent development of the groundwater resource as the Crane area to the southwest. Therefore, the positive findings here are appropriate. However, based on these and other recent applications received, it appears that this area will also be subject to significant additional proposed development. Given the documented water-level declines elsewhere in the basin, it is possible that the proposed use here will also result in water level declines that may exceed one or more of the triggers in the measurement condition that is being recommended.

Special Permit Condition: The permittee shall construct one minimum six-inch diameter observation well to penetrate the same aquifer as the production wells. The well shall meet the Department's minimum well construction standards and shall be cased and sealed to the same depth as the production wells. The well shall be constructed at a location approved by the Department for the purpose of instrumentation with continuous water-level monitoring equipment. The landowner or permittee shall provide access to Department staff to install and maintain the monitoring equipment. The well shall not be used for any other purpose while the Department is monitoring water levels. The well shall be completed prior to water use under the terms of any permit issued.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**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  | Basin-fill sediments (Qal and Tvs of GW Report #16) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|      |                                                     | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |                                                     | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |                                                     | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |                                                     | <input type="checkbox"/> | <input type="checkbox"/>            |

**Basis for aquifer confinement evaluation:** Groundwater 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<br>ft msl | SW Elev<br>ft msl | Distance<br>(ft) | Hydraulically Connected? |                          |                          | Potential for Subst. Interfer. Assumed? |                          |
|------|------|--------------------|-------------------|-------------------|------------------|--------------------------|--------------------------|--------------------------|-----------------------------------------|--------------------------|
|      |      |                    |                   |                   |                  | YES                      | NO                       | ASSUMED                  | YES                                     | NO                       |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |
|      |      |                    |                   |                   |                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> |

**Basis for aquifer hydraulic connection evaluation:** Groundwater likely is discharging to lower reaches of Ninemile Slough, Poison Creek Slough and/or Malheur Lake. Ninemile Slough and Poison Creek Slough are dry in most years and therefore not considered for Division 9 reviews, per memo by Ivan Gall, January 15, 2008.

**Water Availability Basin the well(s) are located within:** Soldier Cr > Poison Cr Sl ab Malheur Lake (31200105).

**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? |
|------|------|--------------------------|--------------------------|-------------------------|------------------------------|--------------------------|------------------------|------------------------------|----------------------------|-----------------------------------------|
|      |      | <input type="checkbox"/> | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|      |      | <input type="checkbox"/> | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|      |      | <input type="checkbox"/> | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|      |      | <input type="checkbox"/> | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|      |      | <input type="checkbox"/> | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|      |      | <input type="checkbox"/> | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|      |      | <input type="checkbox"/> | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |

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? |
|--|------|--|--------------------------|-------------------------|------------------------------|--------------------------|------------------------|------------------------------|----------------------------|-----------------------------------------|
|  |      |  | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|  |      |  | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|  |      |  | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |
|  |      |  | <input type="checkbox"/> |                         |                              | <input type="checkbox"/> |                        | <input type="checkbox"/>     |                            | <input type="checkbox"/>                |

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   |     | %   | %   | %   | %   | %   | %   | %   | %   | %   | %   | %   | %   |

**Basis for impact evaluation:**

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**

Version: 07/26/2013

**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:** \_\_\_\_\_

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D4. ☐ Route to the Well Construction and Compliance Section for a review of existing well construction.

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**Water Availability Tables**