

REPLACEMENT OF TWO WATER PUMPS

Completed by Nicholson Drilling

Photographs and Article by Ben Jahn



Old pipe being removed from lower section.



Water draining from pipe.



Camera man getting sprayed.

Over the last three days, the Lake Josephine Water Department has been working in coordination with Nicholson Drilling to complete the replacement of the first two of three well pumps. The use of emergency water capital funds for this project was approved at the June BOT meeting after one of the pumps started functioning at suboptimal capacity. The three pumps were most recently replaced at the same time, which was nearly 15 years ago. This coincides with the lifespan of these pumps.

The project consists of removing the old piping and pumps, scoping out the existing casing, and replacing the pumps and piping. Additionally, variable flow controls are being added to the system that allow the water department to have more precise control of water flow from the pump. These controls also reduce the amount of wear on the main water systems because they allow for the water to be turned on gradually rather than all at once preventing a physical 'shock' to the system.

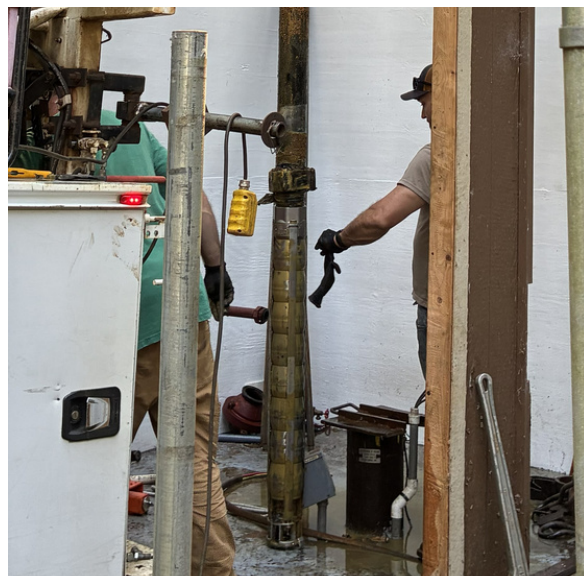
The workers started this project by removing the existing pipes and pumps from the casings. Then, a brush was sent down to clean the inside of the casing. After the casings were cleaned, the workers use a camera to scope inside the casing for any cracks or damage.

After catching up with one of the workers following the scoping, he said he "videoed the casings and they both look good." I asked the question, "Have you found anything that could be concerning?" He said, "[There's] no reason to shut down a well this good" After removing the pipes and pumps on the first day, the workers returned the next day to install the new replacements. The new pumps were attached to the bottom of the piping and lowered down into the casing. Additional sections of piping were then threaded onto the existing pipe going into the ground.

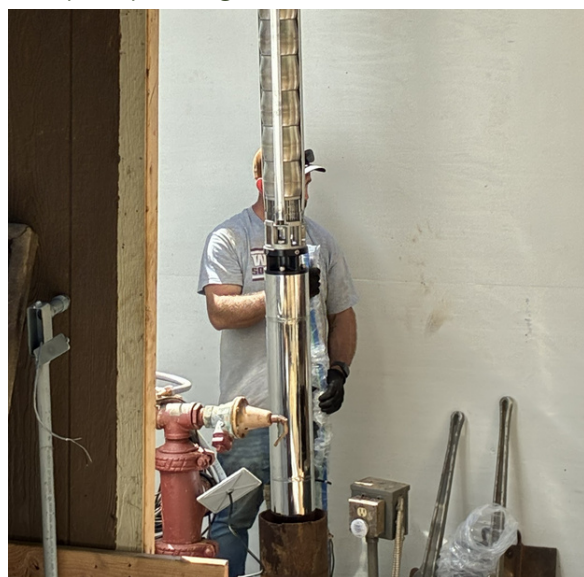
The photo at the bottom of page two was taken today, as the crew came back to hook up all of the wiring and get the pumps running. As of this afternoon, one pump was running, with the second one being set up as this article is written. This will be the last day on this project for the Nicholson crew, and we thank them for their hard work and dedication to get out to the island for these repairs. "You guys are lucky" was the quote from the contractor as he discussed our water conditions with Russ Rodocker, the Lake Josephine Water Superintendent. Russ touched on our quick-refilling-aquifer, undetectable levels of PFAS, and award-winning water quality.

Over the next couple of days, the Lake Josephine Water Department will test the water coming out of the new pumps and ensure proper function of these wells before hooking them back up to the main system and returning them to full operation.

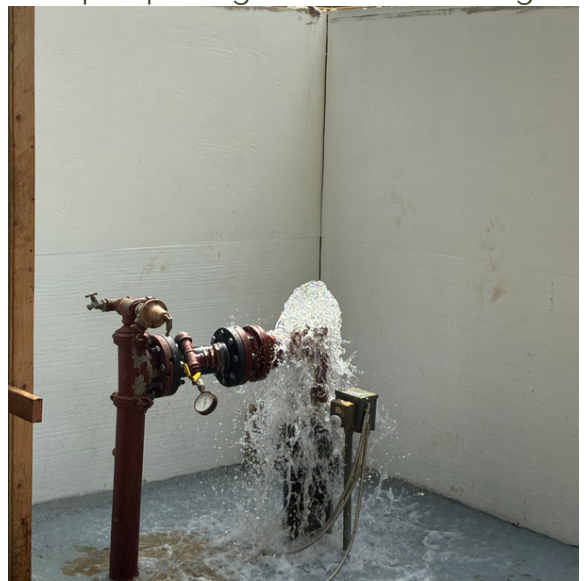
The crew from Nicholson Drilling will return to the island some time in October or November to complete the final of these 3 well pump replacements. I've been told they'll need a bigger crew as the next well to be replaced is over 200 feet deep! Thank you again to our own Lake Josephine Water Department and Nicholson Drilling for completing this project without interruption to our water system.



Old pump being removed.



New pump being installed into casing.



Testing flow of the new pump after instalation.