

Groundwater Transfer Review Summary Form

Transfer/PA # T- 13542 RE-REVIEW

GW Reviewer Gabriela Ferreira Date Review Completed: September 26, 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 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-13542

Applicant Name: MF Beef Bend, LLC

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

Reviewer(s): Gabriela Ferreira

Date of Review: September 26, 2024

Supersedes original review completed August 5, 2021 by Jen Woody

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 _____

1. Basic description of the changes proposed in this transfer: This review supersedes the review completed on August 5, 2021; this re-review was done to evaluate changes to the original application contained in a revised application submitted to OWRD on February 6, 2024.

The proposed transfer would modify Certificate 51171, which currently authorizes 0.34 cfs (152 gpm) by one existing well, WASH 11873, on 54.6 acres for Irrigation Use. The POAs and POU are located within the Cooper-Bull Mountain Critical Groundwater Area.

The proposed transfer would authorize one APOA, Well 2, change the character of use, and change the place of use. The character of use would change from Irrigation to Nursery and Commercial Use. A total 8.0 acres of the authorized place of use would be moved and the application anticipates a maximum instantaneous rate of 0.10 cfs and annual volume of 40 acre-feet.

The revised application was submitted on February 6, 2024, at which time Well 2 was proposed and not yet drilled; proposed APOA Well 2 was completed on May 3, 2024 and is identified as WASH 81878. The revised application modifies the **actual final location of proposed APOA Well 2**, which is approximately 275 feet northwest of the originally proposed location. **This re-review is focused on evaluating the actual final location of Well 2 (WASH 81878).**

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
 Yes No Comments: Currently authorized POA WASH 11873 is a 392-foot deep well producing from the Columbia River Basalt Group (CRBG). The proposed APOA is described in the application as a 400 foot deep well that will access an aquifer within the CRBG. The completed well WASH 81878 is 424 feet deep and produces from the CRBG. Groundwater within this portion of the CRBG is managed as a single aquifer per the Bull-Mountain Critical Groundwater Area Order (Special Order Vol. 24, Page 370).
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: WASH 50813 was identified as the nearest well producing from CRBG and with a similar depth to the proposed APOA.
The proposed location of the APOA could result in an increase in 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 Comments: To evaluate potential interference with WASH 50813 (nearest similarly constructed known well location) caused by pumping of APOA Well 2 (WASH 81878), drawdown was estimated using the Theis (1935) analytical solution for a confined aquifer. Hydraulic parameters used for the analysis were derived from nearby pumping test results and from regional data and studies (Conlon and others, 2005), and are within a typical range of values for a comparable hydrogeologic regime (Freeze and Cherry, 1979).
The potential interference between proposed APOA Well 2 (WASH 81878) and WASH 50813 was evaluated with the maximum authorized rate of 0.34 cfs (152 gpm). The results are shown on the attached figures.
Results of the analyses indicate that interference with WASH 50813 due to the proposed change might result in about 9 feet of additional drawdown after continuously pumping for 365 days at the maximum assumed rate for an individual well (0.34 cfs, ~152 gpm). WASH 50813 is 300 feet deep with a reported static water level of 118 ft bls and thus has approximately 180 feet of available drawdown. Consequently, it is unlikely that an additional nine feet of drawdown at WASH 50813 caused by pumping of APOA Well 2 (WASH 81878) (derived using conservative operational and hydrogeologic parameters) will result in WASH 50813 (and other similarly located and completed wells) from receiving the water to which 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: CRBG flow features result in a series of stacked, thin aquifers that are confined by dense flow interiors. The basalt aquifer system from which the well produces is not hydraulically connected with any nearby surface water source. Water-bearing zones are reported in the confined interflow zones of the CRBG at depths greater than 240 feet below ground surface. The well construction and the tabular nature of CRBG aquifers prevent efficient hydraulic connection between the well and nearby surface water.

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. 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: None.
8. Any additional comments: None.

References

Review completed by Jen Woody (August 5, 2021)

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.

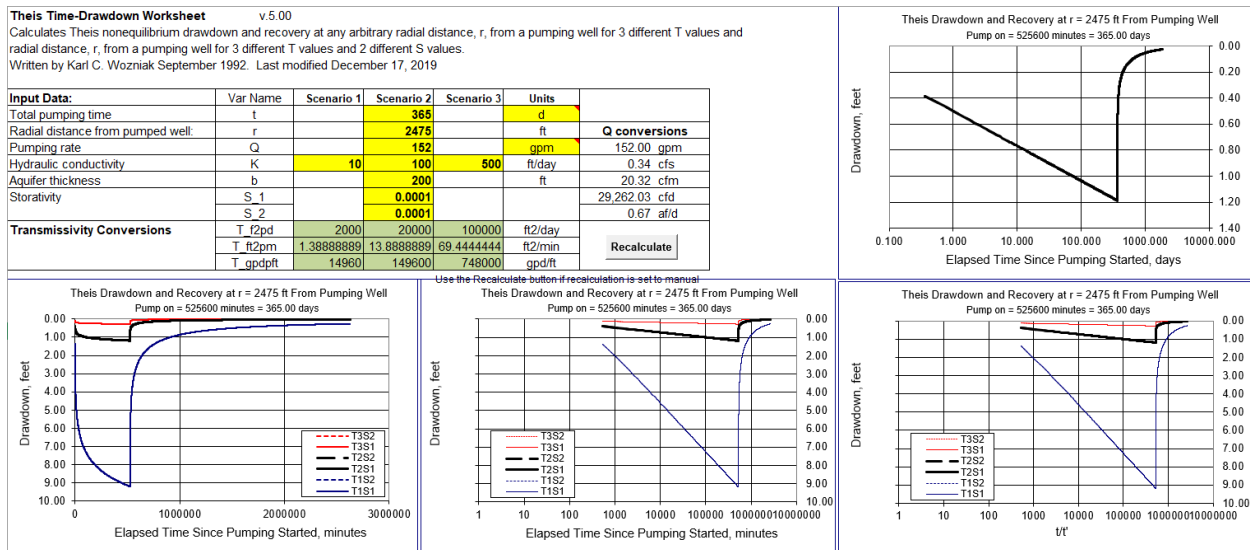
Freeze, R.A. and Cherry, J.A., 1979, Groundwater, Prentice Hall, Englewood Cliffs, New Jersey, 604 p.

OWRD water levels and well reports: WASH 81878, WASH 11873

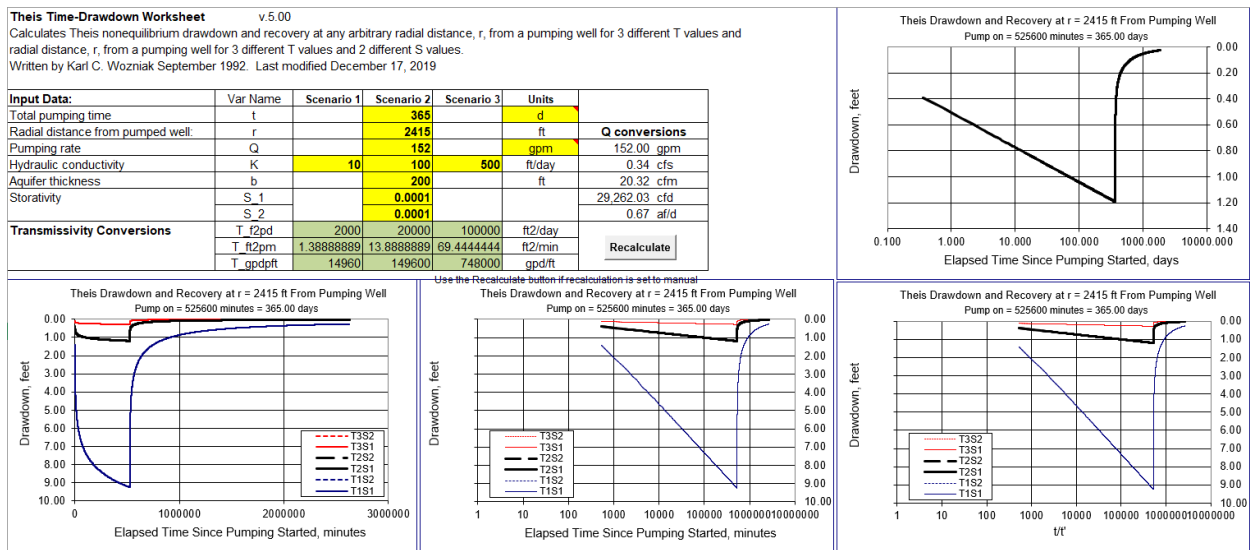
Theis, C.V., 1935, The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, American Geophysical Union Transactions, vol. 16, p. 519-524.

US Geological Survey Topographic Map, Beaverton Quadrangle

Modeled Interference: Proposed Well 2 (Original Location) to WASH 50813

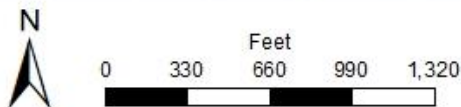
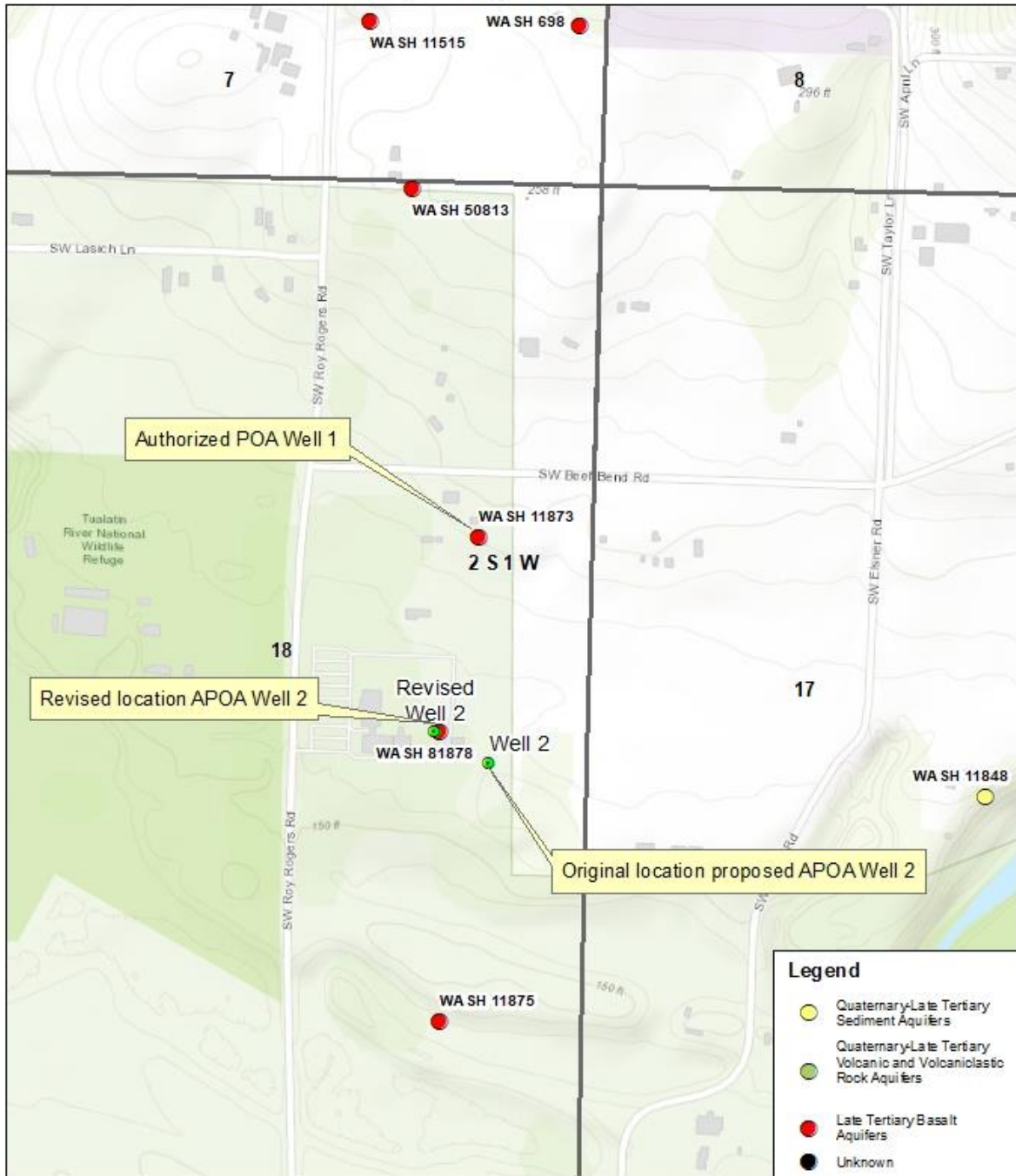


Modeled Interference: Proposed Well 2 (Revised Location) to WASH 50813



Well Location Map

Application T-13542 MF Beef Bend, LLC RE-REVIEW
T2S, R1W, Section 18



Main Map Scale = 1:24,000

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community