



Report n° WW2024-002

Date: 17/4/2024

Submitted by: Philippe Cormier

Subject: Wastewater Treatment Works 2023 Annual report

Nature/Goal

The purpose of this report is to present to Council the annual report of the Clarence-Rockland Wastewater Treatment Plant completed as required under the plant's Environmental Compliance Approval (ECA).

Directive/Previous policy

N/A

Department's recommendation

WHEREAS the Environmental Compliance Approval [ECA] certificate for the municipal Wastewater Treatment Plant requires that the City prepare and submit an annual report to the Ministry of Environment, Conservation and Parks [MECP] with respect to the activities and performance of the plant; and

WHEREAS the Ontario Clean Water Agency (OCWA) produced and submitted a report on the City's behalf to the Ministry prior to their March 31, 2024 deadline;

BE IT RESOLVED that Council acknowledges receipt of the report entitled "Rockland Wastewater System Annual Report 2023" as attached to Report No. WW2024-002.

ATTENDU QUE le certificat d'approbation de conformité environnementale [ACE] pour l'usine de traitement des eaux usées municipales exige que la Cité prépare et soumette un rapport annuel au ministère de l'Environnement et de la Protection de la Nature et des Parcs, concernant les opérations et le rendement de l'usine; et

ATTENDU QUE « the Ontario Clean Water Agency (OCWA) » a produit et soumis un rapport au nom de la Cité au Ministère avant la date limite du 31 mars 2024;

QU'IL SOIT RESOLU QUE le conseil accuse réception du rapport intitulé "Rockland Wastewater System Annual Report 2023", tel qu'annexé au rapport no. WW2024-002.

Background

In 1997, a new wastewater treatment plant was built in Rockland to replace the lagoon treatment system.

As per condition 15(3) (a) to (g) of the Special Terms and Conditions of the Environmental Compliance Approval, number 1990-9P3PRG, an annual report

of the activities of the plant is required. Ontario Clean Water Agency has been given the mandate to produce and submit the report on the City's behalf to the Ministry of Environment, Conservation and Parks prior to the Ministry's March 31 deadline.

Discussion

The Rockland Wastewater Pollution Control Plant's 2023 Annual report summarizes various activities and evaluates the performance of the waste treatment plant.

Plant Flows:

The Average Day Flows (ADF) reaching the Wastewater Pollution Control Plant in 2023 was 4949 m³ /d. The ADF remained 27% below the 6,800 m³ /d rated capacity of the facility. A peak flow of 10,427 m³ /d occurred on May 1, 2023, representing 60% of the 17 340 m³ /d maximum design flow capacity. This took place following a period of heavy rainfall and extreme snow melt.

The 2023 waste Treatment Plant flows can be summarized as follow;

	Design Flow (m³/day)	2023 Flow (m³/day)	Percent of Design
Average Day Flow m ³ /day	6,800	4,949	73%
Maximum Day Flow m ³ - day	17,340	10,427	60%

Biosolids Management:

During the fall 2023, the biosolids produced by the Rockland sewage plant were hauled and spread on a Non-Agriculture Source Materials (NASM) approved farms owned by Pilon Farm, Ethier Farm and Roy Farm.

The municipality continued using the approved farm locations to spread the Rockland sewage plant biosolids in 2023.

Throughout the 2023 reporting year, 5,000m³ of biosolids were transferred from the facility's aerated digester to the two on-site drying lagoon cells. As well, 4,007 m³ of partially dried biosolids were hauled from the lagoon cells to the approved locations.

Odour Management:

In response to odour complaints received from neighboring businesses near the sewage plant during the 2022 summer season.

The following efforts have been executed;

- MECP approved product have been added to the aerobic digesters during material processing.

- An odour absorption misting system was installed around the open treatment areas.

Both initiatives proved to be effective odour attenuation solutions. The offensive odours were reduced to a minimum whereas the city did not receive an odour complaint in 2023.

Operational Issues:

Overall, the facility operated well, satisfying all parameter objectives and limits, except for the Total Ammonia Nitrogen. November 2022, the screening upgrades were completed. February 2023 a new PLC was installed to allow the Sequent Batch Reactors (SBR's) to cycle aeration when in standby mode. Summer of 2023, the aeration pipes in the SBR's were replaced to remove built up rags and ensure proper air is supplied to the process. Other parts of the process such as optimal coagulation is being reviewed early 2024 to help improve nitrification.

Consultation

N/A

Recommendations or comments from committee/ other departments

N/A

Financial impact (expenses/material/etc.)

Future capital improvements to the Wastewater Treatment Plant are contemplated Wastewater Master Plan. The timing and cost of these improvements will be the subject of future staff reports to Council.

Legal implications

Proactively addressing operational issues at the plant such as the odour complaints, reduces the likelihood of legal actions against the municipality.

Risk management

Reviewing the plant's operations on an annual basis and identifying the need for improvements, enables staff to identify potential capital and operational funding requirements and initiate proactive rehabilitation strategies in a timely fashion.

Strategic implications

The annual operating report for the Waste Treatment Plant supports the municipality's commitment to providing services that respond to the continued health and well-being of its residents and, to effectively and efficiently maintain important municipal infrastructure.

Supporting documents

Attachment A – Rockland Wastewater System Annual Report 2023

