

Groundwater Transfer Review Summary Form

Transfer/PA # T- 14464

GW Reviewer Stacey Garrison Date Review Completed: 11/19/2024

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.



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Ground Water Review Form:

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

Application: T-14464

Applicant Name: Spring Creek Land and Cattle Co., LLC

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

Reviewer(s): Stacey Garrison

Date of Review: 11/19/2024

Date Reviewed by GW Mgr. and Returned to WRSD: JTI 6/4/25

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: Applicant proposes to add APOA POA 3 (LANE 8189) to 29.7 ac under Claims GR-3685 and GR-3686. Claims GR-3685 and GR-3686 are layered and authorize irrigation of 31 ac with a maximum annual duty of 78.0 AF each. Claim GR-3685 has a maximum rate of 0.445 cfs (200 gpm) from POA 1 (LANE 7985) and Claim GR-3686 has a maximum rate of 0.891 cfs (400 gpm) from POA 2 (LANE 7986). If approved, POA 3 (LANE 8189) should be prorated with a maximum annual duty of 74.7 AF for each Claim, and maximum rates of 0.427 cfs (191.6 gpm) under Claim GR-3685 and 0.853 cfs (383.2 gpm) under Claim GR-3686.
 2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☒ Yes ☐ No Comments: The authorized POAs (LANE 7985, LANE 7986) likely develop a shallow quaternary floodplain gravel and sand lens with water level elevation between 340 and 360 ft amsl (McCloughry et al., 2010; O'Connor et al., 2001; Wallick et al., 2013; Woodward et al., 1998); the wells develop a water bearing zone from 18 to 21 ft bls [330 to 333 ft amsl]. The proposed APOA (LANE 8189) develops a similar shallow floodplain deposit with sand and gravel water bearing zones developed from 21 to 25 ft bls [333 to 337 ft amsl] and a water level elevation of 13 ft bls [345 ft amsl].
 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: NA

4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
☐ Yes ☒ No Comments: Only the alluvial source 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.): NA
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 APOA (LANE 8189) is closer to LANE 8198, authorized under Claim GR-1261. The closer proximity 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: Proposed APOA (LANE 8189) is 317 ft southeast of LANE 8198. The Theis (1935) solution was used to assess interference from proposed APOA (LANE 8189) to LANE 8198 (see attached Theis Interference Analysis). Results indicate that the proposed change is unlikely to injure LANE 8198.
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 authorized POAs (LANE 7985, LANE 7986) are closer to surface water sources than the proposed APOAs. The increased distance is anticipated to decrease interference.
- 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: NA
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: NA
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-14464, Claim GR-3685, Claim GR-3686, Claim GR-1261

Pump Test Reports: LANE 64556, LANE 58765, LANE 8039

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.

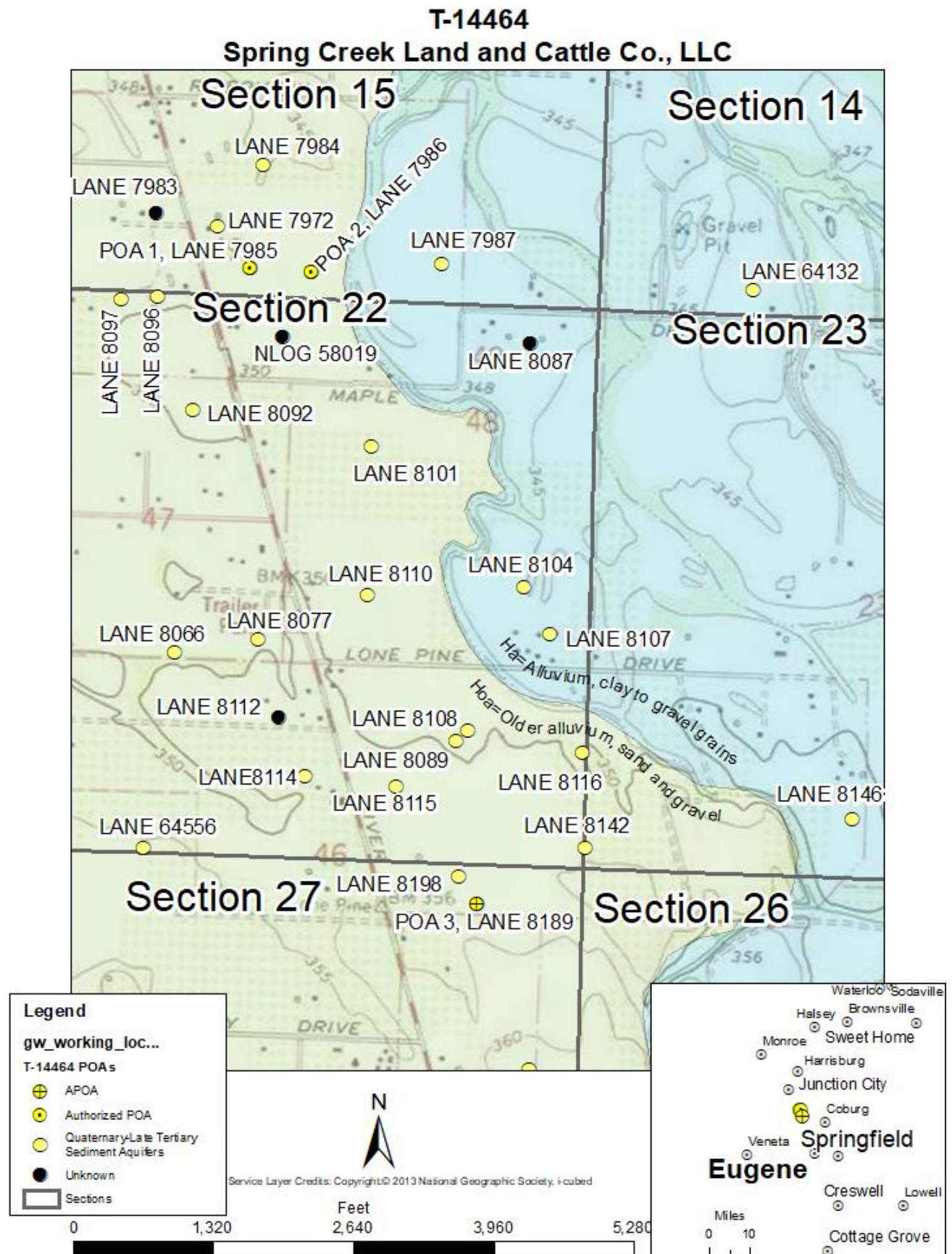
Herrera, N.B., Burns, E.R., and Conlon, T.D., 2014, Simulation of groundwater flow and the interaction of groundwater and surface water in the Willamette Basin and Central Willamette subbasin, Oregon: U.S. Geological Survey Scientific Investigations Report 2014-5136, 152 p.

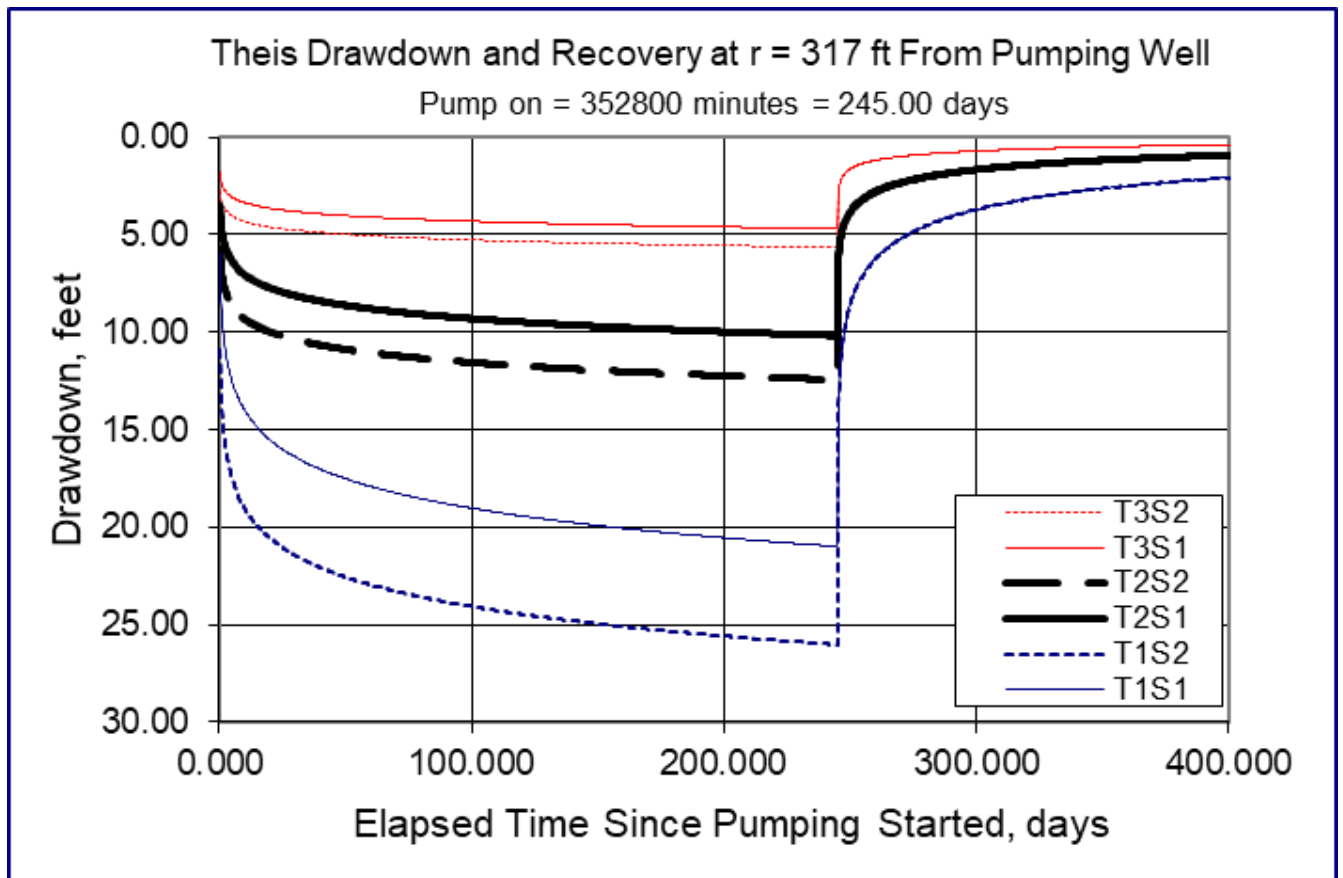
McClaughry, J. D., T. J. Wiley, M. L. Ferns, and I. P. Madin. 2010. Digital Geologic Map of the Southern Willamette Valley, Benton, Lane, Linn, Marion, and Polk Counties, Oregon. Oregon Dept. of Geology and Mineral Industries. Open File Report O-10-13

O'Connor, J.E., Sarna-Wojcick, A., Woznikak, K.C., Polette, D.J., Fleck, R.J., 2001, Origin, Extent, and Thickness of Quaternary Geologic Units in the Willamette Valley, Oregon; U.S. Geological Survey, Professional Paper 1620, 51 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.

Wallick, J.R., Jones, K.L. O'Connor, J.E., Keith, M.K., Hulse, David, and Gregory, S.V., 2013, Geomorphic and vegetation processes of the Willamette River floodplain, Oregon—Current understanding and unanswered questions: U.S. Geological Survey Open-File Report 2013-1246., 70 p

Map

Theis Interference Analysis

Total pumping time, $t = 245$ days [Irrigation season March 1 through October 31]

Radial distance, $r = 317$ ft [approximate distance from APOA (LANE 8189) to LANE 8198]

Pumping rate, $Q=0.85383$ cfs [maximum prorated transfer rate, Claim GR-3685/Claim GR-3686]

Transmissivity: $T1=2,682$ ft²/day; $T2=5,994$ ft²/day; $T3=14,094$ ft²/day [Pump Tests on LANE 64556, LANE 58765, LANE 8039]

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