

Date: March 8, 2021

City of Ely: Water and Wastewater Systems

From: Raul Naranjo, Water, Wastewater DRC, and Laboratory Director

I visited the facilities on March 6, 2021.

## **1. Laboratory**

- a) Phone, we installed a new phone at the WWTP office. We replaced two phones with one answering machine phone. I include this so you can understand how I think things ran before. The two old phones were just an answering machine, and the other was to talk.
- b) We got a new incubator for the Total Suspended Solids (TSS) test. This test is a process control test we can now run to make adjustments when necessary. We do conduct this test using a contract laboratory, but it sometimes takes weeks to receive the results back.

## **2. Wastewater Treatment Plant**

- a) There have been several times that Mario has noticed blue water coming down the influent channel. Blue chemical is usually associated with Porta-Potties. I believe that someone is dumping within the system. Which is illegal; I think we should send out a letter to the two companies that do that type of business around town stating that fact. Hopefully, that will discourage them from illegally dumping. I think the following ordinances apply.

10-1-3-18: SEPTIC TANKS:

A. Contents: It is unlawful for anyone to discharge the contents of any septic tank, cesspool, or chemical toilet into the sewer system of the city except in accordance with the provisions of this chapter.

B. Designation of Places; Manner of Discharge: The department shall designate, in writing, the particular points where the contents of septic tanks, cesspools, or chemical toilets can be discharged into the sewer system and the manner in which said contents shall be discharged. No matter prohibited from sewers by this chapter shall be permitted to be so discharged. (Ord. 453, 11-29-1990)

#### 10-1-4-23: PENALTY:

Any person violating any of the provisions of this chapter shall, upon conviction thereof, be punished as provided in section [1-4-1](#) of this code. Each day's violation of the provisions of this chapter may be deemed a separate offense. (Ord. 453, 11-29-1990)

- b) Return Activated Sludge (RAS) flow meter I picked up in SLC and dropped off at the plant.
- c) Centrifuge sludge pump, the pump stopped working earlier in the week. Mario had an electrician look at the motor, and he said the motor was bad. Mario and I spent some time on Saturday troubleshooting the motor. We disconnected the gearbox and the motor. The motor worked fine; we found that the gearbox had lost all of its oil, the mechanical seal went out. We also found that the drive belt sheaves were not aligned. We filled the gearbox oil back up and put everything back together. The motor is also on its last leg; there's winding dust coming out. I have asked for a replacement motor from the manufacture; this particular motor is obsolete. We turned it on, and it started running again; there is a banging noise on the gearbox.  
I have asked for money for next year's budget to upgrade this pump; I have also talked with Public Works Director Cracraft. He has given me the ok to replace the motor and pump. I will look into pricing and availability.
- d) Aeration Blower motor we set replacement motor in, still need to be wired and the belt put on.
- e) We had Mark with SKM (SCADA Programmer) program the Aeration Blowers to the SCADA. This will give us an alarm if the blowers fail. He did the work remotely. The wiring was done by EPU on their last visit, but the programming was not completed.
- f) Influent Drum Screen, a bearing is out. A replacement was ordered, and we will replace it when it gets here.

### 3. Water System

- a) Sampling requirements for 2021 arrived and reviewed

- b) Everything looks clean and in order; they have done an excellent job of maintaining the water sites.
- c) The highway project involves large sections of the waterlines to be replaced. We need to monitor and inspect for correct installation. The water department is going to be helping with the water testing.

Items Pending:

Float in the digester; we found a malfunctioning one. We need to drain the tank to install the new one.

Plant internet, we need to upgrade service to use the SCADA program to its full capability.

We need to install the flow meter on RAS pump 2 to get accurate readings.

I need to do more water system training with the new water system operators.

Finish updating WWTP operator job descriptions.

The annual Water Quality Report (CCR) will be completed by the due date of April 1<sup>st</sup>.

Centrifuge control panel upgrades, scheduled for the first week in April.

Lift Station, inspection hatches need to be replaced.

Drum Screens, blades need to be replaced.

Laboratory, annual internal audit. I plan to be there on 3.11.21 to conduct this audit.

This is only a very brief explanation of some of the items that we are currently working on. If you would like a more in-depth explanation, please contact me at any time.

**I want to state that the people and companies I have recommended have only a working relationship with me, and I will not benefit from them getting work from the city.**

**I would also like to extend an invitation to all council, board members, and office personnel to tour the facilities.**

Please feel free to contact me at any time if you have any questions.

Thank you,

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City of Ely

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