

2024 ANNUAL WASTE MANAGEMENT REPORT



PARTNERSHIPS DRIVING
Reduction | Reuse | Recycling | Recovery


York Region

2024 At-A-Glance



130,852
TONNES
RESIDUAL WASTE
SENT TO ENERGY-FROM-
WASTE FACILITIES



106,119
TONNES
GREEN BIN
ORGANICS
PROCESSED



48,923
TONNES
BLUE BOX
RECYCLING
MARKETED



43,852
TONNES
LEAF &
YARD WASTE
COMPOSTED



1,757
TONNES
DEPOT
DIVERSION
RECYCLED



1,243
TONNES
HOUSEHOLD
HAZARDOUS
WASTE
PROPERLY DISPOSED



815
TONNES
ELECTRONIC
WASTE
RECYCLED

92% DIVERSION FROM LANDFILL



The Regional Municipality of York, in collaboration with its local cities and towns, oversees a comprehensive and efficient waste management system for residents across the Region. This system includes strategically located waste depots where community members drop off items for reuse, recycling and proper disposal, as well as the processing of waste collected by its local cities and towns. Since 2012, York Region has been a leader in sustainable waste management practices within the province. York Region's efforts are guided by the Integrated Waste Management Master Plan (the SM4RT Living Plan), which outlines the long-term objectives to adapt to legislative changes, efficient service delivery and support the advancement of the circular economy.

Achieving these goals relies heavily on partnerships and collaborations with various stakeholders. York Regional Council and local city and town Councils work together to advocate and guarantee waste management services adapt to the ever-changing needs of our growing communities. This collaboration ensures services align with evolving policies and regulations from the Government of Canada and the Ontario government. The plan's focus on waste reduction and reuse **supports affordability for residents and reduces costs by keeping materials in use.** In 2024, York Region diverted

92% of its waste from landfills. This achievement underscores York Region's commitment to sustainability and ongoing efforts to make a positive impact on the environment. **This is the 8th consecutive year York Region has exceeded Council's target of 90% diversion from landfill.**

York Region, in partnership with its community partners and local cities and towns, delivers forward-thinking waste reduction, diversion and disposal programs that promote environmental sustainability and long-term affordability for residents, both now and in the future



Introduction

York Region's 2024 Annual Waste Management Report provides a comprehensive overview of the Region's integrated waste management system performance. The report details quantities of materials collected and processed, while showcasing progress towards the [SM4RT Living Plan's](#) objectives. The report is submitted yearly to Ontario's Ministry of the Environment, Conservation and Parks, fulfilling a requirement of the Durham York Energy Centre Environmental Assessment approval to develop an annual diversion report.

Waste management services in York Region are delivered collaboratively between the Region and its local cities and towns, serving a population of over 1.25 million residents in over 400,000 households in the Cities of Markham, Richmond Hill and Vaughan and the Towns of Aurora, East Gwillimbury, Georgina, Newmarket, Whitchurch-Stouffville and the Township of King. In 2024, York Region managed 365,302 tonnes of waste from local municipal curbside collection, including garbage, organics, recycling, yard waste and public waste depot diversion programs.

The SM4RT Living Plan, York Region's Waste Management Master Plan, outlines a long-term vision for waste diversion and prevention extending to 2059 and beyond, with the goal to create a world in which nothing goes to waste. The plan, developed in 2013 and updated in 2020, focuses on advancing the circular economy and promotes the "4Rs" of waste hierarchy:

- **Reduce** waste generation in York Region
- **Reuse** items rather than discard them
- **Recycle** materials into new products whenever possible
- **Recover** energy from waste (EFW) that cannot be managed through other means

The plan's [three main objectives](#), along with notable achievements in 2024, are highlighted in **Figure 1** below. Looking ahead, York Region and its local cities and towns are updating the SM4RT Living Plan to establish priority actions for the next five-year cycle.

York Region SM4RT Living

Shifts the focus from a linear economy to a circular economy that conserves resources and maximizes diversion from landfill. A circular economy in York Region promotes cost savings for residents and the Region by reducing waste, conserving resources and extending the lifecycle of goods.

Linear Economy



Circular Economy

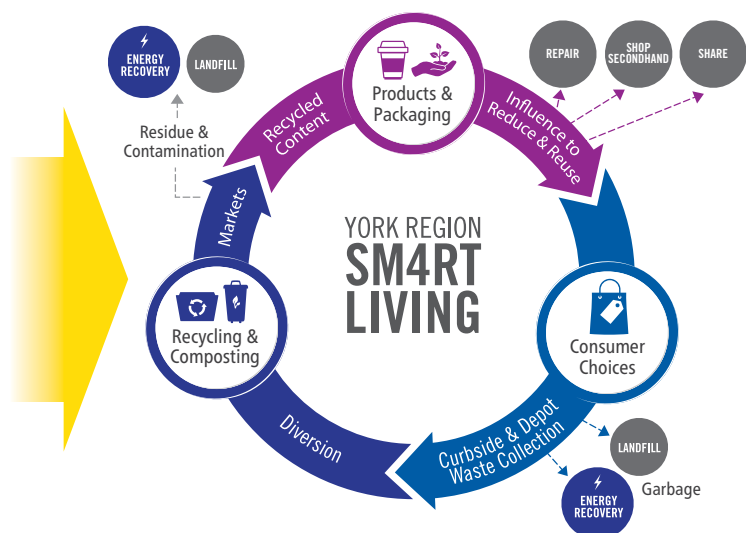




Figure 1: SM4RT Living Plan 2024 Highlights of Achievements

Objective	Objective Description	2024 Highlights of Achievements
1 Successfully navigate legislative changes	Respond flexibly and use legislative changes to continually improve SM4RT Living	✓ Planned and collaborated with local cities and towns as York Region moves towards the Blue Box program transition ✓ Advocated for enhanced producer responsibility, reduction of plastic waste in the textile/apparel sector and the right-to-repair policy approach
2 Use resources and infrastructure more strategically to achieve SM4RT Living	Focus efforts, innovate and improve coordination to create a more seamless, cost-effective system and do more with available resources	✓ Executed key operating contract with Emerald EFW that provides long-term processing capacity ✓ Realized cost savings by streamlining green bin processing prior to transitioning to a new local biofuel facility in 2027 ✓ Aligned contracts for waste transfer at the Waste Management Centre ✓ Reviewed and updated the SM4RT Living Plan
3 Inspire people across York Region to embrace SM4RT Living and advance the circular economy	Value partnerships and pioneers in driving SM4RT Living and the circular economy uptake across our communities	✓ Funded four community-led waste reduction and circular economy projects through the Circular Economy Initiatives Fund

Circular Economy

Circular economy in action: Improving affordability and community resilience in York Region

York Region continues to advance work on its [Circular Economy Roadmap](#) endorsed by York Regional Council in 2022, positioning itself as a leader in sustainable community development, balancing economic vitality with environmental stewardship and social well-being. The roadmap identifies five action areas to advance the circular economy:



Sustainable Food Systems



Reuse and Sharing



Community Capacity and
Connections



Circular Procurement



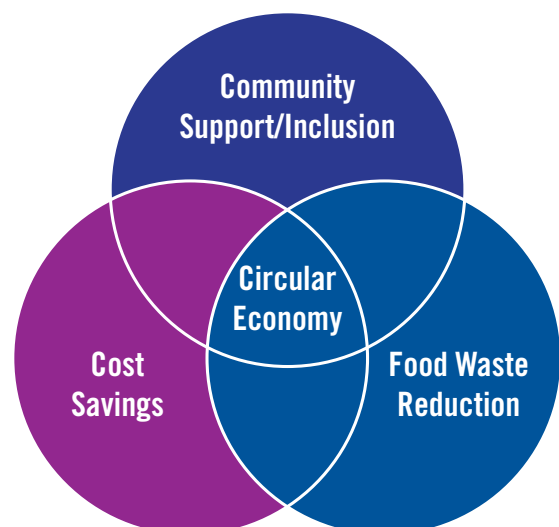
Asset Management and
Built Environment

York Region's circular economy efforts support a shift towards sustainability and affordability through the growth of second-hand and repair services and a focus on food literacy and waste reduction. In 2024, York Region focused efforts on reuse, repair, sharing and engagement resulting in affordability and community impacts which include:

- **Cost savings:** By extending the lifecycle of goods through reuse, repair and recycling, residents can reduce their need to purchase new items. Initiatives such as [Repair Cafés](#), [Lenderies](#) and [Curbside Giveaway Days](#) provide opportunities for residents to repair or acquire items [at no cost](#). Several libraries in

York Region allow cardholders to borrow items such as appliances, tools, books, music and digital media. [The Vaughan Public Library](#) estimates the value of a free library card at \$1,200 highlighting its role in enhancing community affordability

- **Community Support/Inclusion:** In 2024, the Circular Economy Initiatives Fund supported Abuse Hurts, a local social service organization, to collect and distribute over 12,000 used clothing and household items to more than 1,700 individuals affected by abuse. These donations played a vital role in restoring self-esteem, bringing much-needed support and comfort to those who have experienced domestic violence and uplifting the spirits of survivors contributing to their healing journey
- **Food waste reduction:** In April 2024, York Region Food Network organized a [Good Food Challenge](#), an initiative aimed at engaging young families through interactive activities to reduce food waste and promote sustainable living practices. The challenge had a total of 3,934 participants and featured a variety of activities, including seed giveaways, vermicomposting workshops, soil-arium workshops and culinary workshops. Throughout the event, 2,750 seed kits were distributed along with 2,400 compost booklets. Food waste programming is supported by strong collaboration between Public Works, Public Health and Economic Development teams





The Circular Economy Initiatives Fund **funded** four community groups to complete innovative waste reduction and circular economy projects in 2024. Another round of applications was completed in 2024 and three organizations were selected to receive funding for programs in 2025.

ABUSE HURTS

supporting victims of abuse

over 12,000 items collected	donations to more than 1,700 victims
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EARTH RANGERS

created educational challenges
for children

548 children participated in a repair mission	over 700 repair mission tasks completed
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GOOD FOOD IN ACTION

3,545 kilograms of surplus food collected	over 128 people educated on food waste reduction
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NEWMAKEIT

educated over 100 people	diverted 1,633 kilograms of metal 576 kilograms of plastic 245 kilograms of glass
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COMMUNITY SPOTLIGHT

Richmond Hill Public Library

- Many libraries across York Region have Lenderies and Library of Things which allow residents to borrow items instead of buying them
- Richmond Hill Public Library launched its **Library of Things** and **Repair Café-inspired programming** in January 2024. The initiative aimed to reduce waste, foster sustainability and offer skill-building opportunities through a collection of borrowable items and repair workshops. The initiative successfully met its objectives, engaging **533** participants across **15** programs, including sewing classes and repair workshops
- The project received positive feedback with satisfaction ratings of 4.1 out of 5 for the Library of Things collection and 4.5 out of 5 for other related programs. Surveys showed that 77% of respondents noted positive impacts on mental health, 53% said programs increased family time and 47% felt more connected to the community. The program has proven to be a valuable resource for the City of Richmond Hill residents, promoting sustainability, skill development and community engagement

"It's a great idea that the library carries such amazing tools and equipment that we seldom use and are available at the library. Keep up the great work!"

"I think it is a fantastic thing the library is doing, helping to reduce waste and costs to members. Really appreciate these expanded services"

Diversion Achievements



Since 2016, York Region has consistently exceeded its 90% annual landfill diversion target through a strong focus on reducing, reusing, recycling and recovering waste

York Region remains dedicated to the principles of the 4Rs, prioritizing **reduction** and **reuse** as the most effective waste management strategy. In 2024, York Region successfully diverted **92%** of waste from landfills, including all materials collected through curbside and depot diversion programs (see **Table 1**) as well as materials processed through energy-from-waste facilities. The efforts from residents and local cities and towns has helped York Region to consistently exceed its 90% diversion target every year since 2016. The 2024 diversion rate represents a slight decrease from the 94% achieved in 2023, due to several operational challenges leading to increased materials going to landfill. These included; temporary outages at the Region's contracted EFW facilities, scheduled maintenance at the Waste Management Centre and a border strike in June 2024.

York Region Diversion from Landfill Rate

Year	York Region Diversion from Landfill Rate*
2019	94%
2020	93%
2021	92%
2022	94%
2023	94%
2024	92%

* Includes energy-from-waste. All values are rounded



Figure 2: Total Tonnes Collected

Tonnes Collected						
Material	2019	2020	2021	2022	2023	2024
Residual Waste (Garbage)	129,144	145,464	145,435	137,842	133,485	132,738
Green Bin Organics*	100,874	112,403	114,075	107,917	107,815	107,691
Blue Box*	78,243	79,087	78,417	76,032	75,509	77,208
Leaf and Yard Waste	42,814	44,216	42,029	42,509	41,978	43,852
Other Diversion - Depots	2,659	1,612	1,913	1,857	1,819	1,757
Household Hazardous Waste	1,297	1,459	1,365	1,277	1,197	1,243
Electronics	1,117	1,205	1,085	919	861	815

* Note: total blue box and green bin organics tonnes collected at curbside and depots include contamination

York Region continues to track diversion from landfill and waste generation rates to monitor system efficiency

Following the conclusion of the Resource Productivity and Recovery Authority (RPRA) Datacall process and the transition of Blue Box programs to full producer responsibility on December 31, 2025, York Region’s local cities and towns will see a minor impact on diversion from landfill because blue box tonnages will not be included in the system. Post-transition, York Region will continue to monitor diversion from landfill and waste generation rates as indicators of system efficiency and progress towards targets. With the transition of the Blue Box program and the diversion tonnage associated with it, York Region will face challenges to maintain or surpass waste diversion targets.

Waste Generation

Waste generation rates return to pre-pandemic levels

York Region tracks its progress toward waste reduction goals outlined in the SM4RT Living Plan through waste generation rates, measured in kilograms per capita, of curbside-collected waste. With the transition of the Blue Box Program to full producer responsibility, future reporting will focus on two primary curbside waste streams; the green bin (organics) and garbage (residual waste), which remain municipal responsibilities.

TARGETS



GREEN BIN

71 kilograms per capita by 2031



GARBAGE

66 kilograms per capita by 2031

Waste generation rates have returned to pre-COVID-19 levels and stabilized since peaking in 2020 and 2021 (**Graph 1**). For example, in 2024, waste generation rates for garbage and blue box waste were similar to those in 2023, while green bin waste generation rate saw a 2.3% decrease compared to the previous year (2023). This trend could be attributed to several factors, including work patterns (with more people returning to in-office work rather than working from home), which typically results in less waste being generated at home. Economic factors also likely played a role as over the last two years, the cost of food has increased by 16.7%. The Canada Food Price Report forecasts food prices could rise between 3% and 5% in 2025. According to York Region's internal Fall 2024 Community Opinion Report, over half of York Region residents (55%) reported that their financial situation has worsened in the past year and 86% of residents are feeling the impact of inflation on gas and grocery prices. This may impact consumer

spending and bring more of a focus on reducing avoidable food waste to save money on groceries.

Local and regional waste management initiatives may have also contributed to this trend in 2024. Waste audits conducted in York Region in 2024 showed avoidable food waste in the green bin has decreased to its lowest level since 2020. In contrast, unavoidable food waste has increased by nearly 10% from 2023. This could indicate more people are cooking at home and taking more care to avoid wasting food due to higher food prices. Increased community engagement on topics such as food waste reduction, depot reuse programs and Repair Cafés also likely helped reduce waste.

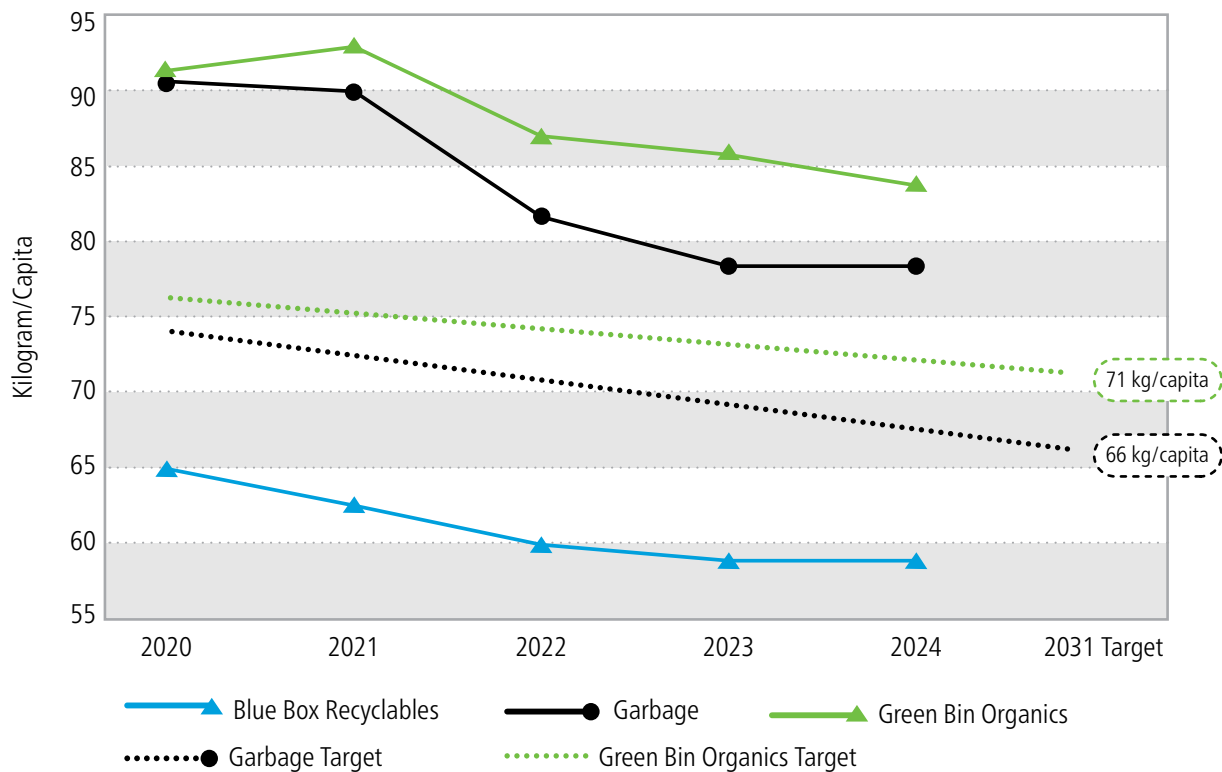
Food waste reduction can help York Region residents combat rising costs

In York Region, a staggering 86% of residents reported feeling the strain of inflation on gas and grocery expenses. The average [Canadian household wastes approximately \\$1,300](#) worth of food annually, representing a substantial, yet often overlooked, expense. By minimizing food waste residents can directly alleviate the financial pressure of rising grocery costs while simultaneously contributing to a more sustainable community. [York Region's Good Food program](#) provides practical tips to help households shop smarter, plan meals and use leftovers before they go to waste.





Graph 1: York Region Residential Curbside Waste Generation Rate (Kilogram/Capita)



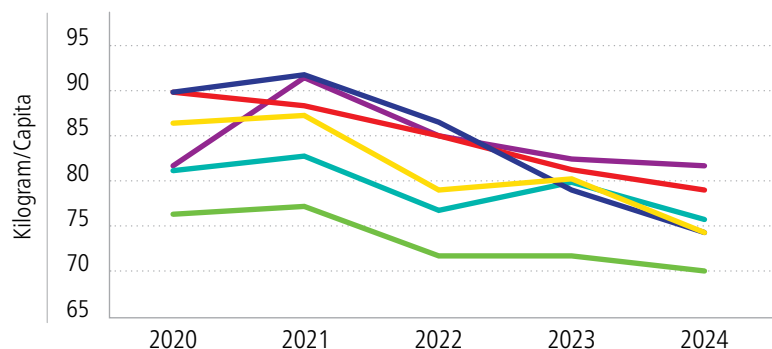
Waste generation rates have remained on a downward trend following a peak in 2020 and 2021

All six northern towns (Aurora, East Gwillimbury, Georgina, King, Newmarket, Whitchurch-Stouffville) saw a consistent decline in green bin waste generation rates, consistent with the overall Regional trend. In contrast, two cities in the south experienced a modest increase ranging from 1.10% to 2.33% (Markham and Vaughan). Garbage waste generation rates mirrored the pattern of the green bin with the six northern towns either declining or maintaining stable rates. In the southern three cities we see a similar pattern with the cities of Markham and Richmond Hill holding steady or seeing a slight decrease. The City of Vaughan had a slight increase in garbage waste generation rates (see Graphs 2 to 5). The declines

experienced by the six northern towns and two southern cities may also be attributed to local program and policy changes, such as modifications to garbage bag tag programs and efforts to promote and educate residents on proper waste sorting.

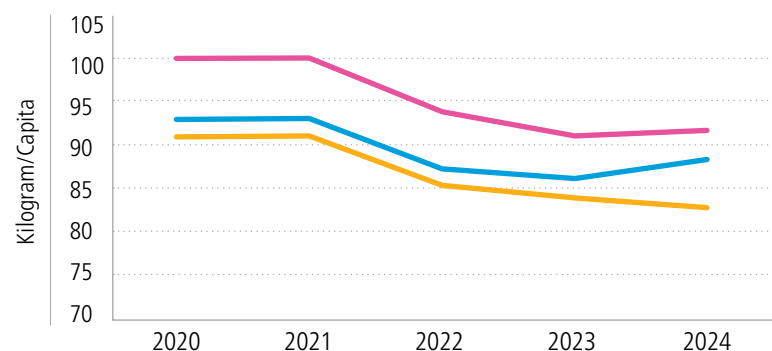
York Region maintains a proactive approach to waste management and continues to monitor waste generation rates and review audit data from local cities and towns. This audit data offers valuable insights into current waste sorting practices, which inform the development of campaigns, programs and initiatives aimed at reducing waste generation and minimizing contamination.

Graph 2: Northern Towns' Green Bin Waste Generation Rate (Kilogram/Capita)

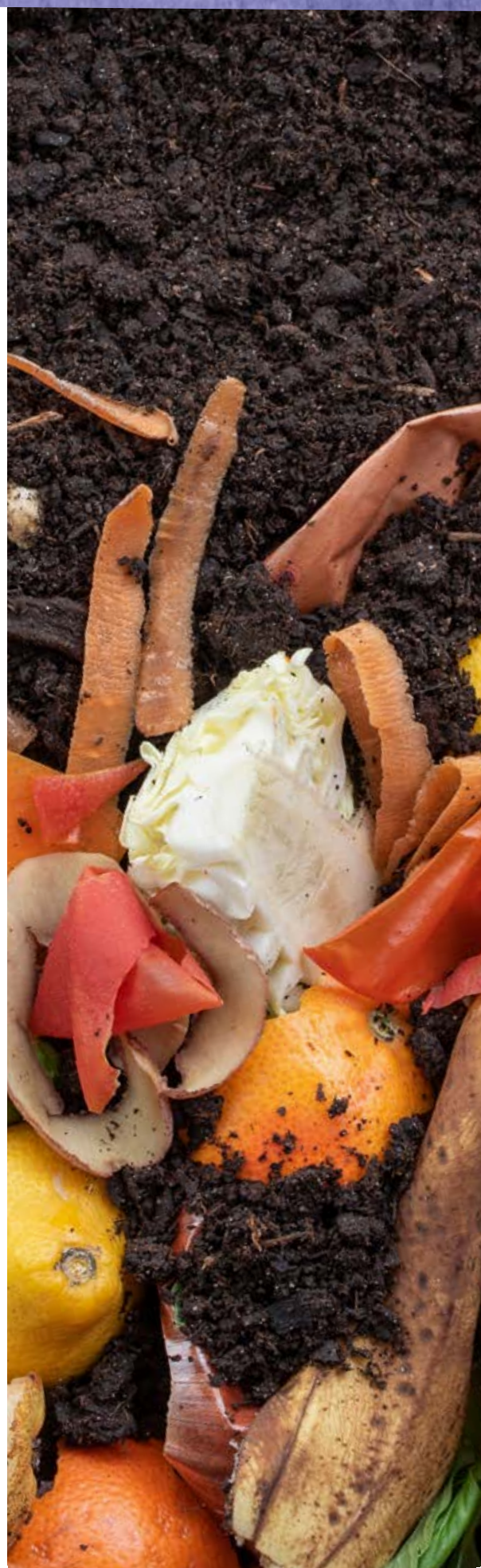


Local Town		2020	2021	2022	2023	2024
—	Aurora	90	88	85	82	79
—	East Gwillimbury	83	91	85	83	82
—	Georgina	76	77	72	72	70
—	King	90	92	87	79	74
—	Newmarket	81	83	77	80	76
—	Whitchurch-Stouffville	86	87	79	80	74

Graph 3: Southern Cities' Green Bin Waste Generation Rate (Kilogram/Capita)

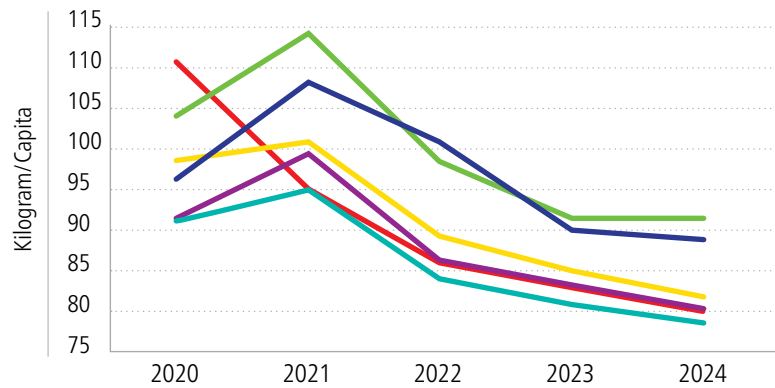


Local City		2020	2021	2022	2023	2024
—	Markham	100	100	94	91	92
—	Richmond Hill	91	91	85	84	83
—	Vaughan	93	93	87	86	88



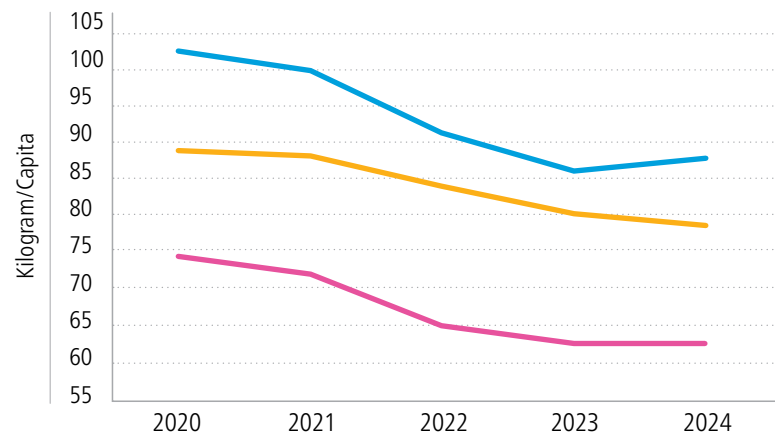


Graph 4: Northern Towns' Residual Waste (Garbage) Generation Rate (Kilogram/Capita)



Local Town		2020	2021	2022	2023	2024
—	Aurora	111	95	86	83	80
—	East Gwillimbury	91	99	86	83	81
—	Georgina	104	114	98	92	92
—	King	96	108	101	90	89
—	Newmarket	91	95	84	81	79
—	Whitchurch-Stouffville	98	101	89	85	82

Graph 5: Southern Cities' Residual Waste (Garbage) Generation Rate (Kilogram/Capita)



Local City		2020	2021	2022	2023	2024
—	Markham	74	72	65	63	63
—	Richmond Hill	89	88	84	80	79
—	Vaughan	103	100	92	86	87

Partnerships



York Region Food Network hosts the Good Food Challenge



The Lendery at the Milliken Mills Public Library in the City of Markham



E-waste event by the Town of Newmarket

Innovative reduction, reuse and diversion strategies emerge through collaboration partnerships

York Region, in partnership with its nine local cities, towns and community partners continues to offer comprehensive waste management services and programs centered on reduction, reuse and recycling. These collaborative efforts bring innovative community programs, including Curbside Giveaway Days, specialized diversion programs for batteries, electronics, textiles and regular curbside collection services. Some innovative programs that integrate waste prevention strategies with initiatives aimed at enhancing community capacity include:

- **The Good Food Challenge** - A community initiative led by the **York Region Food Network** in partnership with York Region promoting food waste reduction and food literacy; the challenge empowers individuals to adopt better food habits while supporting a circular food economy
- **The Lendery** - A collaboration with various libraries across York Region, the program reduces costs by allowing residents to borrow infrequently used items instead of buying them
- **The Ontario Food Collaborative** - A network of public health, municipal and community agencies, co-founded by York Region in 2015, that works to advance food waste reduction and food literacy efforts. This collaboration focuses on advocacy, research, and community engagement to raise awareness about food waste prevention and improve consumer behavior. By leveraging data-driven insights and best practices, the partnership helps develop programs and policies that support a more sustainable food system
- **Repair Cafés** - Facilitated by NewMakelt and hosted at various libraries, the program encourages repair of items that may otherwise end up in landfill



Compost Learning Hub with York Region Food Network

Waste reduction and reuse: A cost-effective approach to demand management

In 2024 York Region managed a total of 365,302 tonnes of waste, which included curbside collected garbage, organics, recycling, yard waste and materials collected from depots for diversion and disposal. The cost of managing waste streams that are not under a producer responsibility framework is largely covered by tax levies. However, once full producer responsibility is implemented, York Region and its local cities and towns will still be responsible for managing the green bin, garbage and yard waste stream as well as providing voluntary diversion programs such as construction waste, cooking oil, household hazardous waste and scrap metal. Each tonne of waste generated requires significant energy, financial resources and effort to manage. To minimize these costs and maximize environmental benefits, reducing and reusing waste is essential.

According to the [UN Food Waste Index 2024](#) the average Canadian household wastes 79 kilograms of food each year, while the National Zero Waste Council reports a higher figure of 140 kilograms per household, nearly double the UN estimate. This waste collectively amounts to over \$20 billion and 2.3 million tonnes of edible food discarded each year in Canada.

In 2024, York Region and its local cities and towns collected **1,683** tonnes of textiles for reuse, preventing **37,615** tonnes of greenhouse gas emissions (CO₂ equivalent) and saving **10.2 million** litres of water that would have been used in producing new textiles. Various reduction and reuse efforts across local communities such as Curbside Giveaway Days, garage sales and clothing swaps, contribute similar environmental and economic benefits.

The SM4RT Living Plan emphasizes the importance of shifting from a linear “take-make-dispose” model to a circular economy approach where everything retains value. This mindset change, coupled with initiatives like the Circular Economy Initiatives Fund launched in March 2021, empowers community partners to develop and implement waste reduction and reuse projects that support the Region’s waste generation targets.



TEXTILES

YORK REGION AND LOCAL CITIES AND TOWNS

1,683
TONNES
COLLECTED

256
COLLECTION
BINS

SAVED

37,615 TONNES OF GREENHOUSE
GAS EMISSIONS (CARBON
DIOXIDE EQUIVALENT)



10.2 MILLION LITRES
OF WATER



CURBSIDE GIVEAWAY DAYS

61

COMMUNITY
EVENT DAYS



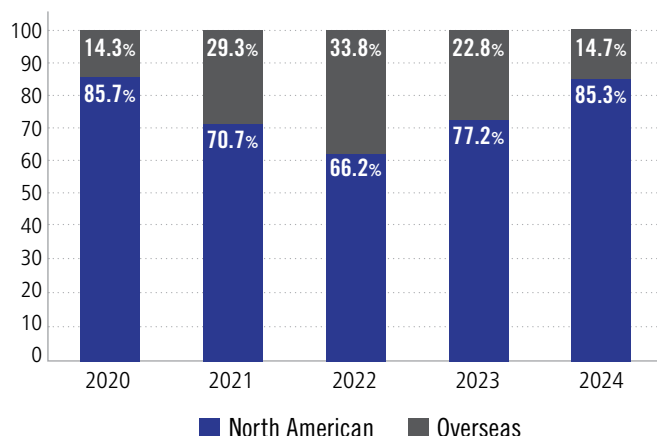
Blue Box

Blue Box materials are sorted and sold to end markets to become new products

York Region's local cities and towns collect recyclables from residential homes, multi-residential buildings, some businesses and schools.

- In 2024, **77,208** tonnes of blue box recyclables were collected and processed at the Region's Material Recovery Facility in the Town of East Gwillimbury
- The Region uses a combination of North American and overseas markets to ensure maximum material recovery. End-market destinations fluctuate over time and can be influenced by the changing composition of blue box materials, consumer spending habits or broader variables like supply chain and geopolitical issues
- **Graph 6** shows the end-market destination and composition of recyclables over the last five years
- Historically, China was the largest importer of recycled commodities. However, in 2018, China implemented the "National Sword" policy, imposing stricter quality standards that impacted the recycling business in North America. As a result, North American markets were initially unprepared to absorb the materials previously sent to China, prompting the search for alternative overseas and domestic markets. From 2018 to 2020, the Region and our contractors worked to establish more North American markets for our recycled commodities. The COVID-19 pandemic in 2020 led to market volatility, influenced by economic and geopolitical factors, which further altered the distribution of end markets. By 2024, the market split had returned to the same levels as in 2020, marking a significant milestone
- In 2024, 85.3% of marketed recyclables were sold to North American companies which is 8.1% more than what was marketed in 2023 (77.2%) while 14.7% was sold overseas. This increase in sales to North American end markets might be as a result of demand and pricing. Of the 85.3% of marketed recyclables to North American end markets, approximately 42% of the products were exported to the United States of America (USA).

Graph 6: End Market of York Region Blue Box Material



- In 2025, the implementation, scale, breadth and duration of any U.S. tariffs are highly uncertain. York Region will monitor the effects of tariffs and will optimize domestic markets to minimize the impact of North American and overseas end markets before transitioning the Blue Box Program to full producer responsibility
- In 2019, the Ontario Ministry of the Environment, Conservation and Parks announced the Blue Box Program would transition to full producer responsibility. Transition dates are staggered across the province with the first municipalities having transitioned in 2023. York Region and its local towns and cities are scheduled to transition on December 31, 2025
- The transition to full producer responsibility means companies producing paper products and packaging will be fully accountable for the cost and operation of the Blue Box Program. This change will standardize systems, ensuring all communities can recycle the same materials across the province with a wider range of accepted materials. Additionally, producers will be responsible for developing processing technologies and creating end markets for challenging items such as beverage cups, flexible plastic pouches, plastic bags, plastic cutlery, polystyrene foam and other items (see **Figure 3**)



Figure 3: Items That Will Be Accepted in the Future Blue Box Program



- The Region and its local cities and towns are working towards a smooth transition. This includes education for residents and aligning communications with the future Blue Box program
- The Region will continue to fund the processing of blue box materials collected by local cities and towns from ineligible sources such as small businesses and municipal buildings

York Region continues to engage with local cities and towns, the Ontario Ministry of the Environment, Conservation and Parks and producers to ensure a seamless transition for York Region residents.





Green Bin

Processing of organic materials at the future Biofuel Facility projected to cut greenhouse gas emissions by approximately 15,000 tonnes annually

In 2024, York Region residents generated **107,691** tonnes of green bin organics (source separated organics), a reduction of **124** tonnes from 2023. A total of **104,403** tonnes were processed through contracted facilities to produce compost, renewable biogas (for electricity and heat) and fertilizer. **1,572** tonnes were lost to evaporation while **1,716** tonnes of liquid (leachate) was managed through approved treatment facilities.

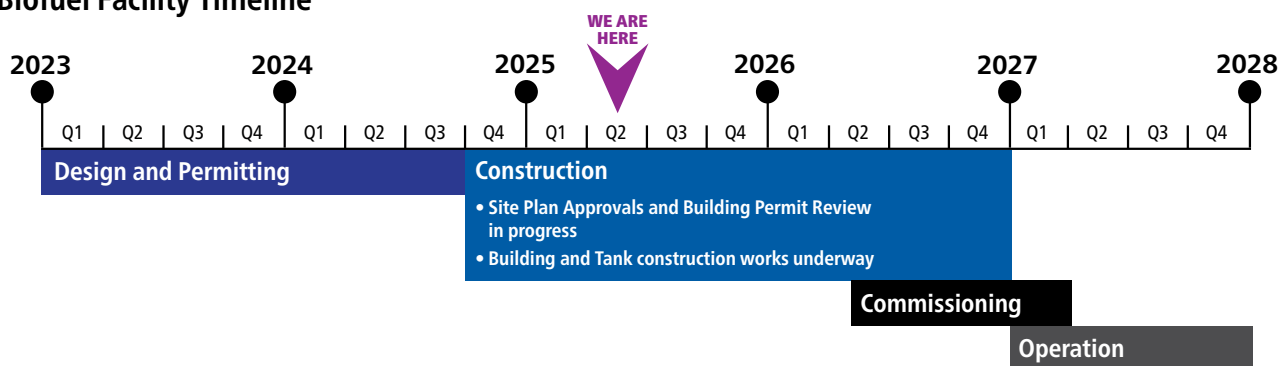
In January 2023, York Regional Council awarded a 20-year contract to Convertus to process green bin materials at a new, cutting-edge Biofuel Facility. Design, permitting and construction began in 2024, at the site next to the Region's Waste Management Centre in East Gwillimbury. This local processing solution is sustainable and cost-effective for the Region's long-term needs, as it eliminates the need to transport green bin materials up to 440 kilometres one way, reducing overall greenhouse gas emissions by approximately 15,000 tonnes of carbon dioxide annually.

The facility will convert green bin materials into valuable fertilizer and generate renewable natural gas, which can replace traditional fossil fuels. This Biofuel Facility aligns with York Regional Council's Strategic Plan goal of promoting environmentally-sustainable services. York Region continues to collaborate with Convertus to advance site permitting and facility design, with the facility expected to open in 2027.



Convertus Biofuel Facility under construction

Biofuel Facility Timeline



DID YOU KNOW?

The Convertus Biofuel Facility in York Region will be Ontario's first large-scale biofuel facility with liquid CO₂ capture technology. The facility will process up to **140,000** tonnes of organic waste annually, with potential to scale up to 200,000 tonnes per year. It will generate between 250,000 and 350,000 gigajoules of renewable natural gas annually, enough to heat approximately 5,000 homes. Once operational the facility will help meet York Region's waste management needs through to 2047, saving the Region an estimated \$85 million over 20 years. Learn more at york.ca/BiofuelFacility



Residual Waste

Transforming waste into valuable resources: Achieving landfill diversion goals through energy recovery

York Region's approach to residual waste management emphasizes the 4Rs: reduce, reuse, recycle and recover. Residual waste (garbage) consists of materials that cannot be managed through reducing, reusing, recycling or composting, including curbside garbage and contaminated items from blue boxes. These non-recyclable materials are processed through energy-from-waste (EFW) facilities which convert waste into usable forms of energy such as electricity or heat, significantly contributing to the Region's 92% diversion from landfill in 2024.

York Region utilizes various facilities for residual waste processing. [The Durham York Energy Centre \(DYEC\)](#) in Clarington, an EFW facility York Region co-owns with Durham Region, is designed to be expandable with potential to increase capacity from 140,000 to over 250,000 tonnes per year. Together with other contracted, privately-owned EFW facilities and landfill sites (**Table 2**), these facilities play a key role in York Region's integrated waste management strategy, reinforcing its position as a leader in sustainable waste management. Staff continue to evaluate existing waste processing contracts and are considering long-term solutions including additional EFW facilities.

Table 2: Residual Waste Shipments

Destination	Tonnes	% of Total EFW
Energy-From-Waste (EFW)	130,852	
DYEC (Clarington, ON)	32,110	25%
Emerald Energy (Brampton, ON)	47,693	36%
Reworld Niagara (Niagara, New York) Formerly Covanta Niagara	51,049	39%
Landfill	28,524	
Year-End Carry Over*	(-133)	
Total Residual Waste	159,243	

* Change in transfer station inventory January 1, 2024 and December 31, 2024

DID YOU KNOW?

Ontario faces a critical landfill capacity crisis, with projections indicating the province's landfills will reach capacity by 2032 or as early as 2028. Reduction, reuse and diverting more waste from disposal, as well as developing a waste policy for the industrial, institutional and commercial sectors, will be critical in reducing demand for quickly shrinking landfill capacity in the province



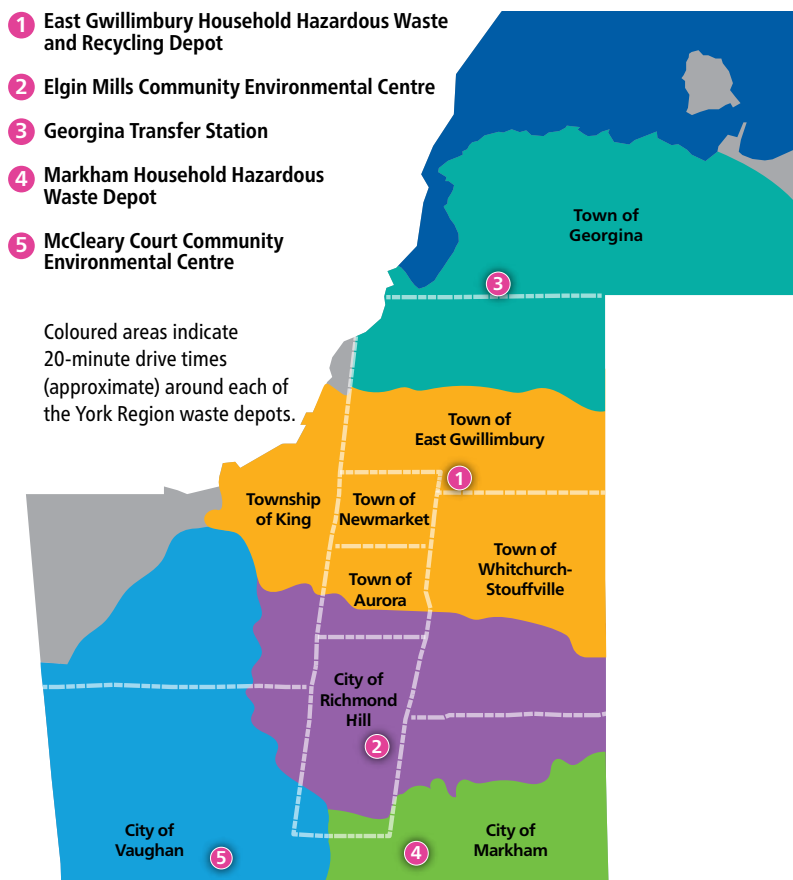
Depot Collection

Waste depots in strategic locations improve access to diversion programs and guarantee safe disposal of hazardous materials

York Region manages five waste depots that serve as collection points for a variety of materials not accepted through curbside pickup. In 2024, these depots received a total of **3,814** tonnes of divertible items, including bicycles, concrete, cooking oil, drywall, electronic waste, household hazardous waste (HHW), refrigerated appliances, scrap metal, textiles, wood and various other items. Some depots also accept items typically collected

at the curb such as blue box recyclables, bulky items, garbage and yard waste, complimenting curbside services by allowing customers to conveniently drop off larger items or volumes of material. This comprehensive approach enhances the Region's waste diversion efforts and provides residents with convenient disposal options for a wide range of materials, supporting the Region's goal of a world where nothing goes to waste.

Figure 4: Depots Provide Majority of Residents Access Within a 20 Minute Drive



Depot Visitors

	Georgina Transfer Station 87,805
	Elgin Mills CEC 85,451
	McCleary Court CEC 72,936
	Markham HHW* 21,341
	East Gwillimbury HHW 16,989
284,502	TOTAL SITE VISITS

*Gaps in data due to maintenance closures



- York Region gathers feedback from waste depot users through surveys to enhance its programs and operations. Results from the 2024 survey indicate over 90% of respondents expressed satisfaction with their overall experience at the depots, with ratings ranging from high satisfaction to being somewhat satisfied
- Survey results also indicate high interest (74% of respondents) in expanding bike reuse to more depot locations and highlight opportunities to raise awareness about textile collections
- York Region waste depots continue to provide a safe disposal option to residents for hazardous products
- Between 2019 and 2023, under the *Resource Recovery and Circular Economy Act, 2016*, regulations were enacted for batteries, electrical and electronic equipment, hazardous and special products (HSP) and tires, shifting the financial and end of life management responsibilities for these materials to producers
- In 2024 producer responsibility hazardous programs managed 47% (590 tonnes) in York Region while 53% (657 tonnes) were not covered
- As reported to York Regional Council in June 2024, about 50% of the HHW collected at York Region depots is not designated under the provincial producer responsibility regulations. Challenges remain in negotiating fair servicing agreements with producer responsibility organizations that fully compensate the Region for collection services to manage their materials
- The Region continues to advocate for a comprehensive producer-led HSP program that would encompass a wider range of hazardous materials. This aligns with the ongoing shift towards individual producer responsibility for collection and management of hazardous waste products in Ontario

DID YOU KNOW?

★★★★★

In 2024, the hazardous waste storage unit at the Markham HHW Depot was refurbished. This work focused on critical maintenance of the existing structure, ensuring the continued safe storage of hazardous waste, while reducing use of materials and costs for replacement.

York Region demonstrated circular infrastructure management and its commitment to a zero-waste future by minimizing environmental and material impacts (reduction), maximizing the use of existing infrastructure (reuse) and supporting proper material recovery (recycling).



Community Engagement

Award winning communications

In 2024, York Region received two Gold Marcom Awards for the "Putting Waste in its Place" brochure for education and consumer awareness.

Held annually, the Marcom Awards honour excellence in marketing and communications.



In 2024, the Region created a new [Waste Management Guide](#), developed in partnership with local cities and towns to ensure unified messaging to the public on waste sorting.



Increased opportunities for resident engagement in 2024 through strategic partnerships and innovation

In July 2024, York Region conducted an online survey to better understand businesses' participation in the circular economy, to identify the challenges they face and the support they require. The feedback from this survey will help guide future initiatives and improvements.

In October 2024, York Region celebrated Circular Economy Month by highlighting the community partners who have played key roles in developing and delivering key programs:

Circular Innovation Council: A non-profit that launched the Share, Reuse, Repair Hub which currently features over 250 listings to support the circular economy

NewMakelt: A non-profit organization that contributes to the development and implementation of The Lendery and Repair Cafés, initiatives that encourage sharing, reusing and repairing goods

York Region Food Network (YRFN): A charitable organization that supports the Good Food program, offering workshops on cooking and composting to improve food skills and reduce waste

Alongside these efforts York Region, in collaboration with its nine local cities and towns, is committed to advancing waste reduction through a broad range of programs and initiatives incorporating public communications, education and engagement activities.

20 COMMUNITY EVENTS

2,550 ATTENDEE INTERACTIONS

Social Media Posts

369



Impressions

437K



Engagement

11K





Vaughan Winterfest

Community events



Georgina Snofest



Multi-Use Recreation Complex Grand Opening



Community Health and Info Fair



National Public Works Week Family Fun Day



Markham Earth Day Event



Eco Family Fest

Community participation in waste reduction, reuse and diversion initiatives



OCEAN AMBASSADORS CANADA

Zero Waste Coaching

68 small businesses coached

91% of businesses who provided feedback started distributing single-use items "on request"



COMPOSTER SALE

995

composters sold in 21 days

99.4

tonnes of organics diverted

"Great way to reduce green bin waste and to have compost for the garden. Wish I would have bought one a long time ago."

~ Resident



GOOD FOOD CHALLENGE

156 composting workshop participants

2,750 seed kits distributed

2,400 compost booklets distributed

"The workshop felt therapeutic. Exactly what my mental health needed. Chef Maxine is so talented and has a wonderful way of connecting with her audience. I wish the workshop was the whole day! Thank you!"

~ Markham Culinary Class Participant



THE LENDERY

474

Lendery items

3,919

check-outs/renewals

"Grandparents were going to visit their grandkids and took out some games. They liked that we had a variety of games that they could borrow and return at their leisure when they were visiting their grandkids" ~ Library staff



MARKHAM CYCLES & NEWMARKET CYCLES

758

bikes collected from Elgin Mills and McCleary Court CECs

More than double the amount collected in 2023

"Bicycles are an excellent resource to reuse as its lifespan is far greater than most modes of transportation. And at zero emissions! So important to lean into this program."

~ Recipient of a refurbished bike



REPAIR CAFÉ SMALL APPLIANCE

most common item

9 events

269 events attendees

1,160 kilograms of waste diverted

356 volunteer hours

Thank you for supporting the Circular Economy in York Region



york.ca/Waste

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