

September 25, 2025

Joshlynn Drop
Lakeside Mobile Home Park
4678 Isabelle Street
Eugene, OR 97402

**Re: Arsenic Filtration and Residual Maintenance (PR #93-2025)
Lakeside Mobile Home Park (PWS ID #00999)
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 arsenic filtration and residual maintenance for Lakeside Mobile Home Park. On September 2, 2025, our office received plans and specifications and a plan review fee of \$248.

The project includes adding a residual maintenance sodium hypochlorite dosing system and arsenic treatment system to Wellhouse #1. 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.

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 documentation of the product acceptability of the chosen chlorine source or identify an alternative chlorine source that meets this requirement.

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 in 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.

A regional geologist in our program evaluated the construction of Well #1 due to the addition of residual maintenance chlorination. Their evaluation states: "There is no well log and a search of the Oregon Water Resources Department (OWRD) well log database yielded no results based on the Mobile Home Park address/Taxlot. The well construction cannot be verified and therefore does not meet standards. The source is considered to be highly sensitive based on the lack of construction information. The well was previously downhole chlorinated and may present water quality problems."

Since Well #1 does not meet construction standards, 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. Upon completing 12 months of assessment monitoring, results will be reviewed and the DWS groundwater coordinator will render a decision on the acceptability of the continued use of Well #1 as a drinking water source.

Until we receive verification that the conditions have been met and final approval has been issued, the arsenic filtration and residual maintenance 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 #93-2025 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,

B Call

Baxter Call, PE
Regional Engineer
Drinking Water Services

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