

TO: Chris Holton, NLTUA
 Joni Scott, NLTUA

FROM: Mark Huggard, Jacobs

DATE: June 20th, 2022

COPY: Nick Lenzi, Jacobs
 Andrew Waldron, Jacobs
 Justin Straub, Jacobs

This report describes our activities during the month of May 2022. If you require additional information that would make these monthly reports more useful to you, please let us know. Permit compliance report data is submitted to the Department of Environment Great Lakes and Energy (EGLE) electronically.

Treatment Plant

	May	Last Month	Last Year
Influent flow daily average, GPD	78,455	75,932	62,183
Monthly electrical usage, Kw Hrs	22,450	27,835	16,430

The influent flow reading discrepancies we noted in April’s report have been addressed. The following descriptions were provided in the April and May DMR reports submitted in MiWaters.

April DMR comments: "We’re currently investigating the upward trend in plant influent flow that began April 21, 2022 continuing to present. These elevated influent flows are uncharacteristic for this time of year and therefore, are being investigated to determine if the flows are actual, or the result of a flow meter issue. We’ll be sure to include our findings in the corresponding month’s DMR."

May DMR comments: We determined the increased flow rates were related to an influent flow metering issue and weren’t the result of actual increased flow rates entering the facility. The influent doppler flow meter sensors were suspected to be the issue and were serviced on May 17th with the meter being placed back into service the same day. Flow rates were monitored and compared with the effluent flow meter to determine the issue was resolved. The higher flow rates recorded from April 21st to May 16th were reported as they were recorded. To reduce the likelihood of reoccurrence we increased our flow meter preventive maintenance frequency. Compliance has not been effected, and all permit parameters are within their acceptable range."

We decreased our ferric feed rates to optimize chemical usage while ensuring permit compliance isn’t jeopardized.

Quarterly monitoring well sampling was conducted on May 10th.

On May 13th, we completed annual MBBR mixer oil changes.

The annual influent and effluent flow meter accuracy verifications were conducted on May 12th, by Windemuller Electric.

On May 20th, we responded to a blower 1 VFD alarm caused by a temporary loss of power because of thunderstorms. A full plant walk through was conducted to confirm all equipment was fully functional.

On May 18th, we held our first annual public plant tour / open house. Jacobs staff provided guided tours and a Q & A session detailing the operation of the facility. Thank you to the NLTUA / Village staff for advertising this event. We look forward to next year.

Lift Stations / Collection System

On May 23rd, we replaced a faulty pump run float control switch at the main lift station.

On May 24th, we flushed the low-pressure sewer mains on the north end and south end of the collection system with the assistance of the Leelanau Township Fire Department.

Annual ARV inspections were completed in May, please see the attached report for details.

Residential Grinder pumps

As part of our due diligence to reduce repeat call outs to residential grinders we perform the following checks before leaving the site. Table 1 below details our grinder pump responses.

- ✓ Tighten all control connections within control cabinet.
- ✓ Remove grease and debris from grinder tank.
- ✓ Remove all grease buildup from float switches.
- ✓ Verify all float switches operate properly and are positioned properly.
- ✓ Confirm proper pump operation.
- ✓ Verify alarm light is operational and audible alarm, if applicable.
- ✓ Inspect wet well components.
- ✓ Replace both the start and run capacitor.
- ✓ Inform homeowner of findings and what not to put in their sewer.

Table 1: Grinder Pump Responses

Date	Location	Alarm/Issue	Resolution
5-5-22	13303 E. Paradesia Rd.	<ul style="list-style-type: none"> • Motor overload 	<ul style="list-style-type: none"> • Replaced the potential start relay.
5-11-22	13303 E. Paradesia Rd	<ul style="list-style-type: none"> • Motor overload 	<ul style="list-style-type: none"> • Replaced start capacitor, high level float switch, run float switch, alarm circuit fuse
5-12-22	12175 E. Indian Beach Rd.	<ul style="list-style-type: none"> • Motor overload • High level 	<ul style="list-style-type: none"> • Replaced the start capacitor
5-16-22	344 W. Nagonaba St.	<ul style="list-style-type: none"> • Motor overload • High level 	<ul style="list-style-type: none"> • Replaced start capacitor • Removed hair jammed in Grinder
5-24-22	413A S. Shawbwasung St.	<ul style="list-style-type: none"> • Motor overload • High level 	<ul style="list-style-type: none"> • Replaced both the run and start capacitors. • Removed debris from the wet well.

On the Horizon

- Aeration blower #2 repair or replacement - 2022
- Fine screen brush replacement - 2022
- 7th St. station upgrade - 2022
- Repair utility sink cold water line - 2022
- Hach SC 100 replacement – 2022
- MBBR tank roof coating – 2022
- Main lift station re-lining - 2023
- Settling basin engineering evaluation – 2023
- Capacity evaluation task 1 and 2 – 2023
- Ferric Chloride room day tank relocation - 2023

Financial Report

Current Reporting Month	May-22	Comments
Repairs Spending Treatment Plant Current Month	\$ 504.37	504.37 - Sand filter repair
Repairs Spending Treatment Plant Year to Date	\$ 3,242.21	
Repairs Spending Residential Grinder Pumps Current Month	\$ 4,277.85	\$3,794.38 - Purchased two grinder pumps \$483.47 - Purchased grinder pump control panel repair parts
Repairs Spending Residential Grinder Pumps Year to Date	\$ 9,601.23	
Repair Spending Collection System (lift stations/sewer) Current Month	\$ 1,001.96	\$1001.96 - ARV repair parts
Repair Spending Collection System (lift stations/sewer) Year to Date	\$ 1,880.66	
Repairs Hours Treatment Plant Current Month	-	
Repairs Hours Treatment Plant Year to Date	175.00	
Repairs Hours Residential Grinder Pumps Current Month	16.00	
Repairs Hours Residential Grinder Pumps Year to Date	34.00	
Repair Hours Collection System (lift stations/sewer) Current Month	109.00	
Repair Hours Collection System (lift stations/sewer) Year to Date	117.00	
Total Repair Hours Current Month	125.00	
Total Repair Spending Current Month	\$ 5,784.18	
Total Repair Hours Year to Date	326.00	
Repairs Hours Budget Remaining (Limit 300 Hrs)	(26.00)	Repair hours over 300
Total Repair Spending Year to Date	\$ 14,724.10	
Repair Spending Budget Remaining (Limit \$8,000)	\$ (6,724.10)	Repair cost over \$8,000.00
Total Repair Hours 2021	826.45	
Total Repair Spending 2021	\$ 16,154.42	

If you have any questions or concerns, please feel free to contact us.

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