



April 27, 2018

Greg Thiel, PE
NW Engineers, LLC
3409 NW John Olsen Place
Hillsboro, OR 97124

Re: **New well and waterlines (PR#26-2016)**
Laurel Acres Water Co Inc (PWS ID#00217)
Conditional Approval

Dear Mr. Thiel:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of additional plan review information for the new well for Laurel Acres Water Co Inc. On March 2, 2018, our office received a well log (Well ID L126073) for the new well and a bacteriological sample result.

A regional geologist in our program reviewed the well log construction details. He noted that the well is drilled to 495 feet deep and is sealed to a depth of 194 feet and appears to meet current construction standards. The casing seal is completed 100 feet into uncrevassed basalt of low permeability. The well draws water from a deep confined basalt aquifer. The aquifer is overlain by more than 100 feet of unfractured basalt that acts as a confining layer above the aquifer.

The plans are approved with the following conditions:

General

- All items in contact with potable water must meet NSF Standard 61.
- The existing (old) well must be abandoned per WRD rules.

Well

- A waiver request must be submitted for the 100' radius of ownership/control and 50' drainfield setback. I've attached a copy of the waiver form which can also be found on our website under plan review. I've also attached a copy of the site plan evaluation letter

that more fully discusses the easement and setback issues that need to be included on the waiver request form.

- Provisions must be made for determining the depth to water surface in the well under pumping and static conditions.
- A raw water sample tap is required close to the well head, prior to any storage or treatment.
- Piping arrangements must include provisions for pumping the total flow from the well to waste.
- A method of determining the total output of the well must be provided (typically a flowmeter).
- If a casing vent is provided, the return bend must be fitted with a screen.
- Raw (Untreated) Water Quality Data including, IOCs (including nitrate, nitrite and arsenic), SOCs, VOCs and radionuclides. These are to be taken from the new well's raw water sample tap at the wellhead.
- A copy of the Water Right Permit from WRD, if a water right permit is required.
- Pump information must be provided.

Waterlines

- The design must allow for 20 psi to be maintained at all service meters.
- Non-metal water lines must be provided with a tracer wire. The distance between tracer wire lead access locations must not be more than 1,000 feet.
- Disinfection of the waterlines must be completed according to AWWA C651.
- Any sewer and water line crossings must conform to OAR 333-061-0050(9). Parallel separations must also conform to this rule.

Reservoir

- Disinfection of the reservoir prior to use must be accomplished according to AWWA Standard C652.

Until we receive verification that the conditions have been met and final approval has been issued, the facility 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 #26-2016 and can be emailed to me at Carrie.L.Gentry@state.or.us or mailed to:

Attn: Carrie Gentry

OHA-Oregon Drinking Water Services
PO Box 14450
Portland, OR 97293-0450

If you have any questions, please feel free to call me at (971) 673-0191.

Sincerely,

Carrie Gentry, PE
Regional Engineer
Drinking Water Services

cc: Gregg Baird, OHA/DWS
Ashley Davis, Washington County Environmental Health
Karrie Thompson, Laurel Acres Water Co Inc.

encl: waiver form
Copy of May 10, 2016 Site Plan Evaluation letter