

WPCA COMMUNICATIONS AND REPORTS

December 7, 2021

The following is a monthly report from the Superintendent of Pollution Control as an appendix to the Water Pollution Control Authority meeting.

General Information

RFP for Engineering Services

An RFP for Engineering Services was advertised on November 22nd to assist WPC with inspection services of the Clark Street valve installation, Phase IV construction, and also for the design and construction oversight of the UV Disinfection upgrade. The due date for the Proposals is December 16th.

Ravine Road Sewer Repair

During a routine sewer inspection the CCTV camera crew found a significant break at the 12 o'clock position of a sewer pipe on Ravine Road. ESI was called to make an emergency repair to the pipe. Despite various challenges the repair has been made without any disruptions to service or environmental discharge.

SCADA Antenna Upgrade

As part of the WPCA's budgeted capital equipment improvements, Marcus Communication has replaced the cables and hardware for the SCADA antennas at each of the pump stations. New replacement antennas are being scheduled for Orchard Hill and the Police Department. We have already experienced stronger and more reliable signals with the upgraded hardware and expect to see more improvement with the upgraded antennas.

Battery Energy Storage System

Over the last two months we have been exploring additional opportunities to reduce the treatment plant's energy bills. We are currently in the first year of a 3 year demand response program with Enel X that provides approximately \$20,000 in revenue to shed power during peak demand periods. We are also going to be taking advantage of the Platt Hill solar farm which is expected to be online in spring/summer of 2022. The solar energy produced from this project is expected to reduce the treatment plants' energy costs by 15% annually over the next 20 years.

More recently, a battery energy storage system (BESS) is being looked at by staff. There are two key financial incentives that need to be considered; Investment Tax Credit (ITC) and the Connecticut State Incentive Program for energy storage. The owner of the system is also offering an annual land lease payment.

Treatment Plant and Collection Systems

Treatment Plant

Process

TREATMENT PLANT	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	AVERAGE
AVG FLOW (MGD)	2.13	2.79	2.92	2.63	2.76	2.61	2.57	2.55	4.67	3.57	4.15	2.93	3.02
BOD REMOVAL	98.6%	97.3%	95.7%	98.2%	98.4%	98.6%	98.6%	99.0%	97.4%	98.4%	98.5%	98.5%	98.1%
TSS REMOVAL	98.7%	97.7%	95.6%	98.8%	99.0%	98.6%	98.6%	98.9%	97.4%	98.3%	98.2%	98.9%	98.2%
NITROGEN LBS. (106 LBS. LIMIT)	85	113	115	95	87	86	96	87	142	102	115	97	101.61
NITROGEN mg/L	4.7	5.0	4.7	4.2	3.7	3.9	4.4	3.9	3.7	3.7	3.3	3.8	4.08

Maintenance

- Exercise and repair Sludge Storage valves.
- Installation of davit crane for Aeration Mixer Pump 2.
- Repair of concrete steps into MCC 1 and 2.
- Installation of repaired pressure gauges on TPS Pump 1 and TWAS Pump 2.
- Worked with technician from Rodney Hunt to inspect failing Aeration Basin outfall gates.
- Weekly hot water scouring of Primary Clarifier and Gravity Thickener pipes.
- Completed annual maintenance on snow blowers and plows in preparation for winter weather.
- Repair of faulty switch for Aeration Basin 1 Internal Recycle Pump.
- Completed annual maintenance on Aeration Basin 2 Internal Recycle Pump.

Collection System

COLLECTION SYSTEM	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	TOTAL FT
CCTV (FEET)	5,223	14,848	6,544	7,100	8,621	2,977	4,077	5,457	0	0	2,080	4,959	61,886
Contracted CCTV	20,392	0	3,374	0	21,414	18,569	10,254	0	0	9,693	12,783	0	96,479
CLEANING (FEET)	25,000	10,000	3,000	4,500	7,251	22,000	12,300	0	2,200	6,050	2,700	2,600	97,601

- Repair of suction plates and transition pieces for Clark Street Pump Station Pumps 1 and 2.
- Bypass of sewer line on Ravine Road so that Environmental Services could repair a broken 8" sewer line and wye.
- Completed leaf removal and gutter cleaning at all of the pump stations.
- Continued CCTV and line cleaning work.
- Worked with Marcus Communications to get Antennas and cables for SCADA Communication replaced at all of the pump stations.

Capital Improvement Project Updates

Clark Street, Benedict Drive, Pleasant Valley Pump Station Upgrades

- Arcadis continues to work on 60% design

Next Steps:

- Engineer to perform Connecticut Environmental Policy Act (CEPA) Permit Review
- Project 90% design phase
- Submit design to DEEP for review and approval (min. 90-day review)

Phase IV Part 1

This project has been approved with the FY22 WPCA budget and will include the lining of sewer pipe and rehabilitation of manholes. The line item budget is \$750,000.

- RFP for Engineering Services was advertised on November 22nd with a submittal date to December 16th

American Rescue Plan Act (ARPA) Funded Projects

Phase IV Part 2

This project has been approved utilizing American Rescue Plan Act funds. The budget for this project is \$1,100,000.

- RFP for Engineering Services was advertised on November 22nd with a submittal date to December 16th

UV Disinfection Upgrade

This project has been approved utilizing American Rescue Plan Act funds. The budget for this project is \$1,300,000.

- RFP for Engineering Services was advertised on November 22nd with a submittal date to December 16th

Clark Street Bypass Valve

This project has been approved utilizing American Rescue Plan Act funds. The budget for this project is \$100,000.

- Project is expected to be bid the week of December 6th
- RFP for Engineering Services was advertised on November 22nd with a submittal date to December 16th

Collection of Sewer User Fees and Delinquent Accounts

Report will be provided at the meeting.

Respectfully submitted by: Tony Manfre, Superintendent of Pollution Control