# **Groundwater Transfer Review Summary Form**

### Transfer/PA # T- <u>14528 RA</u>\_

GW Reviewer <u>Stacey Garrison/Travis Brown</u> Date Review Completed: <u>10/24/2024</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 WATER RESOURCES DEPARTMENT Oregon Water Resource 725 Summer Street NE, S Salem, Oregon 97301-12 (503) 986-0900 www.wrd.state.or.us			treet NE, Suite A 97301-1271 0	Ground Water Review Form: Water Right Transfer Permit Amendment GR Modification Other		
App	olication: T <u>14</u>	528	Applican	Applicant Name: <u>Chuck Eder Farms, Inc. c/o Ryan Eder</u>		
Proposed Changes:  POA USE				$\Box SW \rightarrow GW$ $\Box OTHER$	🛛 RA	
Rev	viewer(s): <u>St</u>	acey Garriso	on/Travis Brown		te of Review: <u>10/24/2024</u> ed to WRSD: <u>10/24/2024</u>	
	information asfer may be a	-		sufficient to evaluate	whether the proposed	
	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: <u>Applicant proposes to add two</u> <u>POAs: APOA 2 (<b>PROP 546</b>) and APOA 3 (<b>PROP 547</b>) to <u>Certificate 39904</u>. <u>Certificate</u> <u>39904</u> authorizes existing POA 'Old Well'/POA 1 (<b>MARI 3249</b>) to irrigate 22 ac at 0.28 cfs (126 gpm) and a maximum annual duty of 55 AF/year.</u>					
2.	Will the proposed POA develop the same aquifer (source) as the existing authorized POA? Yes ON Comments: <u>The authorized POA 'Old Well'/POA 1 (MARI 3249)</u>					

develops the confined coarse-grained fluvial sediments overlain by approximately 100 ft of

fine-grained Missoula flood deposits (Gannett and Caldwell, 1998). The proposed APOAs APOA 2 (PROP 546) and APOA 3 (PROP 547) are anticipated to develop the same source.

3. a) Is the existing authorized POA subject to a water level decline condition? □ Yes 🛛 No Comments:

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)?  $\Box$  Yes  $\boxtimes$  No Comments: Only the alluvial aquifer system is 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.): <u>N/A</u>

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 D No Comments: <u>The APOAs 2 (**PROP 546**</u>) and 3 (**PROP 547**) are closer to neighboring tax lot 600, which is presumed to be served by exempt domestic wells ("Tax Lot 600 Well"). The closer proximity of this domestic well will increase interference.

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>APOA 2 (**PROP 546**) is 180 ft SE of the</u> presumed location of the Tax Lot 600 Well. The Theis (1935) solution was used to assess interference from proposed APOA 2 (**PROP 546**) at the presumed location of the Tax Lot 600 Well (see attached Theis Interference Analysis). Results indicate that the proposed change is unlikely to injure the Tax Lot 600 Well. APOA 3 (**PROP 547**) is further from the presumed location of Tax Lot 600 Well, and would result in even less drawdown and is therefore unlikely to injure the Tax Lot 600 Well.

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: <u>The APOAs 2 (PROP 546) and 3 (PROP 547) are closer to Howell Prairie Creek than the authorized POA (MARI 3249). The closer proximity to the creek will increase interference.</u>

Provide context for minimal/significant impact: <u>Although somewhat closer to Howell Prairie</u> <u>Creek, the percentage increase in interference from APOAs 2 (**PROP 546**) and 3 (**PROP 547**) should be minimal due to the ~100 ft thick layer of fine-grained sediment (Gannett and Caldwell, 1998) underlying the creek which will diffuse depletion from groundwater pumping over a broad area and span of time.</u>

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>

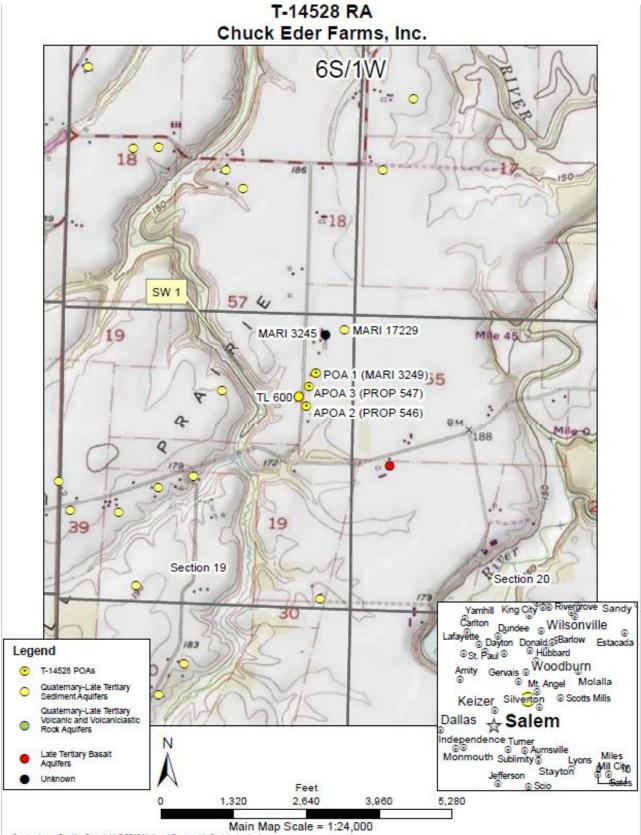
- 8. What conditions or other changes in the application are necessary to address any potential issues identified above: \_\_\_\_\_
- 9. Any additional comments: <u>Certificate 39904 does not contain any water level decline conditions.</u>

### **References**

Transfer File: T-14528

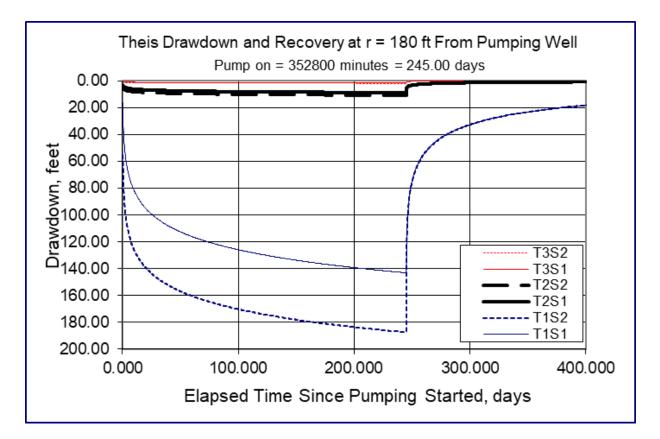
- Pumping Test Reports: MARI 3583, MARI 3584, MARI 3581, MARI 4399, MARI 3467, MARI 7256, MARI 17933, MARI 3510, MARI 50132, MARI 52117, MARI 3219, MARI 53725, MARI 3507, MARI 3093, MARI 3959, MARI 4443, MARI 62243, MARI 3516, MARI 4414, MARI 68598, MARI 69450
- Conlon, T.D., Wozniak, K.C., Woodcock, 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.
- Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington, Professional Paper 1424-A, 32 p: U. S. Geological Survey, Reston, VA.
- <u>Theis, C.V., 1935, The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, American Geophysical Union</u> <u>Transactions, vol. 16, p. 519-524.</u>

## Map



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## **Theis Drawdown**



Total pumping time, t = 245 days [irrigation season, March 1-October 31]

**Radial distance, r = 180 ft** [approximate distance from APOA 2 (**PROP 546**) to presumed location of Tax Lot 600 Well]

Pumping rate, Q=0.28 cfs [maximum rate, Certificate 39904]

Transmissivity: T1=100 ft<sup>2</sup>/day; T2=2,300 ft<sup>2</sup>/day; T3=15,600 ft<sup>2</sup>/day [Pumping Test Reports]

Storativity: S1=0.0001; S2=0.001 [Conlon et al., 2005]