Water Committee Report
November 2018

I am happy to report that the work to improve the alarm reporting capabilities and operation of the wells and booster pumps is complete. This work began under past committee chair Rick Galvin and assumed by myself after his departure from the committee. this work included the following:

1- The installation of new electronic source meters. One of the old meters had quit working all together and the other was recording questionable results. Source meters are required on all municipal wells in Washington State. Water systems are required to record and maintain records of all water withdrawn for domestic use. Paradise is unable to determine it's water production for a significant portion of 2018 due to the source meter failures and therefore will not have an accurate record of water production. These numbers are needed to calculate water loss due to leaking when compared to the water delivered to the service meters at each lot. The unaccounted for water is required to be reported to the Department of Health. Should this number exceed 10% of the total production the system is required to take steps to reduce it. This year we will not have accurate actual reporting numbers.

This portion of the project was hindered by the type existing wire in the ground used to communicate between the south well and the controls at the booster pump house. As a result we are unable to electronically report the south well meter readings but manual reads can still take place as in the past. I didn't feel the expense of running new cable was worth the luxury of electronic reporting for our small system where manual reading is easily done. Both meters are working properly and accurate production totals can now be recorded.

2-The installation of new floats in the ware storage tank. These floats were in need of replacement. An alarm float had failed completely and an additional float was needed to properly configure the start/stop features and sequence of the lead/ lag well pumps. This portion of the the upgrade new floats were installed, The old floats were connected to a rope with an old pump used as an anchor. The rope was frayed and could have easily become a media for bacterial growth. This rope and pump system was replaced with stainless steel chain that will serve as both an anchor and allow for permanent proper spacing of the new floats.

3-Conversion of the well controls to low voltage. It was discovered that the old floats were switching 110v control circuits underwater in the tanks. Not only is this unsafe but could result in a complete control failure if any of the floats wire insulation failed and caused a short circuit. These control circuits were converted to low voltage as were the well controls.

4-The installation of a new monitoring a reporting alarm system. Finally a new alarm monitoring system was installed. This system monitors various functions of the wells, booster pumps, system pressure, and the generator. The system reports via a cellular data line to Mission our contracted monitoring company. Should an alarm condition occur dial out and emails will notify Northwest water and myself. I also receive weekly reports from the system indicating if any alarms occurred and the response time of acknowledgement.

It was a lot of work. All of the contractors were paid but I want to a thank Rick Galvin who volunteered in the heat of this past summer to hand dig a 15' ditch from the pump house to the well house for new cable needed to provide the low voltage upgrade. It was hard ground and obviously a lot of work.

This project made the system safer, compliant, more reliable, reduces response time, and protects our equipment. I'm glade it's finished.

Another project in the works is the cleaning of the storage tanks and the flushing of the water distribution system. We've entered into an agreement with a company called Liquivision to send a diver into the storage tanks and vacuum out any sediment and inspect the tanks from the inside. This hasn't happened in quite some time and we wanted to do that prior to flushing the hydrants. The latest information I have is that we will be scheduled sometime in January for this work. In April I have a circuit rider from Evergreen Rural water coming out to help us flush our hydrants. They have a diffuser and metering equipment so we can account for the water used for flushing and protect the ditches from erosion during the discharge of the high volumes of water released during this process.

Speaking of hydrants, you have to have noticed their paint job. Joe Quarto and his wife took on the job of painting them this past summer. The tops are different colors according to fire code to let firefighters know how much water volume they can expect from each one. I think we have some of the best looking hydrants around.

Big thanks to Larry Pazaski and Joe Quarto for exercising our street valves and blow offs. See Larry's report below:

PSA Water Committee report, exercising Distribution System valves, 11-14-18November 14, 2018

PSA Water Committee(W/C) Report to W/C Chairman, Tom Moore & PSA BOD

Subject: Report on PSA Water Distribution System,

Water Committee Action Item - Exercise 45 - Water main shutoff valves, serving 16 - Hydrants, Street crossings, Sub-Main crossings, and, 8 - Blow off Standpipes.

4 days of Field work performed by PSA Directors, W/C members, Joe Quarto and Larry Pazaski,

Work performed on October 10, 12, 17, & 19, 2018 .

Field notes and report prepared by Larry Pazaski

Report Details:

Total of 45 shutoff valves exercised (fully opened and completely closed) to evaluate if valve mechanism is working smoothly, and, if not working properly, notes made to monitor in 6 months, or plan for service repair. Other service notes included for consideration

Note #1. PSA Water Distribution system has not received State prescribed annual exercising of valves since 2010.

After 8 years, most valves had resistance during opening and closing, indicating residue / corrosion in valve body. Most valves after going through several cycles, moved freely, with some exceptions, and will need further inspection by qualified professionals, to determine if replacement is warranted.

Note #2 All 8 standpipe blow off valves were opened, and exercised. Observed brown water discharge on opening of valve, then allowed water to run until clear for up to 3 minutes.

2 - 2 1/2 inch diameter pipe cover caps were missing, need to be ordered.

Note #3, None of the 16 PSA Water, Fire Hydrant's valves were exercised. Only the water main shutoff valve to Hydrant was exercised. A 5 sided wrench is required to open hydrant valve, and diffuser hose is required to control water discharge, See W/C Chairman, Tom Moore's Evergreen Rural Water for equipment for hydrant service.

Note #4 Problem valve at Water Main serving Fire Hydrant in Right of Way (ROW) at PSA #1-038, (Godbolt) ROW on East side of East Mason Lake Drive East, (ELMDE), Also, cast iron collar holding metal cover plate is broken

Note #5 Sticky valve at Standpipe blow off in ROW on E. Olympic Drive #1-095, need to monitor in 6 months to verify if replacement is required.

Note #6, On the East side of Lakeview Drive, there are Water meter boxes being covered by dirt from the high bank sliding dirt down on PSA Water meter boxes.

Suggestion: Obtain Professional contractor bid. Stabilize area around PSA meter boxes with concrete blocks to hold back hillside movement.

Note#7 The areas around PSA Water system's meter boxes, fire hydrants, blow off stand pipes, and service valves are overgrown with brush in some areas. Many shutoff valve cover plates were covered with dirt debris, making difficult to locate cover plates, and requiring extra time to uncover and clear.

Should emergency work be required, it hinders identifying specific valve locations.

Note #8 Fire Hydrant in ROW on ELMDE, #2-053. The pipe under the Hydrant body is exposed. Recommend concrete blocks holding dirt to surround Hydrant pipe located at edge of drainage ditch.

Thanks for you report and the work you and Joe did.

This water system is owned by all of us and we all have a responsibility to keep it top notch. It's on solid financial ground and our rates are a pretty good deal compared to many other systems in our area. There is no need for a rate increase at this time or the foreseeable future. We have some of the best tasting water in the county. We don't need to add chemicals or treat our water in any way. That's pretty unusual in todays world. This is in part made possible by the work of our volunteers. This water system is our most important asset and ours is in pretty good shape. We certainly don't want to burn anyone out so if you would like to help out or take on a minor project let me know. At the very least please report any leaks you see promptly, keep an eye on your absentee neighbors property for any signs of a water leak and fix that leaking toilet. I can be reached at 360-426-9621

Respectfully submitted

Tom Moore