# **Groundwater Transfer Review Summary Form**

### Transfer/PA # T- <u>14622</u>

GW Reviewer <u>Grayson Fish</u> Date Review Completed: <u>4/25/2025</u>

#### 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				Ground Water Review Form:				
	<b>Ore</b> 725	<b>Dregon Water Resources Department</b>		🖂 Water Right Transfer				
WATER RESOURCES	Sale	em, Oregon 97301	-1271	Permit Amendment				
D E P A R T M E N T	(50. ww	(503) 986-0900 www.wrd.state.or.us		□ GR Modification				
				□ Other				
Application: T- <u>1</u>	462	<u>2</u>		Applicant Name: Double J Farms				
Proposed Chang	es:	🛛 POA	□ APOA	□ SW→GW	$\boxtimes$ RA			
		$\Box$ USE	$\Box$ POU	$\Box$ other				
Reviewer(s): <u>C</u>	Brays	on Fish		Date of Review: <u>4/25/2025</u>				
				Date Returned to WRSD: <u>4/25/2025</u>				

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 \_\_\_\_\_
- -----
- Basic description of the changes proposed in this transfer: <u>The applicant proposes to change</u> the POA associated with Certificate 37822 from authorized POA #1 (original well report <u>KLAM 14735/deepening well report KLAM 14739</u>) to proposed POA #2 (not yet <u>constructed</u>.

The proposed POA #2 is mapped to a location 4,450 feet west-northwest of authorized POA #1. Both the authorized POA and proposed POA are located within southern Poe Valley, Klamath County, OR.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA? Xes\* □ No Comments: Department records indicate that well report KLAM 14739 is the deepening report for original well report KLAM 14735 listed in transfer application T-14622. The deepening report shows that the well seal was reconstructed to 20 feet below land surface and extended the total depth of the well from 662 to 689 feet below land surface. Authorized POA #1 develops the regional volcanics at a depth below 93 feet as noted on the well reports KLAM 14735/KLAM 14739. The proposed seal depth for POA #2 listed in Table 3 of the application of 9 feet does not meet minimum well construction requirements per OAR 690-210-0150 Sealing of Water Supply Wells in Consolidated Formations. However, if the proposed POA were to be constructed in a manner that meets the minimum construction standards it is likely that the well will develop the same volcanic system as authorized POA #1. The applicant should plan to case though the upper sedimentary units and seal into the consolidated volcanics at depth.

It should be noted that the depth to regional volcanics at the proposed location for POA #2 may be considerably deeper than encountered in authorized POA #1 due to significant fault structure in the area. Of the three well reports filed with the Department in R40S T11E S12 Q-NW, only one (KLAM 59667) appears to encounter volcanics at a depth of 542 feet below ground surface. Well report KLAM 14734 does not appear to encounter volcanics though its total depth of 420 feet below land surface. It is unclear if volcanics were encountered between the depths of 435 and 465 feet below land surface in KLAM 14740.

a) Is the existing authorized POA subject to a water level decline condition?
□ Yes ⊠ No Comments: Certificate 37822 does not contain a 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

a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
 □ Yes □ No Comments: <u>The well reports KLAM 14753/KLAM 14739 suggest that</u> only a volcanic source 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 Do Comments: <u>The change proposed under this transfer will move use</u> <u>closer to well KLAM 14731, an authorized POA under Certificate 34896.</u> The resulting reduction of distance compared to the original POA #1, 3,450 vs. 7,700 feet, is likely to result in an increase in interference with KLAM 14731.

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: <u>The reported depth of KLAM 14731 is 992 feet with</u> static water level of 53.64 feet below land surface as of 2/27/2025. The Theis time-distance drawdown equation (Theis, 1935) was used to estimate in increase in drawdown associated with the reduction in distance between the authorized POA #1 and the proposed POA #2. A transmissivity value of 7,260 ft2/day and a storage coefficient of 0.00058 for South Poe Valley were used for aquifer parameters (Grondin, 2004). At the maximum allowed rate of 1.83 cfs for 244 days, the estimated drawdown 3,450 feet from the proposed POA #2 is ~11 feet which is ~3 feet of additional drawdown compared to the authorized POA #1. The expected increase in interference from this change is not expected to result in another groundwater right not receiving the water to which it is legally entitled. Stream:

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**?

 $\boxtimes$  Yes  $\square$  No Comments: <u>The change proposed under this transfer will move use</u> closer to well to the Lost River located to the north. The resulting reduction of distance compared to the original POA #1 2.75 vs. 3.15 miles, is likely to result in an increase in interference with the Lost River.

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: Lost River 🛛 Minimal 🗌 Significant

☐ Minimal ☐ Significant

Provide context for minimal/significant impact: <u>Given the depth of the aquifer unit that</u> proposed POA #2 will access and the distance to the Lost River, it is likely that the increase in interference resulting from the change in POAs will be minimal compared to what is already occurring from the authorized POA #1.

- 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?
  - $\Box$  Yes  $\Box$  No Comments: <u>N/A</u>
- 8. What conditions or other changes in the application are necessary to address any potential issues identified above: <u>The final construction of proposed POA #2 must meet minimal well construction standards and should be cased and sealed into the volcanic units at depth.</u>
- 9. Any additional comments:

## **References:**

Grondin, G. H. 2004. Ground Water in the Eastern Lost River Sub-Basin, Langell, Yonna, Swan Lake, and Poe Valleys of Southeastern Klamath County, Oregon. 41. Ground Water Report. Salem, OR: Oregon Water Resources Department. A5.

Oregon Water Resources Department: Groundwater Information System. Accessed 4/25/2025.

Oregon Water Resources Department: Well Report Query. Accessed 4/25/2025.

Oregon Water Resources Department: Water Rights Information System. Accessed 4/25/2025.

<u>Theis, C.V., 1935, The relation between the lowering of the piezometric surface and the rate and</u> <u>duration of discharge of a well using groundwater storage</u>, American Geophysical Union <u>Transactions, vol. 16, p. 519-524.</u> T-14622



#### Theis Time-Drawdown Workshee v.5.00

Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance, r, from a pumping well for 3 different T values and radial distance, r, from a pumping well for 3 different T values and 2 different S values. Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

Input Data:	Var Name	Scenario 1	Scenario 2	Scenario 3	Units	
Total pumping time	t		244		d	
Radial distance from pumped well:	r		3450		ft	Q conversions
Pumping rate	Q		1.83		cfs	821.30 gpm
Hydraulic conductivity	К	72.6	72.6	72.6	ft/day	1.83 cfs
Aquifer thickness	b		100		ft	109.80 cfm
Storativity	S_1		0.00058			158,112.00 cfd
	S_2	]	0.00058			3.63 af/d
Transmissivity Conversions	T_f2pd	7260	7260	7260	ft2/day	
	T_ft2pm	5.0416667	5.0416667	5.0416667	ft2/min	Recalculate
	T and off	54304.8	54304.8	54304.8	and/ft	



Use the Recalculate button if recalculation is set to manual