

January 21, 2025

Ryan Dougherty, PE, RG, CWRD  
[rdougherty@summitwr.com](mailto:rdougherty@summitwr.com)  
Summit Water Resources, LLC  
4784 SE 17<sup>th</sup> Ave, Ste 111  
Portland, OR 97202

*Sent by email only*

**Re: Well #4 (PR#173-2024)**  
**Orchard Heights Water Association (PWS ID#00783)**  
**Site Plan Approval**

Dear Mr. Dougherty

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the new Well #4 on behalf of the Orchard Heights Water Association. On December 23, 2024, our office received a site plan, proposed well construction details, land use information, water rights information, and documentation showing the \$825 plan review fee was paid on December 19, 2024.

**Project Description:**

The project involves bringing online a new well (Well #4, SRC-AF) to serve the Orchard Heights Water Association, which currently has three active water supply wells, an intertie with the City of Salem, and one disconnected well (sources are viewable online at:

<https://yourwater.oregon.gov/inventory.php?pwsno=00783&show=Y>). The proposed new source has not yet been drilled. Raw groundwater from Well #4 will be disinfected before being used for group domestic purposes as a drinking water supply well.



**Required Water Right**

A copy of the water right held by the Orchard Heights Water Association (Permit G-10394) was included in Attachment 4. Permit G-10394 authorizes the appropriation of groundwater for group domestic use, at a rate to not exceed 0.254 cubic feet per second. An application for a permit amendment has been prepared to add Well #4 as an authorized point of appropriation and is currently being reviewed by the Oregon Water Resources Department (OWRD).

**Proposed Construction**

Information associated with the proposed construction of Well #4 into the Columbia River basalt aquifer having an estimated first water depth at 150-ft at the proposed well site was provided in Attachment 2 (also see enclosed preliminary design for well #4) and is summarized as follows:

Construction Feature	Description
Total Well Depth	400 feet
Target Yield	100 gpm
Exploratory Borehole Diameter	>6-inches
Upper Borehole Diameter	14-inches
Upper Borehole Depth	300 feet
Well Casing Diameter	10-inches
Well Casing Length	300 feet
Cement Grout Seal Depth	300 feet
Lower Borehole Diameter	10-inches

**OHA-Drinking Water Services Geologist Review/Recommendations**

A regional geologist in our program, Tom Pattee, reviewed the proposed well construction. He noted the following in his evaluation completed January 15, 2025, which should be shared with the well driller:

**Proposed Well Construction Recommendations:**

Estimated depth to water-bearing zone: First water-bearing zone estimated to be at about 150 ft, targeted water-bearing zone for water supply estimated to be at 330 ft below ground.

Estimated aquifer nature:  Confined                       Unconfined

Estimated depth of casing seal: 300 ft

Comments: Given the nature of the Columbia River Basalts in this area, estimates of the depth to targeted water-bearing zone and casing seal depth appear to be appropriate. Aquifer is likely to be confined.

**The project is granted site plan approval.** Once construction of the well is complete, please submit:

1. The well driller's report (well log).
2. Well pumping test information including static water level, pumping rate, drawdown and rate of recovery.
3. Pump information.
4. Raw (Untreated) Water Quality Data including test results for coliform bacteria, IOC (incl. nitrate and arsenic), SOC, VOC, and radiologicals (uranium, radium 226/228, and gross alpha). Samples are to be taken from the well's raw water sample tap.
5. Engineered plans that show the above-well structure detail including the well house, concrete slab, drainage, pump-to-waste piping and plans and specifications for connection of the new well to the water system.
6. A copy of the water right permit from WRD demonstrating that the water rights transfer was approved for the new point of appropriation or information regarding the status of the water rights transfer.
7. Land use documentation showing Polk County approval or information regarding the status of approval for the proposed well.

The above items should reference Plan Review #173-2024 and can be emailed to me at [evan.e.hofeld@oha.oregon.gov](mailto:evan.e.hofeld@oha.oregon.gov).

If you have any questions, please feel free to call me at 971-200-0288.

Sincerely,



Evan Hofeld, PE  
Regional Engineer  
Oregon Health Authority - Drinking Water Services

cc: Jennifer Meltzer, President, Orchard Heights Water Assoc., [meltzerfam@gmail.com](mailto:meltzerfam@gmail.com)  
Doug Priest, Orchards Heights Water Assoc., [DPriest@cityofsalem.net](mailto:DPriest@cityofsalem.net)  
Donald Lovas, Orchard Heights Water Assoc., [donaldlovas@gmail.com](mailto:donaldlovas@gmail.com)  
Lyle Misbach, AKS Engineering, [misbachl@aks-eng.com](mailto:misbachl@aks-eng.com)  
Christina Tisdell, Polk Co. Community Development, [tisdell.christina@co.polk.or.us](mailto:tisdell.christina@co.polk.or.us)  
Tom Pattee, RG, OHA/DWS, [Tom.PATTEE@oha.oregon.gov](mailto:Tom.PATTEE@oha.oregon.gov)  
Tommy Laird, OWRD, [Tommy.K.LAIRD@water.oregon.gov](mailto:Tommy.K.LAIRD@water.oregon.gov)  
Joel Plahn, OWRD, [Joel.M.PLAHN@water.oregon.gov](mailto:Joel.M.PLAHN@water.oregon.gov)

Encl: Preliminary Design for Well #4, Exhibit #2

### Preliminary Design for Well #4

