

Groundwater Transfer Review Summary Form

Transfer/PA # T- 13771

GW Reviewer Stacey Garrison/Travis Brown Date Review Completed: 10/6/2023

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.



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Ground Water Review Form:

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

Application: T-13771

Applicant Name: Anne R Klinge Trust, Lori Klinge Trustee

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

Reviewer(s): Stacey Garrison, Travis Brown

Date of Review: 10/6/2023

Date Returned to WRSD: 10/12/2023

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 _____

-
1. Basic description of the changes proposed in this transfer: Applicant proposes to change to new POA for irrigation of 1.2 acres (maximum annual volume of 3 af/year) under **Claim GR-782**. The **From-POA is MARI 241** and the **To-POA is MARI 229**. **Claim GR-782** authorizes irrigation of 40 acres total at a maximum rate of 1.114 cfs. The proportional rate of withdrawal from the proposed **To-POA (MARI 229)** would be 0.03342 cfs based on the acreage to be irrigated by the proposed To-POA. The remaining 38.8 ac of POU on **Claim GR-782** would continue to be irrigated using the **From-POA MARI 241** at a maximum rate of 1.0806 cfs.
 2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☒ Yes ☐ No Comments: The **To-POA (MARI 229)** develops the sand and gravel Willamette aquifer (Woodward et al 1998) from 130 to 143 ft bls [46 to 59 ft msl]. The **From-POA (MARI 241)** is drilled to a maximum depth of 134 ft [57 ft msl]; although the lithology is not recorded for the **From-POA (MARI 241)**. Based on the recorded maximum depth, the recorded well yield of 600 gpm, surrounding well logs (MARI 229, MARI 233, MARI 247, MARI 249, MARI 242), and geology reports (O'Connor et al 2001) the **From-POA (MARI 241)** likely utilizes the same sand and gravel Willamette aquifer as the **To-POA (MARI 229)**.
 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.): NA

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 closest well to the **From-POA (MARI 241)** is likely MARI 249, a domestic well serving tax lot 1000 at 23241 Boones Ferry Rd. MARI 249 is 532 ft from the **From-POA (MARI 241)** and 1,735 ft from the **To-POA (MARI 229)**. The closest well to the **To-POA (MARI 229)** is likely MARI 233, a domestic well serving tax lot 1300 at 13652 Arndt Rd. MARI 233 is 689 ft from the **To-POA (MARI 229)** and 944 ft from the **From-POA (MARI 241)**. The **To-POA (MARI 229)** is further from the closest well than the **From-POA (MARI 241)**, so a decrease in interference with other groundwater users is anticipated.

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: NA

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: The **From-POA (MARI 241)** and the **To-POA (MARI 229)** both produce from the Willamette alluvial sand and gravel aquifer which is hydraulically connected to local streams (Woodward et al 1998). The **To-POA (MARI 229)** is 668 ft west of Senecal Creek, whereas the **From-POA (MARI 241)** is 1,216 ft east of Senecal Creek*. The reduced intervening distance will likely increase interference with Senecal Creek. The proposed **To-POA (MARI 229)** is 1,755 ft west of Kraus Creek, whereas the **From-POA (MARI 241)** is 560 ft north of Kraus Creek. The increased intervening distance will likely decrease interference with Kraus Creek. Both Senecal Creek and Kraus Creek are tributaries to Deer Creek and within the Mill Creek>Pudding River at Mouth Water Availability Basin (WAB). The difference in proximity (distance from nearest surface water to From-POA vs To POA) for Senecal Creek is 548 ft and for Kraus Creek is 1,195 ft, with an overall reduced stream-to-well distance of 647 ft for the **To-POA (MARI 229)**.

*Senecal Creek has been mapped most recently as intermittent, however historic topographic maps indicate Senecal Creek as perennial adjacent to the **To-POA (MARI 229)** and there are three PODs for two surface water rights for irrigation on Senecal Creek: Certificate 22662 with a priority date of 11/28/1949 and Certificate 23216 with a priority date of 11/6/1950. It is therefore assumed that there is potential for interference to occur during the irrigation season with these surface water rights; the most upstream POD is used as the potential point of interference reflected in the distances to the **From-POA (MARI 241)** and the **To-POA (MARI 229)**.

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: Senecal Creek

☒ Minimal ☐ Significant

Provide context for minimal/significant impact: The reduced intervening distance between the **To-POA (MARI 229)** and Senecal Creek will likely cause an overall increase in interference with Senecal Creek. However, at the WAB scale, the overall impact is anticipated to be null due to the reduced interference with Kraus Creek and the inefficient

hydraulic connection. In addition, potential interference with Senecal Creek is anticipated to be minimal as assessed using the Hunt 2003 analytical stream depletion model (Hunt 2003).

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

References:

Application File: T-13771

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: U.S. Geological Survey Scientific Investigations Report 2005-5168.

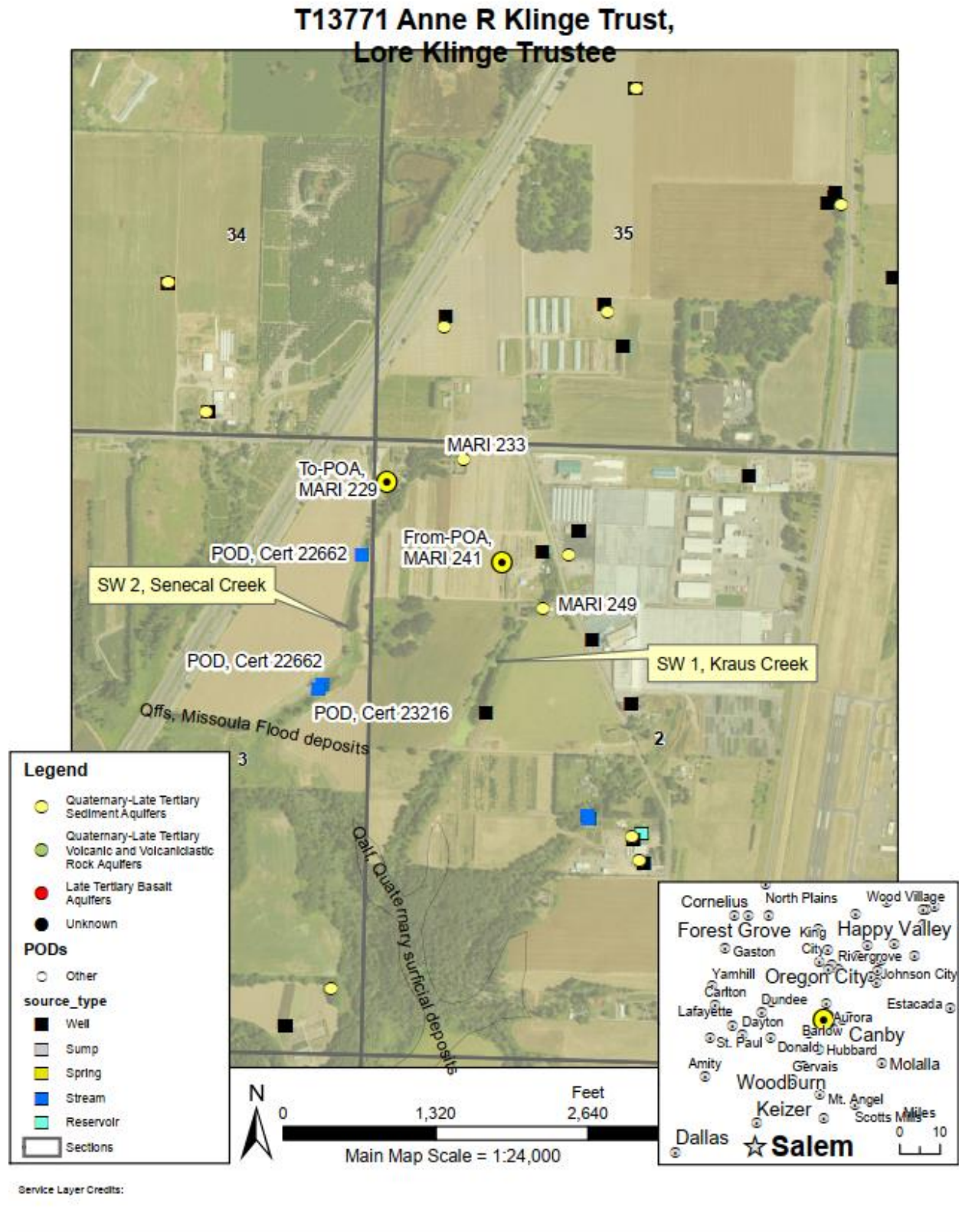
Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-A, 32 p.

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

Jenkins, C.T., 1968, Techniques for computing rate and volume of stream depletion by wells: Ground Water, v. 6, no. 2, p. 37-46.

O'Connor, J.E., Sarna-Wojcick, A., Wozniak, 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

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.



Water Availability Analysis Detailed Reports

MILL CR > PUDDING R - AT MOUTH
WILLAMETTE BASIN
Water Availability as of 10/5/2023

Watershed ID #: 30200901 ([Map](#))
Date: 10/5/2023

Exceedance Level: 80%
Time: 3:21 PM

Water Availability Calculation
Consumptive Uses and Storages
Instream Flow Requirements
Reservations
Water Rights
Watershed Characteristics

Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second
Annual Volume at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirements	Net Water Available
JAN	39.20	9.74	29.50	0.00	0.00	29.50
FEB	53.90	9.08	44.00	0.00	0.00	44.00
MAR	38.40	9.47	28.90	0.00	0.00	28.90
APR	27.60	7.10	20.50	0.00	0.00	20.50
MAY	13.70	5.73	7.97	0.00	0.00	7.97
JUN	8.72	7.06	1.66	0.00	0.00	1.66
JUL	3.79	10.00	-7.05	0.00	0.00	-7.05
AUG	2.09	8.81	-6.72	0.00	0.00	-6.72
SEP	1.88	4.81	-2.93	0.00	0.00	-2.93
OCT	2.39	1.25	1.14	0.00	0.00	1.14
NOV	6.05	7.23	-1.18	0.00	0.00	-1.18
DEC	25.90	9.55	16.30	0.00	0.00	16.30
ANN	30,000.00	5,520.00	25,300.00	0.00	0.00	25,300.00

Download Data ([Text - Formatted](#), [Text - Tab Delimited](#), [Excel](#))

Application type:

T

Application number:

13771

Well number:

2

Stream Number:

1

Pumping rate (cfs):

0.03342

Pumping duration (days):

245.0

Pumping start month number (3=March)

3.0

Parameter	Symbol	Scenario 1	Scenario 2	Scenario 3	Units
Distance from well to stream	a	668.0	668.0	668.0	ft
Aquifer transmissivity	T	720.0	3700.0	6680.0	ft ² /day
Aquifer storativity	S	0.001	0.0005	0.0001	-
Aquitard vertical hydraulic conductivity	Kva	0.001	0.005	0.01	ft/day
Aquitard saturated thickness	ba	160.0	160.0	160.0	ft
Aquitard thickness below stream	babs	160.0	160.0	160.0	ft
Aquitard specific yield	Sya	0.2	0.2	0.2	-
Stream width	ws	15.0	15.0	15.0	ft

Stream depletion for Scenario 2:

Days	10	330	360	30	60	90	120	150	180	210	240	270	300
Depletion (%)	0	0	0	0	0	0	0	0	0	0	0	0	0
Depletion (cfs)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

