

# STAFF REPORT



TO Planning & Building, Engineering and Environment Committee

SERVICE AREA Planning, Building, Engineering and Environment

DATE June 10, 2013

**SUBJECT 2012 Solid Waste Resources Annual Report**

REPORT NUMBER

## EXECUTIVE SUMMARY

### PURPOSE OF REPORT

To inform Council and Guelph residents of the operations and successes of the Solid Waste Resources Department during 2012.

### KEY FINDINGS

- Exceeded the first two diversion targets approved by Council in the 2008 Solid Waste Management Master Plan by achieving a residential diversion rate of 68% (Master Plan set diversion targets of 55% by end of 2011 and 65% by end of 2016);
- Underwent five compliance audits by Ministry of Environment with no instances of non-compliance identified;
- The new Organics Waste Processing Facility (OWPF) opened on time and \$1.3 million under budget;
- Successfully implemented Phase 1 of conversion to automated cart-based waste collection, reducing annual operating costs and greenhouse gas emissions;
- Increased diversion of Construction and Demolition material (C&D) by 55% over 2011 levels (or 2,789 tonnes);
- Introduced three stream waste sorting at the Sleeman Centre to reduce disposal of organic and recyclable material;
- Opened the waste diversion education centre featuring ten interactive learning stations that showcases Guelph's waste minimization and diversion strategies.

### FINANCIAL IMPLICATIONS

N/A

### ACTION REQUIRED

That Council receive the report for information.

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## RECOMMENDATION

1. That the report from Planning, Building, Engineering and Environment dated June 10, 2013 entitled "2012 Solid Waste Resources Annual Report" be received.

## REPORT

### Compliance - Ministry of Labour

At Solid Waste Resources (SWR) we are continuously committed to meeting Occupational Health and Safety compliance. We have strategically scheduled and executed safety activities and are changing our safety culture to become proactive rather than reactive.

### Solid Waste Resources Strategic Health & Safety Plan 2011-2015:

●	Involve all Leadership positions in performing a safety training needs analysis and prescribe applicable training for each position title and for each individual employee to capture the one-off training needs
●	Review all records to determine training needs and create a budget for resources and hours required to meet ongoing safety requirements
●	Perform a site gap safety audit based on the Work Well Audit and the CSA Standard for Health and Safety
●	Identify the gaps and complete a risk assessment for each gap to determine the priority for future Safety Objectives
●	Present Objectives to senior department management and obtain support for pushing forward
●	2012 Bucket Objectives (High risk job tasks) – Confined Space, Guarding, Lock Out and Fall Protection
●	2013 Bucket Objectives – (From reactive to proactive) – Planned Management Inspections – Formal Supervisory Safety Talks - Formal Hazard Report System – Root Cause Analysis
●	2014 Bucket Objectives – (Increase efficiency and onsite subject experts) – Identify opportunities to champion existing personnel for additional training to qualify them as on the job trainers for activities presently provided by external consultants.
●	2015 Bucket Objectives – Develop and incorporate performance metrics based on due diligence activities for all staff levels that are tied to annual performance reviews/compensation or discipline

### Compliance- Ministry of Environment

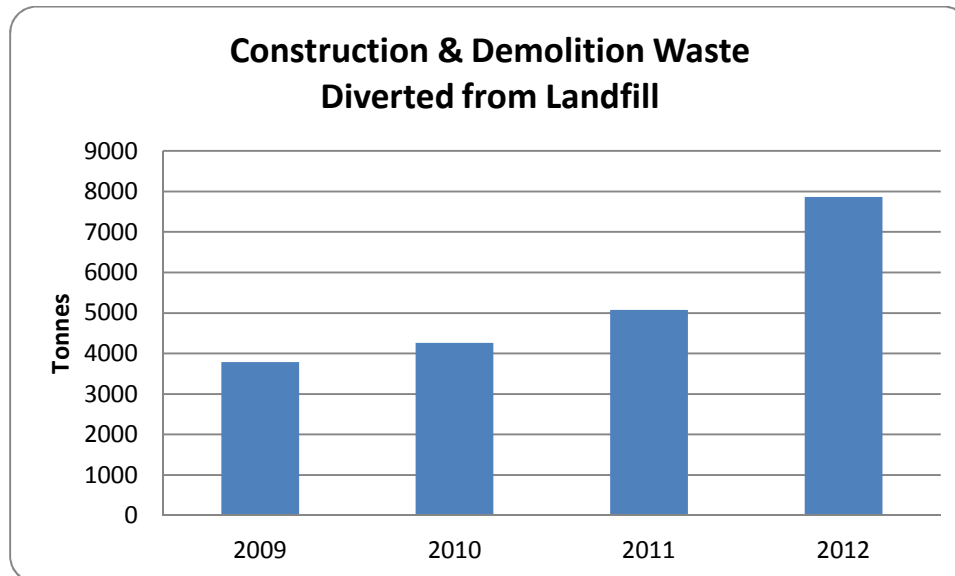
During 2012, the Ministry of Environment conducted audits of five Environmental Compliance Agreements (ECA's) through which the Province governs all operations of the Solid Waste Resources Department. During their audit of ECA # A1700128 (Waste for Organic Waste Processing Facility) Ministry staff noticed "garbage related odours at the Site". These odours were not detected off-site by Ministry staff. Solid Waste staff were directed to submit a proactive work plan to the Ministry by December 31, 2012 to address these possible odour issues. The work plan was submitted on time and is being implemented.

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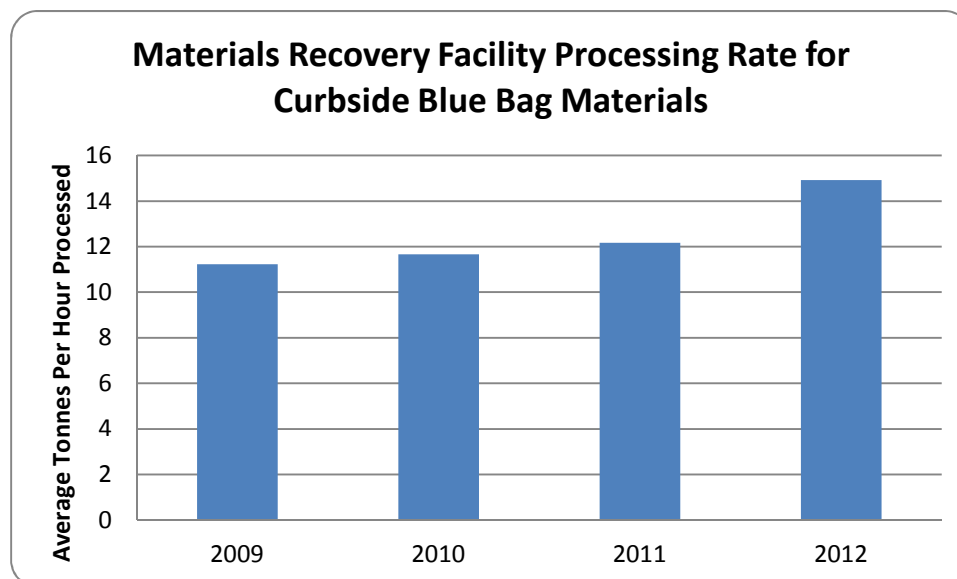


A summary of the findings of all five Ministry audits is shown below.

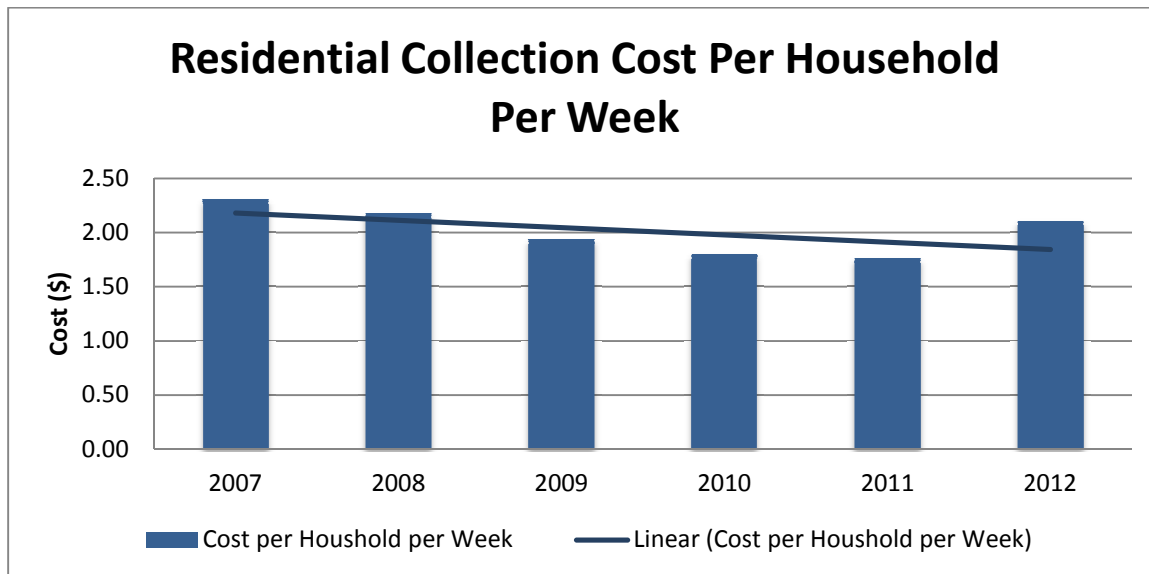
ECA #	Description	Was there any indication of a known or anticipated human health impact during the inspection and/or review of relevant material, related to this Ministry's mandate?	Was there any indication of a known or anticipated environmental impact during the inspection and/or review of relevant material?	Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment?	Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material?	Was there any indication of minor administrative non-compliance?
0293-8T9HDG	ECA - Air (Organic Waste Processing Facility)	No	No	No	No	No
A170128	ECA - Waste (Organic Waste Processing Facility)	No	No	No	Yes	No
A170128	ECA - Waste (Transfer Station & Material Recovery Facility)	No	No	No	No	No
7324-6QKRJE	C.of A. - Air (Eastview Landfill)	No	No	No	No	No
A170101	C. of A. - Waste (Eastview Landfill)	No	No	No	No	No



Construction and Demolition waste collected, separated and diverted from landfill includes shingles, clean wood, drywall and concrete rubble. In 2012, 7,864 tonnes of C&D material was diverted from landfill – a 55% increase over 2011.

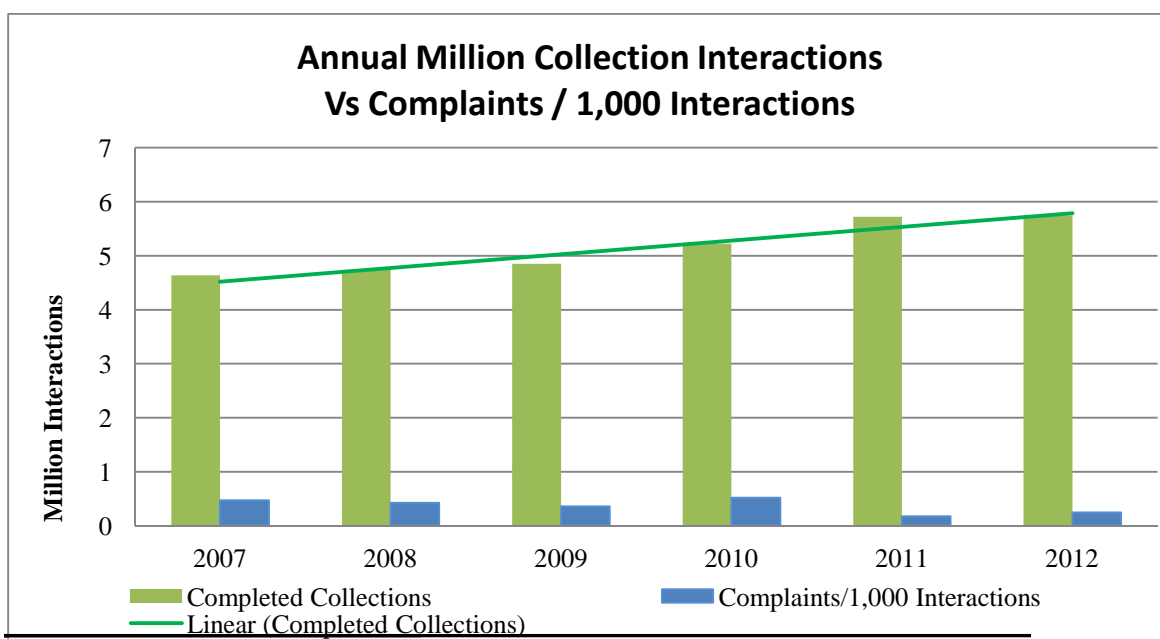


At the end of 2011 a drum feeder was installed in the Material Recovery Facility, replacing the old bag breaker. This change in equipment achieved a 23% increase in actual tonnes per hour processed of blue bag material (14.93 T/hr in 2012). Our new processing goal is 15 tonnes per hour compared to our previous goal of 12 tonnes per hour.



The graph depicts costs generally trending downward. Increases during 2011-2012 reflect the increased cost of fuel.

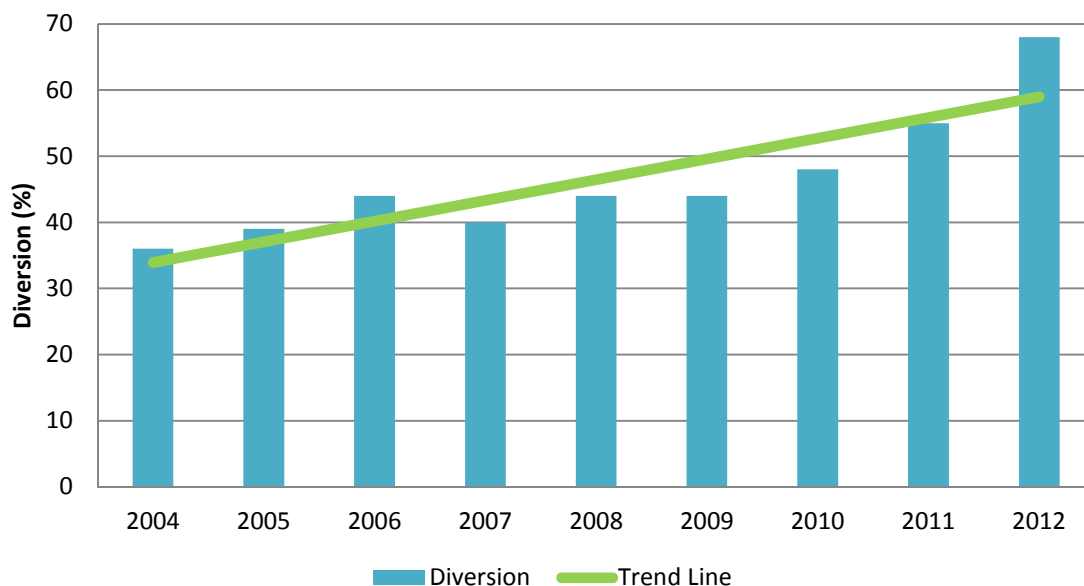
Future trends: Improvements in cost/effectiveness once automated collection has been fully implemented has been estimated to be approximately \$450,000 annually, achieved through the anticipated reduction of 3 FTE's, 4 trucks and the bi-annual yard waste collection program. Following Phase 1 implementation, we are on track to realize 100% of these committed savings. One FTE and one truck were eliminated at the beginning of 2013.



The above graph depicts the relationship between the number of annual collections interactions performed (in millions) against the number of complaints (per thousand) services performed.

Changes to tracking: In 2011 we transitioned to tracking complaints using the AMANDA computer system. This transition is intended to make tracking of compliance and service issues by Solid Waste compliance staff identical with tracking systems used by other areas of the City such as Property Standards and Planning. This also allows for seamless transition of complaints between Departments and sharing of information.

## Residential diversion



Guelph's residential diversion rate (i.e. waste diverted from disposal) has continued to increase as new waste reduction, waste minimization, and reuse programs are implemented. The opening of the new Organic Waste Processing Facility has contributed significantly to increasing our overall the diversion rate since the facility reopened in February 2012.

Future Forecast – The City has achieved 68%\* waste diversion in 2012 significantly exceeding the Solid Waste Management Master Plan target of 65% by the end of 2016. The Master Plan is being updated during 2013, including a review of the plan to achieve the third diversion target of 70% by the end of 2021. It is anticipated that increasing the City's waste diversion rate will become progressively more challenging and cost prohibitive as the remaining waste material is lighter, of lower quantity and has less marketability.

\* Diversion rate to be audited and verified by Waste Diversion Ontario later this year

The status of the recommendations since the adoption of the Master Plan is shown in the attached project dashboard. Highlights include:

## Solid Waste Management Master Plan Dashboard

<b>Waste Minimization</b>	
	Adopt a Zero Waste Philosophy
●	Implement a per Capita Waste Reduction Program
●	Enhance & rejuvenate promotion and education programs with efforts to target local businesses, community groups and schools
●	Promote and encourage waste minimization legislation programs (federal and provincial)
●	Develop and adopt a municipal green procurement policy
●	Pilot a plastic film minimization program
<b>Multi-Residential Recycling</b>	
●	Contact / survey existing local waste hauling companies to gauge current participation in recycling by the multi-residential sector
●	Gather information available from the province regarding multi-residential audit/tonnage data as a benchmark against future pilot project data
●	Implement a Multi-Residential Pilot Study
●	Identify target locations/ property managers/ owners for Promotion & Education sweep to promote increased recycling
●	Create/Amend by-law(s) to enforce recycling in conjunction with a dedicated multi-residential coordinator
●	Modify the building permit process to enforce recycling in new multi-residential developments
●	Assess incentives for recycling including rebates, lower permit fees and other available options
<b>Re-Use Centre Programming</b>	
●	Promote use of all existing facilities and programs
●	Investigate partnership opportunities with an existing re-use organization to develop a drop-off re-use facility at the WRIC
●	Conduct research to determine weight diverted through re-use programs and facilities and the potential for claiming this diversions with Waste Diversion Ontario

<b>Open Space Recycling &amp; Special Events</b>	
●	Meet interdepartmentally to assess centralized waste/ recycling collection in parks and public open spaces
●	Conduct a public open space (park, trail, arena and streetside) pilot study with an emphasis on collecting high value recyclables (aluminum cans and plastic bottles)
●	Assess requirements for city-wide distribution of waste recycling containers
●	Target park, sportsfield, trail and other users to promote the use of open space recycling containers
●	Identify partnership opportunities with Guelph businesses or organizations to encourage sponsorship and stewardship
●	Meet with representatives from the Downtown Board of Management to develop sustainable streetside recycling program
●	Mandate recycling and composting with Special Event permits
●	Develop promotional and educational materials for event planners and facility users
●	Assess capacity to provide city collection of sorted materials from events
<b>Promotion and Advertising</b>	
●	Refocus and redevelop the waste management Promotion & Education campaign, build in new messages and re-invigorate municipal residents. Community based social marketing approaches should be considered.
●	Develop a recognition program to highlight and share best management practices as demonstrated by organizations and individuals in the City
<b>Residential Construction and Demolition (C&amp;D) Waste</b>	
●	Mandate recycling through building/ demolition permits
●	Develop partnerships and/or pilot studies with local builders
●	Continue to assess opportunities to recycle commingled construction and demolition materials
●	Evaluate variable tipping fees to encourage recycling of shingles, drywall, wood
●	Obtain a Certificate of Approval amendment to store C&D waste at the WRIC



<b>Industrial, Institutional and Commercial Waste</b>	
●	Assess opportunities to liaise with various associations for recycling opportunities
●	Update the recycling/ disposal manual for the IC&I sector
●	Provide recognition to high performers in the IC&I sector and facilitate shared ideas within that sector for waste minimization and diversion programming
<b>High Performance Recycling</b>	
●	The list of items for the blue bag should be revised and refined to include newspaper, cardboard, fine paper, glass, plastics, aluminum and steel beverage and food containers only
●	The city should regularly review the list of materials in the blue bag
●	The City's current enforcement program should be maintained
<b>Waste Disposal</b>	
●	Waste disposal option including contractual arrangements (municipal or private sector) should be considered further
●	Municipal partnerships for disposal should be explored and municipalities contacted
●	Criteria in future disposal contracting arrangements should include an evaluation of the environmental impact of available disposal sites/ facilities with consideration given to leachate management, gas management and utilization , energy consumption, energy production at minimum as basis to compare disposal options

Legend

- complete
- in progress/ ongoing
- project at initial stages

## DEPARTMENTAL CONSULTATION

N/A

## COMMUNICATIONS

N/A

# STAFF REPORT

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## ATTACHMENTS

N/A

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