

Groundwater Transfer Review Summary Form

Transfer/PA # T- 14124

GW Reviewer Grayson Fish Date Review Completed: 10/18/2023

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-14124

Applicant Name: Duane Martin Ranches, LP

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

Reviewer(s): Grayson Fish

Date of Review: 10/18/2023

Date Reviewed by GW Mgr. and Returned to WRSD: JTI 6/4/25

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: The applicant proposes to transfer place of use on 44.7 acres associated with **Certificate 41860** from authorized POA **KLAM 1966** to proposed POA **KLAM 1965**. Proposed POA **KLAM 1965** is an authorized POA for **Certificate 20319**, as such, this review will consider the combined pumping rate already authorized under **Certificate 20319** and the additional proposed rate under this transfer. The proposed place of use on the northern portion of tax lot 2800 is not currently covered under a water right. Additionally, the applicant proposes to change place of use of 124 Acres authorized under **Certificate 19830**, no change POA is proposed with this portion of the transfer.

Note: An application for temporary transfer with the same proposed changes of POA/POU under **Certificate 41860** was previously submitted by the applicant (T-13941). As such, review findings are the same for this permanent transfer application.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☒ Yes ☐ No Comments: The well record for proposed POA **KLAM 1965** lists the completed depth of 260 feet into “rock”. The well report for currently authorized POA **KLAM 1966** lists a completed depth of 558 feet into alternating layers of “rock” and “chalk”/“sandstone”. Despite these differences in total depth, previously reported water level elevations are relatively similar. Both wells appear to source water from volcanic and sedimentary rocks of Winema Volcanic Field (Jenks, 2007).

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 closest POA associated with a senior water right is **KLAM 1974** under **Certificate 19830**. Proposed POA **KLAM 1965** is ~5,600 feet from **KLAM 1974** compared to ~6,500 feet from the authorized POA **KLAM 1966**. The reduced intervening distance will likely cause an increase in interference with **KLAM 1974** which also sources water from the volcanic and sedimentary rocks of the Winema Volcanic Field.
- 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: 1.26 csf of use is already authorized from **KLAM 1965** under **Certificate 20319**. An additional rate of 0.564 cfs is proposed under this current temporary transfer bringing the total rate of appropriation from **KLAM 1965** to 1.82 cfs between March 1 and October 31. Estimated drawdown was calculated using the Theis (1935) solution for drawdown in a confined aquifer and representative literature aquifer parameters (Gannett et. al., 2007) at this combined rate (see attached Theis Drawdown Analysis). Predicted drawdown observed at 5,600 feet is estimated to be less than 5 feet. Therefore, at the proposed combined rate of 1.82 cfs, it is unlikely that another groundwater right will not receive the water that it is legally entitled.
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 **KLAM 1965** is ~4,900 feet south of the Sprague River, whereas authorized POA **KLAM 1966** is ~6,400 feet south of the Sprague River. The reduced intervening distance is likely to increase interference with the Sprague River.
- 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: Sprague River ☒ Minimal ☐ Significant
Stream: _____ ☐ Minimal ☐ Significant
Provide context for minimal/significant impact: The reduced intervening distance between the proposed POA **KLAM 1965** and the Sprague River will likely cause an overall increase in interference with the Sprague River. However, the presence of approximately ~150 to 200 feet of lower permeability late Tertiary sedimentary rocks above the more transmissive "basalts" likely reduces the efficiency of the hydraulic connection of groundwater to surface water. A less efficient hydraulic connection to a surface water source would buffer the timing of stream depletion impacts and spread them more evenly throughout the year. Additionally, the presence of a rhyolitic dome directly north of the proposed POA is likely to further reduce the efficiency of the hydraulic connection. Due to the expected less efficient hydraulic connection with the Sprague River at this location and relatively small reduction in distance compared to the already authorized POA, the expected change in degree of interference is likely minimal.

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

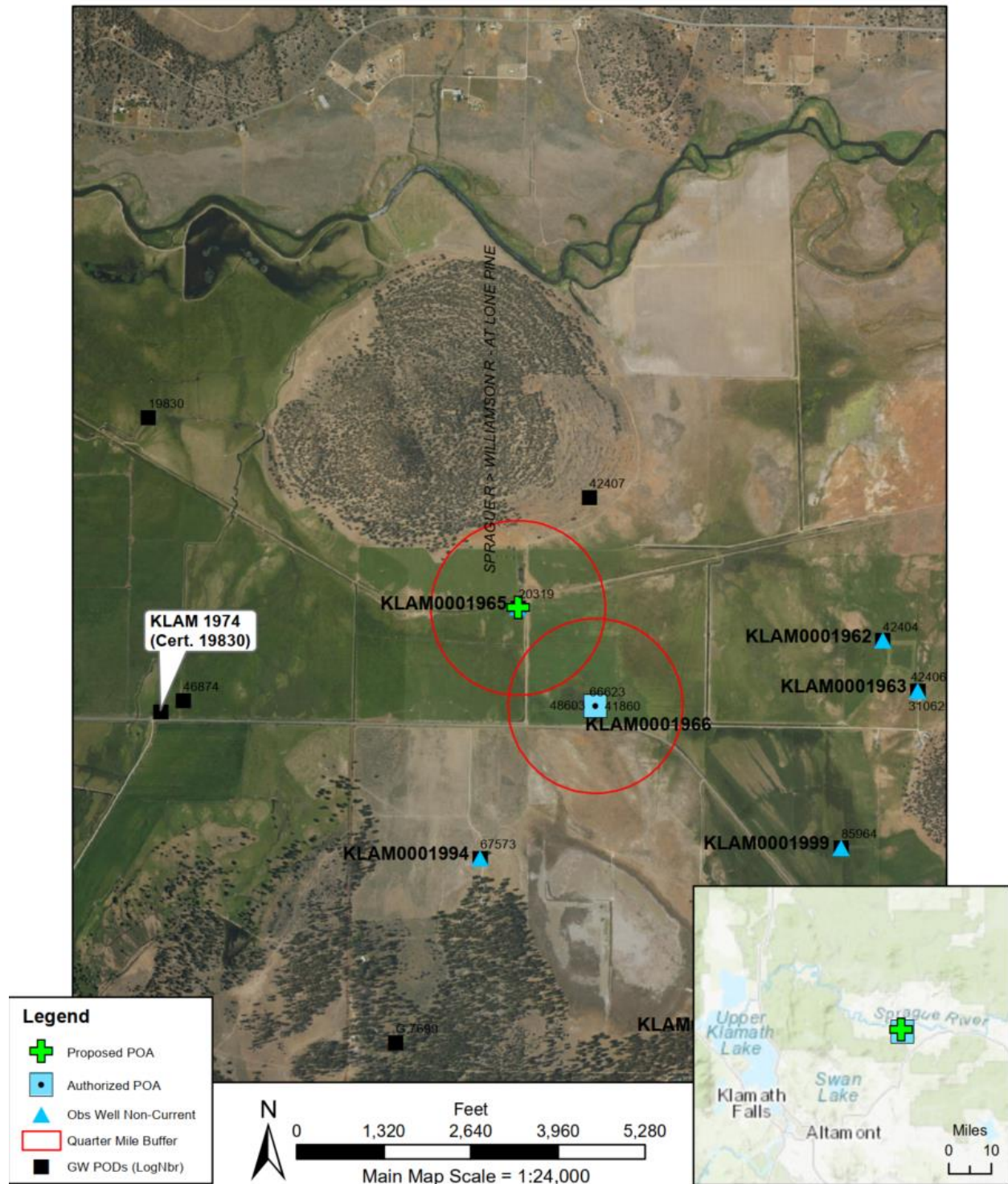
References: Gannett, M. W., K. E. Lite, J. L. LaMarche, B. J. Fisher, and D. J. Polette. 2007. Ground-water Hydrology of the Upper Klamath Basin, Oregon and California. USGS Scientific Investigations Report 2007-5050

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." Am. Geophys. Union Trans., vol. 16, pp. 519-524.

Jenks, M.D., unpublished, Geologic compilation map of part of the Upper Klamath Basin, Klamath County, Oregon: Portland, Oreg., Oregon Dept. of Geology and Mineral Industries, scale 1:100,000. 2007.

Transfer Review Map

T-14124



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Theis Time-Drawdown