



MEMORANDUM

To: Nederland Board of Trustees
From: Jason Morrison
Date: September 10, 2014
Re: Staff Report -- Public Works

Department Overview

August is a busy month for the utilities and streets divisions. With hydrant flushing, culvert cleaning, sign replacement, and various projects to wrap up before winter, the work seems never ending. The sewer line rehabilitation project has restarted, the raw water intake structure is near complete and vacuum truck training for jetting culverts and sewers are just some of the projects that were being tackled last month. In addition to field work, budgeting has commenced and CIRSA (annual insurance) inspections have happened. No safety violations were reported at either treatment plant and only some minor recommendations resulted to repair in parks and the Town shop (though the overall issues with the shop were recognized). We also had fire extinguisher training from the fire department and participated in vetting for on call engineers. Additionally, we hosted a tour for Wild Bear Nature Center to discuss the importance of not polluting our waste water stream.

Raw Water Diversion

The intake structure at the raw water pump station is almost complete. After installing the infiltration gallery last month, the structure has been opened up to the creek and allowed to flow. Rocks have been set in the creek to elevate water levels, completing the fish ladder. The final phase of the project is to connect the infiltration gallery to the pump station, which will hopefully provide another level of pretreatment before entering the water plant. This next phase will continue during the month of September.



Water Plant

Construction of the water plant bathroom has begun. Boulder County's permit requirements such as handicap accessibility and lighting efficiency has slowed the project and added more cost; however, we are moving forward. To save money, utilities staff will have to take on the less technical aspects of construction which may further slow progress.

Also, we have been in contact with Xcel Energy throughout the year to resolve power spikes that plagued the water plant last year. Our problems generally begin when Eldora ski resort starts operations for the year, causing power disruption and utilities staff to lose sleep. Xcel plans to resolve this problem by installing a new transformer sometime in September. We have been staying in constant communication to make sure this happens.

Distribution



Fire hydrant flushing in Big Springs is in progress. Utilities staff has taken a more comprehensive approach to assessing conditions of hydrants, mapping using GPS, exercising valves, recording flow data, and eventually entering into a data base. Hydrants in Big Springs have been neglected for many years, and many are in need of repairs or replacement. Utilities staff will focus on repairs and upgrades during the month of September. We also have parts ordered

for the replacement of the last pressure reducing valve (PRV) to be upgraded in our distribution system. This last PRV is located in Big Springs and is expected to improve water quality and flow.

Waste Water Plant

The waste water plant has been running well. The sludge hauling from the pond is complete and an overall assessment of sludge quantities and containment volumes is under way. We have begun decanting the pond to return to normal operational levels as designed. We hosted a tour of the facility for Wild Bear Nature Center. This was a fun way to teach children the importance of not polluting our wastewater and helping them to understand where our water goes. This also helps to fulfill the education obligation of our IGA with Boulder.

Collections

Work was started to complete the final phase of the sewer line rehab necessitated by last year's flooding. Crews have mobilized and have begun the tap sealing process. We expect this work to reduce infiltration of the lines (I&I) significantly, and should be completed in the month of September. We have also trained the crew in the use of the Vac/Jet truck and plan to use it for sewer jetting as well as culvert cleaning and valve box rehabilitation.



Streets and Drainage

With vacations complete and the entire crew back in good health, we have enough people to start working on all those projects that take more than one or two people to complete. Although we have completed a majority of the scheduled projects for the summer, we still have a plenty of work to do. We have been experimenting with a new road base that has a higher PI (plasticity index), which basically means it has more clay in it and so far it seems to be doing great. After a couple days of

traffic on it, it becomes very smooth and extremely hard. I am hoping this will hold better in the summer with less crumbling and less dust. This type of material costs more than other materials, which means less application throughout town but that also means less material will end up clogging our ditches and running into waterways. The jet truck (pictured above in action clearing a culvert on West Fourth Street) has proven to be a very valuable tool. It took about ten minutes to clear a completely clogged culvert, a job that would ordinarily take an hour or more by hand.

Parks

As some of you may have noticed, the swings in Chipeta Park are missing. This is due to our annual CIRSA safety walk-through, when the inspector noticed cracks which she believed to be a pinch hazard and requested they be removed and replaced. I have ordered two new swings, one toddler swing and an ADA friendly swing. It was also suggested we look at wheelchair friendly play surfaces such as rubber mulch instead of gravel, which is required to be at least 9 inches deep. I will be getting prices of different options to present for consideration in next year's Capital Improvement Plan (CIP). Also, a couple of picnic tables that were hidden in the willows by Middle Boulder Creek were removed. These tables have been repeatedly vandalized and burned and made for great off ground sleeping areas as I found out the day we removed them when I had to wake up a couple of "campers" who were sleeping on them when I arrived. We have ordered new signs to hang at the park to remind people not to camp in park. With the temperature, we are considering winterizing a couple of weeks early this year, but will play that by ear.