

Groundwater Transfer Review Summary Form

Transfer/PA # T- 13840

GW Reviewer Joe Kemper Date Review Completed: 11/6/2023

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-13840

Applicant Name: City of Sisters

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

Reviewer(s): Joe Kemper

Date of Review: 11/6/2023

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: The applicant holds certificate 93889, which authorizes 1.56 cfs of municipal use from one well, DESC 1034. The application proposes to extend the place of use to the City of Sisters service and add two APOAs, DESC 57902 and DESC 62447.
2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
 Yes No Comments: DESC 1034 is drilled through glacial outwash sediment and produces from bedded lavas of the Cascades. APOAS Desc 57902 and DESC 62447 also produce from the same Cascade lavas. These units are considered part of the Deschutes regional groundwater system.
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.): NA
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 changes would move some groundwater production closer to some other groundwater users, which would increase well-to-well 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 If yes, explain: Considering the high permeability, storage, lateral extent, and thickness of the Deschutes groundwater flow system in this area, any expected interference would not likely be large enough to be considered injury.

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: USGS publications have documented more local GW-SW interaction between Whychus Creek and the regional groundwater system in the Sisters area. Because the proposed changes would move groundwater production closer to this point of hydraulic connection, stream depletion is expected to increase. The relative distance between the valid POA and APOAs compared to distance to the regional groundwater discharge point near Lake Billy Chinook is very small, so any stream depletion to that point is not expected to increase.

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: Whychus Creek Minimal Significant

Stream: _____ Minimal Significant

Provide context for minimal/significant impact: The changes in stream depletion from adopting the APOAs is not expected to be significant.

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: _____

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., 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>.

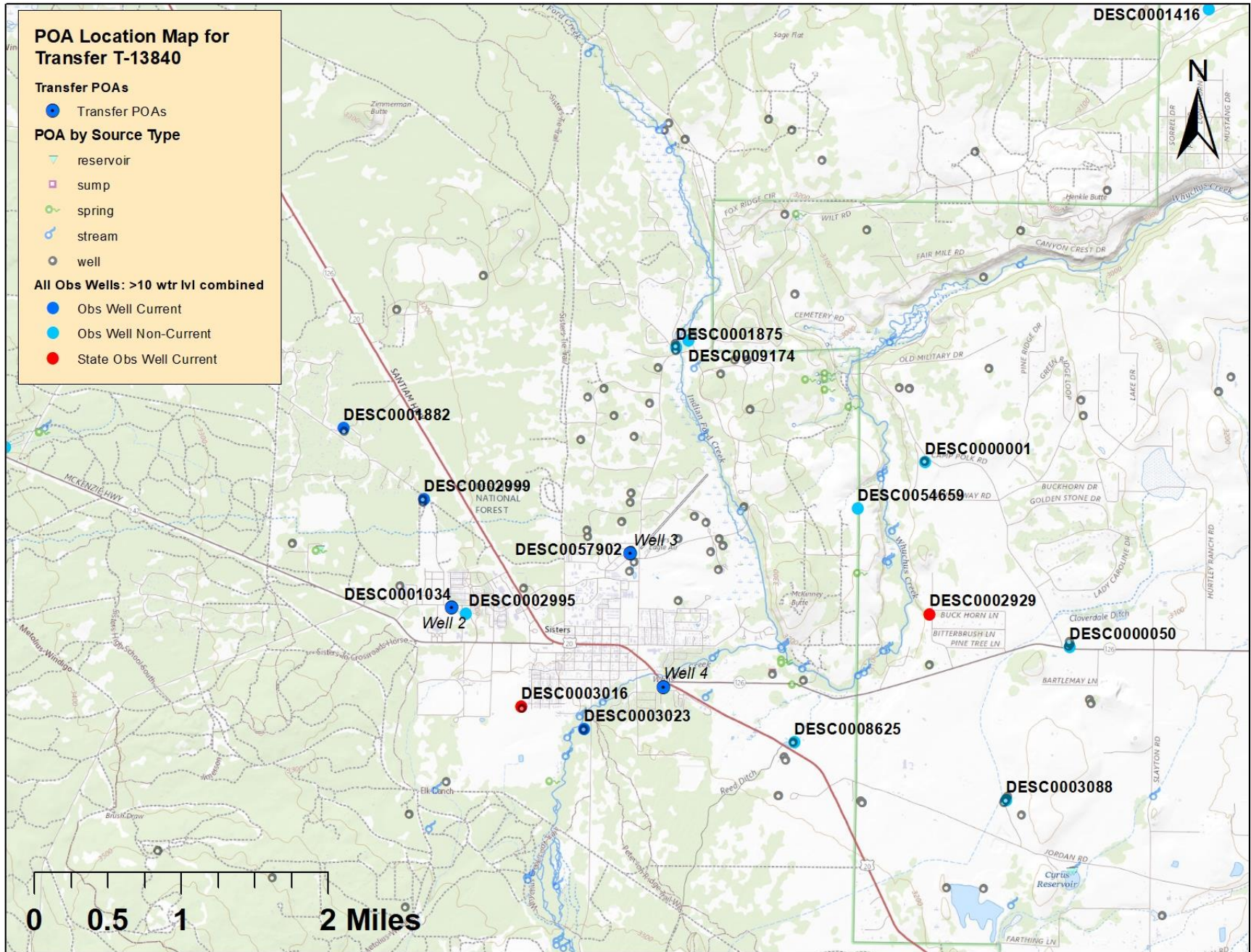
Groundwater Information System (GWIS). OWRD. Accessed 11/6/2023

Sherrod, D.R., Taylor, E.M., Ferns, M.L., Scott, W.E., Conrey, R.M., and Smith, G.A., 2004, Geologic map of the Bend 30- x 60-minute quadrangle, central Oregon: U.S. Geological Survey, Geologic Investigations Series Map I-2683, scale 1:100,000

Well Summary Table

Well Name	GWIS Logid	Status	TRS	Measured Distances
Well 2	DESC 1034	Authorized	15S/10E-5 SW-SW	1280' N, 1175' E fr SW cor S 5
Well 3	DESC 57902	Proposed	15S/10E-4 SE-NW	1890' S, 2325' E fr NW cor S 4
Well 4	DESC 62447	Proposed	15S/10E-9 SW-NE	1505' S, 1715' W fr NE cor S 9

Transfer Map



Water Levels in Adjacent Observation Wells

