



MANAGEMENT REPORT

Date: March 26, 2025
To: Infrastructure, Transportation and Safety Sub-committee
From: Sean Beech, Manager of Environmental Services
Report Number: ITS25-007
Attachments: Stratford WPCP- Annual Report 2024 (AODA)

Title: 2024 Stratford Water Pollution Control Plant (WPCP) Annual Report

Objective: To submit the 2024 Stratford Water Pollution Control Plant Annual Report to Council for their information to ensure transparency between Council and the operating authority, the Ontario Clean Water Agency (OCWA).

Background: The Stratford WPCP is owned by the City of Stratford and operated under contract by OCWA. OCWA has prepared the 2024 Annual WPCP Report, which must be submitted annually to the Ministry of the Environment, Conservation and Parks (MECP), showing how the treatment plant performed throughout the year.

The report summarizes the operation for the WPCP and reports on all the activities that occurred at the treatment plant throughout the year. The report also indicates that the plant met all the Environmental Compliance Approval (ECA) requirements for effluent discharge into the Avon River.

Analysis:

Total Flows - The treatment plant treated a total of 6,596,518 m³ of influent for an average flow of 18,015m³ per day. This is an 8.4% decrease in total flows from last year. The design capacity of the treatment plant is 30,660m³ per day and based on the flows received for 2024, operated at 58.2% of the design capacity. This percentage decreased slightly from 62.5% in 2023.

Overflow Events - During the 2024 year, the treatment plant had 12 overflow events (2023 had 14 events) where there was discharge from the wet weather equalization tank and discharge into the Avon River. These events were all due to flows caused by heavy precipitation and/or snow melt.

During a flow exceedance, the excess flow is diverted to an equalization tank and contact chamber where appropriate chlorination of the flow is achieved. Upon leaving

the chlorine contact chamber, the flow is then de-chlorinated by sodium bisulphite prior to discharge into the Avon River.

The treatment plant also experienced 1 bypass event due to an unplanned maintenance activity in the filter system. A bypass event is a situation when a portion of the entire treatment process is bypassed. The bypass water events typically complete close to full treatment. A total volume of 10 500m³ was bypassed during this event. All bypassing flow was disinfected through the facilities UV system. All bypass and overflow events were reported to the MECP.

Effluent Quality -The effluent discharges met all requirements for levels of removal for 2024:

- Total Suspended Solids: 97.75 %
- Total Phosphorus: 96.94%

Capital Projects – The following are some of the more major capital projects undertaken for the 2024 year:

- SCADA network switch Upgrades
- Cleanout of Aeration Cell #1 and O-ring replacement
- Filter surface wash arm maintenance
- Replace two (2) actuating valves in the Filter System
- Valve Replacements in the Digester Building
- Chemical Pump replacements for Overflow system
- Annual Flowmeter and Level Transmitter calibrations

Also in May of 2024, an overpressure event occurred in the Primary Digester, leading to the uplifting of the digester roof. Engineering Consultants have conducted several tests on the roof and have delivered options for the refurbishment or replacement of the roof. Staff are currently reviewing these options before determining next steps.

In summary, the Water Pollution Control Plant, operated by OCWA, has met, and exceeded all Environmental Compliance Approval requirements for the 2024 operating year.

Financial Implications:

Financial impact to current year operating budget:

There are no financial implications as this report is informational.

Financial impact on future year operating budget:

Future operating budget impacts will be based on the annual major maintenance recommendations report presented by OCWA, which occurs in November of each year. These recommendations inform required contributions to the reserves for all capital works required at the WPCP. Staff will continue to review the capital requirements and reserve fund contributions needed to support these projects as part of the budgeting

process. As the Sanitary Division is a 'user pay' division, these costs are fully covered by fees.

Alignment with Strategic Priorities:

Developing our Resources

Optimizing Stratford's physical assets and digital resources. Planning a sustainable future for Stratford's resources and environment.

Alignment with One Planet Principles:

Sustainable Water

Using water efficiently, protecting local water resources and reducing flooding and drought.

Staff Recommendation: THAT the 2024 Stratford Water Pollution Control Plant Annual Report be received by City Council for information.

Prepared by: Sean Beech, Manager of Environmental Services

Recommended by: Joan Thomson, Chief Administrative Officer