



2022 ANNUAL REPORT

Pickle Lake Wastewater Pollution Control Plant

Introduction	Page 2
Sewage System Overview	Pages 3 - 7
Sewage Quality	Pages 8 - 10
Flows	Pages 11 - 12
Compliance	Pages 13 - 15

Introduction

The **Pickle Lake Wastewater Pollution Control Plant System** (C of A # 3-1360-90-006) is obligated to meet the requirements of Ontario's *Environmental Protection Act, (R.R.O. 1990 Regulations 358 Sewage Systems)*, The law. All discharges of **wastewater** to the natural environment are regulated under the **Ontario Water Resources Act**. There are also regulations under the **Environmental Protection Act** covering 9 specific industrial sectors:

The MISA (Municipal and Industrial Strategy for Abatement) program was initiated with a series of sector specific monitoring regulations which referred to a common General Regulation (Effluent Monitoring Regulation, General: Ontario Regulation 695/88 as amended to 533/89). The General Regulation contained, among other things, the common requirements, guidelines, principles and protocols related to the sampling, preservation, storage and analysis of wastewater samples, the minimum numbers and types of field and laboratory quality control samples to be included and a general guideline for data recording and reporting.

The General Regulation was replaced with the above listed nine sector-specific regulations during the period 1993–1995. Minor amendments were made to these nine regulations in 2007.

This Protocol may also be incorporated by reference into instruments issued under legislation administered by the Ministry, including in Environmental Compliance Approvals (ECA), other forms of approvals (e.g. Certificate of Approval), and/or Orders.

1.2 Scope:

This Protocol contains much of the same information originally presented in the General Regulation. It includes direction on techniques for planned sampling of industrial/municipal wastewater, preservation of samples and their storage requirements, maximum storage times allowed prior to analysis, the most appropriate and where applicable alternate preparation and instrumental analysis protocols and the type and frequencies of field and laboratory QC samples.

This document represents a synthesis of best available information from organizations including the Ontario Ministry of Environment and Climate Change (e.g. Brownfields), Environment Canada (e.g. CCME protocols), Standard Methods for the Examination of Water and Wastewater (Current edition, American Public Health Association), and the U.S. Environmental Protection Agency (Federal Register CFR40 part 136).

It also incorporates the recommendations and conclusions reached through collaborative efforts of government, industrial and private laboratory personnel.

The techniques described here may be applicable to unplanned sampling events, but the sampling of unplanned events is beyond the scope of this document. This document also defines the principles and protocols which must be followed by all laboratories handling samples collected under the Effluent Monitoring and Effluent Limits regulations.

In some cases, it intentionally stops short of stipulating any detailed procedures, methods or control techniques. While this approach can leave room for interpretation and uncertainty resulting in slight

differences in sampling or analytical procedures, it also leaves room for improvement, analyst discretion and modernization of techniques which can improve the quality of environmental analytical data being generated. Effluent Sampling/Analytical Protocol Chapter 1: Introduction Version 2.0 Page 3 January 1, 2016 Throughout the document, "Ministry" and "Ministry officials" refers to the Ontario Ministry of the Environment and Climate Change (MOECC) and its employees, unless indicated otherwise.

Report Availability

This Annual Report shall be given to the Township of Pickle Lake. This Annual Report shall be made available upon request at the following locations:

- (1) Town Office, 2 Anne Street, Pickle Lake
- (2) Township of Pickle Lake Website (www.picklelake.org)

System Overview

Certificate of Approval System Description (1-1561-75-02):

Whereas Union Meniere Explorations & Mining Corporation Limited, Montreal Quebec has applied in accordance with section 42 of the Water Resources Act for the Approval:

The Pickle Lake Township Sewage Treatment Plant to be located on crown land, in the district of Kenora, northwest of Pickle Lake Townsite between Pickle Lake and the settlement of Central Patricia consisting of a fabricated extended aeration sewage treatment plant having the average daily capacity of 0.2 MGD or 909 M3 Day with an inlet chamber, bar screen, comminutor, grit removal facility, aeration tank, air diffusion equipment, settling tank, sludge holding tank, chlorine contact chamber, on site drying beds, and all necessary, valves, piping, internal power, control wiring, etc., including standby power, alarms and standby chlorination facilities, together with out-fall sewer and open ditch to the Kawinogans River approximately 4,500 feet upstream of Central Patricia, all in accordance with preliminary plans and specifications prepared by Kilborn Engineering Limited, consulting Engineers, at a total estimated cost including Engineering and contingencies, of One Million Four Hundred and Twenty Thousand Dollars, (\$1,420,000.00).

Therefore, this is to certify that after the inquiry the said proposed works have been approved under section 42 of the Ontario Water Resources Act.

This is a true copy of the original Certificate Mailed on May 17th 1976, Dated at Toronto 13th day of May 1976, by Mr. T. Murphy Environmental Assessment Board.

Whereas the Township of Pickle Lake has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of: Sanitary Sewers, Force mains, Sewage Pumping Stations and Appurtenances to be constructed in the Township of Pickle Lake as follows:

Sanitary Sewers:

General Process Description

1. The Main Lift Station is at the end of Koval Street off the lake shore, it has a two-pump system which takes all the flows from the gravity flow Collection System in Pickle Lake Township, and then pumps it up to the Wastewater Pollution Control Plant for Pickle Lake Township.
2. There is a wet well outside the building with a bar screen and walk way installed, with two air vents and a ladder for entry.
3. There are two pumps installed in a dry well which is located inside the Main Lift Station Building, there is also a sump pump installed in the dry well to keep it dry in case of leaks.
4. The two pumps pump up a force main to the Wastewater Pollution Control Plant down at the end of the road.
5. The wet well is considered a confined space entry location and when entering the confined space entry procedures must be followed at all times.
6. The dry well can be considered safe for entry however if there are leaks it is then considered a confined space entry system, treat as confined space to be safe and always have a spotter on top when working inside the dry well.
7. The Dry well holds two pumps and the must be checked monthly when the maintenance is being done.
8. The pump control panel is mounted on the wall up and outside the dry well inside the Lift Station Building.
9. The Lift Station building holds all the electrical equipment for the two pumps below in the dry well and also has Heaters, Lights and an alarm system.
10. Outside the building is the main disconnect from the Hydro power supply
11. The diesel generator building outside holds the diesel generator and switch gear required for it operation.

Process Description Wet Well Chamber:

The following subsections provide descriptions of the main components of the Main Lift Station System:

1. This is a cement structure buried below ground surface, which the flows enter from the Gravity collection system from the Pickle Lake collection system area.
2. The Inlet Invert comes from the manhole above on the side of Koval Street.
3. There is a Bar Screen below the Invert which catches rags and large debris during the 24/7 operation period.
4. There are two vent stacks located on top of the wet well for ventilation when required.
5. There is a walkway in the wet well that was installed so easy cleaning of the bar screens.
6. There are floats installed to control the operation of the pumps and also supply low and high-level alarms.

Certificate of Approval System Description (3-1360-90-006):

The final certificate of approval, Number 3-1360-90-006 has been issued to the Township of Pickle Lake subject to the following outlined conditions. The reason for the imposition of the condition is as follows:

To ensure that all proposed sanitary water connections, including future connections are serviced correctly by the downstream sanitary sewer collection system, and is within the treatment capacity of the downstream sanitary sewage works, both in terms of effluent requirements and hydraulically.

The township may be written notice within 15 days by the Environmental Appeal Board after receipt of this notice, requiring a hearing from the board. Section 63 of the Ontario Water Resources Act 1980 C. 361 provides that the notice requiring the hearing shall state the portions of each term or condition in the approval in respect of which the hearing is required.

This notice should be served upon:

The Secretary,
Environmental Appeal Board,
112 St. Clair Ave. West,
5th Floor,
Toronto, Ontario
M4V 1N3

& The Director,
Section 24, OWR Act,
Ministry of the Environment,
250 Davisville Avenue,
Toronto, Ontario
M4S 1H2

Whereas the Township of Pickle Lake has applied in accordance with Section 24 of the Ontario Water Resources Act for approval of: Sanitary Sewers, Force mains, Sewage Pumping Stations and Appurtenances to be constructed in the Township of Pickle Lake as follows:

Sanitary Sewers:

<u>Street</u>	<u>from</u>	<u>To</u>
Hwy. 646	Easement to existing Manhole No. 44	Approx. 136 m North of easement to manhole 44
7 m easement L PA 4462	Hwy. No. 646	Approx. 163 m West of Hwy. No. 646

Force main:

Easement	Sewage Pumping Station	Approx. 400 m West of Sewage Pumping Station
----------	------------------------	--

Sewage Pumping Station Consists of:

1. 2.1 m Diameter wet well.
2. Two (2), one duty and one standby Submersible pumps rated at 21.45 L/s against 17.37 m Total Dynamic Head.
3. Connection to an existing 187 KVA Diesel Generator.
4. Float switches, interconnection piping and valves, emergency by-pass chamber.
5. A 3.6 x 3.6 m Lift Station enclosure.
6. This is the Lakeview Crescent Lift Station.

Therefore:

This is to certify after due enquiry the said proposed works have been approved under section 24 of the Ontario Water Resources Act.

This is including stub sanitary sewers and sanitary service drains from the main sewer to the street line, all in accordance with the following documents, namely, final plans and specifications prepared by Hileri Consultants Ltd., contingencies, of Two Hundred and Fifty Five Thousand Dollars, (\$255,000.00), and all additional stub sanitary sewers and sanitary service drains from the main sewer street line not included in the above Final plans and specifications as may be approved by the Operating Authority in the future in accordance with the conditions of the Certificate of Approval.

Condition:

The Operating Authority shall not approve any additional stub sanitary sewers and sanitary services drains from the main sewer not included in the documents referred to above unless it has reviewed the hydraulic capacity of the downstream sanitary sewer collection system and the sanitary sewage treatment works serving them and has concluded that the additional stub sanitary sewers and sanitary services drains together with all existing and previously approved stub sanitary sewers and sanitary services drains will not overload either the downstream sanitary sewer collection system or the sanitary sewage treatment works and has recorded its review and conclusion in writing.

This record shall be maintained by the operating authority and shall be summarized in a yearly report to be sent to the District Officer of the Ministry's District Office by February 15th of the following calendar year in which the records were collected.

Dated at Toronto This 26th day of September, 1990.

System Overview (continued)

System Expenses

In accordance with best Practise annual costs are estimated for sewage system in **Table 1**. Other expenses have also been provided within the table, including those expenses related to equipment inspections and acquiring spare equipment or parts. Also included are building repairs and maintenance supplies.

Table 1: 2022 Wastewater System Expenses

Dept	Name	Expense \$
	3400 Sewer	
01-34-0050109	Internet	613.85
01-34-0050110	Hydro	52946.26
01-34-0050112	Fuel - Building	229.41
01-34-0050123	Postage & Express Freight	79.58
01-34-0050183	Equipment Maintenance & Supplies (Non-Office)	7380.28
01-34-0050192	Maintenance Supplies	822.64
01-34-0050197	Lab Service-Testing	370.98
Dept	Totals	62443

Sewage Quality

Influent and Effluent:

In accordance with the Certificate of Approval an (Annual Report), this Annual Report must summarize the results of tests required by regulations, approvals, and orders. The results of such water quality analyses are provided within the following sections.

Operational Parameters:

The Pickle Lake Sewage treatment plant employs an in-house sample taken and the free chlorine residual required to achieve primary disinfection at the Final Effluent. Additionally, Sewage Influent are analyzed on a Monthly basis in Table 2:

Table 2 Influent Parameters 2022:

INFLUENT:

Month	BOD ₅ (mg/L)	SS (mg/L)	Total P (mg/L)	TKN (mg/L)
Jan	<20	79.5	3.17	18.3
Feb	75	82	2.27	17.7
Mar	100	76	3.4	17.4
April	44	26	2.32	3.7
May	26	2	1.3	9.7
June	20	32	1.4	11.6
July	20	23	1.2	9.4
Aug	30	22	0.52	9.6
Sept	26	10.7	0.79	4.6
Oct	20	12	1.02	9.7
Nov	<20	79.5	3.17	18.3
Dec	41	35	2.18	6.7
AVERAGE:	36.83	39.98	1.90	11.40

CBOD₅ = Carbonaceous Biochemical Oxygen Demand; SS = Suspended Solids; Total P = Total Phosphorus; TKN = Total Kjeldahl Nitrogen; TAN = Total Ammonia Nitrogen.

EFFLUENT:

Month	CBOD ₅ (mg/l)	SS (mg/l)	Total P (mg/l)	TKN (mg/L)	TAN (mg/L)	Unionized Ammonia (mg/L)	pH	E-coli (CFU/100ML)
January	0.7	3	1.68	2	0.01	<0.002	7.1	>1000
February	2.6	3.7	1.55	4	0.02	<0.002	7.78	>1000
March	1.2	4.3	2.41	1.4	0.01	<0.002	6.94	885
April	0.8	1.7	1.42	0.2	0.01	<0.002	7.68	NDOGT
May	3	3	0.98	1.1	0.04	<0.002	6.71	54000
June	0.5	2	0.86	0.8	<0.01	<0.002	8.1	432
July	1.5	3.2	0.72	0.2	0.01	<0.002	6.82	260
August	0.5	5.3	0.21	1	0.02	<0.002	7.01	860
September	1.5	4.7	2.5	<0.2	<0.01	<0.002	7.13	140
October	0.5	3.3	1.5	<0.2	<0.01	<0.002	7.1	780
November	0.7	3	1.68	2	0.01	<0.002	7.1	>1000
December	<1	3.3	1.03	<0.4	<0.01	<0.002	6.65	17400
Average:	1.23	3.38	1.38	1.41	0.02	0.002	7.12	9344.63

CBOD₅ = Carbonaceous Biochemical Oxygen Demand; SS = Suspended Solids; Total P = Total Phosphorus; TKN = Total Kjeldahl Nitrogen; TAN = Total Ammonia Nitrogen.

Microbiological Parameters

Microbiological analyses are performed on Sewage Effluent. For EC = E. Coli. Are shown in Table 3:

TABLE 3: Sewage Final Effluent EC Results in 2022:

Sample	Number of Samples	EC2 Results (CFU/100ml)
Final Effluent	12	9344.63

Heavy Metals Digester Sludge Results:

Heavy Metal Digester Sludge sampling, which are taken once a year, was not completed in 2022. The 2018 parameter sampling results are provided in **Table 4**;

TABLE 4: Heavy Metals Digester Sludge Sample Results:

Heavy Metals	Units	Digester Sludge Results
Aluminum	mg/L	0.710
Antimony	mg/L	0.00143
Arsenic	mg/L	0.0425
Barium	mg/L	0.0829
Beryllium	mg/L	<0.00050
Bismuth	mg/L	0.00827
Boron	mg/L	0.117
Cadmium	mg/L	0.00123
Calcium	mg/L	237
Cesium	mg/L	0.000192
Chromium	mg/L	0.00582
Cobalt	mg/L	0.00222
Copper	mg/L	0.976
Iron	mg/L	1.64
Lead	mg/L	0.00362
Lithium	mg/L	<0.0050
Magnesium	mg/L	26.7
Manganese	mg/L	2.08
Mercury	mg/L	0.000022
Molybdenum	mg/L	0.00172
Nickel	mg/L	0.0233
Phosphorous	mg/L	34.5
Potassium	mg/L	26.8
Rubidium	mg/L	0.0298
Selenium	mg/L	0.00165
Silicon	mg/L	9.02
Silver	mg/L	0.000271
Sodium	mg/L	49.5
Strontium	mg/L	0.227
Tellurium	mg/L	<0.0010
Thallium	mg/L	0.000088
Thorium	mg/L	<0.00050
Tin	mg/L	<0.00050
Titanium	mg/L	<0.0051
Tungsten	mg/L	<0.00050
Uranium	mg/L	0.000464
Vanadium	mg/L	<0.0025
Zinc	mg/L	0.547
Zirconium	mg/L	<0.00030

Sewage Treatment Plant Flows

2022 Sewage Treatment Plant Flows:

Throughout the reporting period of 2022, the Pickle Lake Sewage Plant released 157,736 m³ of effluent. On an average monthly in 2022, 13,144.60 m³ of final effluent was sent to the receiving waters in Kawinogans River. The average daily flow in 2022 represents 47.5% of the combined rated capacity of the Pickle Sewage Treatment Plant of Maximum flow (909 m³/day).

Table 5 provides a flow summary and capacity assessment for the WPCP 2022.

TABLE 5: 2022 Flow Summary:

Monthly Effluent Flow & Chlorine Usage				
Month	Effluent Flows		Diluted Chlorine	
	Imp Gallons	m ³	Gallons	Litres
			Used	Used
January	3,633,630	17,067	0	0
February	3,729,000	15,819	0	0
March	3,567,840	16,758	0	0
April	3,819,060	17,938	0	0
May	5,085,180	23,885	99.3	376
June	3,830,130	17,990	209.1	791.42
July	3,352,800	15,750	264.7	1001.9
August	3,104,970	14,584	240.4	909.93
September	2,767,530	12,999	294.8	1115.97
October	3,112,440	14,619	130.5	493.9
November	3,317,460	15,582	0	0
December	3,434,970	16,134	0	0
Totals	17,102,244	199,125	128.8	4689.1
Monthly Avg	1,425,187	16,593.75	206.5	781.5
Daily Avg	47,506.23	553.125		
Total Yearly Flow:		17,102,244	Gallons	199,125 m ³
Average Monthly Flow:		1,425,187	Gallons	16,593.8 m ³
Total Chlorine Used:		47,506.23	Gallons	4689.1 Litres

Flow Comparisons at Sewage Treatment Plant:

There should be a record of yearly flows to represent if they are increasing or decreasing over the years, the table below will should annually results of flows at the Sewage Treatment Plant in Pickle Lake.

Table 6 provides a flow summary and capacity assessment for each relevant location.

TABLE 6: Flow Summary:

Year	Effluent Flow	
	Gallons	m ³
2022	17,102,244	199,125
2021	34,701,920	157,736
2020	35,613,600	161,889
2019	40,706,820	185,031
2018	37,832,080	171,964
2017	27,099,886	109,533
2016	28,200,040	114,454
2015	30,674,080	127,030
2014	29,606,060	123,887

Chemical Consumptions

All chemicals used in the treatment process are NSF/ANSI 60 certified. In the year 2022, we diluted sodium hypochlorite with the water in to 1:3 ratio respectively to keep the total chlorine below 0.05mg/L.

TABLE 7: Sewage Treatment Plant Chlorine Used Yearly:

Date	Gallons Used	Litres Used
2022	128.8	4689.1
2021	522	2374
2020	358.8	1629.3
2019	597	2261
2018	992	4509
2017	989	4498
2016	672	3052
2015	351	1597
2014	411	1867

Table 7.2: De-chlorination:

As per the Environment Canada guidelines, de-chlorination of the sewage effluent required to eliminate chlorine residual toxicity. Provisional regulation implemented total chlorine has to be below 0.05mg/L in the treated effluent. Pickle Lake WPCP started using Bio-Max Sodium Sulphate tablets to neutralize chlorine.

Month of 2021	Tablets used
May	271
June	320
July	365
Aug.	299
Sept.	300
Oct	315
Nov	244
Total	2114

Compliance

The Township of Pickle Lake employs an operational strategy that is committed to achieving the following goals:

- 1) Meeting or exceeding all applicable legislative and regulatory requirements.
- 2) Maintaining and continually improving the operation and maintenance of the system; and,
- 3) Maintaining and operating the Pickle Lake Sewage Treatment Plant System in a responsible manner in accordance with documented quality management system policies and procedures.

The following sections will summarize incidents of By-passes and noncompliance that occurred during the reporting period. The Township of Pickle Lake is committed to employing timely and effective corrective actions to prevent recurrence of all identified incidents of By-passes and noncompliance.

Incidents of Non-compliance

In accordance with Schedule 22 (Summary Reports for Municipalities) of O. Reg. 170/03, this Annual Report must list any requirements of *the Act*, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report (i.e. an incident of non-compliance). Additionally, this Annual Report must specify the duration of the failure and the measures that were taken to correct the failure.

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED:

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

PICKLE LAKE SEWAGE TREATMENT PLANT EVENTS 2022:

1. On 15th Jan, scrapper arm at clarifier & fixed and rotating.
2. On 21st Jan, melted ice sheet at Lakeview lift station manhole.
3. On 3rd Feb, unfreeze the wasting valves at clarifier with herman heater and the following day wasted 31.53 m3 of sludge into digester tank.
4. On 14th Feb, ran wastewater plant Gen-Set on idling for about 3 hours.
5. On 15th & 16th Feb, ran both lift stations LVLS and MLS on Gen-Set power for about 4 hours each.
6. On 24th March, ran both lift stations LVLS and MLS on Gen-Set power for about 6 hours each.
7. On 25th March, ran wastewater plant Gen-Set on idling for about 4 hours.
8. From 23rd – 25th March, scrapped and scooped solid matters from top of the clarifiers' rim. Additionally, cleaned the final effluent's drain pit.
9. On 1st April, changed ballast semiconductor of light near washroom's ceiling.
10. On 6th April, power went out for a few minutes around 16:00.
11. On 7th April, blower 2 was off. So, tried running blower 1 but apparently it was making very loud noise. So, Leonard turned blower 1 off and turned back blower 2 back on. Everything was running normal. Cause for this might be the short power outage the day before.
12. On 13th April, ran wastewater plant mobile Gen-Set and both lift stations LVLS and MLS on Gen-Set power for about 10 minutes. Preparing for storm.
13. On 14th April, power outage around 08:00. Started gen-set at both lift stations MLS & LVSS and at wastewater plant too. Turned off wastewater plant's mobile gen-set around 10:00 and took it to water plant until power was back on. Kept the lift station gen-sets running until power came back that was around 16:00.
14. On 5th, 6th, & 17th April, scrapped and scooped solid matters from top of the clarifiers' rim. Additionally, cleaned the final effluent's drain pit.
15. On 19th April, prepared ECA residue management.
16. On 21st April, customer complaint from Northern grocery store about sewer blockage. Washroom line was flushing very slowly, other sinks were working fine. Poured down 2 jar of red hot chemical to degrease, used plunger and took some sand out. After working for about 2 hours issue was resolved.
17. On 6th May, cleaned RAS solenoid in clarifier since RAS was not working properly.
18. On 9th May, scrapped and scooped solid matters from top of the clarifiers' rim. Additionally, cleaned the final effluent's drain pit. Power outage but came back in a few minutes.
19. On 13th May, cleaned 23 bags of grease off Lakeview Lift Station.
20. On 20th May, set up dechlorination puck holder & Cl2 tank.
21. On 25th May, wasted sludge into digester which filled it up to top 118".
22. On 30th May, wasted digester into drying bed.
23. On 1st & 5th June, Leonard, Jordan & I cleaned the clarifier and moved mobile gen-set to water plant.
24. On 4th June, cleaned 10 full bags of grease from main lift station.
25. On 8th June, power outage for 20 minutes.
26. On 11th June, False high-level alarm at MLS due to cleaning floats & bar screens acknowledged.
27. On 16th June, Power outage for a total of 5 hours. Turned gen-sets at water plant, MLS (Main Lift Station) & LVSS (Lakeview Sewage Lift Station) on for that time.
28. On 17th June, trimmed grass around waste drying bed.

29. On 21st June, high level alarm due to air lock at MLS. Issue resolved after shooting out the air.
30. On 26th & 27th June, Leonard and I (Divya) completed dump sampling. Power outage for 19 hours, turned on all 3 gen-sets. Igor & Chris from Lakeside calibrated flowmeter & colorimeter.
31. On 29th June, High level alarm at MLS due to air lock & shut-off valve. Resolved by opening & closing the valve.
32. On 30th June, summer students; Charles, Sam & Tyler helped clean up front yard.
33. On 1st & 2nd July, power outage for a total of 10 hours. Turned gen-sets at water plant, MLS (Main Lift Station) & LVSS (Lakeview Sewage Lift Station) on for that time.
34. On 6th July, marked the manholes with spray paint so that the top doesn't break off by heavy equipment.
35. On 10th July, Gen-set at MLS turned on & off. for 15 minutes of power outage.
36. On 16th July, after noticing that the arm wasn't moving, turned off the motor. We will fix it as soon as possible. Planning to lift the arm after swinging it in reverse to an accessible opening. Later we'll make a extension to the roller so it doesn't slip off the rim.
37. On 17th July, power outage for a total of 17 hours. Turned gen-sets at water plant, MLS (Main Lift Station) & LVSS (Lakeview Sewage Lift Station) on for that time.
38. On 26th July, Removed some pipes off the front yard. Cleaned some rags off the grit chamber. 1 side of grit chamber still blocked, will be cleaned as soon as it dries out.
39. On 31st July, we got highest inflow due to recent heavy pours and infiltration through ground to manhole to the clarifier.
40. On 2nd August, due to heavy pour down there was high effluent flow.
41. On 3rd August, trimmed some grass around WPCP & checked a few manholes near WPCP.
42. On 5th & 6th August, reversed the arm in accessible space, lifted scrapper arm using a pulley & changed a broken bolt on V-notched weir.
43. On 27th August, arranged stuff and chemical orderly in shop.
44. On 28th August sewer auger & see snake equipment was borrowed by Graham for a few hours.
45. On 18th & 28th August there was power outages for a few minutes.
46. On 15th September, old sump pump at Main Lift Station's drywell wasn't working efficiently for a while so switched it with a new one.
47. On 19th September, there was high effluent flow due to heavy pour down.
48. On 2nd & 7th October, tried snaking the sewer service line at 27 Rose Ave to unclog but were unsuccessful. Later with Leonard & Micah's help changed crushed part of pipe.
49. On 3rd & 4th October, reorganising tools and stuff in blower room & storage shack.
50. On 12th October, tried switching from blower 2 to 1 but unfortunately blower 1 doesn't turn on. Apparently, it was an issue in past too. So kept blower 2 running.
51. On 13th October, we ceased chlorinating yesterday late evening since Pickle Lake started hitting sub-zero temperature. Put away chlorinating pump, tank and dechlorinating kit. Also, rinsed the tank & pump.
52. On 18th October, fixed sump pump at shop with Leonard's help.
53. On 19th October, the top scum scrapper arm slipped off the rim near grease pit. With Leonard & Micah's help, we reversed it, changed a bolt of the rim & placed the arm back on the rim working.
54. On 21st October, after a couple hours of cleaning bar screen & floats, I received a high-level alarm. Tried running both pumps manually but pump 1 didn't kick on. Released the air and then it worked fine.
55. On 22nd & 23rd October, scrapper arm stopped moving. So, we turned the motor off and greased the rolling drum & motor then tightened the bolts and turned it on.
56. On 24th October, there was high flow due to higher water usage.

57. On 26th & 28th October, scrapper arm stopped moving. So, we turned the motor off but turned it on later so the bottom one can move.
58. On 30th October, we ran both lift stations gen-sets for an hour for monthly checks.
59. On 1st November, we (Leaha, Leonard, Divya) flushed the sewer line through manhole in front of 21 Howell St. Now the resident's line is draining better.
60. On 2nd November, we (Leaha, Micah, Divya) Cleared blockage (concrete block pieces) from a manhole on Dickenson near Wasaya staff house.
61. On 3rd November, main power breaker tripped @ Lakeview Lift Station due to short power outage and overflow occurred. Ran the lift station on gen-set for a few hours. No call-out since dialer backup battery didn't function properly. Hydro-one crew came down and power was restored at lift station. Used lime to neutralize area contaminated from overflow near lake.
62. On 4th November, saw some free-swimming ciliates, flagellates, rotifers & nematodes in aeration sample.
63. On 7th November, tried auger & se snake to break & observe through obstruction at 21 Howell St. Discovered broken line due to a previous dig. Re-dug the same spot & changed the asbestos sewer line with ABS PVC 4" sewer pipe, everything alright so far.
64. On 13th November, recorded high effluent flow due to high water use.
65. On 22nd November, Inspected all the fire extinguishers at both lift stations, Main & Lakeview.
66. On 30th November, ran gen-set at Main lift station for an hour for monthly check.
67. On 6th December, uploaded WSER report for July, August & September.
68. On 11th December, ran gen-sets @ both lift stations for 4 hours due to power outage.
69. On 16th December, unclogged kitchen plumbing line at 26 Koval St.
70. On 27th December, recorded high effluent flow (681m3) due to high water use.

Staff Changes in the Class 2 Wastewater Treatment & Collection System Crew:

1. Divya Pandya started working as OIT Water Wastewater Operator on 7th February 2022.
2. Megh Chauhan left on May 1st 2022.
3. Leaha Kane onsite as back up OIC for 1st – 7th November.
4. Aidan Klose started working as OIT Water Wastewater Operator on 28th November 2022.
5. Leonard Wavy left on 31st December 2022.