Groundwater Transfer Review Summary Form

Transfer/PA # T- _14799_

GW Reviewer _Jen Woody_ Date Review Completed: _1/16/2026_

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-14799 Applicant Name: Brad Allen

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

Reviewer(s): Jen Woody Date of Review: 1/16/2026

Date Reviewed by GW Mgr. and Returned to WRSD: _____

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: Certificate 98799 authorizes 2 wells (BAKE 51347, BAKE 52334) for supplemental irrigation of 156.6 acres. T-14799 proposes to add one well.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☒ Yes ☐ No Comments: Ground water is found within the interbedded sand and gravel deposits of the alluvial fan deposits. The ground water usually occurs under unconfined conditions, although some nearby wells penetrate significant clay layers. Nearby well logs report sand, gravel and clay greater than 650 feet thick.

Logid	Well Name	Depth (feet below land surface)	Seal (feet below land surface)	Aquifer	comment
BAKE 51347 (deepening log)	Well 1 L-75771	639	unknown	Alluvium	Original well log not found
BAKE 52334	Well 2 L-113685	580	0-22	Alluvium	
Proposed	Well 3	600	0-30	Alluvium	Well not built

3. a) Is the existing authorized POA subject to a water level decline condition?
☐ Yes ☒ No Comments: Certificate 98799 contains no water level decline condition.

   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: See comments in Section 2. All authorized and proposed wells will access the alluvial aquifer.

   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 largest change in proximity to other wells is between the proposed well and BAKE 52265. The proposed well would be approximately 1,000 feet from BAKE 52262, while current POA BAKE 52334 is 2,500 feet from the same well.

   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: At 2,500 feet away, pumping 1.95 cfs for 180 days from BAKE 52334 will create up to 7 feet of drawdown at BAKE 52265. Moving that pumping to the proposed POA, 1,000 feet from BAKE 52265, will create up to10 feet of drawdown. This increase of 3 feet will not prevent access to groundwater; the wells are greater than 500 feet deep, with less than 50 feet below land surface to the static water level, meaning there are at least 450 feet of water in the wells.

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 proposed POA, Well 3, is approximately 400 feet closer to Hunt Creek than the authorized wells. This will result in an increase in interference with Hunt 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: Hunt Creek ☒ Minimal ☐ Significant
   Stream: _____ ☐ Minimal ☐ Significant
   Provide context for minimal/significant impact: As shown in Figure 3, the increase in stream depletion is less than 0.1% (< 1 gallon per minute) of the pumping rate after 365 days.

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: none

9. Any additional comments: none

References

Barlow, P.M and Leake, S.A, 2012, Streamflow Depletion by Wells—Understanding and Managing the effects of groundwater pumping on streamflow, U.S. Geological Survey Circular 1376, 84 p.

Brooks, H.C., McIntyre, JR; Walker, GW, 1976, Geology of the Oregon part of the Baker 1 degree by 2 degree quadrangle, DOGAMI GMS-7.

Hunt, B., 1999, Unsteady stream depletion from ground water pumping: Ground Water, v. 37, no. 1, p. 98-102.

Oregon Water Resources Department, Groundwater Information System, https://apps.wrd.state.or.us/apps/gw/gw_info/gw_info_report/Default.aspx, accessed 1/16/2026.

Theis, C.V., 1941, The effect of a well on the flow of a nearby stream: Am. Geophys. Union Trans., v. 22, pt.3, p. 734-738.

Figure 1. Well location Map

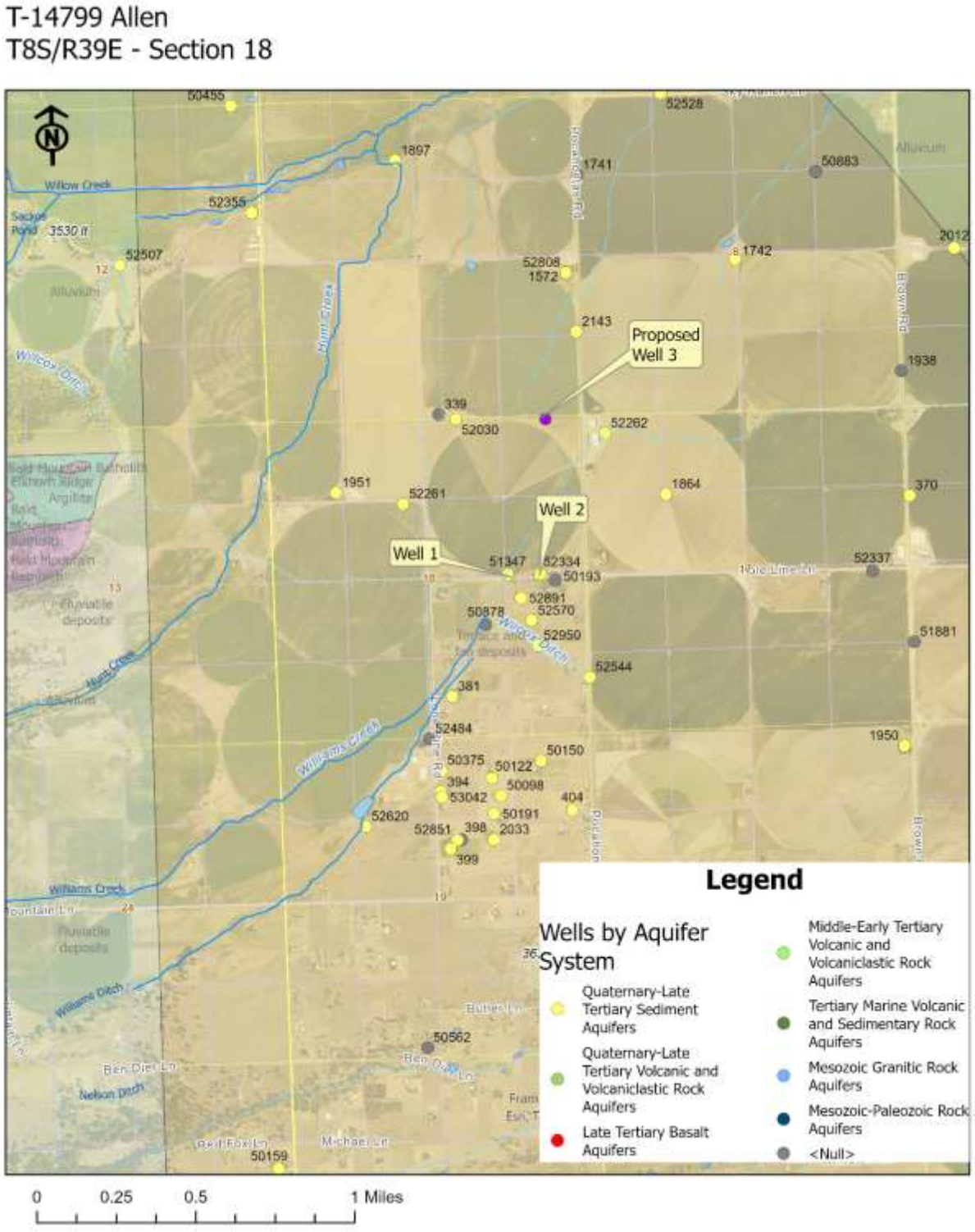
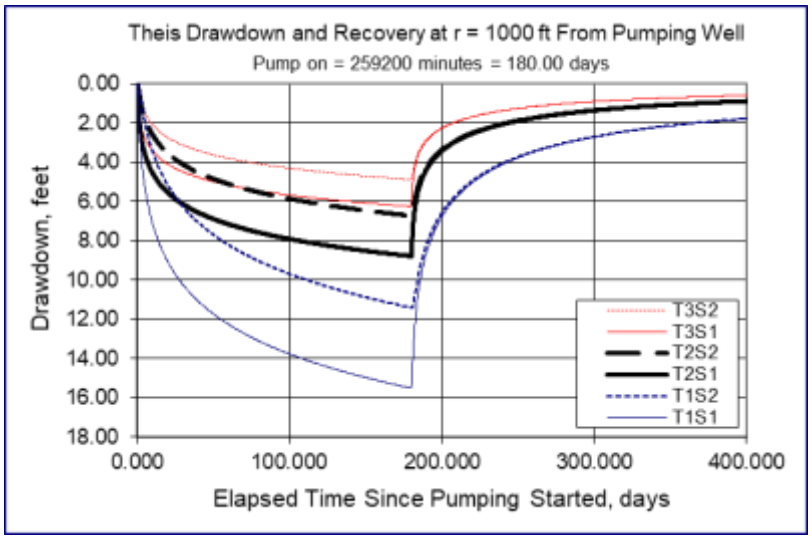
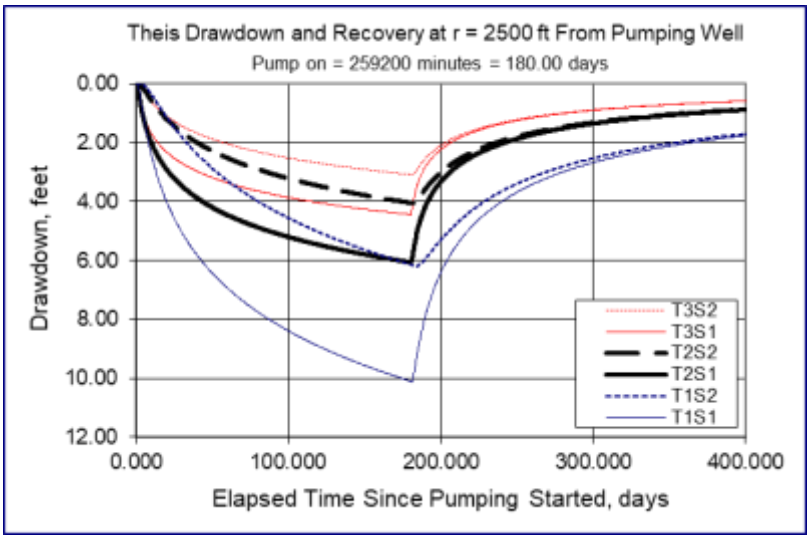


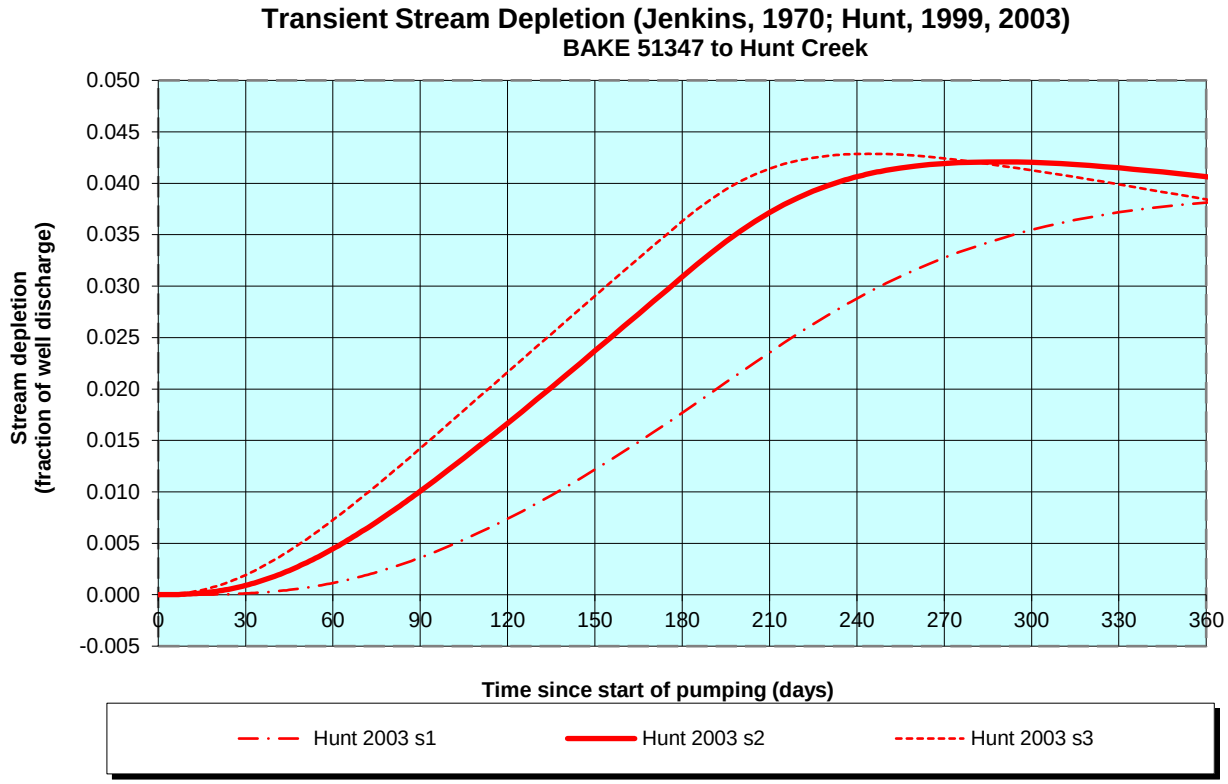
Figure 2. Distance-drawdown estimates, using aquifer parameters from pump testing at BAKE 52262 show a maximum increase in well-to-well interference drawdown of 6 feet. The proposed well is 1,000 feet from the neighboring well, while the existing wells are a minimum of 2,500 feet away.





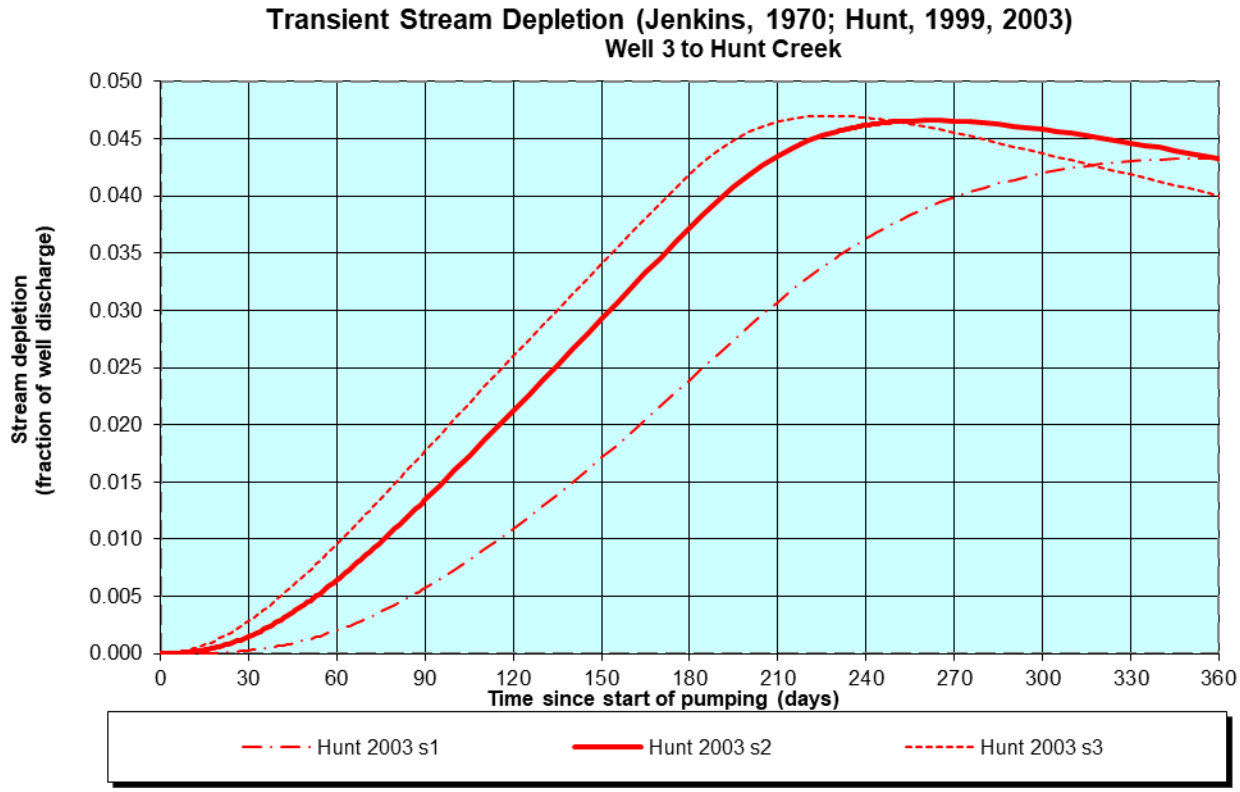
Input Data:	Var Name	**Scenario 1**	**Scenario 2**	**Scenario 3**	**Units**
Total pumping time	t		**180**		d
Radial distance from pumped well:	r		**2500**		ft
Pumping rate	Q		**1.95**		cfs
Hydraulic conductivity	K	**10**	**20**	**30**	ft/day
Aquifer thickness	b		**450**		ft
Storativity	S_1		**0.01**		
	S_2		**0.04**		
Transmissivity Conversions	T_f2pd	4500	9000	13500	ft2/day
	T_ft2pm	3.125	6.25	9.375	ft2/min
	T_gpdpft	33660	67320	100980	gpd/ft

Figure 3a. Estimated stream depletion from existing pumping at BAKE 51347, using aquifer parameters from single well testing at BAKE 52262, show …



Parameters:		Scenario 1	Scenario 2	Scenario 3	Units
Net steady pumping rate of well	Qw	1.95	1.95	1.95	cfs
Time pump on (pumping duration)	tpon	180	180	180	days
Perpendicular from well to stream	a	4120	4120	4120	ft
Well depth	d	600	600	600	ft
Aquifer hydraulic conductivity	K	10	20	30	ft/day
Aquifer saturated thickness	b	450	450	450	ft
Aquifer transmissivity	T	4500	9000	13500	ft*ft/day
Aquifer storativity or specific yield	S	0.01	0.01	0.01	
Aquitard vertical hydraulic conductivity	Kva	1	1	1	ft/day
Aquitard saturated thickness	ba	20	20	20	ft
Aquitard thickness below stream	babs	10	10	10	ft
Aquitard porosity	n	0.2	0.2	0.2	
Stream width	ws	10	10	10	ft

Figure 3b. Estimated stream depletion from proposed pumping at Well 3, using aquifer parameters from single well testing at BAKE 52262.



Parameters:		Scenario 1	Scenario 2	Scenario 3	Units
Net steady pumping rate of well	Qw	1.95	1.95	1.95	cfs
Time pump on (pumping duration)	tpon	180	180	180	days
Perpendicular from well to stream	a	3720	3720	3720	ft
Well depth	d	600	600	600	ft
Aquifer hydraulic conductivity	K	10	20	30	ft/day
Aquifer saturated thickness	b	450	450	450	ft
Aquifer transmissivity	T	4500	9000	13500	ft*ft/day
Aquifer storativity or specific yield	S	0.01	0.01	0.01	
Aquitard vertical hydraulic conductivity	Kva	1	1	1	ft/day
Aquitard saturated thickness	ba	20	20	20	ft
Aquitard thickness below stream	babs	10	10	10	ft
Aquitard porosity	n	0.2	0.2	0.2	
Stream width	ws	10	10	10	ft