

# Groundwater Transfer Review Summary Form

Transfer/PA # T- 14402

GW Reviewer Joe Kemper Date Review Completed: 2/12/2024

## 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.*



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 (Temporary Transfer)

Application: T-14402

Applicant Name: Broken Top Community Club

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

Reviewer(s): Joe Kemper

Date of Review: 2/12/2024

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 \_\_\_\_\_

- 
1. Basic description of the changes proposed in this transfer: Certificate 93055 authorizes 2.7 cfs of quasi-municipal use from a single well (DESC 8410). This transfer proposes to temporarily change the place of use to include the greater Avion Service Area and to add three APOAs from the Avion system to provide this water (see well details in table below).
  2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?  
☒ Yes ☐ No Comments: The valid POA (DESC 8410) and proposed APOAs all access 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.): \_\_\_\_\_
  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: This transfer would move groundwater production from DESC 8410 to the China Hat and Dyer well groups. There are a moderate number of exempt use and permitted wells adjacent to these well groups, which may experience an increase in interference as a result of this transfer.  
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: There is already considerable groundwater pumpage within the China Hat and Dyer well groups, but there is little indication that other groundwater users in the area have experienced interference sufficient enough to be considered injury. POAs within the China Hat and Dyer well groups would likely experience measurable well-to-well interference, but that is not considered in this review as they are owned by Avion Water Co. LLC.

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 Deschutes regional groundwater system is largely disconnected from surface water in the Bend area until the Crooked and Deschutes River confluence area, which is 25-30 miles to the north. Assuming that there is no enlargement of this water right, this transfer would not increase interference with surface water because the location change of pumping is minimal compared to the nearest connection with 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: \_\_\_\_\_

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: Current transfer rules do not directly consider whether the proposed changes would increase groundwater pumpage in areas of groundwater declines. Still, it should be noted that the Dyer well group are in an area of the Deschutes regional groundwater system that has experienced persistent, year-on-year declines since the mid-1990s.

## References

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., 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](https://apps.wrd.state.or.us/apps/gw/gw_info/gw_info_report/gw_search.aspx) Accessed 2/12/2024

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>

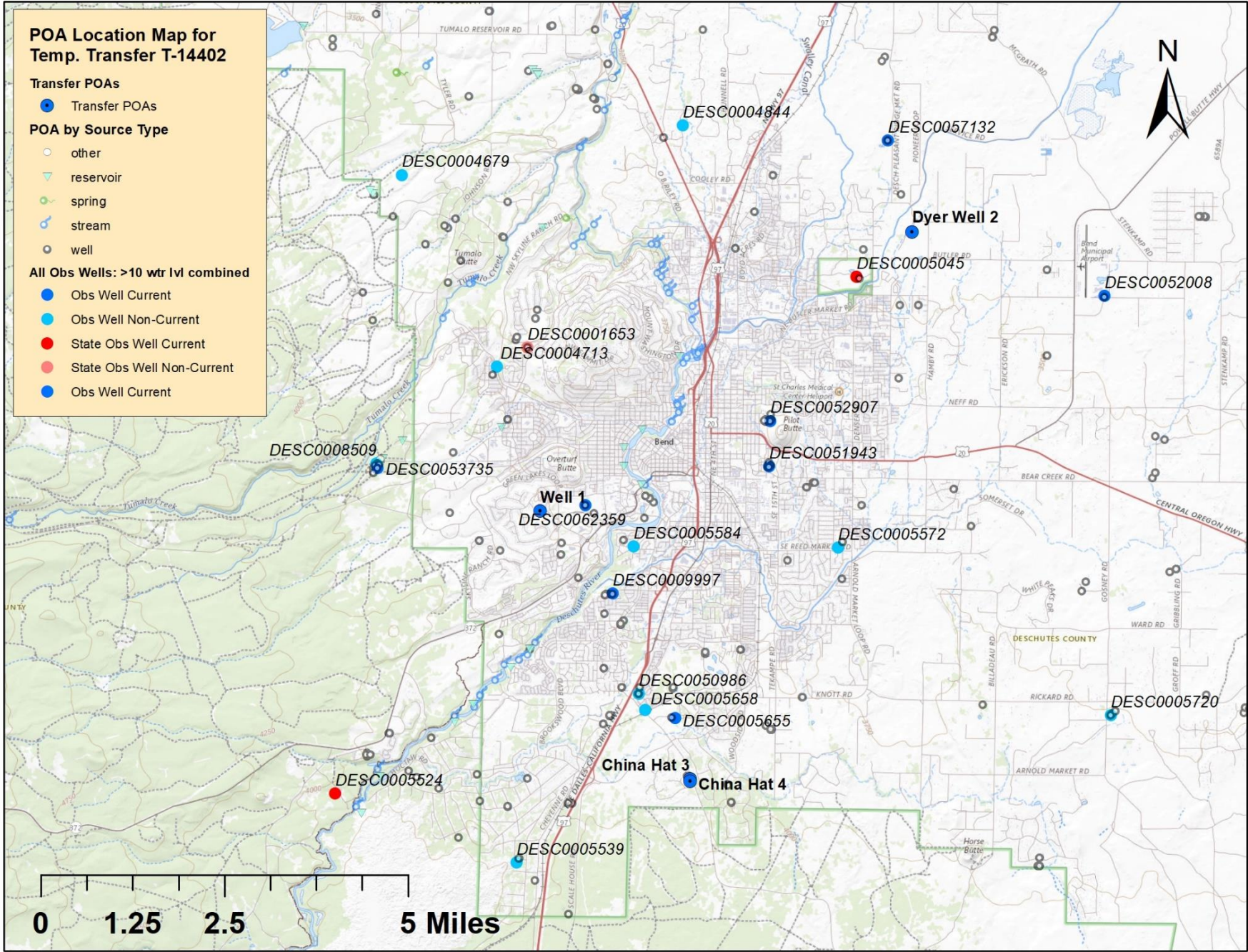
Sherrod, D. R., Taylor, E. M., Ferns, M. L., Scott, W. E., Conrey, R. M. and Smith, G. A., 2004, Geologic Map of the Bend 30-x-60-Minute Quadrangle, Central Oregon. U. S. Geological Survey Geologic Investigations Series Map I-2683. 49p., <https://pubs.usgs.gov/imap/i2683/>

## Well Summary Table

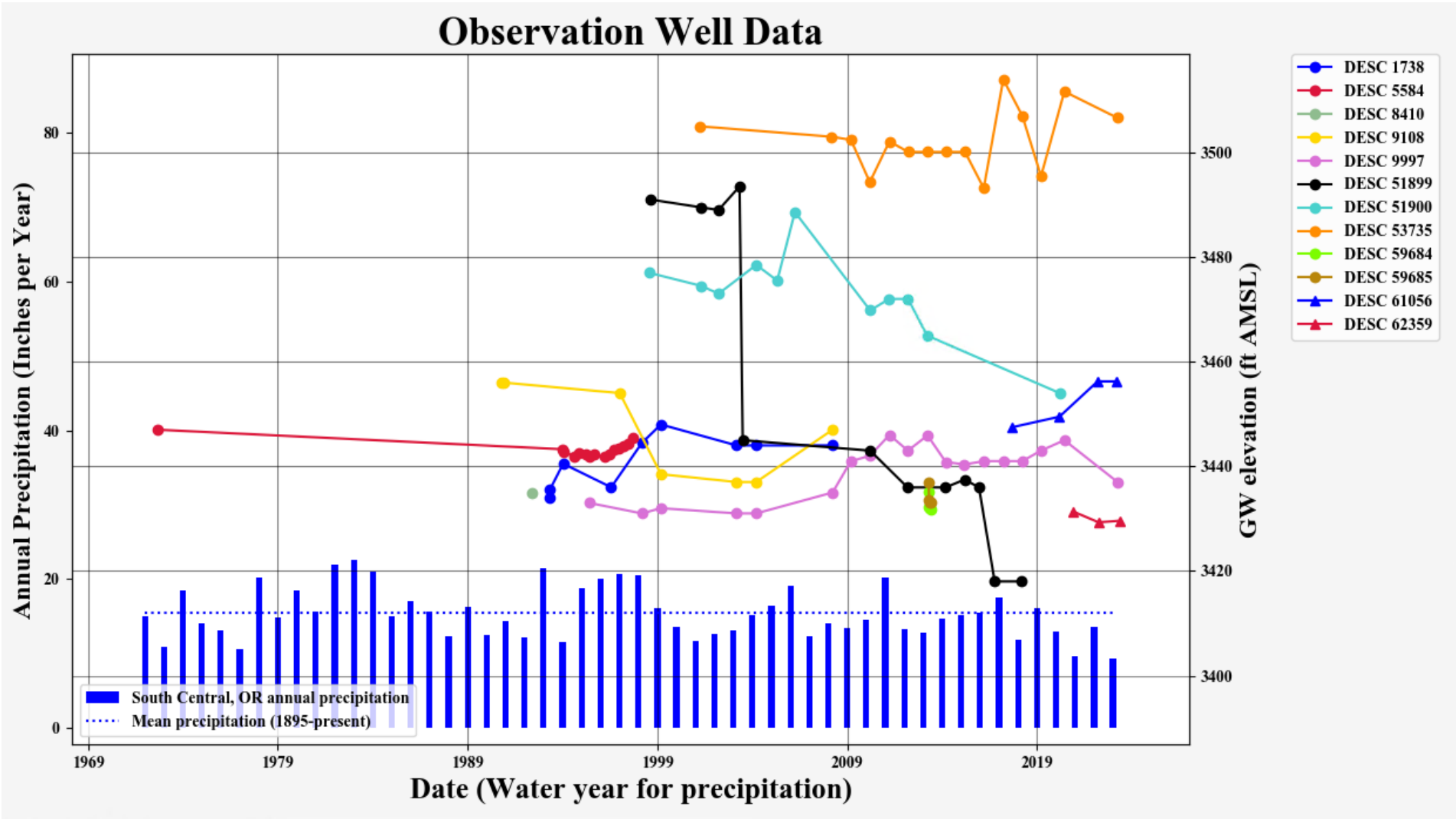
| POA # | POA Name         | POA Status | OWRD LOGID      | TRS              | Legal Location                  | Permitted Rate (cfs) |
|-------|------------------|------------|-----------------|------------------|---------------------------------|----------------------|
| 1     | Well 1           | Authorized | DESC 8410       | 18S/11E-1 NW-SE  | 2650' S, 1400' W fr NE cor S 1  | 2.7                  |
| 2     | China Hat Well 3 | Proposed   | DESC 61639      | 18S/12E-29 NE-NE | 663' S, 771' W fr NE cor S 29   | 2.7                  |
| 3     | China Hat Well 4 | Proposed   | Not Yet Drilled | 18S/12E-29 NE-NE | 760' S, 840' W fr NE cor S 29   | 2.7                  |
| 4     | Dyer Well 2      | Proposed   | DESC 62703      | 17S/12E-14 NE-SE | 1930' N, 1150' W fr SE cor S 14 | 2.7                  |



Transfer Map



Hydrograph 1 – Groundwater level elevations near DESC 8410



Hydrograph 2 - Groundwater level elevations across all wells on transfer

