

TO: Chris Holton, NLTUA

Joni Scott, NLTUA

FROM: Mark Huggard, Jacobs

DATE: July 13th, 2022

COPY: Nick Lenzi, Jacobs

Andrew Waldron, Jacobs Justin Straub, Jacobs

This report describes our activities during the month of June 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

	June	Last Month	Last Year
Influent flow daily average, GPD	62,170	78,455	72,073
Monthly electrical usage, Kw Hrs	24,296	22,450	24,232

Scheduled preventive maintenance (PM) tasks were completed on the following equipment: (this list doesn't include our more frequent weekly PM tasks). A detailed list of PM tasks can be provided upon request.

- Annual Kaesar blower PM
- Annual fine screen PM
- Quarterly sand filter PM

On June 27th, we responded to a primary anoxic basin high level alarm caused by media floating to the top of the water in the cell and blinding off the cells discharge sieve screen therefore restricting forward flow and causing the basin to surcharge. Cell #1 is a swing cell meaning it can be mixed by air or mechanical mixer depending on the treatment desired. We want this cell to contain little to no dissolved oxygen to aid in nitrate removal, which is why air is selected for mixing. After supplying air to the cell to break up the media and return mixing we further investigated the Landia mixer and found the motor was running but the prop was not. This indicates an internal failure within the gearbox that requires a mixer rebuild or replacement. Our recommendation is to replace this mixer because it had already been rebuilt by the Landia service team. We'll send the NLTUA a replacement quote as soon as obtained. In the interim we've moved mixer #2 from cell 2 to cell #1 so we could resume normal operation.



<u>Lift Stations / Collection System</u>

Scheduled preventive maintenance (PM) tasks were completed on the following equipment/locations: (this list doesn't include our more frequent weekly PM tasks). A detailed list of PM tasks can be provided upon request.

Semiannual Waukazoo Rd. manhole inspections

The discharge pressure gauge was replaced on main lift station pump #1.

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 summarizes our grinder pump responses. More details can be provided upon request.

- ✓ 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
5-27-22	11251 Northshore Dr.	 High level 	 Rearranged float control switches Cleaned debris from wet well
5-29-22	11281 Northshore Dr.	 High level 	 Removed grease caked on float control switches Replaced stop float
5-29-22	577 Southshore Dr.	Motor overload	Replaced start capacitorTightened loose connections
6-8-22	11137 Northshore Dr.	High level	 Breaker inside residence feeding grinder panel was tripped. Reset and verified proper function.



Date	Location	• Alarm/Issue	 Resolution
6-12-22	11343 Northshore Dr.	High level	 Grinder pump was jammed with wet wipe. Replaced start and stop capacitors
6-14-22	13125 Northport Point Rd.	No issue with grinder system	 Homeowner internal plumbing issue
6-24-22	E. Woolsey Lake Rd.	High level	 Replaced run and start capacitors
6-26-22	601 Southshore Dr.	• High level	 Replaced pump Replaced start and run capacitors Notified homeowner and NLTUA that residents basement sump was still connected to the sewer system.

On the Horizon

Task	Update	Estimated time of completion	
Aeration blower #2 repair or replacement	Working with new supplier Kennedy Industries	Fall 2022	
Fine screen brush replacement	Complete	Complete	
7th St. station upgrade	Obtaining cost for direct replacement controller	Fall 2022	
Repair utility sink cold water line	Schedule repair	Fall 2022	
Hach SC 100 replacement	Received unit. Scheduling install	Summer 2022	
MBBR tank roof coating	Verifying coating is required	Summer 2022	
Main lift station re-lining	No updates	2023	
Settling basin engineering			
evaluation	No updates	2023	
Capacity evaluation task 1 and 2	No updates	2023	
Ferric Chloride room day tank			
relocation	No updates	2023	



Financial Report

Current Reporting Month		Jul-22	Comments
Repairs Spending Treatment Plant Current Month	\$	-	
Repairs Spending Treatment Plant Year to Date	\$	6,004.90	
Repairs Spending Residential Grinder Pumps Current Month	\$	-	
Repairs Spending Residential Grinder Pumps Year to Date	\$	9,664.60	
Repair Spending Collection System (lift stations/sewer) Current Month	\$	-	
Repair Spending Collection System (lift stations/sewer) Year to Date	\$	3,955.00	
Repairs Hours Treatment Plant Current Month		-	
Repairs Hours Treatment Plant Year to Date		192.00	
Repairs Hours Residential Grinder Pumps Current Month		-	
Repairs Hours Residential Grinder Pumps Year to Date		44.25	
Repair Hours Collection System (lift stations/sewer) Current Month		-	
Repair Hours Collection System (lift stations/sewer) Year to Date		122.00	
Total Repair Hours Current Month		-	
Total Repair Spending Current Month	\$	-	
Total Repair Hours Year to Date		358.25	
Repairs Hours Budget Remaining (Limit 300 Hrs)	\perp	(58.25)	Repair labor hours over 300 hour limit
Total Repair Spending Year to Date	\$	19,624.50	
Repair Spending Budget Remaining (Limit \$8,000)	\$	(11,624.50)	Repairs over \$8,000.00 limit
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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