Public Health Division

Center for Health Protection, Drinking Water Services

Tina Kotek, Governor

November 8, 2024

Dustin Nelson
City of Brookings
898 Elk Drive
Brookings, OR 97415

sent by email only

Re: Tidewater Reservoir Improvements Project (PR#2024-86)
City of Brookings (PWS ID#00149)
Conditional Approval

Dear Dustin Nelson:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the Tidewater Reservoir Improvement Project for the City of Brookings. On July 2, 2024, our office received the plans, specifications, and LUCS form and a plan review fee of $3,300.

The project includes the construction of 2 – 75,000 gallon glass fused steel storage tanks, approximately 4,000 feet of 8" PVC piping along Eastwood Lane, a new pump station, and PRV station.

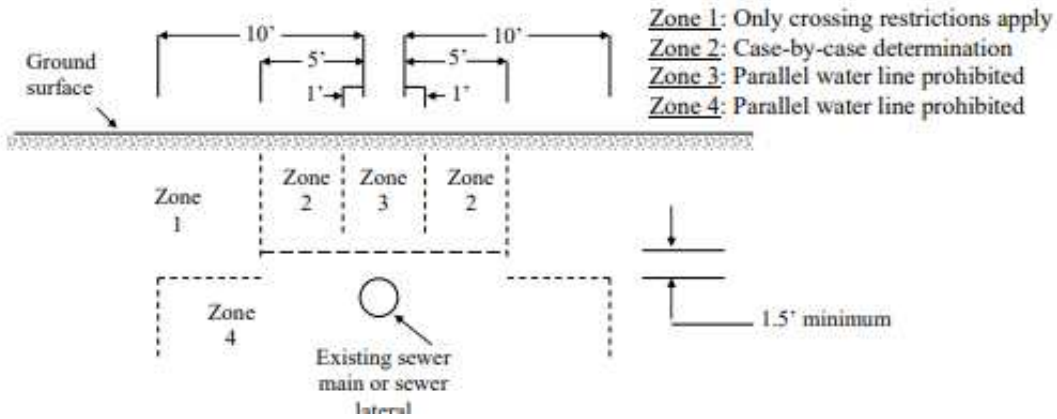
The plans are approved subject to the following conditions:

1. The finished water storage capacity shall be increased to accommodate fire flows when fire hydrants are provided (OAR 333-061-0050(6)(a)(H)). Please confirm the storage tanks are adequately sized for the system.
2. Ground-level reservoirs shall be constructed on undisturbed soil, bedrock or other stable foundation material capable of supporting the structure when full (OAR 333-061-0050(6)(a)(B)). On the plans, it wasn't clear enough that storage tanks will be constructed on undisturbed soil. Please confirm that this is the case.
3. Where a single inlet/outlet pipe is installed and the reservoir floats on the system, provisions shall be made to ensure an adequate exchange of water and to prevent degradation of the water quality (OAR 333-061-0050(6)(a)(O)). Please confirm standard operation procedures will ensure adequate turnover of the water in the

storage tanks to not increase disinfection by-product levels in the distribution system.

4. For reservoirs and tanks, disinfection by chlorination shall be accomplished according to AWWA Standard C652 (OAR 333-061-0050(10)(e)). In the specifications it was not clear if the storage tank would be disinfected to our standards prior to being put into service. Please describe the method that will be used to disinfect the storage tanks after construction. Also, a coliform sample should be taken prior to being brought online.
5. The access manhole (hatch) on the roof of the reservoir shall have curbing around the opening and a lockable watertight cover that overlaps the curbing (OAR 333-061-0050(6)(a)(J)). The plans shown look to have a shoe-box style lid, but there is not much detail of the hatch. Please confirm the lid will be lockable.
6. Distribution piping shall be designed and installed so that the pressure measured… …shall not be reduced below 20 psi (OAR 333-061-0050(8)(e)). Please confirm the pressure in the new waterline will not be below 20 psi.
7. In situations involving a water line parallel to a sewer main or sewer lateral, the separation between the two shall be as indicated in the figure below (OAR 333-061-0050(9)(b)). Please confirm where the storm sewer and waterline run parallel that the storm sewer would be in Zone 2, at least 18” vertical separation and 12” horizontal separation. The trench detail did not specify the separation.

Figure 1: Water Line-Sewer Line Separation



Until we receive verification that the conditions have been met and final approval has been issued, the reservoir, piping and pump station are not approved for use. Engineers must inspect and be prepared to sign off on construction before burying lines. 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 #2024-86 and can be emailed to me at rebecca.a.templin@oha.oregon.gov.

If you have any questions, please feel free to email me or call me at 541-650-4868.

Sincerely,

Rebecca Templin, PE
Regional Engineer
Drinking Water Services

ec: Kent Downs, OHA/DWS
Joseph Goette, PE, The Dyer Partnership Engineers & Planners, Inc.