



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	June 1, 2015
SUBJECT/REPORT NO:	Sewer Use By-Law Program Annual Update (PW15043) - (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Dan McKinnon Director of Hamilton Water (905) 546-2424, Extension 5941
SUBMITTED BY:	Gary Moore, P.Eng. Acting General Manager Public Works
SIGNATURE:	

Council Direction:

Public Works Committee at its meeting of April 7, 2014, approved the Proposed New Sewer Use By-law (PW13061a), which was then enacted and came into force on May 1, 2014. While there is no specific direction for staff to report back to Committee, this report is provided as an update to Council on the progress of the implementation of the By-law and a summary of activities for 2014.

Information:

The Environmental Monitoring and Enforcement (EME) Group exists to protect the City's sewer infrastructure, wastewater treatment facilities and the natural environment by the effective administration and enforcement of the Sewer Use By-law. The work of the EME Group is reflected through four focus areas including Sewer Discharge Permits, Compliance Permits, Spills Response and Pollution Prevention (P2).

The new Sewer Use By-law ("By-law") includes language to support our Pollution Prevention and Waste Hauler Programs and allowed for the replacement of Sewer Discharge Agreements with a more user-friendly Permit system. The new By-law mandates the installation and maintenance of oil, grease, sediment and dental amalgam interceptors to help further reduce the impact of these materials to our infrastructure.

A major undertaking for staff in 2014 was to finalize workflows, procedures and form templates to enable us to administer the new By-law as it was designed. The new methods of administering the By-law have already revealed several issues with company discharges that the old system missed, such as the occurrence of off-hour discharges and the need for additional sampling points. The new By-law also allowed

the implementation of administrative fees for processing permits that were never recovered in the past.

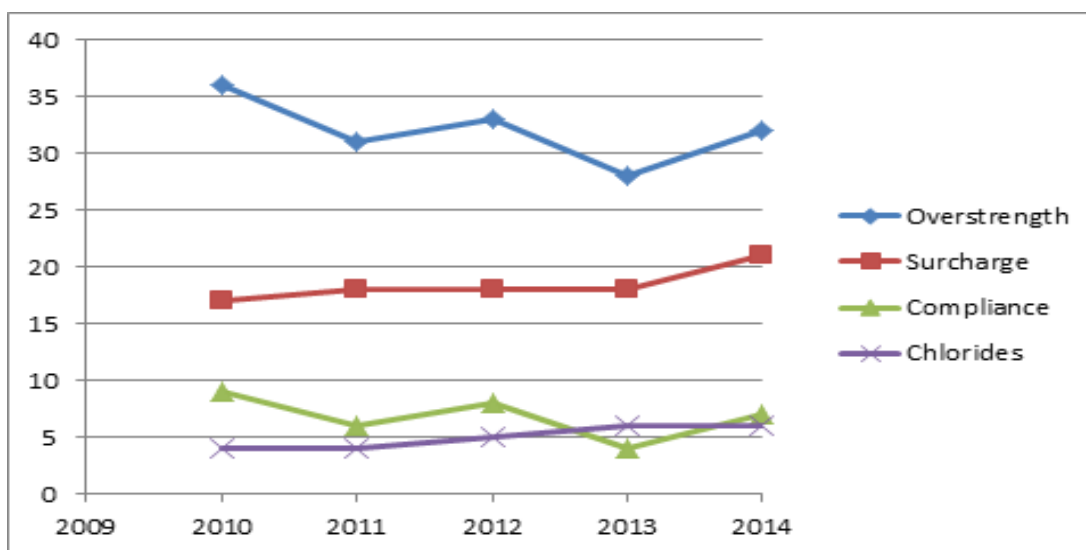
The following provides updates and summary of activities relative to:

- Sewer Discharge Permits
- Compliance Permits
- Spills Response
- Pollution Prevention (P2)

Sewer Discharge Permits

One of the major changes to the Sewer Use By-law was the conversion from Sewer Discharge Agreements to Sewer Discharge Permits. Staff manage various permit types by approving applications and processing quarterly invoices.

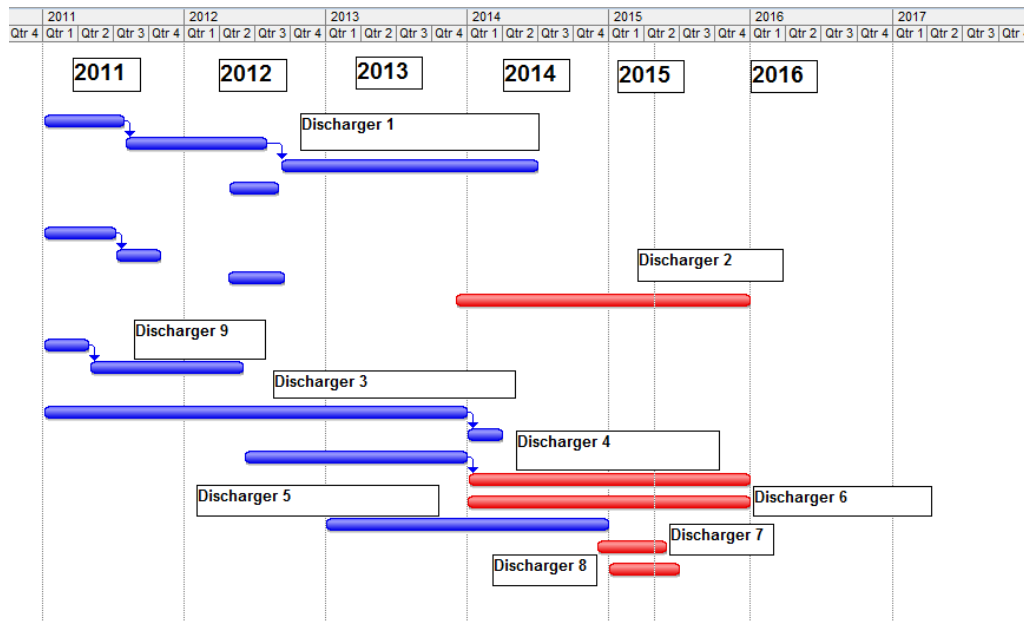
Sewer Discharge Agreements/Permits Annual Totals (2010-2014)



Compliance Permits

A Compliance Permit provides a discharger with certain controlled exemptions to the By-law for a limited time period, to plan and implement treatment works that will bring their discharge into compliance. Once the permit expires, the company is continually monitored until it is verified that compliance was attained.

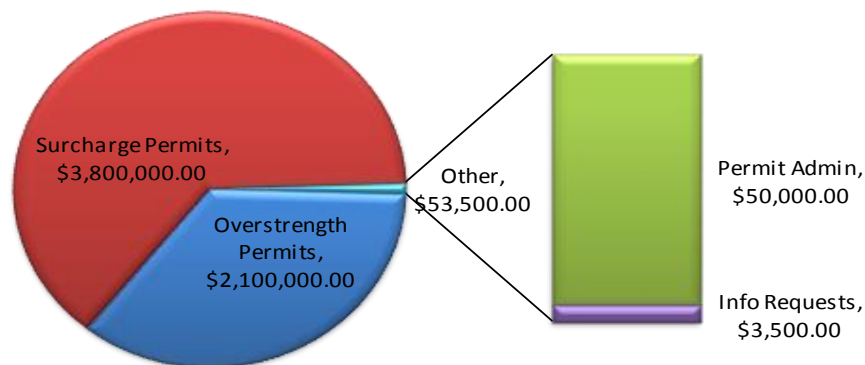
In 2014 there were seven active Compliance Permits with the completion of three of them, the other four will continue into 2015.



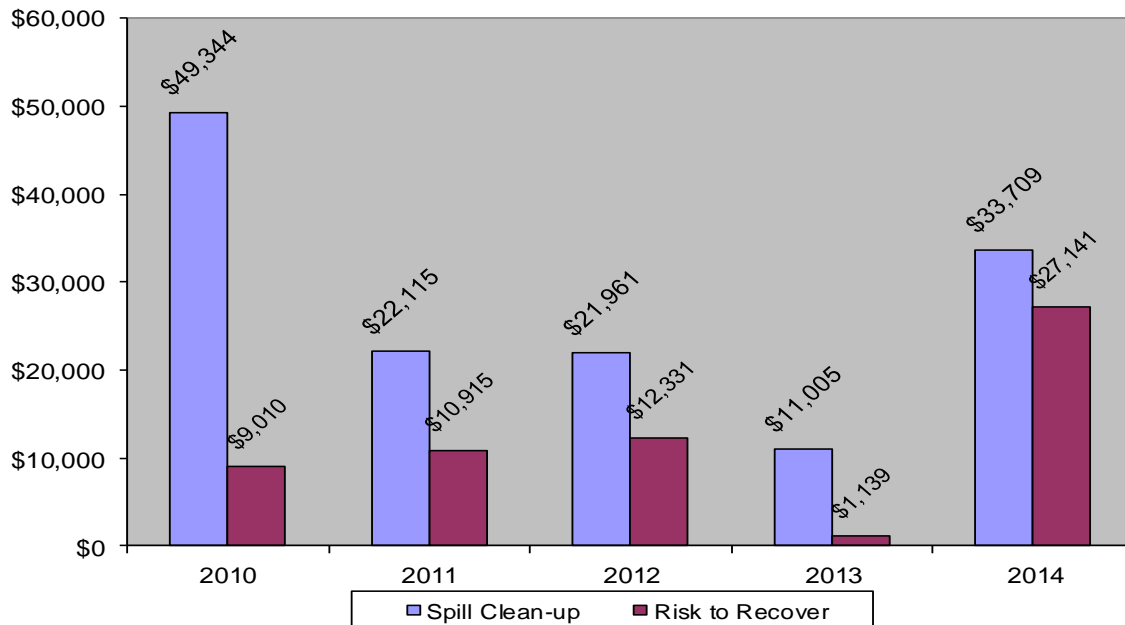
2014 Financials

	Amount Forecasted	Actual Expenditures	% Spent
EME Operating Budget	\$1,585,500	\$1,489,595	94%

Annual Revenue (~\$6Million) - Sewer Discharge Permits generate approximately \$6 million in annual revenue, which represents the costs associated with conveying and treating overstrength and surcharge wastewater.



Spills Clean-up Costs Recovered - Staff endeavour to ensure spills to the City's sewer infrastructure and natural environment are remediated to our satisfaction, and investigate the source of the spill. In 2014, over 80% of the costs associated with spills were recovered due to the excellent investigative efforts of staff and a clearer, more concise By-law.



Process Improvements

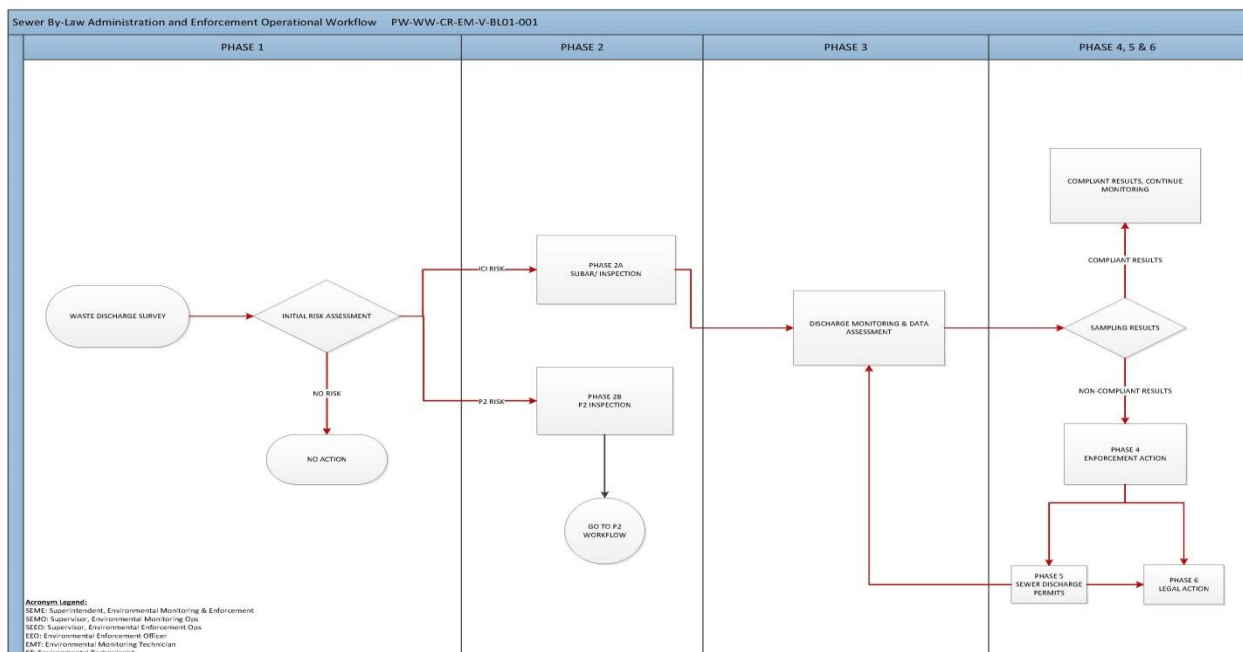
Sewer Discharge Permits - There has been a major improvement in the turn-around time of processing permits versus processing agreements under the old By-law. Currently, a permit can take up to four weeks to process from the time the company submits an application to the time the permit is issued. Under the old system, some agreements could take longer than one year to process, often making it difficult to collect retroactive payments from dischargers for overstrength and surcharge costs.

Sewer Damages - As a result of lessons learned through the implementation of the new Bylaw and the greater visibility it creates, staff have identified a number of areas within the collection system that have experienced damage as a result of non-compliance with the Bylaw. Specifically at five locations within the sewer network, pipes were found to be in poor condition and had experienced advanced deterioration with repair costs estimated to be approximately \$1.5 Million. Negotiations with each discharger for cost recovery are ongoing and have so far been successful. Compliance is being sought from each discharger, and those who require Sewer Discharge Permits have specific conditions applied to prevent recurrence. This is another example of process improvement that enables a more proactive approach.

Industrial, Commercial & Institutional (IC&I) Inspections - Staff attend various IC&I dischargers to assess risk of their sewer discharge and to ensure compliance with the By-law. In 2014 this process changed significantly as a result of the enactment of the new By-law. Operating procedures were updated and all staff were trained on this new

process. There were several facilities where new information was revealed and documented that lead us to change the way we monitor them, and in some cases required a new Sewer Discharge Permit. This shows that our new Inspection Process is very effective and also how necessary the changes were.

Operational Workflows - One of the features of the By-law is a concise enforcement policy. Staff worked throughout 2014 to create a visual aid that would help to clarify how the By-law is administered and enforced. This interactive tool will also be useful for new staff members as a training tool. There are six main phases, and a detailed workflow has been completed for each phase which also includes a link to its corresponding operating procedure. This enforcement policy has never been documented in such a way. The goal is to publish this document on the City's website in 2015. Below is a screenshot of the summary page.

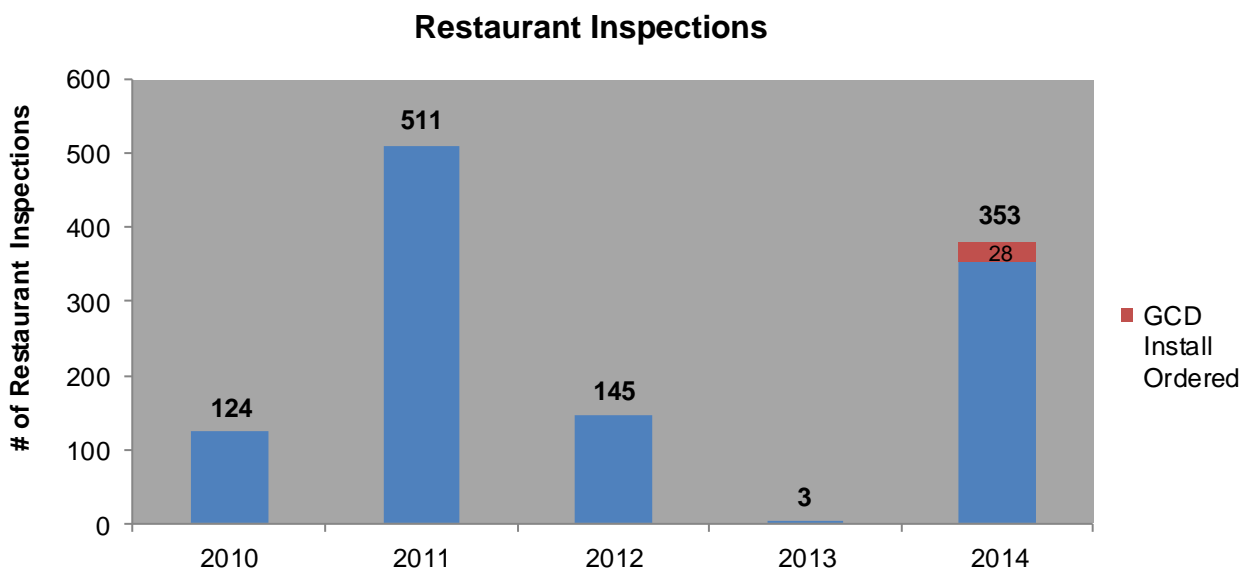


Updated Forms, Procedures and Staff Training - With the creation of the Operational Workflows, each phase has a corresponding operating procedure that required review and updating. Half of the procedures were updated based on priority, and the appropriate staff were trained. The other half have been planned for 2015. One of the biggest challenges after the new By-law was enacted was the creation of all new supporting documents such as: permit application forms, reporting documents, inspection forms, evaluation checklists, etc. All administrative operations were also assessed for efficiencies and changes were made where possible.

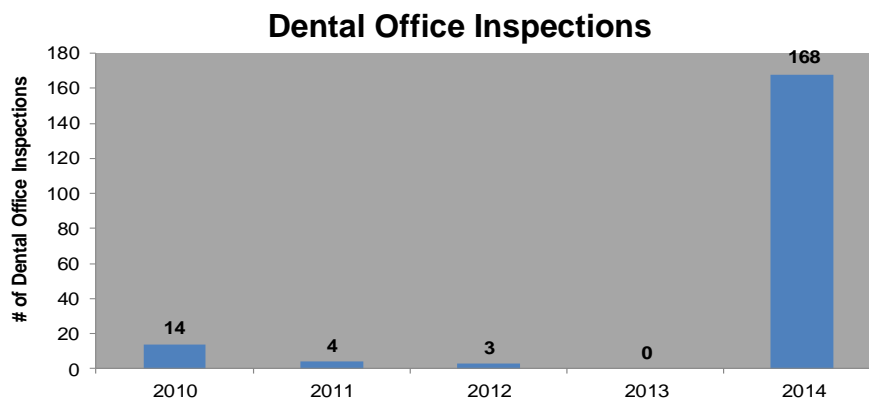
Pollution Prevention Program

The enactment of the new Sewer Use By-law has helped to enhance the Pollution Prevention (P2) Program by providing officers with more options for enforcement to help smaller businesses achieve compliance. The creation of the various P2 Programs such as the Fats, Oils and Grease Management Program, and for facilities such as Vehicle Service Operations and Dental offices have all been well received in the community.

Fats, Oil & Grease (FOG) Program - The FOG Program was developed to assist food premises with proper handling and disposal of their fats, oils and grease. The new Sewer Use By-law mandates the installation and maintenance of Grease Control Devices (GCD) via the completion of a Risk Matrix. In 2014, 28 restaurants did not have a GCD, and therefore were ordered to install one. It is expected that over the next few years we will see a reduction in sewer blockages caused by FOG and a reduction in costs for sewer maintenance. Data is being collected to provide metrics in two to three years.



Dental Amalgam Program - The Dental Amalgam Program seeks to ensure that Dental Offices have installed a Dental Amalgam Separator Unit and that they are maintaining it appropriately. The new Sewer Use By-law gives officers the authority to order the installation of these units, however every Dental Office inspected in 2014 already had a device installed.





Environmental Monitoring and Enforcement Staff

(Front Row L-R):

Cari Vanderperk, Hector Quintero, Nelson Vidal, Debbie Saunders, Lisa Young, Sherry Vanderheyden

(Back Row L-R):

Sherrie Colonna, Glenn Noble, Mike Bown, Chris Banitsiotis, Adam Gallant, Mike Fama, Allan Rodek