PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

| TO: | | Wate | r Rights S | ection | | | | Dat | e March | 2, 2015 | | | | |
|--------------------------------|--|---------------------------|---|-------------------------------------|-------------------------------------|---|---|--|---|----------------------------------|-----------------------|------------------|--|--|
| FROM | : | Grou | nd Water/ | Hydrology | Section _ | Auro | ra Bouchie | er / Jen Wo | ody | | | | | |
| SUBJE | ECT: | | cation G- | | | Rev | iewer's Name | | - | June 17, 2013 Date of Review(s) | | | | |
| OAR 69 welfare, to deter | 90-310-1 , safety as mine whe | 30 (1) Ind heal ether the | The Depart th as descr e presumpt | <i>ibed in ORS</i> ion is establ | oresume th 537.525. ished. OA | <i>at a propos</i> Departmen R 690-310- | sed groundw t staff review 140 allows t | w ground wa he proposed | ensure the prester applications use be modifie | under OA d or condi | AR 690-3 tioned to | 10-140 meet | | |
| A. <u>GE</u> | NERAL | INFO | RMATIO | <u>ON</u> : A | pplicant's | Name: | Marcus W | V. deLint | | County:_ | Union | | | |
| A1. | Applica | nt(s) se | ek(s) <u>2.8</u> | 8 cfs fro | m <u>one</u> | | well(s) in the Grande Ronde Basis | | | | | | | |
| A2. A3. | Proposed use: <u>Irrigation, 230.5 acres</u> Well and aquifer data (attach and number logs f | | | Sea | sonality: | March 1 to | o October 31 | under log | gid): | | | | | |
| Well | Logid UNIO 50687 | | Applicant Well # | A | oposed quifer* | Propos Rate(c: | fs) (T | Location //R-S QQ-Q) 89E-8 SE-NV | 2250' | n, metes N, 1200' E | fr NW co | r S 36 | | |
| 2 | UNIO | 00087 | 1 | <u>'</u> | CRB | | 28/3 | 99E-8 SE-IN | 1207 | 1207' N, 1382' E fr W ¼ cor S | | | | |
| 3 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| | ım, CRB, | Bedrocl | ζ | | | | | | | | | | | |
| Well | Well Elev ft msl | First Water ft bls | ft bls | SWL Date | Well Depth (ft) | Seal Interval (ft) | Casing Intervals (ft) 0-1575 | Liner Intervals (ft) | Perforations Or Screens (ft) 1515-1575 | Well Yield (gpm) | Draw Down (ft) | Test Type | | |
| _ | 2750 | 1340 | -23 | 2/13/70 | 3003 | 1395- | 0-1373 | TOIL | 1313-1373 | 1000 | 100 | 1. | | |
| | | | | | | 1515 | | | | | | | | |
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| Use data | from app | lication | for proposed | l wells. | | | | | | | | | | |
| A4. | Commo | ents: <u>*I</u> | First water | below seal | depth; nu | imerous w | ater-bearing | g zones repo | rted. | | | | | |
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| A5. 🖾 | manage (Not all | ment of basin r | ules contai | ater hydraul n such prov | ically connisions.) | ected to su | rface water | are, or 🗵 | o the developn are not, activ | ated by th | nis applica | and/or ation. | | |
| A6. 🗌 | Name o | f admir | nistrative ar | rea: | | | | ap(s) an aquif | er limited by a | n administ | rative res | striction. | | |

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| OUN | ND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070 | | | | | | | | |
|------------|---|--|--|--|--|--|--|--|--|
| Bas | sed upon available data, I have determined that ground water* for the proposed use: | | | | | | | | |
| a. | is over appropriated, \square is not over appropriated, $or \boxtimes$ 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. | \square will not or \square will likely to be available within the capacity of the ground water resource; or | | | | | | | | |
| | will, if properly conditioned, avoid injury to existing ground water rights or to the ground water resource: i. | | | | | | | | |
| a. | ☐ Condition to allow ground water production from no deeper than ft. below land surface; | | | | | | | | |
|) . | ☐ Condition to allow ground water production from no shallower than ft. below land surface; | | | | | | | | |
| • | 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 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 Groun 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): | | | | | | | | |
| Γhi eve | ound water availability remarks: The nearest basalt well with a long-term record is about five miles northwest. is well has displayed some water-level declines in the recent past, but the most recent measurements indicate that els have rebounded somewhat. Nearby wells with measurement requirements currently have insufficient records termine water-level stability. Condition 7N should provide needed data in this area. | | | | | | | | |
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Application G-17637_____ continued

Date: March 2, 2015

| Application G-17637 continued Date: March 2, 2015 | | | | | | | | | | | | | |
|---|------|---|-------------|------------|--|--|--|--|--|--|--|--|--|
| 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 | Basalt of the Columbia River Basalt Group | \boxtimes | | | | | | | | | | |

| Basis for aquifer confinement evaluation: <u>Basalt aquifers are typically confined; this well flows with a shut-in pressu</u> of 11 psi. | Basalt aquifers are typically | confined; this well flo | ws with a shut-in pressure |
|--|-------------------------------|-------------------------|----------------------------|

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 ½ 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 | Grande Ronde River | 2761 | 2678 | 9400 | | |
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Basis for aquifer hydraulic connection evaluation: <u>It is unknown to what extent, if any, that ground water in the deep</u> <u>Columbia River Basalt rocks contributes to surface water.</u>

Water Availability Basin the well(s) are located within: Grande Ronde Riv. > Snake Riv. Ab Willow Cr. (30810407).

C3a. **690-09-040** (4): Evaluation of stream impacts for <u>each well</u> 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 < ½ 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? |
|------|---------|----------------|-------------|----------------------------------|---------------------------------------|---------------------|---------------------------------|---------------------------------------|----------------------------------|--|
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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? |
|---------|-------------|----------------------------------|---------------------------------------|---------------------|---------------------------------|---------------------------------------|----------------------------------|--|
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| Comments: _ | This section does not apply. |
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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-D | istributed | Wells | | | | | | | | | | | |
|------------------------------|-------------------|-----------|----------|------------|----------|--------------|----------|----------|----------|--------------|----------|----------|----------|
| Well | SW# | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| | | % | % | % | % | % | % | % | % | % | % | % | % |
| Well Q | as CFS | | | | | | | | | | | | |
| | ence CFS | | | | | | | | | | | | |
| D: 4 'I | 4 1 557 11 | | | | - | | | | | | | | |
| Well | outed Well SW# | ıs Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| WEII | 3 W # | 96 96 | % | 1V1a1 % | Apr % | wiay % | 3un % | 7u1 % | Aug % | зер % | % | % | % |
| Well Q | as CES | /0 | 70 | 70 | /6 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | ence CFS | | | | | | | | | | | | |
| | | % | % | % | % | % | % | % | % | % | % | % | % |
| Well Q | as CFS | | | | | | | | | | | | |
| | ence CFS | | | | | | | | | | | | |
| | | % | % | % | % | % | % | % | % | % | % | % | % |
| Well Q | as CFS | | | | | | | | | | | | |
| Interfere | ence CFS | | | | | | | | | | | | |
| | | % | % | % | % | % | % | % | % | % | % | % | % |
| Well Q | | | | | | | | | | | | | |
| Interfere | ence CFS | | | | | | | | | | | | |
| | | % | % | % | % | % | % | % | % | % | % | % | % |
| Well Q | | | | | | | | | | | | | |
| Interfere | ence CFS | | | | | | | | | | | | |
| | | % | % | % | % | % | % | % | % | % | % | % | % |
| Well Q | | | | | | | | | | | | | |
| Interfere | ence CFS | | | | | | | | | | | | |
| (A) = To | otal Interf. | | | | | | | | | | | | |
| (B) = 80 | % Nat. Q | | | | | | | | | | | | |
| (C) = 1 | % Nat. Q | | | | | | | | | | | | |
| (D) = (A | A) > (C) | √ | √ | √ | √ | \checkmark | √ | √ | √ | \checkmark | √ | √ | √ |
| $(\mathbf{E}) = (\mathbf{A}$ | /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.

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| Basis for impact evaluation: | |
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| b. 690-09-040 (5) (b) The potential to impair or detriment Rights Section. | tally affect the public interest is to be determined by the Wa |
| . If properly conditioned, the surface water source(s) can be under this permit can be regulated if it is found to substantia i. The permit should contain condition #(s) 7J | ally interfere with surface water: |
| i. | as indicated in "Remarks" below; |
| | |
| . SW / GW Remarks and Conditions_ | |
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| References Used: Local well logs; local reviews; Developm Union County, Oregon, Ham, 1966: Geology and Ground-W Union Co., OR, by Brown and Hampton, 1959. | nent Potential of Ground Water in the Grande Ronde Valle Vater Resources of the Upper Grande Ronde River Basin, |
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| D. <u>vv</u> D1. | CLL CONSTRUCTION, OAR 690-200 Well #: Logid: UNIO 50687 | |
|---------------------|---|---|
| D2. | THE WELL does not meet current well construction standards based upon: a. review of the well log; b. field inspection by report of CWRE d. other: (specify) | |
| D3. | THE WELL construction deficiency: a. | |
| 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. | ı |
| THIS | SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL | _ |
| D7 | Well according deficiency has been accorded by the following a stigner. | |
| D7. | Well construction deficiency has been corrected by the following actions: | |
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| | , 200 | |
| | (Enforcement Section Signature) | |
| D8. | Route to Water Rights Section (attach well reconstruction logs to this page). | |
| | | |

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