

May 7, 2025

Jim Newton  
Cascade Geoengineering  
21145 Scottsdale Dr  
Bend, OR 97701

**Re: Replacement Well #2 (PR#48-2023)  
Circle C Improvement District (PWS ID#00861)  
Conditional Approval**

Dear Jim:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the new well for Circle C Improvement District. On April 6, 2023, our office received plans, and a plan review fee of \$3,300. On

The project includes a well (log DESC64284) replacing Well #2 in a rural residential development, on tax lot 1100. The well is 8-inch nominal diameter 0.250-inch wall thickness and extends to 316 feet below ground surface. The well is equipped with a pitless adapter with a screen vent contained within a security well cap. Wells #1, #3, and #4 will remain operational and will continue to provide water to the system.

Our hydrogeologist reviewed the well construction and had the following comments:

- Calculated 48 sacks of bentonite chips were needed for the seal and 60 sacks were used. The construction appears to meet OWRD well construction standards for Sealing of Water Wells in Consolidated Formations (see OAR 690-210-0150).
- The area around the well location is mapped as volcanic rocks of the Deschutes Formation (Tdbt) from the Newberry Volcano. The aquifer is unconfined since the static water level did not rise significantly after being encountered at a depth of 131 feet below ground surface.
- Well #2 (DESC2462) is located within 100 feet and is not properly constructed. The amount of sealant is not listed on the well log

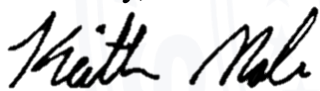
The plans are approved subject to the following conditions:

- Water system will need to provide a well abandonment log for Well #2 (DESC2462) prior to final approval of construction. See ~80-110 ft bgs (see Cascade Geoengineering, letter regarding Application for Site Plan Review; Oregon Health Authority-Drinking Water Services; New Replacement Well for Well #2, Circle 'C' Improvement District, Tax Lot 1100; Terrebonne, Deschutes County, Oregon, dated April 6, 2023, for information regarding well abandonment).

**Until we receive verification that the conditions have been met and final approval has been issued, the well is not approved for use.** Upon completion of the project, the engineer must verify in writing that construction was completed according to the submitted plans. If substantial changes are made, a set of as-built drawings must be submitted. Documentation demonstrating how the above conditions were met should reference Plan Review #48-2023 and can be emailed to me at [keith.male@oha.oregon.gov](mailto:keith.male@oha.oregon.gov).

If you have any questions, please feel free to call me at 503-939-1322 or email me at [keith.male@oha.oregon.gov](mailto:keith.male@oha.oregon.gov).

Sincerely,



Keith Male, PE  
Regional Engineer  
Drinking Water Services

cc: Julie Wray, DWS  
Josh Seerup, REHS, DWS  
Jeff Freund, Deschutes County Health Department  
Tommy Laird, Well Construction Program Coordinator, OWRD