

SEWER ADMINISTRATORS REPORT LELAND TOWNSHIP SEWER SYSTEM FEBRUARY 2023

Prepared by Steve Patmore, Sewer Administrator
for March 2023 Sewer Commission and Board Meetings

Influent and Effluent readings for February 2023 were slightly above last years flows.
The lagoon levels are within normal operational levels for this time of year. Freeboard = 7.8'
Effluent flows are being maintained to keep lagoon levels within operational limits.

Flows in Millions of Gallons (MG)	CURRENT YEAR		PREVIOUS YEAR	
	FEBRUARY 2023	YTD 2023	FEBRUARY 2022	YTD 2022
INFLUENT FLOW	1.29 MG	2.71	1.20	2.50
EFFLUENT FLOW	1.96 MG	4.42	1.60	4.06

Monthly effluent phosphorous test results: 1.03 mg/l (target 0.5 mg/l)

ISSUES LIST

- WWTP Biofilter Screens – holes in the new screens due to uneven wear.
- Drain Fields: Will evaluate Bed #8 in spring.
- Thompson Street Guide Rails and seal replacement.
- Influent Flowmeter – contractor to work on gate valves.
- Terrace Lane Lift Station – periodic electrical alarms.
- Sludge Pump at WWTP – not pumping as well as it should.

ON-GOING SCHEDULED PROJECTS / MAINTENANCE / REPAIRS

- Hydrogen Sulfide – continuing research costs for mechanical aeration.
- Ordering three new WWTP lagoon aerators due to failures of two.
- Influent manhole – being bid out for spring.

SEWER OPERATIONS & CALL-OUTS (IAI report)

- See IAI report for call-outs
- Terrace Lane Lift Station

SYSTEM ADMINISTRATION

- Questions on connections and the sewer system in general, permits & building.
- Miss Dig required training sessions + several staking requests.
- Several requests for connection information – new construction/additions
- Issued permit for proposed commercial project at 25 S. Lake Leelanau Dr. – Connection Fee paid 1.5 REU
- Review of potential project on Main Street Leland – 4.25 additional REU
- Budget work & discussions.



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Monthly Operations & Maintenance Report

Mar 5, 2023

Report for Month: February 2023
Location: Leland Township
Facilities: Leland Township Wastewater Treatment Plant
Certified Operator: Gabe Walker

Emergency Callouts/Customer Complaints

- 2/6/23 Callout to Terrace Ln. Lift Station High-level alarm
- 2/11/23 Callout to Terrace Ln. Lift Station Low-level alarm
- 2/19/23 Callout to the plant. Sludge pump failed to start
- 2/28/23 Callout to Terrace Ln. Lift Station. System failed to start in auto mode causing the high-level alarm. Manually pumped the wet well and will monitor it until I get this issue resolved.

Significant Events:

- 2/2/23 Finished rebuilding the sludge pump
- 2/7/23 Replaced all the floats at Terrace Ln. Lift Station. Pulled all the wires to an external junction box to eliminate all the splices in the wet well.
- 2/8/23 Windemuller came out and diagnosed issues at Terrace Ln. We came to the conclusion that the high-level alarm relay had wiring issues causing it to alarm.
- 2/8/23 Repaired broken devices at multiple Lift Stations (light bulbs, switches, etc.)
- 2/14/23 Additional problems at the Terrace Ln. Lift Station. After testing different things, we concluded that one of the new floats that had been replaced was defective. Replaced that float with a different new one and that seemed to resolve the problem.
- 2/14/23 Checked the bulk ferric tank sensor to see if there was anything that could be done to fix it. We concluded that the sensor was faulty sending incorrect information to the PLC. We pulled the sensor and got all the information needed to get a quote on replacement.

Preventive Maintenance:

- Air relief valve inspections and cleaning to assess condition for future work to promote adequate operation
- Rebuilding bulkheads to keep call outs down and the system operating smoothly



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- Routine maintenance and inspections on the lagoon and aerator
- Valve exercise program to ensure operation, and document condition to keep an ongoing log of ones that need replacing
- Thorough inspections and evaluations of the drain field condition and planning for future repair
- Dosing valve inspection and repair as needed to keep the beds from getting effluent when they are not supposed to

Facilities Data for the Month

	Jan 2023	Feb 2023	Year to Date	Units
Effluent	2.59	1.96	4.55	MG
Influent	1.42	1.29	2.71	MG
Ferric Chloride	375.54	431.2	806.74	GAL
Freeboard (ft)	9.3	7.8	+ 1.5	FT