

# PARTNERSHIPS DRIVING REDUCTION REUSE RECYCLING RECOVERY



The Regional Municipality of York  
2011 Annual Diversion Report



# partnership

Significant work has been undertaken by the ten municipal partners to develop an Integrated Partnership model. Together they have a commitment to achieve common specific performance standards that define success. The Integrated Partnership Model supports collaboration, innovation and leveraging of expertise.



*L to R:* Courtney Daniels – York Region, Ilmar Simanovskis – Town of Aurora, Amanda Newman – Town of Aurora, George Flint – Town of Richmond Hill, Claudia Marsales – City of Markham, Rosanne Fritzsche – Town of Richmond Hill, Peter Loukes – City of Markham, Caroline Kirkpatrick – City of Vaughan, Derek Bakshi (rear) – Township of King, Brian Anthony – City of Vaughan, Dave Gordon – York Region, Paul Whitehouse – Town of Whitchurch-Stouffville, and Greta Zinck – Town of Georgina.  
*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, Laura McDowell – York Region.



# reduce

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The Pardatscher family was selected to participate in the SM4RT Living Family Challenge.

The challenge guided three families on a three-month journey to become more aware of their lifestyle choices and behaviours. The focus was beyond basic waste reduction and recycling efforts, challenging participants to embark on a more holistic lifestyle makeover.



# reuse

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Partnerships with Habitat for Humanity York Region and Goodwill Industries assist in the diversion of reusable, unwanted goods from disposal.

Goodwill Industries and Habitat for Humanity are permanently located at both York Region Community Environmental Centres to collect a wide range of reusable materials. The reusable goods collected at the Community Environmental Centres will be distributed for re-sale at the charities retail locations within York Region.

*Mathew Varghese, Project Manager, Goodwill Industries*



# recycle

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More than 90,000 tonnes of material are collected in the blue box program each year. These materials are separated into their individual commodities and sent to markets across the globe where they are converted into new products. The Regional Materials Recovery Facility is owned by York Region and operated under contract with Miller Waste Systems.

*Jeff Gowland , Day Shift Facility Supervisor,  
Miller Waste Systems*



# DURHAM YORK ENERGY CENTRE

## 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 steam. Recyclable metals will also be recovered from the ash. The facility will be designed, built, and operated by Covanta Durham York Renewable Energy L.P. The facility is scheduled to be operational in fall 2014.



# At-a-Glance

York Region and our local municipal partners plan, finance and deliver environmentally sound waste diversion and disposal programs to over 1 million residents.

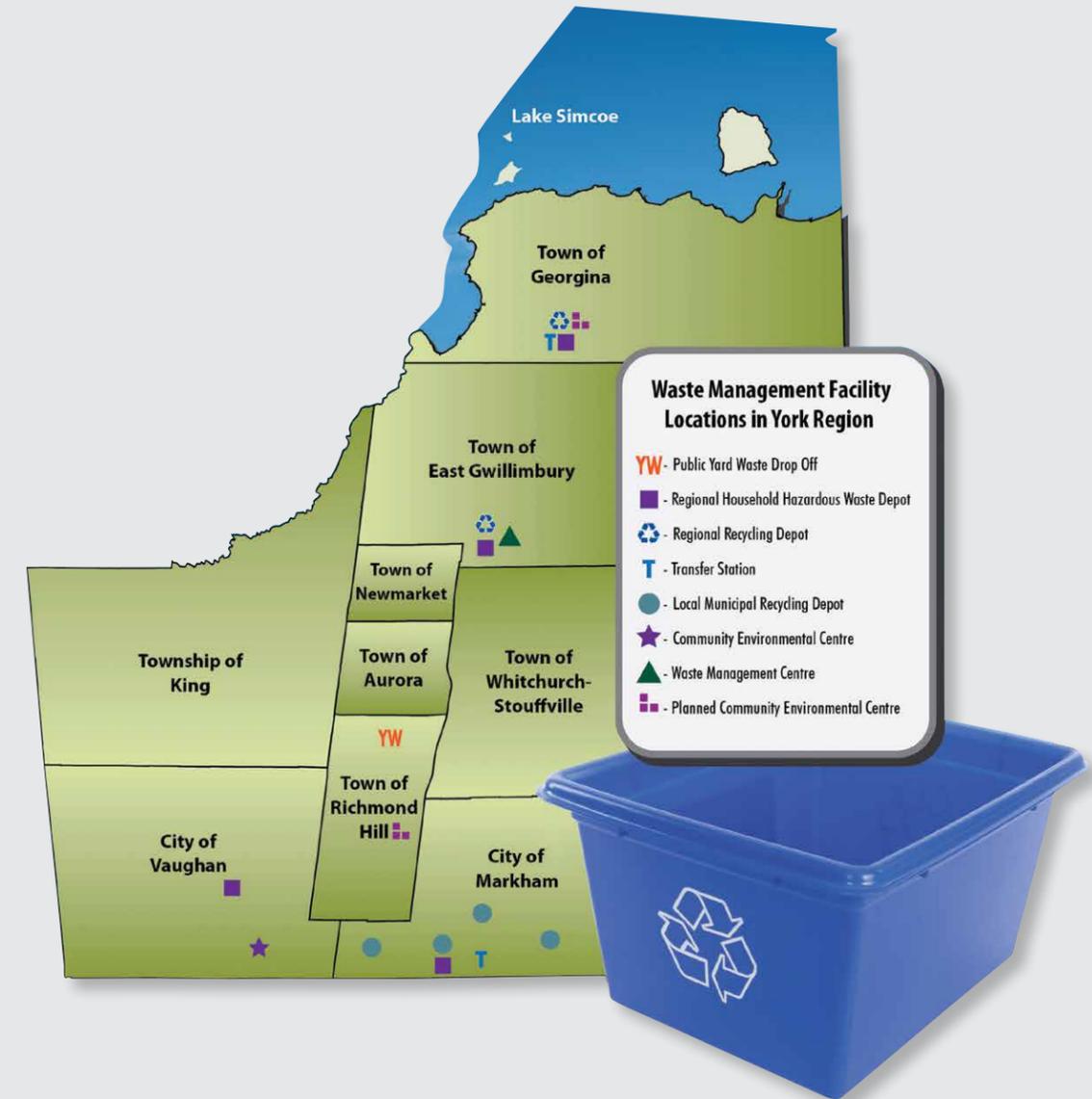
Curbside collection of blue box, green bin and residual waste is managed by York Region's nine local municipal partners, including the Towns of Aurora, East Gwillimbury, Georgina, Newmarket, Richmond Hill, Whitchurch-Stouffville, Township of King, the Cities of Vaughan and Markham.

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

In 2011, York Region and our local municipal partners diverted 78 per cent of collected materials from landfill disposal including material sent to energy from waste facilities.

The Region's waste management portfolio includes:

- Waste Management Centre - material recovery facility to process blue box recyclable material
- McCleary Court Community Environmental Centre in Vaughan
- Elgin Mills Community Environmental Centre in Richmond Hill
- Georgina Waste Transfer Station and Recycling Depot
- Household Hazardous Waste depots in East Gwillimbury, Georgina, Markham and Vaughan
- Processing of source separated organics through private contractors
- Processing and disposal of residual waste through private contractors
- Durham York Energy Centre (EA approved in 2010) with operation expected fall 2014).





# Quick Facts

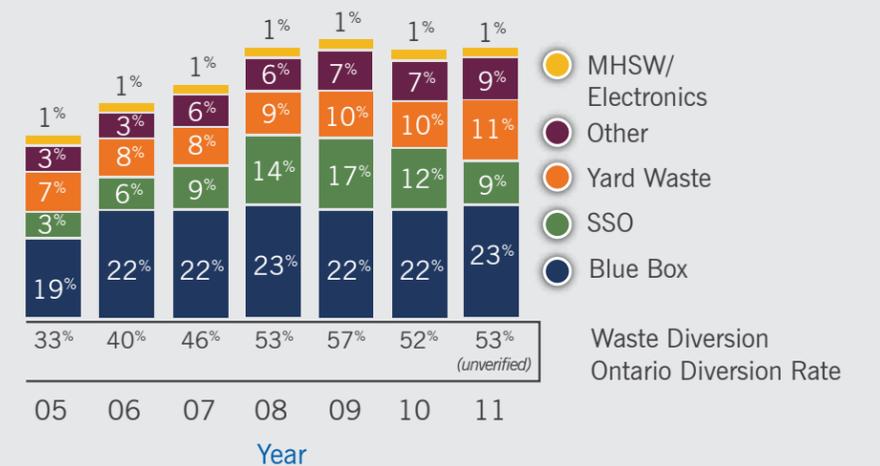
In 2011, York Region and our local municipalities diverted 53 per cent of collected materials from landfill.

- York Region covers 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
- York Region is made up of nine local municipalities: Towns of Aurora, East Gwillimbury, Georgina, Newmarket, Richmond Hill, Whitchurch-Stouffville, Township of King, the Cities of Vaughan and Markham
- York Region's population is an estimated 1,085,588
- York Region has 287,108 single family households and approximately 38,723 apartments
- In 2011, Blue Box material processed was 91,073 tonnes
- Revenue generated from the sales of Blue Box recyclables was approximately \$11.2 million
- Green Bin material collected was approximately 91,685 tonnes
- Residual garbage collected was approximately 125,600 tonnes
- Total Household Hazardous Waste (HHW) and Waste Electronics and Electrical Equipment (WEEE) collected at Region depots was approximately 3,000 tonnes
- Total Yard Waste collected curbside and at public drop-off areas was approximately 40,000 tonnes
- 'Other diversion', including tires, clean fill, textiles, wood waste, scrap metal and other diversion was approximately 4,100 tonnes

### 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 as of today
- There will be 800,000 jobs

Annual Waste Diversion, 2005 to 2011



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

53%

Waste Diversion Ontario (unverified)  
Diversion from landfill after curbside collection

78%

York Region Diversion  
Diversion from landfill including energy from waste management



# Sustainable Waste Management Hierarchy

Renewed focus on reduction and reuse to create less waste for disposal

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 Canadian waste to Michigan and the Region's commitment to a diversion target of 70 per cent, new initiatives are being investigated to expand diversion programs and better manage the Region's residual waste.

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

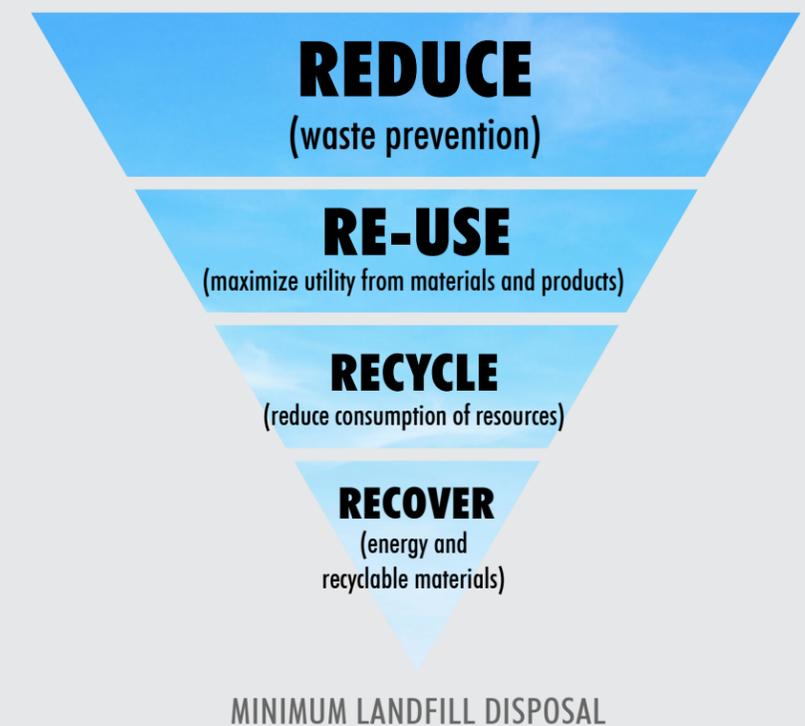
1. Reduction of packaging to prevent waste generation.
2. Re-use of products and materials to maximize their useful life.
3. Recycling of materials to reduce consumption of new raw materials.
4. Recovery of recyclable materials and energy, after all other diversion efforts have been exhausted, to minimize landfill disposal.

Through leadership and advocacy efforts with our Local Municipal Partners, government agencies and stakeholders, York Region is working to shape Provincial waste management policies and to advocate for full extended

producer responsibility for products and packaging. York Region also conducts frequent events with re-use partners and has integrated a re-use module into our new Community Environmental Centres by partnering with Goodwill Industries and Habitat for Humanity York Region.



4 R's Hierarchy





Mathew Varghese of Goodwill Industries.

# Partnerships for Success

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

In 2011, Regional residents generated 320 kg of waste per household which represents the lowest generation rate among our municipal neighbours.

## COLLECTION

A four-day collection schedule was implemented by our local municipal partners across the Region in 2010 with only one exception in Georgina, where a Monday collection is provided to the cottage households along the lakeshore. In addition to curbside collection, the City of Markham and Town of Richmond Hill are in the process of implementing three stream collection in highrise buildings.

## PROCESSING

Processing is accomplished through a combination of Regional processing infrastructure for Blue Box, externally contracted infrastructure for organics processing, energy from waste processing and landfill disposal for residual waste.

Each of the local municipalities have 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 the 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.

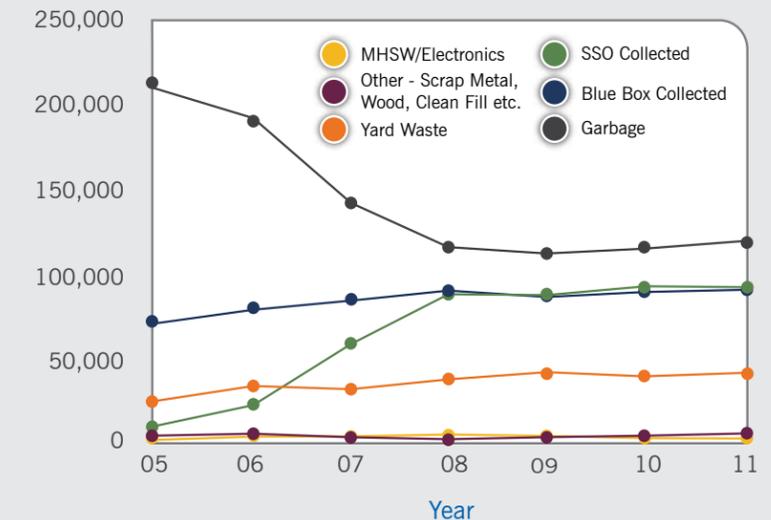
In addition to curbside collection services, local municipalities also offer opportunities for their residents to drop off waste materials within their communities through:

- Environment Days and Waste Reduction Week events
- Public recycling depots
- Special electronic waste collection days, mulch giveaways 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 2011



Material Type	2005	2006	2007	2008	2009	2010	2011
MHSW and Electronics	1,213	1,444	1,568	1,696	1,670	1,652	1,412
Other - Scrap Metal, Wood, Clean Fill etc.	1,446	1,690	1,415	1,132	2,007	2,863	4,053
Yard Waste	24,493	28,739	28,359	36,374	40,342	39,230	40,155
SSO Collected	12,080	24,808	60,290	86,266	88,671	91,680	91,685
Blue Box Collected	65,058	77,731	81,278	89,435	86,044	88,395	90,948
Garbage	209,502	191,966	145,918	115,115	112,974	115,420	116,235

# Vision and Guiding Principles

Integrated Waste Management Master Plan being developed to respect all stakeholder consultation and provide direction for the future

The Integrated Waste Management Master Plan, also known as York Region's SM4RT LIVING Plan, was initiated in 2011 and is planned for completion in 2013 through a three-phase process. The plan is exploring and developing leading edge integrated waste management solutions that will guide the next 25 to 40 years of waste management in the Region.

From the start of the project, it became clear that waste is a complex area. Current economic and social systems promote consumption. The concept of waste management needed to be reframed into "resource management" to recognize the inherent value of waste, the value we place on resources and how they are used. With this in mind, efforts have involved an exploration of the current and future potential relationship with waste and the potential uses of waste.

The vision is for a comprehensive plan that goes beyond traditional long-term strategies by presenting leading edge, integrated waste management solutions that meet the needs of the Region and our local municipal partners with a shift in focus up the waste hierarchy from recycling to waste prevention and reuse. Solutions must meet sustainability principles that balance environmental, economic and social factors, be flexible enough to adapt to the rapidly changing environment and secure York Region's leadership role in waste management. Together, Regional and local municipal staff have worked collaboratively to develop the terms of reference for the plan.

In 2011, Phase 1 "Where We Are" was completed. Phase 1 assessed waste management programs already in place in York Region, researched what other municipalities have done

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" will be completed in 2012. The Phase 1 baseline assessment of waste management practices will be overlaid with the current York Region system. The framework for an 'Integrated Partnership' between the Regional and local municipal partners will bring a 'systems' approach to decision-making in a two-tiered service delivery model. Phase 2 findings will provide a gap assessment that will feed into Phase 3 "How Are We Going to Get There?"

Phase 3 is scheduled to be completed in 2013 and will provide

strategic and implementation plans to guide the final delivery of the SM4RT Living Plan.

Throughout various levels of stakeholder engagement conducted to date, phrases have emerged that describe a vibrant and innovative SM4RT Living future. Together these thoughts provide a great picture of the life those engaged wish to see evolve over the next 25 to 40 years and have evolved into a draft Vision and Guiding Principles.

Guiding Principles and a long-term Vision drafted collaboratively respecting the needs of various stakeholders.





# Joint Waste Management Summary

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

	CURBSIDE COLLECTION						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>	(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>	(No tags)			(18/year)	(No fee)	(No fee)	-
<b>GEORGINA</b>	(\$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>	(\$1, limit 5 items)			(17/year)	(\$20 + hst)	(\$10 + hst)	-
<b>MARKHAM</b>	(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>

	CURBSIDE COLLECTION						OTHER INITIATIVES
	Alternating Week Bag Collection Limit (Cost per Tag) <sup>1</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)
<b>NEWMARKET</b>	(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>
<b>RICHMOND HILL</b>	(\$2, 3 item limit, includes bulky items)			(21/year)	(No fee)	(No fee)	<ul style="list-style-type: none"> <li>Recyclables from 80 buildings collected from carts or front end bins</li> <li>Organics collected in carts from 21 of the 80 buildings</li> <li>Additional buildings phased in during 2011</li> </ul>
<b>VAUGHAN</b>	(10 tags for \$10.20, 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>
<b>WHITCHURCH-STOUFFVILLE</b>	(\$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, the Region and local municipalities collect a range of waste, recyclable and compostable materials to varying degrees at parks, Regional and municipal facilities and special events. The Region and the City of Markham also operate

Recycling/Reuse Depots, Household Hazardous Waste Depots and Community Environmental Centres, which accept materials collected at curbside, as well as materials not currently collected at curbside such as household hazardous wastes.



REDUCE

# SM4RT Living

Reframing waste - it is more than what goes in your blue box

Most people's initial reaction when they hear the words waste management is to think about recycling. This is in some respect the low hanging fruit, where residents have achieved outstanding results. Through this SM4RT LIVING plan, emphasis is now being placed on waste prevention and reuse, a significant and complex future challenge.

Through development of the SM4RT LIVING plan, new possibilities for a more sustainable economy will be examined, including new economic opportunities that help to generate prosperity through environmental consciousness. During the 2008 economic downturn, the Region experienced a significant decrease in the amount of waste generated, which highlighted the relationship between the economy, purchasing habits and waste generation. At the same time, however, there is a

shift underway that recognizes that increased possession of material goods is not directly linked to increased well being. The concept of waste is therefore an excellent vehicle to elevate the conversation from garbage to what will be important and valued over the next 40 years.

An integral component to successfully and collaboratively developing this Master Plan is the engagement of the public and stakeholders throughout the Region. Community engagement includes a range of innovative forms of consultation that both attract and engage a cross-section of community members in bringing new meaning and ideas to reduce, reuse, recycle and recover.

The 2011 consultation program included:

- Places and spaces events including attendance at 22 fairs, festivals, sporting events and other high traffic areas such as shopping malls and farmers' markets. More than 500 residents talked with staff and shared their ideas and concerns, with many more being exposed to the project in passing. Almost 300 of these residents expressed an interest in being updated on the project as it progresses and put their names on the project contact list. The list currently has more than 1,800 names on it.
- A Citizen Panel which involved a telephone survey of 500 residents was conducted during July and August 2011. The survey provided baseline information and opinions.

- Four idea generating sessions were held that explored bold new possibilities of what SM4RT LIVING can look like in York Region over the next 40 years.
- Industry specific meetings are currently being held to explore opportunities for the Region to work with its industrial and commercial leaders in developing more effective waste reduction, reuse and recycling programs.

Public input at these events identified a desire by participants to move towards waste elimination. Ideas and concepts related to waste elimination will be explored further as part of the development of a vision and goals in Phase 2 of the Master Plan.

## HOW SM4RT ARE YOU?

[WWW.SM4RTLIVING.CA](http://WWW.SM4RTLIVING.CA)





REUSE

# Community Environmental Centres

Increasing accessibility to waste management services

York Region's Community Environmental Centres, McCleary Court (Vaughan) and Elgin Mills (Richmond Hill) assist residents with managing waste materials that exceed their curbside pick-up limits and feature education areas for residents to learn more about environmental issues in York Region. Community Environmental Centres provide residents with a well-situated location to drop off items such as building materials, electronics, large metal appliances and shredded paper. The McCleary Court location has been open since June 2009 and the Elgin Mills location opened in November 2011. Both sites have received positive feedback from residents as awareness of the sites and services continues to grow.

These 'one stop' sites provide residents with a convenient location where they can 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 has partnered with Goodwill Industries and Habitat for Humanity York Region to operate and staff the on-site reuse buildings, continuing its good working relationships with these charitable organizations.

The reusable goods collected at the Community Environmental Centres, through Goodwill Industries and Habitat for Humanity York Region, will be distributed for re-sale at the charities' retail locations within York Region.

Through the Integrated Waste Management Master Plan, future expansion of the Community Environmental Centre network will be evaluated using sustainability parameters, including environmental, social and financial impacts.

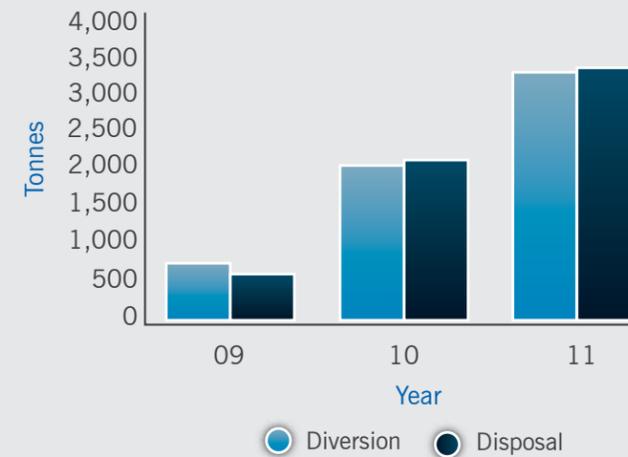


Elgin Mills Community Environmental Centre



McCleary Court Community Environmental Centre

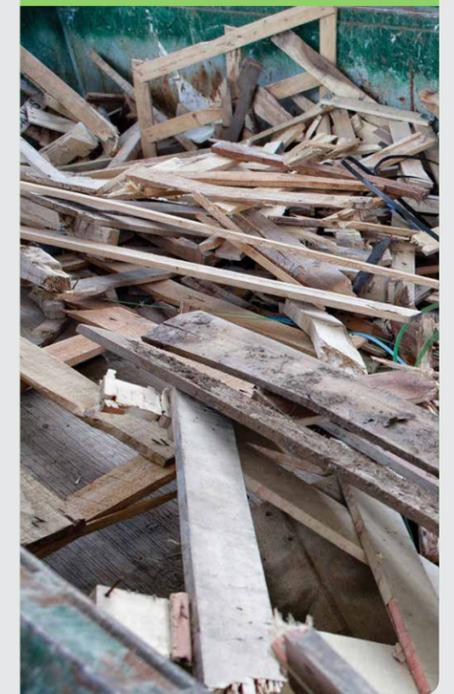
McCleary Court Community Environmental Centre  
Diversion and Disposal Tonnes, 2009 to 2011



**Note:** Elgin Mills Community Environmental Centre in Richmond Hill opened November 2011 and is experiencing similar capture to McCleary Court in opening year.

**DID YOU KNOW?**

Clean wood collected through the Region's Community Environmental Centres is shipped to Eco-wood who reclaims clean wood and creates sustainable products such as wood chips, mulches and animal bedding, while saving trees and reducing the load on scarce landfill space.



**DID YOU KNOW?**

In 2011, 1,167 tonnes of scrap metal were collected at the Region's Community Environmental Centres and Georgina Transfer Station. Metals can be melted down repeatedly without losing their strength or durability. Recycled metals are often manufactured into new products such as aluminum foil and cans, filing cabinets, pie pans, small appliances, electronics and home fixtures.



RECYCLE

# Blue Box

Blue Box recycling supports sustainable resource management and creation of new recyclable products

Turning blue box materials into recyclable commodities is an important component of York Region's diversion strategy. The materials collected in the blue box program are processed in the Material Recovery Facility (MRF) located in York Region's Garfield Wright Waste Management Centre in East Gwillimbury.

York Region residents should be commended for their participation in the Blue Box program as being among the highest in the GTA. This participation results in the creation of new products using recyclable materials and 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 program funding for the Region and our municipal partners paid by product stewards; funds that cover approximately 50 per cent of Blue Box program costs.

Residents and small businesses may drop off recycling 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 2011, the Blue Box made up 23 per cent of the materials captured and processed. Future additional 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.

**DID YOU KNOW?**

Approximately 90 per cent of Blue Box materials go on to be recycled into new products. Approximately 10 per cent of the items put into the Blue Box are not recycled because the materials are usually too contaminated with non-recyclable materials. This demonstrates the importance of ensuring materials are clean and recyclable before placing them into the Blue Box.

Blue Box Historical Tonnes Collected and Marketed, 2005 to 2011



RECYCLE

# Organic Waste

Source separated organics management is critical to environmental protection and creation of sustainable end products

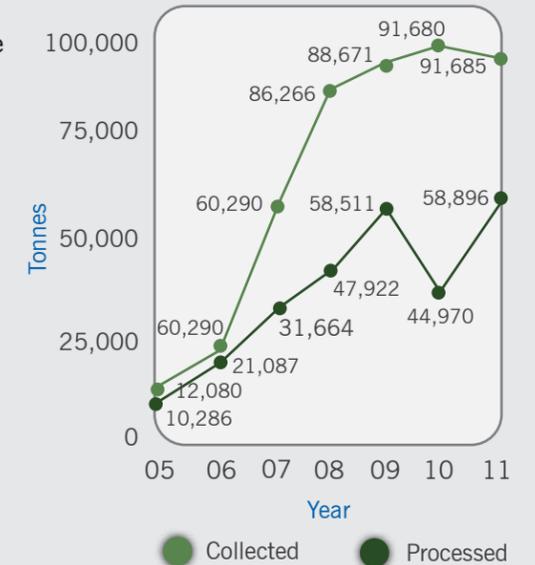
Processing of organic waste into compost, a beneficial agricultural growing media supplement, currently represents almost half of the Region's overall diversion achievement. In 2011, York Region residents generated approximately 91,685 tonnes of organic material. The amount of source separated organics collected province-wide has outpaced the establishment of reliable compost processing capacity. Operational challenges and odour problems have also plagued the source separated organics processing industry in Southern Ontario.

Additional organics processing infrastructure is needed in Ontario to meet the demands of residents who want sustainable management of organic waste. The Region is currently working with P3 Canada

and Infrastructure Ontario to secure an industry partner and long-term organics processing infrastructure in Ontario. During this process, the Region continues to partner with third-party processing facilities for organics processing.

York Region residents should be commended for their participation in the Green Bin program with 85 to 90 per cent of York Region residents participating in this program and capturing on average 300 kg per household – among the highest in the province. The success of the Region's Green Bin program can be attributed to the inclusion of diapers, pet waste and sanitary products for which recycling would not otherwise be possible.

SSO Historical Tonnes Collected, 2005 to 2011



**DID YOU KNOW?**

Organic materials are a valuable resource when composted. Compost, as soil amendment or mulch, improves soil and plant health, prevents erosion and holds moisture and nutrients in the soil.



RECYCLE

# Leaf and Yard Waste

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

The local municipal partners are responsible for curbside collection of leaf and yard waste material curbside. An average of 18 collections per year occur across York Region, with some variation by municipality. In 2011, yard waste represented 11 per cent of the waste stream.

Program requirements include the use of kraft paper bags and prohibit grass clippings, except in City of Vaughan. Residents may drop off additional material at two facilities in the Region – the Georgina Transfer Station and Bloomington Road compost site (contracted with the Region and owned/operated by Miller Waste). In 2011, 32,935 tonnes of yard waste were processed at the Miller Bloomington site, not including yard waste from the Asian Long Horned Beetle infestation zone.

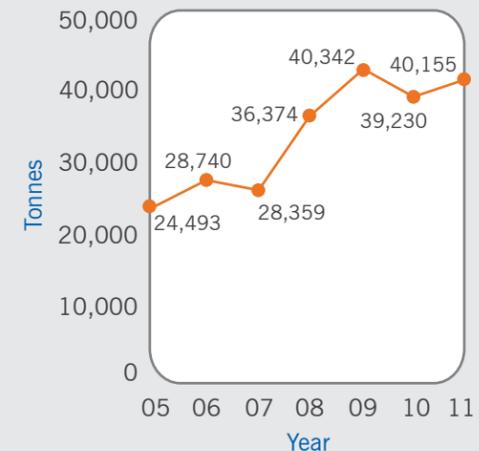
A specific site has been designated by the Canadian Food Inspection Agency for Vaughan residents in the area bounded by Rutherford Road, Steeles Avenue, Highway 27 and Dufferin Street due to the Asian Long Horned Beetle infestation. All yard waste from the regulated area

is ground to CFIA specification prior to being composted at the Miller Bloomington Site. In 2011, approximately 7,220 tonnes of yard waste material was managed at the site in accordance with Canadian Food and Inspection Agency standards.

To control the spread of this infestation, Vaughan residents are reminded that movement of nursery stock, trees, leaves, logs, lumber, wood, wood chips or bark chips from broad-leaf deciduous trees outside of the Regulated Area prior to being processed to approved CFIA specifications is prohibited.

The Emerald Ash Borer is an invasive insect that kills all ash trees. The insect was discovered in York Region in 2008. While the Emerald Ash Borer poses no risk to human health, it is a significant threat to our forests. York Region Forestry Branch conducts extensive surveying for the insect using green “prism” style traps and has confirmed infestations in all local municipalities within York Region.

Yard Waste and Asian Longhorned Beetle Historical Tonnes Collected, 2005 to 2011



As part of the Region’s approved Emerald Ash Borer Management Plan, the Region will continue to monitor the spread of the Emerald Ash Borer. The plan advocates an active approach to slow the spread of the insect, minimize environmental impacts, ease financial impacts and educate the public. Yard waste tonnage is anticipated to increase significantly as ash trees die off throughout the Region.

RECYCLE

# Household Hazardous Waste

Protecting the environment through collection of municipal hazardous and special wastes

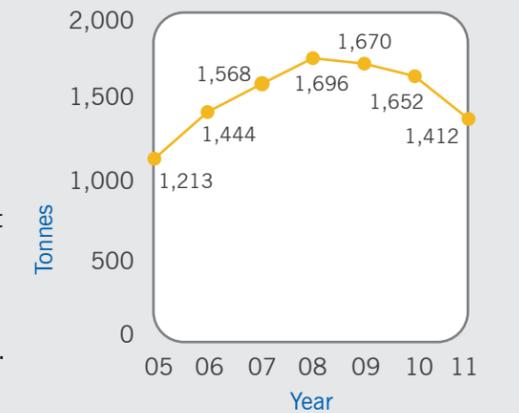
As the Region proceeds to implement its vision of a more sustainable waste management system, it becomes increasingly important to remove hazardous substances from the residual waste stream and ensure that those substances are dealt with in an environmentally responsible manner. To achieve this, the Region provides its residents with a network of facilities where residents can drop off Municipal Hazardous or Special Wastes (MHSW). Through specialized contract services at these locations, these materials are recycled to the extent possible or treated and disposed in an environmentally secure fashion. MHSW 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.

Current 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 at both Community Environmental Centres in 2014 and 2015.

In 2011, the amount of MHSW materials collected at Regional depots declined from previous years. Other GTA municipalities have experienced a similar trend at their municipal depots as retail-take back programs promoted through the Orange Drop program are experiencing 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 materials that can be recovered, refined and reused in the manufacturing of new products, thereby reducing the need for virgin resources.

Household Hazardous Waste Historical Tonnes Collected, 2005 to 2011



**DID YOU KNOW?**

Paints collected at York Region municipal depots are being recycled into LOOP Paint, (looppaint.ca), that is available for purchase at Walmart. Walmart has fully embraced LOOP’s commitment to quality, value and environmental stewardship. Not only is paint being recycled and reused but also for every gallon of LOOP paint sold, Walmart has committed to planting a tree in Haiti with a goal of planting more than 200 acres of trees.



RECYCLE

# Waste Electronics

Protecting the environment through collection of electronic waste

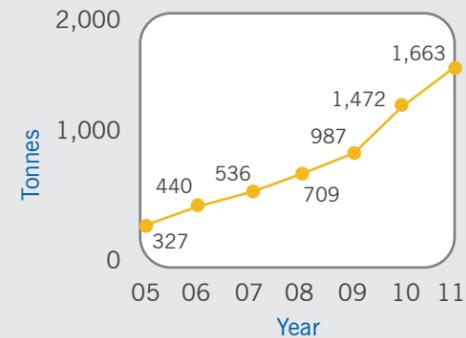
In addition to MHSW materials, the Region provides a network of facilities where residents can drop off Waste Electrical and Electronic Equipment (WEEE). The WEEE program was developed by Waste Diversion Ontario (WDO) in co-operation with Ontario Electronic Stewardship (OES) and has been operating in York Region since October 2001. 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.

Current WEEE drop-off locations include the Georgina Transfer Station, East Gwillimbury HHW and Recycling Depot, Markham HHW Depot, Vaughan HHW depot, as well as McCleary Court and Elgin Mills Community Environmental Centres.

In 2011, WEEE materials collected at Regional depots continued to increase from previous years. Like MHSW, retail take back locations are available through the RecycleYourElectronics.ca website sponsored by Ontario Electronic Stewardship.

OES ensures that 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 and 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 the electronics collected at municipal depots.

Waste Electrical and Electronic Equipment Historical Tonnes Collected, 2005 to 2011



**DID YOU KNOW?**

Once electronics materials are collected, items are shipped to an approved processor where they are inspected and weighed followed by manual dismantling and/or mechanical processing. Hazardous materials are sent for further processing, while materials available for down cycling are turned into commodities such as steel, aluminum, copper, glass and plastic for use in new products. Recycled plastics, for example, are used to produce irrigation piping and outdoor furniture, and recycled glass is made into new monitors or TVs.

RECYCLE

# Oil, Polystyrene, Signs

Diversion success with single stream materials

**POLYSTRENE RECYCLING**

Polystyrene collection pilot programs are on-going at York Region's McCleary Court and Elgin Mills Community Environmental Centres and select City of Markham depots to allow for York Region residents to drop off polystyrene for recycling. The City of Markham has recently received funding through the Continuous Improvement Fund for a cold densification unit to allow for densification of material enabling more economical transportation to recycling facilities. End uses of densified polystyrene include picture frames, furniture, fences, carpets, and construction materials.

**USED COOKING OIL DROP-OFF AND RECYCLING**

The collection of used cooking oil for recycling initiated in 2011 at the McCleary Court Community Environmental Centre has been extended to a permanent program due to high resident satisfaction. The Region plans to expand this program to include collection at all Region MHSW depots in 2012. Residents are able to bring containers of used cooking oil to the site for reclamation instead of disposing as waste.

York Region has partnered with Sanimax, a company that collects used cooking oil and transforms it at processing plants into high quality materials. From recycled products Sanimax creates pet food, soaps, biodiesel and leather shoes. Sanimax provides the equipment for the collection of the cooking oil and picks up the material as required. To date, York Region has collected 1,600 L of used oil for recycling.

**ELECTION SIGN RECYCLING**

During government elections, an election sign recycling program is offered in York Region for coroplast election signs. Drop off locations may include McCleary Court Community Environmental Centre and the Georgina Transfer Station. Coroplast signs must have fasteners, wood or metal stakes and wires removed for recycling. In 2010, York Region shipped approximately nine tonnes of coroplast election signs for recycling.

DURHAM YORK  
ENERGY CENTRE



RECOVER

# Energy From Waste

Deriving beneficial use from residual waste to minimize landfill disposal

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

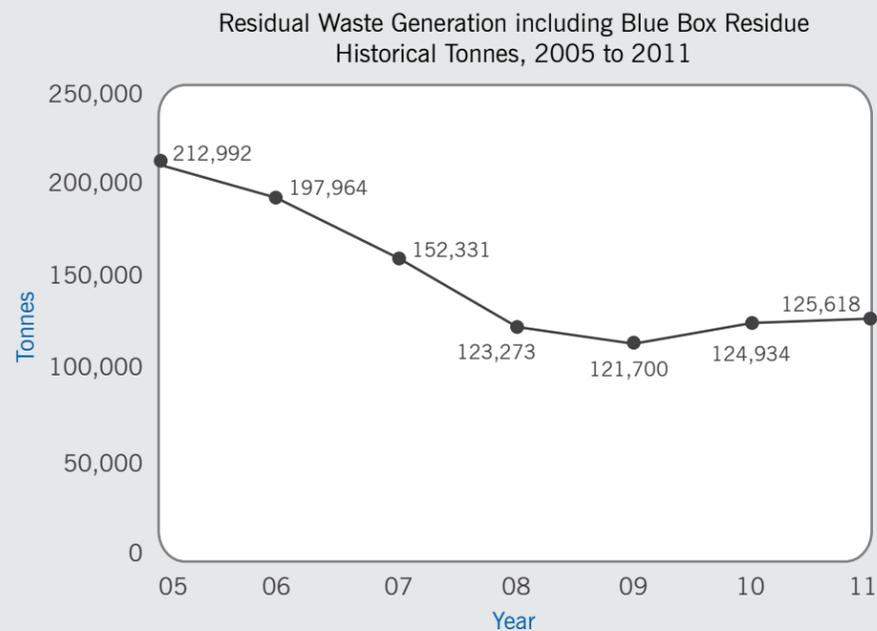
Given the success of the Blue Box and Green Bin programs in York Region, the amount of residual waste requiring management has decreased significantly over time. This historical trend and the introduction of additional reuse and reduction initiatives anticipated through the Integrated Waste Management Master Plan give us confidence that residual waste generation rates will remain steady or decrease in the future.

The Region has established a residual waste management portfolio with energy-from-waste facilities including the Dongara Pellet Plant in Vaughan, the Durham-York Energy Centre in Clarington and external contracts with additional energy from waste facilities in Ontario and the Northern United States.

These partnerships represent a sustainable approach to management of York Region's residual waste, deriving a beneficial use from our residual waste, enhancing security, diversification and stability in the long term.

For the foreseeable future, some landfill disposal of residual waste will continue to be required. York Region

has a long-term contract with the City of Toronto to dispose of residual waste at the Green Lane Landfill near London, Ontario. Additional Ontario based landfill capacity continues to be secured with Walker Brothers and Waste Management of Canada Corporation.



# Waste Promotion and Education

York Region continues to promote its waste management programs through promotion and outreach activities

Objectives of the York Region Promotion and Education programs are:

- Promote participation in waste diversion programs
- Encourage correct participation in waste diversion programs
- Ensure 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 the 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 local waste collection calendars that are produced and circulated annually or biannually and are distributed to all new residents to York Region.

The Region is recognized as a culturally diverse Region, therefore it is necessary to provide education materials in a variety of languages.

**OVER 34 DIFFERENT EVENTS TOOK PLACE IN 2011 INCLUDING:**

- Special electronic equipment drop-off events were held and promoted throughout the year
- Continued promotion of the McCleary Court Community Environmental Centre through print advertising, radio promotion, events and mobile signs throughout the year
- Created a six-minute educational video to be used as a supplement for school education programming
- Promoted newly expanded hours at the HHW depots through print advertising, brochures and public outreach methods
- Continued to promote the Household Hazardous Waste program through commercials airing on Rogers TV and brochure distribution
- York Works, distributed to over 250,000 households in the Region, featured information on the Green Bin program, Community Environmental Centres, Household Hazardous Waste and electronics, reuse and an Energy from Waste update.

**ELECTRONIC LOOK UP TOOLS DEVELOPED TO ASSIST RESIDENTS WITH MANAGING WASTE MATERIALS**

In an effort to assist residents with managing their waste materials, the City of Vaughan developed an electronic look-up tool that was made available on their website ([www.vaughan.ca](http://www.vaughan.ca)). York Region has also developed the *Bin-dicator* tool that was launched in 2011 ([www.york.ca](http://www.york.ca)). These tools allow residents to type in specific materials and results are provided that inform residents on the most appropriate location for this waste to be managed.



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