

Groundwater Transfer Review Summary Form

Transfer/PA # T- 14918

GW Reviewer Travis Brown Date Review Completed: 9/18/2026

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-14918

Applicant Name: Ervin Radke

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

Reviewer(s): Travis Brown

Date of Review: 9/18/2026

Date Returned to WRSD: 9/18/2026

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 change the POD on Cert 30922 and 51319 from a surface water diversion from Booneville Channel to a well (BENT 55249).
 2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☐ Yes ☐ No Comments: N/A – the authorized POD is a surface water diversion.
 3. a) Is the existing authorized POA subject to a water level decline condition?
☐ Yes ☒ No Comments: The subject rights are for surface water diversions and are not subject to water level decline conditions.
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: N/A
 4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
☐ Yes ☒ No Comments: Only surface water in Booneville Channel has been 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: By shifting diversion from surface water to groundwater, the proposed change will inherently increase interference with nearby groundwater rights.

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: Due to the proximity of the proposed POA (BENT 55249) to Booneville Channel and the POA well's shallow construction (total depth of 70 ft bls), the proposed change is unlikely to cause injury to nearby groundwater rights.

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: Although the proposed change will not increase net annual interference with surface water, surface water depletions from pumping groundwater will persist for some period of time after pumping ceases, whereas the impact of surface water diversions on surface water flow ceases once diversion ceases; thus, the proposed change will likely lead to increases in interference with surface water following periods of pumping and potentially outside the irrigation season.

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: Booneville Channel ☒ Minimal ☐ Significant

Provide context for minimal/significant impact: _____

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: Interference with Booneville Channel from the proposed POA well was analyzed using the Hunt (1999) model for stream depletion (see Stream Depletion Analysis, attached). Results of the analysis indicate that the proposed POA well would likely deplete Booneville Channel by no more than 4 percent of the rate of pumping within the first 10 days; thus, per OAR 690-380-2130, the proposed change would not affect the surface water source "similarly."

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

9. 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.

Hunt, B., 1999, Unsteady Stream Depletion from Ground Water Pumping: Ground Water, January-February, Vol 37, p 98-102.

Iverson, J., 2002, Investigation of the hydraulic, physical, and chemical buffering capacity of Missoula flood deposits for water quality and supply in the Willamette Valley of Oregon: Unpublished M.S. thesis, Oregon State University, 147 p.

Well Location Map

T-14198

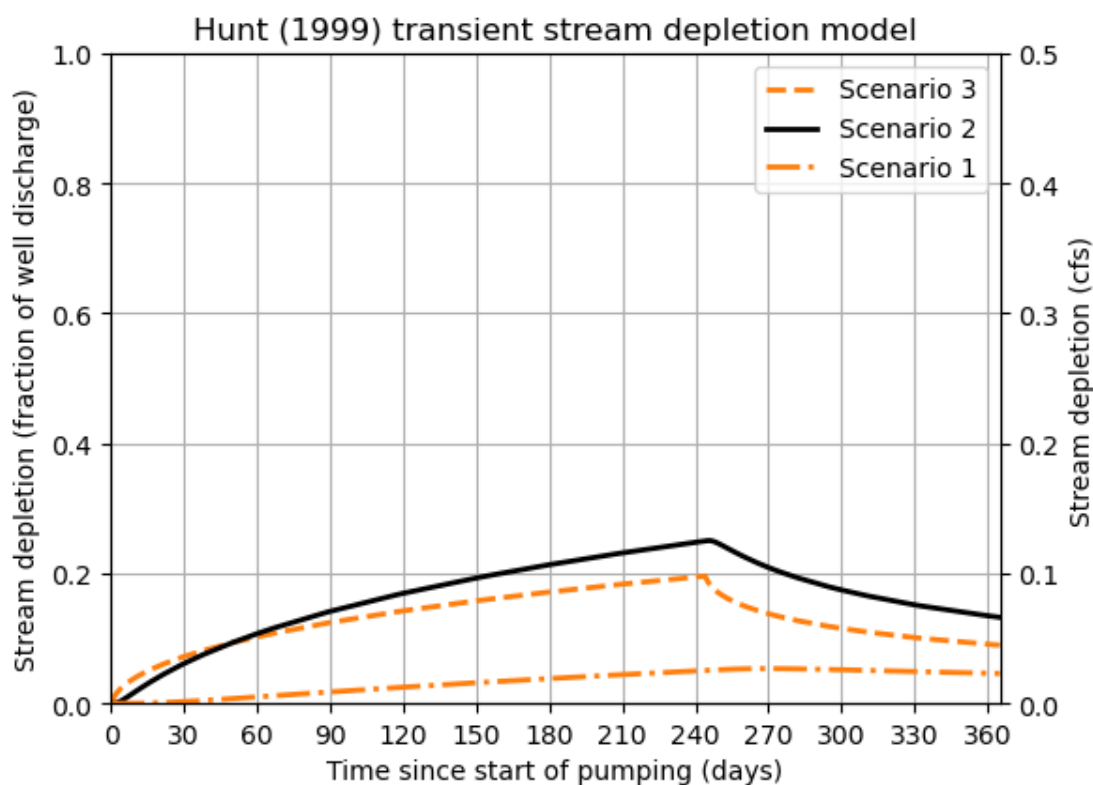


Stream Depletion Analysis (Hunt, 1999)

Parameter	Symbol	Scenario 1	Scenario 2	Scenario 3	Units
Distance from well to stream	a	360	360	360	ft
Aquifer transmissivity	T	180	670	17000	ft ² /day
Aquifer storativity	S	0.2	0.1	0.05	-
Aquitard vertical hydraulic conductivity	Kva	0.001	0.005	0.01	ft/day
Not used		0	0	0	
Aquitard thickness below stream	babs	1.0	1.0	1.0	ft
Not used		0	0	0	
Stream width	ws	80.0	80	80	ft

Stream depletion for Scenario 2:

Days	10	330	360	30	60	90	120	150	180	210	240	270	300
Depletion (%)	2	15	13	6	11	14	17	19	21	23	25	21	17
Depletion (cfs)	0.01	0.08	0.07	0.03	0.05	0.07	0.08	0.10	0.11	0.12	0.12	0.10	0.09

**Parameter Sources**

T: Pumping test reports: BENT 528, 1403, 4703, 6250, 6289; LINN 63135, 63737

S: Conlon et al., 2005 – Middle Sedimentary Unit (MSU), Unconfined

Kva: Iverson, 2002

babs: Conservative estimate