

# Seabrook Sewer Department

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## MEMORANDUM

To: William Manzi III; Town Manager

From: Curtis Slayton; Water & Sewer Superintendent

Date: October 28, 2020

Subject: WWTF Upgrade CIP Article for 2021 for \$2,280,000

I have submitted for the 2021 town warrant, an article for upgrades to the Town of Seabrook wastewater system. By combining these projects described below, they are far more likely to receive funding from outside sources. The department has already applied for SRF funding through NHDES and we are at #12 on the list for funding. The project is eligible for loan forgiveness for up to \$247,000 with the balance being a low interest loan. We also plan on applying to the USDA grant program, as they have already expressed interest verbally in this project. This application is due in December of this year.

Currently the Sewer Department processes and ships 1750 wet tons of 13% bio solids per year at \$147 per ton. By upgrading the 25 year old sludge dewatering equipment to more modern technology, we can easily achieve a bio solid cake of 20% reducing the yearly production total by 615 tons. This would result in a savings of \$90,000 per year.

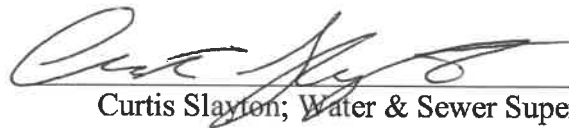
The sludge holding consumes 25% of the electricity used at the wastewater treatment facility. The current equipment is oversized and one of the three blower units is beyond repair. The July 2019 energy evaluation suggests by replacing this equipment and adding new VFD controls, there would be a \$21,000 savings in electrical cost per year.

The headworks room ventilation system is not functioning properly. Wastewater continuously flows through screening and grit removal equipment in this enclosed space and releases dangerous hydrogen sulfide and methane gasses. These gasses can easily become harmful to operators if not properly ventilated. It is essential to the health and safety of operators that this ventilation system is upgraded.

The flow metering vault regularly leaks and needs repairs. It should also be raised to prevent flooding due to its low-lying elevation. The 18-inch flow meter is 25 years old and has been damaged from flooding and needs replacement.

I have provided with this memo, the February 2020 Wastewater Treatment Facility Evaluation Report as done by the engineering firm Weston & Sampson and the Energy Evaluation report as done by Process Energy Services LLC. The evaluation report identifies 6 million dollars of upgrades. We handpicked the ones that are the most critical or had the most potential of cost savings. The wastewater facility is 25 years old, is online 24/7 and surrounded by saltwater twice a day. The facility will need continuing community investment to maintain reliable operations and EPA compliance.

Thank you for your consideration.



Curtis Slayton; Water & Sewer Superintendent