

January 29, 2024



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Jim Newton, PE, RG, CWRE Principal – Engineer-Geologist Cascade Geoengineering, LLC Via email: newtonjim@hotmail.com

Re: Well 2C (PR#163-2023) Eagle Crest Resort (PWS ID#01355) Site Plan Approval

Dear Jim:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the Well 2C project for Eagle Crest Resort. On December 28, 2023, our office received a submittal including a project narrative, site plans, well drilling specifications, land use compatibility statement and a plan review fee of \$3,300.

The project includes drilling a well to a proposed depth of approximately 350 feet below ground surface (bgs). The water system appears to have the 100' radius of control for the well, and no hazards within the sanitary setback were noted. A surface water source (golf course pond) appears to be located within 500' of the proposed well.

A regional geologist in our program reviewed the proposed well construction. He noted the following, which should be shared with the well driller:

- The estimated depth to a water bearing zone is approximately 246 feet bgs.
- The area around the proposed well location is suficially mapped as Quaternary surficial deposits and the aquifer supplyin the well will most likely consist of layered volcanic rocks of the Deschutes Formation. Based on well logs DESC 3614 and DESC 57964, the aquifer has the potential to either be unconfined or confined.
- The proposed well construction plans indicate that the well will be sealed to a depth of 194 feet bgs and will extend a minimum of 5 feet into the confining/consolidated material which is described as "firm brwn lava". The proposed construction appears to meet Oregon Water Resources Department (OWRD) well construction standards.

• Although the proposed construction is approved. DWS recommends that the well driller consult with OWRD during the drilling process and prior to placement of the final seal.

The project is granted site plan approval. A land use compatibility statement was submitted with section B signed. This site plan approval letter is contingent on receiving a signature in section A under "is compatible". 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 coliform bacteria, IOC, SOC, VOC and radionuclides. These are to be taken from the new well's raw water sample tap at the wellhead.
- 5. Engineered plans that show the above-well structure detail including the well house, pump-to-waste piping and plans and specifications for connection of the new well to the water system.

The above items should reference Plan Review #163-2023 and can be emailed to me at Carrie.L.Gentry@oha.oregon.gov.

Note that a Groundwater under the direct influence of surface water review will be completed once the well construction is complete and the results of this review could mean additional requirements.

If you have any questions, please feel free to call me at (971) 201-9794. Sincerely,

City

Carrie Gentry, PE Regional Engineer Drinking Water Services

cc: Chantal Wikstrom, REHS, OHA/DWS Tommy Laird, Well Construction Program Coordinator, OWRD Brett Limbeck, Eagle Crest Resort, blimbeck@swwc.com Jeff Freund, REHS, Deschutes County Environmental Health Services