PUBLIC SERVICESCOMMITTEE
AGENDA

Wednesday, February 19, 2025, 4:00 pm
Hybrid Meeting (zoom/chambers)

Pages

PUBLIC SERVICES COMMITTEE

MEETING MINUTES

Wednesday, January 22, 2025
5:30 pm
Hybrid Meeting (zoom/chambers)

Present:	L. Morrissette, Chair R. Bull, Member M. Seidel, Member A. Wannan, Mayor, Ex-Officio
Resources:	B. Goulding, Special Projects Manager A. Laurence, Deputy Clerk & Accessibility Coordinator

1. CALL TO ORDER

2. ROLL CALL

3. DECLARATION OF CONFLICT OF INTEREST

4. MINUTES OF THE PREVIOUS MEETINGS

4.1 September 16, 2024

Res#: 1/25

Moved By: M. Seidel
Seconded By: R. Bull

That the following minutes be adopted:

September 16, 2024

Carried

5. PUBLIC INPUT SESSION

Ms. Jeannie Meyer spoke to item 7.1

Ms. Helen Manley spoke to item 7.1

Ms. Stella Waddington spoke to item 7.1

6. PUBLIC PRESENTATION

6.1 Presentation from EXP

Re. Conventional & Specialized Transit System Review Study - Final Report

Presenters:

Rick Zarzosa, P. Eng., Senior Traffic and Transit Engineer

Mahima Sharma, P. Eng., PMP, CAMP, Transportation Engineer

7. INTRODUCTION AND CONSIDERATION OF CORPORATE REPORTS

7.1 Report from the Special Projects Manager

Re. Transit Study Final Reporting

Res#: 2/25

Moved By: R. Bull
Seconded By: M. Seidel

That the report from the Special Project Manager be received by Council.

Carried

Res#: 3/25

Moved By: R. Bull
Seconded By: M. Seidel

That the Public Services Committee ask the Accessibility Advisory Committee to strike a working group that focuses on reviewing our transit system.

Carried

8. PRESENTATION OF COMMITTEE REPORTS

9. UNFINISHED BUSINESS

10. CORRESPONDENCE

11. ADDENDUM

12. CLOSED SESSION

13. SCHEDULING OF NEXT MEETING

The next scheduled Public Services Committee meeting is February 18, 2025 at 5:30 pm.

14. ADJOURNMENT

Res#: 4/25

Moved By: M. Seidel
Seconded By: R. Bull

That the meeting be adjourned at the hour of 6:53 PM.

Carried

City of / Ville d' Elliot Lake

STAFF REPORT

REPORT FROM THE ASSISTANT DIRECTOR OF PUBLIC WORKS

Re: Water Summary Report For The Elliot Lake Water Treatment Plant

RECOMMENDATION

That Council receive the 2024 Water Summary Report.

BACKGROUND

Schedule 22 of Ontario Regulation 170/03, sub-section 22-2 (1) states that; The owner of a drinking water system shall ensure that, not later than March 31 of each year after 2003, a report is prepared in accordance to subsections (2) and (3) for the preceding calendar year and is given to, in the case of a drinking water system owned by a municipality, the members of the municipal council.

(2) The report must,

(a) list the requirements of the Act, regulations, the system's approval and any order that the system failed to meet at any time during the period covered by the report and specify the duration of the failure; and

(b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

(3) The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including the monthly average and maximum daily flows and daily instantaneous peak flow.
2. A comparison of the summary referred to in paragraph 1 to the related capacity and flow rates approved in the system's Municipal Drinking Water License.

ANALYSIS

Please refer to the attached report.

FINANCIAL IMPACT

Not Applicable

LINKS TO STRATEGIC PLAN

The information found in the Summary Report aides in educating members of our community regarding infrastructure operations. The report is consistent with the commitment identified by Mayor and Council within the Strategic Plan focusing on “Continued Investment into Infrastructure”.

SUMMARY

This report provides evidence and assurances to Mayor and Council that as Officers of the Corporation, Council is exercising the prescribed standard of care with respect to the operations of the water treatment system. Receiving this report will ensure the municipality’s compliance with regard to prescribed legislation under the Safe Drinking Water Act.

January 21st, 2025

The Mayor and Members of Council
City of Elliot Lake
Municipal Office
45 Hillside Drive North
Elliot Lake, Ontario P5A 1X5

ATTENTION: Mayor and Members of Council

RE: Elliot Lake Water Treatment Plant Summary Report For Municipalities: Municipal Large Residential

Your Worship Mayor Wannan and Members of Council:

Please find attached, the 2024 Summary Report for the Elliot Lake Water Treatment Plant. This report has been prepared in accordance to the guidelines set out in Schedule 22 of the Safe Drinking Water Act, 2002 (Ontario Regulation 170/03).

The report covers the period from January 1, 2024 to December 31, 2024.

Please direct any questions or concerns to the undersigned.

Yours truly,

Bart Doyle

Bart Doyle
Assistant Director of Public Works

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Elliot Lake Water Treatment Plant
2024 Summary Report

1.0 Purpose

The purpose of the Water Treatment Plant Summary Report is to provide information to Council and Residents of the City of Elliot Lake, as well as satisfying the regulatory requirements of the Safe Drinking Water Act (SDWA) including the Drinking Water Quality Management System (DWQMS)

This report is prepared in accordance with Schedule 22 of Regulation 170/03 of Ontario's Safe Drinking Water Act and ensures that no later than March 31st a summary report is prepared and presented to Municipal Council and covers the reporting period from January 1, 2024 to December 31, 2024.

2.0 System Description

The City of Elliot Lake Water Treatment Plant is classified as a Class 2 direct filtration plant.
Water is drawn from Elliot Lake through an intake structure, located in approximately 12.2 m (40 ft.) of water and is gravity fed through a 295 m long marine pipeline to the low lift pumping station wet well. The water is then pumped to the main facility at 200 Spine Road. The raw water then passes through a flow meter and into reactor/mixing tanks. At this point Polyaluminum Chloride (PAC) is added to the process to aid in the production of floc. The water then continues into the hydraulic spiral flow flocculation tanks and afterwards passes through three rectangular filters with dual media (anthracite/sand). The filtered water is collected in an underdrain system and enters a 2,300 m3 Clearwell (storage reservoir) on site. Chlorine is added to the treated water as it leaves the filters to achieve required disinfection. Fluoride is also added at this point. Fluoride does not play a role in the treatment process, but rather acts as an agent in the prevention of tooth decay in young children. High Lift pumps pump the now treated water from the Clearwell through a flow meter and into the distribution system. This treated water makes its way to consumers' homes, either directly or from the standpipe storage facilities. Lime is added to the water as it leaves the plant to aid in the prevention of corrosion in the distribution system. The lime is also used for pH and alkalinity adjustment.

The City of Elliot Lake has highly trained staff that specializes in operating and maintaining a water treatment plant, distribution system, a booster station and two elevated water storage tanks (standpipes) with a total storage volume of approximately 9400 m^3. Water is supplied to customers by approximately 130km of water main ranging from 150mm to 600mm pipe mainly through ductile iron and cast iron and areas with PVC piping. There are approximately 428 fire hydrants located within the system. As well there are 192 metered accounts and approximately 6500 service connections.

3.0 Compliance Reporting

The owner and operating authority shall ensure that any person authorized to carry out work on or to operate any aspect of the drinking water system has been informed of the SDWA, and all applicable regulations made in accordance with that act, as well as any other licenses or permits.

3.1 Elliot Lake Drinking Water System

Section 18 of the Safe Drinking Water Act requires the system operator to report adverse test results or conditions immediately after the result is obtained or situation identified. A test result is considered adverse when the sample being tested fails to meet the prescribed drinking water standards. Limits for all parameters being tested under the Acts and Regulations are identified under the various Regulations associated with the Safe Drinking Water Act, 2002.

The Elliot Lake Drinking Water System had a Ministry of Environment, Conservation and Parks (M.E.C.P.) inspection during the 2024 reporting period. The inspection took place on December 12th 2024 and the inspection report has been attached to this report.

All chemicals and materials used in the operation of the drinking water system that came into contact with water met all applicable standards set by American Water Works Association (AWWA) and the American National Standard Institute (ANSI) safety criteria standards NSF/60, NSF/61 and NSF/372.

Flow measurement equipment required to record the volume of water taken from the intake and effluent discharged to the distribution system are verified on a monthly basis and calibrated on an annual basis by a third party.

On-Stream analyzers such as chlorine, pH and turbidity are verified and cleaned on a monthly basis and calibrated by a third party on an annual basis.

3.2 Elliot Lake Distribution System

The Elliot Lake Distribution System was maintained to ensure quality drinking water to consumers. The following operations were done in 2024:

- There were 33 instances of adverse water quality incidents in 2024 where reports were made to the Public Health Unit and Spills Action Centre in accordance with Section 18 of the Safe Drinking Water Act. **(See Table 4 adverse water reports)**
    - **a)** 19 for watermain repairs,
    - **b)** 5 for new watermain & service line installations,
    - **c)** 3 for service line repairs,
    - **d)** 2 for microbiological sample results,
    - **e)** 2 regarding a fluoride analyzer failure,
    - **f)** 1 regarding a low free chlorine residual,
    - **g)** 1 regarding new valves and pressure reducing valve installation

- There were 6 documented water quality complaints ranging from taste and odour to discoloration and pressure issues.

3.3 Permit to Take Water Summary

The Elliot Lake Water Treatment Plant was issued the current Permit to Take Water November 24, 2015 and expires on December 1st, 2025. This permit allows the maximum of 19,722 liters per minute and 18,184,000 liters per day. There were no exceedances to report for the 2024 summary report. **(See table 2 for flow rates)**

3.4 Municipal Drinking Water License Summary

The City of Elliot Lake Municipal Drinking Water License was issued on March 25th 2022 and expires on March 24th 2027. This license allows a maximum daily volume of treated water that flows from the treatment plant to the subsystem to not exceed 28,400m^3/day. This maximum rated capacity was not exceeded during the 2024 reporting period.

3.5 Lead Sampling

Lead sampling was conducted as required by O. Reg 170/03 Schedule 15.1 on February 27th and October 9th 2024 at eight (8) locations in the distribution system. The results were not in exceedance.

4.0 Regulatory Inspection

The Elliot Lake Drinking Water System had a Ministry of Environment, Conservation and Parks (M.E.C.P.) inspection during the 2024 reporting period. The inspection took place on December 12th 2024. The inspection report was received on January 15th 2025 and the Municipal Drinking Water system obtained a grade of 100%. **(Report Attached**)

5.0 Identified Terms and Conditions

The Elliot Lake Water Treatment Plant meets the requirement of the Ontario "Drinking Water Standards." Disinfection of treated water is achieved as per Ministry Procedure B13-3. Required CT was continuously monitored and met at all times ensuring that appropriate levels of disinfection were attained.
Backwash water discharge suspended solids sampling was conducted monthly. The annual average was **11.4 mg/L**, which is below the required **25 mg/L** annual average.
Backwash water discharge Total Chlorine Residual sampling was also conducted monthly. The annual average was **0.015 mg/L**, which is within the required standard of **0.02 mg/L**.

6.0 Drinking Water Quality Management System (DWQMS)

The Quality Management System (QMS) consists of an Operational Plan that defines and documents the various policies and procedures with respect to water quality management which were established to meet the Province of Ontario standards as identified within the Safe Drinking Water Act. The Internal Audit and Managerial Review were all completed in 2024 as per the requirements outlined in the City of Elliot Lakes Operational Plan.

A third party surveillance audit was performed by SAI Global on May 13th 2024 along with a Re-Accreditation audit on June 10th 2024. All elements conformed to the DWQMS 2.0 standards.

6.1 Operations and Maintenance

Review and Provision of Infrastructure:

Element 14 of the DWQMS 2.0 requires that an annual review of the Drinking Water System's infrastructure is completed. This pertains to the maintenance necessary in order to operate and maintain the City of Elliot Lake Drinking Water system. This review involves information from a ten year Capital Plan that was revised in 2016, that prioritized road projects by the condition of the infrastructure below them such as water mains. Element 14 requires that the Operating Authority carry out the review and provide a report to the owner. This ensures that the owner is regularly informed of infrastructure needs and can plan accordingly.

Element 15 of the DWQMS maintains a program of the maintenance, rehabilitation and renewal for the infrastructure. The effectiveness of the maintenance system is relayed to the owner in a summary report under Section 22 of Ont. Reg 170/03. Monitoring the effectiveness of the maintenance program is achieved by periodically reviewing the maintenance program and ensuring its effectiveness.

7.0 Documentation

Contingency plans, Standard Operating Procedures, the Operational Plan and the Drinking Water Quality Management Standard documents which provide guidance in the event of emergencies, upset conditions and breakdowns are located in the office at the Elliot Lake Water Treatment Plant. Detailed drawings of the facility are centrally located in the control room.

8.0 Conclusion

The Elliot Lake Water plant has sufficient capacity to treat and distribute projected flows for the foreseeable future. Ongoing plant improvement will likely be necessary during the 2025 planning period due to structure and equipment age. There were no instances of treated water flows exceeding the rated capacity in the Municipal Drinking Water License.

The Elliot Lake Water Treatment Plant was operated in compliance within the conditions of the Municipal Drinking Water License (MDWL), Permit to Take Water (PTTW), Drinking Water Works Permit (DWWP) as well as other regulations.

Table 1: Treated Water Annual Quantities and Flow Rates
Maximum 28,400 (m^3) per day

MONTH	Minimum Flow / Day (M^3)	Maximum Flow / Day (M^3)	Average Flow / Day (M^3)	Instantaneous Peak Flow (L/s)	Total Flow (M^3)
January	5,338.6	7,845.2	6,627.4	175.67	205,450.3
February	5,778.1	8,120.3	6,756.4	172.08	195,936.4
March	5,704.6	8,208.7	6,711.7	174.5	208,061.6
April	5,794.5	8,502.9	6,988.1	154.35	209,641.5
May	5,314.7	9,159.2	7,411.1	239.47	229,744.3
June	5,203.7	8,891.4	7,053.5	170.72	211,605.9
July	4,698.8	8,911.5	7,416.3	231.62	229,904.4
August	5,679.7	9,479.1	7,653.3	195.74	237,250.8
September	5,056	8,287.5	6,499.3	163.37	194,978.4
October	4,402.7	7,359.5	5,969.5	172.20	185,053.9
November	4,162.7	7,614.3	5,916.9	148.31	177,506.4
December	4,908.4	8,183	6,124.9	158.86	189,872.3

Minimum	4,162.7	7,359.5	5,916.9	148.31	177,506.4
Maximum	5,794.5	9,479.1	7,653.3	239.47	237,250.8
Average	5,170.2	8,380.2	6,760.7	179.74	206,250.5
				Total Flow M^3 2024	**2,475,006.2**

Comparison of Maximum Daily Flow to Rated Capacity 2024 for Treated Water

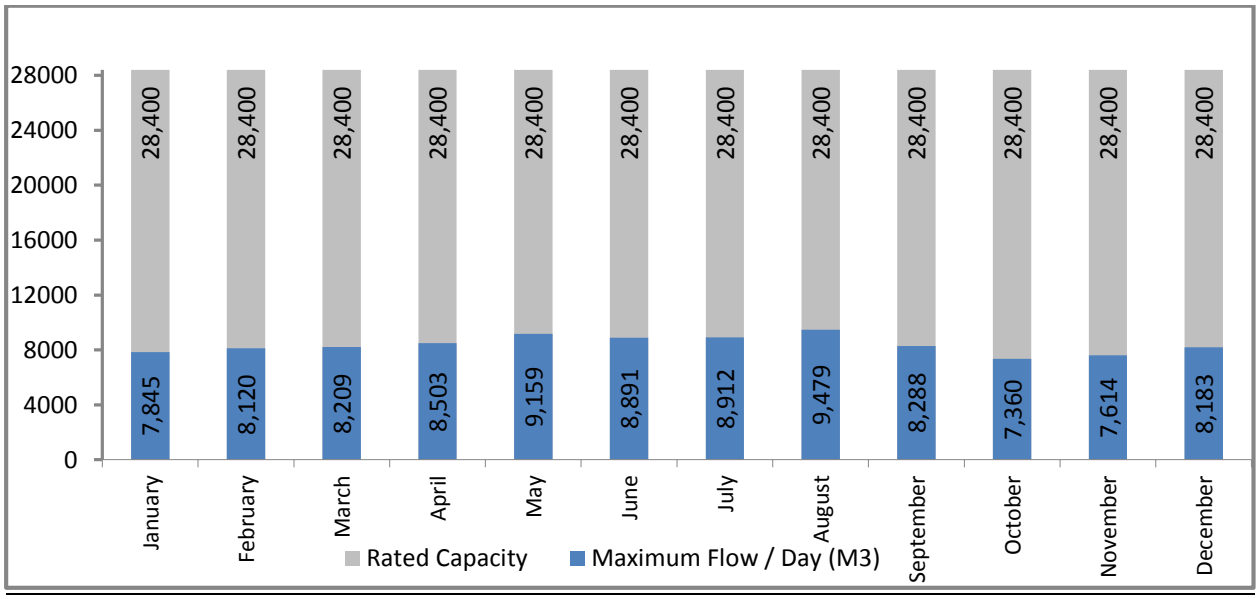

Table 2: Raw Water Annual Quantities and Flow Rates
Maximum 18,184 (m^3) per day

MONTH	Minimum Flow / Day (M^3)	Maximum Flow / Day (M^3)	Average Flow / Day (M^3)	Instantaneous Peak flow (L/s)	Total Flow (M^3)
January	5,978.8	8,613.4	7,517	269.19	233,027.8
February	6,467.2	8,828.5	7,546.7	235.59	218,854.9
March	6,612.1	9,201.9	7,632.7	254.04	236,612.2
April	7,094.9	8,863.2	7,851.2	273.49	227,683.7
May	6,103.2	10,234.6	8,305	309.41	257,455.8
June	5,776.7	9,981.2	7,952.5	204.84	238,574.7
July	5,536.8	10,237.4	8,272.5	274.78	256,446.4
August	6,558.3	10,938.2	8,688.9	249.86	269,355.6
September	6,041.5	9,515.9	7,402.6	226.37	222,077.5
October	4,964	8,275.8	6,884.4	248.78	213,447.6
November	5,224.7	8,531.5	6,797.9	272.64	203,936.9
December	5,548.1	9,536.5	7,075.4	272.04	219,337.2

Minimum	4,964	8,275.8	6,797.9	204.84	203,936.9
Maximum	7,094.9	10,938.2	8,688.9	309.41	269,355.6
Average	5,992.2	9,396.5	7,660.6	257.59	233,067.5
				Total Flow M^3 2024	**2,796,810.3**

Comparison of Maximum Daily Flow to Rated Capacity 2024 for Raw Water

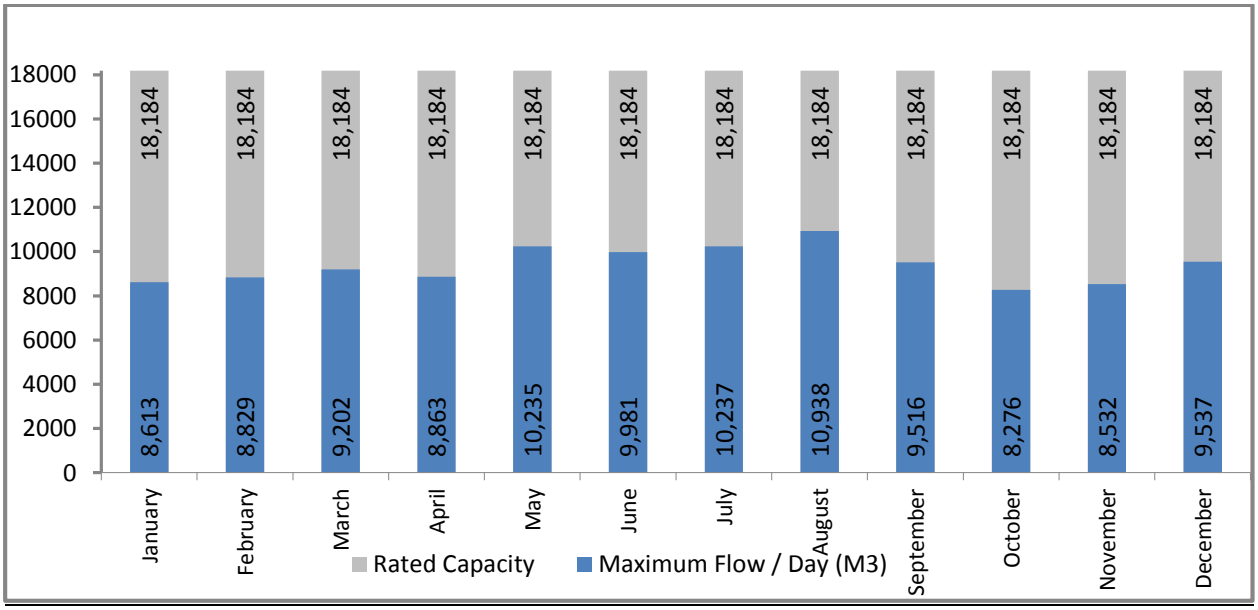

Table 3: Filter Efficiencies
Minimum of 95 %

MONTH	Filter #1 Efficiency (%)	Filter #2 Efficiency (%)	Filter #3 Efficiency (%)
January	99.67	100.00	100.00
February	99.73	100.00	100.00
March	99.67	100.00	100.00
April	99.78	100.00	99.99
May	99.83	100.00	99.99
June	99.83	99.99	99.99
July	99.84	100.00	100.00
August	99.86	100.00	99.99
September	99.87	100.00	99.93
October	99.91	100.00	99.88
November	99.84	100.00	99.86
December	99.82	100.00	99.94
Minimum	99.67	99.99	99.86
Maximum	99.91	100.00	100.00
Average	99.80	100.00	99.96

Table 4: Adverse Water Quality Incidents

Incident Date	Parameter	Results	Unit of Measure	Corrective Action	Corrective Action Date
October 21st 2019	Fluoride Analyzer Reading	Analyzer Reading 1.74	Mg/L	Handheld read 0.64 – Fluoride Shut Off	**March 20th 2024**
January 8th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 12th 2024**
January 8th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 12th 2024**
January 17th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 22nd 2024**
February 21st 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**March 1st 2024**
March 1st 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**March 7th 2024**
March 7th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**March 14th 2024**
March 18th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**March 25th 2024**
May 9th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**May 16th 2024**
May 22nd 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**May 30th 2024**
May 23rd 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**May 30th 2024**
June 6th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**June 14th 2024**
July 4th 2024	Watermain Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**July 11th 2024**
July 25th 2024	Sample Result - Microbiological	Total Coliform of 5	CFU/100 mL	Boil Water Advisory – Two Sets of Samples	**July 30th 2024**
August 1st 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**August 12th 2024**
August 7th 2024	Service Line Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**August 16th 2024**
August 12th 2024	Watermain Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**September 3rd 2024**
August 14th 2024	Service Line Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**August 22nd 2024**
August 15th 2024	Low Free Chlorine Residual	0.04	Mg/L	Boil Water Advisory – Flush and Two Sets of Samples	**September 9th 2024**
August 21st 2024	Service Line Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**August 30th 2024**
August 28th 2024	Watermain Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**September 3rd 2024**

August 29th 2024	Sample Result - Microbiological	Total Coliform of 13	CFU/100 mL	Boil Water Advisory – Two Sets of Samples	**September 3rd 2024**
September 12th 2024	Fluoride Analyzer Reading	Analyzer Reading 1.59	Mg/L	Analyzer Repaired by Technician	**November 11th 2024**
September 19th 2024	Watermain & Valve Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**September 27th 2024**
October 10th 2024	Valves & PRV Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 1st 2024**
October 24th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 1st 2024**
October 30th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 4th 2024**
November 19th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 26th 2024**
November 25th 2024	Service Line Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 29th 2024**
December 3rd 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**December 12th 2024**
December 18th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**December 23rd 2024**
December 20th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 10th 2025**
December 24th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 10th 2025**

Ontario

Drinking-Water Systems Regulation O. Reg. 170/03

CITY OF ELLIOT LAKE WATER TREATMENT PLANT 2023 ANNUAL REPORT

Drinking-Water System Number:	**220002789**
Drinking-Water System Name:	Elliot Lake Water Treatment Plant
Drinking-Water System Owner:	Corporation of the City of Elliot Lake
Drinking-Water System Category:	Water Treatment Subsystem Class 2
Period being reported:	January 01, 2024 - December 31, 2024

Complete if your Category is Large Municipal Residential or Small Municipal Residential	***Complete for all other Categories.***
Does your Drinking-Water System serve more than 10,000 people? Yes [✓] No [ ]	**Number of Designated Facilities served:** [ ]
Is your annual report available to the public at no charge on a web site on the Internet? Yes [✓] No [ ]	**Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]**
Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. The summary report is available at City Hall, the Water Treatment Plant and is posted on the City's website at: **http://elliotlake.ca/en/our-community/water-and-wastewater.aspx**	**Number of Interested Authorities you report to:** [ ] **Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]**

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Not applicable	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes [ ] No [ ] not applicable [x]

Ontario

Drinking-Water Systems Regulation O. Reg. 170/03

Indicate how you notified system users that your annual report is available, and is free of charge.

- **[✓] Public access/notice via the web**
- **[ ] Public access/notice via Government Office**
- **[✓] Public access/notice via a newspaper**
- **[ ] Public access/notice via Public Request**
- **[ ] Public access/notice via a Public Library**
- **[ ] Public access/notice via other method _____**

Describe your Drinking-Water System

The City of Elliot Lake Water Treatment Plant is classified as a Class 2 direct filtration plant.

Water is drawn from the lake through an intake structure, located in approximately 12.2 m (40 ft.) of water and is gravity fed through a 295 m long marine pipeline to the low lift pumping station wet well. The water is then pumped to the main facility at 200 Spine Road.

The raw water then passes through a raw water flow meter and into reactor/mixing tanks. At this point Polyaluminum Chloride (PAC) is added to the process to aid in the production of floc (particulate matter of sufficient size to be removed by the filters).

The water then continues into the hydraulic spiral flow flocculation tanks and afterwards passes through three rectangular filters with dual media (anthracite/sand). The filtered water is collected in an underdrain system and enters a 2,300 m^3 Clearwell (storage reservoir) on site.

Chlorine is added to the treated water as it leaves the filters to achieve required disinfection.

Fluoride is also added at this point. Fluoride does not play a role in the treatment process, but rather acts as an agent in the prevention of tooth decay in young children.

High Lift pumps pump the now treated water from the Clearwell through a flow meter and into the distribution system. This treated water makes its way to consumers' homes, either directly or from the standpipe storage facilities.

Lime is added to the water as it leaves the plant to aid in the prevention of corrosion in the distribution system. The lime is also used for pH and alkalinity adjustment.

Ontario

Drinking-Water Systems Regulation O. Reg. 170/03

List all water treatment chemicals used over this reporting period

Chlorine, Polyaluminum Chloride (PAC), Hydrated Lime & Hydrofluosilicic Acid

Were any significant expenses incurred to?

[ ] Install required equipment
[✓] Repair required equipment
[✓] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

#1 High Lift Pump Discharge Pipe Repair - *$4,376*
Annual Diesel Load Test - *$3,435*
Chlorine Analyzer - *$3,434*
Fluoride Totes Disposal - *$4,914*
Annual Calibrations of Analyzers and Flow Meters - *$8,202*
Backflow Preventers Inspection & Maintenance - *$4,200*
Maintaining the Distribution System Infrastructure (ie: Flushing & Repairs) - *$35,000*
Water Towers, Intake and Clearwell Inspection - *$15,788*

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

INCIDENT DATE	PARAMETER	RESULTS	UNIT OF MEASURE	CORRECTIVE ACTION	CORRECTIVE ACTION DATE
October 21st 2019	Fluoride Analyzer Reading	Analyzer Reading 1.74	Mg/L	Handheld read 0.64 – Fluoride Shut Off	**March 20th 2024**
January 8th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 12th 2024**
January 8th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 12th 2024**
January 17th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 22nd 2024**
February 21st 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**March 1st 2024**

Ontario

Drinking-Water Systems Regulation O. Reg. 170/03

March 1st 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**March 7th 2024**
March 7th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**March 14th 2024**
March 18th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**March 25th 2024**
May 9th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**May 16th 2024**
May 22nd 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**May 30th 2024**
May 23rd 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**May 30th 2024**
June 6th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**June 14th 2024**
July 4th 2024	Watermain Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**July 11th 2024**
July 25th 2024	Sample Result - Microbiological	Total Coliform of 5	CFU/100 mL	Boil Water Advisory – Two Sets of Samples	**July 30th 2024**
August 1st 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**August 12th 2024**
August 7th 2024	Service Line Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**August 16th 2024**
August 12th 2024	Watermain Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**September 3rd 2024**
August 14th 2024	Service Line Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**August 22nd 2024**
August 15th 2024	Low Free Chlorine Residual	0.04	Mg/L	Boil Water Advisory – Flush and Two Sets of Samples	**September 9th 2024**
August 21st 2024	Service Line Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**August 30th 2024**
August 28th 2024	Watermain Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**September 3rd 2024**
August 29th 2024	Sample Result - Microbiological	Total Coliform of 13	CFU/100 mL	Boil Water Advisory – Two Sets of Samples	**September 3rd 2024**
September 12th 2024	Fluoride Analyzer Reading	Analyzer Reading 1.59	Mg/L	Analyzer Repaired by Technician	**November 11th 2024**
September 19th 2024	Watermain & Valve Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**September 27th 2024**

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October 10th 2024	Valves & PRV Installation	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 1st 2024**
October 24th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 1st 2024**
October 30th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 4th 2024**
November 19th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 26th 2024**
November 25th 2024	Service Line Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**November 29th 2024**
December 3rd 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**December 12th 2024**
December 18th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**December 23rd 2024**
December 20th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 10th 2025**
December 24th 2024	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory – Flush and Two Sets of Samples	**January 10th 2025**

Microbiological testing done under Schedule 10, 11 or 12 of the Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	53	0 – 3	0 – 15	N/A	N/A
Treated	53	N/D	N/D	53	0 – 4
Distribution	319	N/D	0 – 13	110	0 – 380

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity	**8760**	**0.04 – 3.00**	**NTU**
Chlorine	**8760**	**0.88 – 2.11**	**mg/L**
Fluoride	**8760**	**0.00 – 2.01**	**mg/L**

***NOTE**: For continuous monitors use 8760 as the number of samples.*

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Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Municipal Drinking Water License 208-101 March 25th, 2022	Clarifier Discharge Suspended Solids	January 20th, 2024	17	mg/L
		February 10th, 2024	15	mg/L
		March 24th, 2024	21	mg/L
		April 25th, 2024	3.7	mg/L
		May 24th, 2024	8	mg/L
		June 1st, 2024	11	mg/L
		July 23rd, 2024	11	mg/L
		August 5th, 2024	2.5	mg/L
		September 27th, 2024	12	mg/L
		October 12th, 2024	13	mg/L
		November 23rd, 2024	11	mg/L
		December 28th, 2024	12	mg/L

The Annual Clarifier Discharge Suspended Solids average for 2024 is 11.4 mg/L

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Municipal Drinking Water License 208-101 March 25th, 2022	Clarifier Discharge Total Chlorine Residual	January 20th, 2024	0.02	mg/L
		February 10th, 2024	0.02	mg/L
		March 24th, 2024	0.01	mg/L
		April 25th, 2024	0.02	mg/L
		May 24th, 2024	0.02	mg/L
		June 1st, 2024	0.02	mg/L
		July 23rd, 2024	0.01	mg/L
		August 5th, 2024	0.00	mg/L
		September 27th, 2024	0.02	mg/L
		October 12th, 2024	0.01	mg/L
		November 23rd, 2024	0.02	mg/L
		December 28th, 2024	0.01	mg/L

The Annual Clarifier Discharge Total Chlorine Residual average for 2024 is 0.015 mg/L

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Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	January 3rd 2024	0.6 <MDL	µg/L	no
Arsenic	January 3rd 2024	0.2 <MDL	µg/L	no
Barium	January 3rd 2024	10.8	µg/L	no
Boron	January 3rd 2024	4	µg/L	no
Cadmium	January 3rd 2024	0.009	µg/L	no
Chromium	January 3rd 2024	0.11	µg/L	no
***Lead**	not applicable for this reporting period			
Mercury	January 3rd 2024	0.01 <MDL	µg/L	no
Selenium	January 3rd 2024	0.07	µg/L	no
Sodium	January 8th 2020	9.91	mg/L	no
Uranium	January 3rd 2024	0.063	µg/L	no
Fluoride	January 8th 2020	0.06 <MDL	mg/L	no
Nitrite	Annual Average	0.003 <MDL	mg/L	no
Nitrate	Annual Average	0.09	mg/L	no

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems**,** small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	**not applicable for this reporting period**			
Distribution	8	0.04 – 0.62	µg/L	None

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Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	January 3rd 2024	0.02 <MDL	µg/L	no
Atrazine	January 3rd 2024	0.01 <MDL	µg/L	no
Atrazine + N-dealkylated metabolites	January 3rd 2024	0.01 <MDL	µg/L	no
Azinphos-methyl	January 3rd 2024	0.05 <MDL	µg/L	no
Benzene	January 3rd 2024	0.32 <MDL	µg/L	no
Benzo(a)pyrene	January 3rd 2024	0.004 <MDL	µg/L	no
Bromoxynil	January 3rd 2024	0.33 <MDL	µg/L	no
Carbaryl	January 3rd 2024	0.05 <MDL	µg/L	no
Carbofuran	January 3rd 2024	0.01 <MDL	µg/L	no
Carbon Tetrachloride	January 3rd 2024	0.17 <MDL	µg/L	no
Chlorpyrifos	January 3rd 2024	0.02 <MDL	µg/L	no
Diazinon	January 3rd 2024	0.02 <MDL	µg/L	no
Dicamba	January 3rd 2024	0.20 <MDL	µg/L	no
1,2-Dichlorobenzene	January 3rd 2024	0.41 <MDL	µg/L	no
1,4-Dichlorobenzene	January 3rd 2024	0.36 <MDL	µg/L	no
1,2-Dichloroethane	January 3rd 2024	0.35 <MDL	µg/L	no
1,1-Dichloroethylene (vinylidene chloride)	January 3rd 2024	0.33 <MDL	µg/L	no
Dichloromethane	January 3rd 2024	0.35 <MDL	µg/L	no
2-4 Dichlorophenol	January 3rd 2024	0.15 <MDL	µg/L	no
2,4-Dichlorophenoxyacetic acid (2,4-D)	January 3rd 2024	0.19 <MDL	µg/L	no
Diclofop-methyl	January 3rd 2024	0.40 <MDL	µg/L	no
Dimethoate	January 3rd 2024	0.06 <MDL	µg/L	no
Desethyl atrazine	January 3rd 2024	0.01 <MDL	µg/L	no
Diquat	January 3rd 2024	1 <MDL	µg/L	no
Diuron	January 3rd 2024	0.03 <MDL	µg/L	no
Glyphosate	January 3rd 2024	1 <MDL	µg/L	no
Malathion	January 3rd 2024	0.02 <MDL	µg/L	no
Metolachlor	January 3rd 2024	0.01 <MDL	µg/L	no
Metribuzin	January 3rd 2024	0.02 <MDL	µg/L	no
Monochlorobenzene	January 3rd 2024	0.3 <MDL	µg/L	no
Paraquat	January 3rd 2024	1 <MDL	µg/L	no
Pentachlorophenol	January 3rd 2024	0.15 <MDL	µg/L	no
Phorate	January 3rd 2024	0.01 <MDL	µg/L	no
Picloram	January 3rd 2024	1 <MDL	µg/L	no
Polychlorinated Biphenyls (PCB)	January 3rd 2024	0.04 <MDL	µg/L	no
Prometryne	January 3rd 2024	0.03 <MDL	µg/L	no
Simazine	January 3rd 2024	0.01 <MDL	µg/L	no
THM (Annual Average)	Annual Average	51	µg/L	no
Total Haloacetic Acids (HAA5)	Annual Average	38.1	µg/L	no
MCPA	January 3rd 2024	0.00012 <MDL	µg/L	no
Terbufos	January 3rd 2024	0.01 <MDL	µg/L	no
Tetrachloroethylene	January 3rd 2024	0.35 <MDL	µg/L	no
2,3,4,6-Tetrachlorophenol	January 3rd 2024	0.20 <MDL	µg/L	no

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Triallate	January 3rd 2024	0.01 <MDL	µg/L	no
Trichloroethylene	January 3rd 2024	0.44 <MDL	µg/L	no
2,4,6-Trichlorophenol	January 3rd 2024	0.25 <MDL	µg/L	no
Trifluralin	January 3rd 2024	0.02 <MDL	µg/L	no
Vinyl Chloride	January 3rd 2024	0.17 <MDL	µg/L	no

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

City of / Ville d' Elliot Lake

STAFF REPORT

REPORT FROM THE ASSISTANT DIRECTOR OF PUBLIC WORKS

Re: Elliot Lake Wastewater Treatment Plant Annual Performance Report - 2023

RECOMMENDATION

That Council receive the 2024 Annual Report for the Elliot Lake Wastewater Treatment Plant.

BACKGROUND

The purpose of this report is to provide performance and compliance records pertaining to the Elliot Lake wastewater treatment plant to the Major and Council. This report is prepared in accordance with Condition 10(5) of the Certificate of Approval and covers the reporting period from January 1, 2024 to December 31, 2024.

The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

1. A summary of the quantities and discharge rates of the plant during the period covered by the report, including the monthly average and maximum daily flows.

2. A comparison of the summary referred to in (a) effluent limits condition 7 to the related flow rates approved in the system's Certificate of Approval.

ANALYSIS

Please refer to the attached report.

FINANCIAL IMPACT

Not Applicable

LINKS TO STRATEGIC PLAN

The information found in the Elliot Lake Wastewater Treatment Plant Annual Performance Report aides in educating members of our community regarding infrastructure operations. The report is consistent with the commitment identified by Mayor and Council within the Strategic Plan focusing on "Continued Investment into Infrastructure".

SUMMARY

This report provides evidence and assurances to Mayor and Council that as Officers of the Corporation, Council is exercising the prescribed standard of care with respect to the operations of the Waste Water Treatment System. Receiving this report will ensure the municipality's compliance with regard to prescribed legislation under the Certificate of Approval.

January 21st, 2025

Ministry of the Environment
70 Foster Drive, Suite 110
Sault Ste. Marie, ON P6A 6V4

ATTENTION: Safe Drinking Water Branch

RE: Elliot Lake Wastewater Treatment Plant Annual Performance Report - 2024

Please find attached the 2024 Annual Report for the Elliot Lake Wastewater Treatment Plant. This report has been prepared in accordance to the guidelines set out in Condition $10_{(5)}$ of Facility Certificate of Approval Number 5239-5GXSMK.

This report covers the period from January 1, 2024 to December 31, 2024.

Please direct any questions or concerns to the undersigned.

Yours truly,

Bart Doyle
Assistant Director of Public Works
City of Elliot Lake

Elliot Lake Wastewater Treatment Plant
2024 Annual Report

The purpose of this report is to provide performance and compliance records pertaining to the Elliot Lake wastewater treatment plant to the Ministry of the Environment. This report is prepared in accordance with Condition $10_{(5)}$ of the Certificate of Approval and covers the reporting period from January 1, 2024 to December 31, 2024.

This report contains the following information:

a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7, including an overview of the success and adequacy of the *Works;*

b) a description of any operating problems encountered and corrective actions taken;

c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the *Works;*

d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;

e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment;

f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6;

g) a tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;

h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;

i) a summary of all *By-pass,* spill or abnormal discharge events;

a) Effluent Limits – Condition 7:

Month	CBOD (25 mg/L)	Total Suspended Solids (25 mg/L)	Total Phosphorus (1.00 mg/L)	Total Flow	CBOD Loading	Total Suspended Solids Loading	Total Phosphorus Loading
	Monthly Average mg/l	Monthly Average mg/l	Monthly Average mg/l	Cubic Meters / month	Kilograms / day	Kilograms / day	Kilograms / day
January	5	10	0.25	155,910	25.15	50.3	1.26
February	4	7	0.22	141,942	19.58	34.3	1.08
March	5	8	0.24	192,964	31.12	49.8	1.49
April	4	8	0.27	258,427	34.46	68.9	2.33
May	5	12	0.37	190,267	30.69	73.7	2.27
June	4	8	0.23	149,589	19.94	39.9	1.15
July	4	4	0.19	136,457	17.61	17.6	0.84
August	4	11.2	0.34	133,546	17.23	48.3	1.46
September	4	7.6	0.30	120,353	16.05	30.5	1.20
October	7	9.2	0.53	145,183	32.78	43.1	2.48
November	5	17	0.61	165,610	27.60	93.8	3.37
December	8	16	0.51	182,116	47	94	3
Annual Average	**4.92**	**9.83**	**0.34**	**164,364**	**26.6**	**53.7**	**1.83**

The Total Effluent Flow for the facility during the 2024 operating year was 1,972,364 m^3

b) Operating Problems or Issues Encountered:

Operating problems associated with the equipment and infrastructure of the facilities that occurred during this reporting period includes the following:

- #1 Primary Clarifier inlet valve failed and was replaced on May 2nd. During the process, the main inlet valve for #1 and #2 Primary Clarifier became stuck in the closed position. This resulted in a required isolation of #1 and #2 Primary Clarifier and a need to bypass the flow from the Grit Tanks into #3 Primary Clarifier. The valve was repaired on May 8th and is now operational.

- On March 13th a layer of oil scum was detected within the two Sanitary Lift Stations of No Frills Lift Station and Porridge Lift Station. The oil contamination was contained within the two sanitary lift stations and Clean Harbours was retained for the cleanup. The two sanitary lift stations along with the sanitary lines were cleaned out and the product was stored in frac tanks with an estimated volume of 75m^3. The cleanup was completed on March 22nd 2024.

- On July 10th it was discovered that a manhole was overflowing on Esten Drive North at 09:15. A flushing truck and VAC truck were retained to attempt to clear out the blockage and pumps were setup to divert the flow to another manhole. Staff removed a massive blockage of rocks

and wood from the manhole on July 11th and the sanitary was flowing normal again by 21:15 on July 11th. The spill site was also cleaned up on July 16th.

- On October 10th there was a planned overflow at Horne Lift Station in order to replace the main outlet valve and a pump outlet valve. Ministry approval was obtained prior to this planned overflow. The overflow began at 05:22 and two VAC trucks were onsite in order to mitigate the amount of overflow. The equipment replacement was completed and the overflow stopped at 17:56.

- On July 31st it was discovered that the Primary Digester Heat Exchanger had a leak. The Heat Exchanger was isolated and removed from service. A new Heat Exchanger was purchased and has not yet arrived on site.

c) Summary of Facility Maintenance:

The City of Elliot Lake Wastewater Treatment Plant has an annual maintenance program for the facility that is scheduled in excel format. The schedule is then followed up with a work order which is submitted to the department head for review and file. Licenced operators perform maintenance on pumps and alarm systems, all in accordance with the manufacturers' guidelines.

Planned and scheduled large maintenance projects performed during this reporting period include:

- Backflow preventers throughout sewage system were tested and inspected by OCWA in November of 2024.
- Calibration of instrumentation and analytical devices was tested and inspected by a Cleartech Technician in August of 2024 for a total cost of $2,479.
- Horne Lift Station pump outlet valve replacement for a total cost of $3,944.
- Horne Lift Station main outlet valve replacement for a total cost of $24,731.
- Porridge Lift Station surge valve was rebuilt for a total cost of $1,715.
- #1 Primary Clarifier inlet valve replacement for a total cost of $22,045.
- Valves were replaced for the Digester recirculation and transfer system for a total cost of $10,134.
- North Lift Station pump repair for a total cost of $15,968.
- Annual Diesel Load Test.
- Boiler replacement at the Wastewater Treatment Plant for a total cost of $247,912 plus installation cost of $ 63,535.
- A new heat exchanger was purchased for the Wastewater Treatment Plant for a total cost of $98,649.
- Secondary Digester cleanout for a total cost of $116,308.
- Oil contamination clean up at the No Frills and Porridge Lift Stations for a total cost of $181,487.

d) Quality Assurance, Quality Control Measures:

The majority of the process analysis for the facility is completed in house by the Operations staff using standardized and accepted laboratory techniques. All results are recorded and compared to historical data. In the event that a deviation is detected, repeat analysis is performed to verify the results. Samples such as BOD_5 and $CBOD_5$ are sent to an accredited laboratory for analysis. Plant process is further tracked through the use of an on-line turbidity analyzer which is monitored daily.

e) Calibration and Maintenance of Effluent Monitoring Equipment:

Calibration of the flow meters, lab equipment and analyzers were conducted as per regular annual maintenance. Cleaning of effluent monitoring equipment is performed on a regular routine basis. Accuracy of effluent monitoring equipment operation was confirmed by onsite lab effluent samples analysis and offsite third-party accredited laboratory analysis.

f) Effluent Objectives:

As noted in Section a) of this report, the Effluent Objectives for Suspended Solids, CBOD and for Total Phosphorus are being met by the facility.

Plant chlorination values are sent to the Medical Officer of Health with copies sent to various other stakeholders on a monthly basis. The four sample locations reported for the dechlorination project are as follows:

- Location One – Esten Lake at a point near the diversion channel;
- Location Two – Diversion Channel taken at the point where Nordic Creek is introduced to the wastewater effluent stream;
- Location Three – Depot Lake farthest area of lake after diversion channel stream is introduced;
- Final Effluent – last accessible sample point in plant. Note that residuals at this location vary as a result of partial mixing and contact time this is due to location of chlorine injection in relation to the sample port;

Final Effluent Results

Month	Geometric Mean - Total Coliform	Geometric Mean - E.Coli	Average Total Chlorine Residual
May	69.2	21.7	0.33 mg/L
June	13	5.3	0.24 mg/L
July	776.2	69.3	0.24 mg/L
August	35.9	6.3	0.10 mg/L
September	79.7	9.5	0.08 mg/L
October	3191.7	83.3	0.06 mg/L

Copies of the monthly reports entitled “Esten Lake Dechlorination Project” are appended to this report.

g) – Sludge Haulage

Month	Digested Sludge Hauled	Methane Produced	Methane Wasted	Aluminum Sulphate Used
	Cubic Meters	Cubic Meters	Cubic Meters	Tonnes
January	463.6	0	0	8.5
February	370.9	0	0	6.9
March	370.9	0	0	8.2
April	370.9	0	0	10.6
May	432.7	0	0	9.5
June	343.9	0	0	8.7
July	463.6	0	0	10.4
August	309.1	0	0	8.7
September	884.5	0	0	8.6
October	154.5	0	0	11.0
November	401.8	0	0	10.1
December	293.6	0	0	11.1
Annual Total	**2596.4**	**0**	**0**	**112.3**

All waste sludge is hauled under contract from the Wastewater Treatment facility to Waste Disposal Site No. A560812. The current sludge haulage contractor is GFL Environmental based out of Blind River, Ontario.

The City of Elliot Lake has retained the services of Pinchin Ltd in order to comply with Conditions 22 and 24 of Environmental Compliance Approval No. A560812.

The volumes of sludge generated as well as the disposal areas over the next reporting period are not expected to change.

h) - Complaints:

There were no noted complaints with regard to the operation of the wastewater treatment facility in this reporting year.

i) – Bypasses, Spills, or Abnormal Discharge Events:

There was one abnormal discharge event within the City of Elliot Lake Sewage Works for the 2024 reporting period.

- On March 13th 2024 a layer of oil scum was detected within the two Sanitary Lift Stations of No Frills Lift Station and Porridge Lift Station. The Algoma Public Health Unit, Spills Action Centre and MECP were notified. The oil contamination was contained within the two sanitary lift stations and Clean Harbours was retained for the cleanup. The two sanitary lift stations along with the sanitary lines were cleaned out and the product was stored in frac tanks with an estimated volume of 75m^3. The cleanup was completed on March 22nd 2024 and the Spill Reference Number for this incident is 1-4YNCO2.

- On July 9th 2024 the check valve failed on #2 pump at Horne Lift Station resulting in an overflow at the station. The pump was shut down and isolated in order for repairs to take place. The Algoma Public Health Unit, Spills Action Centre and MECP were notified. The duration of the spill was 5 minutes beginning at 18:45 and ending at 18:50 with an estimated volume of 8m^3. The spill was not chlorinated and grab samples were not collected due to the short duration of the spill. The Spill Reference Number for this incident is 1-8RM350

- On July 10th 2024 it was discovered that a manhole was overflowing on Esten Drive North at 09:15. Samples were collected and chlorination of the spill commenced within the hour of discovery. The Algoma Public Health Unit, Spills Action Centre and MECP were notified. A flushing truck and VAC truck were retained to attempt to clear out the blockage and pumps were setup to divert the flow to another manhole. Staff removed a massive blockage of rocks and wood from the manhole on July 11th 2024 and the sanitary was flowing normal again by 21:15 on July 11th 2024. The MECP attended the spill location the following day and a monitoring plan was put together regarding a vigorous sample plan for the following month. The spill site was also cleaned up on July 16th 2024. The estimated total volume of the spill was 5,673.6m^3 and the Spill Reference Number for this incident is 1-8SM3L4.

- On September 24th 2024 the hydraulic check valve failed on #1 pump at the Horne Lift Station. The station began overflowing at 09:00 and chlorination also began at this time. Grab samples were also collected at 09:27. The entire station had to be shut down in order for repairs to be made. The Algoma Public Health Unit, Spills Action Centre and MECP were notified. Repairs were completed and the station was back online at 11:50, resulting in a total spill duration of 170 minutes and a total volume estimated of 289m^3. The Spill Reference Number for this incident is 1-B9C1KY.

- On September 24th 2024 the manhole at 80 Hillside Drive North began overflowing at 15:00. Chlorination of the spill began at 15:25 and grab samples were collected at 17:20. A VAC truck was retained to mitigate the spill and a pump was setup to transfer the flow to another manhole. The Algoma Public Health Unit, Spills Action Centre and MECP were notified. The sanitary line had a blockage of roots and rocks that were removed. The total spill duration was 3 hours with a final volume estimated of 54m^3. The Spill Reference Number for this incident is 1-BAGHUV.

- On October 10th 2024 there was a planned overflow at Horne Lift Station in order to replace equipment. Ministry approval was obtained prior to this planned overflow. The overflow began at 05:22, chlorination began at 05:30 and grab samples were collected at 05:50. The Algoma Public Health Unit, Spills Action Centre and MECP were notified. Two VAC trucks

were onsite in order to mitigate the amount of overflow. The equipment replacement was completed and the overflow stopped at 17:56 resulting in a total spill duration of 12.5 hours with a final spill volume estimated of 940.85m^3.

City of / Ville d' Elliot Lake

STAFF REPORT

REPORT FROM CHIEF ADMINISTRATIVE OFFICER

Re: 2025 Contract for Line Painting

RECOMMENDATION

That Council approve an expenditure of $72,704.00 plus applicable taxes payable to Trillium Pavement Marking;

And That Council approve the use of the negotiation method to acquire said service;

And that Council pass the appropriate By-Law at a subsequent meeting to enter into a contract with Trillium Pavement Marking for line painting services.

BACKGROUND

The City of Elliot Lake includes roadway line painting and pavement marking as part of its annual maintenance schedule. Regular traffic and winter maintenance activities cause sufficient wear to warrant an annual refresh.

Maintaining clear and visible pavement markings is essential for road safety within the municipality.

ANALYSIS

Historically, tendering for this service has not yielded favourable results.

- In 2021, despite having nine registered vendors on Bids and Tenders, no submissions were received.
- In 2022, a Call for Tenders resulted in one bid priced at $597,896.06.
- In 2023, the negotiation method was used, securing services from Trillium Pavement Marking for $72,555.00.
- In 2024, the tendering process resulted in a single bid of $169,307.50. The negotiation method was again used, securing Trillium Pavement Marking for $71,000.00.

For 2025, before issuing a tender, staff contacted Trillium Pavement Marking to assess their interest in providing the service at an adjusted lump sum rate reflecting CPI increases. The company responded positively, and the proposed price represents a 2.4% increase over last year's contract.

The contractor has indicated that the work can be completed by late May or early June, aligning with the optimal time for pavement marking.

The awarding of this contract is supported by the City's Procurement Policy, utilizing the negotiation method.

Trillium Pavement Marking has consistently met the City's service needs at a competitive price.

Financial Impact

This work will be funded through the Public Works Department's operating budget as a contracted service. The pending 2025 budget includes $90,717.00 for pavement marking services. The proposed contract of $72,704.00 is $18,013.00 under budget.

Link to Strategic Plan

This project directly relates to the following key section of the strategic plan:

- Continued investment into infrastructure

Summary

Maintaining municipal pavement markings enhances safety for both motorists and pedestrians. The negotiation method has allowed the City to secure competitive pricing while ensuring that infrastructure maintenance proceeds as planned.