Groundwater Transfer Review Summary Form

Transfer/PA # T- 13044

GW Reviewer Travis Brown **Date Review Completed:** 5/31/2019

Summary of Enlargement (Same Source) Review:

[ ] The proposed transfer fails to keep the original place of use from receiving water from the same source.

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.

Summary of Well Construction Assessment:

[ ] The proposed POA does not have a well log.

[ ] The proposed POA does not appear to meet current well construction standards. Route through Well Construction and Compliance Section.

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations.

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1271
(503) 986-0900
www.wrd.state.or.us

Ground Water Review Form:

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

Application: T-13044 Applicant Name: Mayfield Farms, LLC

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

Reviewer(s): Travis Brown Date of Review: May 31, 2019

Date Reviewed by GW Mgr. and Returned to WRSD: 6/4/19

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 replace one existing POA (CLAC 8666) authorized for up to 32.9 acres of irrigation at 0.41 cfs (~184 gpm) under **Certificate 91904*** (Priority Date 7/25/1968) to three existing proposed POA:

Proposed POA Number	POA (Well) Name	LOG ID	Distance from Authorized POA [ft]	Reported Yield [gpm]
1	Kurth Well 1	CLAC 68175	~120	95
2	Kurth Well 2	CLAC 72023	~330	1,100
3	White Well 1	CLAC 62437	~2,280	100

All three proposed POA are authorized POA for **Permits G-17974*** (0.55 cfs, total) and **G-17975*** (0.5 cfs) and are proposed POA for **Application G-18759** (0.37 cfs, total).

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA? ☒ Yes ☐ No Comments: The authorized POA (CLAC 8666) and the proposed POA 1-3 (CLAC 68175, 72023, and 62437) are all completed in the younger alluvium of the Willamette River floodplain. The authorized POA (CLAC 8666) produces water from gravel between ~80 and ~105 ft below land surface (bls), while the proposed POA 1-3 (CLAC 68175, 72023, and 62437) produce water from saturated sands and gravels between ~30 and ~110 ft bls. Static water level in the authorized POA (CLAC 8666) was reported at 1 ft bls in June 1968, indicating confined conditions. Proposed POA 1-3 (CLAC 68175, 72023, and 62437) likewise appear confined, with reported static water levels around 3 ft bls at their times of completion. All of the saturated alluvial sediments in this area are presumed to be strongly influenced by the seasonal discharge of the Willamette River.

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.): N/A

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 proposed POA 3 (CLAC 62437) is ~1,830 ft (~66 percent) closer to Exempt Well MARI 65472 (Well Completion Date 9/22/2014) than the authorized POA (CLAC 8666). The productive water-bearing zone noted on the well log for MARI 65472 is at a similar elevation to CLAC 62437. The closer proximity of CLAC 62437 will likely result in increased well-to-well interference with MARI 65472. The proposed POA 2 (CLAC 72023) is also ~330 ft (~26 percent) closer to CLAC 8661, which is an authorized POA for **Certificate 38320*** (Priority Date 6/16/1964). CLAC 72023 and CLAC 8661 appear to produce water from the same confined aquifer. The closer proximity of CLAC 72023 will likely result in increased well-to-well interference with CLAC 8661.

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: Exempt Well MARI 65472 is junior to **Certificate 91904***'s Priority Date of July 25, 1968; therefore, Exempt Well MARI 65472 is not legally entitled to water appropriated per **Certificate 91904*** or its approved transfer.

Using the Theis distance-drawdown method (Theis, 1941), the relative increase in potential drawdown at CLAC 8661 due to pumping of the proposed POA 2 (CLAC 72023) – rather than the authorized POA (CLAC 8666) – was estimated based on 245 days of continuous pumping at the maximum requested rate (0.41 cfs / ~184 gpm) (see Theis Drawdown Analyses for CLAC 8666 and CLAC 72023, attached). Results from the Theis analysis indicate a relatively small amount of additional drawdown would result from the use of CLAC 72023 instead of CLAC 8666. This marginal increase in potential drawdown is unlikely to prevent the customary use of groundwater under **Certificate 38320*** or other nearby senior groundwater rights, particularly given the substantial influence of the nearby Willamette River.

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 proposed POA 1-3 (CLAC 68175, 72023, and 62437) are at equivalent distances from the Willamette River, the nearest hydraulically-connected surface water source, as the original authorized POA (CLAC 8666). Therefore, no appreciable increase in interference with nearby surface water sources is anticipated under the proposed transfer.

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: _____ ☐ Minimal ☐ Significant
Stream: _____ ☐ Minimal ☐ Significant
Provide context for minimal/significant impact: N/A

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

7. Any additional comments: None

References

Application Files: T-13044, T-12490

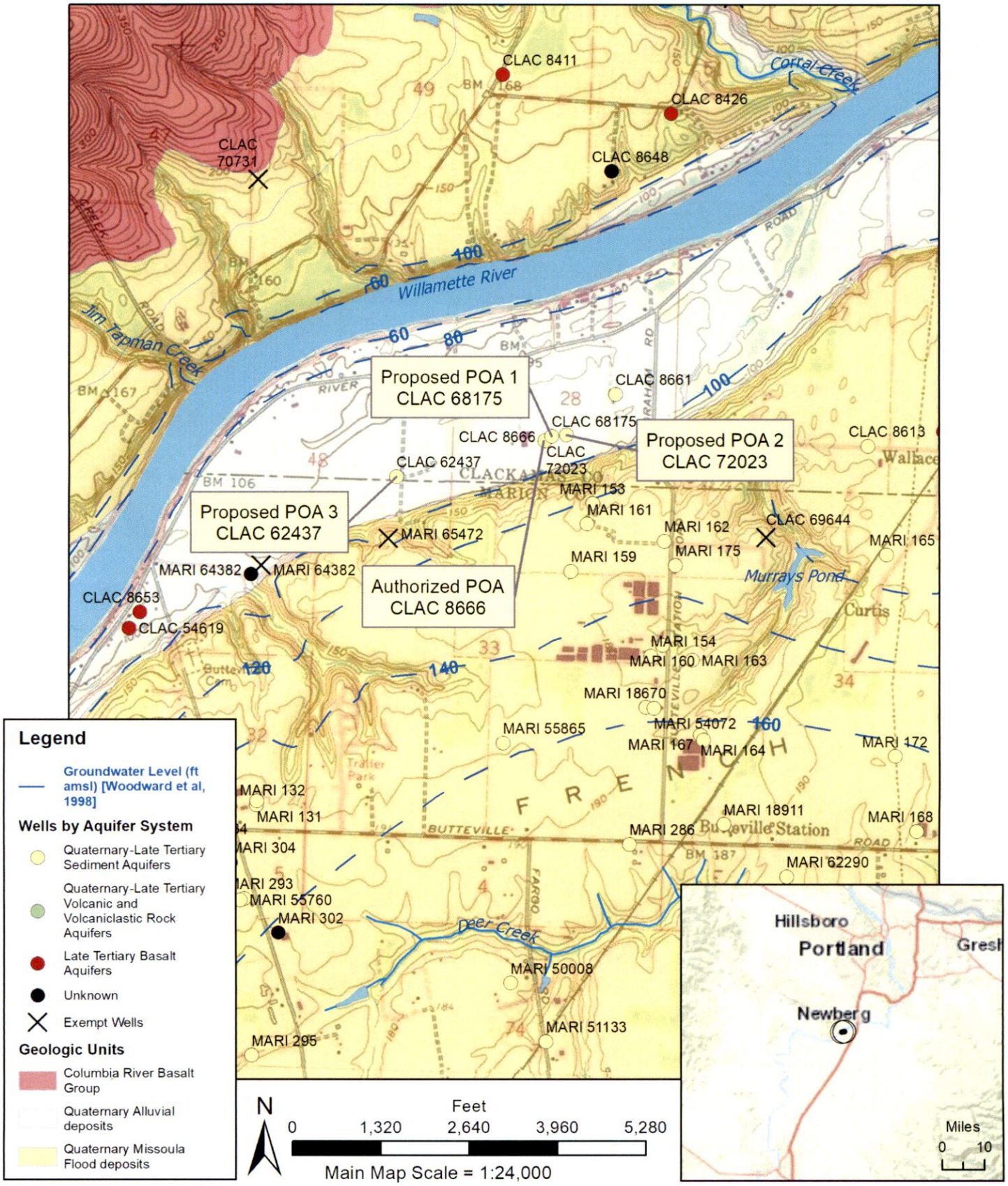
Conlon, T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 2005, Ground-water hydrology of the Willamette Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2005-5168.

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.

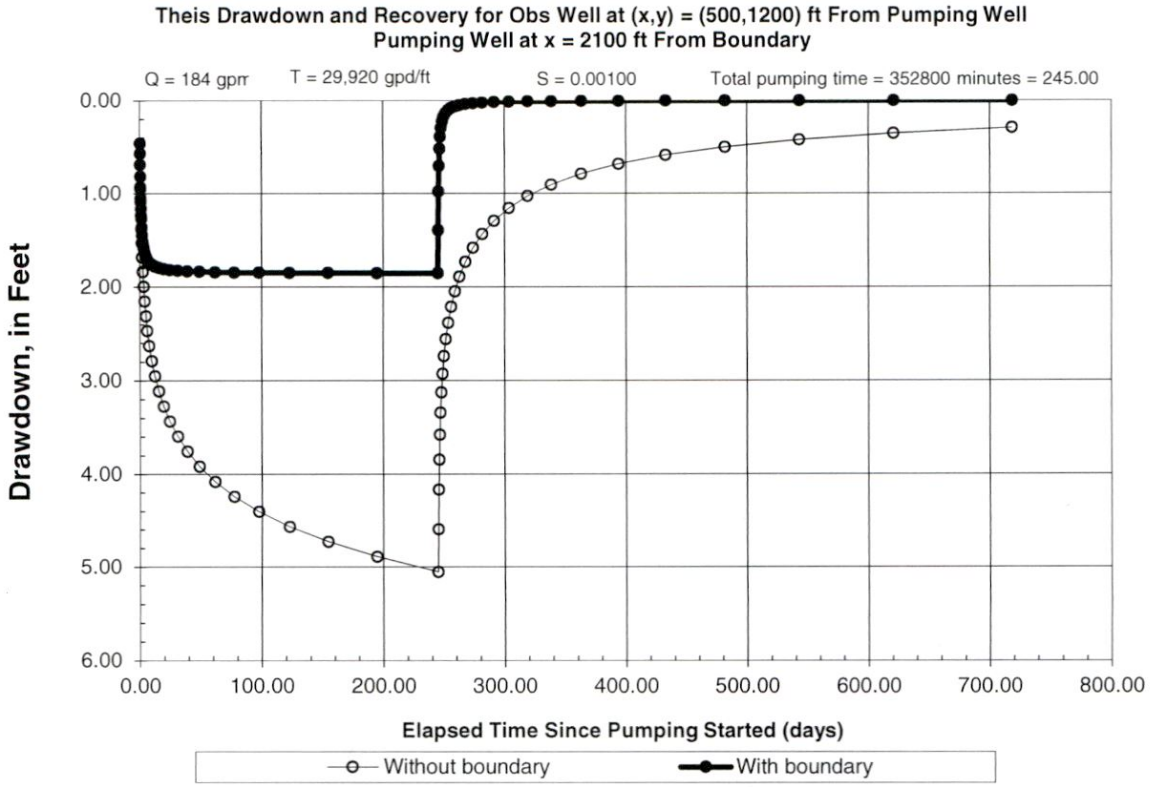
Theis, C.V., 1941, The effect of a well on the flow of a nearby stream: American Geophysical Union Transactions, v. 22, pt. 3, p. 734-738.

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.

T-13044 Mayfield Farm, LLC



Theis Drawdown Analysis – CLAC 8666 to CLAC 8661



Theis Drawdown Analysis – CLAC 72023 to CLAC 8661