# Groundwater Transfer Review Summary Form

**Transfer/PA # T- _14714_**

**GW Reviewer _Byron Ebner and Grayson Fish_ Date Review Completed: _8/22/2025_**

**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-14714 Applicant Name: Edward Bayne and John Bayne

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

Reviewer(s): Byron Ebner and Grayson Fish Date of Review: 8/22/2025

Date Reviewed by GW Mgr. and Returned to WRSD: JTI 8/27/25

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: Property was divided in 2021. POU change to move irrigated acres to another pasture for grazing within tax lot 1701. Add two POAs to more efficiently serve the POU with shorter pumping distance and more efficient groundwater infrastructure than provided by current sump POA.

   Authorized POA is a sump.

   Proposed POAs are two wells. APOD 1 is JOSE 60711 and APOD 2 is JOSE 58981.

   Cert: 79434, Use: Primary Irrigation, Rate: 0.17 CFS, year-round use.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☒ Yes ☐ No Comments: Both proposed POAs (JOSE 60711 & 58981) access the alluvial aquifer. Formations noted are "Light Brown Clay and Large Gravel" and "BROWN CLAY LG GRAVEL COARSE SAND" from JOSE 58981 and JOSE 60711, respectively. No construction information was provided by the applicant for the existing sump POA, however, any sump in the area would access shallow groundwater in the unconsolidated sediments of Democrat Gulch. *Groundwater Resources of the Illinois River Basin, Oregon* separates the alluvium of Illinois Valley into younger and older alluvium, with the older alluvium being more prevalent throughout the alluvial basin and the younger alluvium being limited in occurrence to active stream channels and flood plains (Almy III, 1981). The alluvial sediments are noted as being up to 180 feet thick and can exhibit semi-confined or confined conditions at depth.

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: The only developed source appears unconsolidated Quaternary alluvium.

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: JOSE 58981 is moving closer to exempt well JOSE 60447 (1445 compared to 1385 ft). The nearest GW right is Certificate 67647 (JOSE 7514) which is 2170 ft away from JOSE 60711 compared to 3100 ft away from the authorized sump. The reduction in distance from the proposed POAs to nearby groundwater users is likely to result in an increase in interference with those users.

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 Theis time-drawdown equation was used to estimate the increase in drawdown that would be expected as a result of the proposed changes in POAs. A nearby pump test from JOSE 13046, which is completed in a similar formation to the proposed POAS, shows an estimated transmissivity of 6,387 $Ft^2$/day. Using the more conservative parameters, the increase in drawdown with nearby JOSE 7514 was estimated to be 0.3 ft after a year of continuous use at the maximum allowable rate. The estimated increase in drawdown for the nearby exempt well, JOSE 60447, was 0.05 ft. The changes proposed by this transfer are unlikely to result in another groundwater right not receiving the water to which it is legally entitled.

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: POAs are moving further away from Democrat Gulch. The authorized POA is 240 ft from Democrat Gulch while Proposed POAs are 295 ft and 1055 ft from Democrat Gulch. The proposed POAs are moving further from Democrat Gulch, which will likely result in no change or a decrease in interference.

JOSE 60711 is 65 ft closer to Althouse Creek compared to the Authorized POD (2180 vs 2115 ft). The reduction in distance between the proposed POA 1 and Althouse Creek is likely to result in an increase in interference with that surface water source.

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: Althouse Creek ☒ Minimal ☐ Significant

Stream: _____ ☐ Minimal ☐ Significant

Provide context for minimal/significant impact: Given the relatively minor change in distance of the proposed POA compared to the authorized sump's location, the expected increase in interference with Althouse Creek is likely to be minimal.

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: _____

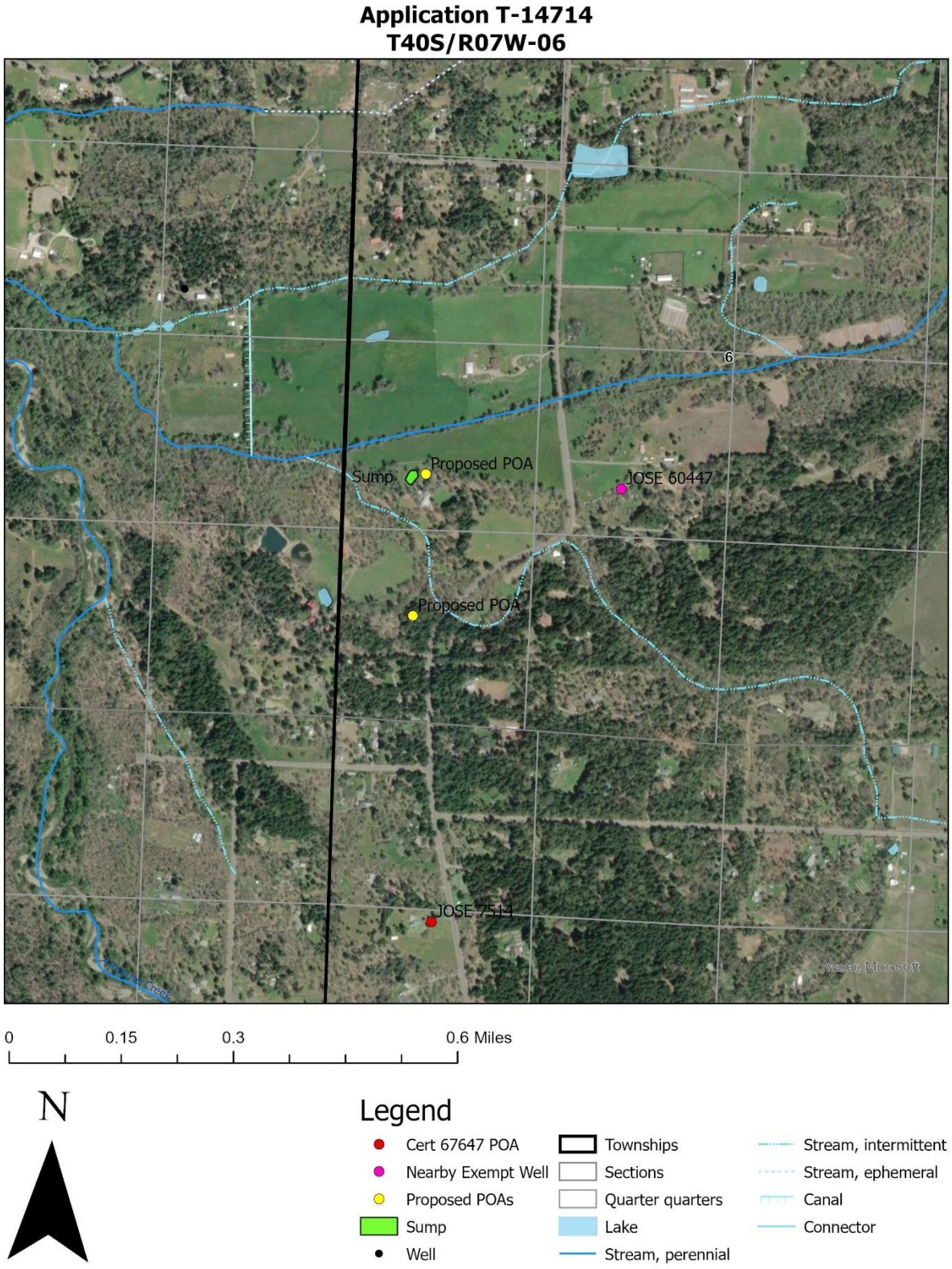
8. What conditions or other changes in the application are necessary to address any potential issues identified above: _____

9. Any additional comments: TL 1701 has 3 additional ponds separate from the current authorized sump. Additionally, JOSE 58981 is very close to the sump and has been constructed since 7/2012.

**References**


- Almy III, R. B. (1981). *Ground Water Resources of the Illinois River Basin, Oregon* (p. 31).
- Application File for T-14714
- AQTESOLV: http://www.aqtesolv.com/aquifer-tests/aquifer_properties.htm
- Oregon Water Resources Department (OWRD). Water Rights Information System. https://apps.wrd.state.or.us/apps/wr/wrinfo/.
- Oregon Water Resources Department (OWRD). Groundwater Information System. https://apps.wrd.state.or.us/apps/gw/gw_info/gw_info_report/Default.aspx.
- Oregon Water Resources Department (OWRD). Well Report Query. https://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx
- Pump Test for JOSE 13046
- Theis, C.V., 1941, *The effect of a well on the flow of a nearby stream*: Am. Geophys. Union Trans., v. 22, pt.3, p. 734-738.
- Wells, F.G., Hotz, P.E and Cater, F.W., Jr. (1949). *Preliminary description of the geology of the Kerby [30'] quadrangle*. Oregon Department of Geology and Mineral Industries. Bulletin 40.

Application Map



## Estimated Drawdown (Theis, 1941)

**Theis Time-Drawdown Worksheet** v.5.00

Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance, r, from a pumping well for 3 different T values and radial distance, r, from a pumping well for 3 different T values and 2 different S values.

Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

| **Input Data:** | Var Name | **Scenario 1** | **Scenario 2** | **Scenario 3** | **Units** | |
|---|---|---|---|---|---|---|
| Total pumping time | t | | 365 | | d | |
| Radial distance from pumped well: | r | | 1385 | | ft | **Q conversions** |
| Pumping rate | Q | | 0.17 | | cfs | 76.30 gpm |
| Hydraulic conductivity | K | 30 | 75 | 100 | ft/day | 0.17 cfs |
| Aquifer thickness | b | | 80 | | ft | 10.20 cfm |
| Storativity | S_1 | | 0.0012 | | | 14,688.00 cfd |
| | S_2 | | 0.0025 | | | 0.34 af/d |
| **Transmissivity Conversions** | T_f2pd | 2400 | 6000 | 8000 | ft2/day | |
| | T_ft2pm | 1.666667 | 4.166667 | 5.555556 | ft2/min | Recalculate |
| | T_gpdpft | 17952 | 44880 | 59840 | gpd/ft | |

Use the Recalculate button if recalculation is set to manual