

## **Water and Wastewater Items to be Repaired or Replaced**

**As of 8/17/23**

Completed items have been moved to the bottom of the list. Items that have changes since last update are highlighted in green.

### **Water:**

Tom Allen is waiting on parts and will work us into his schedule as soon as he can.

- Wire and calibrate PH Meter at water house.
  - The PH Meter will be contacted for guidance on calibrating the PH Meter.
- Replaced failed water tank mixer that is not working.
  - We have received two very different quotes. Cote is following up with both companies for more details and then we will make a decision on a recommendation to the Commission.
- Update operators manual at water house.
  - Project is ongoing. Paula Jackson from Vermont Rural Water is assisting on this project
- Common alarm at water house is malfunctioning.
  - The monitoring system for the water pumphouse and tank has been repaired by Tom Allen.
  - Currently the common alarm sends the same alarm for any issue at the wastewater pump station and the water house. Tom Allen is working on separating these two alarm systems so staff can tell if the alarm is coming from the wastewater pump station or the water house. There is also a malfunction that continues to send an alarm which Tom is looking into.
- Water Meter Replacement
  - Agreement is being reviewed by that attorney. Once this is approved we will officially sign on with Zenner.
  - We are working on an RFP for the installation of the meters.

### **Wastewater:**

- The dialer to the pager from the alarm system needs to have installation finished.
  - The dialer has been installed. In this process it was found that the phone line was inactive. Staff is working on activating the phone line.
- Finish creating checklist for post power outage procedures.
  - This has been 90% finished. There is just some formatting to adjust before it is finalized.
- Repair check valve on older pump in the pump station.
  - This work is being scheduled with Phil Laramie.
- Repair one backwash pump. Replace one Backwash pump.
  - The new pump has been installed.
  - A second new pump has been ordered with a ship date of August 3
    - The plan is to purchase a new pump to replace the older pump currently in place. Then use the older pump currently in place along with parts from the pump Phill Laramie has to rebuild a pump to have on hand as a backup.
- Assess why the recently installed grit motor is not functioning properly.

- Wiring has been addressed but this did not fix the issue as solids are still appearing in the grit. This could be an issue due to the age of the equipment and may not be solved until there is a full replacement of the equipment. There also is still an issue where the controls at the machine indicate it is running but this is not feeding back correctly to the SCADA.
- Replace auger liner.
  - The liner and the screw were both replaced in Spring of 2022.
  - The screw broke in December 2022. During this repair staff observed that the liner needed to be changed.
  - Need to schedule Phil Laramie to conduct this repair. This is a two-day repair where we cannot accept septage.
- Investigate issue with one side of the dewatering press.
  - The dewatering press has two sides. One side is running as it should. The other side is producing too many solids in the outflow. That side will be inspected to determine if a ripped screen is the issue.
- Air valve on dewatering press needs to be replaced
  - Staff will order a new valve and install.
- Repair hazardous gas alarm.
  - Phill Laramie will provide an estimate of cost. Once this is in place quotes will be obtained for the repair.
- Repair UV meter.
  - A \$1,500 UV meter has been purchased and is on site.
  - Installation involves a calibration based on the intensity of the UV lights. Staff is reaching out to the manufacture for information on how the calibrate the UV lights.
- Clean and repair aeration tanks.
  - Tank 1 has been drained and cleaned. The valve in the tank is operational. The diffusers are operational. The next step is to fill the tank and put it online so tank 2 can be drained and cleaned.
  - Tank 1 was utilized as an equalization basin to divert some of the flow. This has been drained and needs to be hosed back out prior to refilling and being put back online.
- Clean solids out of all holding tanks.
  - Staff worked with P&P Septic to clean the aerated holding basins which are the tanks where septage is placed when it is first received. P&P pumped out the solids out of both tanks. One load was taken to Middlebury to be dried and disposed of at a cost of \$1,455. Middlebury could only handle the one load, so the second load was taken to Winooski at a cost of \$3,230.
  - Going forward Cote recognizes that Richmond used to dry its own sludge and the drying beds are still located next to the Dewatering Building. Cote examined the beds with our licensed operator Nate Fredericks and determined that the beds could be used to dry the solids from other tanks. This would eliminate the need to outsource the drying to other facilities. An approval is needed by the State prior to commencing with this plan but Fredericks expects that to not be an issue. This will save the Town significant money over the initial cost estimates.
- Obtain quotes on meter for septage receiving.

- A quote of \$68K has been obtained. During the walkthrough for the 20 year evaluation the engineers noted that other parts of the septage receiving system need to be replaced and it may make sense to bid all of the work at once. This pushes the meter purchase off for a few months but that may be the best option for planning purposes.
- Steve is following up with Hoyle Tanner to see if there is a full meter system which would fit with any style of other septage receiving equipment which needs to be replaced in the future. If so, we may be able to purchase and install the system prior to making a decision on replacement equipment for the rest of the system.
- Install screen prior to influent pumps
  - This is a pretty involved project which will be best addressed in the 20 year study
- Ongoing work on identifying and disconnecting storm water connections from wastewater system.
- Rewire fan in Wastewater Treatment Facility so the fan and the sump pump can operate at the same time

#### **On Hold Items**

- Improve ventilation in the dewatering building
  - Avonda Air assessed the current situation and estimated a cost of \$210,000 to correct the ventilation. This may be best addressed along with all WWTF ventilation in the 20 Year Study.

#### **Completed Water Items**

- Screens on reservoir tank needs to be replaced
  - This task has been completed.
- Water Meter Bids
  - Moving forward with Zenner as of 6/20/23

#### **Completed Wastewater Items**

- Replace the second influent pump.
  - The pump from Phil Laramie has been installed.
- Repair the septage pump.
  - This task has been completed.
- Repair nonfunctioning pump in the pump station.
  - Phil Laramie has repaired the non-functioning pump and replaced the two solenoids.
- Install outdoor control for overhead doors at dewatering
  - This has been completed
- Build steps to the digester.
  - This has been completed.
- Install check valves for the influent pumps
  - This has been completed as of 5/4/23
- Repair meters that measure hours of operation for each pump
  - Dan Pratt has completed this as of 5/4/23
- The auger gear box for the dewatering press broke on the weekend of May 27 – 28.
  - This has been repaired as of June 1, 2023

- The gear box on the horizontal conveyer failed on the weekend of June 10
  - This has been repaired as of 6/19/23
- Calibrate the sensor on the polymer tank and discuss potential corrections to occasional tank overflows.
  - This has been completed as of 6/12/23
- The dewatering press is overdue to be cleaned. It should be cleaned every six months.
  - This was been completely cleaned in mid-July
- Anoxic chamber mixer
  - This was installed the week of July 5<sup>th</sup>.
- Repair to non-essential items in wastewater pump station
  - This involved correcting an issue with the float that sounds the alarm if the pump station is filling up with water. This has been corrected.
- Repair aeration in the aerated holding basin
  - This has been completed.
- Repair generator transfer switch.
  - This was completed the week of July 31 – August 4
- Return tank levels to pre-flood stages
  - This has been completed the week of August 7 - 11