Groundwater Transfer Review Summary Form

Transfer/PA # T- **14394 (RA)**

GW Reviewer **Aaron Orr / Travis Brown** **Date Review Completed:** **8/8/2024**

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.

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-14394 Applicant Name: City of Junction City

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

Reviewer(s): Aaron Orr / Travis Brown Date of Review: 8/8/2024

Date Returned to WRSD: 8/8/2024

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 _____

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1. Basic description of the changes proposed in this transfer: Applicant proposes to add an additional point of appropriation (APOA) to Certificates 46412 and 65071. The APOA will be at the proposed "Bailey Park Well." **LANE 6385** is the From-POA associated with Certificate 46142 and **LANE 6371** is the From-POA associated with Certificate 65071. The combined maximum allowable rate is 2.03 cfs.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
   ☒ Yes ☐ No Comments: The proposed APOA will source water from the same aquifer as the authorized POAs (Willamette Aquifer, Lower Sedimentary Unit)

3. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
   ☐ Yes ☒ No _____

   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

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 maximum allowed combined rate of Certificates 46412 and 65071 is 2.03 cfs (911 gpm). The closest water well (LANE 7798) is 970 feet from the proposed POA. Modeling with conservative hydraulic parameters indicated drawdown at LANE 7798 would likely be less than 10 feet when pumping the proposed To-POA at the maximum allowable rate of 2.03 cfs.

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 modeled interference is unlikely to result in injury for a fully penetrating, reasonably efficient neighboring well. LANE 7798 and other neighboring wells do not fully penetrate the aquifer.

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: No significant increase in interference with another surface water source is expected.

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

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: N/A

7. What conditions or other changes in the application are necessary to address any potential issues identified above: N/A

8. Any additional comments:_____

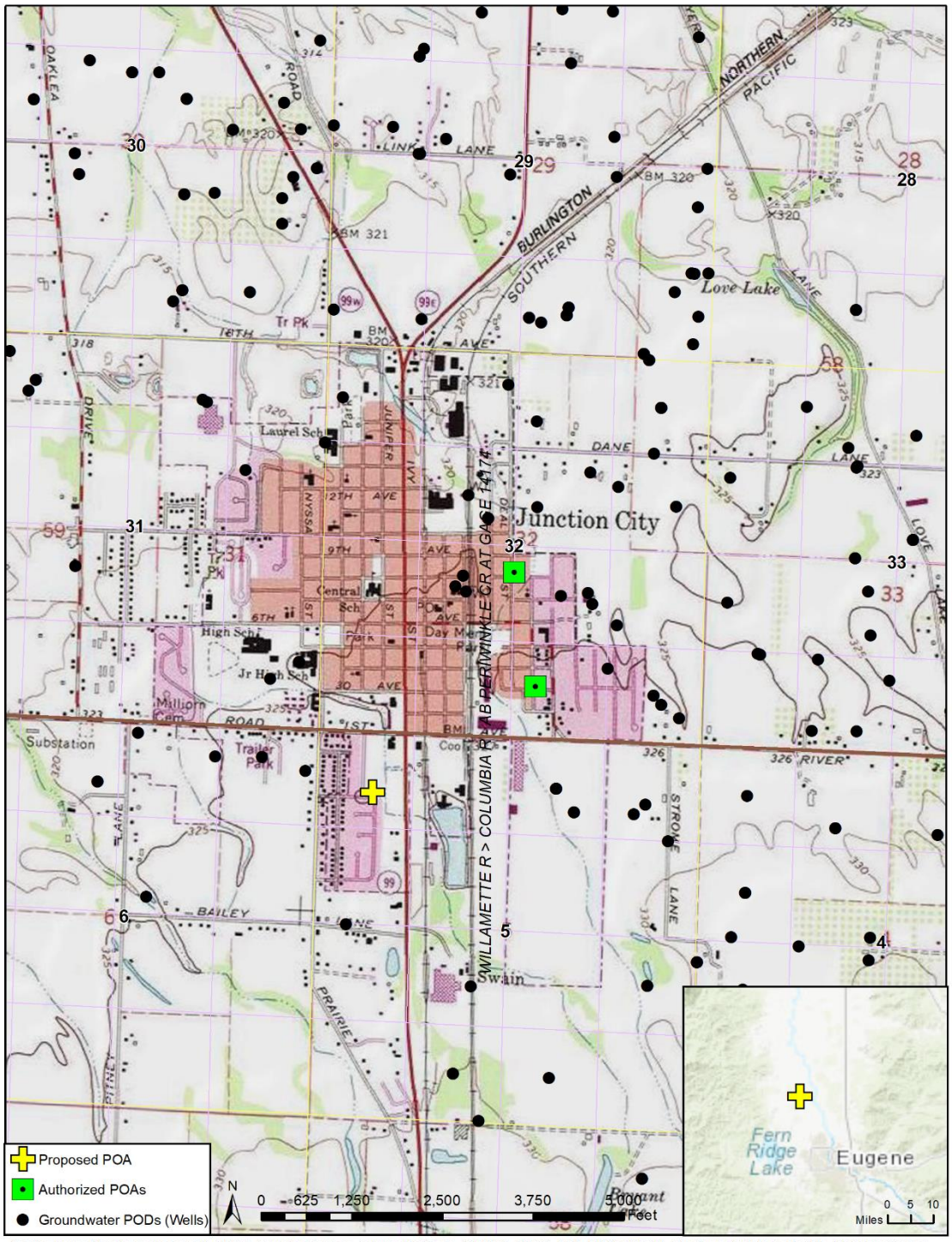
References

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.

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

T-14394



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Theis Interference Analysis

Hydraulic Conductivity: Values ranged from 25 ft/day (LANE 8061 pump test, assuming 82-foot aquifer thickness) to 220 ft/day (Conlon et al., 2005). The final transmissivity estimates of 8,823, 20,230, and 29,750 were the 1st, 2nd, and 3rd quartiles from 200-model runs using a range of the previously stated hydraulic conductivity values.

Storativity: 0.0003 to 0.07 (Woodward et al., 1998; Conlon et al., 2005, Table 1).

Time: 365 days.

Rate: 2.03 cfs (maximum rate) for the To-POA; 0.67 cfs (one-third maximum rate) for the To-POA

Distance: 970 feet from the To-POA to LANE 7798.

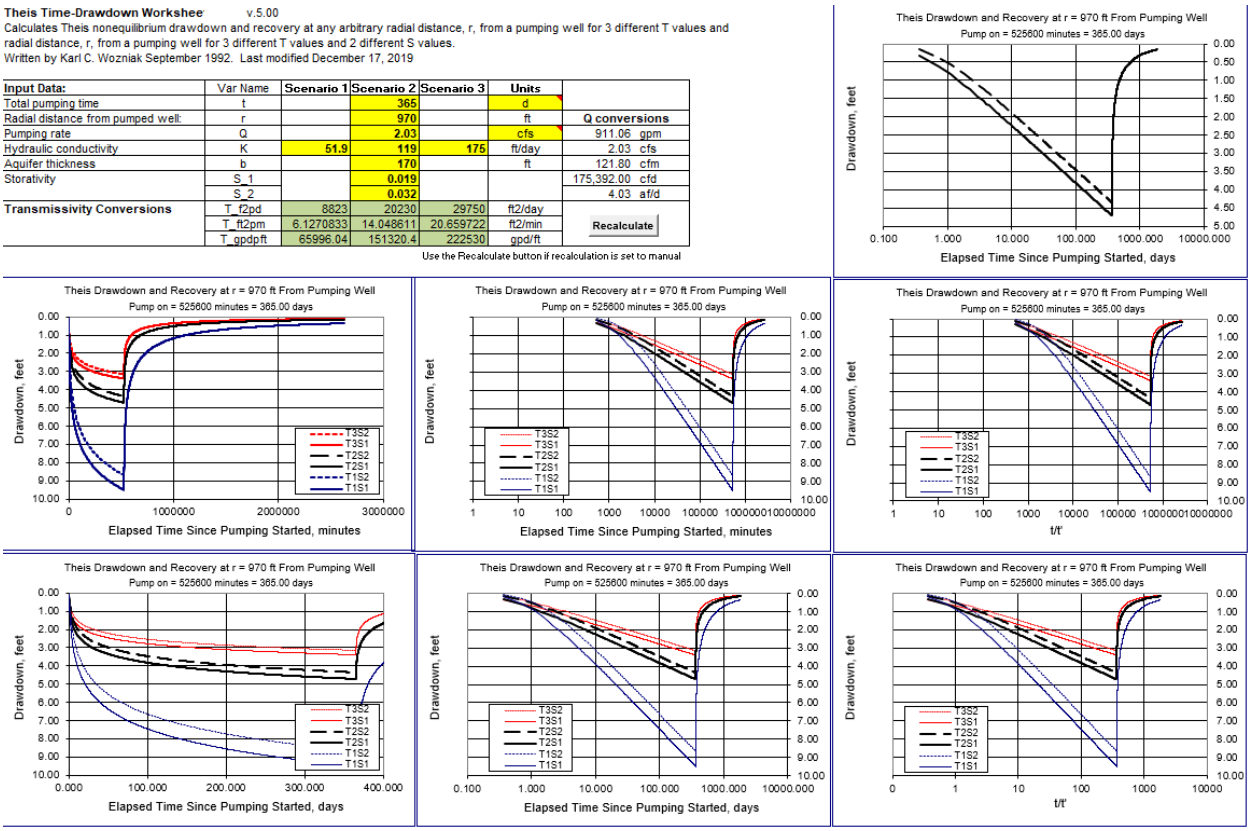

Figure 1. Estimated time-drawdown at maximum allowable rate.

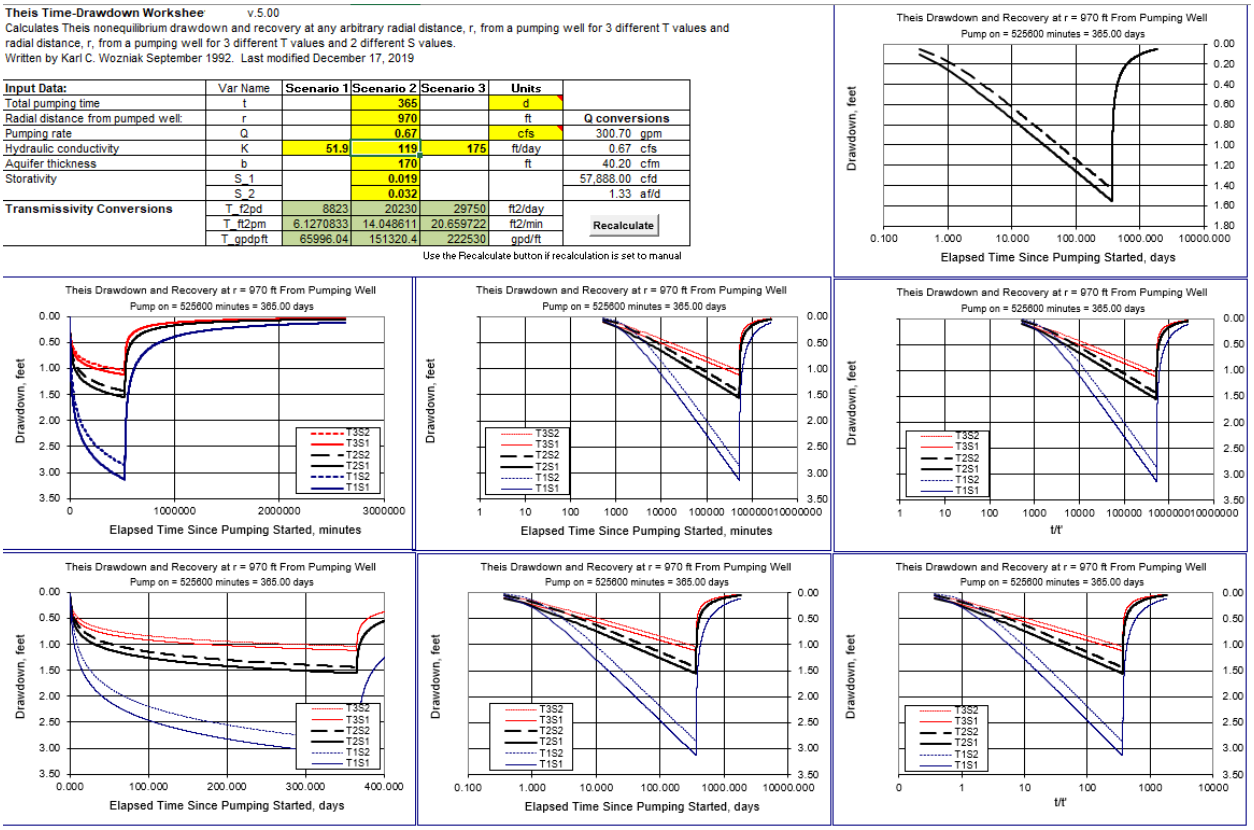

Figure 2. Estimated time-drawdown at one-third maximum allowable rate.