

Information Report



Service Area	Infrastructure, Development and Enterprise Services
Date	Friday, March 6, 2020
Subject	2019 Solid Waste Resources Update
Report Number	IDE-2020-29

Executive Summary

Purpose of Report

The 2019 Solid Waste Resources Update provides an overview of the operations and activities relating to the management of solid waste performed by the City, an update on the status of the recommendations of the Service Review, and a summary of accomplishments and future plans.

Key Findings

In 2019, Solid Waste Resources maintained its commitment to provide services in compliance with all applicable legislation and build on Guelph's leadership in waste management and continuous improvement activities for a sustainable, service focused and economically viable future.

This report also includes a summary of the status of the 11 recommendations approved by Council as part of the May 2018 Solid Waste Business Service Review: 7 recommendations have been completed, 3 recommendations are in progress and 1 recommendation is pending Council approval.

Financial Implications

All financial implications of the report were included as part the Council approved 2019 Solid Waste Resources Operating and Capital Budgets.

Report

Details

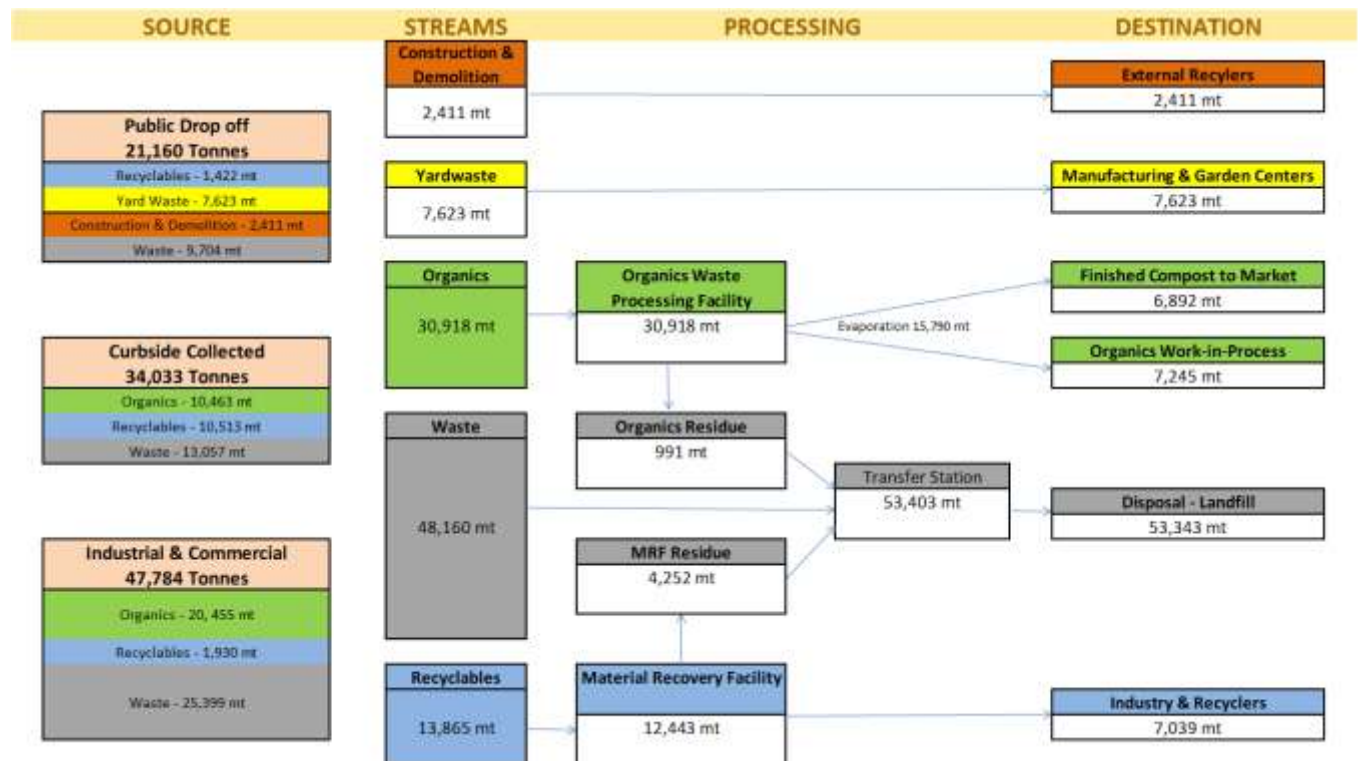
Solid Waste Resources plays a vital role in facilitating the processing, diversion and disposal of waste generated within the City of Guelph and delivers public services better by finding innovative ways to manage Guelph's organic, recyclable, garbage and other solid waste. The department provides integrated waste management services to residential and commercial customers. These services are provided in compliance with all applicable legislation and build on Guelph's leadership in waste management and continuous improvement activities for a sustainable, service focused and economically viable future. Key activities include:

- Providing three-stream, yard waste and bulky item collection services to residents in Guelph

- Operating Guelph’s Material Recovery Facility, Organic Waste Processing Facility, Public Drop-Off facility, Household Hazardous Waste Recovery Facility, and Transfer Station
- Monitoring and maintenance of the former Eastview Landfill and operation of Methane Gas Collection System
- Planning and implementing waste reduction and diversion programs

In 2019, Solid Waste Resources (SWR) saw a total of 102,977 tonnes of material come into the site across its scales. This material was brought in by City collections staff, Guelph residents and third party commercial haulers.

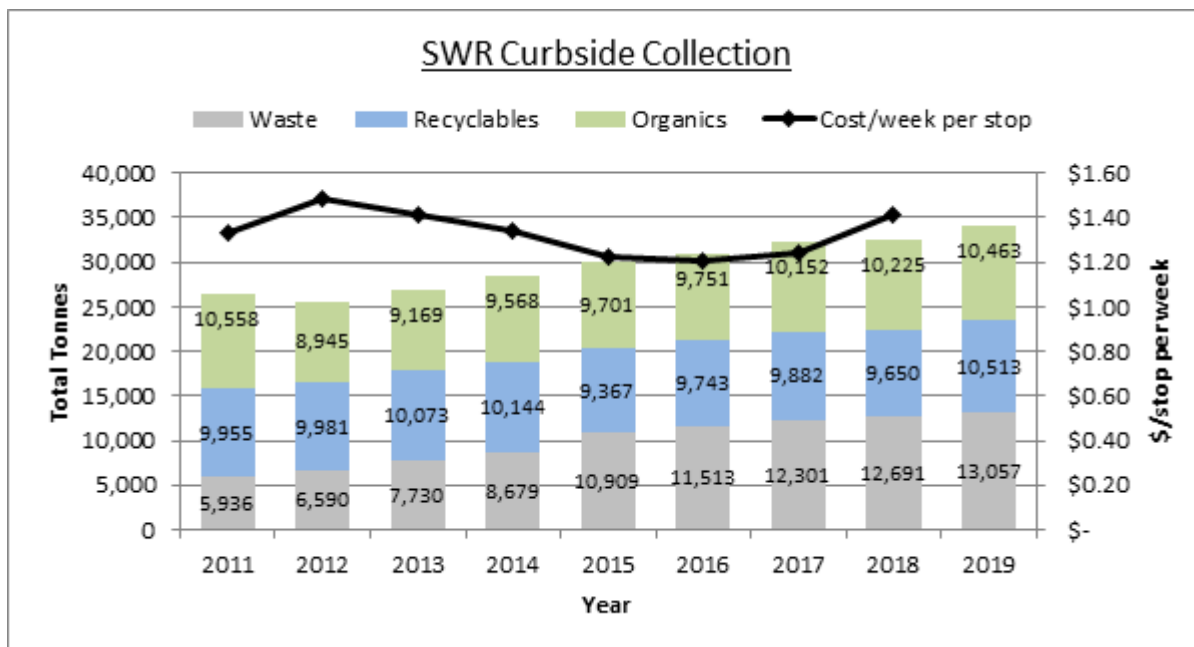
Figure 1 - Breakdown of the material processed in 2019



Curbside Collection

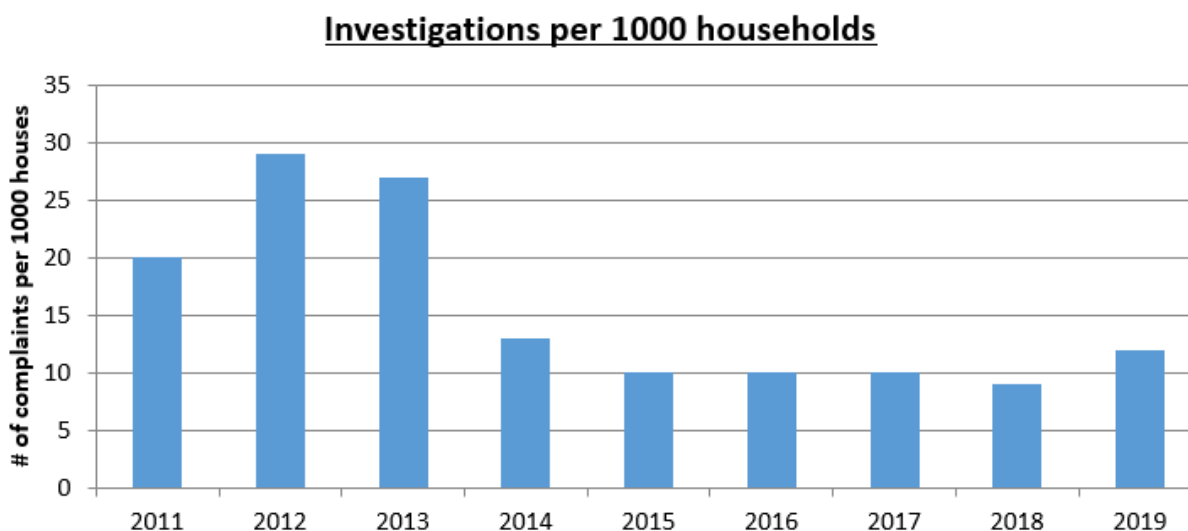
Residential waste, collected by the City at curbside can be broken down into three main streams: organics (green), recyclables (blue), and garbage (grey). While total tonnes of waste collected at curbside have been trending upwards, the collection costs have remained relatively constant over the last several years.

Figure 2 - Curbside collection comparison for 2011 to 2019



The other key metric for collections is resident satisfaction with the service. The 2019 Citizen Satisfaction Survey results revealed 93% satisfaction rating with garbage collection. In 2019, we received 12 requests per 1000 households related to investigations for why waste was not collected. Investigations include all reasons for waste not being collected including improperly sorted waste, late set-outs, incorrect collection day set-outs and missed collections. A historical trend for resident complaints is shown below and has been on a downward trend in recent years.

Figure 3 - Investigations per 1000 households for 2011 to 2019



Multi-residential Front-end Waste Collection

In 2019, staff began rolling out front-end waste collection program at multi-residential properties. In 2019, staff on-boarded 15 properties consisting of 825 units.

As one of the first properties to on-board, the City was proud to work with Habitat for Humanity Wellington Dufferin Guelph, a non-profit organization whose mission is to build affordable housing and promote homeownership as a means to breaking the cycle of poverty. Habitat for Humanity was able to incorporate City waste collection into their development plans. This meant ensuring that the development had necessary space to handle front-loading bins and waste collection vehicles. Both parties worked closely throughout the entire process, ensuring everything was in order prior to starting waste collection and residents had the tools and education needed to be good sorts.

When onboarding to City waste collection, residents are provided educational materials that included a sorting guide and recycling bag, to ensure they know how waste collection works in Guelph and can successfully participate in proper sorting.

Staff will continue to onboard new and existing multi-residential developments over the next several years. Implementation timing is dependent on multi-residential properties private collection contract end dates and the level of interest of parties.

Residential Diversion Rate

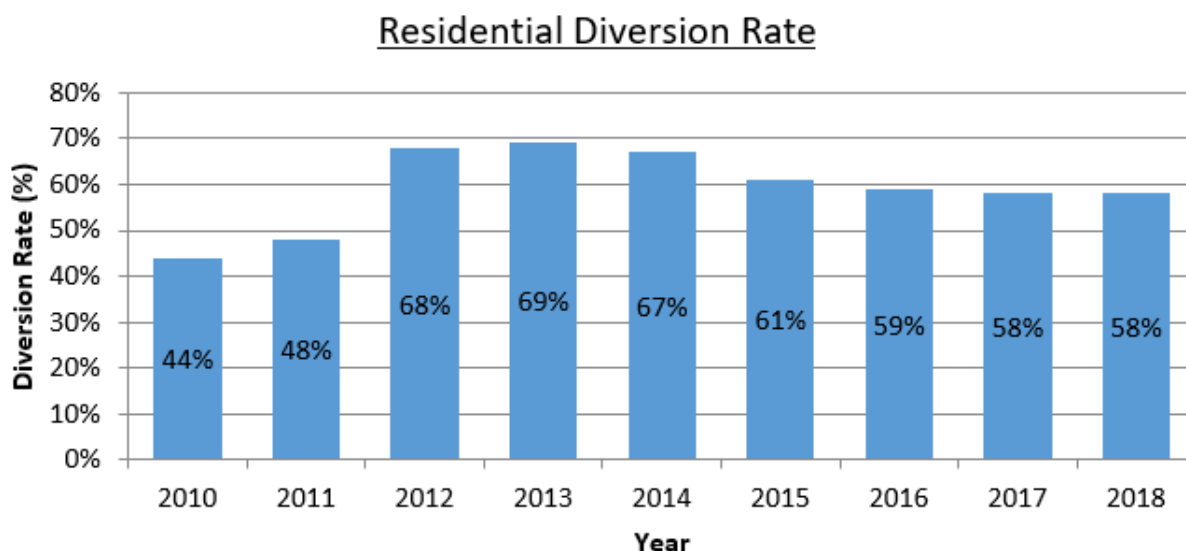
The City of Guelph has long been recognized as a leader in waste collection and diversion activities and remains among the top performers across the province.

Our diversion rate is calculated based on the weight of organics and recyclables collected at the curb, as well as other diversion programs offered at the Public Drop Off as a percentage of the total weight of all waste collected.

A historical look at Guelph's diversion rate going back 10 years is shown in the graph below. Recently Guelph has seen an increase in the weight of garbage and a drop in the weight of recyclables collected at the curb. This is the result of many factors including improperly sorted waste as well as changes in packaging types and a reduction in the use of newsprint. Solid Waste Resources staff work with the community to maintain a high level of awareness with respect to need for proper sorting in order to maximize diversion from landfill.

At the time of this report, the data for 2019 is being finalized for required submissions to the Resource Productivity and Recovery Authority.

Figure 4 - Residential diversion rates for 2010 to 2018



Industrial and Commercial Customers

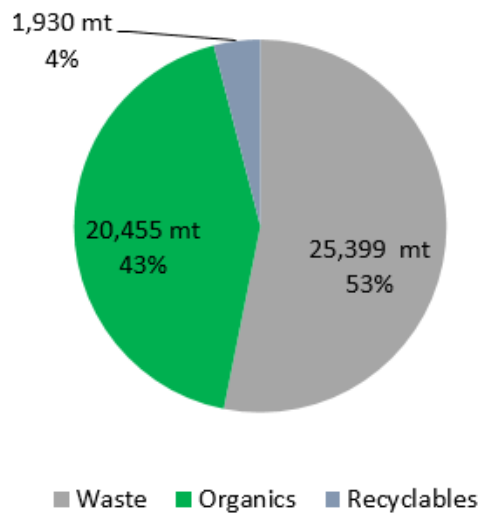
While waste from residential sources makes up approximately 54% of material received at the Waste Resource Innovation Centre, Solid Waste receives another 46% of material from industrial and commercial waste haulers.

This third party volume is critical in providing revenue to offset costs and also highlights our ability to build relationships and partner with commercial haulers as the waste management facility of choice.

As shown in the chart below illustrating the breakdown of the industrial and commercial customers, more than half or 53% of the tonnage consists of waste that is brought in from local businesses and other waste companies into the Transfer Station. A further 43% of organics is brought into the Organic Waste Processing Facility on contract with the Region of Waterloo. A smaller 4% percentage of recycling material is brought in from the University of Guelph with some other sources of dedicated cardboard. This percentage has dropped from prior years as a result of the City concluding its recycling contracts in order to align the Material Recovery Facility for Guelph tonnage and prepare for transition to full producer responsibility.

Figure 5 – Industrial and commercial customers breakdown

Industrial & Commercial Customers



Processing Operations

Solid Waste Resources processes organics and recyclables in the Organic Waste Processing Facility and Material Recovery Facility, respectively.

In 2019, the city processed 30,918 tonnes of source separated organics through contract operation with Wellington Organix. 6,892 tonnes of finished compost material was marketed for agriculture application

In 2019, the city produced and marketed approximately 7,039 tonnes of recyclable material. The commodities shipped are shown in the chart below.

Figure 6 Material Recovery Facility 2019 output

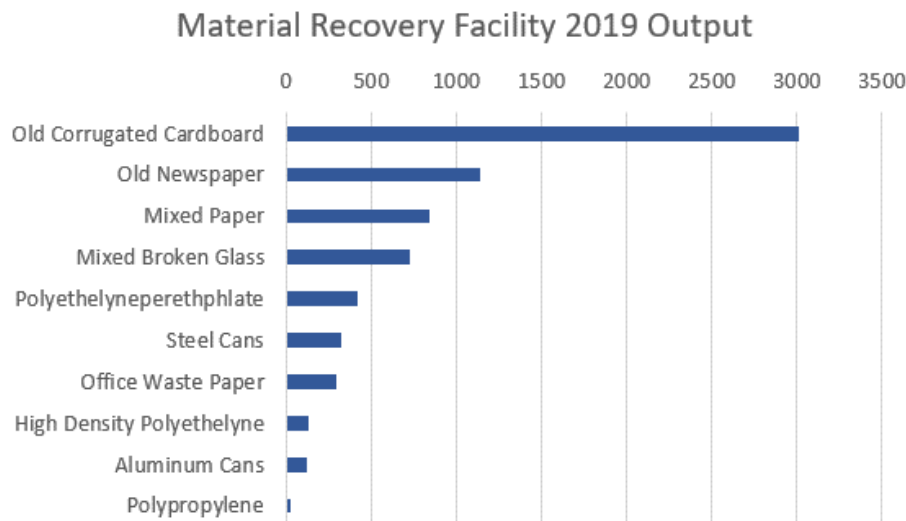


Figure 7 - Illustrates destinations and typical end market uses for Guelph's recyclables

Material	Country	Province/State	Examples of end products
PET #1 polyethylene terephthalate	Canada/US	ON, PA, OH	Water bottles
HDPE #2 high density polyethylene	Canada/US	ON, PA, AL	Automotive, Agriculture tile
PP #5 polypropylene	Canada/US	ON PA, AL	Laundry hampers, toys
Aluminum	US	NY, KY, TN, AL	Soda cans, Automotive
Steel	Canada	ON	Steel cans, Automotive
Glass	Canada	ON	Fibreglass insulation
Old Corrugated Cardboard	Canada/US	ON, PQ, NY	Liner board, paper towel
Old Newspaper / Mixed Paper	Canada/India	ON, Northern India	Egg cartons, ceiling tiles
Office Waste Paper	Canada	QC, ON	Toilet paper

Solid Waste Resources business review update

Solid Waste Resources underwent the first service review as a pilot of the Council-approved Business Service Review framework (CS-2016-61). The final report was received by Council in May 2018. The table below provides a status update of the 11 recommendations identified in the final report which were endorsed by Council for implementation: 7 recommendations have been completed, 3 recommendations are in progress and 1 recommendation is pending Council approval.

Figure 1 - Status Update of the 11 Recommendations Identified

Recommendation	Status
1. Increase service level for curbside yard waste collection to bi-weekly collection during growing season.	Pending. Staff are preparing a yard waste tender for the 2020 season. The tender will also include costing for increased collection frequency to inform the 2021 budget process.
2. Extend the lifecycle of the waste collection (packer) trucks from seven to ten years to achieve optimal economic life.	Complete. Waste collection packers lifecycle have been moved to 10 years. Maintenance impacts are being monitored.
3. Phase in the approved service level increase for waste collection service to multi-residential properties.	Complete. Waste collection service has been expanded to include front-end collection service at Multi-residential properties. In 2019, 15 properties (825 units) were on-boarded. The program will continue to phase in properties as collection contracts end and properties show interest.
4. Consider alternative levels of service for the PDO hours of operation to optimize resource usage and gain efficiencies.	Complete. Service hours have been adjusted to reflect customer service seasonal volumes. The household hazardous waste depot hours were extended to include Mondays, Saturday hours were extended to 4PM and services at Gate 2 Gate 3 were moved to Gate 1 during off peak times.
5. Move forward with the Solid Waste Management Master Plan update in 2018/2019. Ensure the scope of activity includes: a. Identify, enhance and/or implement programs to improve diversion, optimize customer service and seek cost efficiencies. b. Develop a long-term growth forecasting model, in line with the existing Development Charges and Development Priority Planning processes, internal Finance processes and Asset Management policy, to proactively identify growth impacts across all waste service elements.	In Progress. The Solid Waste Management Master Plan Review is now underway. The scope of work includes increasing diversion, optimizing customer service and seeking cost efficiencies, as well as, developing long-term growth forecasting models.

Recommendation	Status
<p>6. Continue to optimize processes to enhance waste division performance and employee engagement. Formalize the Blitz team continuous improvement activity and extend the practice across all service elements.</p>	<p>Complete. Task forces for the Materials Recovery Facility and Public Drop Off are ongoing have replaced the initial blitz team and formalized the continuous improvement process.</p>
<p>7. Add process engineering and project management capacity to the SWR division to support the recommendations made in this report and lead continuous improvement initiatives, performance measurement development and overall tracking and reporting.</p>	<p>Complete. Technical Specialist / Project Manager position was approved by Council and is undertaking engineering and project management support.</p>
<p>8. Ensure financial analysis resources and/or skill sets are added to the SWR division, to provide greater accuracy and control in performance measurement and financial management and support improvements as identified in the Deloitte Variance Task Force review.</p> <p>a. Conduct a long-term cost recovery study to effectively assess the impact of future revenue changes and analyze potential adjustment scenarios.</p>	<p>Complete. Financial Advisor position was approved by Council and the position successfully filled in April 2019.</p> <p>In Progress. Cost Recovery Study is included in the scope of work for the Solid Waste Management Master Plan Review which is now underway.</p>
<p>9. Create a solid waste financial reserve to help offset the volatility of the commodity market and reduce annual variance impacts.</p>	<p>Complete. The Environment and Utility Contingency Reserve #198 was expanded to include mitigating the Environmental Services' commodity pricing volatility risk.</p>
<p>10. Implement the Simcoe transition strategy to achieve cost savings and efficiency of operations by aligning MRF operations with Guelph tonnage and processing requirements.</p>	<p>Complete. Contract has concluded and processing operations in the Materials Recovery Facility have been aligned for Guelph tonnages.</p>
<p>11. Continue to monitor and update Council on the a-BBPP transition timeline and implications of proposed changes.</p>	<p>In Progress. Staff are continuing to advocate Guelph's needs to the Ministry of Environment, Conservation and Parks and will continue to keep Council informed as new information becomes available.</p>

Environmental, health and safety compliance

Maintaining compliance with Ministry of Environment, Conservation and Parks, Ministry of Labour and Ministry of Transportation requirements are a critical part of the operations and commitment. We have strategically scheduled and executed compliance activities into our culture to ensure a proactive and continuous improvement approach.

We are also committed to ensuring that our operations do not have a negative impact on our neighbors in the community through ongoing collaboration, training and monitoring to ensure that we are exceeding the requirements set out in our Environmental Compliance Approvals.

As an example, in 2019 there were four quarterly Waste Resources Innovation Centre Public Liaison Meetings attend by staff as well as a representative from Wellington Organix Inc., the City's contract operator for the OWPF. PLC members reviewed and provided input with respect to the City's Source Separated Organics (SSO) program and processing including tonnage processed and review of odour complaints. The PLC also reviewed annual reports and site activities.

Highlights included continued success with respect to odour mitigation resulting from upgrades to the odour control system in 2017, and the PLC celebrated the commitment and dedication of three of its PLC members who served the committee for the full eight years as permitted by the PLC Terms of Reference.

Accomplishments in 2019

- 2019 Citizen Satisfaction Survey results revealed 93% satisfaction rating with garbage collection.
- Kick off of our five year review of the Solid Waste Management Master Plan, approval of the Public Advisory Committee and engaging the University of Guelph ICON program.
- Update and approval of our Waste Management By-law to reflect the expanded multi-residential front-end bin collection program, banning of grass clippings from the organics bin, and concluding service for bio-medical waste generators.
- Rollout of the expanded multi-residential program onboarding 15 properties and 825 units in 2019.
- During Waste Reduction Week 2019, the City revealed a new Corporate Sustainable Waste Management Policy that will target waste diversion at City Hall and will be rolled out to other City facilities in the future.
- Collection staff community pride recognized in the Tribune Mercury and across social media for connection to youth.
- Public drop-off staff recognized across social media for their professional and helpful public service service.
- Materials Recovery Facility Staff recognized for their community toy drive initiative and promoting the Waste App on Magic 106.1.
- Supported Smart Cities/Our Food Future work as City project lead for the Waste as a Resource Workstream.

Planning for Our Future

Solid Waste Resources will continue to search for innovative methods to drive continuous improvement activities in our daily operations. Some key areas we will be looking to further explore include:

- Completing the five year review of the Solid Waste Management Master Plan to provide effective waste collection and increase diversion rates
- Preparing for legislative changes related to Extended Producer Responsibility under the Waste Free Ontario Act
- Continuing onboarding front-end multi-residential waste collection
- Completing Phase 2 of Waste Resources Innovation Centre site logistics and scale upgrades
- Building new Collections Operation Centre and expansion of the Administration Building

Financial Implications

All financial implications of the report were included as part the Council approved 2019 Solid Waste Resources Operating and Capital Budgets.

Consultations

Teisha Colley-Balgrave, Corporate Analyst, Finance

Strategic Plan Alignment

This report is aligned with the Strategic Plan Priorities of Sustaining our Future by providing waste management in a sustainable way; Building our Future by maintaining existing solid waste assets and securing new assets; and Working Together for Our Future through our collaborative approach to the delivery of solid waste services.

Attachments

Attachment 1 - A high level summary of the Solid Waste Resources operations

Departmental Approval

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Attachment 1

A high level summary of the Solid Waste Resources operations

