

Groundwater Transfer Review Summary Form

Transfer/PA # T- 14605

GW Reviewer James Hootsmans Date Review Completed: 5/1/2025

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-14605

Applicant Name: Sterling Acres LLC

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

Reviewer(s): James Hootsmans

Date of Review: 5/1/2025

Date Reviewed by GW Mgr. and Returned to WRSD: JTL6/4/25

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 authorized Point of Appropriation (POA) on Claim GR-2599 is BENT 2505. This GR modification proposes to add four additional POA (BENT 2499, 58, 2500 and 2510), plus an alternate well for proposed well 5 (PROP 638). Therefore all 6 wells will be assessed as part of this review. The applicant also proposed to transfer a total of 16.5 acres of POU to an adjacent lot.
2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☒ Yes ☐ No Comments: Both the authorized POA and the APOA are open to and will develop from alluvium (sand and gravel layers). The authorized POA is drilled to a depth of approximately 57 feet below ground surface (bgs) **however no log is available in the OWRD database or provided with the application.** The proposed POA are slightly deeper but no more than 80 feet bgs and are open to productive sand and gravel layers. Below the sand and gravel layers, both BENT 2499 and BENT 2500 indicate claystone layers that the wells are also open to. The cross section provided below shows these layers to be at around 175 feet mean sea level.

The local geology in the vicinity of the POAs is alluvium of the main body of fine-grained Missoula Flood deposits (Willamette Silt). The uplands nearby are comprised of marine sedimentary rock. The POAs are situated in the finger of Willamette Silt between Frazier Creek and the Willamette River corridor.

Based on bedrock contours and mapping of the Willamette Silt layers in USGS PP 1424-A, the top of the bedrock is about 200 feet mean sea level along Frazier Creek towards the uplands (see location map). Above the bedrock layer there is approximately 20 feet of Willamette Silt and up to 20 feet of sand and gravels (Willamette Aquifer). On the other side of the Willamette River towards Albany, the top of bedrock decreases to 100 feet below sea level. These bedrock contours match the claystone layers observed in the proposed POAs.

These claystone layers are likely the weathered top of the underlying bedrock. The relatively thin layers of silt and alluvium above the weather bedrock layers in combination with the POAs being located between Frazier Creek and the Willamette River suggests that the POAs will all source water from the same aquifer versus hydraulically distinct, separate aquifers.

3. a) Is the existing authorized POA subject to a water level decline condition?
☐ Yes ☒ No Comments: No, there are no decline conditions associated with GR-2599.
- 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: N/A
4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
☐ Yes ☒ No Comments: All POA will develop the alluvial aquifer (sand and gravel layers).
- 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.): _____
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 authorized POA was nearby to BENT 2499, which is a proposed POA on this application (Proposed Well 2). Proposed Well 3 (BENT 58), proposed Well 5 (BENT 2510) and proposed Well 5B (PROP 638) are all closer to existing groundwater rights.
- 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: Water levels in nearby wells show no obvious declines, indicating a connection to surface water bodies in the area. Two nearby wells (BENT 2544 and BENT 2545), similarly located on the finger of Willamette Silt between Frazier Creek and the Willamette River corridor, have been monitored periodically since the mid 1960's. Since the 1990's, the hydrograph shows a seasonal fluctuation of up to 20 feet but no long term declines or climatic signals.

Modeling conducted in similar conditions indicates that injury is unlikely given the amount of available water in the groundwater system. Additionally, the authorized rate of pumping would be spread across all the POAs therefore the impacts are likely to be less than model conditions.

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: All POA are similar distances to Frazier Creek and the Willamette River. Given the proposed well construction, all POAs will be hydraulically connected to nearby surface water bodies. In addition, the thick layers of fine-grained sediments which underly Frazier Creek would also limit the strength of the hydraulic connection.
- 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: _____
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: N/A
8. What conditions or other changes in the application are necessary to address any potential issues identified above: N/A
9. Any additional comments: The applicant discusses an alternative Well 5B for Well 5 but does not clarify selection criteria. Both well locations were analyzed in this review. The alternative well location is closer to other existing water rights than the proposed well 5 (BENT 2510)

T14605 Sterling Acres LLC

