

April 2020 Curtiss DPW Report

- Weekend Alarm
 - Friday night the 13th I got an alarm call for the Backwash mudwell level. For some reason the transducer decided the water level increased a few inches even though nothing was coming in. The level was higher than normal because I was having trouble getting the pump to run the times it needed to and I later figured out how to change the times correctly. The system was designed to pump some out every day and therefore not overload the WWTP with a big dose of chlorine all at once. There had been no backwash mudwell level increase for more than two days so I am not sure why it detected it then. Team viewer then failed me as somehow the password got reset. I was able to view the computer remotely through a remote desktop app on my phone but not turn off the alarm on the SCADA because the app was not working right. But I did confirm that the level was not an emergency so I went to bed. I had acknowledged the alarm through the phone system so I thought things should be fine. An hour later it called me again. I then realized that it was going to call me every hour until I could turn it off at the SCADA (since I was not able to do it over Team Viewer). I came in and turned it off and fixed the Team Viewer problem among doing a couple other small things
- Well #11
 - Well #11 went on line on the 19th. Iron levels in the raw water are definitely higher as expected. It is too early to determine how much oftener I will need to backwash. I would expect an increase but so far it has not been drastic. I am having some issues with the VFD (variable frequency drive) but we think it is just some settings that I can change once we talk to the right person. For now I set the SCADA cut off point high enough that the SCADA turns the well off rather than letting the VFD change the speed. GPM ranges from 25 to 10 depending on drawdown. After the initial drawdown it averages around 11 GPM but it is not currently running solid all day long like the rest of the wells because of the VFD issue.
- Backwash pipe
 - I am very grateful that it appears that the third patch attempt was successful. It held up fine for the whole backwash cycle.
- Meter Project
 - The meter project is postponed until the virus stuff blows over. Hydrocorp simply needs a 35-day notice when the project is to be restarted.
- Chlorides
 - The Chlorides at the Pork Plant have been an issue this month again. With the ice melting on the ponds I am hopeful that it is diluting the wastewater currently in the ponds and I can soon discharge what is in them, but I am not sure what things will look like when we get the new batch from the lagoons that was just given us. Possibly the inflow and infiltration from the spring thaw might help us there. I took a sample of the two last ponds this past Thursday (March 26th) and I am optimistic that it may indicate that I can start discharge later this week. We had about 4.5 feet of freeboard on the ponds and we are now down to about 2.75 feet. I also raised the height of the first lagoon and may need to do more. Something has to happen soon. Randy,

Davy, and myself have all communicated with Abbyland in this regard. I appreciate Randy and Davy joining my voice as it seems to add more weight to it.

- Asphalt meeting
 - The Asphalt meeting was very informative and I was pleased to hear some evidence presented that confirmed my growing suspicion that there had to be a cost effective way to prolong the life of asphalt if done at the right time. If you wait for the asphalt to show obvious signs of aging before you decide to do maintenance, the cost of the maintenance goes up exponentially and the effectiveness of it goes down exponentially. If preserved/maintained correctly, the lifespan of a road can be extended easily to double or triple the normal 20 year expectancy, from what was presented. The primary cause of asphalt road deterioration is a breakdown of the flexibility and density of the road mass (this is referred to in different terms by different people). By adding penetrating additives or sealers the flexibility is prolonged and the density or tightness of the road is preserved/maintained. This translates into less cracking from movement and less water penetration into the surface of the road due to porousness. If water can seep into the road surface itself, it then can break up the ties in the asphalt that holds it together. Obviously, once you have cracks they need to be sealed or the base of the road will become compromised. I am planning on looking into options more closely to see what would be the best for the Village and hopefully presenting something to the board in the future.
 - See graph
- Well Rehab
 - MSA is planning on getting info to me on this
- Treated and Raw Water numbers
 - The auditors got flags from the PSC reporting system because our treated numbers are much higher than our raw numbers. Logically, we cannot treat more water that we bring in raw. For 2019 we reported around 59 million Raw and 60.5 million treated. That is a 1.5 million difference. The amount we sell to customers reflects the 59 million. I eventually figured out that the discrepancy is caused by treated water being returned back into the raw clearwell for Chlorine application. The PSC would obviously like this figured in. In order to accomplish this precisely I plan on using a couple of our old spare meters that will not work with the new system to get accurate numbers for the PSC moving forward.
 - They also informed me that we are supposed to be on a 2 year accuracy testing schedule for the treated water meter. I believe this is something that can be done in house fairly easy.
- Water and Sewer rates and Abbyland agreement
 - While you are thinking and considering things with both Water and Sewer rates and the Abbyland agreement, I thought I should pass on some information given to me by the DNR and other sources during training. They strongly encourage us to address four main points in our utility budgets and have funds set up or aside for each.
 - Operation and Maintenance – Funds to operate and maintain the current system
 - Capital Improvement - Setting aside funds for future utility expansion
 - Debt retirement – Paying off debts

- Replacement – Setting aside funds for replacement of aging utility equipment and structure
 - I have not seen or analyzed the current budgeting stuff so I do not know the current situation. I know in the past we were not doing much on the Capital Improvement and Replacement areas as far as setting funds aside. If you are interested in changing this trend, while you are looking at rates would be the time to consider it, particularly if you decide to do more than just a cost of living rate increase with the water rates. I know that the PSC has been favorable to other municipalities who have taken the step toward saving money ahead rather than paying for improvements or replacements after the fact.
 - Also, another item that has come to my attention that you may want to keep in mind with all this is something Bill Biel mentioned to me. He said that if we end up needing to do major changes at the WWTP (Wastewater Treatment Plant), Harland may very well consider changing things regarding the Pork Plant. The possibilities that He mentioned included them hauling all their wastewater to their own wastewater plant in Abbotsford or rebuilding the Pork Plant in Abbotsford. He then mentioned at a meeting with Randy, Mike Voss, and myself that the Pork Plant is aging and rehabilitation or rebuilding is a future possibility. This translates into the possibility that we might lose the Pork Plant as a source of income. The agreement protects us in many ways so I am not sure how much of an issue this could become. The concept of saving money ahead for replacements and capital investments would cushion the Village somewhat if something drastic were to happen.
 - Abbyland pays a certain amount per the agreement for Capital Investment and Replacement costs. This would not necessarily change if you were to save ahead as most of the money saved would be from them in the first place.
 - See “How saving ahead affects end cost” and “Back-of-the-Napkin Asset Management” articles.
- Overpass Pole Lights south of 29
 - After some exploration but no solid conclusions, I got Frank out to help when he was available (I think he was more available because of the virus stuff going on). It took some head scratching and one person pulling on wires in one manhole while the other person watched in another manhole to figure out where things were going (after we were done I drew a map). Obviously, the one light pole has not been on for some time as the lines have issues that I plan to look into down the road. We finally located where the power comes into that group of manholes and poles but found no power anywhere. After some more looking around we saw a box down by the woods not far from the first house south of 29. It turns out that the power comes from that box not the one on the north side of 29 as assumed previously. Thankfully, the needed fix was just a relay switch and as of the morning of the 28th the two lights that have wires are working.