



Hamilton

INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	June 19, 2017
SUBJECT/REPORT NO:	Sewer Use By-law Program Annual Update (PW17049) (City Wide)
WARD(S) AFFECTED:	City Wide
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SUBMITTED BY:	Andrew Grice Acting Director of Hamilton Water
SIGNATURE:	

COUNCIL DIRECTION:

Not Applicable

INFORMATION:

Public Works Committee at its meeting of April 7, 2014 approved the Proposed New Sewer Use By-law (PW13061a), which was enacted by Council and came into force on May 1, 2014.

The 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 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. It also allowed the implementation of administrative fees for processing permits that were never recovered in the past. A major undertaking for staff since the enactment was to finalize workflows, procedures and form templates to enable administration of the By-law as it was designed. The new method of administering the By-law requires Sewer Discharge Permits (SDP’s) to be reviewed and re-issued every 3 years. As we approach the first 3 year cycle, the efficiencies of the new system are significant. Staff are able to process SDP’s in a much shorter time period with increased consistency and accountability built into the process. This report serves to provide an update to Committee on the progress and successes of the Sewer Use By-law Program for 2016.

ENVIRONMENTAL MONITORING AND ENFORCEMENT (EME) MANDATE/MISSION

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

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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.

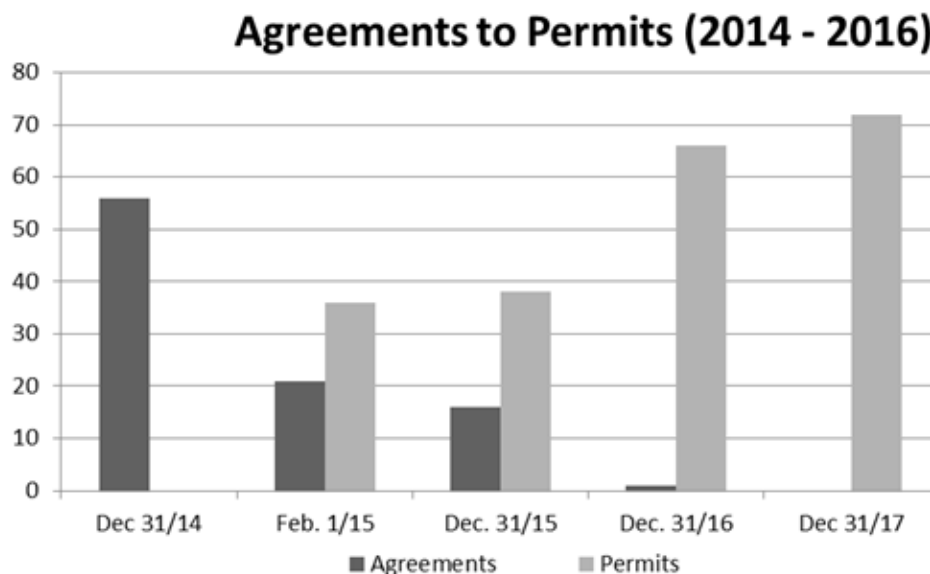
SEWER DISCHARGE PERMITS

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

Typically Sewer Discharge Permits (SDPs) are issued to businesses whose discharge do not meet the requirements of the Sewer Use By-law but can be treated effectively at Woodward and will not adversely affect the condition of the sewer system. SDPs are a regulatory tool that allows the City to apply conditions and controls to ICI discharges to the sewer and recover costs associated with treatment and operations. There are currently 6 different types of SDPs that can be issued by an Officer, which are explained further below. Each discharger must apply to the City with specific details about the discharge which is assessed by EME and Plant Operation staff and only issued once all requirements are met.

With the exception of Compliance Permits, each permit is typically issued for a 3 year cycle. Prior to the expiry date, if a permit is still required, the discharger must re-apply.

Since the enactment of the Sewer Use By-law at the end of 2014, all Agreements under the old By-law were deemed Permits and any Agreements that were older than 3 years were expired and the discharger was required to apply for a new Permit. The chart below displays the number of Agreements vs Permits and shows that the former Agreement format is now completely redundant and all non-compliant dischargers have a permit.



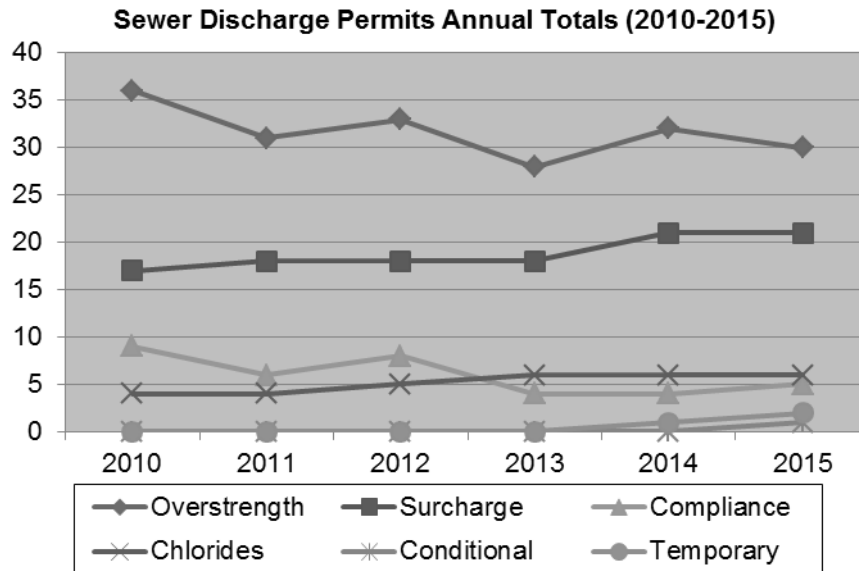
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By the end of 2016 there were 66 SDPs on record, 35 of which were issued in 2016. EME staff did an excellent job converting all former Agreements into Permits over the past 3 years. The cycle will continue as Permits expire every 3 years and dischargers will be required to apply for a new one.



OVERSTRENGTH PERMIT

If a discharger cannot meet the requirements of the Sewer Use By-law for treatable parameters (BOD, TSS, phosphorus, TKN and Oil & Grease (animal/vegetable)) they can opt to pay the City to treat their waste if they don't have real estate or expertise to install their own treatment system.

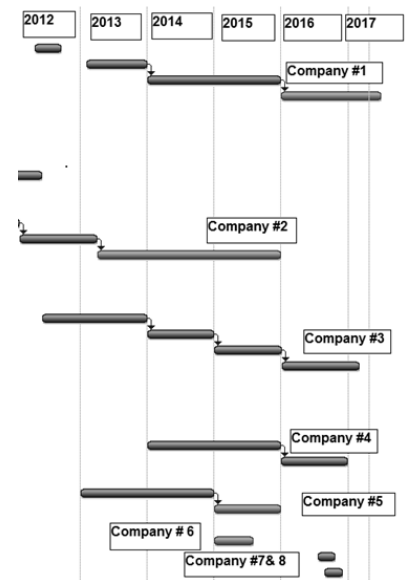
SURCHARGE PERMIT

If water is discharged to the sewer but has not been purchased from our potable water system a Surcharge Permit is required to recover the cost of conveying and treating that water.

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 2016 there were 5 active Compliance Permits with the completion of 3 of them. The remaining 2 are on schedule to be complete in 2017. The timeline chart to the right shows industry commitment and success in achieving compliance.



CHLORIDES PERMIT

If a discharger cannot meet the requirements of the Sewer Use By-law for Chlorides; a Chlorides Permit lays out the necessary conditions based on a sewer impact study that the discharger is required to conduct. Also, the study will determine the life span of the sewer and the discharger may be required to pay the City to replace the sewer if it does not last its expected lifespan.

CONDITIONAL PERMIT

Controls and applies conditions to discharges from landfill leachate collection systems, or where a higher level government authority is required.

TEMPORARY PERMIT

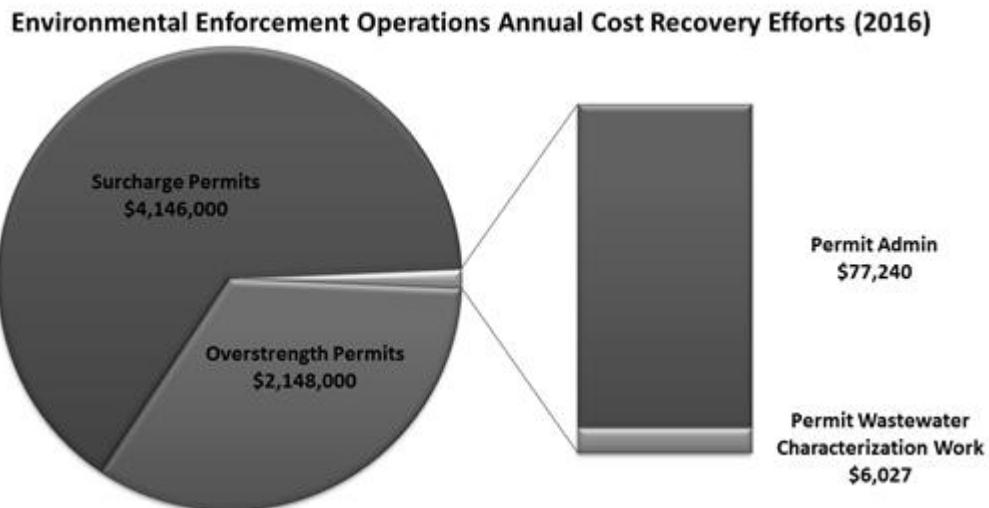
Controls and applies conditions for any of the above discharges that do not exceed a period of 6 months – tank discharges, site excavations, etc. There has been an increase in the number of temporary permits issued as there are more new construction locations.

2016 FINANCIALS

In 2016, the \$1.6 million operating budget was fully utilized.

ANNUAL REVENUE (~\$6.4 Million)

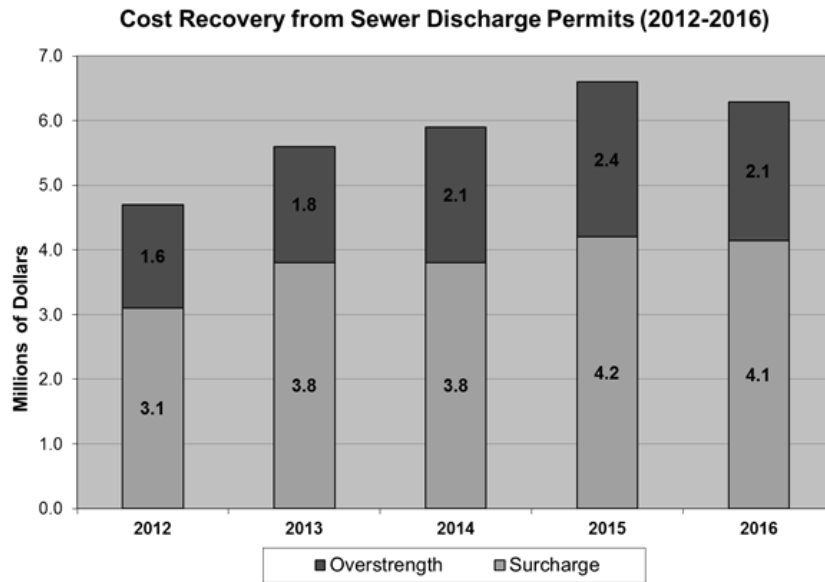
Sewer Discharge Permits generate approximately \$6.4 million in annual revenue, which accounts for the recovery of costs associated with conveying and treating overstrength and surcharge wastewater. This includes approximately \$80,000 for permit administration fees now being invoiced.



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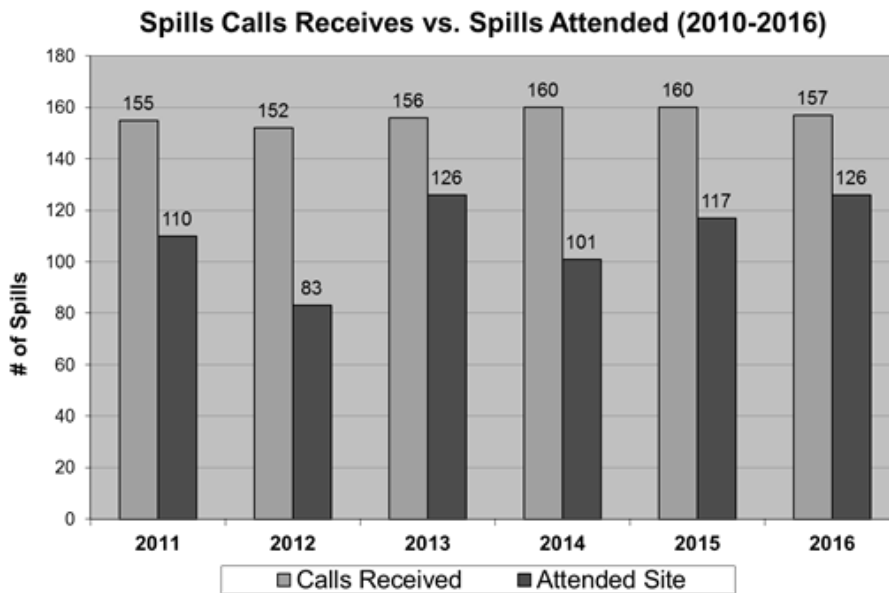
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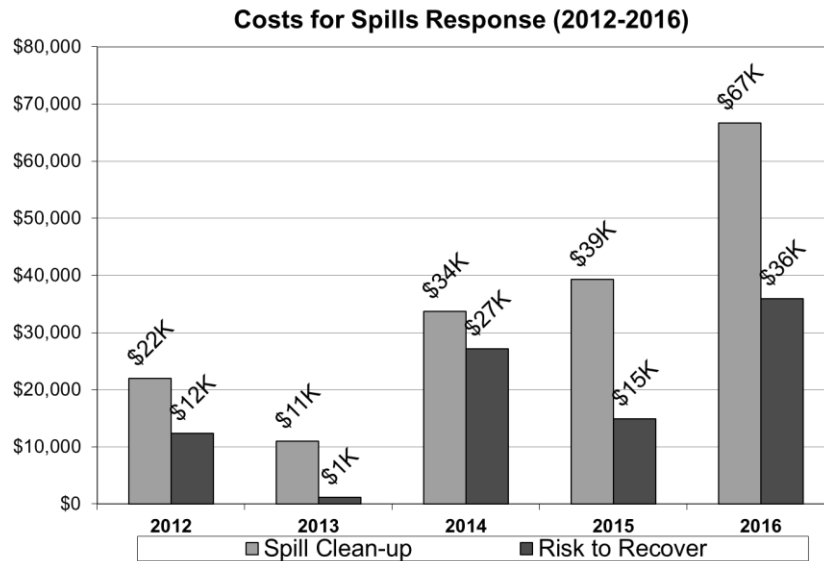
SPILL RESPONSE

The number of spills calls received and calls attended has remained remarkably consistent over the past few years. Cost recovery efforts are continuous and in some cases yield results. The Spills Response Program was reviewed in its entirety in 2016, from call handling, to documentation to note taking. The use of the decade old Spills Database ended in November 2016 and recording was integrated into a module in INFOR. Further program development will include response time metrics and costing per incident and is planned for 2017 implementation to help staff track and measure spills response more effectively.



SPILLS CLEAN-UP COSTS RECOVERED

Staff endeavour to ensure spills to the City's sewer infrastructure and natural environment are remediated to our satisfaction. This includes investigating the source of the spill. In 2016, 54% of the costs associated with spills were recovered due to the excellent investigative efforts of staff and a clearer, more concise By-law.



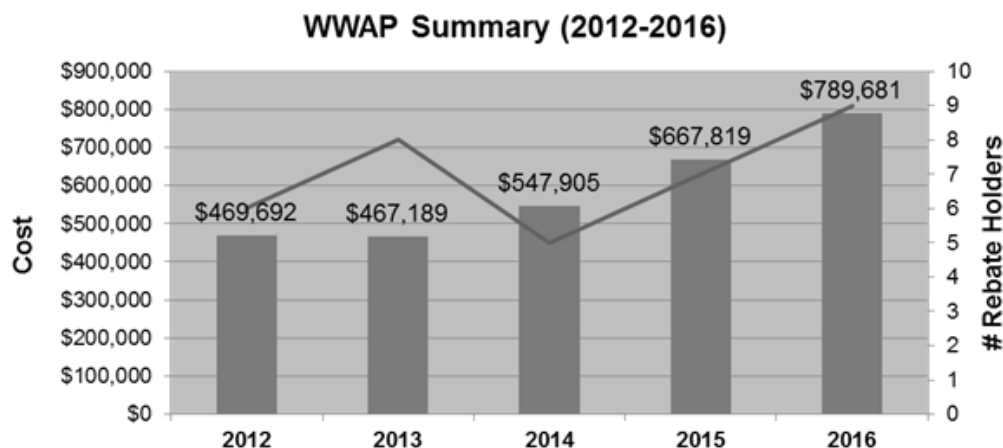
WASTEWATER ABATEMENT PROGRAM

The Wastewater Abatement Program applies to qualifying ICI customers and accounts for a partial rebate of the flow differential between purchased water and non-sewered water consumed in product or process. It has now been imbedded in the Sewer Use By-law Assessment Report Document, which has increased the program's profile. It appears to be gaining popularity and more dischargers are inquiring about it. The application process has become more simplified over the past few years, but certainly more rigorous in its approach. Staff has taken measures to ensure no discharger receives a rebate if they are not in compliance with the Sewer Use By-law or if they are in arrears to the City for any money.

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GENERAL PROPERTY ASSESSMENTS (GPA)

In 2016 EME improved the process in which IC&I Inspections were conducted. 128 GPAs were completed by EME staff in 2016. The City has approximately 7900 non-residential dischargers and currently only 5 % of these locations have been historically assessed and are regularly monitored by EME. Once the assessment is complete, each parcel of land is colour coded based on risk: red, green or yellow. A link between the INFOR industry database and the GIS mapping module was developed in 2016 to provide a visual representation of risk to the sewer system. The long term goal is to assess all 7900 dischargers, assign risk ratings, and potentially increase Sewer Discharge Permit revenue.



FATS, OIL & GREASE (FOG) PROGRAM

EME has been visiting the restaurant and food services sector in order to ensure compliance, since the By-law was enacted in 2014. The Environmental Enforcement Officer can assess whether or not the restaurant requires a grease control device (GCD) by completing a Risk Matrix; if needed, they are given 1.5-2 years to install one. In 2015, 41 restaurants without

GCD's were given notice to have one installed: to date, 30 have met the requirement, 4 have closed down, and EME staff will be following up with the remaining 7 restaurants to ensure that installation is complete by the end of 2017.

PART 1 TICKETS

In 2016 staff applied to The Ministry of the Attorney General to allow EME staff to issue Part 1 tickets under the Sewer Use By-law. EME was trained in house with the assistance of Legal Services and Municipal Law Enforcement Staff. Procedures and workflows were completed and the first ticket was issued in February of 2017.

LOOKING FORWARD TO 2017

EME will undertake many improvements and initiatives in 2017; here are a few of the highlights:

PREPARATION FOR PHASE 2 SEWER USE BY-LAW UPDATE

In 2017 EME will prepare for Phase 2 of the By-law update, which will consist of a comprehensive and scientific review of the parameters and limits to ensure they are appropriate and effective for the new Woodward Sewage Treatment Plant upgrades. The By-law amendment is scheduled to take place in 2018 with appropriate public consultation.

MOUNT HOPE COMMUNITY ODOURS

The odour that emanates from the decomposition of products used for de-icing at the John C. Munro Hamilton International Airport has been a source of many residential complaints in the area. EME will continue to actively work with residents, MOECC and Airport reps to address odour concerns. The goal is to develop and execute a comprehensive strategy to educate residents in the Mount Hope area, and implement further operational controls. The plan also aims to further understand if odour complaints in the area are driven by overland air emissions that may emanate from airport property, sanitary sewer infrastructure or private plumbing deficiencies.

CONCLUSION

The Environmental Monitoring & Enforcement Unit is recognized as leaders in the Municipal Sewer Use Enforcement industry. Over the last decade, a few of the major Industries in the City have made significant capital investments, upwards of \$50M, to achieve compliance with the Sewer Use By-law. The community trusts and values our program to protect the operations of the wastewater plants and ultimately the natural environment.

While it is difficult to confirm with direct evidence, it appears the excellent work of the EME unit over the last number of years, both in the field and administratively, has contributed significantly to the effective operation of the wastewater treatment plant at Woodward. The quality of effluent leaving the plant, as well as that of our biosolids has been stable and much better as a result of this great work. The strategic investment that City Council made a number of years ago by adding resources to this business unit, and support of ongoing changes to the Sewer Use By-law, continues to be a quiet success story.

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