

## **Forest View Acres Water District**

Operations Report – January 2011

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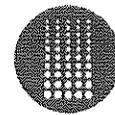
### **Treatment Plants:**

#### **Arapahoe Water Plant:**

- I have gotten approval from Palmer Lake Water and Sanitation District to tie the bypass and the pressure relief piping to the sewer. As soon as the piping is redone, a representative from the sanitation district will come and inspect/approve of the additional water going to their sewer system.
- All Cla-valves have been repaired in the Arapahoe. This has caused some issues with the one downstream of the booster pump functions. It appears that it was not in working order before and now that it is repaired, it can not function as intended without upgrading parts or putting more pilot functions on it as an add in.
- See attached email from Devin with suggestions of how to improve and simplify the well/booster pump station combination. I would strongly recommend this and hope to have a price quote by the meeting. I do have access to 2, 3000 gallon plastic tanks that the district may be able to pick up inexpensively.

#### **Transmission Line/Booster Station**

- Booster station began showing signs of rocks getting lodged in the 20 Hp pump, valves and pilot piping after the new transmission line was tied in. The transmission line was flushed for 24 hours from the Arapahoe with the well and booster at the Arapahoe running full boar. After the fist 3 hours of flushing, we noticed gravel and dirt in the sample water that we collected. We also noticed a high chlorine demand on the water being flushed out. We had a 100% loss of chlorine residual for the first 4-5 hours of flushing from the Arapahoe to the booster station.
- We noticed the rocks when one got lodged in the check valve and we sent a surge of almost 300 psi down to the Arapahoe.
- It was agreed last board meeting that we would install a screened trap up stream of the booster pumps to protect them. We tracked down the screen that used to be in the booster station and had in re-installed by Renegade Systems.



- At this point we had to either have the screen in or the check valve and we opted for the screen to be able to use the 7.5 HP pump without potentially ruining it with rocks as well.
- We continued to flush the line and continue to get rocks, gravel and sand out of it. Due to the piping configuration and lack of space, the screen only protects the pumps and valves, leaving the pressure relief valve unprotected.
- Devin w/ help from Kempton replaced the 20HP pump components with a spare that we had. Kempton has reinstalled the check valve, in addition to the screen.
- All of Devins' time associated with rocks at the booster station will be billed separately and forwarded to Kempton. The old 20HP pump side needs a complete overhaul. It has multiple rocks stuck in it and will need to be fully inspected and probably rebuilt.
- See diagram for recommended improvements to the booster pump station through the addition of a tank.

#### Surface Water Plant:

- See attached production spreadsheet for particulars on water production.
- The Act-Pak has been ordered for the triple 4-20mA output from the flowmeter to pace the chemicals the correct way.
- The backwash controller has been relatively inconsistent. It tries to open valves when they should be closed, it skips steps and ultimately in not functioning correctly. Since Brenda is so familiar with the proper sequencing, she can alter things to ensure that we are getting a good backwash every time. This is more of an FYI, than an action item.
- The auto-dialer has been installed and is working.

#### **Distribution system**

- We made it through the extreme cold weather without any mishaps, that we are aware of.

#### **Action Items:**

1. SWWC is requesting that further discussion be made on upgrading and simplifying the pumping configuration of the Arapahoe and booster station combination.
2. 20HP pump need to be inspected, parts replaced and rebuilt due to rocks getting lodged in the impellers. Time and materials for this. To be billed to Kempton.
3. Spare pump side needs to be ordered for the 15 HP Arapahoe booster pump. This can be purchased for \$1442.00