

Clause 3 in Report No. 10 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on May 21, 2015.

3

2014 Annual Diversion Report and SM4RT Living Integrated
Waste Management Master Plan Update

Committee of the Whole recommends:

1. Receipt of the presentation by Lindsay Milne, Program Manager, Solid Waste and Diversion and Dave Gordon, Manager, Sustainable Waste Management, Environmental Services.
2. Adoption of the following recommendation contained in the report dated May 1, 2015 from the Commissioner of Environmental Services:

1. Recommendation

It is recommended that:

1. The Regional Clerk circulate this report to Clerks of local municipalities and to the Ministry of the Environment and Climate Change to satisfy the Durham York Energy Centre Environmental Assessment condition for diversion reporting.

2. Purpose

This report updates Council on the 2014 Annual Diversion Report and the first year of implementation of the SM4RT Living Integrated Waste Management Master Plan.

3. Background

Together with its local municipal partners, York Region's Blue Box and Green Bin programs are amongst the most successful in Ontario

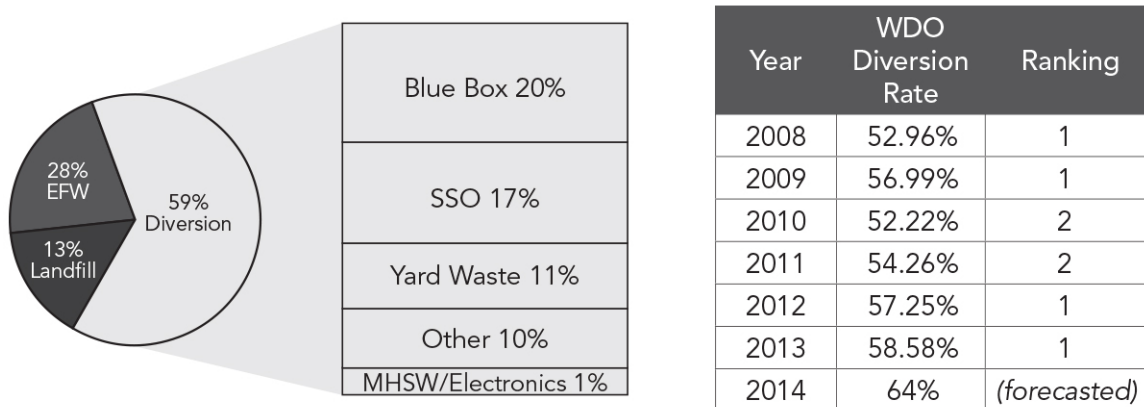
York Region and its local municipalities have consistently ranked at the top of the Waste Diversion Ontario (WDO) Diversion Rate in the Large Urban category over the last several years. The 2014 forecasted WDO diversion from landfill rate after curbside collection, calculated in accordance with Waste Diversion Ontario requirements is 64 per cent. York Region continues to advocate for quicker turnaround times on confirmation of diversion rates by WDO.

York Region's waste diversion monitoring is consistent with the WDO annual municipal datacall that gathers information on residential materials diverted and disposed by Ontario municipalities. York Region residents should be commended for their engagement in the Blue Box and Green Bin programs, reaching upwards of 80 per cent participation for both programs.

York Region ranks first in the Large Urban category with a 2013 WDO Diversion Rate of 58.58 per cent

As seen in Figure 1, York Region continues to be a leader in waste management with a 2013 WDO Diversion Rate of 58.58 per cent, ranking first in the Large Urban category and fourth overall in the province. WDO notified York Region of the 2013 ranking result on February 26, 2015.

Figure 1
York Region 2013 WDO Diversion Rate
and Municipal Ranking in the Large Urban Category



Annual Diversion Report satisfies the Durham York Energy Centre Environmental Assessment condition for reporting

The attached 2014 Annual Diversion Report summarizes York Region's integrated waste management system. To satisfy the Durham York Energy Centre Environmental Assessment condition for diversion reporting, the Report is required to be submitted to the Ministry of the Environment and Climate Change by November 3, 2015. The Report will also be posted on the Region's website www.york.ca/waste by the end of May 2015, ahead of the required schedule.

Key findings in the 2014 Annual Diversion Report include:

- 64 per cent (WDO verification pending) Waste Diversion Ontario rate (which does not recognize energy-from-waste as diversion from landfill)
- 85 per cent York Region diversion from landfill, including energy derived from waste management
- \$6.9 million revenue generated from sale of blue box recyclables goes to reserves and offsets tax levy

Table 1 is a summary of 2014 tonnages as reported in the 2014 Annual Diversion Report.

Table 1
2014 Tonnage Summary

Material Stream	Tonnage
Residual Waste	124,011
Blue Box	87,645
Organics	94,700
Yard Waste	52,457
Household Hazardous Waste / Electronics	2,531
Other (clean fill, textiles, wood waste, scrap metal)	4,930

York Region, in partnership with its local municipalities, continues to strive for innovative solutions and continuous improvement of waste management services to meet the needs of our growing population, currently over 1.1 million residents.

SM4RT Living Plan Balanced Scorecard will provide annual review of progress on implementation of the Plan

The SM4RT Living Plan Balanced Scorecard, comprised of new metrics on key elements of the waste management system and updates on SM4RT Living Plan priority initiatives is included as an insert in the 2014 Annual Diversion Report. This scorecard will be produced annually to update progress on the SM4RT Living Plan. York Region and its local municipal partners have an implementation plan for the first five years of the SM4RT Living Plan. At the end of that period, as is consistent with other Regional Master Plans, a review of the SM4RT Living Plan will examine and evaluate the success and recalibrate priorities as appropriate for the next five year period.

4. Analysis and Options

The SM4RT Living Plan identified 32 priority initiatives to be implemented in the first five years. In 2014, the Region and its local municipal partners initiated 12 of those initiatives as presented in the attached Balanced Scorecard.

The following sections highlight a few of the initiatives that required significant resources and collaboration amongst Regional and local municipal staff. These initiatives include reducing food waste, promoting reuse, achieving Gold 3R Certified Accreditation for the York Region Administrative Centre and developing new curbside metrics for tracking progress on implementation.

Curbside diversion metric included in SM4RT Living Plan
Balanced Scorecard to track participation in local municipal
curbside collection programs

Curbside diversion tracks the composition of waste placed at the curb by
residents in each municipality in the Region. This metric measures the level of
participation in single family curbside programs, a significant component of the
overall waste management system. Table 2 displays 2014 curbside diversion
rates by local municipality:

Table 2
Curbside Diversion Rates by Local Municipality

Local Municipality	2014 Curbside Diversion Rate
Town of Aurora	67%
Town of East Gwillimbury	72%
Town of Georgina	65%
Township of King	70%
City of Markham	80%
Town of Newmarket	69%
Town of Richmond Hill	75%
City of Vaughan	70%
Town of Whitchurch-Stouffville	67%

The Scorecard also reports WDO diversion rate, which takes into account
contamination in the diversion streams and captures efficiency at the Waste
Management Centre. The curbside and WDO diversion rates will help inform
decisions and influence continuous improvement efforts in promotion and
education, as well as collection and processing efficiency.

Baseline measurement of food waste patterns in York Region
informs Plan for awareness campaign

The SM4RT Living Plan identified food waste as the biggest opportunity to drive
waste reduction in the system over the long term. In 2014, the Region began
planning a campaign to inspire residents to reduce food waste. Baseline
information on the amount of food waste generated by households in the Region
was collected through a new waste audit protocol that separates avoidable
(uneaten leftovers, spoiled produce, meats and dairy) from unavoidable (peels,
cores) food waste. A four season curbside audit using these new categories was
completed in 2014. Results indicate 34 per cent of material in the green bin is

avoidable food waste. Over 50 per cent of the avoidable food waste comes from fruits and vegetables that spoiled before they could be consumed.

Resident focus groups indicated that thinking about food generates many different feelings and attitudes

A dominant theme revealed in resident focus groups is the connection between food, health and family. Food waste ranked very low as a concern amongst respondents while health ranked the highest. Most believe they don't generate a lot of food waste and underestimate the amount of food they throw out in their green bin. The statistics around food waste as a whole also evoked some strong negative emotions that conflicted with positive feelings residents had around using their green bin. This baseline research guided development of the Good Food campaign, which focuses on the combination of good food, good health and family meals. By placing a greater emphasis on valuing and appreciating good food and eating healthier, the campaign is anticipated to resonate with residents and more successfully influence food purchasing and cooking choices.

Food waste reduction is an expected outcome of this campaign. Behaviours promoted through the Good Food campaign such as meal planning, shopping with a list and safe food storage improve health, reduce stress and allow more family time while reducing food waste.

The Good Food Campaign is a three year program, launched in March 2015

The Good Food campaign is planned to run for three years, with fresh content added regularly to reinforce key messages on meal planning, shopping with a list and using leftovers. Some examples include posters in public spaces and bus shelters as well as public transit bus and waste vehicle ads. Weekly meal planning in the home is promoted through reusable lunch kits and a meal planner kit, including a reusable fridge/surface decal. The campaign will employ both traditional promotional tactics and social media tools to reach and engage residents on an ongoing basis.

Good Food campaign developed in collaboration with Community and Health Services

Campaign messaging and tools were developed in collaboration with York Region's Community and Health Services department. In particular, involvement came from two Public Health Branch programs. The Health Protection Division's Food Safety Program incorporated food safety messaging into the campaign as part of their mandate to prevent food-borne illness in the community. Emphasis was placed on safely using leftovers, understanding best before dates and using proper food storage in order to safely reduce food waste. Healthy Living Division's Nutrition Services as part of their mandate to promote healthy eating

practices incorporated food and nutrition messaging. The messaging complemented the Nutrition Services' Cook Up Some Fun! campaign, promoting the many benefits of planning, shopping, cooking and eating together for families with children.

Together with Environmental Services, Public Health Branch staff participated in planning the campaign, developing campaign messaging, staging and distributing campaign materials to partners and contacts. On-going roll out of the campaign is supported by both departments. Campaign metrics and food waste audits will track impact and evaluate success.

Collaboration with other municipalities, food retailers and community groups broadens reach of Good Food campaign

Widespread community support is crucial to successfully reducing food waste. In 2014, York Region staff identified an opportunity and began building a collaborative of organizations with an interest in reducing food waste. Other municipalities, provincial government agencies, food retailers, farmers, food processors and community food organizations attended the first meeting of the Southern Ontario Food Collaborative, held in November 2014. In 2015, members will be working towards developing common key messaging for food waste reduction, exploring collaborative projects and advocating for change in policy to support food waste reduction.

Retailers participating in Food Collaborative began selling 'imperfect produce' to reduce waste and raise awareness

A topic discussed at the Southern Ontario Food Collaborative was the opportunity for food retailers to sell "imperfect" produce as a means of reducing food waste. Perceptions about consumer expectations of perfect produce means many undersized, misshapen or slightly blemished items never make it to the store shelves even though they are perfectly edible. Loblaws, one of the participants in the Collaborative meeting, recently announced they will sell 'imperfect' produce in their stores in Ontario and Quebec at a 30 per cent discount to keep these items out of the waste stream and raise awareness of food waste issues. This announcement has garnered considerable press for Loblaws and drawn attention to the amount of produce going to waste because it does not meet aesthetic standards for sale in stores. With plans to continue hosting the Southern Ontario Food Collaborative, Loblaws' recent announcement will help drive more discussion on changing consumer expectations about produce appearance versus quality to support food waste reduction.

Upgraded Bindicator Waste Search tool includes over 200 drop-off locations for a wide range of items from expired pharmaceuticals to used clothing to household batteries

In 2014, the Region upgraded the Bindicator, its online support tool to help residents identify the correct disposal/recycling options for household items. In the past, options were limited to curbside programs and depots operated by the Region or its local municipal partners. The upgraded tool includes community-based drop-off locations operated by charities and businesses throughout the Region, providing residents with many convenient places to take household items they no longer need.

The SM4RT Living Plan recognizes many community-based organizations have a mandate to promote reuse or recycling of household goods. Through collaborative projects, the Region and its local municipal partners support these groups to increase capacity for reuse in our community.

York Region committed to leading the way by achieving Gold status under the Recycling Council of Ontario's 3R Certification program

Throughout SM4RT Living Plan consultations, residents and stakeholders expressed a desire to see consistent waste management programs at home, at work and at school. The Plan recommended voluntary approaches to encourage and recognize excellence in waste reduction and diversion in non-residential settings.

York Region committed to leading the way by achieving Gold status under the Recycling Council of Ontario's 3R Certification program. York Region's Administrative Centre is the first municipal building in Canada to earn Gold Certification under this recognition program for excellence in waste reduction and diversion in the commercial sector. York Region's experiences can be shared with other organizations seeking to improve their sustainability in waste management.

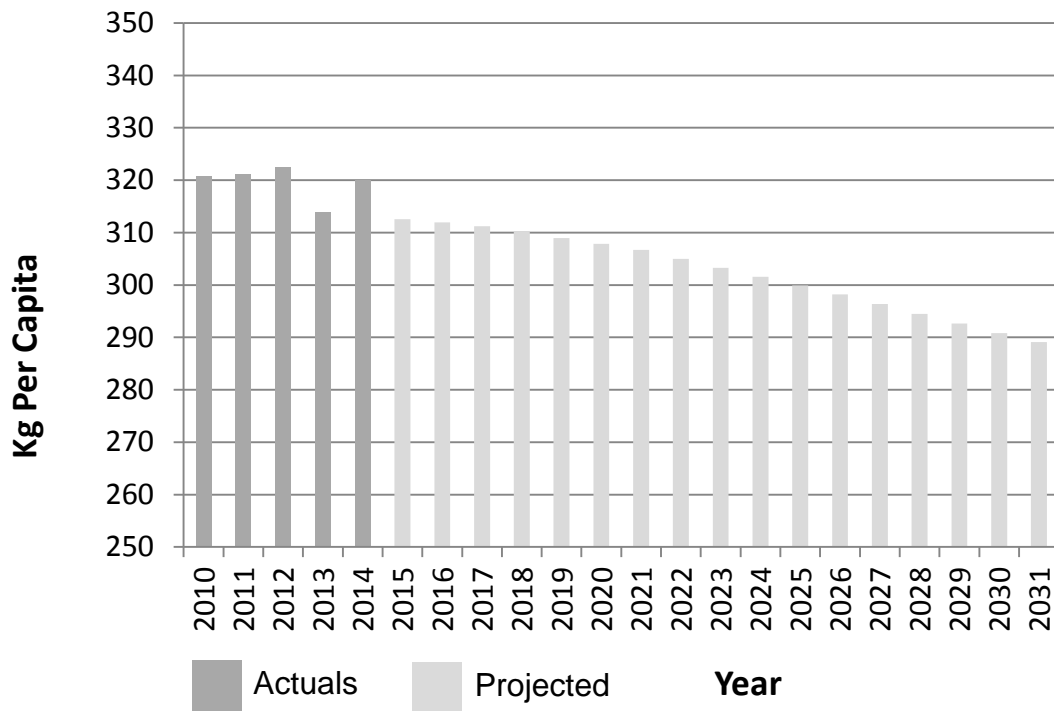
New metrics reflect focus on waste reduction and system efficiency

New metrics are needed to capture progress towards the reduction and reuse targets established in the SM4RT Living Plan to track and evaluate the overall performance of waste management services.

Waste generation per capita will be reported on as a key performance indicator for waste reduction efforts. The 2014 average is 320 kg per capita. Figure 2 shows the trend over the last five years and projections out to 2031. Many factors

can influence the waste generation rate, specifically yard waste can vary significantly from year to year. The ice storm at the end of 2013 resulted in a 30 per cent increase in yard waste and a higher waste generation rate in 2014. 2010-2011 also saw higher-than-normal yard waste generation, due to tree cutting as a result of the Asian Long Horn Beetle. In 2011, the Elgin Mills Community Environmental Centre opened its doors, resulting in increased capture of electronics, scrap metal and other divertible materials as well as more residual waste as residents used the site to clear out stockpiled household waste.

Figure 2
Waste Generation Per Capita
2010-2014 Actuals and Projections to 2031



The SM4RT Living Plan is targeting a downward trend in waste generation as more initiatives are implemented. This projection is based on projected population growth and estimated impact of reduction and reuse programs rolled out over the life of the plan. The 2031 target for waste generation is 289 kg per capita. Actuals will be used to review and revise projections over time.

Estimated cost for waste management per household will allow tracking of avoided costs achieved as a result of implementing waste reduction strategies and system improvements. The estimated cost for waste management per household in 2014 was \$217.

5. Link to key Council-approved plans

The SM4RT Living Integrated Waste Management Master Plan is linked to and consistent with other Regional strategies. As part of the process of developing this Plan, staff identified linkages and common deliverables between the SM4RT Living Integrated Waste Management Master Plan and the following plans:

- Vision 2051
- 2015 to 2019 Strategic Plan

Specifically, the Plan supports the following strategic objective from the 2015 to 2019 Strategic Plan of “Optimizing critical infrastructure systems capacity.”

6. Financial Implications

Implementing SM4RT Living Plan achieves demand reduction and offsets projected increased costs of waste management services

The cost of delivering waste management services will continue to increase with inflation as well as growth and budget pressures. The SM4RT Living Plan’s implementation is forecasted to offset this increase and provide an overall avoided future cost of approximately \$22 per homeowner in 2031. These avoided costs are realized through tonnage reductions and the associated lower requirement for waste processing and disposal. Costs associated with processing diversion materials and residual waste for 2014 are summarized in Table 3.

Table 3
2014 Cost per Tonne Summary

Stream	Cost Per Tonne
Residual Waste	\$109
Diversion	\$166

2014 Annual Diversion Report and
SM4RT Living Integrated Waste Management Master Plan Update

As the Plan is implemented, cost projections will be updated based on actual waste generation and processing costs as well as changes in funding availability. Costs associated with new waste management infrastructure and services to accommodate growth are not currently eligible for funding from development charges. The Province is reviewing possible amendments to the Development Charges Act (1997) that may alter funding eligibility of waste diversion costs in the future. If this occurs, the Plan's projections will be updated to include this new potential revenue to offset growth-related costs. The Balanced Scorecard metric "Estimated cost for waste management per household" will be updated annually to track progress.

The first five years of implementation (2014-2018) of the SM4RT Living Plan is projected to cumulatively cost approximately \$3 million, which includes pilot projects and evaluation; research and data collection; and promotion and education. Funding for the 2015 projects is included in the approved 2015 budget. The initial investment in the first five years and sustained investment over the life of the Plan is projected to begin a net positive return on investment by 2018. By 2031, the plan is projected to yield approximately \$62 million in cost avoidance to the Region and its local municipal partners.

7. Local Municipal Impact

Implementation of the SM4RT Living Integrated Waste Management Master Plan is a collaborative effort that enables local autonomy

The SM4RT Living Plan strikes a balance that provides for continued local autonomy, while supporting common objectives and work already underway in each community. In 2014, local municipal partners led or collaborated on a number of pilot projects in their communities.

City of Vaughan and York Region collaborated with two local community partners to establish composting systems at community gardens in Vaughan.

Town of Richmond Hill is updating its development standards for new multi-residential buildings to include SM4RT Living recommendations for dedicated space for new diversion and reuse programs. The Town of Richmond Hill and City of Markham have worked with building managers to implement waste electrical and electronic equipment (WEEE) collection in multi-residential buildings.

City of Markham worked with York Region and the Marleigh Retirement Residence to install and monitor an in-vessel composting system to manage the building's food waste.

2014 Annual Diversion Report and
SM4RT Living Integrated Waste Management Master Plan Update

Town of East Gwillimbury partnered with York Region and a local community group to host a Repair Café, where household items are repaired by skilled volunteers.

Local Municipalities committed to leading pilots and sharing outcomes over the next five years

Figure 3 lists the local municipal initiatives to be explored over the first five years of the SM4RT Living Plan implementation. Outcomes of these initiatives and pilots carried out by local municipalities are shared through regular meetings of the Strategic Waste Policy Committee. Representatives from all nine local municipalities and York Region participate in this committee to work collaboratively on business planning, share data and lessons learned from projects.

Figure 3
Local Municipal Projects 2014-2018



- Servicing Multi-Residential Sector – Exploring Vacuum System Collection
- Waste Electronics and Electrical Equipment Collection in Multi-Residential Buildings
- Recycling Bins at Community Mailboxes
- Clear Bag Garbage Collection
- Updated Development Standards for Waste Management
- Textile Collection in Multi-Residential Buildings
- Zero Waste in Schools Program
- Collect Data for Multi-Residential Program Development – Multi-Residential Working Group



- Waste Electronics and Electrical Equipment Collection in Multi-Residential Buildings
- Updated Development Standards for Waste Management
- Food Waste/Municipal Campaign ads on Collection Vehicles
- Textile Collection in Multi-Residential Buildings
- Composting Pilots at Community Gardens
- Collect Data for Multi-Residential Program Development – Multi-Residential Working Group
- Three Stream Collection at Public Events



- Updated Development Standards for Waste Management
- Three Stream Collection at Public Events
- Waste Audits in Multi-Residential Buildings
- Food Waste/Municipal Campaign ads on Collection Vehicles
- Pilot Zero Waste in Schools program
- Collect Data for Multi-Residential Program Development – Multi-Residential Working Group
- Textile Collection in Multi-Residential Buildings
- Waste Electronics and Electrical Equipment Collection in Multi-Residential Buildings
- Recycling Bins at Community Mailboxes



- Investigate Adoption of Model Development Standards for Waste Management
- Three Stream Collection at Public Events
- Curbside 'Swap' Events and Data Collection
- Food Waste/Municipal Campaign ads on Collection Vehicles
- Pilot Zero Waste in Schools program
- Pilot Curbside Textile Collection
- Clear Bag Garbage Collection (Town of Aurora, Township of King)
- Collect Data for Multi-Residential Program Development – Multi-Residential Working Group
- Backyard Composting Campaign
- Composting Pilots at Community Gardens
- Recycling Bins at Community Mailboxes (Town of Newmarket)

8. Conclusion

SM4RT Living Integrated Waste Management Master Plan directs waste reduction and reuse over the next 40 years, resulting in cost avoidance and sustainable waste management

The SM4RT Living Integrated Waste Management Master Plan will be updated every four years to coincide with terms of Council, with the first update in 2018/2019. The Balanced Scorecard will be presented annually as an insert in the Annual Diversion Report to provide an update on the progress of implementation.

The five year SM4RT Living Plan focuses on piloting priority initiatives and evaluating potential to drive long-term performance improvements.

For more information on this report, please contact Laura McDowell, Director, Environmental Promotion and Protection at ext.75077.

The Senior Management Group has reviewed this report.

May 1, 2015

Attachment (2014 Annual Diversion Report/SM4RT Living Balanced Scorecard 2014)

#6089014

Accessible formats or communication supports are available upon request

PARTNERSHIPS DRIVING

reduction
reuse
recycling
recovery



The Regional Municipality of York
2014 Annual Diversion Report





partnership

York Region and its nine local municipal partners plan and deliver sustainable waste reduction, diversion and disposal programs. York Region's SM4RT Living Integrated Waste Management Master Plan (SM4RT Living Plan) supports collaboration and innovation through local partnerships.

This alliance includes community engagement, which will continue to build important partnerships during implementation of the SM4RT Living Plan.



A kitchen scene featuring a red bowl at the top, a yellow pepper on the right, and several red tomatoes and green lettuce on the left, all resting on a light-colored marble countertop. A white text box is centered over the image.

reduce

Waste reduction requires a change in beliefs, values, practices and attitudes to ultimately result in behaviour change. Over the next 25 to 40 years, a continued focus on waste reduction will extend the life of existing infrastructure and result in significant cost avoidance over the long term. This will be achieved through public education and outreach efforts on waste reduction including the food waste reduction strategy. Packaging reduction efforts will continue through municipal advocacy groups such as the Regional Public Works Commissioners of Ontario, the Association of Municipalities of Ontario and the Municipal Waste Association.





reuse

A community partnership with Goodwill Industries at York Region's two Community Environmental Centres encourages diversion of reusable household items from disposal. Reusable goods collected at these centres are distributed for resale at Goodwill retail stores. A variety of opportunities exist to increase reuse and repair in the community through partnership-based initiatives with non-profit organizations interested in promoting reuse activities. The SM4RT Living Plan will focus on expanding reuse opportunities for residents across York Region. In 2014, the Town of East Gwillimbury partnered with York Region and a local community group to host a community Repair Café, where household items were repaired by skilled volunteers.





recycle

Recyclables collected through local municipal Blue Box Programs are processed at York Region's Waste Management Centre located in the Town of East Gwillimbury. Blue box materials are separated into their individual commodities and sent to end markets, where they are recycled into new products. In 2014, a new mixed paper clean-up system was installed at the Waste Management Centre to prevent flattened containers from entering the paper stream. This upgrade has increased the capture of misdirected containers by up to 90 per cent, thereby optimizing recovery, recycling and revenue. The Waste Management Centre is owned by York Region and operated under contract by Miller Waste Systems.





recover

The Durham York Energy Centre is an energy-from-waste facility 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, of which York Region will contribute 30,000 tonnes. Heat generated by waste combustion will be used to generate electricity; recyclable metals will also be recovered.

York Region continues to be a leader in sustainable waste management. The Durham York Energy Centre is the first energy-from-waste facility to be constructed in the Province of Ontario in 22 years. It was designed, built and will be operated by Covanta Durham York Renewable Energy Limited Partnership. This facility is being commissioned and is scheduled to be operational by Q2 2015.



At-a-Glance

York Region and our local municipal partners plan, finance and deliver sustainable waste management programs and infrastructure

York Region covers 1,776 square kilometres of land and is comprised of nine local municipalities: the Towns of Aurora, East Gwillimbury, Georgina, Newmarket, Richmond Hill and Whitchurch-Stouffville, the Township of King, and the Cities of Markham and Vaughan.

Curbside collection of blue box, green bin, yard waste and garbage is managed by York Region’s local municipal partners. These materials are delivered to York Region facilities for processing, energy recovery and/or disposal by external contractors. Regional and municipal depots offer waste diversion opportunities in addition to regular curbside collection.

York Region’s solid waste management infrastructure includes:

- Waste Management Centre – material recovery facility to process blue box recyclables and transfer station for organics and garbage
- McCleary Court Community Environmental Centre
- Elgin Mills Community Environmental Centre
- Georgina Transfer Station – includes recycling and a household hazardous waste depot
- East Gwillimbury Household Hazardous Waste and Recycling Depot
- Household Hazardous Waste Depots in the Town of Georgina and the Cities of Markham and Vaughan
- Durham York Energy Centre scheduled to be operational by Q2 2015

- Partnerships with private contractors for processing organics and yard waste, as well as processing and disposal of residual waste



ESTIMATES SUGGEST:

- In 2031 there will be 1.5 million people living in York Region
- 180 per cent growth is projected in multi-residential development in York Region over the next 40 years
- York Region will achieve an annual reduction of approximately 8,700 tonnes of waste through reuse of materials by 2031



Quick Facts

In 2014, York Region and our local municipalities diverted 64 per cent* of collected materials from disposal

64%*

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2014 Waste Diversion Ontario (WDO) diversion from landfill after curbside collection.

*2014 diversion data presented is unverified by WDO at time of printing.

85%

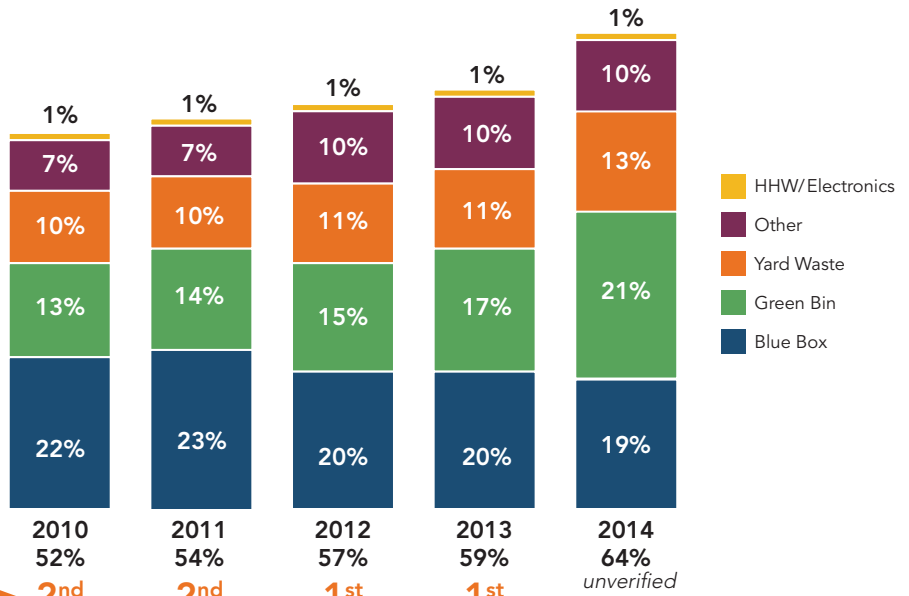
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2014 diversion from landfill including energy-from-waste management.

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.

- **1,144,760 (2014):** York Region's population (estimated)
- **229,168:** York Region single family residences (estimated)
- **44,496:** Apartments (estimated)
- **87,645 tonnes:** Blue box material processed
- **\$6.9 million:** Revenue generated from sale of blue box recyclables
- **94,700 tonnes:** Green bin material collected
- **52,457 tonnes:** Yard material collected curbside and at public drop-off areas
- **4,930 tonnes:** 'Other diversion,' including tires, textiles, wood waste, scrap metal and other diversion
- **2,531 tonnes:** Household hazardous waste (HHW) and waste electronics and electrical equipment collected at depots
- **124,011 tonnes:** Residual garbage collected

Annual Waste Diversion 2010 to 2014



Waste Diversion Ontario Ranking for Large Urban Municipalities

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



Partnerships for Success

York Region and municipal partners work collaboratively to provide integrated waste management services

In 2014, York Region residents generated 320 kilograms of waste per person.

COLLECTION

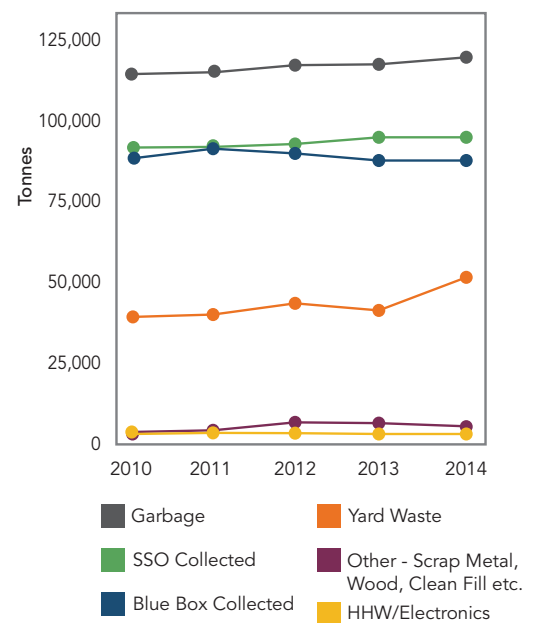
In York Region, recycling and organics are collected every week, while residual waste (garbage) is collected every other week. Three-stream waste collection is overseen by our local municipal partners. Each of the local municipalities implement some form of pay-as-you throw program, bag limit system and/or clear bag program to target waste reduction in single family households as a means to increase diversion. In addition, the City of Markham and Town of Richmond Hill have implemented three-stream waste collection in some multi-residential buildings.

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 either through the municipality or directly with the waste management collection company.

In addition to curbside collection services, some local municipalities offer community waste reduction initiatives such as:

- Environment days and waste reduction week events
- Public recycling/reuse depots
- Special electronic waste collection days, mulch giveaways and community reuse events
- Three-stream waste collection in public spaces, municipal offices and schools
- Pilot programs for re-use, organics and electronics collection in multi-residential buildings

Residential Tonnes Collected, 2010 to 2014



Material Type	2010	2011	2012	2013	2014
Garbage Collected	115,420	116,235	119,648	120,260	124,011
SSO Collected	91,680	91,685	92,260	94,591	94,700
Blue Box Collected	88,395	90,948	89,488	87,879	87,645
Yard Waste	39,230	40,155	43,688	40,486	52,457
Other - Scrap Metal, Tires	2,864	4,053	6,657	6,297	4,930
HHW and Electronics	3,125	3,077	3,007	2,629	2,531

*values in tonnes



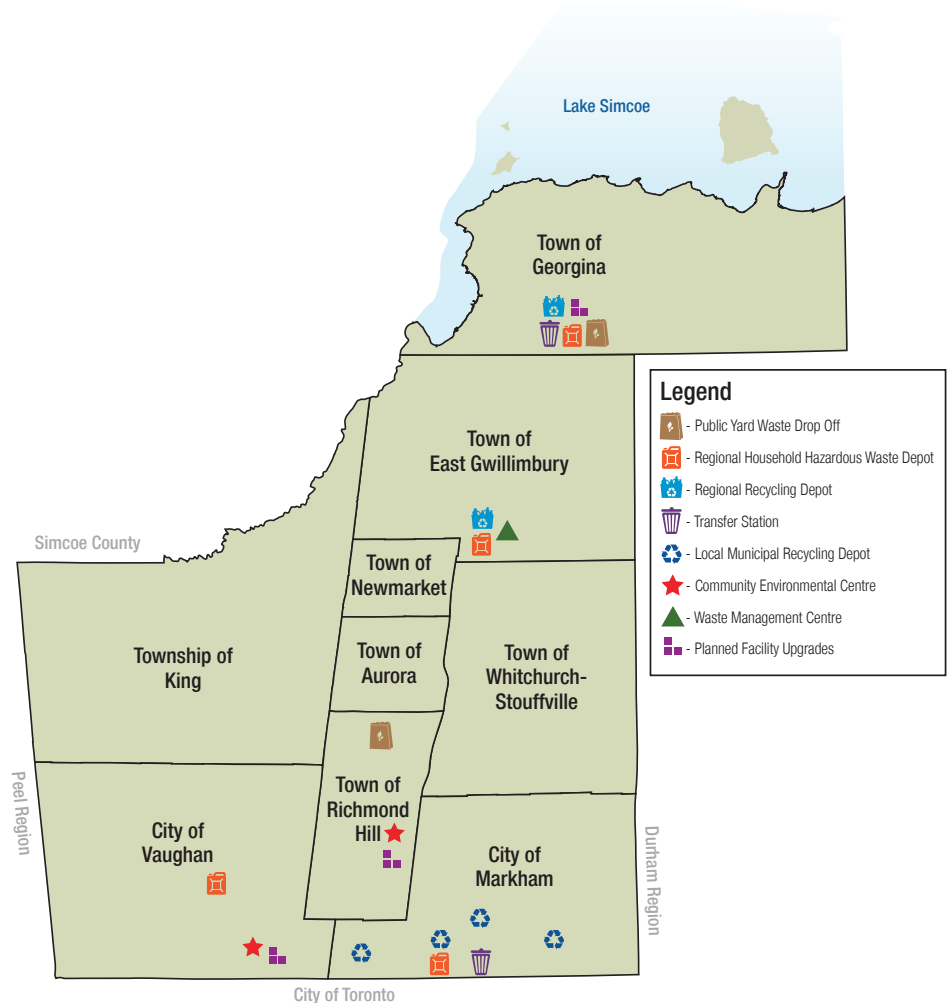
PROCESSING

Following collection, the processing of recyclables, organics, yard waste and residual waste is handled by York Region. This is accomplished through a combination of Regional blue box processing, external contracts for treatment of organics and yard waste, and energy-from-waste recovery and landfill disposal for residual waste.

DISPOSAL

Within the Region's 4R hierarchy (reduce, reuse, recycle, recover), the preferred disposal destination is energy-from-waste to receive the benefit of capturing energy from residual waste. Landfill disposal remains the last option for managing Regional materials, once all other diversion options have been exhausted. Landfill is also needed for bulky materials that are not suitable for energy-from-waste processing.

York Region Waste Management Facility Locations






























Joint Waste Management Summary

2014 Curbside Collection





















2014 Diversion Initiatives

Municipality	Alternating Week Bag Collection Limit (Cost per Tag) ¹	Weekly Blue Box and Green Bin Collection	Yard Waste Collection (Frequency)	White Goods Collection Cost Per Item	Bulky Item Collection Cost Per Item	Multi-residential Collection	Other Initiatives
Aurora	 (No tags)		 (18/year)	 (No fee)	 (No fee)	<ul style="list-style-type: none"> • 21 buildings receive weekly municipal garbage and recycling collection • Recycling is collected from carts • Formal waste management development standards in place 	<ul style="list-style-type: none"> • Aurora to ban the disposal of batteries in the garbage effective January 1, 2015
East Gwillimbury	 (No tags)		 (18/year)	 (No fee)	 (No fee)		<ul style="list-style-type: none"> • Nine municipal facilities receive garbage, recycling and organics collection • Appliance recycling collection by appointment • In 2014, East Gwillimbury hosted an e-waste recycling collection event
Georgina	 (\$1, limit 5 items)		 (17/year)	 (\$1 bag tag)	 (\$1 bag tag)	<ul style="list-style-type: none"> • 23 buildings receive weekly municipal garbage collection • One of 23 buildings receive biweekly municipal recycling collection • Five of 23 buildings receive bi-weekly municipal collection of recycling and organics • Formal waste management development standards in place 	<ul style="list-style-type: none"> • In 2014, Georgina hosted four e-waste recycling events and six Curbside Giveaway Days • Town facilities receive municipal recycling collection from carts
King	 (\$1, limit 5 items)		 (17/year)	 (\$20.50 + hst)	 (\$10 + hst)		<ul style="list-style-type: none"> • King plans to host seven Curbside Giveaway Days in 2015
Markham	 (No tags)		 (18/year)	 (\$11)	 (No fee)	<ul style="list-style-type: none"> • 101 buildings receive weekly municipal garbage and recycling collection • 65 of 91 buildings receive weekly municipal organics collection • Mandatory tri-sorters required in all new buildings • Mandatory internal storage of all containers 	<ul style="list-style-type: none"> • Preparing a Feasibility Study for an Automated Vacuum Collection (AVAC) System



2014 Curbside Collection

2014 Diversion Initiatives

Municipality	Alternating Week Bag Collection Limit (Cost per Tag) ¹	Weekly Blue Box and Green Bin Collection	Yard Waste Collection (Frequency)	White Goods Collection Cost Per Item	Bulky Item Collection Cost Per Item	Multi-residential Collection	Other Initiatives
Newmarket	 (5 tags for \$12, 6 item limit)		 (17/year)	 (\$12)	 (\$12)	<ul style="list-style-type: none"> • 24 buildings receive weekly municipal garbage and recycling collection • Recyclables collected from carts 	<ul style="list-style-type: none"> • In 2014, Newmarket hosted four Curbside Giveaway Days
Richmond Hill	 (\$2, 3 item limit, includes bulky items)		 (21/year)	 (No fee)	 (No fee)	<ul style="list-style-type: none"> • 84 buildings receive weekly municipal garbage and recycling collection • 40 of 84 buildings receive weekly municipal organics collection • 28 of 84 buildings have an electronics recycling program in place • Appliance recycling available 	<ul style="list-style-type: none"> • Plans to implement three-stream recycling and organics program in municipal buildings including libraries, arenas and community centres
Vaughan	 (10 tags for \$11, 4 double up days)		 (25/year) ²	 (\$27)	 (No fee)	<ul style="list-style-type: none"> • 53 buildings receive weekly municipal garbage and recycling collection • Recyclables collected from carts and garbage from bulk bins • Since 2007 all new buildings receive private collection services • Formal waste management development standards in place 	<ul style="list-style-type: none"> • Joint education campaign with York Region to promote electronics and textile recycling in multi-residential buildings
Whitchurch-Stouffville	 (\$2)		 (17/year)	 (No fee)	 (No fee)	<ul style="list-style-type: none"> • Eight buildings receive weekly municipal garbage collection • Six of eight buildings receive weekly municipal collection of recyclables from carts • Bulky items and appliances collected by appointment 	

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



Community Environmental Centres

Convenient drop-off depots offer access to reuse, recycling and disposal

York Region's two Community Environmental Centres (CECs), McCleary Court in the City of Vaughan and Elgin Mills in the Town of Richmond Hill, provide York Region residents and small businesses with two convenient locations to drop off a variety of materials, including those that are not picked up during regular curbside collection.

Materials accepted include reusable goods such as clothing, housewares, books, textiles, electronics, home furnishings, appliances and collectibles for resale by local charities. York Region has partnered with Goodwill Industries to operate and staff the on-site reuse buildings.

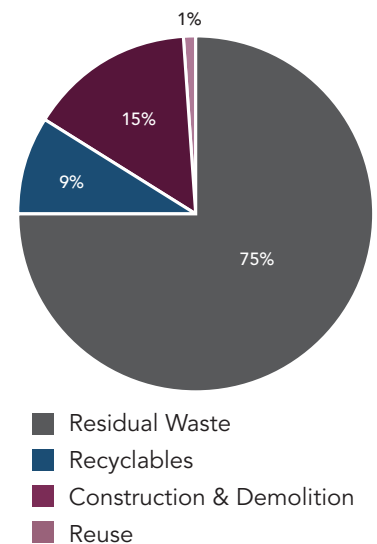
Bulky recyclables, construction and demolition materials are also accepted at the CECs, while all other items that cannot be diverted are safely disposed as residual waste.

In 2014 a total of 20,351 tonnes of material were collected at the CECs:

- Goodwill and Habitat for Humanity collected 267 tonnes of reuse materials (one per cent)
- Blue box, shredded paper, electronics, tires, scrap metal, polystyrene and cooking oil accounted for 1,808 tonnes (nine per cent)
- Construction and demolition materials, including wood, drywall, concrete and rubble represented 3,073 tonnes (15 per cent)
- Residual waste was 15,203 tonnes (75 per cent)

In 2015, York Region will upgrade the CECs to include introducing weigh scales and weight-based fees and adding household hazardous waste drop-off facilities. The weight-based fees will help offset the actual cost of material management and drive cost recovery for higher cost recyclables like construction and demolition materials. Adding household hazardous waste drop-off facilities at the CECs will truly make these facilities a one-stop location for York Region residents.

Percent Composition of Materials at Elgin Mills and McCleary Court Community Environmental Centres, 2014



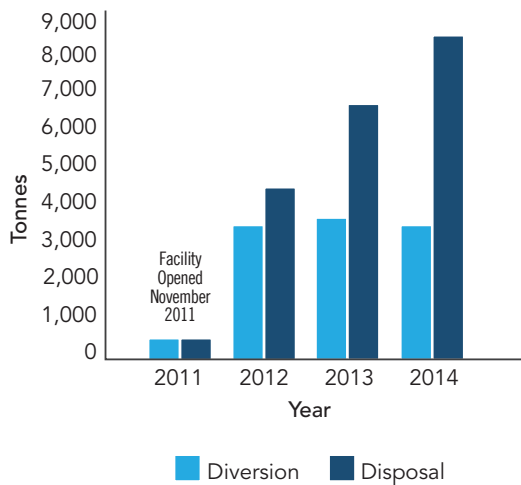
Did you know?



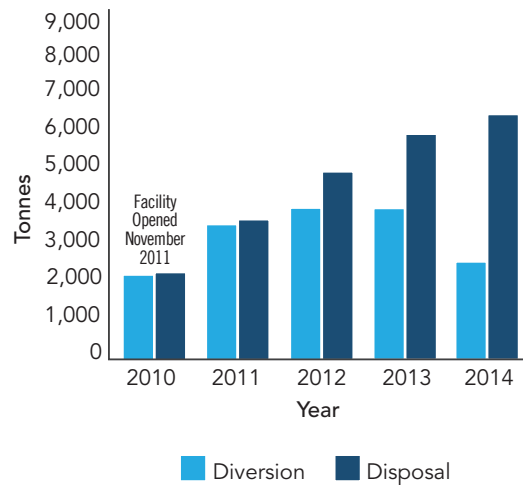
The CECs represent five and a half per cent of the overall waste tonnage managed by the Region.



Elgin Mills Community Environmental Centre
Diversion and Disposal Tonnes, 2011 to 2014

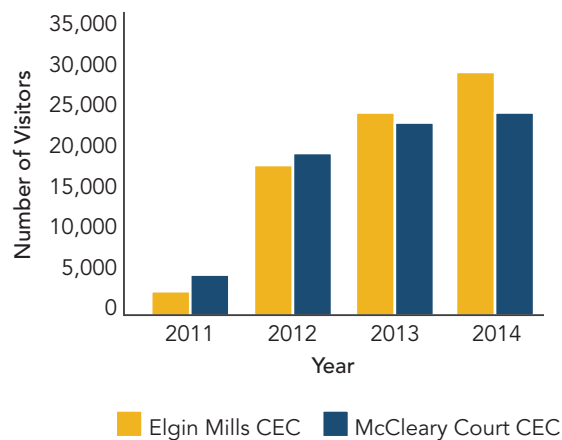


McCleary Court Community Environmental Centre
Diversion and Disposal Tonnes, 2010 to 2014



The amount of waste disposed at the CECs has increased over time, which can be attributed to the increase in CEC usage. In 2014, the number of visitors at Elgin Mills CEC increased by 20 per cent over 2013.

Visits to Elgin Mills and McCleary Court
Community Environmental Centres, 2011 to 2014





Blue Box

Turning blue box materials into recyclable commodities is an important component of York Region’s diversion strategy

Following processing, blue box materials are separated into individual commodities and shipped to markets domestically and internationally for conversion into new products. Participation in the blue box program results in creation of new products using recyclable materials, saving both energy and resources by avoiding extraction and depletion of natural resources. York Region residents should be commended for their participation in the Blue Box Program, which is among the highest in the Greater Toronto Area.

Ontario’s Blue Box Program is delivered by municipalities. Funding is shared among producers who manufacture and sell the products that end up in the blue box. Producers contribute approximately 50 per cent of Blue Box Program costs to ensure their products and packaging are properly managed and recycled by the Region and our municipal partners. The remaining blue box costs are borne by municipalities.

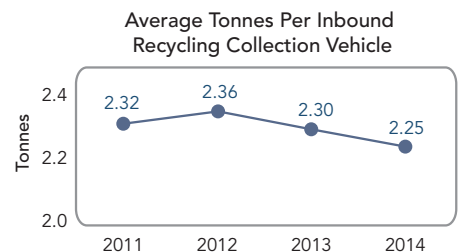
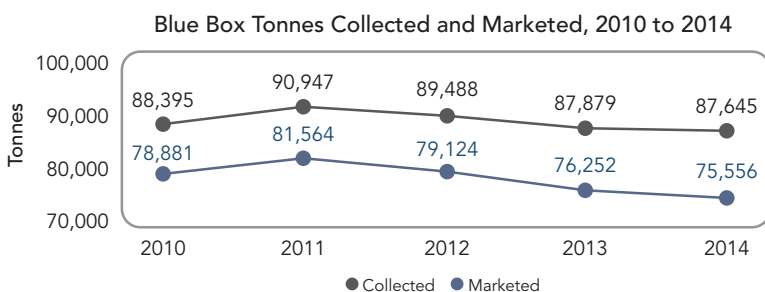
In May 2014, Ontario municipalities and producers, represented by Stewardship Ontario, went into arbitration to determine the steward obligation for 2014 after a negotiated agreement could not be achieved. On November 25, 2014, the arbitrator confirmed the 2014 steward obligation should be based on the municipally reported Datacall, which was verified by Waste Diversion Ontario (WDO) and demonstrated reasonable costs. Municipalities were awarded \$115.2 million, the full amount sought in the arbitration with producers.

In 2014, the blue box made up 19 per cent of the total materials collected and processed in York Region. Despite population growth, total tonnes collected and marketed remain relatively unchanged, while the volume of materials has increased. This is mainly due to changing composition of blue box materials. There is an increase in lightweight and high volume materials such as plastic and polycoat like juice

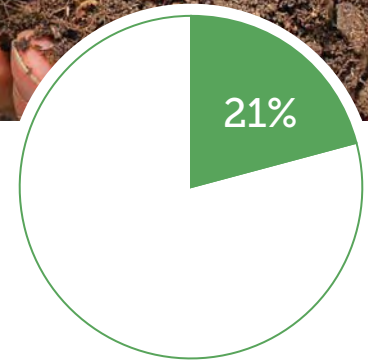
boxes and a decrease in the heavier, dense materials like glass and printed paper.

Upgrades at York Region’s Waste Management Centre have improved the contamination separation process, creating end-market recyclables that are high in quality and value. York Region’s Waste Management Centre provides sufficient blue box processing capacity to address continued population growth, improved promotional efforts, new materials in the waste stream and expansion of recycling services to multi-residential dwellings.

York Region takes a multi-faceted approach to waste diversion through our award-winning promotion and education campaigns that address subjects such as decreasing contamination in the blue box. Blue box audits indicate the top three contaminants are newspapers in plastic bags, non-recyclable plastics and materials packed inside one another such as unseparated boxes.



The chart above indicates that the average amount of recycling tonnes collected per truck is reducing over time, while actual tonnages remain relatively unchanged.



Organic Waste

Organics processing is a key component of waste diversion

Processing of organic waste into compost currently represents one-third of the Region's overall diversion achievement. In 2014, York Region residents generated approximately 94,700 tonnes of source separated organics. The amount of organics collected province-wide is in line with the availability of reliable compost processing capacity. Operational issues and odour problems often challenge the organics processing industry.

In 2014, York Region shipped 57,981 tonnes of source separated organic waste to Orgaworld in London, Ontario

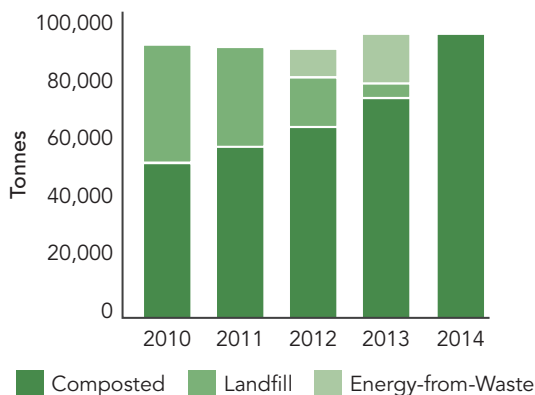
and 35,071 tonnes to Lafleche in Moose Creek, Ontario for processing. The remaining tonnes represent leachate (liquid produced from organics decomposition) and evaporation during the composting process. In 2014, 817 tonnes of leachate were managed through approved treatment facilities in Ontario and 831 tonnes were lost to evaporation.

In 2014, all collected organic material was processed into compost through securing reliable Ontario-based compost processing capacity.

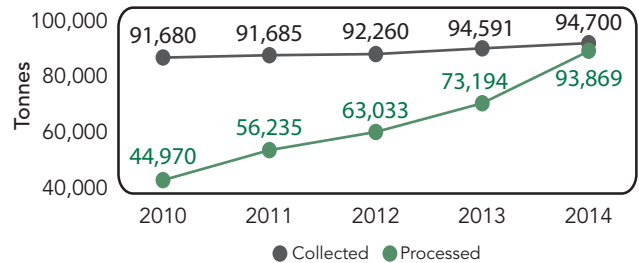
Did you know?

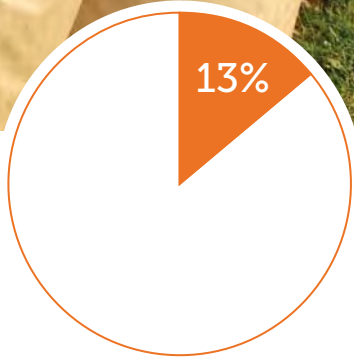
According to Statistics Canada, households throw away up to \$1,500 in food each year.

Source Separated Organics Management by destination (outbound) 2010 to 2014



Source Separated Organics Tonnes Collected and Processed, 2010 to 2014





Leaf and Yard Waste

Composted leaf and yard waste improves and enriches soil conditions

York Region’s local municipal partners offer residents a seasonal curbside leaf and yard waste collection program bi-weekly from spring to fall. Additionally, residents may drop off leaf and yard waste at two facilities in York Region – the Georgina Transfer Station and the Miller Waste Bloomington Road Facility (contracted with the Region and owned/operated by Miller Waste). All yard waste collected in the Region is processed by Miller Waste at their Bloomington Facility in the Town of Richmond Hill.

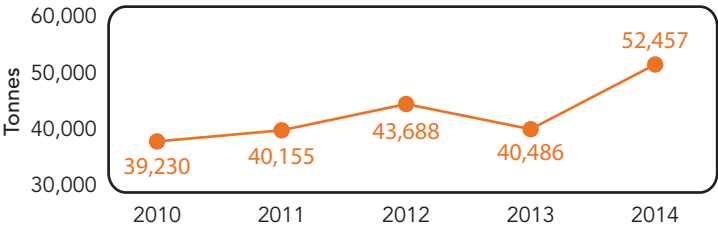
In 2014, York Region residents generated approximately 52,457 tonnes of yard waste, representing 13 per cent of the total curbside waste stream. This represents a significant increase in yard waste collected over 2013 (11 per cent). This is a result of the severe ice storm in December 2013. Ice storm clean-

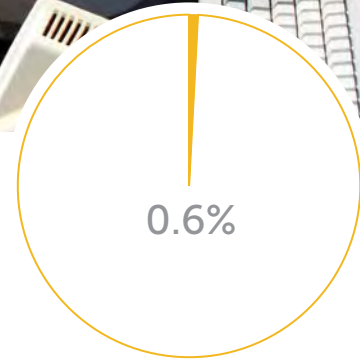
up efforts began in January 2014 and concluded in June 2014. The Province of Ontario committed to assisting municipalities affected by the ice storm by working with the federal government to fund 100 per cent of eligible recovery costs through a one-time Ice Storm Assistance Program. It is estimated York Region processed approximately 11,000 tonnes of ice storm tree debris. This does not include yard waste collected and processed by Regional and local municipal forestry staff and contracted arborists. York Region and local municipal storm-related costs were submitted at the end of 2014 to the Provincial Ice Storm Assistance Program.

EMERALD ASH BORER

The Emerald Ash Borer (EAB) was discovered in York Region in 2008. This invasive insect poses no risk to human health but kills all types of ash trees and is a significant threat to our forests and street trees. York Region Forestry has confirmed infestations in all local municipalities within the Region and is working with local municipalities, conservation authorities, the Canadian Food Inspection Agency and the Ontario Ministry of Natural Resources and Forestry to co-ordinate efforts to monitor and manage EAB’s impacts in the Region. It is anticipated yard waste tonnages will increase over the coming years as ash trees die off.

Curbside Yard Waste Tonnes Collected, 2010 to 2014





Waste Electronics

Protecting the environment through collection and proper disposal of electronic waste

York Region provides residents with a network of drop-off facilities for waste electronics, 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 in co-operation with Ontario Electronic Stewardship. Waste electrical and electronic equipment material has been designated under the *Waste Diversion Act, 2002*, and collection, processing and disposal of this material is funded by brand owners and first importers of these products.

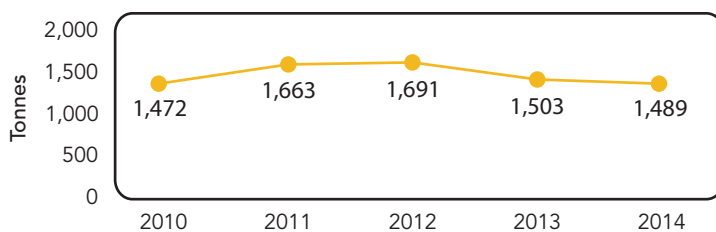
While electronic materials can contain harmful substances such as mercury, lead and cadmium, which require special handling, there are also valuable and limited resources in electronics, such as steel, copper, aluminum and other precious metals. Recycling these materials helps reduce the need for new raw materials. These components are valuable in the marketplace, resulting in service providers paying the Region for electronics collected at municipal depots.

In 2014, 1,489 tonnes of WEEE materials were collected at York Region depots. The decrease in WEEE collected at depots is a result of newer, lightweight

electronics in the marketplace coupled with the increase in WEEE community collection events and convenient retail take-back locations available to York Region residents.

In 2015, the Ontario Electronic Stewardship (OES) Program Plan will be reviewed and updated. York Region, through municipal associations including the Association of Municipalities of Ontario, the Regional Public Works Commissioners of Ontario and the Municipal Waste Association, will be providing comments on the revised plan. Of particular interest is the incentive fees OES provides for collection of their electronic waste.

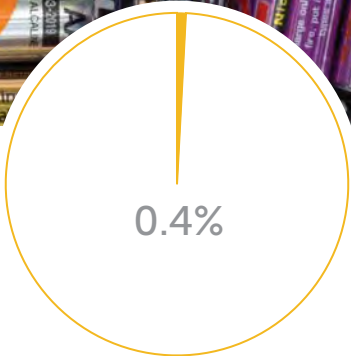
Waste Electrical and Electronic Equipment
Tonnes Collected, 2010 to 2014



Did you know?



The gold, silver and bronze medals awarded at the Vancouver 2010 Winter Games were made in part with metals recovered from waste electronics such as computers, TVs and computer keyboards. (*Recycling Council of British Columbia*)



Household Hazardous Waste (HHW)

Safely managing and diverting municipal hazardous waste to protect the environment

York Region provides a network of facilities where residents can drop off municipal hazardous or special waste. 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 the Vaughan HHW Depot into the McCleary Court CEC operation, a new HHW Depot into the Elgin Mills CEC operation and relocating the Markham HHW depot. Through specialized contract services at these locations, these materials are recycled or treated and disposed of in an environmentally responsible manner.

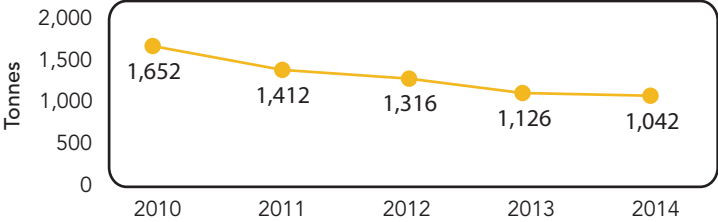
In 2014, the amount of HHW materials (1,042 tonnes) collected at Regional depots declined from previous years as retail take-back programs increased capture. Both municipal depots and retail take-back programs ensure materials are safely managed to end-of-life and divert harmful substances from landfill, waterways and forests. In addition, many of these items contain materials that can be recovered, refined and reused in manufacturing new products, reducing the need for virgin resources.

The Recycling Council of Ontario's Phase Two funding program to ensure the safe management of six types of household hazardous wastes was cancelled by the Ministry of the Environment and Climate Change on October 1, 2014. To mitigate the cancellation of the Phase Two program, plans to negotiate cost recovery agreements with producers on a voluntary basis are being considered until new waste management legislation is in place to ensure municipalities are fully compensated. Although the HHW stream is small (0.4 per cent of the total waste stream) when compared to other waste streams such as the blue box (19 per cent of the total waste stream), the cost to process HHW is high at \$424 per tonne (net of funding revenue) compared to \$64 per tonne for blue box (net of market revenue).

Did you know?

York Region's 2014 waste audits indicate residents are putting hazardous waste where it belongs. There was only 0.33 per cent of HHW found in the waste stream.

Household Hazardous Waste Tonnes Collected, 2010 to 2014





Tires, Metal, Cooking Oil and Signs

Continued diversion success with depot based recycling programs

Tire Recycling

York Region collects used tires at the Elgin Mills and McCleary Court Community Environmental Centres (CECs), as well as the Georgina Transfer Station and Recycling Depot. Residents can drop off up to four tires per visit, including car and passenger tires, heavy truck tires or farm tractor tires. These tires are recycled into new products such as rubber bricks, playground surfacing and rubber mulch. 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 the Ontario Tire Stewardship. In 2014, the Region collected 157 tonnes of tires through the CECs and Georgina Transfer Station and Recycling Depot.

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 and Recycling Depot or the Elgin Mills or McCleary Court CECs. Acceptable scrap metal items include appliances, metal sinks, bicycles and metal furniture. Refrigerated appliances containing freon must have a CFC removal sticker affixed to be eligible for recycling. CFC removal stickers can be purchased at York Region's CECs for \$20 per unit. In 2014, York Region collected 1,155 tonnes of scrap metal for recycling.

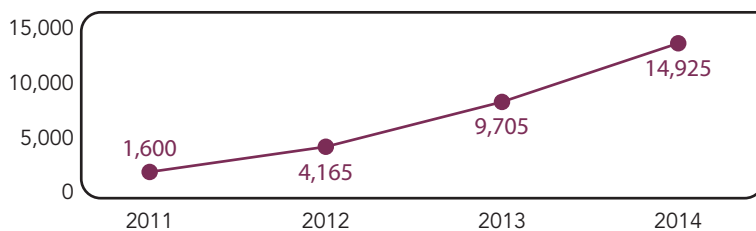
Used Cooking Oil Drop off and Recycling

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 and the Elgin Mills CEC in 2013. York Region has partnered with Sanimax, a company that collects used cooking oil and processes it into high quality materials such as soap and biodiesel fuel. In 2014, York Region collected 14,925 litres of used oil for recycling and received five cents per litre in revenue.

Election Sign Recycling

During the 2014 provincial and municipal elections, an election sign recycling program was offered in York Region for coroplast election signs. Drop-off locations included the Elgin Mills and McCleary Court CECs and the Georgina Transfer Station and Recycling Depot. In 2014, York Region collected 11.28 tonnes of coroplast election signs for recycling.

Used Cooking Oil Litres Collected at York Region Drop-Off Depots, 2011 to 2014





Residual Waste

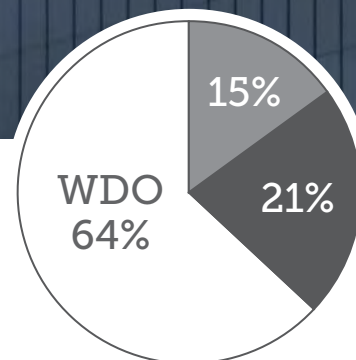
Sustainable residual management through energy recovery

York Region manages its residual waste primarily through energy recovery, with landfill disposal remaining as the final and least-preferred option. Residual waste refers to waste not captured by any of the Region's recycling programs.

In 2014, York Region shipped 81,834 tonnes of residual waste for energy recovery, with 55,799 tonnes processed at Covanta Niagara Limited Partnership in New York State and 26,035 tonnes processed at Emerald Energy in Mississauga, Ontario. The remainder was destined for the Durham York Energy Centre in Clarington; however, due to delays in construction, no residual waste was processed at this facility in 2014. Once operational in 2015, York Region will ship 30,000 tonnes of residual waste for energy recovery. Between the Durham York Energy Centre, Covanta and Emerald Energy, approximately 80 per cent of the Region's residual waste is planned for energy recovery management.

The Region has landfill contracts with Niagara Waste Landfill in Thorold, Ontario and with the City of Toronto at their Green Lane Landfill in St. Thomas, Ontario. These contracts are for the Region's bulky materials, for which diversion programs are not yet established and/or materials are not appropriate for energy recovery. Due to the delay in construction of the Durham York Energy Centre, the Region was required to landfill 53,003 tonnes of residual waste in 2014. Due to operational losses, leachate, evaporation and transfer of materials, 613 tonnes of additional residual waste was landfilled.

The residual waste management portfolio represents 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.

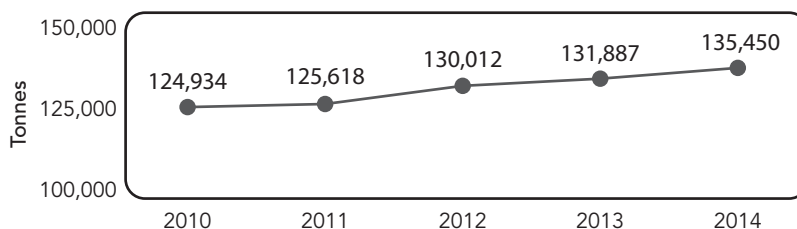


- Landfill
- EFW

Did you know?

The Durham York Energy Centre is the first energy-from-waste facility to be constructed in more than 20 years.

Residual Waste Generation including Blue Box Residue Tonnes, 2010 to 2014





Waste Promotion and Education

Award-winning promotion and outreach programs drive waste diversion

Objectives of York Region's environmental 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 actively promotes waste diversion through extensive public communication and education programs. Local municipalities also provide broad education and information through their own initiatives, including local waste collection calendars produced and distributed annually to all York Region residents.

YORK REGION PARTICIPATED IN THE FOLLOWING COMMUNITY OUTREACH INITIATIVES IN 2014:

- Attended 34 special events to distribute waste information
- Conducted 21 presentations and Waste Management Centre tours to students and community organizations, to a total of approximately 1,900 attendees
- Co-ordinated 25 Greener Home and Garden Seminars with more than 1,000 registrants; topics presented supported 4R messages, including seminars reinforcing SM4RT Living Plan, waste reduction and reuse initiatives

Did you know?

#1 In 2014, York Region received a Gold Communications Award from the Recycling Council of Ontario for the "Breakup Series" Blue Box contamination advertisements.

- Continued promotion of both the McCleary Court and Elgin Mills Community Environmental Centres through the "Take Back your Space" HHW waste campaign featuring print and online advertising, social media and magazine ads
- Continued multi-year blue box contamination campaign in an effort to educate residents on the items that do not belong in the blue box, as well as other blue box best practices
- Improved the online lookup tool called the "Bindicator" to direct residents to nearby public and York Region operated reuse, recycling and disposal locations
- Distributed short animated videos on composting and recycling programs and processes for educational purposes, to all public schools in York Region
- Co-ordinated Waste Reduction Week Open House for staff and local residents that included display booths, lunch and learn sessions and a repair café
- Co-ordinated the initial Southern Ontario Food Waste Collaborative meeting that engaged various levels of government, NGOs, large food retailers and municipalities to initiate a discussion on food waste reduction and common messaging and direction





THE REGIONAL MUNICIPALITY OF YORK
Environmental Services Department
17250 Yonge Street
Newmarket, Ontario, Canada
L3Y 6Z1

Access York 1-866-665-6752
www.york.ca



Accessible formats or communication supports are available upon request






SM4RT Living Plan

Balanced Scorecard

2014

THE SINGLE MOST
IMPORTANT INFLUENCE
THAT CAN CHANGE OUR
ENVIRONMENTAL FUTURE
IS YOU

   york.ca/sm4rtliving









YORK REGION
SM4RT LIVING
reduce • reuse • recycle • recover



Local Municipal Commitments

[2014 to 2018]

 Reduce  Reuse  Recycle  Recover

Regional Project	Local Project	Participating Municipalities	4R
 Collect Data for Multi-Residential Program Development	Multi-Residential Working Group	All municipalities	
 Explore 'Swap' Events	Curbside Swap Events	Town of East Gwillimbury, Town of Newmarket, Town of Whitchurch-Stouffville	
 Increase Composting	Backyard Composting Campaign	Town of Aurora, Town of Georgina, Township of King, Town of Newmarket, Town of Whitchurch-Stouffville	
	Composting Pilots at Community Gardens	Town of Aurora, Town of Newmarket, City of Vaughan	
 Pilot Textile Collection	Curbside Textile Collection	Town of Aurora, Town of East Gwillimbury	
	Textile Collection in Multi-Residential Buildings	City of Markham, Town of Richmond Hill, City of Vaughan	
 Plan for Growth	Clear Bag Garbage Collection	Town of Aurora, Township of King, City of Markham (already implemented)	
	Recycling Bins at Community Mailboxes	City of Markham, Town of Newmarket, Town of Richmond Hill	
	Servicing Multi-Residential Sector – Exploring Vacuum System Collection	City of Markham	
	Three-Stream Collection at Events/Public Spaces	Town of Aurora, Town of Newmarket, Town of Richmond Hill, City of Vaughan	
	Updated Development Standards	Town of Aurora, Town of East Gwillimbury, City of Markham, Town of Newmarket, Town of Richmond Hill, City of Vaughan	
 Waste Electronics and Electrical Equipment Collection in Multi-Residential Buildings		City of Markham, Town of Richmond Hill, City of Vaughan	
	Zero Waste Schools Pilot	Town of Aurora, City of Markham, Town of Richmond Hill	
 Reduce Food Waste	Food Waste/ Municipal Campaign Ads on Collection Vehicles	Town of Aurora, Town of East Gwillimbury, Town of Georgina, Township of King, Town of Newmarket, Town of Richmond Hill, City of Vaughan, Town of Whitchurch-Stouffville	

Where we've been



The Regional Municipality of York SM4RT Living Plan identifies more than 60 initiatives that set the stage for waste management in your community over the next 25 to 40 years. Starting with 32 of these initiatives within the next five years, we will focus on the 4Rs: reduce, reuse, recycle and recover.

Together, our actions will make a difference.

Local Municipalities At-A-Glance

	Town of Aurora	Town of East Gwillimbury	Town of Georgina	Township of King	City of Markham	Town of Newmarket	Town of Richmond Hill	City of Vaughan	Town of Whitchurch-Stouffville
Estimated Waste Generated Per Capita (kg) in 2014	361 kg	382 kg	385 kg	362 kg	282 kg	352 kg	310 kg	332 kg	337 kg
Blue Box Contamination (%) in 2014	16%	14%	16%	14%	19%	16%	17%	16%	13%

York Region At-A-Glance



320 kg
Estimated waste generation per capita in 2014

366,278
Tonnes of waste generated in York Region in 2014



\$217
Estimated cost for waste management per household in 2014

352,415
Estimated number of households in 2014

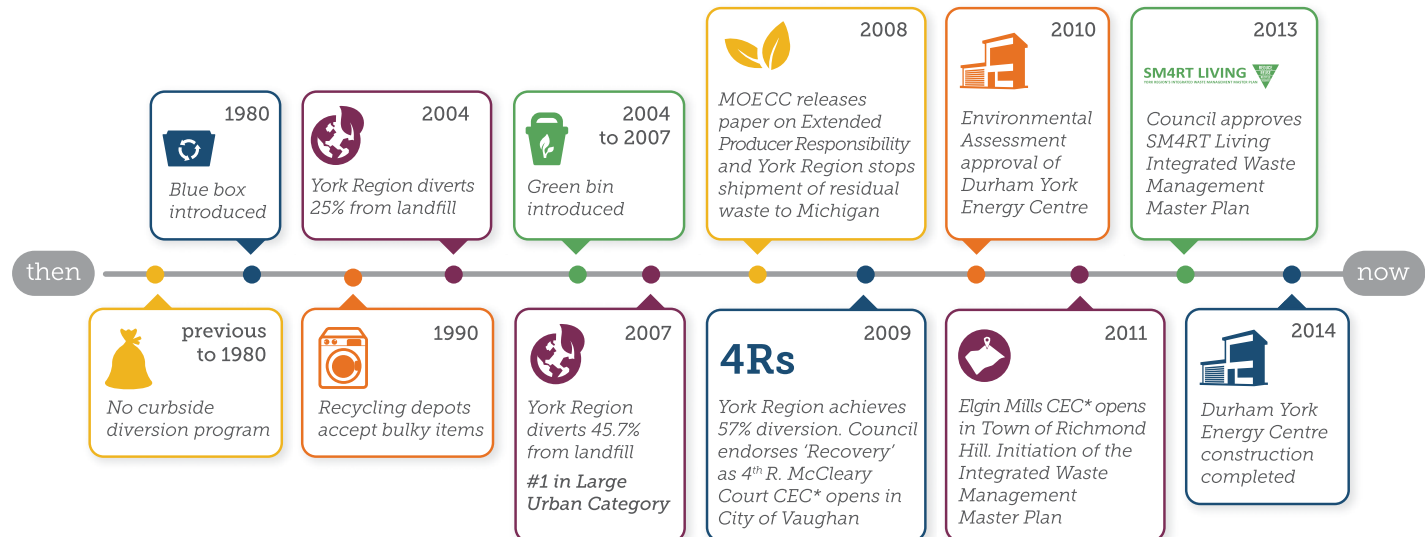


85%
2014 Diversion from Landfill

1,144,760
Estimated population in 2014



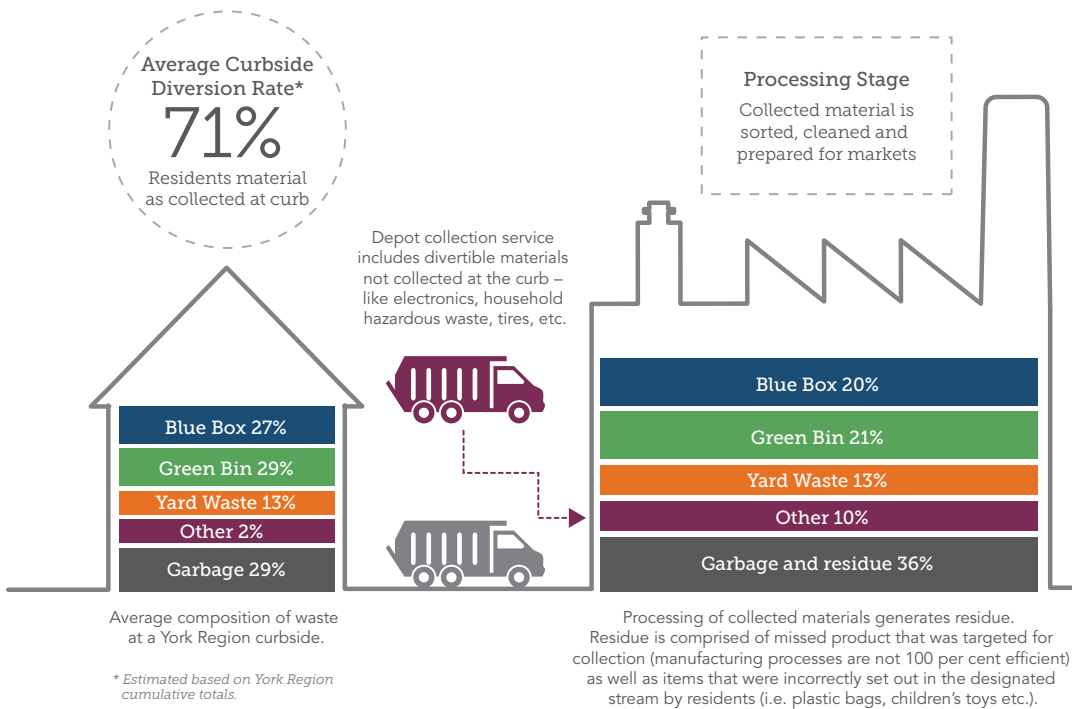
History of Waste Management in York Region:



*Community Environmental Centre

Where we are

York Region's Waste Diversion Story

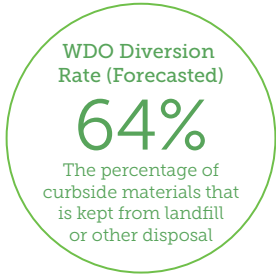


* Estimated based on York Region cumulative totals.

Did you know?



York Region ranked #1 in Waste Diversion Ontario's Large Urban Municipal Category in 2012 and 2013



Blue box 88,000 tonnes
raw material resource available to Ontario markets

Green bin 95,000 tonnes
usable compost and nutrient rich soil amendments

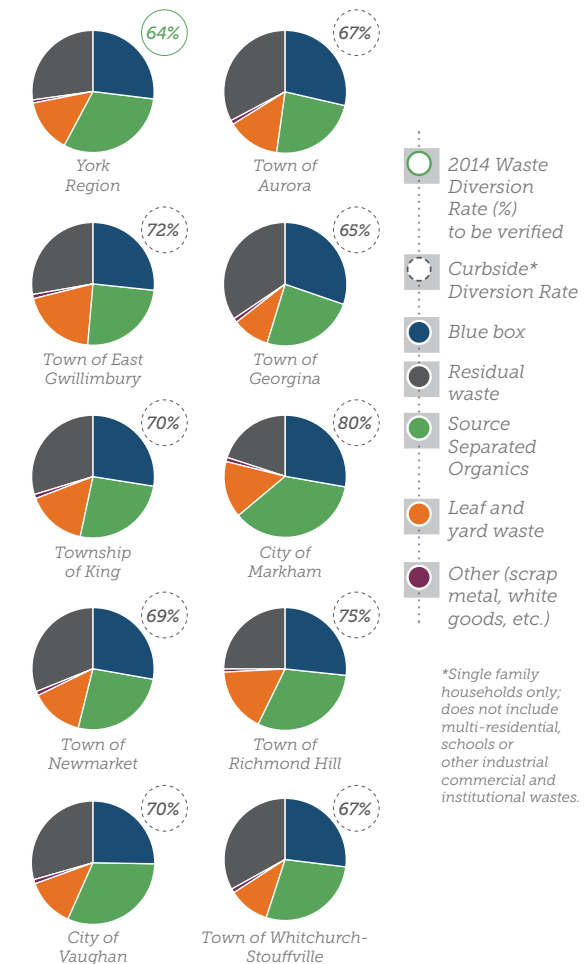
Yard waste 58,000 tonnes
mulch and compost available to residents

Other diversion 44,000 tonnes
recycled/repurposed

Garbage and residue 169,000 tonnes
to EFW or landfill

Marketing
After processing, 'waste' becomes a valuable resource or commodity available to local and international markets.

2014 Curbside Diversion and WDO Waste Diversion Rate



Accomplishments

2014 Planned Initiatives

Status

REDUCE

	Develop public education campaign for food waste reduction and research food waste patterns in York Region through audits and data collection	COMPLETE	✓
	Facilitate creation of model development standards with Town of Richmond Hill	COMPLETE	✓
	Feasibility assessment and plan for multi-residential and mixed-use food waste diversion pilot projects	COMPLETE	✓
	Complete a counter-top composter pilot	COMPLETE	✓
	Establish composting pilots in community gardens in City of Vaughan	COMPLETE	✓
	Achieve Gold 3RCertified® Accreditation for York Region Administrative Centre	COMPLETE	✓

REUSE

	Launch Bindicator 2.0 to include options for reuse in the community	COMPLETE	✓
	Collaborate with industry stakeholders on pilot for textile collection	IN PROGRESS	➡

RECYCLE

	Develop Key Performance indicators for waste management	COMPLETE	✓
	Advocate on municipal position for new waste management programming and legislation	ONGOING	🔄
	Initiate development of Regional Zero Waste Schools program model	COMPLETE	✓

OTHER

	Explore alternative financing – develop scope of work for full-cost accounting study	ONGOING	🔄
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BONUS

Initiated Southern Ontario Food Collaborative with more than 40 representatives from retailers, NGOs, academia and other levels of government



The SM4RT Living Plan combines traditional approaches and innovative, community-driven programs to maximize long-term benefits.

17 strategies
60 initiatives

60
initiatives



Where we're going

Regional Strategies [2015 to 2018]

Reduce Reuse Recycle Recover

2015 Planned Initiatives

REDUCE

- Launch Good Food campaign and track food waste patterns in York Region through audits and data collection
- Continue to facilitate adoption of model development standards with local municipalities
- Monitor and evaluate composting pilots at community gardens in City of Vaughan and initiate backyard composting project with Town of Aurora
- Investigate Green Procurement Strategies at York Region

REUSE

- NEW!** Investigate feasibility of swap events
- Collaborate with industry stakeholders on pilot for textile collection

RECYCLE

- NEW!** Multi-residential working group and data collection
- NEW!** Assess material volume data at applicable multi-residential buildings
- NEW!** Preliminary evaluation of long term options for source separated organics
- Continue development of new metrics and balanced scorecard for waste management
- Advocate for change – sustainable packaging compatible with municipal recycling systems
- Secure local municipal partner to implement Regional Zero Waste Schools model in 2016

OTHER

- Explore alternative financing – initiate full-cost accounting study

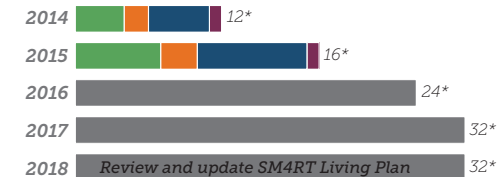
SM4RT Living Priorities – 1st Five Years

17 Strategies

32 Initiatives

	Reduce food waste	2
	On-site and backyard composting	2
	Investigate green procurement opportunities	4
	Textile collection	1
	Swap events	4
	Investigate attitudes around reuse	1
	Tool sharing	1
	Advocate for change	1
	Plan for growth	3
	Multi-residential data collection and program development	4
	External funding for blue box	2
	Plan for new organics processing capacity	1
	Long term CEC and depot strategy	2
	Plan for future residual processing facility capacity	1
	Policy development for EFW*	1
	Plan for EFW* expansion *Energy-from-waste	1
	Explore alternative financing	1

SM4RT Living Implementation Progress



*Number of initiatives underway

For more information about this document please contact:
Environmental Promotion and Protection
Environmental Services Department
Access York: 1-866-665-6752
May 2015
eDocs Reference No. 5754260

YORK REGION
SMART LIVING
reduce · reuse · recycle · recover





2014 Annual Diversion Report and SM4RT Living Plan Update

Presentation to
Committee of the Whole

David Gordon and Lindsay Milne

May 14, 2015

Overview

1. Annual Diversion Report



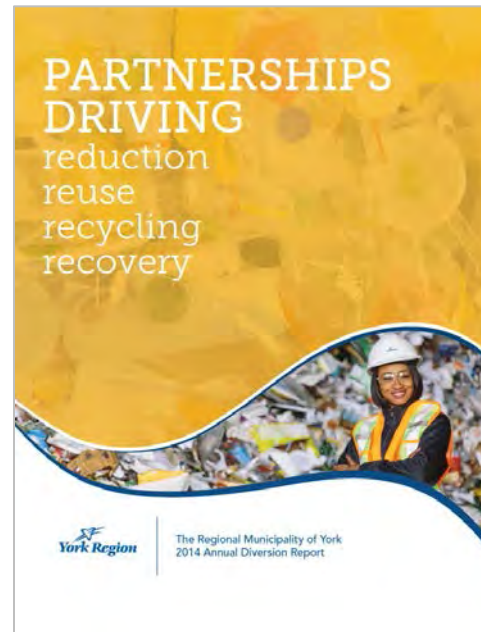
2. SM4RT Living Plan Update



3. Working Example - Food Waste Reduction Strategy

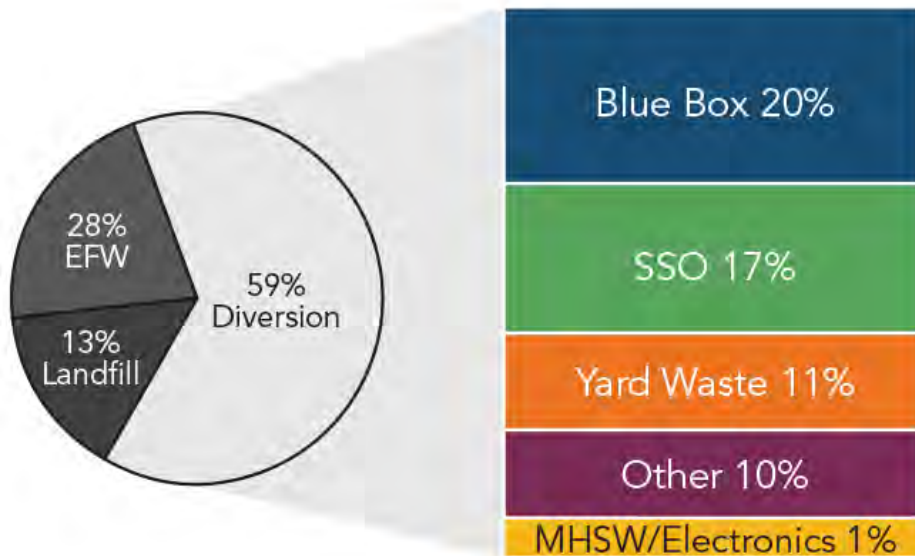


Annual Diversion Report requirement of Durham York Energy Centre Environmental Assessment



Report demonstrates high performing integrated waste management system delivered by the Region and its local municipal partners

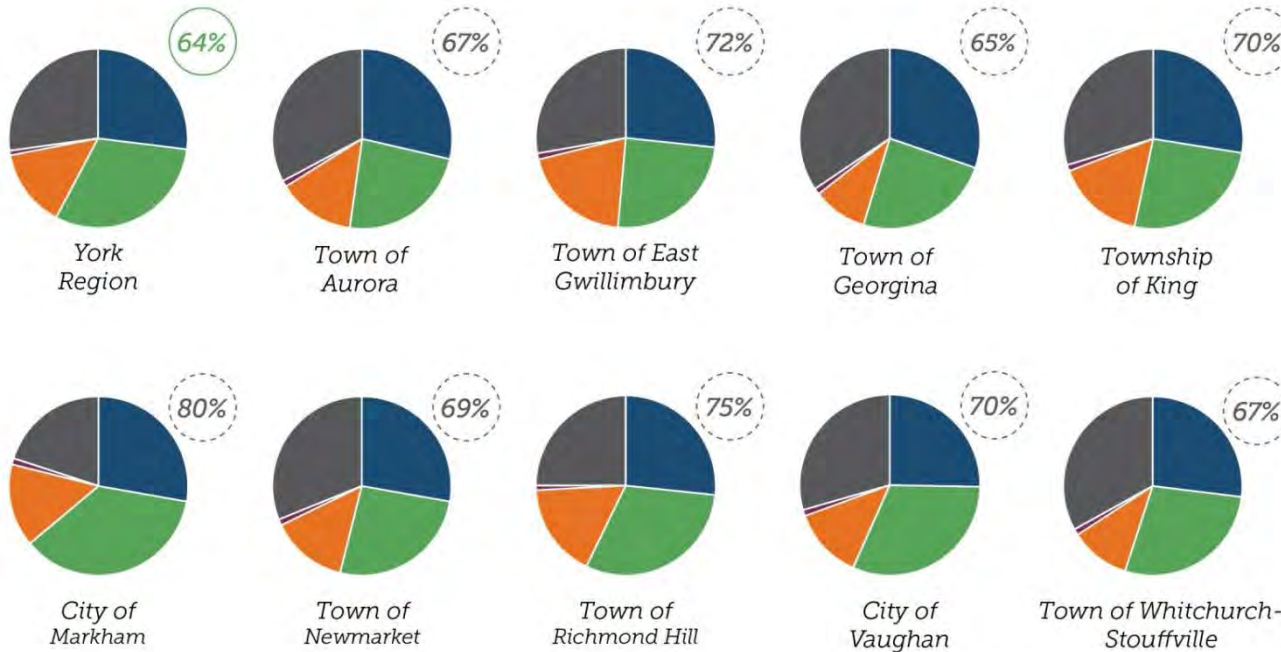
York Region ranks first in Large Urban category for 2013



Year	WDO Diversion Rate	Ranking
2008	52.96%	1
2009	56.99%	1
2010	52.22%	2
2011	54.26%	2
2012	57.25%	1
2013	58.58%	1
2014	64%	(forecasted)

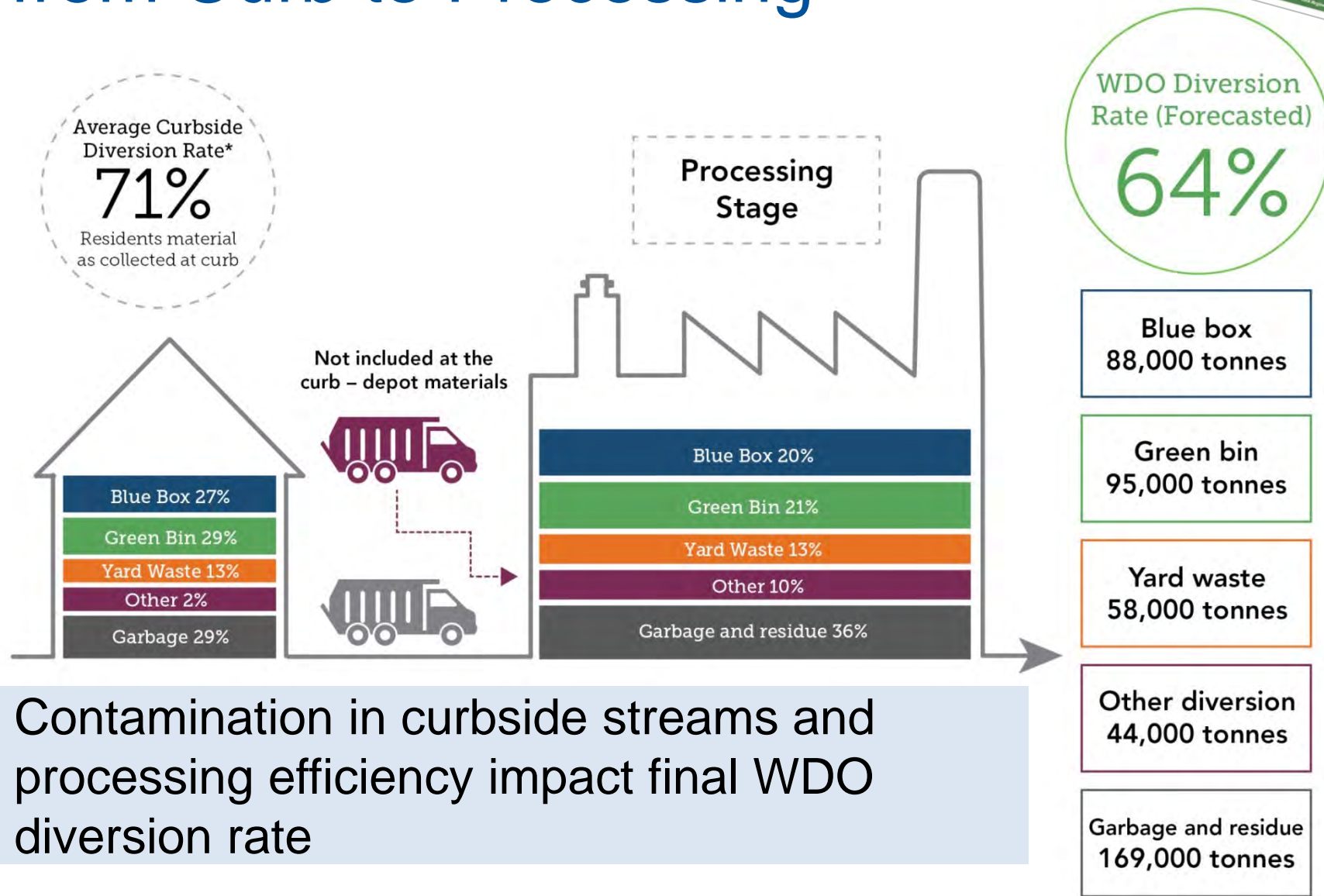
York Region diverted 87% of waste from landfill, including material sent to energy-from-waste facilities

Curbside diversion reflects efforts of residents to divert waste from landfill



Metric demonstrates strong participation in local municipal collection programs

2014 System Diversion Schematic from Curb to Processing



Working together to maximize diversion



- Blue Box audits
- Promotion and education linkages
- Collection contract enforcement
- MRF efficiency audits
- MRF upgrades
 - Improved mixed paper sorting

Collaboration with local municipal partners on contamination issues improves system performance

Council endorses SM4RT Living Integrated Waste Management Master Plan in 2013

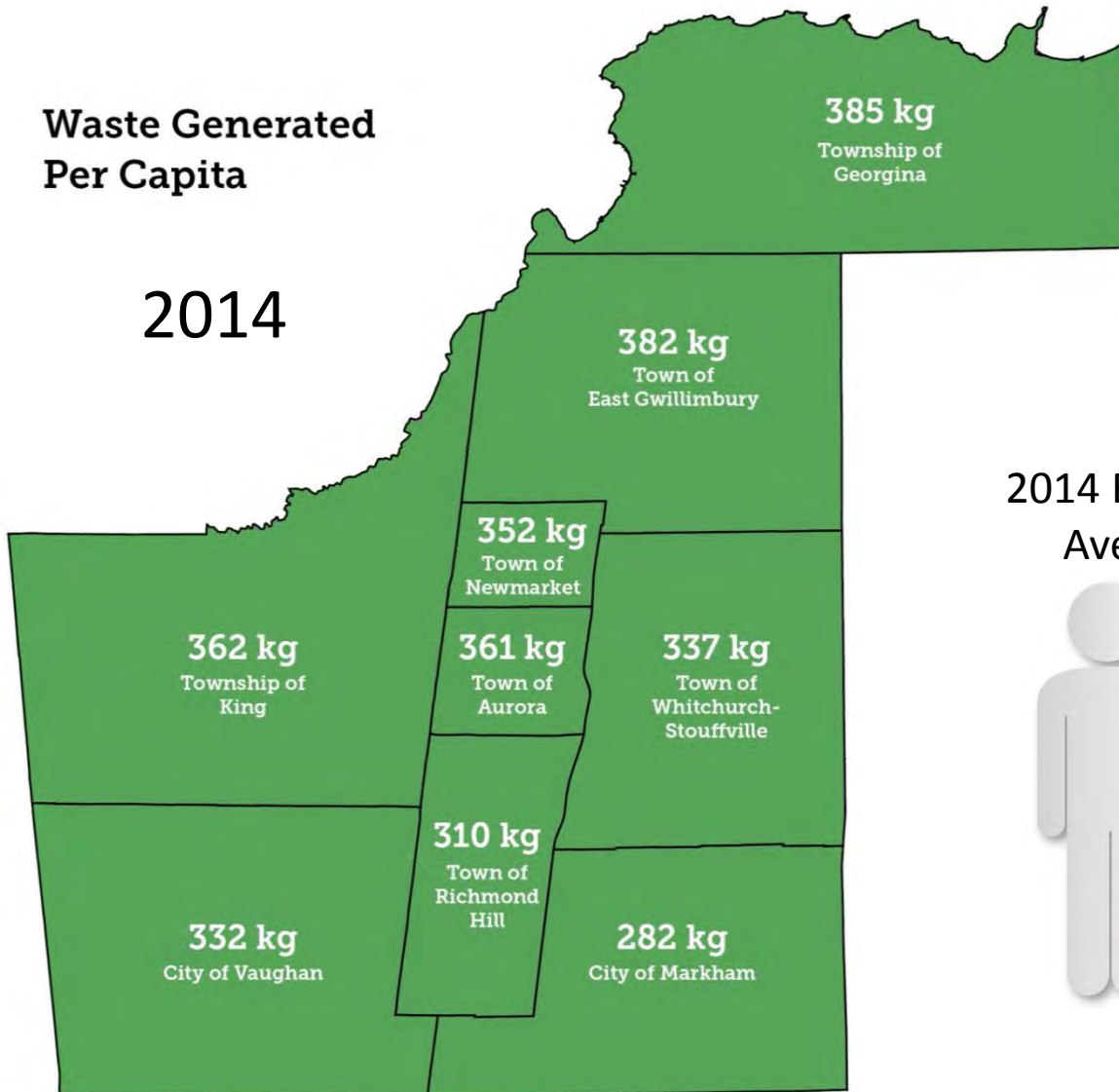


2014 was first year of implementing SM4RT Living Plan

New metric measures progress on waste reduction



Waste Generated Per Capita



Waste Generation per capita tracks success of reduction efforts

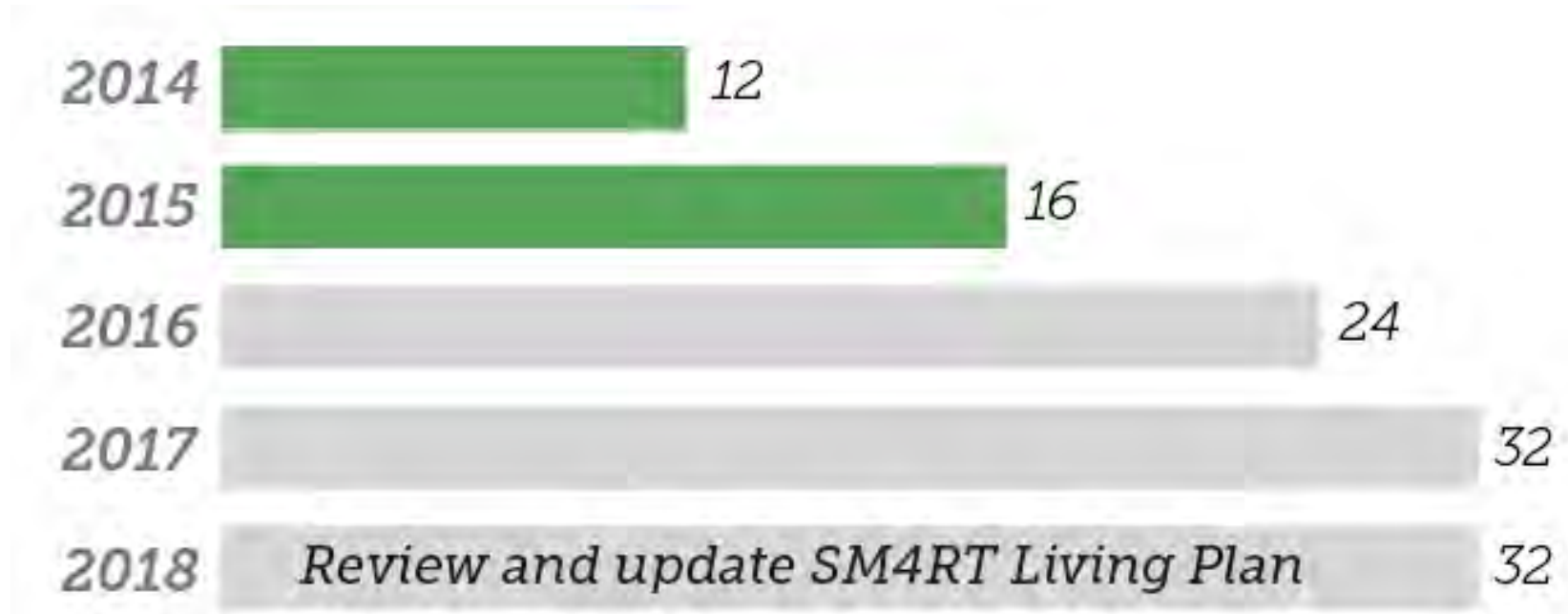
2014 Regional Average



2031 Target



32 Initiatives in First Five Years



Five year implementation plan pilots priority initiatives to assess their long term performance potential

2014 Accomplishments tracked in balanced scorecard



- Bindicator updated with over 200 community reuse/recycling locations and a mapping tool



- York Region Admin Centre achieves Gold 3RCertified accreditation



- Composting in Community Gardens

Region and its local municipal partners delivered 12 initiatives in 2014

2014 Local Municipal Initiatives

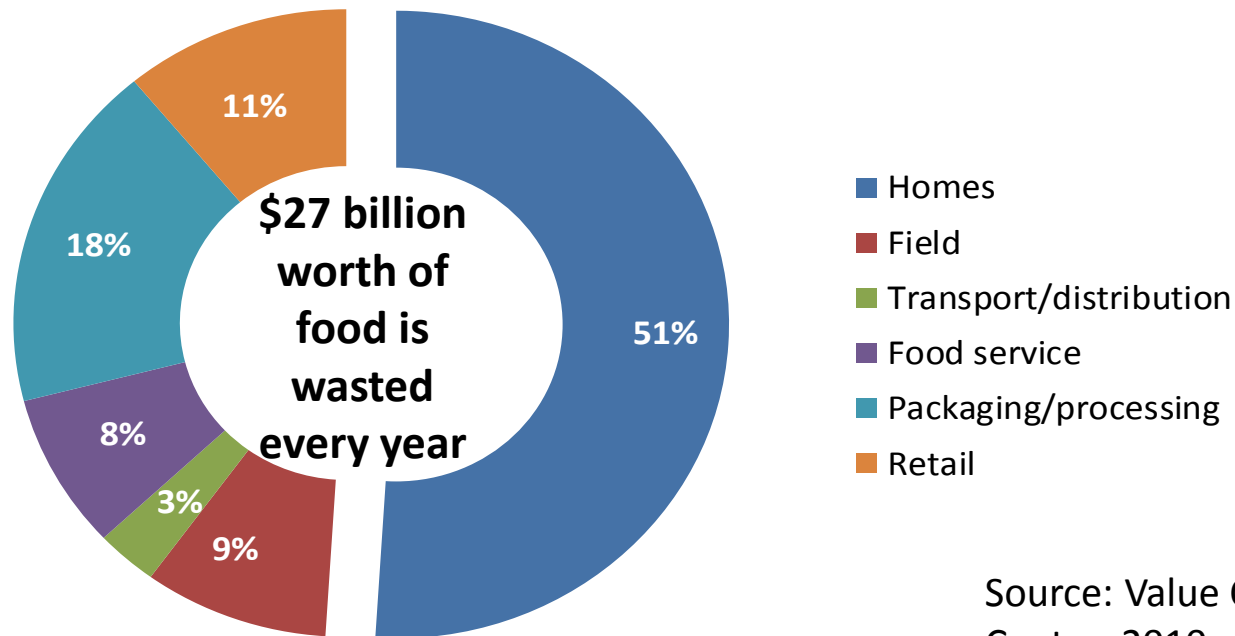


- Recycling at community mailboxes in Richmond Hill, Vaughan and Markham
- Repair Café in East Gwillimbury
- Curbside swap events and/or community gardens in northern six municipalities



Local municipalities led additional pilots based on priorities and opportunities in their communities

Greatest opportunity for reduction over long term is food waste



Source: Value Chain Management Centre, 2010

Half of all food waste occurs in the home

One third of green bin material is avoidable food waste



Achieving Target of 15% reduction by 2031 will result in cost avoidance of \$41m

Good Food Campaign developed in collaboration with Community & Health Services

- Focus on family health and nutrition
- Provide ideas and tools to help plan, prepare and enjoy healthy meals –
 - meal planning
 - shopping with a list
 - food storage practices
 - best before date education
 - using leftovers



Surveys and focus group results directed campaign focus on healthy eating and family

Three year Good Food campaign launched in March 2015

Take worry OFF THE list

Good Food
PLAN. PREPARE. ENJOY.

Last-minute dinner ideas are always a worry. The solution? Set aside some time to plan your week. Include the kids. Think nutritiously. Then shop with a list. And take worry off yours.

DISCOVER TIPS FOR PLANNING HEALTHY FAMILY MEALS AT YORK.CA/GOODFOOD OR CALL 1-866-865-8752

#PlanPrepareEnjoy



Taste MORE of life

Good Food
PLAN. PREPARE. ENJOY.

Life is better when you take time to plan and prepare home-cooked meals. Every meal is a chance to pause and share with those who matter most. Plan. Prepare. Enjoy. Good food.

DISCOVER TIPS FOR PLANNING HEALTHY FAMILY MEALS AT YORK.CA/GOODFOOD OR CALL 1-866-865-8752

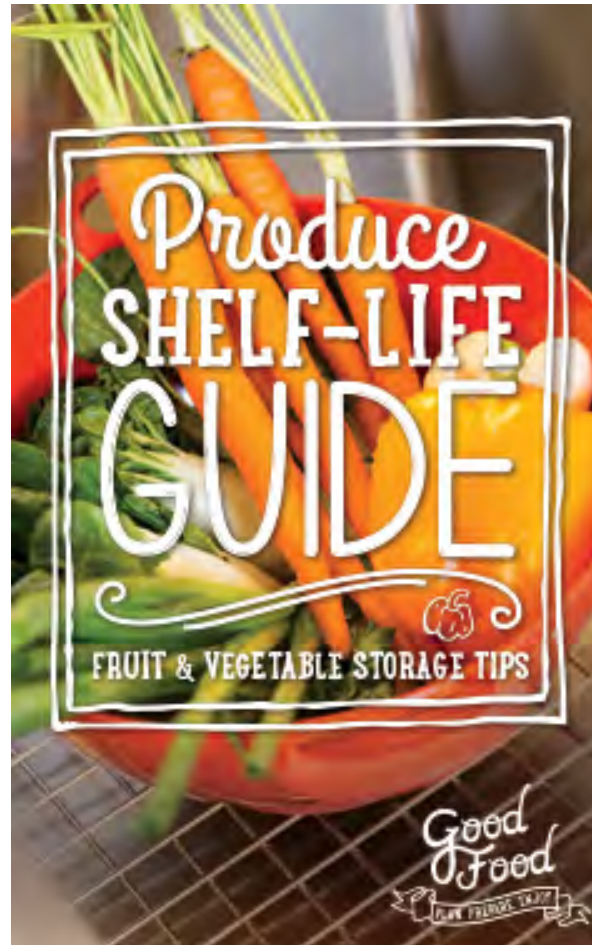
#PlanPrepareEnjoy



Tools, guides and social media channels developed with Community and Health Services



#PlanPrepareEnjoy



Tracking Campaign Success

- Are we reaching our target audience?
- Are they engaging with the campaign and understanding the message?
- Are they reducing food waste?



Metrics and audits allow tracking of community response to campaign and impacts on food waste over time

Ontario Food Collaborative

- Building momentum for food waste issue amongst Ontario municipalities, other levels of government
- Foster collaborative projects between industry, Non-governmental organizations and municipalities
- Developing consistent messaging and metrics

Consultation Participants include:

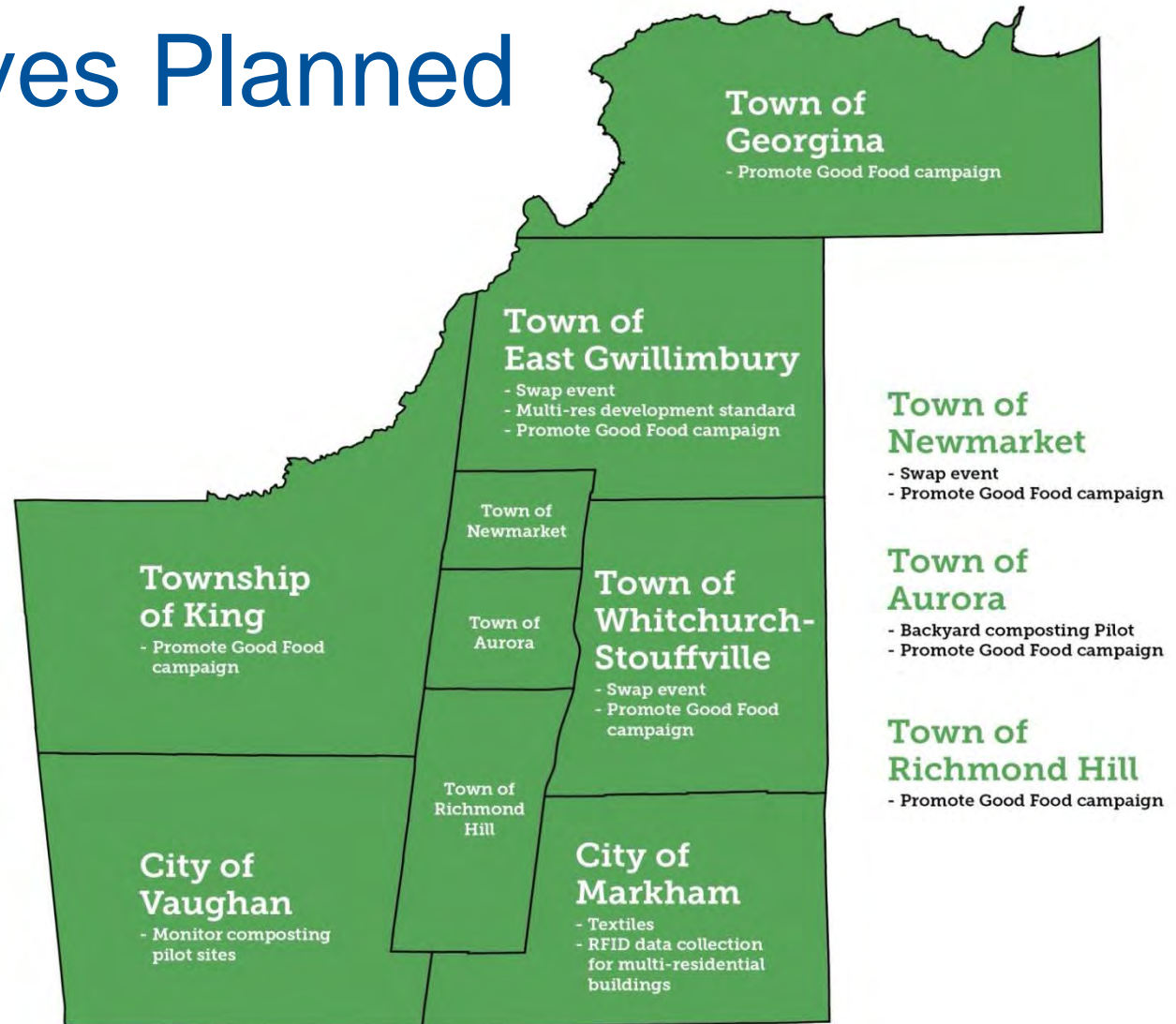


Ontario Food Collaborative facilitates cooperation between municipalities and other sectors on food waste

2015 Initiatives Planned



- Good Food campaign and metrics
- Coordinate Multi-residential working group
- Investigate long term Green bin processing options



Local municipalities collaborate on pilots and share lessons learned through bi-annual SWPC meetings