

## MEMO

Sept 10, 2013

TO: Application G- 17645  
FROM: GW: Man Norton  
(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.

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.

[illegible]

# PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date September 10, 2013

FROM: Groundwater Section Marc Norton  
Reviewer's Name

SUBJECT: Application G- 17645 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: Jeff & Sharilyn Newton County: Umatilla

A1. Applicant(s) seek(s) 0.67 cfs from 1 well(s) in the Umatilla River Basin,  
South Fork Juniper Canyon subbasin Quad Map: Ring

A2. Proposed use Irrigation (60 Acres) Seasonality: March 1 – 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    | UMAT 56598 | 2                  | CRBG              | 0.67               | 05N/32E-16 NE SW      | 1490' N, 0' E fr S ¼ cor S 16                                    |
| 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 |
|------|------------------|--------------------|------------|------------|-----------------|--------------------|-----------------------|----------------------|------------------------------|------------------|----------------|-----------|
| 2    | 1440             | 100                | 17         | 04/01/2010 | 265             | 0 – 18             | +2 – 18               | -----                | -----                        | 300              | -----          | Air       |
|      |                  |                    |            |            |                 |                    |                       |                      |                              |                  |                |           |
|      |                  |                    |            |            |                 |                    |                       |                      |                              |                  |                |           |
|      |                  |                    |            |            |                 |                    |                       |                      |                              |                  |                |           |
|      |                  |                    |            |            |                 |                    |                       |                      |                              |                  |                |           |

Use data from application for proposed wells.

A4. **Comments:** See LL-1339 & LL-1331.

**Requested discharge rate is 300 gpm = cfs.**

A5. ☐ **Provisions of the** \_\_\_\_\_ **Basin rules relative to the development, classification and/or management of groundwater hydraulically connected to surface water** ☐ **are, or** ☐ **are not,** activated by this application. (Not all basin rules contain such provisions.)  
Comments: NA

A6. ☐ **Well(s) #** \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, tap(s) an aquifer limited by an administrative restriction.  
Name of administrative area: No  
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) 7B – Interference, 7N - Annual WL (February/March), 7P – Well Tag, 7T – Measuring Tube, Large measuring and reporting with flow 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;

- 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. ☒ Condition to allow production only from a single aquifer in the Columbia River Basalt groundwater reservoir;
  - e. ☐ 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:** This proposed project is a long way from any groundwater development. No water level data available.

\_\_\_\_\_

\_\_\_\_\_

d iii – Modified Measuring Tube language.

Dedicated Measuring Tube: Wells with pumps shall be equipped with an unobstructed, dedicated measuring tube pursuant to figure 200-5 in OAR 690-200. If a pump has been installed prior to the issuance of this permit, installation of the measuring tube can be delayed until the pump is pulled for repairs unless groundwater levels cannot be measured using an electric tape; both static or pumping. If at any time groundwater levels cannot be measured using an electric tape, the permittee shall install the measuring tube.

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- 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) 7B – Interference, 7N - Annual WL (February/March), 7P – Well Tag, 7T – Measuring Tube, Large measuring and reporting with flow meter on each well;
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  - 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. ☒ Condition to allow production only from a single aquifer in the Columbia River Basalt groundwater reservoir;
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**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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B3. **Ground water availability remarks:** This proposed project is a long way from any groundwater development. No water level data available.

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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               |
|------|-----------------------------|-------------------------------------|--------------------------|
| 2    | CRBG                        | <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"/>            | <input type="checkbox"/> |

**Basis for aquifer confinement evaluation:** Groundwater level rose above where it was encountered during construction.

**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<br>Connected? |                                     |                          | Potential for<br>Subst. Interfer.<br>Assumed? |                                     |
|------|------|---------------------------|-------------------|-------------------|------------------|-----------------------------|-------------------------------------|--------------------------|-----------------------------------------------|-------------------------------------|
|      |      |                           |                   |                   |                  | YES                         | NO                                  | ASSUMED                  | YES                                           | NO                                  |
| 2    | 1    | South Fork Juniper Canyon | 1423              | 1435              | 200              | <input type="checkbox"/>    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <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"/> | <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 was encountered at 100 feet below land surface, well below the nearby intermittent stream.

**Water Availability Basin the well(s) are located within:** \_\_\_\_\_

**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 <<br>¼ mile?        | Qw ><br>5 cfs?           | Instream<br>Water<br>Right<br>ID | Instream<br>Water<br>Right Q<br>(cfs) | Qw ><br>1%<br>ISWR?      | 80%<br>Natural<br>Flow<br>(cfs) | Qw > 1%<br>of 80%<br>Natural<br>Flow? | Interference<br>@ 30 days<br>(%) | Potential<br>for Subst.<br>Interfer.<br>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"/>                         |
|      |      | <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: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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:

**D. WELL CONSTRUCTION, OAR 690-200**

D1. Well #: \_\_\_\_\_ Logid: \_\_\_\_\_

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

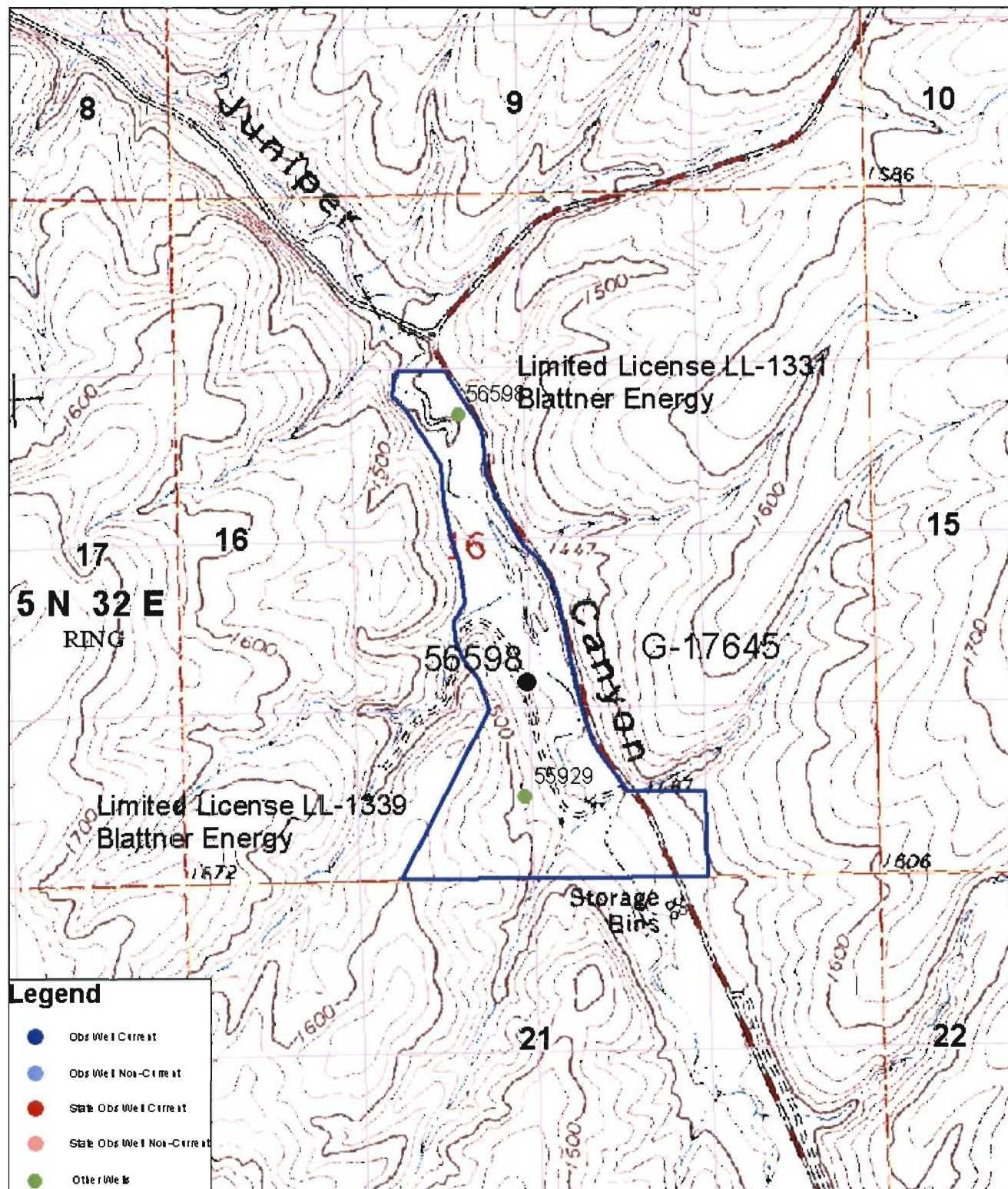
- a. ☐ review of the well log;  
b. ☐ field inspection by \_\_\_\_\_;  
c. ☐ report of CWRE \_\_\_\_\_;  
d. ☐ other: (specify) \_\_\_\_\_

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.

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**Water Availability Tables**

**Well Location for Groundwater Application G-17645, Newton  
Umatilla County, Ring Quad**



### Legend

- Obs Well Correct
- Obs Well Non-Correct
- State Obs Well Correct
- State Obs Well Non-Correct
- Other Wells

0

0.5

1

Miles