




INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 18, 2024
SUBJECT/REPORT NO:	Sewer Use By-law Program 2023 Annual Update (PW24078) (City Wide)
WARD(S) AFFECTED:	City Wide
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SIGNATURE:	

COUNCIL DIRECTION

Not Applicable

INFORMATION

This report provides an update to the Public Works Committee on efforts related to the Sewer Use By-law Program for 2023.

City of Hamilton By-law 14-090 (Sewer Use By-law) regulates discharges to the City's storm, sanitary, and combined sewers from industrial, commercial, and institutional facilities, residential properties and hauled sewage disposal. It establishes limits for common pollutants and prohibited substances, and details requirements that dischargers need to meet to discharge to the City's sewer infrastructure. The Sewer Use By-law promotes clarity, ease of use, consistent administration, and enforcement.

The Sewer Use By-law reduces the potential for impacts such as:

- Clogged or damaged sewers and pipes.
- Risk of impairment of the sewage collection and treatment processes.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

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- Wastewater collection system surcharges, basement flooding, and combined sewer overflows.
- High nutrients contributing to eutrophication of water bodies through algal blooms.
- Heavy metals and emerging contaminants that may be toxic or could bioaccumulate.
- Health and safety risks for sewer workers and the public.

The Environmental Monitoring and Enforcement unit within the Hamilton Water Division is responsible for the administration and enforcement of the Sewer Use By-law. This is achieved via the following activities and programs and an update for many of them are highlighted in Report PW24078:

- Sewer Discharge Permitting Program
- 24/7 Spills Response Program
- Wastewater Abatement Program
- Industrial Facility Inspections and Risk Assessments
- Sampling, Monitoring and Enforcement actions
- Construction Dewatering Program
- Hauled Sewage Monitoring Program

Sewer Discharge Permits

Sewer Discharge Permits are a regulatory tool that allow the City to apply conditions and controls to discharges to the sewer works and recover costs associated with conveyance and treatment of certain types of wastewater discharges. Permits may be issued to industrial, commercial, and institutional facilities whose discharges do not meet the base requirements of the Sewer Use By-law but can be conveyed to and treated effectively at one of the City's wastewater treatment plants without causing any adverse effect to the City's assets or processes. The City expects dischargers to make reasonable efforts and investments to eliminate or pretreat their discharges as the preferred alternative to seeking a permit to discharge. Every discharger applying for a permit must provide the City with specific details about the discharge which is assessed by Hamilton Water staff, and permits are only issued once all requirements are met. There are seven types of Permits that can be issued which are explained in detail below.

An Overstrength permit is applied if a discharger cannot meet the requirements of the Sewer Use By-law for parameters that are treatable at the City's wastewater treatment plants (Carbonaceous Biochemical Oxygen demand, Total Suspended Solids, Phosphorus, Total Kjeldahl Nitrogen, and animal/vegetable-based Oil and Grease). These permits recover the cost of treating that overstrength wastewater at the City's

wastewater treatment plant. In 2023, there were 56 Overstrength Permits versus 37 in 2022.

A Surcharge Permit is applied if wastewater is discharged to the City sewers that does not originate from a property's potable water connection to the City's water distribution system and is therefore not measured by the property's water meter. These permits recover the cost of conveying and treating that surcharge wastewater. In 2023, there were 31 Surcharge Permits versus 24 in 2022.

A Chlorides Permit is applied If a discharger cannot meet the requirements of the Sewer Use By-law for chlorides and includes necessary conditions based on a sewer impact study that the applicant is required to conduct. The sewer impact study will also determine any reduction in life span of the City's sewers resulting from the discharge, and the discharger may be required to compensate the City if the lifespan of the City's sewers are expected to be reduced. In 2023, there were eight Chlorides Permits versus 11 in 2022.

A Conditional Permit is applied where a discharger has an approval from a provincial or federal government authority that supports discharges to the City's sewers. These permits could include but not be limited to discharges that contain PCBs, waste radioactive prescribed substances, leachate from a waste disposal site, water from a groundwater remediation project or water that is discharged to a storm sewer. In 2023, there were two Conditional Permits, which was the same in 2022, and both permits were for the discharge of leachate from a waste disposal site.

A Temporary Permit is applied in place of an Overstrength Permit, Surcharge Permit, Compliance Permit, or Conditional Permit, where the discharge will not exceed a period of six months. In 2023, there was zero Temporary Permits versus one in 2022.

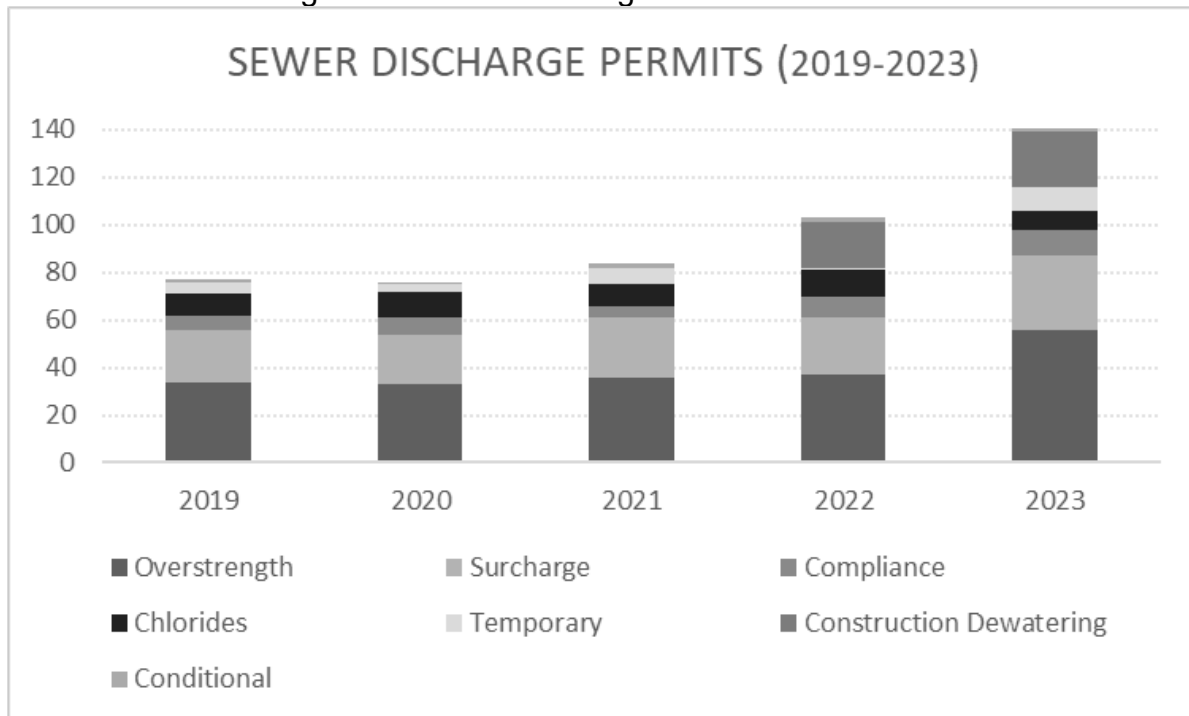
A Compliance Permit is applied in order to provide a discharger with certain controlled exemptions to the Sewer Use By-law for a limited time, allowing time to plan and implement treatment works or pollution prevention activities. The discharger will identify activities to be completed that will reduce or prevent/control the presence of pollutants in discharges, including a schedule for implementation. As part of the permit conditions the discharger may be required to retain qualified professionals to support and develop their compliance plan, to perform regular discharge sampling, and is also required to provide progress reports regularly to the City. In 2023, there were four active Compliance Permits, compared to seven in 2022.

A Construction Dewatering Permit is applied to control groundwater or surface water dewatering activities from construction and maintenance projects, where that water is discharged to a City sanitary or combined sewer. These permits recover the cost of conveying and treating that surcharge wastewater. In 2023, 20 Permits and three

preapprovals were processed which is an increase from 14 Permits and processed five preapprovals in 2022.

In 2023, the Environmental Monitoring and Enforcement Unit managed 141 sewer discharge permits, which is up from 104 in 2022. This growth is attributed to an increase in construction dewatering permits and staff efforts to review and audit dischargers across the City. The historical trend of sewer discharge permits is shown in Figure 1 below.

Figure 1: Sewer Discharge Permit Historical Trend



Annual Sewer Discharge Permit Cost Recovery

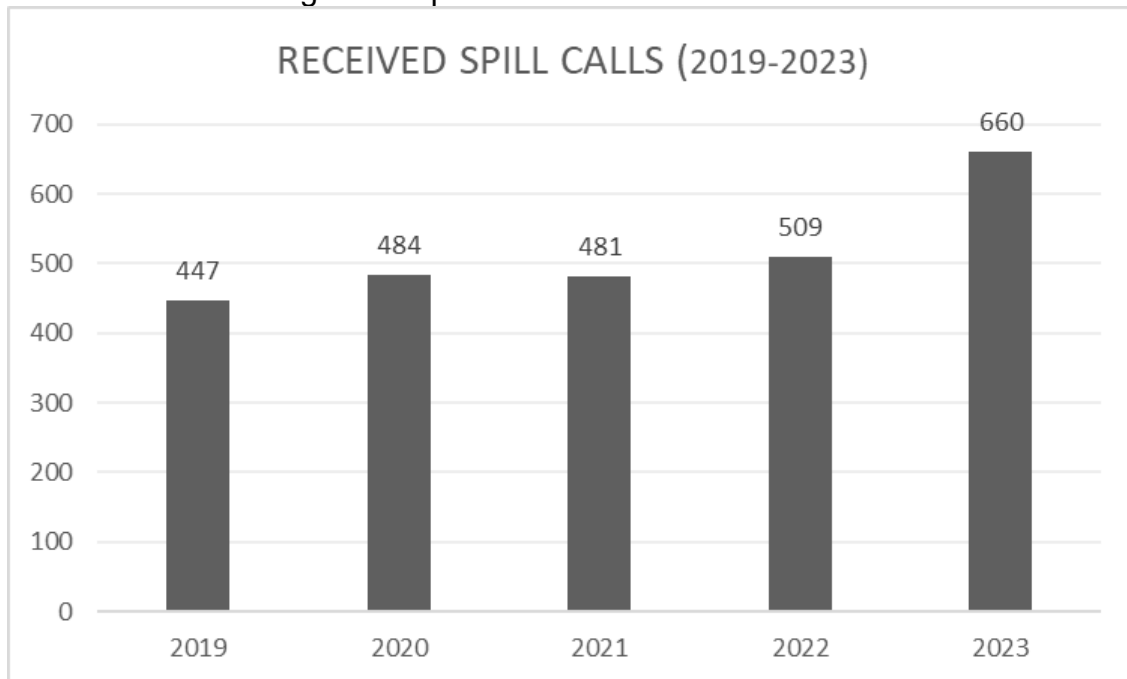
In 2023, sewer discharge permits generated approximately \$10.2 million in recoveries. This includes approximately \$170,000 for permit administration, including invoiced application and information request fees. 2023 recoveries were up from approximately \$10.08 million in 2022.

24/7 Spills Response Program

Environmental Monitoring and Enforcement staff respond to spills to the City's sewers and stormwater systems 24/7/365, taking action to mitigate spill impacts, collect evidence, educate, hold responsible parties accountable for clean-up, and evaluate potential enforcement and corrective actions. In 2023, 660 spill notifications were

handled by the Environmental Monitoring and Enforcement unit. The historical trend of spill notifications is shown in Figure 2 below.

Figure 2: Spill Notification Historical Trend



Wastewater Abatement Program

The Wastewater Abatement Program allows eligible commercial and industrial properties to apply for a reduction in City wastewater fees, where an assessment identifies a minimum (25%) differential between the volume of potable water purchased from the City and the volume of sewage discharged to the city's sanitary sewer or combined sewer system. The wastewater abatement program includes a rigorous application process, and any rebates are contingent on the property maintaining compliance with the Sewer Use By-law and maintaining good financial standing with the City. In 2023 there were 11 wastewater abatement files, which is up from 10 in 2022.

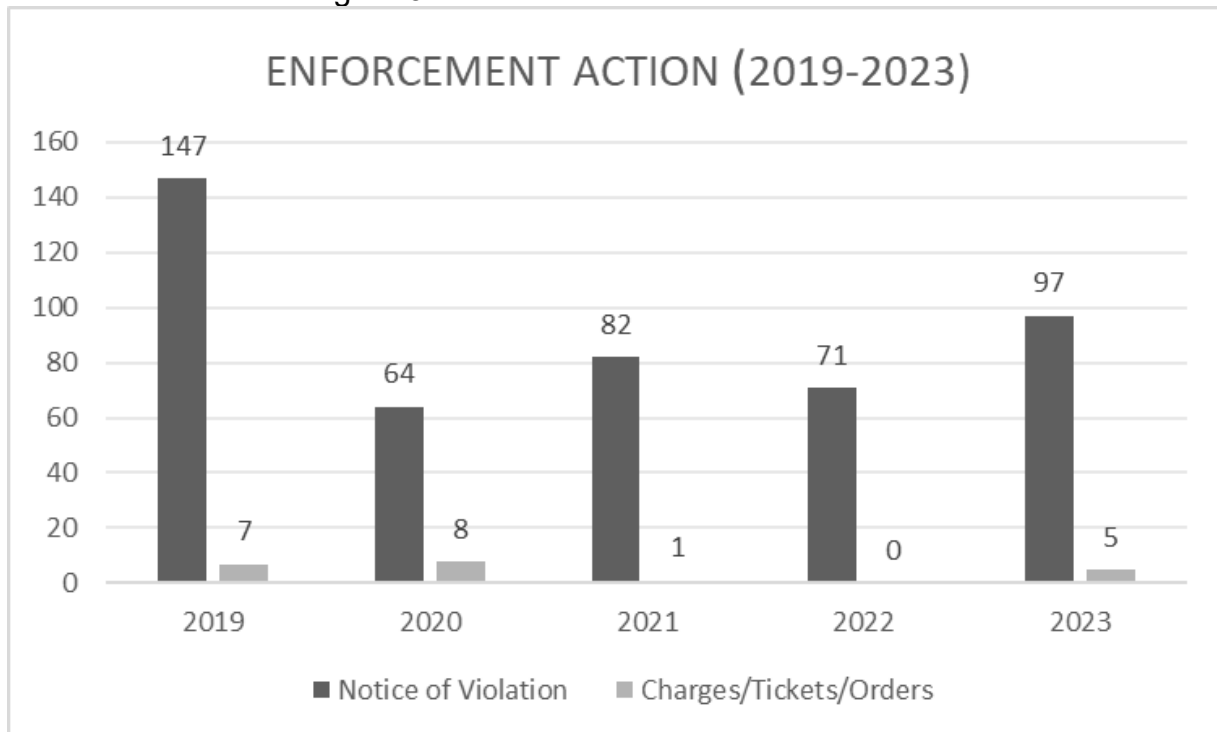
Enforcement Action

Environmental Monitoring and Enforcement staff generally issue Notices of Violation for offences under the Sewer Use By-law. If compliance is not achieved following notification of offences, then investigations may be conducted which may lead to prosecutions and potential convictions before the courts. In circumstances which pose an immediate threat to public health, infrastructure, or the environment, or otherwise require immediate action, staff from the Environmental Monitoring and Enforcement unit

may issue an order to comply or take other remedial actions. In certain cases, the circumstances may warrant charges under the Sewer Use By-law.

Figure 3 below shows the enforcement action that has been taken over the past five years, which includes Notices of Violation, tickets, charges, and orders issued by Environmental Monitoring and Enforcement staff. In early 2022, four charges originating from 2019, 2020 and 2021 were successfully prosecuted, prompting notable improvements in Sewer Use By-law compliance from the accountable facilities. In 2023, five dischargers were served with charges that were not yet prosecuted by the end of 2023.

Figure 3: Enforcement Action Historical Trend



APPENDICES AND SCHEDULES

N/A