Groundwater Transfer Review Summary Form

Transfer/PA # T- _14545_

GW Reviewer _Joe Kemper_ Date Review Completed: _12/27/2024_

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.

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Ground Water Review Form:

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

Application: T-14545 Applicant Name: Davenport Newberry Holdings Inc

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

Reviewer(s): Joe Kemper Date of Review: 12/27/2024

Date Reviewed by GW Mgr. and Returned to WRSD: _____

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 _____

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1. Basic description of the changes proposed in this transfer: Permit G-17316 authorizes 3.56 cfs of industrial use from six wells. This permit amendment seeks to change the location of Well #5, add an APOA (Well 46-16), and change the place of use. Well specific details are in the table below.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
   ☒ Yes ☐ No Comments: The valid POAs do or would produce groundwater hosted in the lavas and tephra deposits on the flanks of Newberry caldera. The changes in POA locations are relatively minor and would still produce from the same general groundwater source.

3. a) Is the existing authorized POA subject to a water level decline condition?
   ☒ Yes ☐ No Comments: Permit G-17316 requires the permit-holder to submit a water level measurement plan with a total decline threshold of 25. Two different versions of the reference level plan have been submitted to the Department. The first indicates that the reference level shall be the well log measurement. The second version of the plan indicates reference levels shall be the first measurement after well use.

   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: There is very little seasonal fluctuation in the target aquifer and the site is often not accessible due to snow. As a result, reference level or recent levels are taken from any time during a given year.

POA #	POA Name	OWRD LOGID	Reference Level (ft blsd)	Reference Level Date	Most Recent Water Level	Water Level Date	Decline
1	Well 1	DESC 10060	556.16	9/20/2005	560.13	10/10/2024	3.97
2	Well 2	Not Yet Drilled	NA	NA			NA
3	Well 3	Not Yet Drilled	NA	NA			NA
4	Well 4	Not Yet Drilled	NA	NA			NA
5	Well 5	Not Yet Drilled	NA	NA			NA
		Not Yet Drilled	NA	NA			NA
6	Well 6	DESC 58395	325	7/21/2015	326	7/22/2023	1
7	Well 46-16	DESC 58649	675	10/21/2014	679	7/22/2023	4

4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
☐ Yes ☒ No Comments:_____

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.): _____

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 ☒ No Comments: The closest groundwater users are campground wells located 1-2 miles to the southeast. The change in POA locations would move groundwater production further from those wells and thus would decrease well-to-well interference. There are groundwater users located 7-10 miles to the west, but the change in interference is expected to be negligible at that distance.

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: _____

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**?
☒ Yes ☒ No Comments: The target aquifer may have some limited hydraulic connection with Paulina Creek. The proposed changes in POA location move groundwater production a similar distance to Paulina Creek or further from it. The proposed POA changes would move groundwater production closer to the Little Deschutes River to the west and thus hasten the resulting stream depletion.

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: Little Deschutes River ☒ Minimal ☐ Significant
Stream: _____ ☐ Minimal ☐ Significant
Provide context for minimal/significant impact: Well 5 would move from 8.2 to 7.5 miles from the Little Deschutes. Because the change in location is small relative to the overall distance to the stream, the resulting change in stream depletion would be minimal.

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?
☐ Yes ☐ No Comments: NA

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

References

Gannett, M.W. 1987. Groundwater Availability in the Powell Buttes Area, Central Oregon. Oregon Water Resources Department.

Gannett, M. W. and Lite, K. E., 2004, Simulation of Regional Ground-Water Flow in the Upper Deschutes Basin, Oregon, USGS Water Resources Investigation Report 2003-4195, 84 p., https://pubs.er.usgs.gov/publication/wri034195

Gannett, M. W. and Lite, K. E., 2013, Analysis of 1997-2008 Groundwater Level Changes in the Upper Deschutes Basin, Central Oregon, USGS Scientific Investigations Report 2013-5092, 34p., https://pubs.er.usgs.gov/publication/sir20135092

Gannett, M. W., Lite Jr, K. E., Morgan, D. S., and Collins, C. A., 2001, Ground-Water Hydrology of the Upper Deschutes Basin, Oregon, USGS Water-Resources Investigations Report 00-4162, 74 p., https://pubs.usgs.gov/wri/wri004162/pdf/WRIR004162.pdf

Gannett, M.W., Lite, K.E., Jr., Risley, J.C., Pischel, E.M., and La Marche, J.L., 2017, Simulation of groundwater and surface-water flow in the upper Deschutes Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2017–5097, 68 p., https://doi.org/10.3133/sir20175097.

Groundwater Information System (GWIS). Oregon Water Resources Department. https://apps.wrd.state.or.us/apps/gw/gw_info/gw_info_report/gw_search.aspx Accessed 12/20/2024

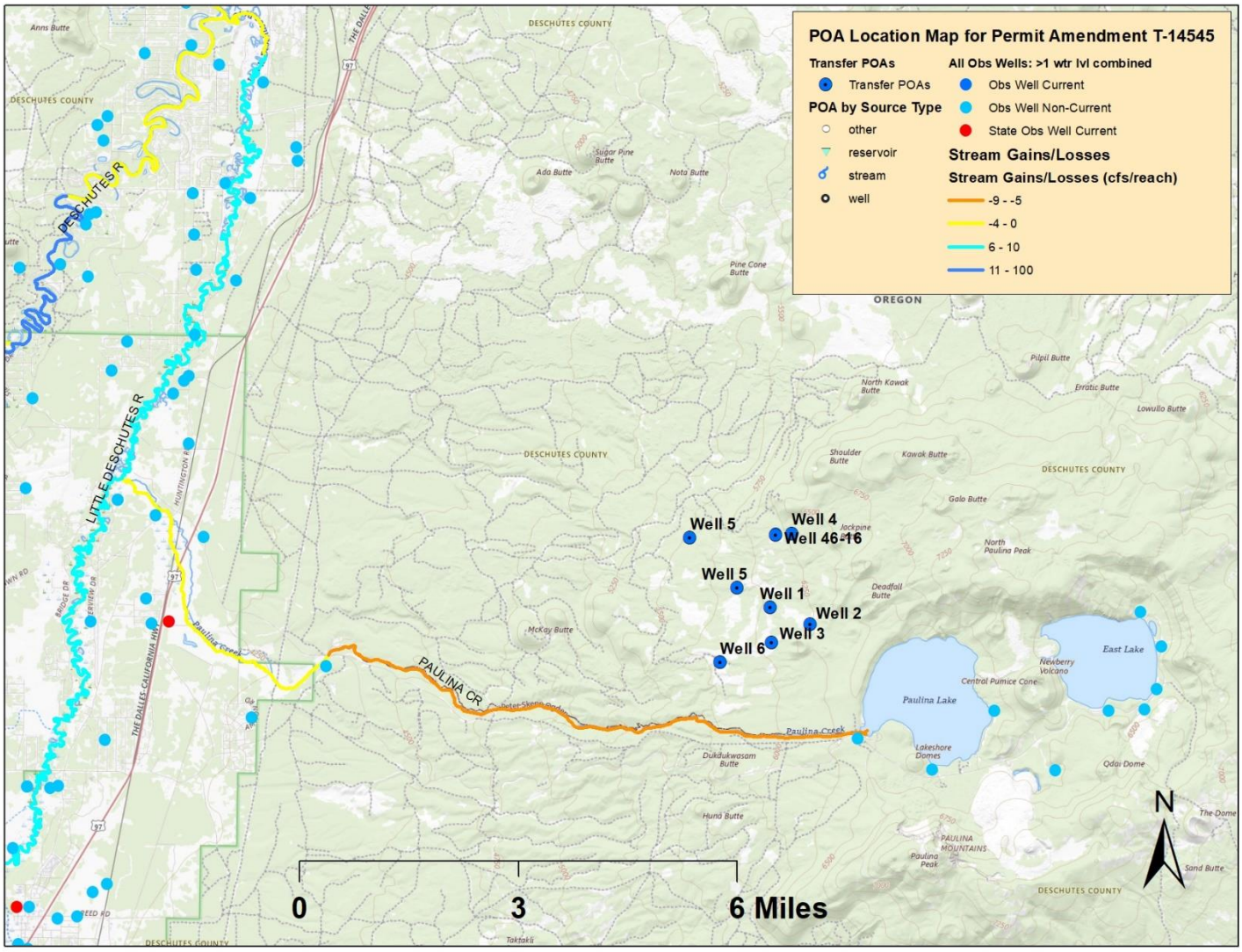
MacLeod, N.S., Sherrod, D.R., Chitwood, L.A., and Jensen, R.A., 1995, Geologic map of Newberry Volcano, Deschutes, Klamath, and Lake Counties, Oregon: U.S. Geological Survey Miscellaneous Investigations Series Map I–2455, 2 sheets, scale 1:62,500, pamphlet, 23 p.

Lite, K. E. and Gannett, M. W., 2002, Geologic Framework of the Regional Ground-Water Flow System in the Upper Deschutes Basin, Oregon. USGS Water-Resources Investigation Report 02-4015, 44 p., https://pubs.er.usgs.gov/publication/wri024015

Well Summary Table

POA #	POA Name	POA Status	OWRD LOGID	TRS	Legal Location	Permitted Rate (cfs)
1	Well 1	Valid	DESC 10060	21S/12E-21 NE-SW	1895' N, 1795' E fr SW cor S 21	3.56
2	Well 2	Valid	Not Yet Drilled	21S/12E-21 SE-SE	4620' S, 4620' E fr NW cor S 21	3.56
3	Well 3	Valid	Not Yet Drilled	21S/12E-28 NE-NW	4620' N, 1980' E fr SW cor S 28	3.56
4	Well 4	Valid	Not Yet Drilled	21S/12E-16 NW-SE	1980' N, 3300' E fr SW cor S 16	3.56
5	Well 5	Valid	Not Yet Drilled	21S/12E-20 SE-NE	1980' S, 660' W fr NE cor S 20	3.56
		Proposed	Not Yet Drilled	21S/12E-17 NW-SW	1630' N, 1180' E fr SW cor S 17	3.56
6	Well 6	Valid	DESC 58395	21S/12E-29 SW-NE	2065' S, 1710' W fr NE cor S 29	3.56
7	Well 46-16	Proposed	DESC 58649	21S/12E-16 NE-SW	1960' N, 2085' E fr SW cor S16	3.56

Transfer Map



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Water Level Measurements in Adjacent Wells