Groundwater Transfer Review Summary Form

Transfer/PA # T- _13616_

GW Reviewer _Dennis Orlowski_ Date Review Completed: _August 16, 2022_

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.

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-13616 Applicant Name: University of Portland (Jim Ravelli)

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

Reviewer(s): Dennis Orlowski Date of Review: August 16, 2022

Date Reviewed by GW Mgr. and Returned to WRSD: JTI 11/7/22

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: Application T-13616 is a proposed amendment to permit G-16085. Permit G-16085 is for year-round quasi-municipal use at the University of Portland, with groundwater obtained from a single authorized POA (MULT 987 (Well 1)) pumping at a maximum permissible instantaneous rate of 1.23 cubic feet per second (cfs) (approximately 552 gpm).

   The following are changes proposed to permit G-16085 via this application:

   1) Expand the Place of Use (POU) to include additional lands now owned by the University of Portland.

   2) Add an existing well (MULT 128541/134698 (Well 5)) as an APOA.

   The proposed APOA (MULT 128541/134698) is also an authorized POA for LL-1826, which is for construction activities and short-term irrigation of riparian plantings at/near the University. The maximum instantaneous pumping rate authorized by LL-1826 is 0.3342 cfs (150 gpm). LL-1826 will expire on October 31, 2024.

   Additionally, both the approximate location and the actual well itself were evaluated, respectively, for a new groundwater permit application (G-18551) and two Limited License applications (LL-1807 and LL-1826). A subsequent change to the construction of the proposed APOA (MULT 128541) related to these applications is summarized in Section 8 of this review.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☒ Yes ☐ No Comments: Both the authorized POA (MULT 987) and the proposed APOA (MULT 128541/134698) obtain groundwater predominantly from the Troutdale Gravel Aquifer (TGA) within the Portland Basin (McFarland and Morgan, 1996; Swanson and others, 1993).

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.): _____

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: Groundwater exploitation in this area is limited, with very few nearby permitted wells (other than the applicant's wells) and exempt wells on record.

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: _____

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: Compared to the authorized POA (MULT 987), the proposed APOA (MULT 128541/134698) is approximately 500 ft nearer to the Willamette River; both wells are hydraulically connected to the river, with similar completion depths (for details, refer to OWRD groundwater technical reviews for applications LL-1826, LL-1640, and G-18551). Since 2008, extensive pumping of MULT 987 under permit G-16085 has likely resulted in a highly efficient hydraulic connection to the river, such that a large portion of the water pumped by the well is river water (Barlow and Leake, 2012). Similarly, pumping of MULT 128541/134698 will also result in a significant contribution of river water to that well. Consequently, despite being nearer to the Willamette River, pumping of the proposed APOA (MULT 128541/134698) under this proposed use is unlikely to result in a net increase in interference with the river, relative to existing pumping of the authorized POA (MULT 987).

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: _____

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: Not applicable.

7. What conditions or other changes in the application are necessary to address any potential issues identified above: None

8. Any additional comments: Prior to its completion, the approximate location where MULT 128541 was eventually installed was evaluated in 2017 for application G-18551 (MULT 128541 was completed later in February 2018). Application G-18551 was subject to review by the Oregon Department of Environmental Quality (DEQ) per OAR 690-33. DEQ recommended that the proposed use be subject to certain conditions due to concerns related to the potential downward migration of contaminants in the shallow soils to the deeper Troutdale Gravel Aquifer (TGA). Application G-18551 was placed on administrative hold and was eventually withdrawn by the applicant in March 2022.

   To address both DEQ's concerns and in keeping with the well construction requirements of OAR 690-210-0140, the subsequent groundwater technical reviews for the LL-1807 and LL-1826 applications (both completed in 2020) identified that the seal for MULT 128541 was inadequate and needed to be extended to a depth of at least 25 feet below ground surface (ft bgs). In response to this well construction deficiency, the seal for MULT 128541 was extended to 26 ft bgs, thus satisfying that deficiency; this well alteration work is documented in the MULT 134698 well log.

References

Application files: LL-1807, LL-1640, LL-1826, G-18551

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.

McFarland, W.D., and Morgan, D.S., 1996, Description of the Ground-Water Flow System in the Portland Basin, Oregon and Washington, Water Supply Paper 2470-A, 58 p: U. S. Geological Survey, Reston, VA.

Swanson, R. D., McFarland, W. D., Gonthier, J. B., and Wilkinson, J. M., 1993, A description of hydrogeologic units in the Portland Basin, Oregon and Washington, Water-Resources Investigations Report 90-4196, 56 p.: U. S. Geological Survey, Reston, VA

Well Location Map