January 30, 2026

**Mr. Jean-François Durocher**
*Water Inspector – Provincial Officer*
Ministry of the Environment, Conservation and Parks

**Subject:** **2025 - Performance Report for the Fournier Wastewater Facility**

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Mr. Durocher,

Please find enclosed the **2025 Performance Report for the Fournier Wastewater Facility**, covering the period from January 1 to December 31, 2025, inclusive.

This Performance Report provides a summary of the operation and performance of the Fournier Wastewater Facility, including:

- Influent volumes and daily wastewater flow rates
- Results of raw sewage and treated effluent quality monitoring
- A summary of operation and environmental challenges encountered
- Maintenance activities and calibration of monitoring and control equipment.

This report has been prepared in accordance with **Condition 7 of Certificate of Approval No. 1128-5S6KLC**, issued on December 23, 2003.

Should you require any additional information of clarification, please do not hesitate to contact the undersigned.

Sincerely,

Sébastien Cadieux
(Prepared by)
Sebastien Cadieux,
Senior Water & Wastewater Operator/Compliance Officer

Nicholas Pigeon
(Reviewed & Approved)
Nicholas Pigeon,
Director of Water & Wastewater

# 2025 Annual Performance Report for the Fournier Wastewater Facility

**a)** Summary and interpretation of raw sewage and effluent monitoring data

This section provides a summary and interpretation of all raw sewage and treated effluent monitoring data and includes a comparison to the effluent objectives outlined in Condition 5 of the Certificate of Approval. An assessment of the overall performance, effectiveness, and adequacy of the works is also provided.

Wastewater flow volumes were estimated based on pump run times and theoretical pump capacities.

For the period from January 1 to December 31, 2025, the average daily flow (ADF) of wastewater entering the Fournier Wastewater Facility was **57.6 m³/day**.

The average daily flow (ADF) of treated final effluent discharged from the facility during the same period was **71.2 m³/day**.

Throughout 2025, the Fournier Wastewater Treatment Facility did not experience any significant operational or environmental challenges. All monitored treated effluent results met the effluent objectives for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) and Total Suspended Solids (TSS) as specified in Condition 5 of the Certificate of Approval.

Raw sewage quality monitoring was conducted on a quarterly basis, while treated final effluent monitoring was conducted monthly, in accordance with the approval requirements for the Fournier Wastewater Facility.

## Monitoring and Analytical Parameters

1) Total Ammonia Nitrogen

The average concentration of Total Ammonia Nitrogen in the treated final effluent during 2025 was **7.74 mg/L**.

2) Total Phosphorus

The average concentration of Total Phosphorus in the treated final effluent during 2025 was **4.74 mg/L**. There is no effluent objective or limit for Total Phosphorus specified for the Fournier Wastewater Treatment Facility under the current approval.

3) Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)

The average treated final effluent concentration of Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) during 2025 was **1.25 mg/L**, which is below the effluent objective limit of **10 mg/L**, indicating effective organic matter removal.

4) Total Suspended Solids (TSS)
The average treated final effluent concentration of Total Suspended Solids (TSS) during 2025 was **7.0 mg/L**, which is below the effluent objective limit of **10 mg/L**, demonstrating satisfactory solids removal performance.

5) Escherichia coli (E. coli)
The average concentration of Escherichia coli (E. coli) in the treated final effluent during 2025 was **28,767 CFU/100 mL**.

**b)** Summary and interpretation of groundwater monitoring data

Groundwater monitoring was conducted in accordance **with Section 4.3, Tables 3 to 6 of Certificate of Approval No. 1128-5S6KLC.** The Municipality of The Nation – Environmental Services Department is responsible for the collection of groundwater samples from the designated monitoring wells. The groundwater monitoring program is overseen by EXP Engineering Firm., which prepares an interpretive groundwater monitoring report that is submitted to the Ministry of the Environment, Conservation and Parks (MECP).

**c)** Delineation of septic effluent–impacted groundwater plume

The delineation of the septic effluent–impacted groundwater plume, including the assessment of plume migration, groundwater flow direction, and the anticipated arrival of the plume at monitoring wells **MW99-4** and **MW99-5**, was conducted in accordance with **Section 4.3, Tables 3 to 6 of Certificate of Approval No. 1128-5S6KLC**. See EXP Engineering report.

**d)** A tabulation of the daily volumes of effluent disposed through the subsurface system during the reporting period.

The volumes of treated final effluent were estimated based on effluent pump run times and theoretical pump capacities. A tabulation of the estimated daily effluent volumes is provided in **Appendix I – Fournier Wastewater Facility Analytical Survey 2025**, located at the end of this report.

**e)** A summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the works.

In addition to regular preventative maintenance, the following operational duties were performed.

- ***March***
  - Cleaning of Sewage Pumping Stations (SPS) No. 1 and No. 2 using the Municipality of The Nation's personnel and hydrovac services.

- ***May***
  -Cleaning and flushing the Sanitary Collection system using the Municipality of the Nation's personnel and hydrovac services.

- ***June***
  - Completion of annual maintenance activities at the Fournier Field
  - Removal of approximately **65 000 gallons** of accumulated sludge using the Municipality of the Nation's personnel and hydrovac services.

- ***July***
  - Cleaning of Sewage Pumping Stations (SPS) No. 1 and No. 2 using the Municipality of The Nation's personnel and hydrovac services.

- ***December***
  Cleaning of Sewage Pumping Stations (SPS) No. 1 and No. 2 using the Municipality of The Nation's personnel and hydrovac services.

**f)** A description of any operating challenges encountered, and corrective actions taken.

There were no operating challenges encountered during the 2025 period.

**Appendix I: FOURNIER WASTEWATER FACILITY - ANALYTICAL SURVEY – 2025.**

# APPENDIX I

# Waste Water - Analytical survey

*Fournier*

| *2025* | | *Limit Objectives* | *Jan* | *Feb* | *Mar* | *Apr* | *May* | *Jun* | *Jul* | *Aug* | *Sep* | *Oct* | *Nov* | *Dec* | *total* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAW SEWAGE** | | | | | | | | | | | | | | | |
| Total Flow | $m^3$ | | 1736 | 1414 | 2786 | 2841.0 | 2233.2 | 1320.6 | 1371.3 | 1113.9 | 1103.7 | 1273.0 | 1927.4 | 1808.9 | 20929.0 |
| Daily Ave. Flow | $m^3/d$ | 97.6 | 56.0 | 50.5 | 89.9 | 94.7 | 72.0 | 44.0 | 44.2 | 35.9 | 36.8 | 42.4 | 64.2 | 60.3 | 57.6 |
| Max Flow | $m^3/d$ | | 73.3 | 56.0 | 108.9 | 123.3 | 118.9 | 48.4 | 53.4 | 38.7 | 37.8 | 55.4 | 77.8 | 65.4 | 123.3 |
| Min. Flow | $m^3/d$ | | 50.7 | 45.3 | 56.0 | 40.2 | 48.4 | 40.9 | 38.7 | 34.0 | 34.9 | 35.5 | 55.4 | 48.7 | 34.0 |
| $CBOD_5$ | *mg/l* | | | 124 | | | 88 | | | 185 | | | 91 | | 122 |
| TSS | *mg/l* | | | 305 | | | 285 | | | 178 | | | 95 | | 216 |
| TKN | *mg/l* | | | 79.1 | | | 102 | | | 118 | | | 67.4 | | 92 |
| Ptot | *mg/l* | | | 8.64 | | | 8 | | | 9.94 | | | 6.69 | | 8.3 |
| **EFFLUENT** | | | | | | | | | | | | | | | |
| Total Flow | $m^3$ | | 3348.1 | 2544.4 | 3335.7 | 2963.5 | 1986.9 | 1066.0 | 1352.1 | 1215.6 | 1213.4 | 1558.2 | 2456.7 | 2919.8 | 25960.4 |
| Daily Ave. Flow | $m^3/d$ | | 108.0 | 90.9 | 107.6 | 98.8 | 64.1 | 35.5 | 43.6 | 39.2 | 40.4 | 50.3 | 81.9 | 94.2 | 71.2 |
| CBOD5 | mg/L | 10.0 | 0 | 0 | 3 | 5 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1.25 |
| TSS | mg/L | 10.0 | 8 | 0 | 10 | 30 | 9 | 4 | 0 | 5 | 5 | 4 | 3 | 6 | 7.00 |
| Alkalinity | mg/L | | 211 | 226 | 275 | 292 | 224 | 303 | 290 | 258 | 243 | 203 | 200 | 261 | 248.83 |
| Nitrite | mg/L | | 0 | 0 | 0 | 0 | 0.05 | 0 | 20.3 | 0 | 0.09 | 0 | 1.53 | 1.6 | 1.96 |
| Nitrate | mg/L | | 20.5 | 25.6 | 4.38 | 0 | 14 | 12.7 | 0 | 19.8 | 21.1 | 30.1 | 25.8 | 19.2 | 16.10 |
| Total Ammonia | mg/L | | 3.61 | 7.6 | 13.9 | 16.8 | 0.78 | 11.5 | 12.1 | 6.46 | 3.8 | 6.94 | 2.14 | 7.2 | 7.74 |
| TKN | mg/L | | 5.5 | 10.6 | 19.4 | 20.9 | 2.1 | 15.4 | 19.3 | 8.8 | 6 | 8 | 3.4 | 8.4 | 10.65 |
| Total Phosphorus | mg/L | | 3.76 | 4.28 | 4.09 | 4.38 | 2.3 | 4.6 | 4.6 | 5.38 | 6.23 | 7.59 | 4.79 | 4.88 | 4.74 |
| E Coli. | cfu/100mL | | 46000 | 3200 | 79000 | 96000 | 5600 | 26000 | 85000 | 2300 | 600 | 400 | 700 | 400 | 28767 |