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Southern Clinton County Municipal Utilities Authority

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Southern Clinton County
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Authority
"The Clean Water People"

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Maintenance—Keeping Things Humming

This month, the maintenance department worked through some high-flow issues. High flows often plug pumps and increase run times. This triggers an increase in maintenance activities unplugging pumps and putting things back to normal.

At station 108 in DeWitt Twp, a new rotating assembly was installed while the old one was removed and rebuilt by staff in-house. Pump performance was low and the original pump shaft had some unreparable damage.

The EQ mixer that was pulled and rebuilt in house has been reinstalled. As the project moves forward, there will be a period where one equalization tank will be used as a wet well while work on the existing wet well is completed. During this time, mixing may be needed to prevent solids from settling out. The EQ basin is much larger than the existing wetwell, which will increase the possible detention time, allowing solids to settle out.

The crew also spent considerable time going through the 201 forcemain as we

continue to see a decrease in performance. This is an ongoing issue from the original installation. Pressure readings were taken through the system to evaluate operating hydraulics. Also, all air relief valves were inspected in the system. One of the valves was faulty and replaced. This had no impact on performance, unfortunately.

Generators continue to sound like a broken record with electronic boards failing. Moving forward, we have identified a couple replacement options. SCCMUA will replace transfer switches with updated gear to avoid continued board replacement costs as it is unique to one brand and a particular time frame that continually has issues.

The flow meter at station 201 has failed, so a temporary unit was installed while the old sending unit was sent in for possible repair. An updated flow meter must be installed if it cannot be repaired.

Administration

Three members of the SCCMUA staff were able to write for their municipal certifications through the State of Michigan. We are all behind them and are hopeful they all receive good news sometime in mid-June when the grades are released.

With a flurry of paperwork, the SRF loan is closed! The team worked flawlessly to get this done and we can't thank all of our partners enough. There has been a lot of work done to get to this point. Now we move to the next phase, upgrading much of the plant nearing 44 years old and far exceeding any life expectancy. Over the next couple of years, SCCMUA will be under some construction, increasing everyone's workload, but all are willing and excited for the next chapter in SCCMUA's history.

As we start this project, SCCMUA will also

look further into the future to plan for the next project, as the last remaining item to the original plant must be addressed. The RBC (Rotating Biological Contactors) is our plant's biological workhorse and has been tremendously successful and far beyond anyone's expectations. However, like all things, their life expectancy is not indefinite and must be taken seriously. SCCMUA has some ideas for replacements. The next steps will be to complete a pilot of these technologies in our system to ensure the validity.

The 2024 Budget is now ready for committee-level involvement. SRF loan payments and significant increases in commodities and consumables have impacted the 2024 budget. This is no shock, as the rising cost of everything has affected us all.

Process—Making it Clean

NPDES Permit: All permit requirements were met. Total precipitation for the month was 3.53".

Staff is keeping busy with pm work and any unexpected issues that arise. The east digester boiler heat refractor was sent in to add new insulating material. Staff noticed a strange sound from the heat refractor, investigated, and found the issue. The refractor was repaired and the boiler is operational and back in service.

Staff is springing into action to replace a few bad RBC bearings. One bearing showed signs of needing replacement, while the other just disintegrated. The sheer weight of these RBCs

and a faulty bearing can cause the bearing to be ground away if not caught soon enough. Reaction time is critical when a bearing goes bad when the train is online. The key to this repair is to minimize the time the RBC sits stagnant while in a train that is in its current operation. The longer the RBC sits, the heavier it gets due to biological growth on the submerged side. This will result in lopsided weight while in operation, possibly causing more stress to the shaft when first put back in operation. Using the overhead water header will help slough off any excess growth helping to result in fluid rota-

tion after a few days.

The new NPDES permit brings new parameters and sampling schedules. Under the new license, we have had to add a couple of parameters to our monthly and quarterly sampling. New monthly parameters include Total Copper, Chloride, and Sulfate, while we have gone from yearly sampling to quarterly sampling for low-level Mercury.



Inspections—The Scoop on the Poop

Miss Dig Totals:

Miss Dig Requests: 259

Miss Digs Marked: 127

Inspection Services: 6

The staff has been working to identify potential infiltration into the DeWitt collection system.

Plummer's Environmental installed five full-reach liners on Webb and Turner in the City of DeWitt collection system. All five lines had extensive structural damage, root intrusion, and infiltration.

Review of plans for Shadybrook phase III expansion was completed. A pre-construction meeting was held at DeWitt Twp. Sanitary sewer construction should begin in mid-May.

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

Staff completed manhole inspections in the road project areas for 2023. SCCMUA works with the Road Commission to make repairs and externally wrap manhole adjustment rings. As collection systems tighten up over the years, adjustment rings have become the primary source of infiltration. By repairing damaged rings and externally sealing the rings, we can reduce infiltration.

Nottingham Fields' development has remained at a standstill for the past few months. Staff met with the developer and contractor in January to address the deficiencies and develop a plan for moving forward. The contractor will be required to meet SCCMUA standards. Staff expects work to begin again in the next couple of weeks.