

7.2
Public Works Committee
September 17, 2012



**Public Works
Environment and Sustainable Infrastructure**

**Environmental Monitoring & Enforcement
Wastewater Treatment Plant Influent Contaminant Reduction
September 17, 2012**
Providing services that bring our City to life!

City of Hamilton's Wastewater Treatment Plant Influent Loadings

Outline of Presentation

- Part 1 – Introduction
- Part 2 – Wastewater Treatment Plant Influent Loadings Review
- Part 3 – Questions and Answers

- Community
- People
- Processes
- Finance



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City of Hamilton's Wastewater Treatment Plant Influent Loadings

Introduction

- Environmental Monitoring & Enforcement (EME) Group monitors IC&I facilities to ensure the protection of the City's sewer infrastructure, wastewater treatment plants, as well as the natural environment.

- Sewer Use By-law 04-150

- Reduction of contaminants discharging from businesses

- Follow-up from the major 2011 compliance agreements

- Fats, Oils and Grease Management Program



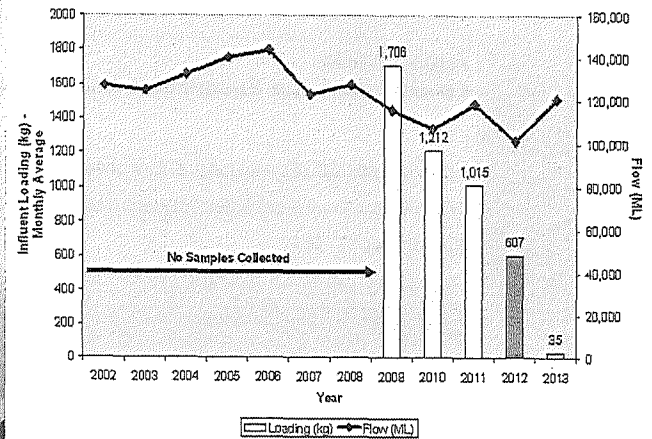
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City of Hamilton's Wastewater Treatment Plant Influent Loadings

Woodward Ave Wastewater Treatment Plant - Influent Loading - Total Polycyclic Aromatic Hydrocarbons (PAHs)



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City of Hamilton's Wastewater Treatment Plant Influent Loadings
Polycyclic Aromatic Hydrocarbons (Total PAH's)

- Total PAH's introduced in the Sewer Use By-law in 2009
- Non-treatable contaminant
- PAH's occur in oil, coal and tar deposits and has been identified as carcinogenic
- Randle Reef sediment contains elevated concentrations of polycyclic aromatic hydrocarbons

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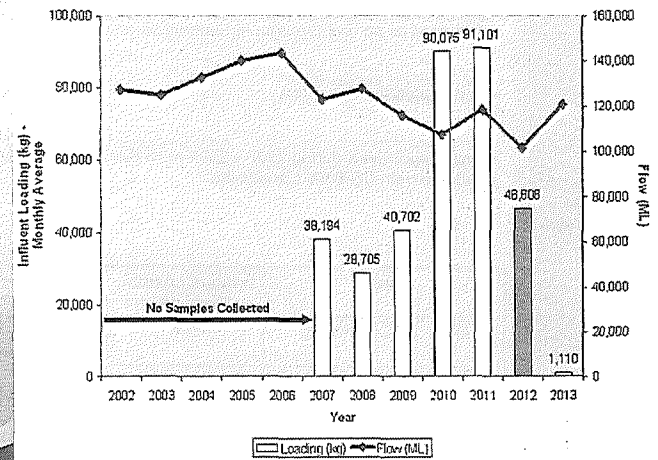
Year	Influent Loading Reduction	Company (Reduction)
2009 – 2010	29%	ArcelorMittal Dofasco (95%)
2011 – 2012 (Estimated)	40%	Ruetgers Canada Inc (98%) US Steel Canada Inc (99%)
2009 – 2013 (Estimated)	98% (1,671 kg)	



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Woodward Ave Wastewater Treatment Plant - Influent Loading - Phenols



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Phenols

- Removed as an Overstrength Agreement parameter in 2009
- Non treatable contaminant
- Low phenol levels during 2007 – 2009 were due to abnormally low phenol discharge from US Steel Canada Inc

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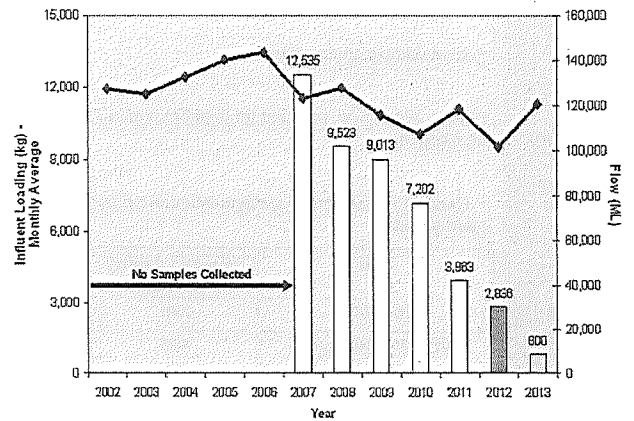


Year	Influent Loading Reduction	Company (Reduction)
2011 – 2012 (Estimated)	49%	Ruetgers Canada Inc (99%) US Steel Canada Inc (99%)
2011 – 2013 (Estimated)	99% (89,991kg)	

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City of Hamilton's Wastewater Treatment Plant Influent Loadings

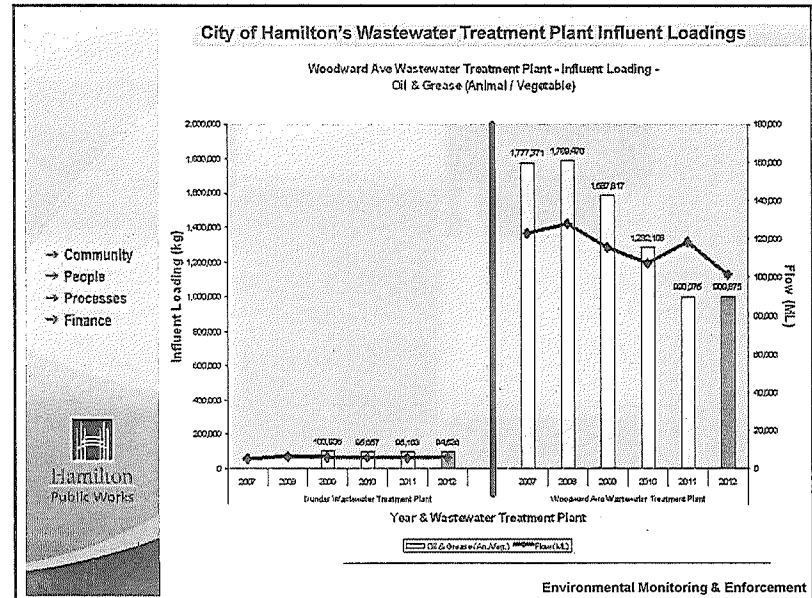
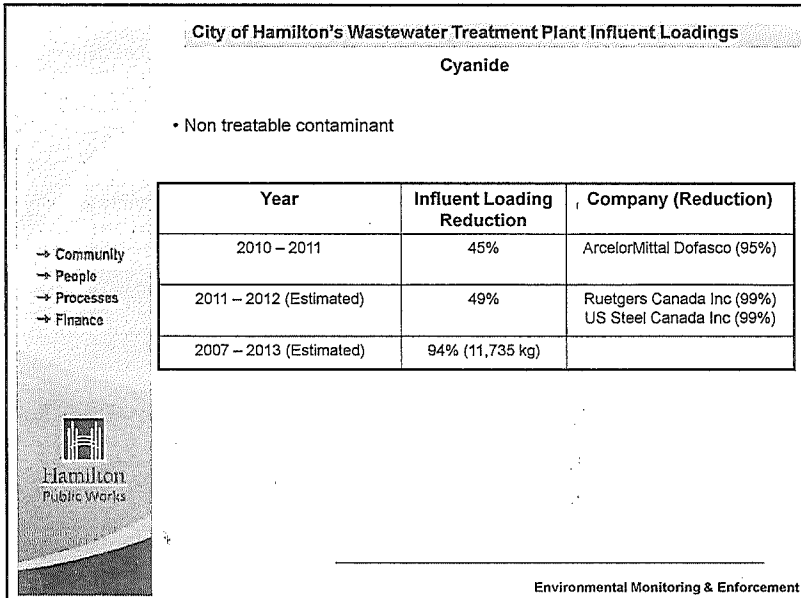
Woodward Wastewater Treatment Plant - Influent Loading - Cyanide



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City of Hamilton's Wastewater Treatment Plant Influent Loadings

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City of Hamilton's Wastewater Treatment Plant Influent Loadings
Fats, Oils and Grease (F.O.G.)

- In 2009, EME implemented a F.O.G. Management Program
- Program aimed reducing the impact of F.O.G. on the City of Hamilton's Wastewater Treatment Plants and City Infrastructure
- Reduction in F.O.G. related sewer blockages (21 in 2008 to 2 in 2011)
- Cost saving for some food premises
- 44% reduction of Oil and Grease (An/Veg) between 2008 – 2011 in Hamilton
- 6 % reduction of Oil and Grease (An/Veg) between 2008 – 2011 in Dundas

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City of Hamilton's Wastewater Treatment Plant Influent Loadings

Conclusion of Presentation

- Wastewater treatment plant influent loading reduction for many Sewer Use By-law parameters
- Major reductions in containments discharging from the major industrial dischargers
- Decrease in overstrength discharges
- Increase in compliant facilities
- Decrease of fats, oils and grease at both of the City's wastewater treatment plants.

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City of Hamilton's Wastewater Treatment Plant Influent Loadings

QUESTIONS?

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