

Groundwater Transfer Review Summary Form

Transfer/PA # T- 14744

GW Reviewer Byron Ebner Date Review Completed: 11/21/2025

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-14744

Applicant Name: Tate & Kimberly Koenig

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

Reviewer(s): Byron Ebner

Date of Review: 11/20/2025

Date Returned to WRSD: 11/25/2025

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 adding POA and changing 1.2 acres of their POU for GR-782 (Certificate GR-757). The applicant proposes adding existing well (MARI 241) as a POA due to the current POA not being located on their property to simplify irrigating their portion of the water right. Additionally, the applicant proposes to transfer 1.2 acres of their POU to better represent their irrigation footprint. Remaining 38.8 acres of POU outside of their property to remain as is.
 2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☒ Yes ☐ No Comments: Authorized POA (MARI 241) has no information regarding lithology as it was drilled in 1950 and recorded with an old State Engineer Well Record Form that lists basic construction and location information. The depth of MARI 241 is 134 ft BLS and the well report for the proposed POA (MARI 229) indicates a total depth of 185 ft and perforations from 135 – 145 situated in a gravel and sand layer. The proposed POA is roughly 1250 ft NW of the authorized POA. Both wells are most likely completed in the alluvium of the Willamette Aquifer. The approximate depth to the Columbia River Basalt is approximately 800 ft BLS in this area (Gannett and Caldwell, 1998 & Conlon et al., 2005).
 3. a) Is the existing authorized POA subject to a water level decline condition?
☐ Yes ☒ No Comments: GR-782 is does not have water level conditions.
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.): _____
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 POA is moving closer to a quite a few wells completed in the Willamette Aquifer near French Prairie, most of which do not fully penetrate the Willamette Aquifer. However, there are some wells closer to the Willamette River that are completed in the underlying Columbia River Basalts. The nearest of these CRB wells is CLAC 8638. The outer string of casing is set in a gravel layer of the Willamette Aquifer and it seems that the inner string of casing may be set in sedimentary units above the first mention of basalt in the well log at 806 ft. The well is sealed down to 30 ft BLS with local clay and possibly commingles the basalt and alluvial aquifers.
- 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: While interference with nearby wells would likely increase with neighboring wells at maximum allowed rate of use, only wells that fully penetrate the Willamette Aquifer can claim injury due to the proposed changes of this application due to OAR 690-008-0001(8)(c). A drawdown analysis for CLAC 8638 (attached) was conducted for pumping at max rate at the proposed POA compared to max rate at the authorized POA. Using the most conservative aquifer parameters, the simulated increase in drawdown was 2.89 ft from 43.68 ft to 46.57 ft. Given the relatively small increase in drawdown at max rate, injury would be unlikely to occur given the total depth of the affected well. Additionally, the estimated rate of use at the proposed POA is 0.03 CFS. This smaller rate of use would further minimize the risk of interference with neighboring wells that fully and partially penetrate the aquifer.
- 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: Relative to the authorized POA (MARI 241), the proposed APOA will be further away from two nearby perennial streams, Kraus Creek and the Pudding River. However, the APOA is moving closer to Deer Creek and the Willamette River. This reduced distance to Deer Creek and the Willamette River would likely result in an increase in interference with both surface water sources.
- 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: Willamette River ☒ Minimal ☐ Significant
Stream: Deer Creek ☒ Minimal ☐ Significant

Provide context for minimal/significant impact:

Herrera (2014) modeled steady state stream capture fractions as a result of pumping from the Middle and Lower Sedimentary Units of the Central Willamette Valley (attached). The results of this model suggest that a larger fraction of steady state streamflow capture would occur from the Willamette River (0.6 – 0.7 capture) compared to a smaller stream like Deer Creek (0.2 – 0.3 capture) in this area. This is due to the more direct connection of the Willamette River to the Middle and Lower Sedimentary Units of the Willamette Aquifer due to stream incision. However, this use is already occurring 1250 ft away at the authorized POA, which is likely capturing these streams to a similar, but somewhat lesser degree. The change in distance to these streams, 240 ft closer to Deer Creek and 900 ft closer to the Willamette River, would likely be miniscule compared to the total distances of the proposed POA from each stream (2640 ft and 10600 ft for Deer Creek and the Willamette River, respectively).

6. 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: _____
7. What conditions or other changes in the application are necessary to address any potential issues identified above: _____
8. Any additional comments: In the Application file, Table 3. Construction of Point(s) of Appropriation, the well specific rate for the proposed POA is requested to be “Not less than full rate of water right”, which is 1.114 CFS. In the next page, Land Use Information Form, the estimated quantity of water needed is 0.03 CFS. Not necessarily a deficiency, but it should be noted.

References**Application File T14744**

Conlon, T. D., Wozniak, K. C., Woodcock, D., Herrera, N. B., Fisher, B. J., Morgan, D. S., Lee, K. K., & Hinkle, S. R. (2005). *Ground-Water Hydrology of the Willamette Basin, Oregon* (C3; USGS Numbered Series Nos. 2005–5168; Scientific Investigations Report, p. 95). U. S. Geological Survey; GW Library. <https://pubs.usgs.gov/sir/2005/5168/>

Gannett, M. W., & Caldwell, R. R. (1998). *Geologic framework of the Willamette Lowland Aquifer system, Oregon and Washington: Regional aquifer-system analysis—Puget-Willamette Lowland* (C3; USGS Numbered Series Nos. 1424-A; Professional Paper). U.S. G.P.O. ; For sale by U.S. Geological Survey, Information Services; GW Library. <https://pubs.er.usgs.gov/publication/pp1424A>

Herrera, N. B., Burns, E. R., & Conlon, T. D. (2014). Simulation of groundwater flow and the interaction of groundwater and surface water in the Willamette Basin and Central Willamette subbasin, Oregon. In *Simulation of groundwater flow and the interaction of groundwater and surface water in the Willamette Basin and Central Willamette subbasin, Oregon* (C4; USGS Numbered Series Nos. 2014–5136; Scientific Investigations Report, p. 170). U.S. Geological Survey; GW Library. <https://doi.org/10.3133/sir20145136>

Pump Tests for MARI 209, MARI 53448, MARI 60579

Well Report for CLAC 8638

Application T14744
T4S/R1W-S02

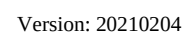
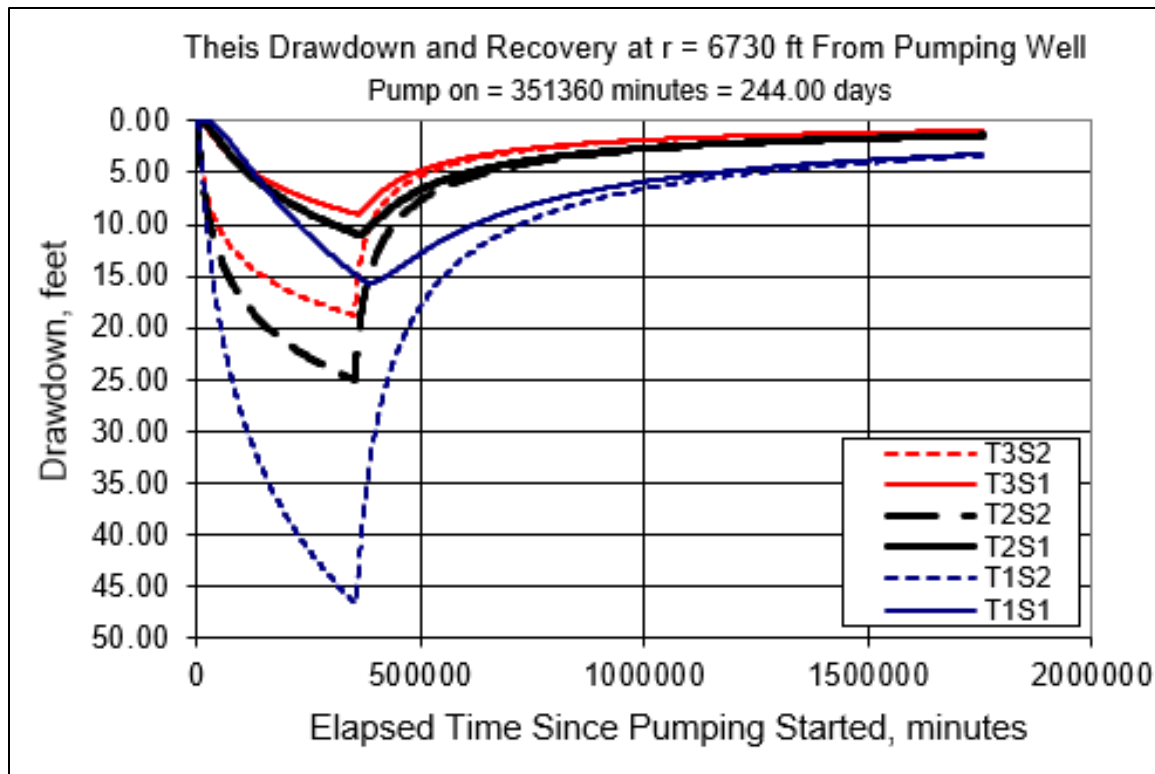


Figure 2- Drawdown analysis

Input Data:		Var Name	Scenario 1	Scenario 2	Scenario 3	Units	
Total pumping time	t			244		d	
Radial distance from pumped well:	r			6730		ft	Q conversions
Pumping rate	Q			1.114		cfs	499.96 gpm
Hydraulic conductivity	K	2.703	6.433	9.405		ft/day	1.11 cfs
Aquifer thickness	b		185			ft	66.84 cfm
Storativity	S 1		0.003				96,249.60 cfd
	S 2		0.0003				2.21 af/d
Transmissivity Conversions		T_f2pd	500.055	1190.105	1739.925	ft ² /day	
		T_ft2pm	0.3472604	0.8264618	1.2082813	ft ² /min	
		T_gpdpft	3740.4114	8901.9854	13014.639	gpd/ft	
							Recalculate

- Transmissivity estimates from MARI 209, MARI 53448, MARI 60579.
- Aquifer thickness from the well report for MARI 229, and
- Storativity estimates from Conlon et al., 2005

Figure 3- Stream Capture (Figure 45 from) Herrera et al, 2014