

# PARTNERSHIPS DRIVING REDUCTION REUSE RECYCLING RECOVERY



The Regional Municipality of York  
2012 Annual Diversion Report

L to R: Ilmar Simanovskis – Town of Aurora, Courtney Daniels – York Region, Rosanne Fritzsche – Town of Richmond Hill, Laura McDowell – York Region, Amanda Newman – Town of Aurora, Rod Smith – Town of Newmarket, Brian Anthony – City of Vaughan, Claudia Marsales – City of Markham, Julie Hordowick – York Region, Kayla Sasso – York Region, George Flint – Town of Richmond Hill, Greta Zinck – Town of Georgina, Paul Whitehouse – Town of Whitchurch-Stouffville, Kelly Spitzig – York Region, Dave Gordon – York Region.

Missing: Brian Jones – Town of Newmarket, Rob Flindall – Township of King, Robert (Bob) Fortier – Town of Georgina, Chris Kalimootoo – Town of East Gwillimbury, John Hannah – Town of East Gwillimbury, Terry Ricketts – Town of Richmond Hill, Sean Hurley – York Region



# partnership

The Integrated Partnership Model in York Region supports collaboration, innovation and leveraging of expertise. The 10 municipal partners continue to work together to provide integrated waste management services to achieve common goals. A decision-making framework and annual collaborative business process will facilitate greater communication, co-operation and sharing of information among all 10 municipal partners, in collectively delivering waste management services across York Region.







# reduce

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The SM4RT Living Family Challenge, conducted spring 2012, confirmed there is appetite for change within the community to enable consumer choices that focus on waste reduction and reuse. Each family found an area they were passionate about, such as chemical-free cleaning options and smart purchasing that gave them the momentum they needed to continue down the path of SM4RT Living.

*The Pardatscher Family  
SM4RT Living Family Challenge Participants*





# reuse

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Partnerships with Habitat for Humanity York Region and Goodwill Industries continue to assist in diverting reusable goods from disposal at the Region's two Community Environmental Centres. Reusable goods collected at these centres are distributed for resale at the charities' retail locations within York Region. Future partnerships with other community organizations will be considered through the Integrated Waste Management Master Plan, with a focus on expanding reuse opportunities available to residents across the Region.

*Bryon DiSera, Operations Manager  
York Region ReStore, Habitat for Humanity*





# recycle

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Turning blue box materials into recyclable commodities is a vital component of York Region's diversion strategy. Materials collected across York Region in the local municipal blue box programs are processed in the Material Recovery Facility located in York Region's Waste Management Centre in the Town of East Gwillimbury. These materials are sent to markets worldwide, where they are converted into new products. The Material Recovery Facility is owned by York Region and operated under contract with Miller Waste Systems.

*Guido Titton, Assistant Manager*  
*Rodney Libby, Facility Operations and Marketing Manager*  
*Miller Waste Systems*





# recover

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The Durham York Energy Centre is an energy-from-waste facility being constructed in the Municipality of Clarington, Ontario. Co-owned by the Regional Municipalities of Durham and York, the facility will process up to 140,000 tonnes of non-hazardous, municipal solid waste per year. Heat generated by waste combustion will be used to generate electricity and recyclable metals will also be recovered.

The Region continues to be a leader in waste management, as this is the first energy-from-waste facility to be constructed in the Province of Ontario in more than 20 years. The facility will be designed, built and operated by Covanta Durham York Renewable Energy L.P. and is scheduled to be operational fall 2014.



## At-a-Glance

York Region and our local municipal partners plan, finance and deliver sustainable waste diversion and disposal programs

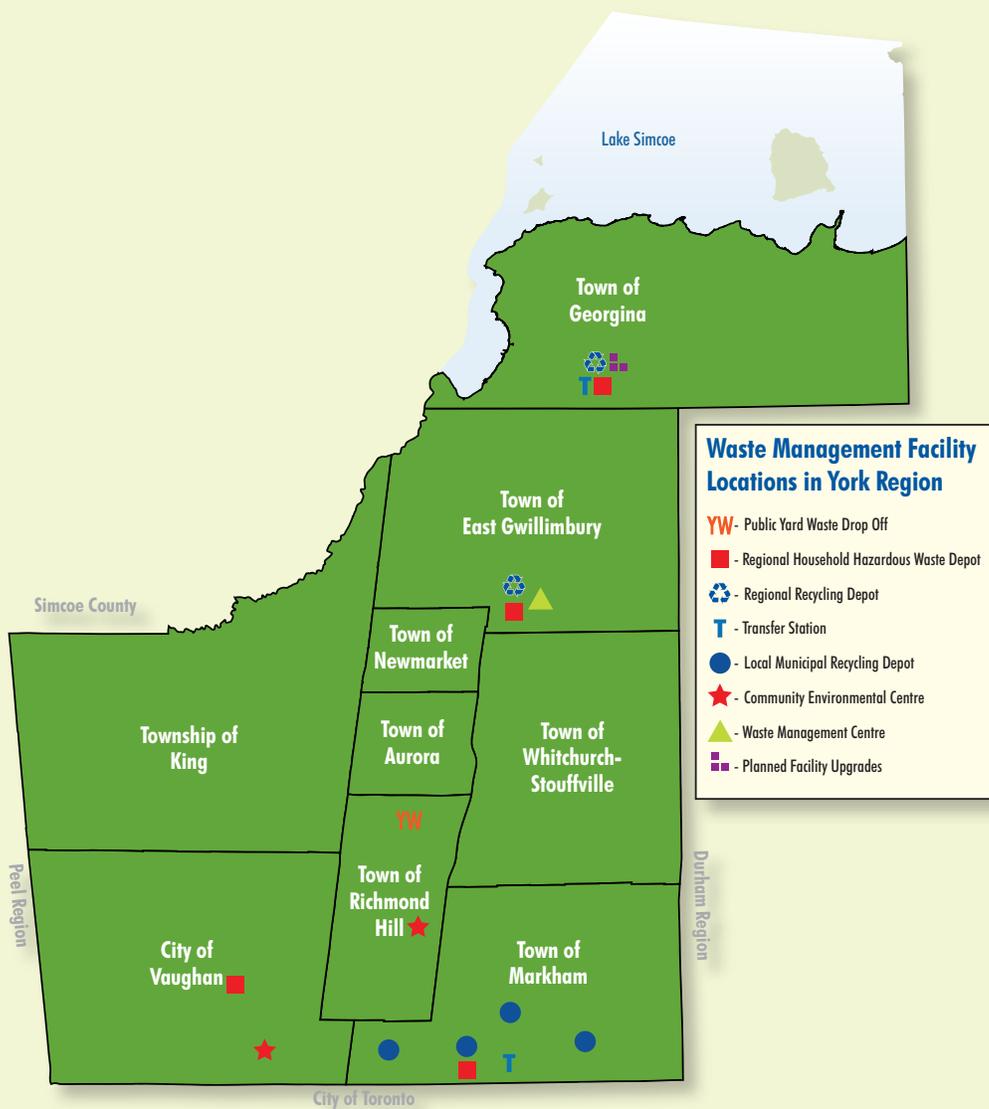
Curbside collection of blue box, green bin, yard waste and residual waste is managed by York Region's nine local municipal partners: the Towns of Aurora, East Gwillimbury, Georgina, Newmarket, Richmond Hill, Whitchurch-Stouffville, City of Markham, City of Vaughan and the Township of King.

All collected materials are delivered to York Region facilities for processing, energy recovery and/or disposal by external contractors. Regional and municipal depots offer additional opportunities for waste diversion.

In 2012, 82 per cent of collected materials were diverted from landfill disposal, including material sent to energy-from-waste facilities.

The Region's waste management infrastructure includes:

- Waste Management Centre - material recovery facility to process blue box recyclable materials
- McCleary Court Community Environmental Centre
- Elgin Mills Community Environmental Centre
- Georgina Waste Transfer Station and Recycling Depot
- Household Hazardous Waste Depots in the Towns of East Gwillimbury and Georgina, the City of Markham and the City of Vaughan
- Durham York Energy Centre scheduled to be operational in fall 2014
- Partnerships with private contractors for processing source separated organics, as well as processing and disposal of residual waste





# Quick Facts

In 2012, York Region and our local municipalities diverted 57 per cent\* of collected materials from disposal

- York Region consists of 1,776 square kilometres from Lake Simcoe in the north, to Steeles Avenue in the south; it borders Simcoe County and Peel Region in the west and Durham Region in the east and Toronto to the south
- **1,108,570 (2012):** York Region's population (estimated)
- **293,458:** York Region single family residences
- **39,330** apartments (approximate)
- **89,488 tonnes:** Blue box material processed in 2012
- **\$8.53 million:** Revenue generated from the sale of blue box recyclables
- **92,260 tonnes:** Green bin material collected
- **119,648 tonnes:** Residual garbage collected
- **3,000 tonnes:** Total household hazardous waste (HHW) and waste electronics and electrical equipment (WEEE) collected at Region depots
- **43,688 tonnes:** Total yard waste collected curbside and at public drop-off areas
- **6,657 tonnes:** 'Other diversion', including tires, clean fill, textiles, wood waste, scrap metal and other diversion

57%\*

*2012 Waste Diversion Ontario Diversion from landfill after curbside collection*

*\*2012 diversion data presented is not yet verified by Waste Diversion Ontario*

82%

*2012 Diversion from landfill including energy-from-waste management  
York Region's Regional Official Plan target is 90 per cent diversion from landfill (including energy-from-waste tonnage) by 2016 and 100 per cent by 2020.*



**IN THE YEAR 2031,  
ESTIMATES SUGGEST:**

- There will be 1.5 million people living in York Region
- There will be almost 2.5 times as many people over the age of 50 compared to 2010
- There will be 800,000 jobs

Annual Waste Diversion, 2005 to 2012



Waste Diversion Ontario calculates diversion from landfill after processing of materials; it does not include York Region-approved energy-from-waste initiatives.

\*Other diversion including tires, clean fill, textiles, wood waste, scrap metal and includes other diversion at CECs.



# York Region's Sustainable Waste Management Hierarchy

Continued focus on waste prevention and advocacy to minimize disposal needs

Delivery of waste management services in the Region requires a network of conveniently located waste receiving and processing facilities. These facilities manage yard waste, municipal hazardous or special waste (MHSW), blue box recyclable materials, source separated organics (SSO), reusable goods and residual waste collected by municipalities and dropped off by the general public. With the provincial commitment to halt exports of municipally collected residual waste to Michigan and the Region's commitment to maintaining successful diversion programs, new initiatives continue to be investigated to drive waste minimization, expand diversion programs and better manage the Region's residual waste.

To achieve long-term sustainability, York Region's integrated waste management program encourages:

1. Reduction to minimize waste generation.
2. Reuse of products and materials to maximize their useful life and promote waste prevention.
3. Recycling of materials to reduce consumption of new raw materials.
4. Recovery of recyclable materials and energy to minimize landfill disposal.

York Region works with our local municipal partners, government agencies and stakeholders to shape provincial waste management policies and to advocate for a balanced model of extended producer responsibility for consumer products and packaging. York Region partners with Goodwill Industries and Habitat for Humanity York Region at our Community Environmental Centres, as well as directing residents to other local reuse organizations.



#### 4 Rs Hierarchy



MINIMUM LANDFILL DISPOSAL



# Partnerships for success

Diversion of curbside materials requires collaborative effort between the Region and our nine local municipal partners

In 2012, Regional residents generated 320 kg of total garbage per household, representing the lowest generation rate among our municipal neighbours.

The Integrated Partnership Model provides more co-ordinated decisions and planning processes, greater consistency in programs where appropriate, and the sharing of information and lessons learned to help continuously improve the overall waste management system in York Region. As part of the Integrated Partnership Model, each partner still retains autonomy to reflect its own community's specific needs, while all the partners work together to achieve a common vision.

## COLLECTION

A four-day collection schedule was implemented across the Region in 2010 with only one exception in Georgina; a Monday collection is

provided to the cottage households along the lakeshore. In addition to curbside collection, both the City of Markham and Town of Richmond Hill have implemented three-stream waste collection in some multi-residential, high rise buildings.

## PROCESSING

Processing is accomplished through a combination of Regional processing infrastructure for blue box, external organics processing, energy-from-waste processing and landfill disposal for residual waste.

Each municipality has chosen to implement some form of pay-as-you-throw program and/or bag limit system, targeting waste reduction in single family households as a means to increase diversion.

Bulky waste and white goods (large appliance) collection is also provided by local municipalities to single-family households. In most cases,

white goods collection is provided to residents by scheduling a pick up directly with the waste management company.

In addition to curbside collection services, local municipalities also offer opportunities for their residents to drop off waste materials within their communities through:

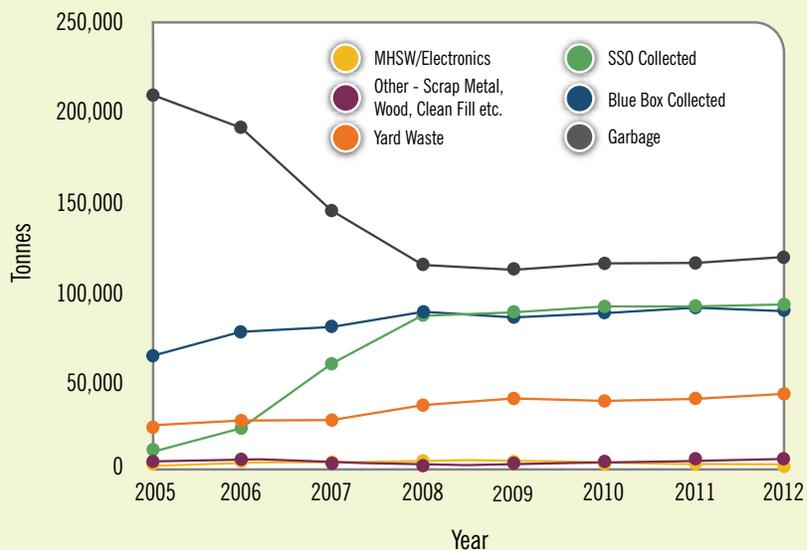
- Environment Days and Waste Reduction Week events
- Public recycling depots
- Special electronic waste collection days and community reuse events
- Three-stream waste collection in public spaces and municipal offices
- Pilot programs for organics and electronics collection in multi-residential buildings in select locations



## DISPOSAL

Within the Region's 4R hierarchy, the preferred disposal destination is energy-from-waste to receive the benefit of capturing the energy content of residual waste. Landfill disposal remains the last option for management of Regional materials, once all other options have been exhausted.

Historical Residential Tonnes Collected, 2005 to 2012



Material Type	2005	2006	2007	2008	2009	2010	2011	2012
MHSW and Electronics	1,541	1,885	2,104	2,406	2,658	3,125	3,077	3,007
Other - Scrap Metal, Wood, Clean Fill etc.	1,446	1,690	1,415	1,132	2,007	2,863	4,053	6,657
Yard Waste	24,493	28,739	28,359	36,374	40,342	39,230	40,155	43,688
SSO Collected	12,080	24,808	60,290	86,266	88,671	91,680	91,685	92,260
Blue Box Collected	65,058	77,731	81,278	89,435	86,044	88,395	90,948	89,488
Garbage	209,502	191,966	145,918	115,115	112,974	115,420	116,235	119,648



# Vision and Guiding Principles

SM4RT Living places emphasis on waste reduction and reuse as the preferred route to bend the waste generation curve

The Integrated Waste Management Master Plan, also known as the SM4RT Living Plan, will establish a planning and delivery framework for waste management within York Region for the next 40 years.

## PHASE 1 – “WHERE WE ARE”

Developed a baseline and researched current and innovative global practices in waste management. Phase 1 assessed waste management programs already in place in York Region, researched what other municipalities are doing and reviewed potential regulatory and program changes that could impact the future. Reports and research generated in this phase included a comprehensive baseline assessment, policy review and a current and innovative practices review.

## PHASE 2 – “WHERE WE WANT TO GO”

Provided a gap analysis of the current system and identified opportunities to focus on “where we want to go,” based on consultation and best practices including:

- Evaluating the benefits of reduction and reuse
- Planning for growth and intensification
- Supporting the industrial, commercial and institutional sector to increase efficiencies and drive program delivery consistency

- Managing infrastructure and financing alternatives to drive toward greater program sustainability
- Performance monitoring and new measures of success

## PHASE 3 – “HOW WE ARE GOING TO GET THERE”

Prioritizes initiatives and develops implementation plans for the Region and its local municipal partners. The final plan will be presented to Regional Council in fall 2013 with presentations to local municipal councils in winter of 2013.





York Region has already taken steps to drive diversion in existing programs by developing waste management infrastructure, providing long-term processing and disposal capacity for the majority of current programs. The SMART Living Plan is moving in the direction of zero waste, with a focus on reduction and reuse opportunities. Many of the options being investigated

are focusing on policy, advocacy, influencing behaviour change and partnership development.

York Region continues to advocate with municipal organizations, such as Regional Public Works Commissioners of Ontario (RPWCO), Association of Municipalities of Ontario (AMO) and the Municipal Waste Association (MWA)

for a balanced model of extended producer responsibility. Putting emphasis on these areas will help drive lower per capita waste generation and decrease reliance on new/expanded waste processing and disposal infrastructure.





# Joint Waste Management Summary

	2012 CURBSIDE COLLECTION						2012 OTHER INITIATIVES
	Alternating Week Bag Collection Limit (Cost per Tag) <sup>1</sup>	Weekly Blue Box Collection	Weekly Green Bin Collection	Yard Waste Collection (Frequency)	White Goods Collection Cost Per Item	Bulky Item Collection Cost Per Item	Multi-residential Collection (Details)
<b>AURORA</b>	3 (No tags)			(18/year)	(No fee)	(No fee)	<ul style="list-style-type: none"> <li>• 20 buildings serviced weekly</li> <li>• Recyclables collected from carts</li> </ul>
<b>EAST GWILLIMBURY</b>	2 (No tags)			(18/year)	(No fee)	(No fee)	
<b>GEORGINA</b>	1 (\$1, limit 5 items)			(17/year)	(\$1 bag tag)	(\$1 bag tag)	<ul style="list-style-type: none"> <li>• One building and 705 apartments (located above retail outlets) serviced weekly</li> <li>• Recyclables from the building placed in a cart, apartments utilize the curbside Blue Box Program</li> <li>• Implemented duckweed program placed in a cart, apartments utilize the curbside Blue Box Program</li> </ul>
<b>KING</b>	2 (\$1, limit 5 items)			(17/year)	(\$20 + hst)	(\$10 + hst)	
<b>MARKHAM</b>	3 (Tags, limit 3 items)			(18/year)	(\$10)	(No fee)	<ul style="list-style-type: none"> <li>• 61 buildings serviced weekly, recyclables from 49 buildings, recyclables and organics from 12 buildings</li> <li>• Mandatory tri-sorters required in all new buildings</li> <li>• Mandatory internal storage of all containers</li> <li>• White Goods collection program (\$10 per item)</li> </ul>

(<sup>1</sup> Most tags are sold in sheets of five or 10, <sup>2</sup> Grass clippings are accepted).



**NEWMARKET**

**RICHMOND HILL**

**VAUGHAN**

**WHITCHURCH-STOUFFVILLE**

2012 CURBSIDE COLLECTION						2012 OTHER INITIATIVES
Alternating Week Bag Collection Limit (Cost per Tag) <sup>y</sup>	Weekly Blue Box Collection	Weekly Green Bin Collection	Yard Waste Collection	White Goods Collection Cost Per Item	Bulky Item Collection Cost Per Item	Multi-residential Collection (Details)
 (5 tags for \$12, 6 item limit)			 (17/year)	 (\$12)	 (\$12)	<ul style="list-style-type: none"> <li>• 24 buildings serviced weekly</li> <li>• Recyclables collected from carts</li> </ul>
 (\$2, 3 item limit, includes bulky items)			 (21/year)	 (No fee)	 (No fee)	<ul style="list-style-type: none"> <li>• Recyclables from 81 buildings collected weekly from carts or front end bins.</li> <li>• Organics collected in carts 31 of 81 buildings.</li> <li>• Additional buildings are being phased in each year.</li> </ul>
 (10 tags for \$10.60, 4 double up days)			 (25/year) <sup>2</sup>	 (\$27)	 (No fee)	<ul style="list-style-type: none"> <li>• 53 buildings serviced weekly</li> <li>• Recyclables collected from carts</li> <li>• Mandatory multi-sort disposal systems in all new buildings</li> <li>• Bulk waste collected from buildings receiving municipal collection services</li> </ul>
 (\$2)			 (17/year)	 (No fee)	 (No fee)	<ul style="list-style-type: none"> <li>• Five buildings serviced weekly</li> <li>• Recyclables collected from carts</li> </ul>

In addition to the above collection programs, range of waste, recyclable and compostable materials are collected to varying degrees at parks, Regional and municipal facilities and special events. The Region operates Recycling and Household Hazardous Waste Depots

and Community Environmental Centres, which accept materials collected curbside, as well as materials not currently collected at curbside, such as household hazardous waste. The City of Markham also operates four Recycling/Reuse depots.



## REDUCE

# SM4RT Living

The Family Challenge provided the first test of 'SM4RT Living' in action

The SM4RT Living Family Challenge ran between April and June of 2012. Three families from York Region were selected to take part from a total of 27 applications, representing a cross section of family sizes, age groups, professions, interests and communities within York Region.

The challenge demonstrated that residents want to “do the right thing”, but have a difficult time determining specifically what to do and how to do it. A shift from a consumer lifestyle towards a SM4RT Living lifestyle will be a challenging one.

A number of activities were piloted to support waste reduction initiatives:

- An inventory of food waste, household clutter, consumer patterns and waste generation helped families identify opportunities for change
- Families looked at consumer patterns and investigated opportunities for reuse, repair and repurposing items

Lessons learned from the Family Challenge include an appetite for change. Drawing attention to food waste revealed a new awareness that resulted in different choices when shopping for groceries. Trips to local farmers' markets supported healthy choices, while shopping only for 'what you need' supported a reduction in waste.

**SM4RT LIVING** ▼  
**family challenge**



**PUBLIC CONSULTATION IN PHASE 2 “ONLINE OPEN HOUSE”**

On October 15, 2012, the first online open house was launched as an innovative way to reach out to stakeholders to solicit project feedback. The online open house had more than 1,000 visits over a three week period.

Highlights from the feedback include:

- Interest in provision of blue box and green bin in multi-residential buildings
- Need for battery and hazardous waste program promotion
- Advocacy for decreased packaging waste

The main focus for Phase 2 was to continue the momentum generated during Phase 1, continue to engage with public and key stakeholder groups on overall direction and start developing community buy-in for the emerging vision, opportunities and plan components. Public engagement throughout the plan included 6,000 points of interaction with residents and stakeholders through events like ‘Places and Spaces,’ the online open house and website, project team meetings and the Stakeholder Advisory Committee.



Three families took part in the family challenge: (from left to right) The Pardatschers, the Giatas and the Dorneys.



The online open house had more than 1,000 visits over a three week period.



REDUCE

# Community Environmental Centres

Convenient one-stop facilities exceeding expectations

Community Environmental Centres (CEC) provide York Region residents and small businesses with a convenient one-stop waste management facility where materials are diverted or disposed of in a sustainable manner. York Region currently has two CECs: McCleary Court in the City of Vaughan, which opened in 2009 and Elgin Mills in the Town of Richmond Hill, which opened in 2011.

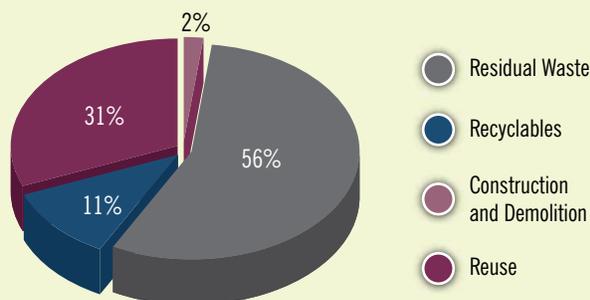
CEC facilities provide residents with a convenient outlet to drop off a variety of materials including reusable goods such as clothing, housewares, books, textiles, electronics, home furnishings, appliances, collectibles and building materials for resale by local charities. York Region partners with Goodwill Industries and Habitat for Humanity York Region to operate and staff the on site reuse buildings.

Bulky recyclables, construction and demolition materials are diverted from landfill through the CECs, while items that cannot be diverted are disposed of as residual waste.

In 2012, 7,580 tonnes of material were collected at Elgin Mills CEC. The Elgin Mills CEC exceeded the 4,900 tonnes expected for the first full year of operation by 35 per cent.

- Goodwill Industries and Habitat for Humanity collected 157 tonnes (two per cent) of reuse materials

- Construction and demolition materials, including wood, drywall, clean fill, concrete and rubble represented 2,340 tonnes (31 per cent)
- Blue box, shredded paper, electronics, tires, scrap metal and polystyrene accounted for 528 tonnes (11 per cent)
- Residual waste accounted for 4,232 tonnes (56 per cent)





The used cooking oil collection program was added to the McCleary Court CEC in 2011. This program has been well received by facility users and has now been expanded to all Regional Household Hazardous Waste facilities. This program is beneficial as cooking oil contaminates the sewage

system, damages infrastructure and potentially poses health risks and environmental hazards. Staff plan to introduce the used cooking oil drop-off program at the Elgin Mills CEC in 2013. The integration of HHW facilities into both CECs is also planned to be completed by 2015.

These additions will improve convenience for residents and increase site usage as users become increasingly familiar with the full suite of services available at the CECs.

McCleary Court Community Environmental Centre  
Diversion and Disposal Tonnes, 2009 to 2012



Elgin Mills Community Environmental Centre  
Diversion and Disposal Tonnes, 2011 to 2012





RECYCLE

# Blue Box

York Region resident blue box participation rates among the highest in GTA

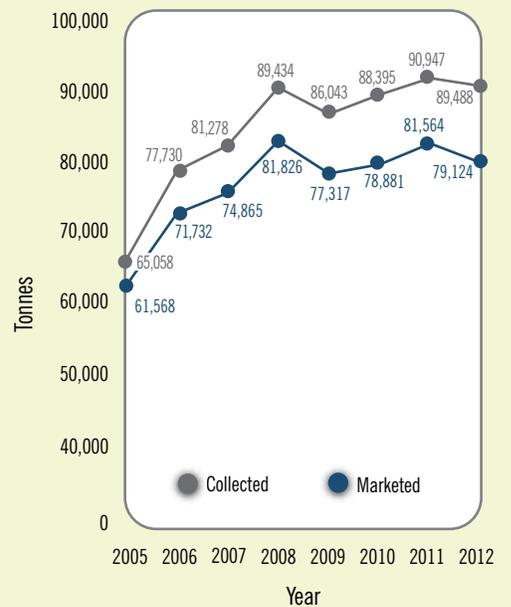
High participation in the blue box recycling program results in the creation of new products using recyclable materials, therefore saving both energy and resources by avoiding extraction and depletion of natural resources. In addition to contributing significantly to sustainability, diversion of these valuable resources translates to product stewards paying to ensure their products and packaging are properly managed and recycled by the Region and our municipal partners. Stewards contribute approximately 50 per cent of blue box program costs.

Residents and small businesses may drop off recyclables free of charge at the McCleary Court Community Environmental Centre, Elgin Mills Community Environmental Centre,

East Gwillimbury Household Hazardous Waste and Recycling Depot and the Georgina Waste Transfer Station.

In 2012, the blue box made up 20 per cent of the total materials captured and processed in York Region. Continued blue box processing capacity will be required to address the influences of continued population growth, improved promotional efforts, new materials in the waste stream and expansion of recycling services to multi-residential dwellings, parks and recreation facilities. As of September 1, 2012 spiral wound containers are now accepted in the blue box.

Blue Box Historical Tonnes Collected and Marketed, 2005 to 2012



**DID YOU KNOW?**

Recycling one tonne of newspaper saves:



19 trees



three cubic metres of landfill space



29,000 litres of water



30 kilograms of air pollution



4,000 kilowatt hours of energy



RECYCLE

# Organic Waste

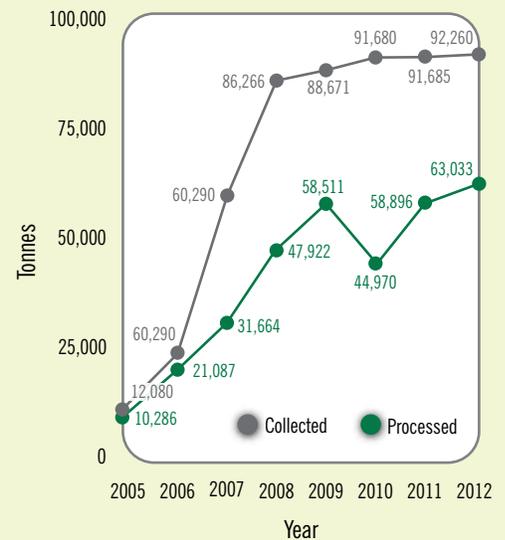
Organics processing is a key component of waste diversion

Processing of organic waste into compost, a beneficial agricultural growing supplement, currently represents one third of the Region's overall diversion achievement. In 2012, York Region residents generated approximately 92,260 tonnes of source separated organics and 43,688 tonnes of yard waste. The amount of organics collected province-wide has outpaced the establishment of reliable compost processing capacity. Operational and contractual challenges and odour problems have also plagued the organics processing industry which have impacted York Region in 2010 and 2011.

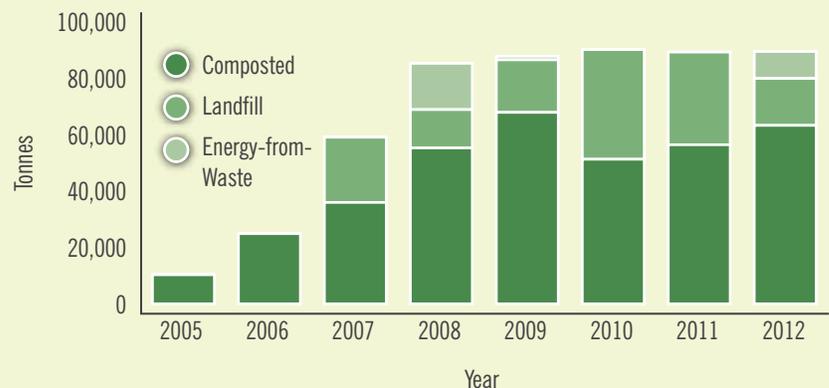
In 2012, the Region shipped 63,033 tonnes of source separated organic waste to Orgaworld in London, Ontario for processing. Orgaworld continued to experience processing restrictions in 2012 due to odour issues, but was able to maintain operations at a reduced rate. The remainder of source separated organics was managed through Covanta, an energy-from-waste facility in New York State, and landfill disposal

in Ontario. At the end of 2012, the Region secured an agreement with Lafleche Environmental Inc. in Moose Creek, Ontario to provide additional processing capacity of source separated organics in 2013. As directed by our 4R hierarchy, energy-from-waste management is a preferred disposal method to landfill disposal and is included in the Region's diversion from landfill calculation.

SSO Historical Tonnes Collected and Processed, 2005 to 2012



Source Separated Organics Management by Destination 2005 to 2012





## RECYCLE

# Leaf and Yard Waste

Composting leaf and yard waste represents significant diversion and creates beneficial soil amendment

York Region's local municipal partners offer residents a seasonal curbside leaf and yard waste collection program available bi-weekly from spring to fall. In 2012, leaf and yard waste represented 14 per cent of the total curbside waste stream.

Additionally, residents may deliver yard waste materials at two facilities in the Region – the Georgina Transfer Station and the Miller Waste Bloomington Road Facility (contracted with the Region and owned/operated by Miller Waste).

### ASIAN LONG HORNED BEETLE

In 2005, the Canadian Food Inspection Agency (CFIA) confirmed an infestation of the Asian Long-Horned Beetle (ALHB) in the City of Vaughan. All yard waste from this regulated area is bound to CFIA specifications prior to being composted at the Miller Bloomington Site. In 2012, 7,444 tonnes of yard waste material was managed at the site in accordance with Canadian Food and Inspection Agency

standards. On April 5, 2013 the Canadian Food Inspection Agency declared the Asian Long-horned Beetle eradicated in the City of Toronto and York Region. As a result, the Region's ALHB site is scheduled to be closed on June 30, 2013, in accordance with a closure plan approved by the Ministry of the Environment and CFIA in partnership with the City of Vaughan.

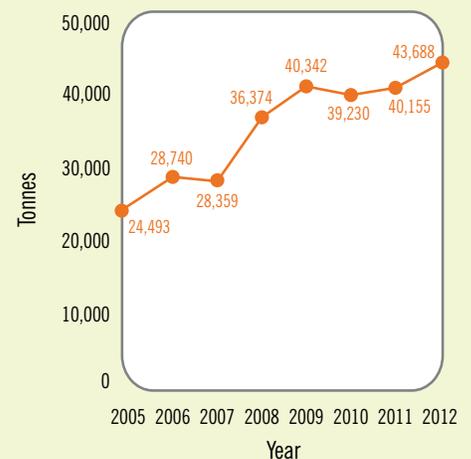
### EMERALD ASH BORER

The Emerald Ash Borer (EAB) was discovered in York Region in 2008. It is an invasive insect that poses no risk to human health, but kills all ash trees and poses a significant threat to our forests. York Region Forestry has confirmed infestations in all municipalities within the Region and is working with local municipalities, conservation authorities, the CFIA and the Ontario Ministry of Natural Resources to co-ordinate efforts to monitor and manage EAB's impacts in the Region. As part of the Regional Council-approved Emerald Ash Borer Management Plan, the Region will

continue to monitor the spread of the Emerald Ash Borer. Yard waste tonnage is anticipated to increase significantly as ash trees die off throughout the Region.

In 2012, 43,688 tonnes of York Region yard waste were managed at the Miller Bloomington site, including yard waste from the Asian Long Horned Beetle infestation zone.

Yard Waste and Asian Longhorned Beetle Historical Tonnes Collected, 2005 to 2012





RECYCLE

# Waste Electronics

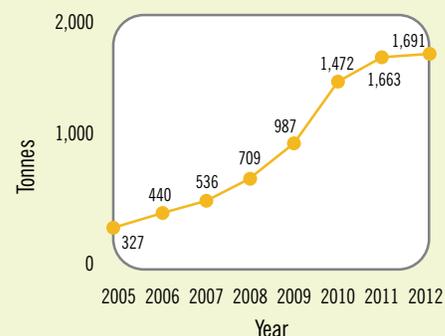
## Responsible reuse and recycling of waste electronics

The Region began collecting waste electronics in 2001 and provides residents with a network of drop-off facilities, including Georgina Transfer Station, East Gwillimbury HHW and Recycling Depot, Markham HHW Depot, Vaughan HHW depot, as well as McCleary Court and Elgin Mills CECs. In 2009, the Waste Electrical and Electronic Equipment (WEEE) program was developed by Waste Diversion Ontario (WDO) in co-operation with Ontario Electronic Stewardship (OES). WEEE material has been designated under the Waste Diversion Act and collection, processing and disposal of this material is partially funded by brand owners and first importers of these products.

In addition to municipal depots, retail take back locations are available through the [RecycleYourElectronics.ca](http://RecycleYourElectronics.ca) website sponsored by OES. Ontario Electronic Stewardship ensures high standards for ethical working conditions and management of hazardous materials are applied to all collectors, processors and recyclers approved under the program. While electronic materials can contain harmful substances such as mercury, lead and cadmium, which require special handling, there are also valuable and limited resources in electronics, such as steel, copper, aluminum and other precious metals; recycling these materials can help reduce the need for new raw materials. These components are valuable in the marketplace, resulting in service providers paying the Region for electronics collected at municipal depots.

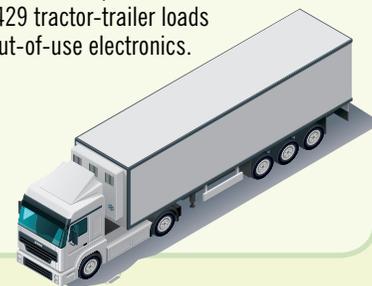
In 2012, 1,691 tonnes of WEEE materials were collected at York Region depots.

Waste Electrical and Electronic Equipment Historical Tonnes Collected, 2005 to 2012



**DID YOU KNOW?**

In the last three years, Ontarians diverted almost 190,000 tonnes of electronics from landfill; equivalent to 23,429 tractor-trailer loads of out-of-use electronics.





## RECYCLE

# Household Hazardous Waste

Safely managing and diverting municipal hazardous and special wastes to protect the environment

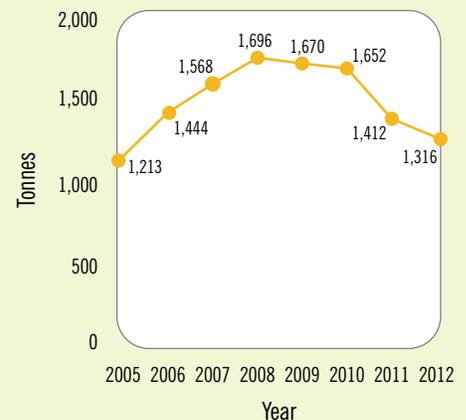
York Region provides a network of facilities where residents can drop off municipal hazardous or special waste (MHSW). Drop-off locations include the Georgina Transfer Station, East Gwillimbury HHW and Recycling Depot, Markham HHW Depot and the Vaughan HHW depot. The Region is currently working on incorporating MHSW collection depots at both CECs by 2015. Through specialized contract services at these locations, these materials are recycled or treated and disposed of in an environmentally responsible manner.

In 2012, the amount of MHSW materials collected at Regional depots declined from previous years. Other municipalities experienced a similar trend at their municipal depots as retail take-back programs promoted through the Stewardship Ontario Orange Drop program experienced increased capture. Both municipal depots and retail take-back programs ensure materials are safely managed to end-of-life and divert harmful

substances from landfill, waterways and forests. In addition, many of these items contain recoverable materials that can be recovered, refined and reused in the manufacturing of new products, thereby reducing the need for virgin resources.

Advocacy efforts co-ordinated through municipal organizations such as Regional Public Works Commissioners of Ontario (RPWCO), Association of Municipalities of Ontario (AMO) and the Municipal Waste Association (MWA) were very successful in 2012 and resulted in improved communication and understanding of municipal needs by industry funding organizations and the Ministry of the Environment. York Region will continue to engage in stewardship discussions and support a balanced model of extended producer responsibility for these materials with the province over the longer term.

Household Hazardous Waste  
Historical Tonnes Collected, 2005 to 2012





## RECYCLE

# Tires, Scrap Metal and Cooking Oil

Continued diversion success with depot based recycling programs

### TIRE RECYCLING

York Region collects used tires at the Elgin Mills and McCleary Court CECs, as well as the Georgina Transfer Station. Residents can drop off up to four tires per visit, including car and passenger tires, heavy truck tires or farm tractor tires for recycling into new products such as rubber mulch, playground surfacing and rubber bricks. This program is funded by tire stewards through the Used Tire Program and supported by Tire Stewardship Fees levied on each tire supplied in Ontario. These fees are collected by Ontario Tire Stewardship (OTS).

In 2012, the Region diverted 167 tonnes of tires to recycling.

### METAL RECYCLING

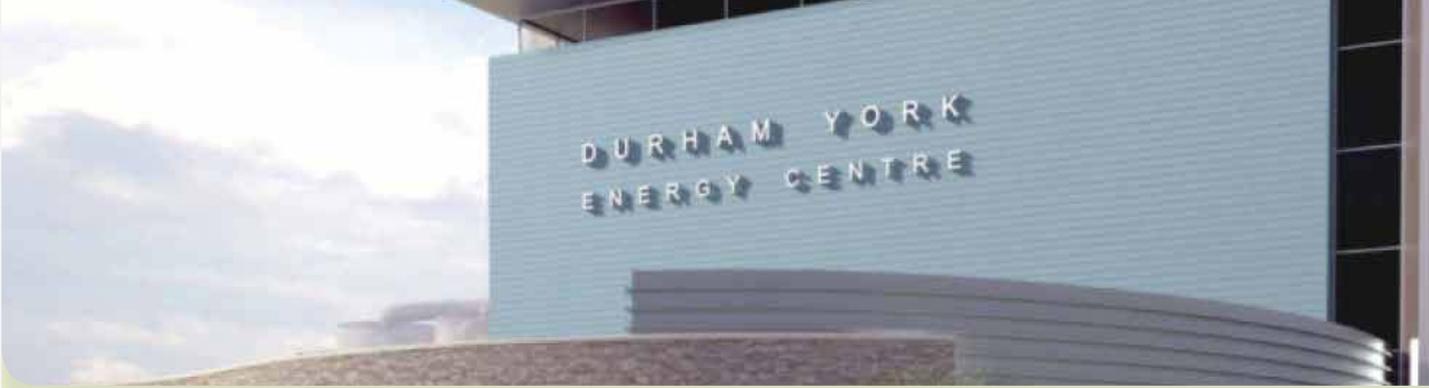
York Region residents can bring their scrap metal including metal appliances for recycling to the East Gwillimbury HHW and Recycling Depot, the Georgina Transfer Station or the Elgin Mills or McCleary Court CECs. Some examples of acceptable scrap metal are appliances, metal sinks, bicycles and metal furniture unfit for reuse.

In 2012, York Region collected 1,208 tonnes of scrap metal for recycling.

### USED COOKING OIL DROP-OFF AND RECYCLING

Prior to 2011, cooking oil was managed through the Region's MHSW program. An increase in the volumes collected and the opportunity to recycle cooking oil, lead to the development of this program. Collection of used cooking oil for recycling was initiated in 2011 at the McCleary Court Community Environmental Centre and has been extended to a permanent program due to high resident satisfaction. The Region expanded this program into all HHW depots in 2012 and hopes to introduce the program at the Elgin Mills CEC by end of 2013. York Region has partnered with Sanimax, a company that collects used cooking oil and processes it into high quality materials such as pet food, soaps and biodiesel.

In 2012, York Region collected 3,760 litres of used cooking oil for recycling.



RECYCLE

# Residual Waste

## Energy from waste as a beneficial recovery option

After all waste diversion efforts have been expended, York Region manages its remaining residual waste primarily through energy recovery, with landfill disposal remaining as the final and least-preferred option.

York Region has worked with the Dongara Pellet Plant in Vaughan, Ontario since 2008. Regional residual waste was delivered to Dongara, either directly through curbside trucks from the City of Vaughan or in trailers from Region transfer stations, where bags were opened, recyclables were captured, undesirable material was removed and residual waste was processed to produce an alternative fuel pellet.

In 2012, Dongara processed 76,220 tonnes of Region residual waste.

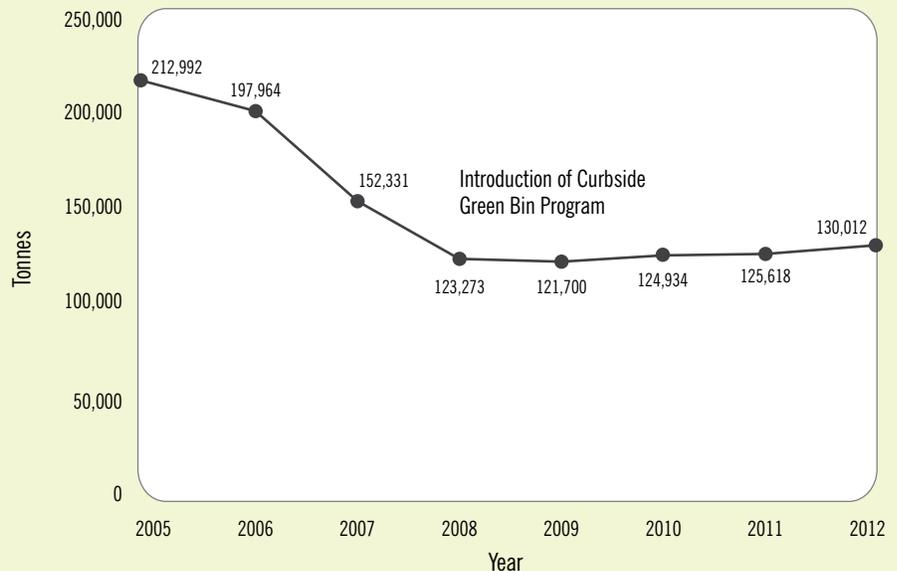
The Durham York Energy Centre, being built in Clarington, Ontario is scheduled to be operational in fall 2014. Once operational, York Region will ship 30,000 tonnes of residual waste for energy recovery annually. Most of the Region's residual waste is planned for energy recovery management.

Until the Durham York Energy Centre is commissioned, external contract capacity has been secured by the

Region at Covanta in New York State for residual waste management. For the management of bulky materials, for which diversion programs are not yet established, the Region also has contingency landfill contracts with the City of Toronto at their Green Lane Landfill in St. Thomas, Ontario and Niagara Waste Landfill in Thorold, Ontario.

The residual waste management portfolio represents a sustainable approach to management of York Region's residual waste, deriving a beneficial use from York Region's residual waste, enhancing security, diversification and stability in the long term.

Residual Waste Generation including Blue Box Residue  
Historical Tonnes, 2005 to 2012





# Waste Promotion and Education

Ongoing promotion and outreach activities drive participation in waste management programs

Objectives of York Region's Promotion and Education programs are:

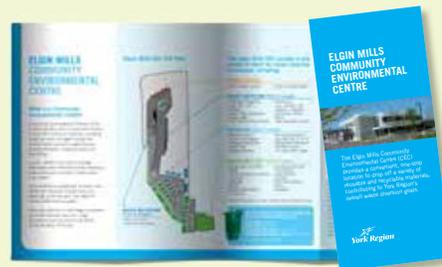
- Promoting participation in waste diversion programs
- Encouraging correct participation in waste diversion programs
- Ensuring compliance with municipal and Regional waste management policies

The Region strives for regular communication among the nine local municipalities, recognizing the importance of consistent messaging to minimize confusion among residents and leverage economies of scale wherever possible.

The Region actively promotes its waste diversion programs through an extensive communication and education program. The local municipalities also provide extensive education and information through their own initiatives, including local waste collection calendars that are produced and distributed annually to all residents of York Region.

## YORK REGION PARTICIPATED IN THE FOLLOWING COMMUNITY OUTREACH INITIATIVES IN 2012:

- Attended 11 special events, distributing waste information
- Conducted 28 presentations / Material Recovery Facility tours to school groups and community organizations with approximately 1,500 in attendance



- Continued promotion of both the McCleary Court and Elgin Mills Community Environmental Centres (CECs) through print advertising, online advertising, social media and radio promotion throughout the year
- Distributed McCleary Court CEC brochure to all Vaughan residents through direct mail

- Promoted Blue Box Program best practices, including awareness campaign for acceptable mixed plastics, as well as identifying common materials found, but not accepted in the blue box
- Conducted a three-month Family Challenge pilot in conjunction with developing the Integrated Waste Management Master Plan to test key elements of SM4RT Living
- Promoted an online open house for residents and stakeholders to view the Integrated Waste Management Master Plan development and provide feedback / comments
- Continued to promote the Household Hazardous Waste program through commercials airing on Rogers TV listing channel, brochure distribution and radio advertising
- York Works, a newsletter distributed to all households in the Region, featured information on the Waste Management Master Plan and the Elgin Mills Community Environmental Centre



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