



March 2, 2023

Southern Clinton County Municipal Utilities Authority

Volume 16 Issue 3

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"The Clean Water People"

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Maintenance—Keeping Things Humming

The staff has been working with the new combination truck to adapt it for our particular use. This is not terribly unique, but all combination trucks are designed to conduct specific work. Not one of them is designed to constantly clean wetwells. The handling of such debris is somewhat custom.

They have also been rebuilding pumps in our pump shop. The large mixing pump for the EQ basin was rebuilt and pressure checked and is ready for service when the project takes off.

The maintenance shop reorganization project that started last fall is now complete. The staff worked on this project as a fill-in and did a great job. The space is far more usable and efficient. We have built some capacity to stock specific consumables, allowing us to purchase in higher quantities to reduce overall cost. This will take time to manage, but the returns will more than pay for those efforts.

Lift station can maintenance continues and will continue until complete. This task is done between other jobs in the fall and winter months when the weather allows.

The staff has been procuring parts for projects for this year as lead times are

lengthy and plans must be made 5-6 months in advance to have the supplies required to complete some of the specialized projects. One of the planned projects is the continued radio upgrade in the stations converting to digital radios and Allen Bradley micro PLCs.

New pumps that were ordered have arrived for station 211 in Bath township and station 405 in Watertown, Twp. These will go in as soon as the weather allows.

The ice storm caused some headaches for staff, but it could have been much worse as the majority of the freezing rain remained south of our service area. However, the far east portion of our service area lost power for most of the night, with three stations without power. Staff installed backup generators and monitored them throughout the night. Power was restored early Thursday and the team spent time de-icing equipment and areas for safe working conditions.

Administration

It is starting to be budget season for SCCMUA. One thing that staff will be working on is identifying the impacts inflation has had on CIP items. These will need to be adjusted to the best of our ability to forecast future costs.

The Audit has been completed for the 2022 budget year with no outstanding issues found. An official presentation of those results will be presented at an upcoming Board meeting.

Work has continued with an effort to reduce the cost associated with the CWSRF project SCCMUA bid out earlier this year.



Process—Making it Clean

NPDES Permit: All parameter requirements were met. The total precipitation for January was 1.55".

Staff finished work on the RBC train; this work included the replacement of air headers and diffusers which control the air delivery to the RBCs. This particular train was the first train staff worked on with the start of the RBC rehab project. We learned some things and changed our approach thru the years. The team reinstalled baffles that had been taken out over the years; this was done by testing baffled trains vs. non baffled trains. The baffles increased nitrogen removal and BOD uptake without increasing the weight of the RBCs. The conclusion was simple; the baffling helped stop the potential for short-circuiting through the tank and allowed ample time

for efficient treatment in each cell. The RBC is now in the growth stage, which will take 4-6 weeks to be at total treatment capacity, just in time for the spring limits.

Work on the supernatant decant system was done. This is an ongoing maintenance item caused by the formation of struvite, also referred to as MAP, which forms when there is an equal ration of magnesium, ammonia, and phosphate in the wastewater. Magnesium can be found in soil and seawater as well as drinking water. Ammonia is broken down from the nitrogen in wastewater, and phosphate is found in food, soaps, and detergents. This formation creates a crystalized product visually similar to broken tempered glass. This tends to

plug pumps and pipes near areas of disturbance. We have devised a system that drastically reduces these issues, but due to the small piping in the supernatant system, the smallest formation of struvite can decrease flows.

SCCMUA is at a crossroads of one toward our future and one maintaining the past. With the potential of the planned SRF project, the staff is carefully weighing out items to be replaced and or repaired. The tertiary filter system is intended to be updated, but maintenance must keep them running until they are replaced. A recent issue with a spray arm had staff working to utilize what parts we had on hand vs. ordering new parts. The team did a great job getting things operational with parts on hand and the filter is fully operational.

Inspections—The Scoop on the Poop

Inspections: 14

Miss Dig tickets: 334 (Jan/Feb)

Marked tickets: 89

Staff has been reviewing main line sewer camera systems. The current Cues camera is worn out, requiring greater than usual maintenance. Much of this maintenance requires the camera be sent out to authorized repair shops. Cues no longer produces the camera or parts for the current camera system. Dwindling replacement parts are limited to what is on hand at the repair shops. While it is more economical to sub out the yearly camera and cleaning work to a third party, SCCMUA still utilizes the main line camera for inspecting problem areas, reactive inspections of blockages, post construction yearly inspections, and pre-project inspections. A main line sewer camera is essential to maintaining the collection system. Criteria for camera selection includes portability, quality of the camera, quality of the transport system, location of repair shop,

after the sale support, and camera system longevity. Staff will be making a recommendation in the coming months.

DeWitt Township and Bath Township master plan work continues. Staff has continued to gather requested information for engineers. Staff has been working on feasibility studies of future system expansion.

Staff began reviewing the videos submitted by Plummer's Environmental from the 2022 annual cleaning and televising. Review will continue through February and March. Staff will use the information collected to improve and reprioritize the long-term collection system repair list.

Staff continues to work on the GIS and Lucity databases improvements. This project will improve the accuracy of the GIS and Lucity systems. Staff will continue to make improvements as time allows. Improvements include updating attribute data, rectifying the GIS with air photos, creation of layers for tracking backups, past repairs, and future repairs.

