

# Groundwater Transfer Review Summary Form

Transfer/PA # T- 14421

GW Reviewer Stacey Garrison/Travis Brown Date Review Completed: 11/4/2024

## 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 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.*



**Oregon Water Resources Department**  
 725 Summer Street NE, Suite A  
 Salem, Oregon 97301-1271  
 (503) 986-0900  
 www.wrd.state.or.us

## Ground Water Review Form:

- Water Right Transfer
- Permit Amendment
- GR Modification
- Other

Application: T-14421

Applicant Name: Rachel Pond

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

Reviewer(s): Stacey Garrison/Travis Brown

Date of Review: 11/4/2024

Date Returned to WRSD: 11/12/2024

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 \_\_\_\_\_

1. Basic description of the changes proposed in this transfer: Applicant proposes to change the POAs under Permit G-18291 from the authorized POAs, POA 1 /Well 1 (PROP 554) and POA 2/Well 2 (PROP 555), to the proposed POAs, POA 3/Well 3 (LANE 73787) and POA 4/Well 4 (LANE 52059/12757). Permit G-18291 is authorized for nursery use on 30.0 acres at a maximum rate of 0.32 cfs and maximum annual duty of 150 AF.
2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?  
 Yes     No    Comments: The authorized from-POAs (PROP 554 and PROP 555) were anticipated to be 160 ft deep [219 and 216 ft amsl, respectively] and develop the 80 to 100 ft thick weathered terrace gravels, which are part of the alluvial aquifer system with groundwater elevations ranging from 365 to 375 ft amsl. The proposed to-POAs (LANE 73787 and LANE 52059/12757) range in depth from 100 to 160 ft bls [296 to 371 ft amsl] with water-bearing zones from 30 to 120 ft bls [267 to 357 ft amsl]. The to-POAs utilize the same aquifer as the from-POAs were proposed to develop under Permit G-18291.
3. a) Is the existing authorized POA subject to a water level decline condition?  
 Yes     No    Comments: Permit G-18291 includes water level decline conditions under item 2. The from-POAs (PROP 554 and PROP 555) do not appear to have been developed and the permittee has reported that water use has not yet occurred under Permit G-18291. The permit states that the initial March static water-level measurement shall be reported once well construction is complete and annually thereafter.

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: Reference levels for the from-POAs were not established as the wells were not constructed. If this transfer results in a new permit, that permit should include the same water level decline conditions as permit G-18921 and that the initial March static water-level be collected from the to-POAs (LANE 73787 and LANE 52059/12757) prior to water use under the new permit.

4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?

Yes  No Comments: Only the alluvial aquifer system is developed.

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 to-POAs (LANE 73787 and LANE 52059/12757) are closer to neighboring tax lot 1100 at 27266 8th St, which is presumed to be served by an exempt domestic well ("Tax Lot 110 Well"). The closer proximity of this domestic well will likely increase 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: To-POA 4 (LANE 52059/12757) is 405 ft SE of the presumed location of the Tax Lot 1100 Well. The Theis (1935) solution was used to assess interference from proposed to-POA 4 (LANE 52059/12757) at the presumed location of the Tax Lot 1100 Well (see attached Theis Interference Analysis). Results indicate that the proposed change is unlikely to injure the Tax Lot 1100 Well. To-POA 3 (LANE 73787) is further from the presumed location of Tax Lot 1100 Well, and would result in even less drawdown and is therefore unlikely to injure the Tax Lot 1100 Well.

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 to-POAs (LANE 73787 and LANE 52059/12757) are closer to an unnamed tributary to Amazon Creek.

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: Unnamed tributary to Amazon Creek  Minimal  Significant

Provide context for minimal/significant impact: Although the to-POAs (LANE 73787 and LANE 52059/12757) are closer to an unnamed tributary to Amazon Creek, both to-POAs are further from the unnamed tributary to Amazon Creek than the from-POAs (PROP 554 and PROP 555) are from Coyote Creek. Both the surface water sources are within the same WAB (LONG TOM R WILLAMETTE R-AB MOUTH), so there is overall a decreased degree of interference anticipated with surface water.

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:
9. Any additional comments: \_\_\_\_\_

### **References**

Transfer File: T-14421, Permit G-18291

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.

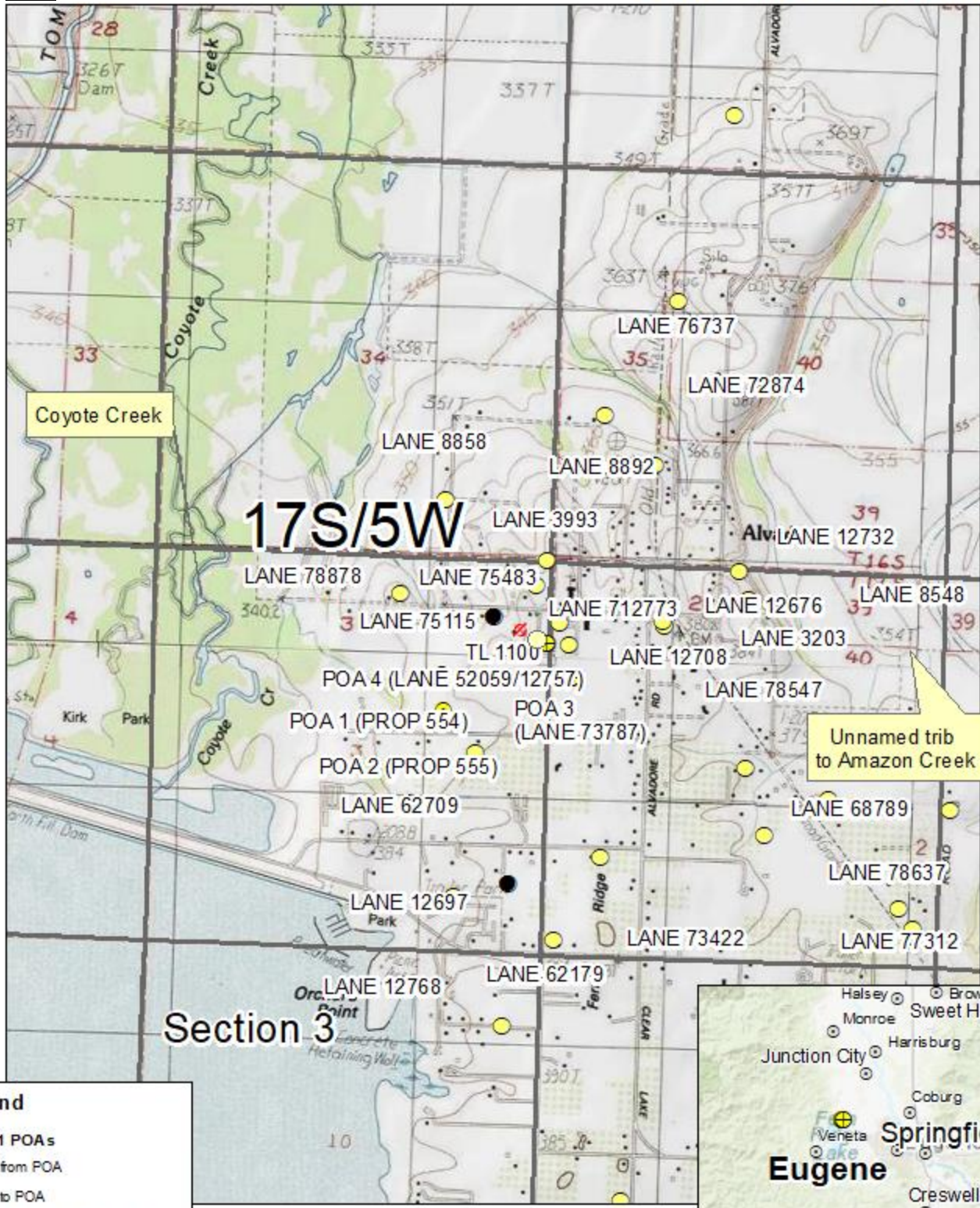
Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington, Professional Paper 1424-A, 32 p: U. S. Geological Survey, Reston, VA.

Herrera, N.B., Burns, E.R., and 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: U.S. Geological Survey Scientific Investigations Report 2014-5136, 152 p.

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.

**Map**

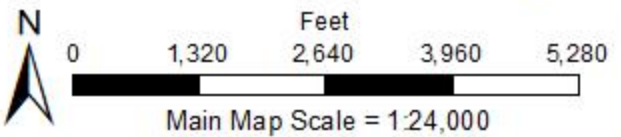
**T-14421 Rachel Pond**



**Legend**

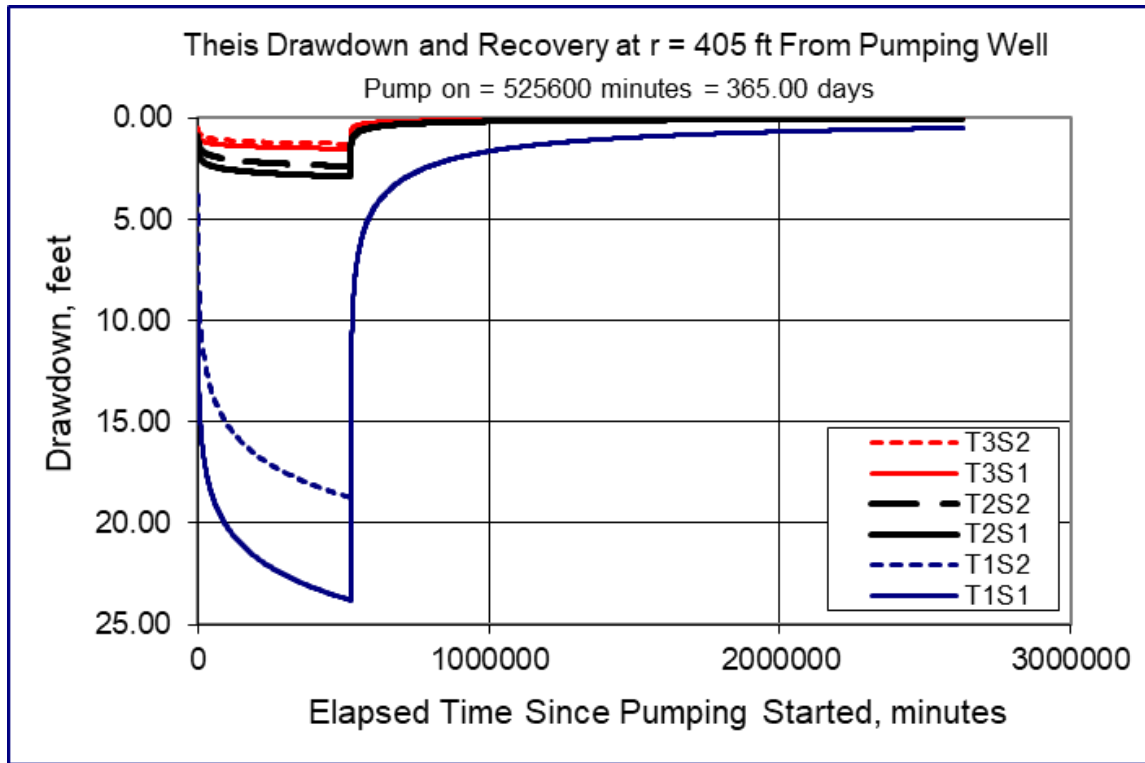
T14421 POAs

- from POA
- ⊕ to POA
- Quaternary-Late Tertiary Sediment Aquifers
- Unknown
- Sections



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**Theis Interference Analysis**



**Total pumping time, t = 365 days** [Year-round nursery use]

**Radial distance, r = 405 ft** [approximate distance from to-POA 4 (LANE 52059/12757) to presumed location of Tax Lot 1100 Well]

**Pumping rate, Q=0.32 cfs** [maximum rate, Permit G-18291]

**Transmissivity: T1=1,000 ft<sup>2</sup>/day; T2=10,000 ft<sup>2</sup>/day; T3=20,000 ft<sup>2</sup>/day** [Herrera et al., 2014]

**Storativity: S1=0.0001; S2=0.001** [Conlon et al., 2005; Herrera et al., 2014]