Groundwater Transfer Review Summary Form

Transfer/PA # T- **14334**

GW Reviewer **Aaron Orr** **Date Review Completed:** **8/13/2025**

Summary of Same Source Review:

☒ The proposed change in point of appropriation is not within the same aquifer as per OAR 690-380-2110(2).

Summary of Water Level Decline Condition Review:

☐ Water levels at the original point(s) of appropriation have exceeded the allowed decline threshold defined by conditions in the originating water right.

Summary of Injury Review:

☐ The proposed transfer will result in another, existing water right not receiving previously available water to which it is legally entitled or result in significant interference with a surface water source as per 690-380-0100(3).

Summary of GW-SW Transfer Similarity Review:

☐ The proposed SW-GW transfer doesn't meet the definition of "similarly" as per OAR 690-380-2130.

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations.

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Ground Water Review Form:

- ☒ **Water Right Transfer**
- ☐ **Permit Amendment**
- ☐ **GR Modification**
- ☐ **Other**

Application: T-14334 Applicant Name: Tooley Water District

Proposed Changes: ☐ POA ☒ APOA ☐ SW→GW ☐ RA ☐ USE ☐ POU ☐ OTHER

Reviewer(s): Aaron Orr Date of Review: 8/13/2025

Date Returned to WRSD: 11/18/2025

The information provided in the application is insufficient to evaluate whether the proposed transfer may be approved because:

☐ The water well reports provided with the application do not correspond to the water rights affected by the transfer.

☐ The application does not include water well reports or a description of the well construction details sufficient to establish the ground water body developed or proposed to be developed.

☐ Other _____

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1. Basic description of the changes proposed in this transfer: The applicant requests "Well 3" be added to Certificate 38186 at the full authorized rate (0.06 cfs). Two potential locations ("3A" and "3B") are included in the application, but only one will be developed.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
   ☐ Yes ☒ No Comments: Columbia River Basalt Group (CRBG) flows consist of a permeable flow top, a dense low permeability flow interior, and a flow bottom of variable thickness (Reidel et al., 2002). Different flows within the CRBG are often hydraulically isolated, with the dense flow interior separating water bearing interflow zones. Well 2 (WASC 2954) likely develops water-bearing zones (WBZs) in the upper members of the N2 magnetostratigraphic unit of the Grande Ronde Basalt formation of the CRBG (Sentinel Bluffs, Winter Water, and possibly Ortley members) (Anderson, unpublished). Well 3A and Well 3B will also develop the Late Tertiary Basalt Aquifer system, though they will be completed ~ 400 to ~500 feet deeper than Well 2. As a result, the proposed wells will likely develop aquifer(s) from deeper members within the R2 or N1 units of Grande Ronde Basalt (Anderson, unpublished; Korosec, 1987). Due to the nature of CRBG emplacement, it is unlikely that deeper flows penetrated by the proposed wells are hydraulically connected to the flows found in shallower Members of the Grande Ronde Basalt that are developed by Well 2.

   Well 1 (WASC 3229) does not penetrate basalt and develops the Late-Quaternary Tertiary Sedimentary Aquifer system.

Therefore, Well 3A and Well 3B will not develop the same source as the existing authorized POAs.

3. a) Is the existing authorized POA subject to a water level decline condition?
☐ Yes ☒ No Comments: _____

b) If yes, for each POA identify the reference level, most recent spring-high water level, and whether an applicable permit decline condition has been exceeded: _____

4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
☒ Yes ☐ No Comments:_____

b) If yes, estimate the portion of the right supplied by each of the sources and describe any limitations that will need to be placed on the proposed change (rate, duty, etc.): 0.02 cfs from Well 1 (Sedimentary Aquifer) and 0.04 cfs from Well 2 (Basalt Aquifer) for a total of 0.06 cfs. It is unknown whether Well 2 commingles due to lack of well construction and lithologic information found in the well log for WASC 2954 (Well 2). Neither of these rates are transferable to the proposed wells, as the new wells will be completed in a deeper, separate aquifer in the Grande Ronde Basalt.

5. a) Will this proposed change, at its maximum allowed rate of use, likely result in an increase in interference with **another ground water right**?
☐ Yes ☒ No Comments: The proposed change likely develops a basalt aquifer that is significantly deeper (~300+ feet) than other wells in the area. Therefore, increased interference with existing water rights is not expected.

b) If yes, would this proposed change, at its maximum allowed rate of use, likely result in another groundwater right not receiving the water to which it is legally entitled?
☐ Yes ☒ No If yes, explain: N/A

6. a) Will this proposed change, at its maximum allowed rate of use, likely result in an increase in interference with **another surface water source**?
☐ Yes ☒ No Comments: The nearest surface water source to Well 3A and Well 3B is the Columbia River. All other surface water sources within 1-mile of the proposed POAs are intermittent streams, and the proposed seal depths are sufficient to prevent hydraulic connection with surface water.

b) If yes, at its maximum allowed rate of use, what is the expected change in degree of interference with any **surface water sources** resulting from the proposed change?
Stream: _____ ☐ Minimal ☐ Significant
Stream: _____ ☐ Minimal ☐ Significant
Provide context for minimal/significant impact: N/A

7. For SW-GW transfers, will the proposed change in point of diversion affect the surface water source similarly (as per OAR 690-380-2130) to the authorized point of diversion specified in the water use subject to transfer?
☐ Yes ☐ No Comments: N/A

8. What conditions or other changes in the application are necessary to address any potential issues identified above: The proposed well must be completed to a similar elevation amsl—or otherwise demonstrated to be completed in the same aquifer—as Well 2 in order to be added as an APOA to the "basalt portion" (0.04 cfs, Well 2) of Certificate 38186. Well 1 does not develop the Columbia River Basalt Aquifer system, so the rate of 0.02 cfs cannot be transferred to a new basalt well.
9. Any additional comments:

References:

Anderson, J.A., unpublished, Geologic map of The Dalles North 7.5-minute quadrangle.

Korosec, M.A., 1987, Geologic map of the Hood River quadrangle, Washington and Oregon, Washington Division of Geology and Earth Resources, Open File Report 87-6

Reidel, S.P., Johnson, V.G., Spane, F.A., 2002, Natural Gas Storage in Basalt Aquifers of the Columbia Basin, Pacific Northwest USA: A Guide to Site Characterization; Pacific Northwest National Laboratory Report PNNL-13962, 277 p.

Well Location Map

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