302 Redbud Trail North
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WASTEWATER TREATMENT ACTIVITY BRIEFING August 2025

- The UVT Channel experienced a communication failure with Bank B, resulting in missing dosage readings. Windemeller resolved part of the issue, but one replacement part was still needed to fully restore functionality. Upon receiving the new panel, the company failed to include the small but essential installation pieces. These were later located. The panel and six boarding units were successfully installed. While the UVT Channel is now functioning better, dosage readings for Bank B remain unavailable.
- The T4 pump was pulled due to its failure to remove grit. Selge Construction was called in and discovered the system was clogged with sand. After two days of intensive work, the system was cleared and is now operational. The remaining challenge is dewatering the system without allowing excess sand into the grit chamber.
- Industrial Lift Station A high-level alarm was triggered. Terry replaced a fuse, but the issue persisted. Joe manually pumped it down multiple times, but no troubleshooting was conducted. The station continued to alarm after four pump-downs. AEP confirmed the transformer needs replacement.
- Millpond Lift Station Initial alarm was caused by a rag ball. Joe and Jeremy backflushed the system. Restarting both pumps simultaneously blew a fuse. A second alarm required pulling the pump; repairs were successful. Due to monthly clogs, a quote for a grinder has been requested. Ownership of the station (city vs. residential) is under review to better assess grinder pump needs.
- Crescent View Lift Station alarm was triggered due to a failing battery. An electrician is scheduled to replace the battery.
- Monthly Effluent Testing on chlorine, sulfate, and copper samples were sent to ALS Holland. All results returned within normal ranges.
- Zoey completed the DMRQA 45 testing and submitted results to Advanced Analysis. Final reports will be sent to the state in early October.
- Clarifier tanks were lowered to facilitate algae removal. Algae was sprayed and wiped off arms and weirs. Screens and UVT channels were cleaned to prevent excess algae discharge into the river.
- Due to ongoing construction and dewatering, flow was reduced by 200,000 gallons/day, with current flow at approximately 0.4 MGD. With this Terry called both Ovivo and the Gosling Czubak engineering firm and they recommended operating only half the plant to maintain solids retention. Terry consulted with Tony (city manager) and Tom (WWTP superintendent) before proceeding with the plan. After agreement Terry has started to turn valve to stop flow to one oxidation ditch. This process will take a few days before it is completely empty.
- Terry scheduled Bisbee Infrared to inspect breakers and lift stations. Post-evaluation, all systems were reported to be in good condition.
- Wastewater team collaborated with Jones & Henry Engineers and Anne from EGLE to establish PFAS local limits. After months of data collection and discussion, the team is ready to move forward with program implementation by having a zoom call with all of us.
- The facility completed 157 preventive maintenance work orders. Tasks ranged from routine equipment checks to complex repairs requiring significant labor.

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WASTEWATER TREATMENT ACTIVITY BRIEFING SEPTEMBER 2025

- Monthly testing of copper, sulfate, and chloride levels in the effluent returned results within regulatory standards.
- As construction nears completion, wastewater levels have decreased. Operators redirected flow into a single ditch, which stabilized solids temporarily. However, this led to a rise in the sludge blanket in the south clarifier, increasing torque on the arm. To alleviate this, flow from the north clarifier was stopped, but the issue persisted. The south clarifier was drained and thick sludge was pumped out. As flows increased again, the south clarifier was reactivated with residual sludge still present. After reviewing blueprints and troubleshooting, Terry implemented a solution involving intermittent operation of the clarifier. This allowed sludge to return to the system via RAS. The sludge eventually broke loose, though it emitted a strong odor and appeared black. Lab results confirmed that solids had accumulated in the south ditch, which had previously been taken offline. By the end of the week, solids returned to high-normal levels.
- A meeting was held with the landfill to discuss strategies for reducing PFAS concentrations entering the plant. Several options are under consideration, pending implementation timelines.
- Schirmer Lift Station (9/5): High runtime prompted an evaluation, revealing that pump #2's assembly rotation needed adjustment due to misalignment with the weir plate.
- Mill Pond Lift Station: Pump #2 experienced a clog and was shut down. It was cleared after the weekend. Everything is up and running.
- During weekly preventive maintenance, a leak was discovered in the generator. Cummins was contacted and determined a water pump replacement was necessary. A quote was provided, and repairs were completed on the 23rd. The temperature line also requires replacement.
- A power surge on the 21st, caused by storms, disabled pumps at Schirmer Lift Station. Terry used a generator to pump down the station, but it was insufficient. Vacco was called in to assist. Both pumps were off line and needed to be repaired. Hein's was brought in to repair the pumps. One drive was restored, the other one was more difficult due it being reset during the surge. All is up and running.
- The UV channel at the plant was also affected by the power surge and remains offline. A new panel was installed by Mike Baker, but further inspection revealed burnt flex boards. Additional components and fuses were ordered from Wedeco. In the interim, chlorine and bleach are being used to maintain water treatment dosage.
- Nelco Water replaced the canisters after a red light indicated they were no longer functional.
- Zoey attended the Industrial Pretreatment Program (IPP) seminar in Bath, Michigan to enhance understanding of Michigan's IPP protocols. Buchanan received an Appreciation Award for 40 years of continuous service.
- Terry and Zoey also completed a 3-day C and D Municipal Exam Prep training in preparation for their November certification exams.
- The facility completed 180 preventive maintenance work orders. Tasks ranged from routine equipment checks to complex repairs requiring significant labor.

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WASTEWATER TREATMENT ACTIVITY BRIEFING SEPTEMBER 2025

- A call alarm at Millpond indicated a low battery. Terry responded and replaced the battery; the system is now functioning properly.
- A call alarm was received after hours from the Millpond lift station, indicating a low battery and a high float condition. The situation was monitored overnight. The following day, Terry and Joe responded to the site to pull the pump and prepare for the installation of a new grinder pump that is currently on order. Upon inspection, both pumps were found to be clogged, and the water level had risen to less than 5 feet from overflow. Mike Baker was called in to assist with lowering the water level and gaining access to the pumps. Once the pumps were cleaned, they were reinstalled, and the system is now operating normally.
- Cummins completed all necessary repairs on the generator. It is now fully operational.
- Parts arrived for the UVT channel, including flex boards and fuses, which were installed into the Xylem system. Initially, only one bank was functioning and showing low dosage. The second bank appeared to have underlying issues following a power surge. A Wedeco technician was scheduled to assess the damage. Upon inspection, the technician noted availability only at the end of November. A new flex board and fuses were installed, resolving the immediate issue. However, further inspection revealed corrosion in the paneling due to moisture. A quote is being prepared for a future technician to address the repairs.
- Due to ongoing UVT issues, the plant has been using chlorine and bleach to maintain permit compliance. Unfortunately, a violation occurred when the 7-day average for fecal coliform exceeded 400. Since then, the team has maintained regular orders of 12.5% sodium hypochlorite (chlorine) and 40% sodium bisulfite (bleach) to ensure continued compliance until the UVT channel is fully repaired.
- With downtown construction nearing completion and flows significantly reduced, the plant transitioned to operating with one ditch and one clarifier. The clarifier had become clogged due to low flow failing to push solids through. On October 4th, Terry began draining the south ditch and transferring flow to the north side. After nearly two weeks and with about two feet left to drain, solids settled at the bottom below the aeration flappers. Fresh water has been added to help loosen the solids.
- Polymer for the sludge press was ordered, delivered, and properly stored.
- During preventive maintenance, the air release valve on the T10 in the headworks building was found to be malfunctioning. The issue was traced to the flapper valve on pump two. No spare valves were available, so two were ordered—one for immediate replacement and one for inventory.
- Annual calibrations were completed for both influent and effluent meters. All readings were within expected parameters.
- The facility completed 144 preventive maintenance work orders. These ranged from routine equipment checks to complex repairs requiring significant labor.