Groundwater Transfer Review Summary Form

Transfer/PA # T- _14638 (RA)_

GW Reviewer _Travis Brown_ Date Review Completed: _6/27/2025_

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-14638 Applicant Name: Christopher & Rachel Henricks

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

Reviewer(s): Travis Brown Date of Review: 6/27/2025

Date Reviewed by GW Mgr. and Returned to WRSD: 6/27/2025

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: Applicant proposes to change the location of the sole POA on Permit G-18812. No well has yet been drilled under this permit. Permit G-18812 authorizes Irrigation of 17.6 acres at a maximum rate of 0.22 cfs and Pond Maintenance at a maximum rate of 0.334 cfs, with the combined maximum rate for both uses not to exceed 0.334 cfs.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
   ☒ Yes ☐ No Comments: The proposed From- and To-POA have identical proposed construction and would produce groundwater from the alluvial aquifer system.

3. a) Is the existing authorized POA subject to a water level decline condition?
   ☒ Yes ☐ No Comments: The permittee shall report an initial static water-level measurement once well construction is complete and annual measurements thereafter. The first annual measurement will establish the reference level against which future measurements will be compared. However, the Director may establish the reference level based on an analysis of other water-level data.

   The water user shall discontinue of, or reduce the rate or volume of withdrawal from, the well(s) if any of the following event occur:

   A. Annual water-level measurements reveal an average water-level decline of three or more feet per year for five consecutive years; or

B. Annual water-level measurements reveal a water-level decline of 15 or more feet in fewer than five consecutive years; or

C. Annual water-level measurements reveal a water-level decline of 25 or more feet

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: The original authorized From-POA has not been drilled. Therefore, a reference level for the From-POA has not been established, nor can a reference level be established for the proposed To-POA. As no reference level has been established, the permit decline condition has not been exceeded.

4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
☐ Yes ☒ No Comments: The authorized From-POA would produce groundwater solely from the alluvial aquifer system.

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.): N/A

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 To-POA location would be ~400 ft closer than the From-POA to the presumed location of neighboring domestic well LINN 56070. The closer proximity to LINN 56070 would likely increase interference with this well.

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: The proposed To-POA location is ~700 ft west of neighboring well LINN 56070. The potential interference with LINN 56070 was estimated using the Theis (1935) solution for drawdown in a confined aquifer (see attached Well Interference Analysis). The local aquifer is estimated to extend to ~110 ft bls (Gannett and Caldwell, 1998), with static water levels ~11-25 ft bls, yielding a water column of ~85-100 ft. Results of the analysis indicate that the proposed change is unlikely to injure LINN 56070 or similarly located wells.

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 proposed To-POA location is further from the nearest hydraulically connected surface water source, Oak Creek. No increase in interference with Oak Creek is anticipated from the proposed change.

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
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: _____

8. What conditions or other changes in the application are necessary to address any potential issues identified above: The measurement, reference level, and decline conditions should be carried forward to the superseding permit.

9. Any additional comments:_____

References

Application G-19193, T-14638

Pumping Test Reports: LINN 35, 600, 6373, 7456, 7665, 7713, 7713, 8010, 8546, 50290, 50624, 51401, 54630, 58774, 58990, 61336, 61337, 61631, 61635

Conlon, T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 2005, Ground-water hydrology of the Willamette Basin, Oregon, Scientific Investigations Report 2005-5168: U. S. Geological Survey, Reston, VA.

Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington, Professional Paper 1424-A, 32 p: U. S. Geological Survey, Reston, VA.

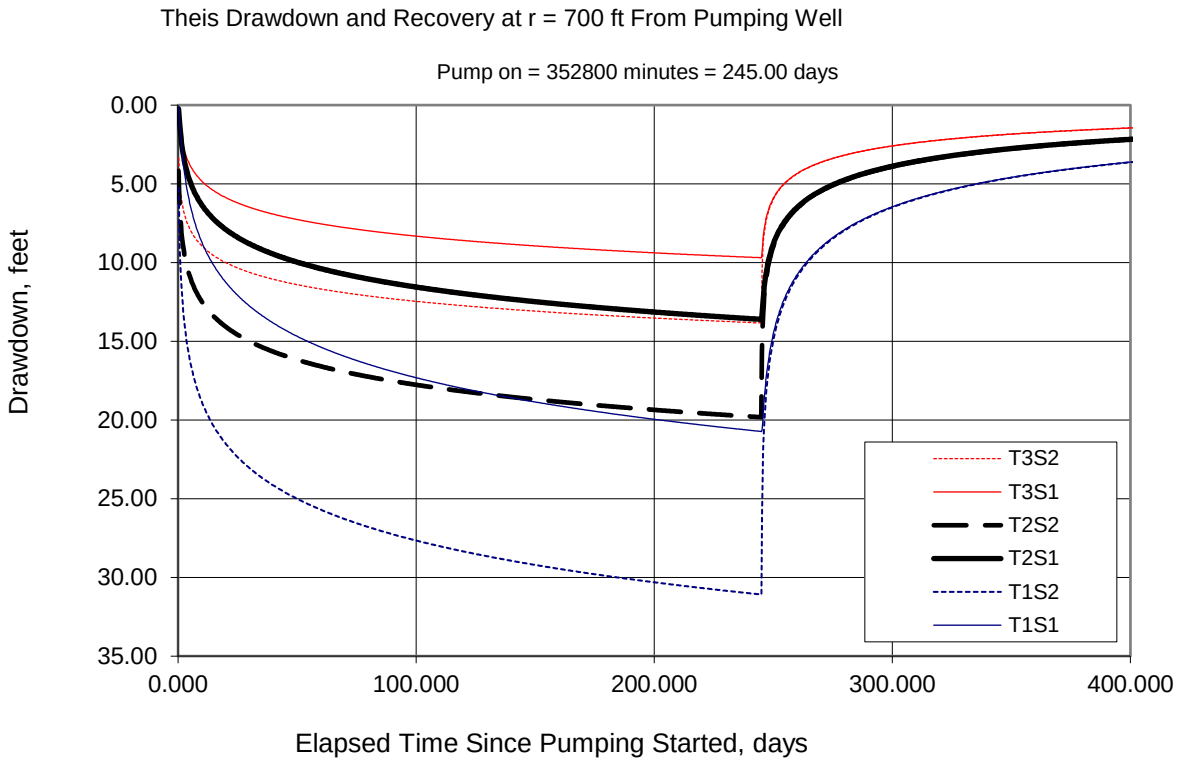
Theis, C.V., 1935, The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, American Geophysical Union Transactions, vol. 16, p. 519-524.

Well Location Map **T-14638**

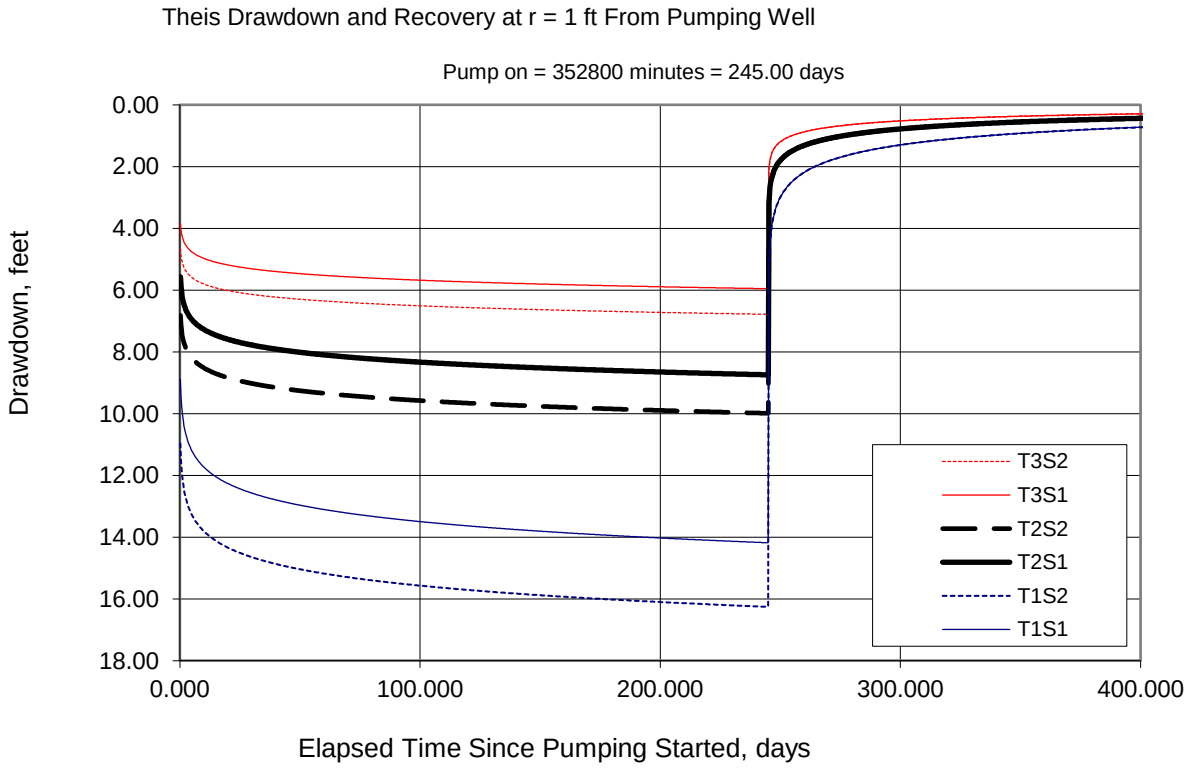
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Well Interference Analysis (Theis, 1935)

To-POA Interference with LINN 56070



LINN 56070 Necessary Water Column



Well Interference Analysis Parameters

To-POA Pumping rate, $Q_{To\text{-}POA}$ = 0.334 cfs (150 gpm) [max rate for Permit G-18812]

LINN 56070 Pumping rate, $Q_{LINN\ 56070}$ = 0.067 cfs (30 gpm) [yield reported on Water Well Report for LINN 56070]

Transmissivity: T1 = 600 ft^2/day; T2 = 1,000 ft^2/day; T3 = 1,500 ft^2/day [pumping test reports]

Storativity: S1 = 0.003; S2 = 0.0002 [Conlon et al., 2005]