

Groundwater Transfer Review Summary Form

Transfer/PA # T- 14541

GW Reviewer Joe Kemper Date Review Completed: 1/2/2025

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-14541

Applicant Name: City of Bend

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

Reviewer(s): Joe Kemper

Date of Review: 1/2/2025

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 seeks to add five wells as APOAs to certificates 68702, 85411, 85415 and 94101. Well specific details are in the tables below.

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
 Yes No Comments: All authorized and proposed POAs produce groundwater from the Deschutes regional groundwater system across a distance of approximately five miles from the Outback station to the Pilot Butte well cluster.

3. a) Is the existing authorized POA subject to a water level decline condition?
 Yes No Comments: None of the originating certificates have water level decline conditions.

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: NA

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.): NA

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 proposed changes will move the location of groundwater pumping, which will inevitably increase any well-to-well interference in areas where pumping increases.

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: The target aquifer has high transmissivity/storage and a large saturated thickness in the vicinity of the proposed changes. Pumping at the applicant's valid or proposed POAs typically produce 1-10 feet of drawdown. Changes in well-to-well interference that result from the proposed changes are unlikely to reach magnitude that would be considered substantial interference to a fully penetrating well.

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: It is well documented that the target aquifer begins discharging to the Deschutes and Crooked Rivers near their confluence at a distance of ~25 miles north of the wells involved in this transfer. Some of the proposed changes would move groundwater production closer to that point of hydraulic connection with surface water, which would quicken interference with those streams.

Additionally, the Outback wells are located within one mile of Tumalo Creek which does receive groundwater inflow. Considering that any mapped springs are located far upstream from the Outback wells and that the groundwater elevations at Outback wells (3400-3500 feet amsl) are well below the elevation of Tumalo Creek near the Outback wells (3800-3900 feet amsl), the target aquifer appears to have dropped hundreds of feet below the stream network until the confluence area. Thus, there is negligible hydraulic connection between Tumalo Creek and the Outback wells.

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: Deschutes River Minimal Significant

Stream: Crooked River Minimal Significant

Provide context for minimal/significant impact: Assuming that there is no increase in total groundwater allocated under this permit (no enlargement), the change in location of pumping (within a five mile range) compared to the distance to the confluence area (~25 miles) will have a minimal impact on interference with that groundwater inflow.

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: _____

Well Tables

Certificate 68702

POA #	POA Name	POA Status	OWRD LOGID	TRS	Legal Location	Permitted Rate (cfs)
1	River Well 1	Valid	DESC 5577	18S/12E-5 SW-NW	S 58°4'1" E, 3007.14' fr NW cor, NENE, sec 6	0.90
2	River Well 2	Valid	DESC 5578	18S/12E-5 SW-NW	1420' S, 950' E fr NW cor sec 5	0.90
3	Pilot Butte 3	Proposed	DESC 52907	17S/12E-33 NE-NE	145' N, 650' E fr SW cor NE-NE sec 33	0.90
4	Outback 5	Proposed	DESC 56371	17S/11E-34 SW-SE	N 38°50'59"W, 241.7' fr SW cor SE 1/4 sec 34	0.90
5	Outback 6	Proposed	DESC 56449	17S/11E-34 SW-SE	N 45°11'27"W, 458.7' fr SW cor SE 1/4 sec 34	0.90
6	Outback 8	Proposed	NA	17S/11E-34 SW-SE	85' N, 2140'E fr SW cor sec 34	0.90
7	Outback 9	Proposed	NA	17S/11E-34 SW-SE	740' N, 2925' E fr SW cor sec 34	0.90

Certificate 85411

POA #	POA Name	POA Status	OWRD LOGID	TRS	Legal Location	Permitted Rate (cfs)
1	Westwood Well	Valid	DESC 5585	18S/12E-7 NW-NW	S 11°18'36" E 485.52' fr NW cor sec 7	1.56
2	Pilot Butte 3	Proposed	DESC 52907	17S/12E-33 NE-NE	145' N, 650' E fr SW cor NE-NE sec 33	1.56
3	Outback 5	Proposed	DESC 56371	17S/11E-34 SW-SE	N 38°50'59"W, 241.7' fr SW cor SE 1/4 sec 34	1.56
4	Outback 6	Proposed	DESC 56449	17S/11E-34 SW-SE	N 45°11'27"W, 458.7' fr SW cor SE 1/4 sec 34	1.56
5	Outback 8	Proposed	NA	17S/11E-34 SW-SE	85' N, 2140'E fr SW cor sec 34	1.56
6	Outback 9	Proposed	NA	17S/11E-34 SW-SE	740' N, 2925' E fr SW cor sec 34	1.56

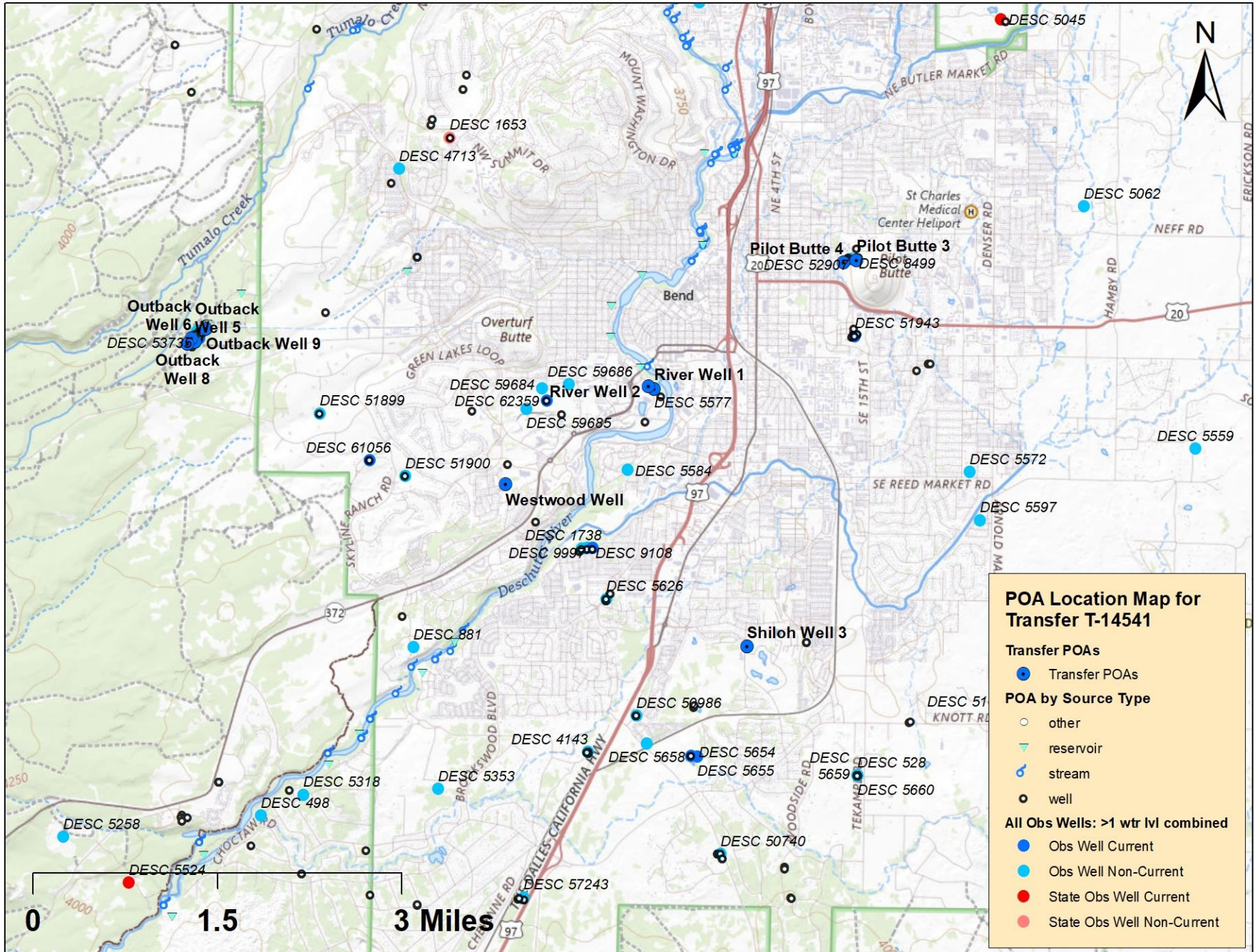
Certificate 85415

POA #	POA Name	POA Status	OWRD LOGID	TRS	Legal Location	Permitted Rate (cfs)
1	River Well 1	Valid	DESC 5577	18S/12E-5 SW-NW	S 58°4'1" E, 3007.14' fr NW cor, NENE, sec 6	2.70
2	River Well 2	Valid	DESC 5578	18S/12E-5 SW-NW	1420' S, 950' E fr NW cor sec 5	2.70
3	Pilot Butte 3	Proposed	DESC 52907	17S/12E-33 NE-NE	145' N, 650' E fr SW cor NE-NE sec 33	2.70
4	Outback 5	Proposed	DESC 56371	17S/11E-34 SW-SE	N 38°50'59"W, 241.7' fr SW cor SE 1/4 sec 34	2.70
5	Outback 6	Proposed	DESC 56449	17S/11E-34 SW-SE	N 45°11'27"W, 458.7' fr SW cor SE 1/4 sec 34	2.70
6	Outback 8	Proposed	NA	17S/11E-34 SW-SE	85' N, 2140'E fr SW cor sec 34	2.70
7	Outback 9	Proposed	NA	17S/11E-34 SW-SE	740' N, 2925' E fr SW cor sec 34	2.70

Certificate 94101

POA #	POA Name	POA Status	OWRD LOGID	TRS	Legal Location	Permitted Rate (cfs)
1	Westwood Well	Valid	DESC 5585	18S/12E-7 NW-NW	S 11°18'36" E 485.52' fr NW cor sec 7	0.94
2	Pilot Butte 4	Valid	DESC 58778	17S/12E-33 NE-NE	S 20°6'13.3" E 1175' fr NE cor sec 33	0.94
3	Shiloh Well 3	Valid	DESC 5613	18S/12E-16 SW-NW	S 1°39'8" E 2133' fr NW cor sec 16	0.94
4	Pilot Butte 3	Proposed	DESC 52907	17S/12E-33 NE-NE	145' N, 650' E fr SW cor NE-NE sec 33	0.94
5	Outback 5	Proposed	DESC 56371	17S/11E-34 SW-SE	N 38°50'59"W, 241.7' fr SW cor SE 1/4 sec 34	0.94
6	Outback 6	Proposed	DESC 56449	17S/11E-34 SW-SE	N 45°11'27"W, 458.7' fr SW cor SE 1/4 sec 34	0.94
7	Outback 8	Proposed	NA	17S/11E-34 SW-SE	85' N, 2140'E fr SW cor sec 34	0.94
8	Outback 9	Proposed	NA	17S/11E-34 SW-SE	740' N, 2925' E fr SW cor sec 34	0.94

Transfer Map



Water Level Measurements in Adjacent Wells

