

**SEWER ADMINISTRATORS REPORT  
LELAND TOWNSHIP SEWER SYSTEM  
NOVEMBER 2023**

Prepared by Steve Patmore, Sewer Administrator – December 1, 2023  
for December Sewer Commission Meeting

Influent and Effluent readings for November are normal for this time of year.  
The lagoon levels are slightly high, but stable. Current Freeboard = 4.1' and dropping  
Effluent flows are being maintained to keep lagoon levels within operational limits.  
Effluent Phosphorous Levels in October were slightly over 1 ppm.

	<b>CURRENT YEAR 2023</b>		<b>LAST YEAR (2022)</b>	
	November 2023	2023 YTD	November 2022	YTD 2022
Influent Flows	<b>1.51</b>	<b>21.71</b>	<b>1.42</b>	19.45
Effluent Flows	<b>2.50</b>	<b>23.74</b>	<b>2.17</b>	21.76

**Flows in Millions of Gallons (MG)**

**ISSUES / PROJECT LIST**

- Drain beds (investigation, flushing, televising, jetting) we will be inspecting two leaking dosing pumps and replace if necessary. Need to adopt maintenance plan.
- H2S and Odor Control – working with biological treatment company.
- Influent Manhole – scheduled for replacement
- Asset Management Software
- Sewer System Maintenance and Operations Contract – Reviewing Options
- Will be reviewing phosphorous treatment system in 2024 for effectiveness and nuisance alarms.

**SEWER OPERATIONS & CALL-OUTS (IAI report)**

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

**SYSTEM ADMINISTRATION**

- Questions on connections and the sewer system in general, permits & building.
- Sewer Permit for ADU in Lake Leelanau.
- Inquiries about modifying existing sewer lines to accommodate new construction.
- Commercial septic tank pumping.
- Miss Dig staking requests.
- Houses under constructions being reviewed and measurements.
- Several requests for connection information – new construction/additions
- Starting budgeting process for 2024-25



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## ***Monthly Operations & Maintenance Report***

***Dec 1, 2023***

***Report for Month:*** November 2023  
***Location:*** Leland Township  
***Facilities:*** Leland Township Wastewater Treatment Plant  
***Certified Operator:*** Mitchell Gawrysiak

### **Emergency Callouts/Customer Complaints**

- 11/6/23 Call out 324 W. Main low-level float was INOP replaced the float.
- 11/14/23 Called to 110 Saint Joseph by Lake Leelanau Excavating. He was excavating an area and wasn't sure if he cut through our wiring. It was STEP chamber wiring, but it had been abandoned and wasn't currently being used. Checked and tested the STEP chamber and it was operating properly.
- 11/23/23 Called out to 340 W. Main. Pump kept tripping the overload. Drew had Williams and Bay pump the tank and chamber to buy us more time for the repair. 11/29/23 tested the pump. It failed. In the process of replacing the pump.
- 11/30/23 Called out to 3162 N. Manitou Homeowner stated that the alarm was going off. I tested the floats, and they were functioning correctly. There was an alarm, but it was a different one than the typical alarm for float failure. This is a different panel than typically used and needs further testing and possible repair.

### **Significant Events:**

- 11/2/23 Installed Persnickety filters on the vent stacks on Popp Rd. and Terrace Ln lift stations.
- 11/9/23 Due to the high volume of callouts at 324 W. Main. I had Windemuller replace the relays in the control panel with a "new style" that controls all four functions. This should prevent floats from going bad prematurely.
- 11/10/23 While doing rounds I discovered that one of the pumps was not working at the Terrace Ln. lift station. Tested the pump and it failed. Windemuller assisted in the testing and removal of the pump. The pump is at Graham electric getting rebuilt. Once rebuilt it will be reinstalled.
- 11/10/23 Ended the calcium nitrate program for the season.



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- 11/17/23-11/28/23 Multiple plant shutdowns and callouts due to the filter building. Typically, this was due to duck weed or other debris plugging the pre filter. After numerous repair attempts and help from Windemuller I found the jets were clogged on the backwash pump due to ferric build-up. Thoroughly cleaning the jets has resolved the issue.
- 11/30/23 Assisted Williams and Bay pumping the septic tank at St. Mary's School. The tank was filled with solids and needed backwashing to pump the tank. After multiple backwashes and pumps we were able to get the tank pumped. Due to extensive root intrusion future work will be needed to fix this tank.

**Preventive Maintenance:**

- Calcium Nitrate delivery to the Marina where it can be introduced into the system. Planning for additional locations or other means to reduce high hydrogen sulfide levels.
- 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.
- Routine maintenance and inspections on the lagoon and aerators.
  
- 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.
- Nova filter cleaning and inspections.

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**H2s            11/10/23, 11/30/23**

**Popp Rd 60 ppm, 63 ppm**

**Narrows 0 ppm, 0 ppm**

**Duck Lake 18 ppm, 16 ppm**

**Thompson St. 0 ppm, 0 ppm**

**Terrace Ln 60 ppm, 70 ppm    11/7/23 50 ppm 11/17/23 140 ppm**

**Marina 0 ppm, 0 ppm**

**Mill St 2ppm, 0ppm**

**Facilities Data for the Month**



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	Oct 2023	Nov 2023	Year to Date	Units
Effluent	2.34	2.43	23.67	MG
Influent	1.84	1.51	21.71	MG
Ferric Chloride	295.64	395.31	3,199.44	GAL
Freeboard (ft)	3.1	4.1	-2.2	FT

**updated numbers**

2 messages

**Mitchell Gawrysiak** <mgawrysiak@iaewater.com>  
To: Steve Patmore <lelandsewer@gmail.com>  
Cc: Bob Polanic <bpolanic@iaewater.com>

Mon, Dec 4, 2023 at 2:14 PM

	Oct 2023	Nov 2023	Year to Date	Units
Effluent	2.34	2.5	23.74	MG
Influent	1.84	1.51	21.71	MG
Ferric Chloride	295.64	395.31	3,199.44	GAL
Freeboard (ft)	3.1	4.1	-2.2	FT

**The only number that was off a little was the effluent. These numbers are correct.**



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CLEAN WATER SOLUTIONS

**MITCHELL GAWRYSIAK**  
**OPERATOR I**

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IAIv202005.1

**Steve Patmore** <lelandsewer@gmail.com>  
To: Mitchell Gawrysiak <mgawrysiak@iaewater.com>

Wed, Dec 6, 2023 at 1:30 PM

Thanks  
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