



— Township of —
SEVERN

Collection System

Washago

2024 Annual Report

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Introduction

Township of Severn prepared the 2024 annual report for the Washago Wastewater Collection System in compliance with the Environmental Compliance Approval (ECA Number 148-W601, Issue 1, dated May 19, 2023). This report summarizes notable operating events, repair and maintenance, non-compliance issues, Influent quality, and flow data for 2024. This report is based on operating data collected and compiled by the Township of Severn.

The Washago Wastewater Collection System consists of 3 sewage pump stations.

- Muskoka Street SPS#1
- Albany Street SPS#2
- Muskoka Street SPS#3

All sewage pump stations have a control panel for pump and level controls. Two (2) submersible pumps are installed at each station and are run as lead lag.

Each station is equipped with a level transducer with float back-ups (lead and lag start) and a high-level float. In this system all stations are equipped with UPS battery backups and TOSIBOX for remote access and allows for communication with the Washago Water Treatment Plant so that trending can be monitored and to also receive station alarms. The Washago Water Treatment Plant has a SCADA program to trend pump stations.

Generators

Washago collection system has no stand-alone generators. All stations have the capability to have portable generators connected for power outages in the system.

Raw Sewage Quality

Table 1 illustrates the monthly and annual average raw sewage quality results.

Table 1: 2024 Monthly Raw Influent Quality

Month	BOD ₅ (mg/L)	TSS (mg/L)	Total Phosphorus (mg/L)	TKN (mg/L)
January	468	263	3.19	25.8
February	422	128	4.40	34.6
March	132	98	2.75	26.5
April	235	197	3.40	57.0
May	56	125	1.26	12.9
June	218	196	4.84	44.7
July	215	134	5.54	53.5
August	391	94	5.01	47.9
September	250	246	5.60	39.5
October	189	102	5.29	51.5
November	193	105	5.65	54.4
December	142	73	3.93	47.0

Pump Station Capacity and Flow

Muskoka Street (Main) pump station is equipped with (2) submersible sewage pumps, with a pumping capacity of 14.4 L/s at 15.6 m T.D.H.

Albany Street pump station is equipped with (2) submersible sewage pumps, each rated at 6.28 L/s at 8.3 m T.D.H.

Muskoka Street pump station is equipped with (2) submersible sewage pumps. Each rated for 6.76 L/s at 9.0 m T.D.H.

Muskoka and Albany pump stations pump to gravity maintenance hole, which feeds the Main pump station. The main pump station pumps through a force main to Washago lagoon system.

Influent Flows

The rated capacity of the Washago lagoon is 47,800 m³, as listed in the C of A. Table 2 shows daily and monthly average influent flows.

Table 2: Summary of Influent Flows

Month	Total Monthly Flow (m ³)	Average Daily Flow (m ³ /day)
January	3015	90
February	3197	110
March	4164	134
April	5289	176
May	3860	124
June	2407	80
July	2672	86
August	2174	70
September	1870	62
October	2240	72
November	2100	70
December	4448	143

Charts

Figure 1: Washago Lagoon 2024 monthly flow total values are in (m3)

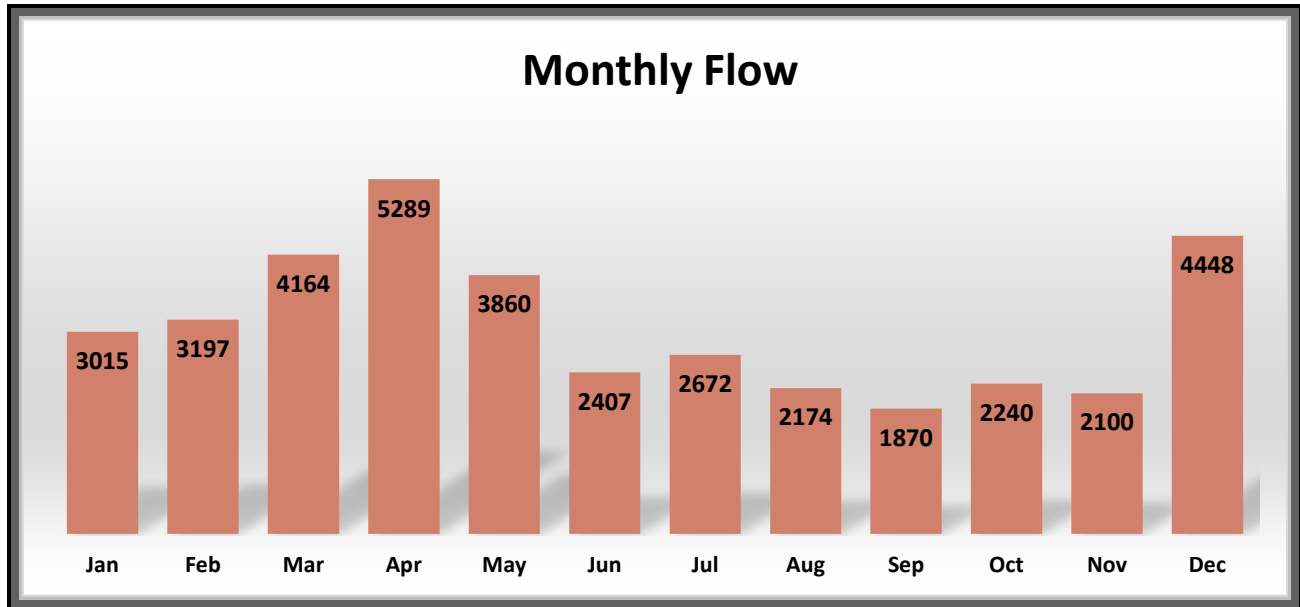
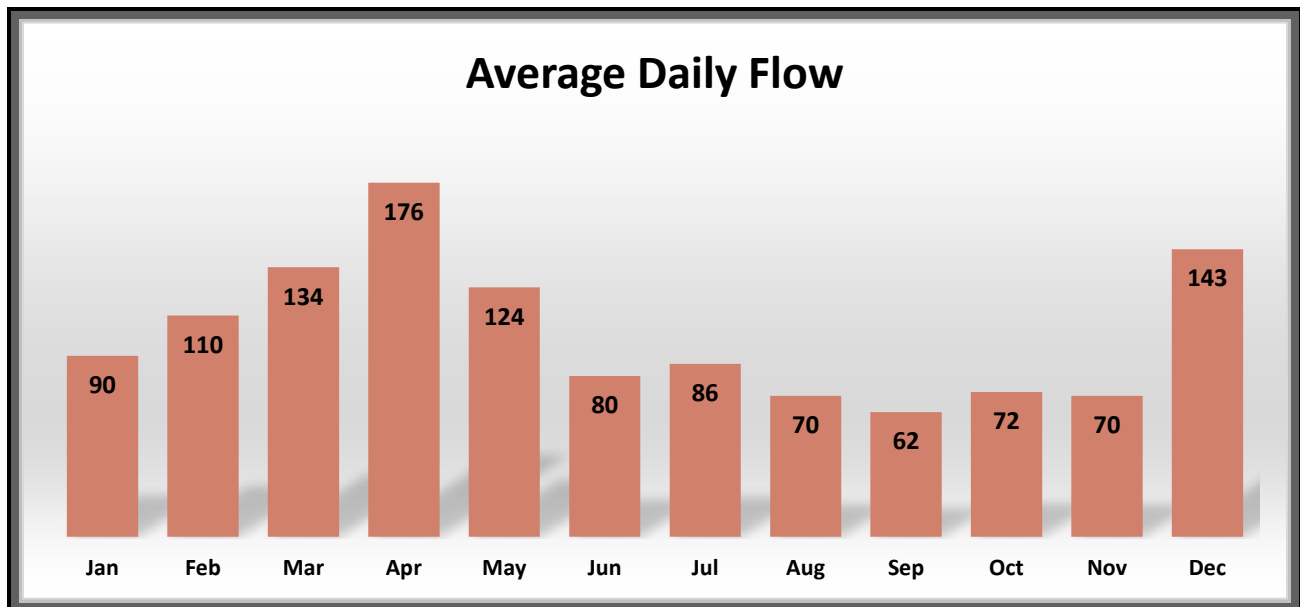


Figure 2: Washago Lagoon 2024 average daily flow total values are in (m3)



Maintenance Summary

Collection System

All maintenance in 2024 on major structures, apparatus and/or mechanical equipment is summarized below. The following is a list of preventative and emergency maintenance completed on the sewer system in 2024:

Sewage Pump stations cleaned to remove grease, grit, and other debris. All sewage pumping station alarms were tested monthly.

All floats in the sewage pumping stations were inspected and cleaned monthly. Debris removed from pumps in the sewage pumping stations as warranted.

Approximately 25% of maintenance holes were inspected. All generators were serviced.

- Flushed approximately 522 m of sewer main.
- Inspected 522 m of sewer main by video camera to identify necessary repairs.

Summary of Complaints

There were no complaints in 2024 related to Municipal infrastructure.

Summary of Calibration and Maintenance on Effluent Monitoring Equipment

Magnetic flow meters were calibrated by a certified technician on May 22, 2024. All in-house and collection system monitoring equipment is calibrated based on the manufacturer's recommendations.

Summary of By-Pass, Spills or Abnormal Discharge Events

There were no bypasses, spills, or abnormal discharge events in 2024.

System Alterations

There were no system alterations in 2024.