

September 25, 2025

Joshlynn Drop
Lakeside Mobile Home Park (A)
4878 Isabelle St
Eugene, OR 97402

**Re: New Public Water System (PR #78-2024)
Lakeside Mobile Home Park (A) (PWS ID #01564)
Conditional Approval**

Dear Joshlynn Drop:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the new public water system for Lakeside Mobile Home Park (A). On June 7, 2024, our office received a site map, plans and specification for new treatment processes and a plan review fee of \$825.

The project includes adding a residual maintenance sodium hypochlorite dosing system and arsenic treatment system to Well #3 (LANE 5402). The arsenic treatment will be a freestanding filtration model manufactured by Applied Cartridge Systems, and consisting of a pre-filter, ISO-20-SS cartridge system, and Atomus® F11 adsorptive media filled cartridges. The arsenic filtration system will have a maximum flow rate of 20 gpm. Other elements subject to this review are the pre-existing Well #3 and 80-gallon steel pressure tank.

The plans are approved subject to the following conditions:

Arsenic Treatment

1. Pilot studies or other supporting data shall be used to demonstrate the effectiveness of any treatment method other than that defined as a Best Available Technology (BAT). The adsorptive filter media specified in this design is not an arsenic BAT as described in OAR 333-061-0050(4)(b), and a pilot study is required. Arsenic concentration shall be monitored at the entry point at least quarterly per OAR 333-061-0036(2)(a)(D) for at least 1 year.

2. Piping that bypasses required treatment facilities must have a physical gap between pipes that carry treated and untreated water per OAR 333-061-0050(4)(a)(F).

Residual Maintenance Chlorination

3. Provisions shall be made to alert the water supplier before the chlorine supply is exhausted per OAR 333-061-0050(5)(e). This requirement can be satisfied by either installing a low-level alarm or by creating a written procedure to check the tank daily.
4. Testing equipment shall be provided to determine the chlorine residual per OAR 333-061-0050(5)(g). The equipment must be a DPD-test kit or other EPA approved method of testing.
5. Chlorinator piping shall be designed to prevent the contamination of the potable water system by backflow of untreated water or water having excessive concentrations of chlorine per OAR 333-061-0050(5)(h).
6. Products added to public water systems for disinfection purposes shall meet the requirements of NSF Standard 60. The chlorine source specified in the plans, Olin sodium hypochlorite 5 – 17%, could not be confirmed as meeting NSF Standard 60 requirements. Provide additional documentation on the product acceptability of the chosen chlorine source or identify an alternative chlorine source that meets this requirement.

Groundwater Well

7. Provisions shall be made for determining the depth to water surface in the well under pumping and static conditions per OAR 333-061-0050(2)(a)(K)(iv).
8. Piping arrangements shall include provisions for pumping the total flow from the well to waste per OAR 333-061-0050(2)(a)(K)(vi).
9. A method of determining the total output of each well shall be provided per OAR 333-061-0050(2)(a)(K)(vii).

Finished Water Storage

10. Bypass piping around the pressure tank shall be provided to permit operation of the system while the tank is being maintained or repaired per OAR 333-061-0050(6)(b)(B).
11. Pressure tanks shall be designed for pressure at least 50 percent greater than the maximum system pressure anticipated per OAR 333-061-0050(6)(b)(E).

In addition to the above, I have the following comments:

- Coordinate with the Department of Environmental Quality (DEQ) to ensure disposal method of spent media containing arsenic is acceptable.

Regional Solid Waste Permit Coordinator
DEQWR.SolidWastePermitCoordinator@deq.oregon.gov
541-687-7465

- A written Operations & Maintenance Manual must be developed for the treatment system. The manual must include guidelines on when the media should be replaced, backwash/regeneration procedures, and other critical aspects of the system.
- I recommend obtaining a field test kit to measure the arsenic concentration of the treated water to check the system's performance between lab samples.
- The water system must maintain a detectable disinfectant residual throughout the distribution system and shall measure and record the residual at one or more representative locations at least twice per week, and at the same location and same time as routine total coliform samples.
- After adding chlorination, the water system must conduct an Initial Distribution System Evaluation (IDSE) according to the requirements in OAR 333-061-0036(4)(b). Coordinate with your regulator after construction is complete to develop an IDSE plan. The IDSE results will be used to determine the appropriate locations and seasonal window for Disinfection Byproduct (DBP) monitoring requirements.
- All new community water systems must receive a capacity assessment (CA). The CA will be conducted by DWS after construction is complete and plan review final approval has been issued.
- Water rights may be required for your water system, depending on how much water is utilized out of Well #3 per day. Oregon Water Resources Department (OWRD) regulates water rights, please contact the local OWRD watermaster below. Copies of water right permits or exemptions should be provided to DWS.

Lanaya Blakely
District 2 Regional Watermaster
Lanaya.F.BLAKEY@water.oregon.gov
541-913-1154

A regional geologist in our program reviewed the Well #3 log and other available information and shared the following: "The well was drilled to a depth of 225-ft in October 1994. A 10-in borehole extends to a depth of 50-ft and is 6-in in diameter beyond that depth. A 6-in casing extends to a depth of 60-ft. The well is sealed to a depth of 50-ft. A 4.5-in liner extends to a depth of 220-ft and is perforated from 185- to 225-ft in depth. The well acts as an open hole below depth of 60-ft. Based on the casing depth, casing seal depth, sealant volume, and annular spacing the well is considered to meet subsurface construction standards."

Since Well #3 has documented E. Coli contamination (in Well #2) within the 2-year time-of-travel and it has been less than two years since Well #2 was abandoned, the DWS groundwater coordinator has required that monthly assessment sampling for coliform must be conducted for one year. This sampling must be taken at the raw water sample tap of the well, prior to any treatment. The sampling does not replace the required monthly coliform sampling in the distribution system.

Well #3 does not meet setback requirements under OAR 333-061-0050(2)(a)(B) & (E) due to lack of control of a 100-ft radius around the well, and because of the documented E. Coli contamination source (Well #2) within 100-ft. On September 16, 2025, the system requested a waiver from these construction standards. Since Well #3 has been determined to be properly constructed in a confined aquifer, DWS approved Waiver #2025-555 on September 24, 2025, see attached.

Until we receive verification that the conditions have been met and final approval has been issued, the new public water system 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 #78-2024 and can be emailed to me at baxter.call@oha.oregon.gov.

If you have any questions, please feel free to email me or call me at 541-393-4374.

Sincerely,



Baxter Call, PE
Regional Engineer
Drinking Water Services

CC: Julie Wray, DWS
Matt Luedtke, Lane County Environmental Health
Dan Vaage, PE, Civil West Engineering Services, Inc.
Regional Solid Waste Permit Coordinator, DEQ
Lanaya Blakely, OWRD Regional Watermaster

Enc: Waiver #2025-555