

Groundwater Transfer Review Summary Form

Transfer/PA # T- 14384

GW Reviewer James Hootsmans/Travis Brown Date Review Completed: 11/1/2024

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 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.

4. 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 is closer to neighboring water right POA 2 on Certificate 26891 (also POA 1 on Certificate 54829) compared to the existing POA; therefore, the proposed change will likely result in an increase in interference.
- 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 is ~250 ft from the presumed location of POA 2 on Certificate 26891, rather than ~890 ft like the From-POA. Permit G-216 (which became Certificate 26891) noted POA 2 as 25 ft deep, with the depth to water estimated at 10 ft. Total depth of the Willamette Aquifer in this area is estimated at 60-80 ft, resulting in an estimated saturated thickness of 50-70 ft (Gannett & Caldwell, 1998; Woodward et al., 1998). The potential interference with neighboring POA 2 resulting from the proposed change was estimated using the Theis (1935) solution (see attached Well Interference Analysis). Results of the analysis indicate the proposed change is not likely to result in injury of the neighboring POA 2.
5. 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 POA is farther from surface water sources than the existing POA.
- 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: _____
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: NA
7. What conditions or other changes in the application are necessary to address any potential issues identified above: NA
8. Any additional comments: NA

References

Application File: T-14384

Certificates: 26891, 46688, 54829

Pumping Test Reports: LINN 4394, 4404, 6260, 6307, 6373

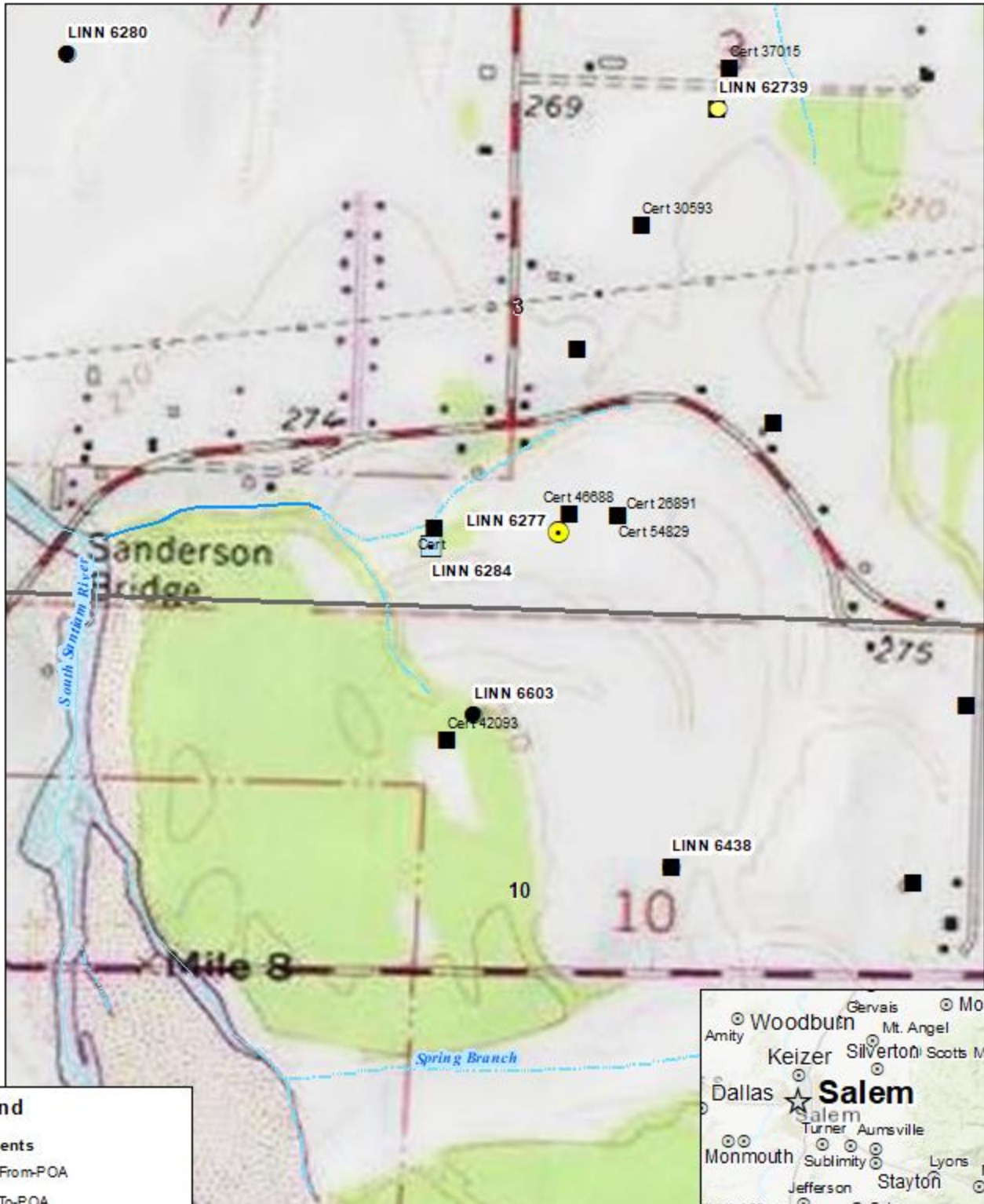
Conlon, T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 2005, Ground-water hydrology of the Willamette Basin, Oregon, Scientific Investigations Report 2005-5168: U. S. Geological Survey, Reston, VA.

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.

Woodward, D.G., Gannett, M.W., and Vaccaro, J.J., 1998, Hydrogeologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-B, 82 p.

Well Location Map

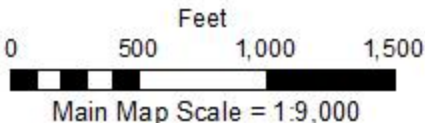
T14384 Shumaker



Legend

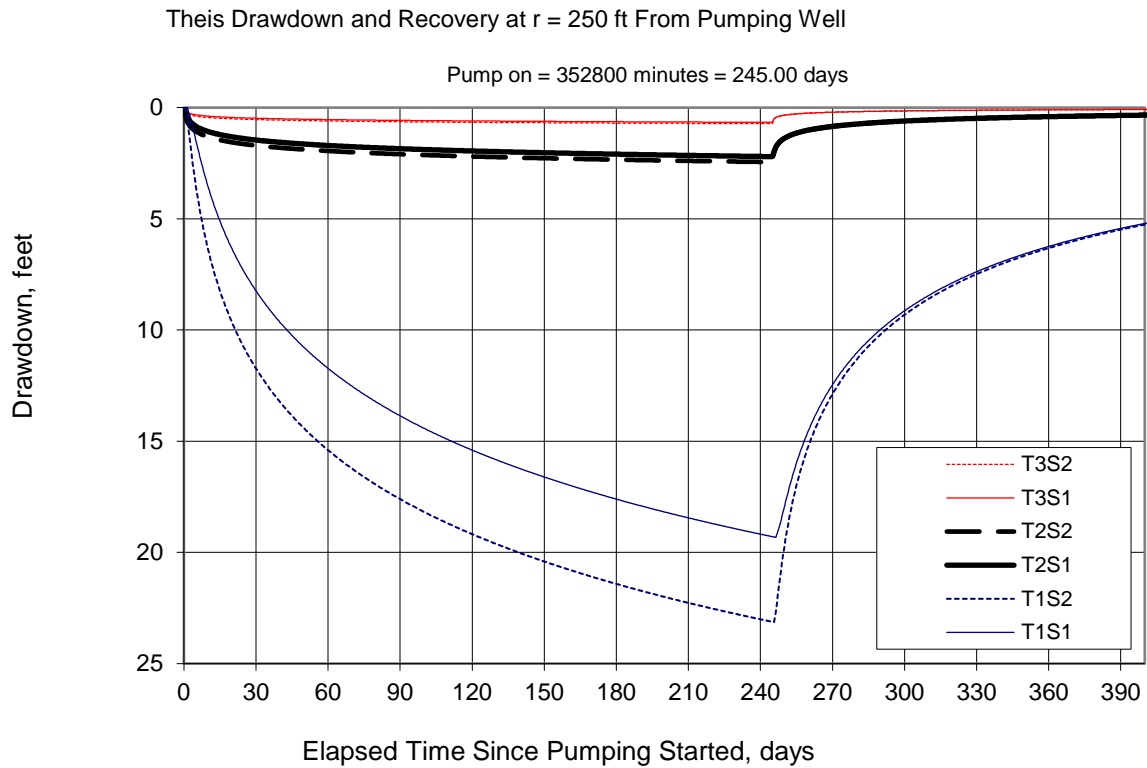
Comments

- From-POA
- To-POA
- Quaternary-Late Tertiary Sediment Aquifers
- Unknown
- Groundwater Rights



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
 Copyright © 2013 National Geographic Society, i-cubed

Well Interference Analysis (Theis, 1935)



Radial distance, r = 250 ft [distance from To-POA to POA 2 on Cert 26891]

Pumping rate, Q = 0.57 [maximum combined pumping rate of To-POA after proposed change]

Pumping time, $t_{\text{pump}} = 245$ [full irrigation season]

Transmissivity: T1 = 700 ft²/d | T2 = 11,000 ft²/d | T3 = 45,000 ft²/d [pumping test reports]

Storativity: S1 = 0.2 | S2 = 0.1 [Conlon et al., 2005]