



The Regional Municipality of Durham  
Waste Management Services  
2012 Waste Diversion Report







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# Overview

Curbside collection of Blue Box, Green Bin and residual garbage waste is managed by the Region of Durham in Pickering, Ajax, Clarington, Brock, Scugog and Uxbridge. The Region does not collect waste in Whitby or Oshawa other than curbside and multi-residential recycling, however we do partner with those municipalities to ensure uniform collection programs Region-wide.

All materials are delivered to Regional and private facilities for processing and disposal by the Region of Durham. Regional waste management facilities offer residents additional opportunities for waste diversion.

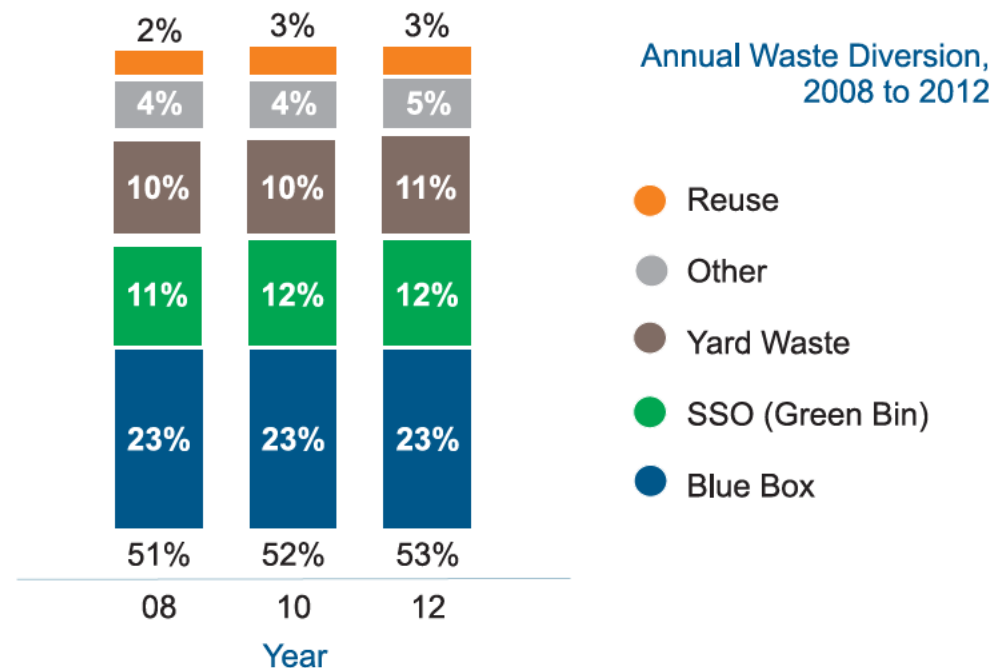
Durham Region educates residents on its waste management programs through various promotion and outreach activities.

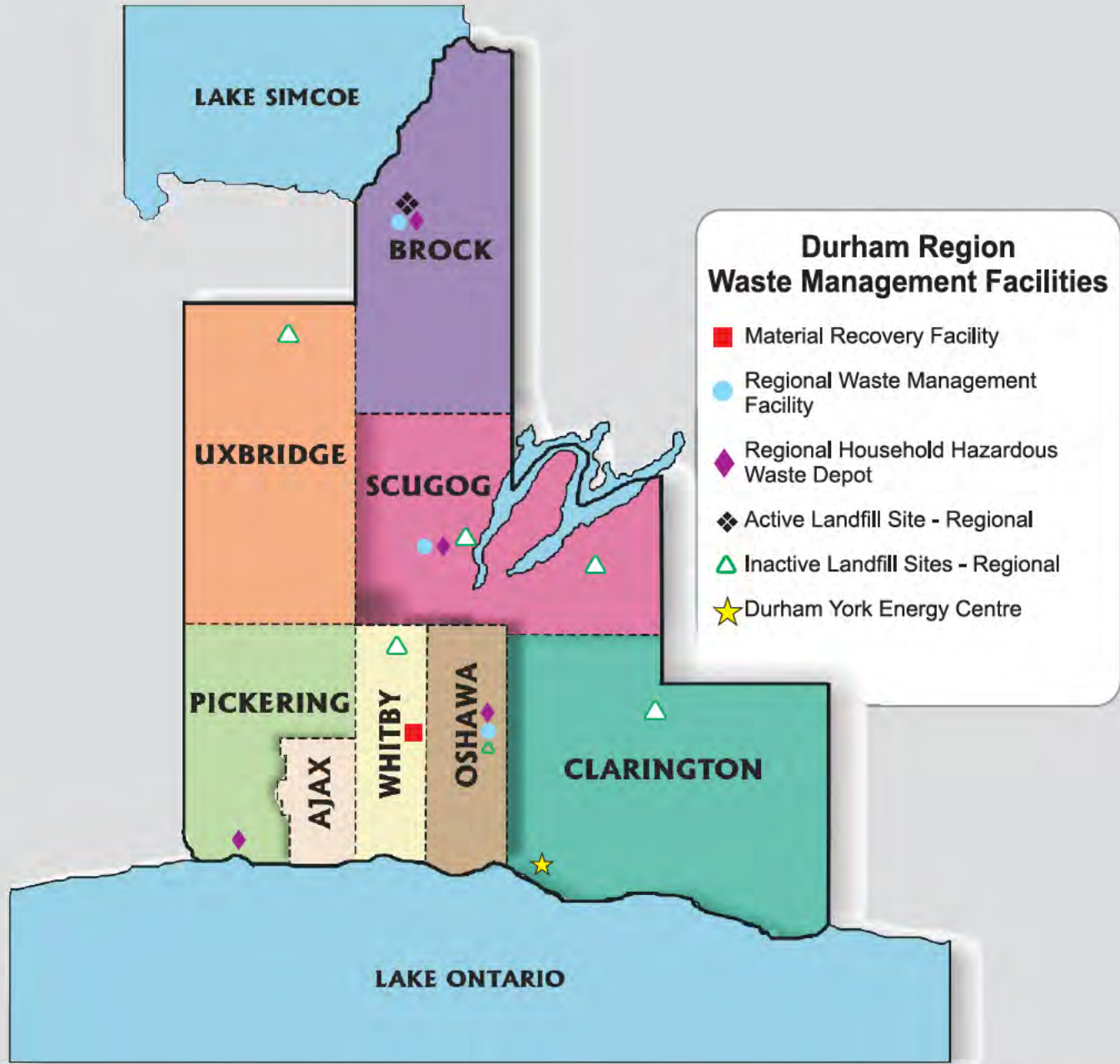
In 2012, Durham Region and its municipal partners diverted 53 per cent of collected materials from landfill disposal. This diversion is accomplished through systematic and strategically planned reduction, reuse and recycling initiatives.

The Region's waste management portfolio includes:

- Material Recovery Facility to process blue box recyclable material.
- Waste management facilities in Oshawa, Scugog and Brock.
- Household Hazardous Waste Depots in Oshawa, Scugog, Brock and Pickering.
- Processing of source separated organics (SSO) through private contractors.

- Collection, processing and disposal of waste through private contractors.
- Active rural landfill site in Brock.
- Inactive landfill sites in Whitby, Oshawa, Clarington, Scugog and Uxbridge.
- Management of special waste events.
- Durham York Energy Centre (operation expected fall 2014).





**Durham Region Waste Management Facilities**

- Material Recovery Facility
- Regional Waste Management Facility
- ◆ Regional Household Hazardous Waste Depot
- ◆ Active Landfill Site - Regional
- △ Inactive Landfill Sites - Regional
- ★ Durham York Energy Centre





## Quick Facts

- Durham Region lies immediately to the east of the City of Toronto within the Greater Toronto Area, encompasses an area of approximately 2,590 square kilometres (1,000 square miles) and has an estimated population of 639,655.
- It is made up of eight local municipalities: The Cities of Oshawa and Pickering, the Towns of Ajax and Whitby; the Municipality of Clarington and the Townships of Brock, Scugog and Uxbridge.
- Durham Region provides waste management services to approximately 189,888 single-family households and 23,000 multi-residential dwelling units.
- Regional Council has endorsed a goal of 70 per cent diversion of waste from landfill.
- In 2012, Blue Box material processed was approximately 51,689 tonnes.
- Revenue generated from the sale of Blue Box recyclables in 2012 was approximately \$6 million.
- Green Bin material collected was approximately 26,899 tonnes.
- Residual garbage collected was approximately 107,722 tonnes.
- Total municipal hazardous and special waste (MHSW) and waste electronics and electrical equipment (WEEE) collected at events was approximately 121 tonnes.
- Total yard waste collected curbside and at Waste Management Facilities was approximately 25,473 tonnes.
- Other diversion programs at the Waste Management Facilities (including tires, drywall, shingles, etc.) totalled approximately 6,286 tonnes.

### IN THE YEAR 2031, ESTIMATES SUGGEST THERE WILL BE:

- 960,000 people living in Durham Region.
- 356,600 households.
- 350,000 jobs.



## A Year in Review...

In 2012, new waste diversion initiatives supporting the Region's 70 per cent diversion target included:

- Enforcement of solid waste collection programs through the Regional solid waste collection By-law 46-2011.
- The curbside and multi-residential waste electrical and electronic equipment (WEEE) recycling collection program.
- Special waste events to divert additional municipal hazardous and special waste (MHSW).
- Special waste events to divert additional waste electrical and electronic equipment (WEEE).
- Implementation of mercury exchange program where residents are encouraged to bring in household items containing mercury such as thermometers and thermostats to any of the Region's Waste Management Facilities or MHSW collection events.
- The Region launched an innovative and comprehensive pilot program with business partners to collect household batteries at the curb.
- Implementation of a pilot for a standardized call-in service for the residential curbside collection of porcelain bathroom fixtures.
- The Reuse Day pilot program implemented in partnership with local non-profit/charitable organizations.
- Promotion and education programs focussing on waste diversion continued to be a major part of the Waste Management services mandate. Reaching all residents through various media, to ensure understanding of the services offered in the Region, will assist in the delivery of co-ordinated and cost-effective services.

# Blue Box







In 2012, the Blue Box program made up 23 per cent of the materials captured and processed. The total amount of recyclables collected through the municipal Blue Box program was 51,689 tonnes.

The materials collected in the Blue Box program are processed at the Region's Material Recovery Facility (MRF) in Whitby.

A new operator, Miller Waste Systems Inc. took over operations at the MRF on Nov. 19, 2012. Since then, the Region has made several improvements to the MRF, including the installation of a new residual clean-up system in order to reduce the amount of recyclables in the residue (garbage) that is leaving the MRF.

Approximately 98 per cent of the material collected for recycling in Durham Region is marketed. The Region's materials are sold to brokers, mills and manufacturers locally and across North America. Materials collected and marketed are re-manufactured into a wide variety of products, preserving valuable natural resources.

The total revenue earned by the Region from the sale of blue box recyclables was over \$6 million. Revenue from the sale of recyclables fluctuates depending on market conditions. The Region also received \$4 million against Durham's net recycling cost as industry's share of the provincial Blue Box Program Plan. This revenue is used to reduce Durham's overall waste management costs, which are funded by municipal property taxes.

## 2012

Recycling Source	Tonnes
Curbside recycling	48,973
Apartment recycling	2,126
Waste management facilities	589
<b>Total</b>	<b>51,689</b>

*\*Amounts have been rounded to the nearest whole number.*

# Green Bin and Yard Waste



2012

Processing of organic waste and leaf and yard waste into compost, an important soil conditioner, currently represents 23 per cent of the total waste managed by the Region. In 2012, Durham Region residents generated approximately 26,899 tonnes of Green Bin organics and 25,473 tonnes of yard waste.

Currently, Durham Region contracts composting of its organic materials to two privately-owned facilities, Miller Waste in Pickering, Ont. and All Treat Farms Ltd. in Arthur, Ont. These facilities provide Durham Region with sufficient processing capacity to meet its needs for the next several years.

Finished compost is marketed to farmers, landscapers, and soil remediation firms. The Region also receives 500 tonnes of compost per year for distribution back to residents at annual compost giveaway events.

Composting Source	Tonnes
Curbside Green Bin	26,899
Curbside yard waste	23,778
Waste management facilities yard waste	1,695
<b>Total</b>	<b>52,371</b>

*\*Amounts have been rounded to the nearest whole number.*



# Bulky Goods

Collection of these materials is managed through a call-in service in the Townships of Uxbridge, Brock and Scugog and the Municipality of Clarington. City of Pickering and Town of Ajax residents are provided bi-weekly curbside collection that does not require a call-in. A limit of two bulky items per collection is permitted.

Residents also have the option of taking these materials directly to any of the Region's waste management facilities - fees will apply.

A total of 1,861 tonnes of bulky goods was collected in 2012.

# Metal Goods, Electronics and Porcelain

Residents in Ajax, Pickering, Clarington, Uxbridge, Scugog and Brock must schedule an appointment for the curbside collection of metal goods, electronics and porcelain.

A total of 330 tonnes of material was collected in 2012.



# Garbage

Disposal of waste is a Regional responsibility. All waste collected by private companies under contract to the Region, as well as waste collected by the City of Oshawa and Town of Whitby, is taken to one of three transfer stations for haulage to final disposal.

A total of 107,722 tonnes of garbage, collected from curbside and multi-residential sources, as well as the three Regional waste management facilities, was landfilled in 2012. This waste was received at three privately operated waste transfer stations and then hauled to Modern Landfill in Lewiston, New York (with the exception of curbside garbage from Brock that was delivered directly to the Region's landfill site in Brock Township).





# Multi-Residential Services

More than 23,000 multi-residential units are serviced by the Region of Durham's weekly apartment and townhouse complex waste collection program. Both garbage and recycling services are provided.

To be eligible for this service, buildings and townhouse complexes must meet the Region's Technical and Risk Management Guidelines for Waste Collection Services on Private Property.

A total of 2,126 tonnes of recyclables were collected in 2012 from Durham's multi-residential program.

#### Multi-residential Electronics Collection

In January 2012, the Region joined in a partnership with Ontario Electronic Stewardship (OES) to develop a pilot project for the collection of waste electronics and electrical equipment (WEEE) from the multi-residential buildings receiving municipal waste collection services.

Forty-one properties are currently participating in the multi-residential WEEE collection program. Smaller items such as laptop computers, cameras and accessories are collected using yellow carts. Larger items such as televisions and stereos are placed beside the yellow carts for collection.

Buildings in the City of Pickering and Town of Ajax receive a weekly collection service. Buildings in the Township of Uxbridge receive bi-weekly collection service. This collection occurs on the same day as recycling to make it easier for superintendents to manage.

A total of 17 tonnes of WEEE materials were diverted from landfill in 2012. It is expected that greater diversion of WEEE from this sector will occur as more buildings are added to the program.



# Waste Management Facilities







The Region operates three waste management facilities located in Oshawa, Port Perry and Brock. These facilities are open Tuesday to Saturday from 8 a.m. to 4 p.m. The Oshawa Waste Management Facility is the busiest site managed by the Region, averaging approximately 85 vehicles hourly.

In 2012, a total of 238,055 vehicles used the Region's waste management facilities.

Loads containing only household hazardous waste, electronic waste, tires, polystyrene packaging material, plastic signs and farm wrap are accepted at no charge. Fees apply to all other waste coming into the facilities. In 2012, 8,559 tonnes of material was diverted from landfill through diversion programs available at these facilities.

Diversion programs available at these facilities include:

- Drywall
- Electronics
- Farm wrap
- Clothing
- Glass
- Polystyrene
- Scrap metal
- Tires
- Wood
- Plastic signs (coroplast/film)
- Porcelain
- Shingles
- Household hazardous waste
- Yard waste
- Recycling

2012

Waste Management Facility	Tonnes of Materials Diverted
Brock	386
Port Perry	1,890
Oshawa	6,088
Pickering (HHW only)	195
Total	8,559

*\*Amounts have been rounded to the nearest whole number.*

# Municipal Hazardous and Special Waste



2012

The Region provides its residents with a network of facilities and events where residents can drop off municipal hazardous and special waste (MHSW), more commonly referred to as household hazardous waste. Through specialized contract services at these locations, these materials are recycled to the extent possible or treated and disposed in an environmentally secure fashion.

Collection, processing and disposal of household hazardous material is partially funded by brand owners and first importers of these products.

Current MHSW drop-off locations include the waste management facilities in Oshawa, Port Perry and Brock. The Region also has an MHSW depot operated in co-operation with Miller Waste at its site at 1220 Squires Beach Rd. in Pickering.

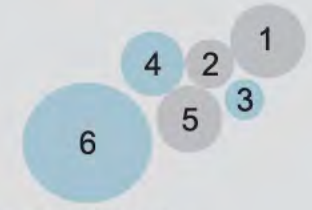
MHSW Source	Tonnes
Brock	46
Port Perry	178
Oshawa	677
Pickering	195
Events	20
<b>Total</b>	<b>1,116</b>





# Energy from Waste

Construction of the Durham York Energy Centre began in late February 2012. The Durham York Energy Centre (DYEC), a state-of-the-art energy-from-waste (EFW) facility, will process Durham's residential waste after diversion, when it is completed in 2014. Construction updates and information are available on the project website, [www.durhamyorkwaste.ca](http://www.durhamyorkwaste.ca). These photos provide aerial views of the EFW property to show how the site has progressed throughout the year.



1. April 17, 2012
2. Aug. 25, 2012
3. Oct. 26, 2012
4. Nov. 26, 2012
5. Dec. 30, 2012
6. Jan. 26, 2013

# Landfill Perpetual Care Program





## Brock Landfill Remedial Action Plan

As part of the Brock Landfill Remedial Action Plan, construction of a two-phase final cover system was started at the site in 2012. The final cover protects groundwater from contaminants by minimizing surface water infiltration into the waste. Phase One was completed in 2012. A soil cover was applied over approximately 37,000 square metres of the older inactive eastern section of the landfill. The soil cover contains a half-metre thick layer of compacted general fill overlain by a layer of vegetated topsoil.

Phase Two involves the application of an engineered final cover system over the active landfill area that will be completed by late 2014 to coincide with the commissioning of the Durham York Energy Centre.

The Remedial Action Plan was approved by the Ministry of Environment and the Lake Simcoe Region Conservation Authority in 2012. Under the plan, the Brock Waste Management Facility will continue to operate at the site after the landfill area is capped.

## Oshawa Landfill Post Closure and Monitoring Plan

The Region is currently working with a consulting firm to develop a Post-Closure Management Plan for the Oshawa Landfill site which outlines the maintenance and monitoring requirements for future years. This plan is expected to be finalized by the spring of 2013 and will be sent to the Ministry of the Environment for approval.

## Other Landfill Perpetual Care Activities

The Region operates the active Brock Landfill site and maintains six other closed landfill sites. These sites are inspected annually, and maintenance activities such as new monitoring well additions or replacements, and cover assessments or repairs, are conducted as identified.

The annual landfill gas, surface water and groundwater monitoring programs continue at all Regional landfill sites. Water quality monitoring is conducted at all landfill sites, with gas monitoring conducted only at the closed landfill site in Oshawa.



## Other Diversion Activities



## Polystyrene Collection Program

In January 2012, the Region executed a five-year agreement with Grace Canada Inc. (Grace) to expand the polystyrene (EPS) collection program to all three waste management facilities (WMF). The EPS recycling program includes white expanded polystyrene foam packing only. Loads containing this foam cushion packaging are accepted at all of Durham Region's WMFs free of charge. Grace Canada, based in the Town of Ajax, collects the material from the Region and recycles it to produce fire-resistant commercial insulation products. Through this program, a total of 6.3 tonnes of polystyrene was diverted from landfill in 2012.

## Porcelain Recycling Program

In February 2012, the Region implemented a pilot for a standardized call-in service for the residential curbside collection of porcelain bathroom fixtures as part of an expanded curbside recycling pilot. The service is currently offered in Pickering, Ajax, Clarington, Brock, Scugog and Uxbridge, and at the Region's WMFs in Oshawa, Port Perry and Brock.

Porcelain collected through this program is currently being used in the construction of an eco-park in the City of Toronto. Porcelain bathroom fixtures collected at the Region's WMFs are currently being utilized at the Brock landfill for surface water drainage works.

This program diverted 340 tonnes of material from landfills, comprised of 160 tonnes collected through the curbside collection and an additional 180 tonnes collected at the WMFs.



## Curbside Waste Electronic and Electrical Equipment Recycling

In February 2012, the Region implemented a standardized call-in curbside collection program for waste electronics and electrical equipment (WEEE) in Pickering, Ajax, Scugog, Uxbridge, Brock and Clarington, collecting an additional 71 tonnes of curbside WEEE materials.

The Town of Whitby operates its own curbside WEEE collection program and the City of Oshawa does not currently have a curbside collection program for WEEE.

## Plastic Sign Recycling

In May 2012, the Works Department was the recipient of the Durham Environmental Advisory Committee Eric Krause Innovative Plans/Policies/Initiatives Award of the Sign Recycling Program. The program recycles all temporary signs made of corrugated plastic, plastic film and paperboard to help keep these materials out of landfill. Acceptable signs include election and real estate signs made from these materials. Wooden stakes and wire mounts are also recycled. Signs may be dropped off free of charge at any of Durham Region's WMFs.

## Mercury Exchange Program

In October 2012, the Region started a mercury exchange program where residents are encouraged to bring household items containing mercury (such as thermometers and thermostats) to any of the Region's Waste Management Facilities or MHSW collection events. In return, residents receive one free digital thermometer. At the end of December 2012, the program had collected 414 mercury containing items, the majority of which were thermometers, followed by thermostats.

Mercury containing materials are sent to "Switch the Stat," operated by the Summerhill Group. A recycling facility dismantles the items, recycles parts, and recaptures the mercury for reuse in other applications. This pilot program is scheduled to run until October 2013. Keeping mercury containing items out of the disposal stream is an important environmental initiative.



## Reuse Days Pilot

A partnership with local non-profit/charitable organizations to conduct a Reuse Pilot program began in late in 2012. The intention of the one-year pilot study is to collect good quality reusable materials, divert them from landfill disposal, and assess public willingness to participate in reuse programs. The first two events were held in November and December of 2012 at the Waste Management Centre in Whitby, with participation from Habitat for Humanity, Goodwill and Salvation Army. The charities collected a total of 9.8 tonnes of reusable material from 180 vehicles during these events. It was considered a successful launch, and the pilot will continue monthly at this site until the end of October 2013.



## Community Waste Events

Eight compost give-away events were hosted in 2012, one in each local municipality. They were held in combination with Blue Box, Green Bin, and backyard composter sales and exchanges. Compost was also made available to the local municipalities to use on their gardens and public parks. Collectively, these compost events attracted 3,965 vehicles.

Four Municipal Hazardous and Special Waste (MHSW) collection events were hosted in 2012 in Whitby, Ajax, Uxbridge and Clarington. Collectively, these events attracted 750 vehicles and recovered 20 tonnes of material for recycling.

Nine Waste Electronics and Electrical Equipment (WEEE) collection events were held in 2012. Collectively, these WEEE collection events attracted 1,894 vehicles and recovered 75 tonnes of materials for recycling.

The Region hosted its second annual winter WEEE collection event on Jan. 14, 2012 at the Waste Management Centre. A total of 28 tonnes of electronics were collected, attracting 617 vehicles.

## Curbside Battery Pilot

The Region launched an innovative and comprehensive pilot program with business partners to collect household batteries at the curb in conjunction with collected blue box materials. The collection occurred during the week of Nov. 12, 2012. On Nov. 15 the Region broke the Guinness World Record® for most batteries collected in one day.

Approximately 25 tonnes of batteries were collected over the week.

The second pilot collection week is scheduled for the week of March 18, 2013.



# Waste Promotion and Education





The Region actively promotes its waste diversion programs through an extensive communication and education program. Key objectives include:

- Promoting participation in waste diversion programs.
- Encouraging an understanding of correct participation in programs.
- Promoting compliance with Regional waste management policies.

Key tools include the use of print, radio, television media, the Region's web site, social media tools, public space advertising, and the annual waste collection calendar.

#### Over 27 different events and activities took place in 2012, including:

- Waste Management call centre handled 60,346 phone calls, answering questions related to the waste programs.
- Eight spring compost events held in each municipality.
- Nine special electronic equipment drop-off events were held and promoted throughout the year in each municipality.
- Four municipal hazardous and special waste drop-off events were held.
- Participation in community fairs and home shows, and presentations to school and community groups.
- Promotion of waste diversion programs during National Public Works Week.
- Participation in the Durham Children's Groundwater Festival in September. Staff delivered two activity centres throughout the week to approximately 4,200 students.
- Durham Region celebrated "Waste Reduction Week" in October promoting waste reduction and diversion options for residents.
- Two reuse drop-off events were held in November and December, partnering with local charities.
- "Durham Works," the Works Department's external newsletter was distributed twice to 210,000 households in the Region. It featured information on the Green Bin and Blue Box Programs, curbside battery collection pilot, and programs offered at the Waste Management Facilities.

# Thanks

The Region thanks residents in Durham for their continued participation in reducing waste to landfill.

- Waste Management Division was recognized in 2012 with the Recycling Council of Ontario's (RCO) Gold Municipal Combined Programs Award, in recognition of waste minimization and diversion efforts.
- The Region's Waste Management Division was also honoured with the Durham Environmental Advisory Committee's 2012 'Eric Krause Innovative Plans/Policies/Initiative Awards' for the Plastic Sign recycling program.
- Durham won the 2012 Municipal Waste Association Bronze Award for Best Digital Based Tool, Sort'em Up game.
- The Region of Durham broke the Guinness World Record on November 15, 2012 for the most batteries collected in a 24-hour period. The numbers were staggering, with a total of 5,090 kilograms of batteries collected throughout the day.



**REGION OF DURHAM  
TONNES OF RESIDENTIAL WASTE MANAGED (2012)**

Descriptions	Curbside Garbage	Apartment Garbage	Bulky/Other Goods	Curbside Recycling	Apartment Recycling	Food Composting	Leaf & Yard Composting	Composter Credits	Grasscycling Credits	Reuse Programs	Total Waste	Waste Diversion
<b>1 Curbside &amp; multi-residential wastes</b>												
Pickering	10,914	945	274	6,967	216	4,393	3,279	827	607	83	28,505	57%
Ajax	12,947	1,623	239	8,004	205	5,733	3,432	708	635	70	33,597	56%
Whitby	13,240	2,689	547	10,547	495	6,091	5,818	1,190	1,076	56	41,749	61%
Oshawa	18,493	8,211	241	11,687	1,209	5,469	6,141	1,695	1,136	0	54,284	50%
Clarington	11,435	68	313	7,002	0	3,230	3,107	641	575	68	26,439	55%
Scugog	2,939	189	51	1,824	0	815	877	326	162	25	7,208	56%
Uxbridge	2,881	141	72	1,779	0	774	838	268	155	26	6,934	55%
Brock	1,766	0	54	1,163	0	393	286	149	53	18	3,882	53%
sub-totals	74,617	13,867	1,790	48,973	2,126	26,899	23,778	5,803	4,399	347	202,599	55%
		90,274		51,099		50,677		10,202				
<b>2 Regional waste disposal sites</b>												
Oshawa	0	0	11,485	378	0	0	1,311	0	243	4,399	17,816	36%
Scugog	0	0	3,914	160	0	0	383	0	71	1,347	5,875	33%
Pickering	0	0	0	0	0	0	0	0	0	195	195	100%
Brock	0	0	2,049	52	0	0	0	0	0	334	2,435	16%
MRF	0	0	0	0	0	0	0	0	0	11	11	100%
sub-total	0	0	17,448	589	0	0	1,695	0	313	6,286	26,331	34%
<b>3 Special Events</b>												
HHW	0	0	0	0	0	0	0	0	0	44	44	100%
E-Waste	0	0	0	0	0	0	0	0	0	77	77	100%
Re-use	0	0	0	0	0	0	0	0	0	10	10	100%
sub-total	0	0	0	0	0	0	0	0	0	131	131	100%
<b>4 Summary</b>												
municipal residents	74,617	13,867	1,790	48,973	2,126	26,899	23,778	5,803	4,399	347	202,599	55%
Regional waste sites	0	0	17,448	589	0	0	1,695	0	313	6,286	26,018	34%
Special Events	0	0	0	0	0	0	0	0	0	131	131	100%
sub-total	74,617	13,867	19,238	49,563	2,126	26,899	25,473	5,803	4,712	6,763	228,748	
<b>Total Tonnes, with credits</b>	<b>107,722</b>			<b>51,689</b>		<b>52,371</b>		<b>10,516</b>		<b>6,763</b>	<b>229,061</b>	
<b>Total Tonnes, managed</b>	<b>107,722</b>			<b>51,689</b>		<b>52,371</b>				<b>6,763</b>	<b>218,545</b>	
<b>Percentages of Total</b>	<b>33%</b>	<b>6%</b>	<b>9%</b>	<b>22%</b>	<b>1%</b>	<b>12%</b>	<b>11%</b>	<b>3%</b>	<b>2%</b>	<b>3%</b>	<b>100%</b>	
<b>Waste diversion rate</b>	<b>53%</b>										February 20, 2013	




**THE REGIONAL MUNICIPALITY OF DURHAM**  
**Waste Management Division**

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