

MEMO TO: **Cameron McKay, General Manager**

FROM: **Brandon Garden, Utility Operations Superintendent**

SUBJECT: **Operations Report for the meeting of October 20, 2020; Operations for August 13, 2020 – October 15, 2020**

## **WATER CREW**

### **Leaks Repaired 2.**

#### **Lake Station Output**

August 1, 2020 – August 31, 2020

Total Flow: 35,271,800 Gallons

Daily Average: 1,137,800 Gallons

September 1, 2020 – September 30, 2020

Total Flow: 28,846,100 Gallons

Daily Average: 961,537 Gallons

Station 1	346 Eugene Dr.
Station 2	169 Terrace View
Station 3	176 Buchanan
Station 4	314 Andria
Station 5	403 Kimberly Brooke
Tank 6	481 Kimberly Brooke
Station 7	698 Kingsbury Grade
Tank 10 A&B	1640 Black Bear Run

#### **Turn On/Offs**

32

#### **Profiles/Leak Detects/Frozen Meters**

2

#### **Escrow Reads/Meter Re-Reads**

87

#### **Inspections**

11

### **Major Activities**

- Marking USA's has taken up a lot of the crew's time. There has been many large USA's that have come in covering large areas.
- Crew members have assisted with shutdowns for tie ins on the new section of main installed on Bradbury and the small section installed as part of the DCLTSA force main work. The crew has also collected all bacteria samples required before the new lines could be put in service.
- Two main line valves have been repaired. While checking valves for shutdowns for the Andria project it was observed that two valves had broken operating nuts. The crew used the vector to excavate down to the bonnets on the valves, replace the op nuts, backfill, and patch the road.
- The 4-inch pressure reducing valve at Station 7 has been rebuilt. The seat and control were worn out and needed to be replaced.
- All 3 ozone sensors at Station 1 have been maintained and calibrated for proper operation.
- The chlorine strength output was checked on the chlorine generation system at Station 1. We are starting to see a decrease in the chlorine strength, indicating the system is not operating efficiently and will more than likely require many expensive parts be replaced to bring the strength back. The salt barrel for the brine system was cleaned and maintained as part of quarterly maintenance.
- There was a damaged meter pit at 214 Terrace View. The water crew installed a traffic rated sewer manhole collar around the meter pit to protect it from damage in the future.

- A water leak was repaired in front of 190 Clubhouse Circle.
- A water leak was repaired on a section of 6-inch steel at the intersection of Edgewood Dr. and Panorama.
- The battery for the battery backup system at Station 7 was replaced.
- Several fire hydrants have been repaired in the district. When the fire department does flow testing, they will notify us if they come across and issue. When they find one, they fax us a repair form, the crew repairs the hydrant, and the fire department is notified when the hydrant is back in service.
- A leak was reported in front of 416 Quaking Aspen. Upon arrival water could be observed coming through the asphalt making the roadway damp. When using the ground microphone to listen for a leak on the watermain, no sound could be heard that would indicate there was a leak. Later it was observed there was a wet patch of pavement in the parking area for 424 and 420 Quaking Aspen. The area was past the service valve that feeds both properties, so the residents were notified, and a shutdown test was performed. The valve was turned off for several hours. When the crew came back to turn on the valve all of the damp areas of asphalt were dry and there was no sign of a leak. Water was restored to the properties and the owners were notified of the leak. The leak has since been repaired.
- A broken meter pit lid was replaced at 308 Cedar Dr.
- Prewinter site cleanup at all pump stations is underway.
- Quarterly pressure checks are complete.
- Quarterly disinfection byproduct sampling is completed.
- Calibration on all analyzers at Station 1 is complete.
- Tank inspections performed by the crew are completed.
- Fire hydrant painting throughout the district is continuing.
- Byran and Shane continue to spend time on permitting and inspections. External inspections are the only inspections being completed.
- Byran and I have been issuing connection permits and performing plan reviews.
- All monthly UV sensor verifications are complete.
- The crew has delivered shut off notices to customers who have not paid their bills.
- Non-pay shut offs and turn ons when paid.
- Board packet delivery is done by the crew monthly.
- Scheduled Intertie exercising with Edgewood continues to take place every other week. Stand by generators at all stations are exercised on non-Intertie weeks.
- End of the month radio and manual meter reads have been done by the crew.

### **GIS**

- I have been reviewing the status and updates Farr West has been making. Everything is coming along nicely.
- Corrections that need to be made have been sent to Farr West as they are found.

### **Training**

- Joe Esenarro and Mike Edwards have participated in virtual training put on by the Nevada Rural Water Association.

### **ROAD CREW**

#### **Major Activities**

- Please see attached report submitted by Joel Goligoski, Street Maintenance Specialist.

**Road Report 8/10/20-10/13/20**

### **Delineation**

Joel and Darren have been continuing to delineate the district. We are concentrating on the areas that are on a curve or have a big gap without delineation in sight distance of one another.

Joel and Darren installed 51 delineators throughout the district in the last two months. This brings us to a total of 80 we have installed this year.

### **Swale Cleaning/Curb cleaning**

Joel and Darren cleaned 194 feet of swale off Panorama, 108 feet off Edgewood, 460 feet off Easy, 150 feet at S. Benjamin and Tina, 200 feet of curb at 645 Bonnie ct.

Joel and Darren have been regularly raking pine needles out of swales along Andria, William, and Sherwood. We have picked up 4 loads of pine needles.

### **Drain Cleaning**

Joel and Darren have been cleaning drains throughout the district. Totals are 50 drains, 14 drain vaults, 13 sediment traps, 6 out lets.

### **Signs**

Joel and Darren replaced a fire hydrant signpost at 680 Bonnie Ct.

Joel and Darren replaced a street signpost at Edgewood and Panorama.

Darren repaired a fire hydrant signpost at the end of Daggett.

Darren repaired a fire hydrant signpost at the end of Cypress.

Darren replaced a one-way sign on Quaking Aspen.

### **Tree work/Brush**

Joel and Darren cut 2 dead trees at 160 Pine Ridge.

Joel and Darren cut a dead tree at Juniper near Highway 207.

Joel and Darren cut a tree that was hanging over the road before 343 Andria on the sharp curve.

Joel and Darren have cut 14 loads of brush hanging over the sides of roads throughout the district.

### **Rainstorm Clean Up**

In mid-August we had some thunderstorms. Joel and Darren cleaned up washouts at 432 Quaking Aspen, Tramway and Jack, S. Benjamin, and Tina, 210 Beverly, 141, Quaking Aspen, 184 S. Benjamin, 670 Jack, 661 Jack.

### **Patching**

Joel and Darren completed a shoulder patch on Sherwood.

Joel and Darren completed a patch in Lake Village from a water leak.

Joel and Darren assisted H. E.M. with test sites in the areas of Griffin, Sunflower and Tina for upcoming water line projects.

Joel and Darren prepped and patched 3 test sites in the roads at Griffin, Sunflower, and Tina.

Joel and Darren dug and back filled 3 test pits in the respective shoulders at Sunflower and Andria, Sunflower and Griffin and Tina.

### **Sweeping**

Joel and Darren have swept 22 loads of pine needles to date. We are currently on our 2<sup>nd</sup> rounds on the upper mountain and 3<sup>rd</sup> round on the lower mountain.

### **Yard Clean up**

Joel and Darren moved the excess chips from the sealing project from the upper terrace to the lower terrace at the yard.

Darren swept the yard to clean up after the chips.

### **Slurry Project/ Chip Seal**

Joel and Darren assisted TJ from Far West with keeping track of making sure all the utilities were uncovered after sealing of the roads.

## **Vehicle Maintenance**

Darren replaced a mud flap on truck 0610.

Joel and Darren dropped off 0025 at Velocity truck in Reno for brakes and a power steering leak.

Joel and Darren dropped off and picked up the vactor at Pete Lilly tire. The vactor got new tires.

Joel and Darren transported the Tymco sweeper to and from Reno. The Tymco sweeper had warranty work on a water pump completed.

## **FACILITIES**

### **160 Pine Ridge & 298 Kingsbury Grade**

- Judy and I have worked with High Desert Electric to have needed electrical repairs done on both building.
- Joe, Mike, and Joel repaired a damaged garage door at 160 Pine Ridge.

## **SEWER**

- I have reviewed and updated all pumping data from the main lift station and the other lifts stations.
- A sewer leak was reported at 702 Bonnie Ct. The leak was on the sewer lateral from the building to the sewer main making it the property owners' responsibility.
- A contractor building a new house at 306 Kingsbury Grade came into the office looking for information on the sewer system close to the property. I provided mapping and discussed the options he has for connecting the sewer lateral to the main for this property.
- All information that was requested for 104 Meadow Ln. has been submitted to legal counsel.

## **SNOW REMOVAL**

- Joel and I are in the process of scheduling the annual district drive through with F&B.
- I have answered many questions and provided information to multiple customers.
- I have been working with Frontier Communications to repair one of their vaults on Quaking Aspen that is damaged and will create snow removal issues this winter.

## **VEHICLE & EQUIPMENT**

- Truck 1020 (on call truck) had a routine oil change and service.
- Truck 1828 had a routine oil change and service.
- Truck 0025 had the rear brakes replaced as well as a leak repaired on the cooling system.
- The loader had all hydraulic lines for the front bucket replaced due to weather rot. The road crew was able to perform this work.
- Cashman Equipment has completed the repairs to the generator at Station 4. The radiator was able to be repaired and all costs remained within the approved amount.
- Byran washed and cleaned the radiator for the backhoe. A rodent had made a substantial nest in front of the radiator causing it to not cool the machine properly making it overheat.

## **OPERATIONS SUPERINTENDENT**

### **General**

- There was only one application submitted for the Lead Water Operator position. Joe Esenarro was interviewed and has accepted the position.
- I was selected to be a board member on the Nevada Water and Wastewater Operator's Forum. I will represent Medium Water Systems.
- I have acquired the Utility Management Certification through National Rural Water Associations Water University. This certification program is designed to recognize the professional educational achievements of individuals and to market their achievements and skills to increase the value of today's water professionals. I am one of three people in the state of Nevada that have this certification.

- I have reviewed and updated the job description for the Lead Operator position.
- I have helped Brandy with invoice issues for water supplies.
- The current line locating and leak sounding equipment is showing wear and is nearing the point of replacement. The crew and I have been looking into newer technologies for line locating and leak detection. We have demoed one model and found it too complicated and complex for efficient use. I am looking into other options and brands to hopefully demo and find options for this work that will assist the crew in line locating and leak detection.
- I have spent a lot of time going through boxes and boxes of paperwork that came from the Business Contracts Managers office when it was cleaned. This process has been very time consuming as I have had to go through every single sheet of paper individually to verify that nothing is destroyed that could lead to leaving the district vulnerable to a records retention violation. I have found on many occasions original signed contract and project documents that were never filed nor saved electronically. I have found titles for vehicles and equipment that were in with printed out emails that had no correlation with the vehicle, nor had the vehicles ever been registered with the Department of Motor Vehicles. My intention is not to put anyone down or spread ill will but to express the time that is being taken to do this task along with the other day to day operations. I foresee this taking many months to fully complete.
- *I have been working at finding a new supplier for liquid oxygen. Our current supplier, Praxair, has informed us they will no longer provide product to Lake Tahoe.* We have entered into an agreement with Linde Chemical for them to be the main supplier of liquid oxygen for Station 1.
- I was requested by Arizona Pipeline to identify lines that were exposed as part of their work in Lake Village to relocate underground powerlines. The lines in question were drilled while a repair band was in place to cover the hole if it was a live water line. All lines in question were not live water lines and were not sewer lines.
- Blue Lock Diving has completed the diving inspections and cleaning at Tank 3 and Tank 4.
- The owner of 745 Gary Lane has been having issues with his pipes freezing in the crawlspace. I provided him with information to help alleviate this issue.
- Andria Dr. curb and gutter information gathering and requesting quotes from contractors.
- I have provided cost breakdowns for the Juniper Waterline project to Kim Garon at South Tahoe Public Utility District. She oversees the Fire Partnership Protection Grant. A portion of the Juniper project will be reimbursed through this grant.
- Joe and I worked with the caretaker for Granite Crest to notify them of a substantial leak on their property. I was contacted by a contractor that the work will begin October 16<sup>th</sup>.
- *Work has started on product purchasing for treatment and distribution supplies that were budgeted for this fiscal year.* This work is ongoing.
- Time has been spent on project related items for the Juniper and Andria projects.
- I have been working with Farr West on the chlorine generator purchase.
- Time has been spent investigating meter and consumption data for meters within the Tahoe Beach Club.
- I continue to work on better ways to track connection permit status.
- I have started assembling KGID's Risk and Resilience Assessment.
- I continue to review and make changes to our conservation plan.
- I have been assisting with connection permits and plan reviews.
- I continue to keep you updated on all the crew's operations and mine as well.
- I have completed the monthly pump reports submitted to NDEP.
- Quarterly sample reports that are submitted to NDEP have been completed.
- The fuel use reports have been updated.
- I have visually inspected and reviewed all projects performed by the crews throughout the district.
- I continually review timesheets, and approve overtime as needed.
- I review all crew Daily Field Report. These reports are used for the crews to document their day to day operations and tasks.

- I have approved all invoices for the field crews.
- I have reviewed all backflow test reports.
- I have reviewed all GPS reports for field crew vehicles and fuel reports.

## **PROJECTS**

### **Andria Road Rehabilitation**

- After paving there were two sections of the project that did not meet the design specifications. The thickness of asphalt in the south bound lane between Barton and Bradbury did not meet thickness requirements and the corner at N. Benjamin and Andria did not meet design grade. These parts of the project were rejected as defective work. Aspen, West Coast Paving, Farr West, and KGID personnel were present to discuss the defective work. Aspen wanted to resolve it with a decrease in pay and leave the defective work in place. This option was unacceptable to KGID and stated to Aspen they needed to correct the defective work. Aspen and West Coast developed a plan, submitted it to Farr West for approval and completed correcting the defective work on October 9.

This project is getting close to exceeding the Board approved amount for construction including the 10% contingency. There are still some outstanding items that need to be presented for review but the rough calculation as of right now look like the project will be just under budget. Until all change orders and closeout items are finalized the exact amount is unknown.

### **Juniper/Kjer Water and Road Improvement Project**

- Substantial completion has been issued and the final punch list items have been completed. The last few items before this project is finalized are currently in the works. This project is expected to come in significantly under budget.

### **2020 Sealing Project**

- Once record drawings are completed, the GIS is updated, and final completion is sent to the permitting agencies this project will be completed and closed out.

### **2021 Waterline and Road Improvement Project**

- Summit Plumbing has completed marking the sewer main and laterals within the project boundaries. KGID's road crew assisted with the GEOTECH work by performing the saw cutting of the asphalt, excavation at test sights, backfilling, and patching. The water crew has performed flow testing of the gutters to look for areas of concern with water leaving the gutter and traveling over the roadway creating icing and freezing concerns in the winter months. There is a significant cost savings to have the crews perform this work.

Farr West is currently in the design phase for this project.

## **Meetings**

- Tom Hoffert, Farr West Inspector, and I met to check grade at the N. Benjamin and Andria corner.
- Site meeting with Aspen, West Coast Paving, and Farr West to discuss rejected work.

## **Training**

- Instrumentation, Controls & SCADA Technology, this was an 8-hour virtual training.
- Wildfires and Resulting Impacts to Water Bodies Used as Drinking Water Sources, this was an hour and a half long webinar put on by the federal EPA.
- Protective Coating Performance Matters: Implications of NSF Std. 61 Changes, The National Sanitation Foundation, NSF, has updated and published a new renamed Standard 61 as NSF/ANSI/CAN 61: 2018 Drinking Water System Components-Health Effects for the US and Canadian water industries which for the first time is also published as National Standards of Canada. NSF Std. 61, a voluntary consensus standard, has been widely used in both the US and Canada since first published in 1988 as part of the Safe Drinking Water Act implementation. This presentation included a review of the recent NSF changes to Std. 61 and the new Std. 600 and the implications on commonly used protective coatings technologies for potable water service.

## **WATERLOSS**

Month/ Yr	Finished Water	Plus Water From EWC	Plus Water From RHGID	Less Water To EWC	Net Water	Billed Water Cons	Water Loss	% Water Loss		Raw	Net Raw	Loss/Gain	% Water
										Water	Water		Loss
<b>2020</b>													
May-20	20,550,700	0	27,000	201,116	20,376,584	18,984,747	1,391,837	7%		19,810,000	19,635,884	651,137	3%
Jun-20					0		0	#DIV/0!			0	0	#DIV/0!
Jul-20	33,914,600	24,506	64,000	0	34,003,106	30,080,352	3,922,754	12%		30,290,000	30,378,506	298,154	1%
Aug-20	35,271,800	29,500	60,000	15,292	35,346,008	31,554,713	3,791,295	11%		31,970,000	32,044,208	489,495	2%
Sep-20	28,846,100	111,598	84,000	106,752	28,934,946	25,536,013	3,398,933	12%		25,960,000	26,048,846	512,833	2%
Oct-20					0		0	#DIV/0!			0	0	#DIV/0!
Nov-20					0		0	#DIV/0!			0	0	#DIV/0!
Dec-20					0		0	#DIV/0!			0	0	#DIV/0!
					0		0				0	0	
					0		0				0	0	
					0		0				0	0	
					0		0				0	0	
<b>TOTAL</b>	<b>118,583,200</b>	<b>165,604</b>	<b>235,000</b>	<b>323,160</b>	<b>118,660,644</b>	<b>106,155,825</b>	<b>12,504,819</b>	<b>11%</b>		<b>108,030,000</b>	<b>108,107,444</b>	<b>1,951,619</b>	<b>2%</b>