



Water System Status, News – Joe Connell

- Water system has been running smoothly for most of the year.
- Expanded DOH water testing took place in 2024.
 - PFAs (Per- and Poly-FluoroAlkyl substances (forever chemicals) on 19-June-24.
 - Testing included 25 individual chemical tests, all of which had “Non-Detectable” (ND) results.
 - VOCs (Volatile Organic Compounds) on 3-July-2024.
 - Testing included 119 individual chemical tests, all of which had “Non-Detectable” (ND) results.
- PFAs are now being recognized as a bigger problem on a global scale. Consumer Reports found PFAs in 43 out of 47 bottled water brands (including Poland Spring), and are being tied to a variety of illnesses.
- Exposure to VOCs can lead to both short- and long-term health effects, making their monitoring essential.



Water System Status & Updates – Joe Connell

- Next system upgrade is Manganese Removal System
 - No governmental funding available to support Manganese Removal System (MRS).
 - Manganese is no longer considered a “secondary contaminant” by Washington DOH.
 - Prior planned upgrade starts dating back to 2022 needed to be delayed.
 - Retainer to NWS paid in Spring 2023, for engineering efforts that began in late 2023.
 - Manganese Removal System design completed in early 2024.
 - After multiple design iterations, DOH approval, #24-0101, finally came in late 2024.
 - Currently soliciting bids for MRS Pilot Study. Hoping to start construction in Fall 2025
- Will need to prove the Manganese Removal System with a “Pilot Study” setup of about 9-12 months, similar to what we’ve done in prior system upgrades, before final system implementation.



Water System Status & Updates (cont.)

- The design of a new Arsenic Removal System (ARS) for the well water was completed in March 2024.
- DOH approval, #25-0307, of the ARS came in May 2025.
 - The LMCPC board agreed to include Arsenic removal from the well water with the Manganese removal from the surface water, which FINALLY gets us to “full water system redundancy”.
 - Although this final ARS is still simple, the estimated price went up a bit from last year’s estimates.
 - Expect to be able to bring online both the MRS and ARS pilot studies in late 2025 or early 2026, with both pilot studies completing in 2026.



Water System Details, Fire Fighting

- Several members of our community raised questions about the capabilities of our water system to support Fire Fighting, largely triggered by the Southern California wildfires in early 2025.
- The below clarifications should help answer all questions:
 1. The flow capacity of our hydrants are, at a minimum, the WA State required flowrate of 1,000 Gallons Per Minute (GPM) for 60 minutes. We know this as we had a contractor test and measure flow capacity to verify water system design.
 2. The test in #1 above meets the requirements to put out a fully-engulfed home. The next question asked was "can we provide enough water to put out fires at all homes on Lake Margaret". The short answer here is no. Our new water tank capacity is 132,000 gallons maximum, and that would be enough to put out two fully engulfed home fires. Then, the water system would need to have about 20 hours to refill the tank from the well before we could provide another 60,000 gallons for the next fire.



Water System Details, Fire Fighting (cont.)

- The below clarifications... (cont.)
 3. All of the hydrants on Lake Margaret are served by LMCPD finished water from the new water tank.
 4. During the recent wildfire event in Southern California, the hydrants ran out of water for a multitude of reasons. Two house fires could completely drain the LMCPD water reservoir, but our situation is significantly different than SoCal, and we have other options, including having the Duvall FD pump water directly from the lake. Then, from a capacity perspective, using the 60,000 gallon metric for putting out a fully engulfed house fire, the lake itself would have FAR more capacity than needed to put out a fully engulfed fire at every home on Lake Margaret.
 5. We could have further discussions on lake “draft hydrants”.
 6. The fire hydrants are tested on a schedule defined by the Fire Department, but the LMCPD contract a company to perform such testing.



Water System Status & Updates (cont.)

- Lastly, the Department of Ecology (DOE), the regulation authority for our dam, is making us install a weir, to monitor dam seepage.
 - The LMCPD board has agreed to install this weir system at the base of the dam.
 - Please be aware that this installation effort will begin over the coming months.
 - The weir design unclear in summer 2024 by DOE, & had to be delayed until 2025.

