
Subject: Considerations of City of Niagara Falls Withdrawing from Regional Waste Management Services

Report to: Public Works Committee

Report date: Tuesday, March 10, 2020

Recommendations

1. That Council **DECLINE** the Niagara Falls request to provide waste management services within the City of Niagara Falls and **DIRECT** Niagara Region's Clerk to advise Niagara Falls of the decision of Council;
2. That staff **PROCEED** with the implementation of the contract as approved by Regional Council on October 17, 2019; and
3. That Report PW 14-2020 and Council's resolutions **BE CIRCULATED** to the Local Area Municipalities (LAMs) for their information.

Key Facts

- The purpose of this report is to provide Regional Council with relevant background information on the Negotiated Request for Proposal (NRFP) process leading up to the commencement of the new waste collection contracts, and to identify the key considerations of Niagara Falls opting out of Regional waste management services, as well as address information that has been published recently in the media.
- A formal request for assumption of waste management services from the City of Niagara Falls was received by Niagara Region on Thursday, January 30, 2020 (Appendix 1).
- If the City of Niagara Falls were to withdraw from Regional waste management services there would be operational, legal, financial and customer service impacts. The legal implications are the subject of a separate closed session report (Confidential PW 15-2020).
- If the City of Niagara Falls were to withdraw from all Regional waste management services, staff recommends that as a pre-condition of such approval, Niagara Falls be allocated a portion of the costs associated with those programs that they participate in, as well as closed landfill and a subset of open landfill operating costs. Under this scenario and based on the current funding methodology for allocation of

waste management costs, the remaining 11 LAMs receiving waste management services from the Region would experience an estimated budget increase of 25% for 2021 compared to the projected increase of 18.5% as a result of increased collection contract costs. If Niagara Falls is not required to pay their estimated share of closed landfill related costs in addition to monitoring and leachate processing costs associated with open landfills which have received Niagara Falls tonnage, the 11 LAMs would have to absorb those costs, resulting in a further increase to the 2021 budget to an estimated total of 27%.

- Notwithstanding the above, a review and potential amendment to the waste management system financing methodology, which was approved in 2011, may be required to ensure fair allocation of costs to the remaining 11 LAMs.
- There would be a duplication of staff to administer, manage and support the development and implementation of waste management services.
- The proposed withdrawal would be detrimental to the ability of the Region to achieve its goals of maximizing waste diversion.
- The procurement process undertaken by the Region for the waste collection contracts embraced and encouraged innovation in a number of respects; and specifically regarding single stream and cart-based recycling, staff noted a number of operational and financial challenges to such systems including the risk presented by the transition of the province's Blue Box Program to producer responsibility in which municipalities that undertake program changes at this time are at risk of assuming cost and service level implications.

Background

Niagara Region will commence new waste collection contracts on October 19, 2020 with Green for Life (GFL) Environmental Inc. servicing Collection Area One (1) and Miller Waste Systems Inc. servicing Collection Area Two (2).

- **Collection Area One** (the Town of Grimsby, the Town of Lincoln, the Town of Pelham, the City of Thorold, the Township of Wainfleet and the Township of West Lincoln); and
- **Collection Area Two** (the Town of Fort Erie, the City of Niagara Falls, the Town of Niagara-on-the-Lake, the City of Port Colborne, the City of St. Catharines, and the City of Welland).

Preparation for these new waste collection contracts began in April 2018 when Council approved the proposed service levels to be included in stakeholder consultation. Consultation with LAMs, business groups and residents started in May 2018 and continued into February 2019. In March 2019, Council approved the collection service options to be included in the Negotiated Request for Proposal (NRFP), including every-other-week (EOW) garbage collection. The NRFP for waste collection services was released on August 1, 2019 and closed on September 17, 2019. Council approved EOW garbage collection on October 17, 2019 as the chosen collection scenario. A detailed timeline of events in the RFP process can be found in Table 1.

Table 1 Key Dates in the RFP Process

Date	Action
April 12, 2018	Regional Council approved the proposed levels for stakeholder consultation
May 2018 to February 2019	Consultation with Local Area Municipalities, business organizations, residents
January 9, 2019	Staff recommended service level options to Public Works Committee (PWC) for inclusion in the NRFP, including EOW garbage collection
March 19, 2019	Regional Council approved collection service options to be included in the NRFP, including EOW garbage collection Regional Council approved the inclusion of a living wage clause in the NRFP and to not proceed with a managed competition bid process (in-house bid)
August 1, 2019	NRFP released
September 17, 2019	NRFP closed
September 18 to 30, 2019	Technical evaluation of NRFP
October 17, 2019	Regional Council approved EOW garbage collection as the preferred collection scenario
October 25, 2019	Best and Final Offer (BAFO) pricing submitted by short-listed proponents
October 31 to November 6, 2019	Negotiation period
November 14, 2019	Regional Council approved optional services
December 12, 2019	Regional Council approved the 2020 budget on the basis

Date	Action
	of EOW and with mitigation from reserves for 3 year budget increases of 9.9%
Q4 2019 to Q1 2020	LAMs select Enhanced Services
January 8 to 9, 2020	Execution of agreements
October 19, 2020	Commencement date of new contract

It is Niagara Region's understanding that, due to the perception of a reduced level of service in regards to EOW garbage collection, increased contract costs, and concerns over a perceived lack of innovation, the City of Niagara Falls would like to opt out of Niagara Region's waste management services, and assume these services for the City of Niagara Falls. A formal request for assumption of waste management services from the City of Niagara Falls was received by Niagara Region on Thursday January 30, 2020, and can be found in Appendix 1.

Financial Considerations

Base collection services, as determined by Regional Council, are provided to all municipalities and the costs for these services, along with all processing, disposal and planning and administrative net costs, are apportioned to the municipalities through the waste management requisition based on the number of residential units as per the prior year's MPAC data. For the enhanced services, each municipality determines the services they wish to provide to their residents and the costs associated with those particular services are added to their specific municipal requisition. The cost that is requisitioned for enhanced services includes both the collection cost charged by the contracted service provider and an estimate of the portion of disposal costs that are related to the enhanced services based on sample weights that are taken twice per year as representative of the tonnage that is typically collected.

The City of Niagara Falls' resolution includes a request to opt out of any or all of the waste management services provided by Niagara Region and assume those services, with the exception of property matters such as the open or closed landfills. If approved, it is recommended that Niagara Falls as a pre-condition of such approval, be allocated a portion of the costs associated with those programs that they participate in, as well as landfill operating and monitoring costs. An allocation of landfill costs has been included in staff's analysis because Niagara Falls has contributed to the tonnage that has gone into the landfills, which leads to the on-going environmental monitoring and leachate processing costs. The remaining net waste management costs will be apportioned to

the remaining 11 LAMs. If Niagara Falls is not required to pay their estimated share of landfill costs, the 11 LAMs would have to absorb those costs as well.

Based on multi-year estimates, the overall net waste management budget increase for 2021 is anticipated to be 18.5%, without any reserve mitigation. This increase is mainly due to the increased collection contract costs. With the new collection contract anticipated to start October 2020, the approved 2020 budget included an estimate of anticipated collection costs under the new contract for the last three (3) months of the year only. The full impact of the new collection contract is included in the 2021 multi-year budget estimate. For the 2020 operating budget, Niagara Falls was apportioned approximately 19.1% of the base waste management net program costs of \$37.1 million.

The Region's 2020 waste management operating budget was approved by Council in December 2019. If a change were to be required in 2020 due to Niagara Falls opting out, the following processes would be affected:

- An in-year budget amendment (including a revised by-law) would be required to adjust the Council-approved 2020 budget.
- The municipal requisitions for all municipalities would be impacted and require amendment.
- Waste Management tax rates would have to be amended prior to final 2020 tax billing to residents which generally occurs at the beginning of June for the June 30 due date.
- This would necessitate the above processes being complete by the end of May at the latest to facilitate the LAM tax billing process.
- Due to these time constraints, approximately 11 weeks, it may not be possible for the City of Niagara Falls to opt out without leaving the Region responsible for a portion of the costs attributable to Niagara Falls waste management services.

It is estimated that if Niagara Falls is allowed to opt out of all Regional waste management services, with the exception of the landfills, the remaining 11 LAMs receiving services from the Region would see an estimated 2021 budget increase over 2020 of 25%, or approximately \$40 per household. The original multi-year budget estimate for 2021, without any reserve mitigation, projected an increase of 18.5%, or approximately \$29 per household, which includes service for the City of Niagara Falls. This additional increase of 6.5%, or \$11 per household, is attributable to the sharing of Niagara Falls' portion of costs in the amount of approximately \$2.1 million for the Region's waste management programs and services, including diversion programs and

administrative program delivery costs amongst the 11 LAMs. If Niagara Falls is not required to share in all closed landfill related costs in addition to monitoring and leachate processing costs associated with open landfills which have received Niagara Falls's tonnage, the remaining 11 LAMs would also have to absorb these costs of an estimated \$800,000, bringing the estimated budget increase for 2021 to 27%, or \$44 per household. The analysis and assumptions made with respect to the budget impacts are based on the current allocation methodology in place to allocate waste management costs amongst the municipalities.

The anticipated budget and requisition changes are based on the following assumptions and estimates:

- Estimates of collection contract cost reductions related to Niagara Falls have been based on the current cost per household based on the current collection contract cost including all 12 municipalities. This assumption is dependant on renegotiation of contracts to exclude one municipality and actual results may vary.
- Budget reductions associated with the removal of Niagara Falls from all waste management services, including the cost to process organic material and disposal costs for processing of waste at Walker's landfill.
- Reduced revenue from the sale of recyclable material and a reduction of garbage bag tag revenue.
- A review of resources required to operate the Region's waste management programs and services with the elimination of Niagara Falls would occur; however, savings have not been factored in, as it is not anticipated that there would be significant opportunities for reductions and related savings, as the resources will still be needed to support the programs for the remaining LAMs.
- A review and potential amendment to the waste management system financing methodology, which was approved in 2011, may be required to ensure fair allocation of costs to the remaining 11 LAMs and may affect the anticipated municipal requisitions.

Through the 2020 operating budget process in CSD 70-2019, staff recommended a mitigation plan to assist in phasing in the increased costs of the new collection contract, which includes significant use of Waste Management Stabilization reserve funding over a 2020, 2021 and 2022. The intent of the reserve funding was to limit the annual increase to 9.8% over the next three years, adjusted to 9.9% for 2020 and 10.2% for 2021 with the inclusion of weekly diaper and medical waste collection service. This recommendation would be subject to the availability of future year reserves and approval of Council for each of 2021 and 2022.

However, the balance of the Stabilization reserve is insufficient to mitigate the full increase for the 11 LAMs, and the increase to the LAMs would be greater than the 10.2% previously recommended for 2021 and 2022. Also, if direction is given to use the Stabilization reserve funds to offset any impact to the 11 LAMs of Niagara Falls opting out of the Region's services in 2020, this would further impact the ability to mitigate increases in future years.

Analysis

EOW Garbage Collection

One of the key decisions made during the NRFP process was Council's approval of EOW garbage collection. Although it has been perceived by some as a decrease in service, residents can still set out the same volume of material. For example, residents who currently have a limit of one (1) container (bag/can) per week will be allowed to set out two (2) containers (bags/cans) EOW, with organics and recycling collected weekly. Only the frequency of garbage collection changes, not the limit. Experience in comparator municipalities shows that EOW garbage collection is a more important driver of diversion than very restrictive garbage limits. Niagara Region's one (1) bag/container per week residential garbage container limit is already one of the more stringent among comparator municipalities. However, Niagara Region's diversion rate is stagnant.

Currently, a typical low-density residential (LDR) garbage bag in Niagara region contains nearly 50% organic waste and 14% recyclable material. Additionally, only 48% of Niagara region's LDR households are using the Green Bin program. Reducing the frequency of garbage collection will motivate residents to recycle and use the Green Bin, as unlimited, weekly Blue/Grey Box and Green Bin collection will continue. By utilizing all diversion programs, residents will reduce the amount of garbage placed at the curb, and increase waste diversion.

Placing organics in the Green Bin for weekly collection also ensures that material that can attract pests and rodents is secured in a solid container with a locking lid. Experience from other municipalities has shown that switching to EOW garbage collection did not result in any increases in rodents, provided residents use their Green Bin and store waste properly. Peel Region reported a decrease in rodent complaints after switching to EOW garbage collection.

Niagara Region has received limited direct public response to Council's resolution to approve EOW garbage collection. Overall, staff have received only 23 calls since October 2019 related to EOW collection. Four (4) calls were from residents that expressed support of the decision and nineteen (19) calls were from residents expressing concern.

Benefits of EOW Garbage Collection

The following environmental and financial benefits are expected with an increase in waste diversion resulting from EOW garbage collection:

- Conservation of non-renewable resources;
- Reductions in energy consumption and pollution (both water and air). The extraction, processing and manufacturing of raw materials requires more energy and consumption of fossil fuels than recycled materials;
- Net reduction in Greenhouse Gas (GHG) emissions through increased composting and recycling, and from fewer collection vehicles on the road;
- A reduction in the amount of organics being landfilled will result in less methane emissions and improved leachate quality, which lessens the potential for environmental impact;
- Long-term cost reduction in the care and control of landfill sites, due to improved leachate quality;
- Increased net processing revenue from the sale of more recyclables due to increased volumes; and
- Extended site life for open Regional landfills, resulting in deferred capital costs for new disposal infrastructure.

Additionally, EOW garbage collection will help Niagara Region align with impending Provincial legislation and regulations. On April 30, 2018, the Ministry of the Environment, Conservation and Parks (MECP) released their Food and Organic Waste Framework, which is comprised of two (2) complementary components: Part A: Food and Organic Waste Action Plan; and Part B: Food and Organic Waste Policy Statement. The Action Plan outlines strategic commitments to be taken by the province to address food and organic waste. Municipalities are responsible for several actions within the framework, including Action 9: Province to ban food and organic waste from ending up in disposal sites (phased-in beginning 2022).

Increased Pricing

Niagara Region has seen an overall increase in the cost of the collection contract compared to the current contract. It should be noted that the pricing from the current collection provider was approximately \$4 million less annually than the next lowest bidder. There have also been significant price increases over the last decade that have affected contract costs. Municipalities across Ontario have experienced increases in collection contracts ranging from 20% to 114%. Key areas where rising costs have affected contract pricing include:

- Labour;
- Insurance;
- Fuel; and
- Vehicle/technology costs.

Although overall contract costs have increased as a result of these factors, moving to EOW garbage collection has provided opportunities for cost-avoidance. Based on the bids from proponents in the NRFP process, the selection of EOW collection provides an estimated annual contract cost avoidance in the range of \$1.1 million, based on comparing the average prices of weekly and EOW to the final prices for EOW, submitted as part of the BAFO. This is in addition to the cost-avoidance associated with increases in diversion.

As previously noted, the extended site life for open Regional landfills resulting from increased diversion defers capital costs for new disposal infrastructure. As a point of reference, the Humberstone Landfill site vertical expansion will have a total cost of approximately \$11.2 million. The total cost to construct the Durham-York Energy from Waste facility was \$295 million and in 2018, the facility received 140,780 tonnes of waste at a net operating cost of approximately \$9.2 million.

Increased diversion also reduces long-term costs for the care and control of landfill sites, due to improved leachate quality. Based on the Region's Landfill Liability Model, the contamination life and monitoring would be reduced by approximately five (5) years, and thus produce an estimated cost avoidance for the two (2) Regional landfill sites of \$1.3 million.

There is also a potential cost avoidance/cost reduction in the landfill contract with Walker Environmental due to an increase in the diversion of waste from disposal. This

may be offset by increased tonnages of food and organic waste collected at the curb and increased processing contract costs, unless the tonnages are reduced through food waste avoidance and other reduction initiatives

Innovation

NRFP Clauses

The City of Niagara Falls has expressed concern that the Region did not include innovation as part of the NRFP. Overall, the NRFP provided flexibility to proponents to put forward innovation by not being prescriptive (i.e. defining vehicle type and specifications). In addition, during the evaluation process, points were awarded for innovation. Clauses existed in the NRFP for a green fleet, the Region's willingness to participate in technology/service trials (i.e. trials of new collection equipment, or methods for collection and haulage that would improve service or reduce costs), and encouraging the use of alternative technologies and fuel sources to reduce GHG emissions. The clauses above relate to technological innovation, and Niagara Region also included additional innovative requests such as paying all workers (permanent and temporary) providing work on the contracts, not less than a living wage, as set by the Ontario Living Wage Network.

Best Practices

EOW garbage collection is a method of service delivery used to maximize existing landfill capacity, and is considered best practice in encourage participation in the Blue/Grey Box and Green Bin programs. Of Niagara Region's municipal comparators, 70 per cent (70%) provide EOW garbage collection. Weekly garbage collection provides little incentive for residents to utilize all three (3) waste streams, knowing all waste is collected weekly.

Procurement Process

The procurement process for the new waste collection contracts was innovative and a first for Niagara Region. Releasing a NRFP allowed Niagara Region to secure the best price for the services to be provided. As per resolutions previously approved by Council through Confidential Report PW 43-2019, Niagara Region used a multi-stage process to conduct the evaluation, selection and negotiation process for the NRFP. In the first stage, proposals were evaluated based on rated criteria, including proponent experience, performance history, capability to perform work, implementation plan, staffing plan and work plan, vehicles/equipment, and use of alternative technologies and fuels. Proposals were evaluated and scored separately for each collection area and collection scenario. Pricing for each collection area and collection scenario was scored

separately. The rated criteria was worth 70% of the total score, and pricing was worth 30% of the total score. In the next stage, with direction from Council on the chosen collection scenario, EOW garbage collection, staff invited all short-listed proponents to submit their best and final offer (BAFO) at less than or equal to their original submitted pricing for Council's chosen scenario. Pursuant to the BAFO process, BAFO submissions were evaluated solely on price, but the Total Final Score for the final ranking of proponents was based on the proponent's BAFO pricing score and proponent's original scores for Part A Criteria and Part B Criteria for the chosen Collection Scenario. Pricing was worth 60% and non-price criteria was worth 40%. The highest-ranking proponent for each Collection Area was invited to enter a final round of negotiations with Niagara Region as per the steps in the procurement process presented in the confidential report PW 62-2019.

Single Stream and Cart-Based Collection

The City of Niagara Falls has cited single stream, cart-based recycling as an innovation not considered by Niagara Region. Dual and single stream cart-based collection was considered as per reports WMPSC-C 11-2019 and PW 3-2019; however, due to the high cost of capital equipment required, this type of service was not recommended. Single stream recycling can be implemented without moving to a cart-based program, however collection efficiencies can only be achieved with automated vehicles. Appendix 2 provides details on single stream and cart-based collection systems based on research and experience in other municipalities.

Cart-Based Collection

Key concerns with cart-based service delivery include:

- Significant initial costs for purchase and distribution;
- On-going annual maintenance and replacement costs associated with carts;
- Reliance on residents to place containers properly at the curb for collection (grab bar facing road, properly spaced);
- Storage space requirements for multiple carts;
- Challenges with wheeling carts down long driveways or in snowy/icy conditions;
- Cart-based collection may not be efficient or feasible in certain areas;
- Increased costs for automated collection vehicles and maintenance requirements; and
- Additional staffing and resident education requirements to support the transition to a cart-based system.

Single Stream Recycling Collection

Key concerns with single stream recycling collection include:

- Increased contamination in carts resulting in a decrease in the Region's revenues and difficulty with marketing recyclables;
- Costs associated with retrofitting Niagara Region's Material Recovery Facility (MRF) from the current two-stream operation to a single-stream operation; and
- Increased processing costs for recyclable materials.

With recent declines in commodity prices and stricter end market standards, moving to a single stream recycling system could further decrease revenue, as single stream contamination rates have shown to be higher. The CIF reports that the 2019 Ontario average residual rate for single stream recycling is 30.3 per cent and the multi-stream residual rate is 9.5 per cent.

Blue Box Program Transition to Producer Responsibility

Under the Province's Made in Ontario Environmental Plan, waste diversion programs, including the Blue Box Program, are expected to shift to the producer responsibility model. Under this model, Niagara Region would no longer be responsible for providing collection and processing of Blue Box materials. This would be the responsibility of the producers. Therefore, staff have not considered it advisable to invest in and implement major program changes.

A Special Advisor's report on Recycling and Plastic Waste was released on August 6, 2019, providing recommendations for the province about timelines for transition, materials, targets, and collection requirements. The report stated that producers should provide curbside collection in municipalities in which the service exists, as of a specified date. The producers will be required to assume responsibility for collection services of Blue Box materials for every residence that received municipal Blue Box services prior to transition. The Resource Productivity and Recovery Authority's (RPRA) Datacall, which is the source of data for determining the net Blue Box system cost and for allocating funding under the Blue Box Program Plan, will be locked down at some point (date unknown) to form the basis for the system in transition. On November 27, 2019, the Ministry of Environment and Climate Protection (MECP) hosted a webinar informing stakeholders about the Province's next steps, confirming that municipalities will transition between 2023 and 2025. As discussions related to development of regulations

are currently underway with stakeholders, municipalities that undertake program changes at this time are at risk of assuming cost and service level implications.

Operational Considerations of Niagara Falls Assuming Waste Management Services

As a result of the City of Niagara Falls assuming the City's waste management services there will be a duplication of staff to administer, manage and support the development and implementation of waste management programs and initiatives which already exist at the Regional level.

There are significant operational considerations for the City of Niagara Falls assuming the City's waste management services, including, but not limited to:

- The procurement of a collection contractor;
- The procurement of contracts for the disposal of garbage, and processing of recycling, organics and Household Hazardous Waste (HHW); Building and operating a HHW depot will require approvals from MECP
- If the Blue Box program shifts to single stream, the closest single stream processing MRFs are in Burlington and the United States.
 - The development of promotional and educational material and management of customer service calls, online inquiries, etc.;
 - The sale and distribution of collection containers and garbage tags;
 - The development and enforcement of a waste management by-law; and
 - Mandatory reporting (i.e. RPRA Datacall).

Potential impacts for residents and businesses include:

- Decrease in customer convenience and accessibility for Niagara Falls residents and other users, who will not longer be able to use Regional facilities and services including the HHW program, Reusable Goods Drop-Offs, landfills and Drop-Off Depots;
- If changes to Niagara Falls' diversion programs (i.e. single stream recycling) or other service level changes occur, inconsistent service across the region may cause confusion among service users in Niagara Falls and neighbouring municipalities. Also, improper sorting of materials related to inconsistent services may lead to increased contamination rates in the Blue Box and organics programs.
- Challenges arising from resident and other service user confusion regarding whom to contact for program information and to report service problems.

A backgrounder has been provided in Appendix 3 that includes an inventory of Waste Management programs and services provided by Niagara Region and the operational considerations of the City of Niagara Falls assuming these services.

Legal Considerations

The potential legal considerations associated with a decision by the City of Niagara Falls to withdraw from Regional Waste Management Services are provided in Confidential Report PW 15-2020.

Alternatives Reviewed

If Council does not support the staff recommendation, further information on the legal considerations can be found in Confidential Report PW 15-2020.

Relationship to Council Strategic Priorities

The considerations of the City of Niagara Falls withdrawing from Regional Waste Management Services relates Council's Objective 3.2: Environmental Sustainability and Stewardship.

Other Pertinent Reports

- WMPSC-C 28-2018 Ontario's Food and Organic Waste Framework Action Plan
- PW 3-2019 Proposed Base Services for Next Collection Contract
- WMPSC-C 5-2019 Stakeholder Engagement Results on Proposed Collection Service Changes
- PW 20-2019 Base and Enhanced Services for Next Collection Contract
- PW 43-2019 Confidential A Matter of Advice that is Subject to Solicitor-Client Privilege under s. 239(2) of the Municipal Act, 2001 – 2019 Waste Collection RFP – Next Steps
- PW 61-2019 Base Level Service for Waste Management Collection Contract
- PW 62-2019 Confidential Financial Information Supporting Waste Management Collection Contract Procurement Process

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This report was prepared in consultation with Sara Mota, Program Financial Specialist, Brad Whitelaw, Program Manager, Policy and Planning, and reviewed by Lydia Torbicki, Manager, Waste Policy and Planning and Catherine Habermehl, Director, Waste Management Services.

Appendices

- Appendix 1 City of Niagara Falls Request for Assumption of Waste Management Services
- Appendix 2 Single Stream and Cart-Based Collection
- Appendix 3 Overview of Niagara Region's Waste Management System and Associated Considerations for the City of Niagara Falls



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January 30, 2020

Ann-Marie Norio, Regional Clerk
Regional Municipality of Niagara
1815 Sir Isaac Brock Way
P.O. Box 1042
Thorold, ON L2V 4T7

By email to: ann-marie.norio@niagararegion.ca

Dear Ms. Norio:

**Re: City of Niagara Falls Request for Assumption of
Waste Management Services**

On November 28, 2020, the Council of the City of Niagara Falls passed the following resolution:

That Council formally request that the Regional Municipality of Niagara allow the City to opt out of waste management services being offered by the Region, allowing the City the opportunity to directly provide waste management services to the City of Niagara Falls.

Pursuant to that resolution and on behalf of the Council of the City of Niagara Falls, it is requested that Regional Council approve the City providing its own waste management services and the Region undertake the appropriate negotiations and processes to transfer the power to provide waste management services to the City. In particular, it is requested that the Region pass a by-law in accordance with section 150(2) of the *Regional Municipalities Act* (repealed) pursuant to the Region's authority under section 12 of the *Municipal Act* to exempt the City of Niagara Falls from the by-law passed by the Region assuming the waste management powers of the City under section 150 (1) of the *Regional Municipalities Act*.

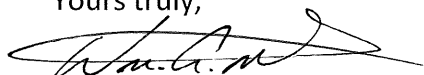
For the purpose of this request, the term "waste management services" may include, but is not limited to:

- Collection and disposal of garbage, recycling, organics and yard waste
- Household hazardous waste collection and disposal
- Large household item collection and disposal
- Recycling and green bin replacements
- Administration, education and customer service
- Sale of bag tags
- Regulation and enforcement of Illegal dumping

but does not include property matters such as the assumption of ownership and management of open or closed landfills.

Given that time is of the essence to resolve this issue, please add this request to the agenda for the next meeting of Regional Council.

Yours truly,

A handwritten signature in black ink, appearing to read 'W. G. Matson', written over a horizontal line.

William G. Matson, City Clerk

c.c. Mayor & Council
Ken Todd, CAO
Erik Nickel, Director Municipal Works
Ron Tripp, Regional CAO

Single Stream and Cart-Based Collection

Introduction

This document reviews the key considerations involved in moving to single stream and cart based collection programs. Drawing on research and the experience of other municipalities it provides an overview of the potential financial, operational and service implications of switching to single stream, cart-based.

Taken together, a review of these implications indicates that moving to a cart collection system would result in significant investment at a time of uncertainty. The Province may be moving to the producer responsibility model. As a result, Niagara Region would no longer be responsible for providing collection and processing of Blue Box materials. This would be the responsibility of the Blue Box industry stewards. Major program changes at this time would be considered a risk.

Additionally, with recent declines in commodity prices and stricter end market standards, moving to a single stream recycling system could further decrease revenue, as single stream contamination rates have shown to be higher.

Finally, the experience for residents should also be taken into consideration. While, carts do offer greater capacity for materials, their large size requires significant storage space. There can also be challenges with wheeling and properly setting out carts in snowy and icy conditions. Residents with long driveways may find large carts difficult to manage.

Costs

Initial Cost and Annual Maintenance/Replacement

- Peel Region implemented a three (3)-stream cart collection program in 2016. The final cost for purchase and distribution of the carts was \$35 million, with an estimated annual maintenance and replacement cost of \$1 to \$3 million. This is an initial cost of \$109/household, plus an annual maintenance and replacement of \$3 to \$9/household. The carts were given to households free of charge.
- The City of Guelph phased in a cart-based collection program over three years, starting in 2012. The total cost for implementing the program was approximately \$9,298,530 for a population of 120,000. The total cost per household was \$156. The portion of the cost for purchase and distribution of the carts was \$4,677,839, approximately 50% of the final cost (City of Guelph, Automated Collection System, 2016).

- A CIF Report surveyed municipalities with cart collection and found that the capital costs for the larger carts (360L) are in the range of \$50 to \$60 each, with some of the smaller carts (120 litre) ranging \$30-40 each. In the case of Sault Ste. Marie, each dual/two cart cost about \$75 each. The carts usually come with a ten (10)-year warranty (one municipality reported 13 years) and typically last ten (10) years. Among those municipalities that have purchased the carts, a 'rule of thumb' applied is that the carts are typically amortized over a ten (10)-year period and require a replacement/reserve fund of \$7 per household per year (*CIF Project 888*, Jan. 2016).

Material Recovery Facility (MRF) Retrofit

- Municipalities moving to a single stream, cart-based system require a MRF that is set-up to process the unsorted recyclables arriving at the facility. Niagara Region's current MRF operates for dual stream recycling collection. Switching to a single stream, cart based system would require modification to this facility.
- In 2007, Niagara Region engaged a consultant to review various collection methods, including cart-based collection for all stream. The estimated ten (10) year cost was approximately \$4.6 million higher than under a system without carts (i.e. Blue/Grey Box, Green Bin, kraft bags for leaves, bags/cans for garbage). This reflects a cost of \$1 million (2007 estimate) associated with retrofitting Niagara Region's MRF from the current two-stream operation to a single-stream operation.

Collection Costs

- According to the CIF Project 888 report, the cost of co-collection automated cart collection vehicles is in the range of \$325,000 to \$350,000. In contrast, co-collection manual side loaders can cost \$215,000 to \$255,000.
- In the report, surveyed municipalities suggested the incremental cost per truck for automation ranged between approximately \$60,000/truck to \$73,000/truck.
- Ontario municipalities reporting cart and non-cart based collection costs between the years 2010 to 2014 were compared, as shown in Figure 1 from the CIF Project 888 report (note: costs do not include depot/transfer costs but do include annual capital costs). All of these municipalities had single stream recycling programs (CIF Project 888, Jan. 2016).

Ontario Single Stream Municipalities 2010-2014 (5 years as applicable)	Average Collection Costs per Marketed Tonne	Low (WDO group)	High (WDO group)
Carts - 5 Municipalities	\$235.28	\$156.38 (group 3)	\$311.28 (group 6)
Non-Cart – 12 Municipalities	\$272.08	\$117.72 (group 1)	\$723.21 (group 6)

Figure 1: Comparison of Collection Costs of Cart versus Non-Cart Programs (Table from *CIF Project 888*, 2016)

Processing Costs

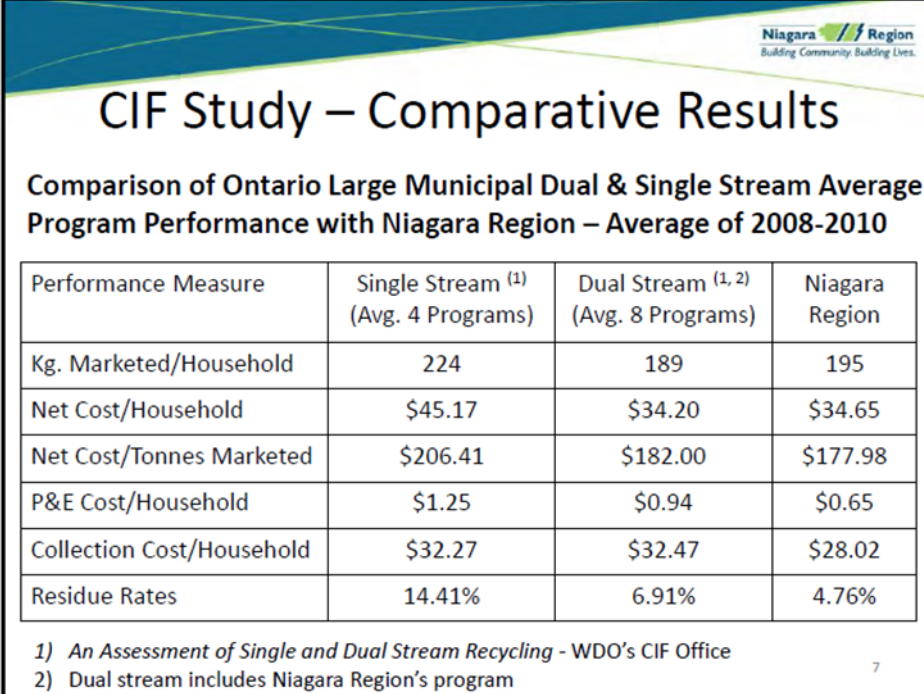
- According to the CIF Project 888 Report, processing costs for cart-based programs are higher than for non-cart based programs. In a comparison of 5 cart-based municipal programs with nine non-cart based municipal programs, the cart-based municipalities have an average cost per marketed tonne of processed recyclables that is roughly 27% higher (\$30.36/tonne) compared to the non-cart based municipal programs. (CIF Project 888, Jan. 2016). Figure 2 below shows average processing costs per marketed tonne for cart and non-cart programs. All programs compared are single-stream.

Ontario Single Stream Municipalities 2010-2014 (5 years as applicable)	Average Processing Costs per marketed tonne	Low (WDO group)	High (WDO group)
Carts - 5 Municipalities	\$142.58	\$85.17 (group 6)	\$254.88 (group 3)
Non-Cart – 9 Municipalities	\$112.12	\$60.66 (group 7)	\$296.22 (group 7)

Figure 2: Comparison of Processing Costs of Cart vs Non-Cart Programs (Table from *CIF Project 888*, 2016)

- Capital and operating costs for single stream processing are generally higher than for dual stream processing. Higher capital investment is required for equipment to separate the co-mingled fibre and container streams at the front end of the plant and for the mechanical and optical sorters required to separate on the processing lines. There are also higher operational costs associated with running this equipment and additional labour required to facilitate sorting.

- A 2015 study of Ontario recycling systems found that single stream recycling, on average, was 28.5% more expensive than multi-stream recycling. While single stream MRFs are capable of processing more tonnes relative to multi-stream MRFs, the difference in processing capacity is insufficient at offsetting additional costs from investments in sorting technology (C. Lakhan, 2015, Comparison of Single and Multi-Stream Recycling Systems in Ontario, Canada).
- An assessment of single and dual stream recycling for Waste Diversion Ontario (WDO), reported that based on the gross processing cost per tonne marketed for large Ontario blue box programs from 2008 to 2010, the cost of dual stream processing is in the order of 14 to 15% lower than the cost of single stream processing (An Assessment of Single and Dual Stream Recycling Including Current Program Performance in Large Ontario Municipalities, 2013). Refer to Figure 3 below for cost comparison.



Performance Measure	Single Stream ⁽¹⁾ (Avg. 4 Programs)	Dual Stream ^(1, 2) (Avg. 8 Programs)	Niagara Region
Kg. Marketed/Household	224	189	195
Net Cost/Household	\$45.17	\$34.20	\$34.65
Net Cost/Tonnes Marketed	\$206.41	\$182.00	\$177.98
P&E Cost/Household	\$1.25	\$0.94	\$0.65
Collection Cost/Household	\$32.27	\$32.47	\$28.02
Residue Rates	14.41%	6.91%	4.76%

1) An Assessment of Single and Dual Stream Recycling - WDO's CIF Office
2) Dual stream includes Niagara Region's program

Figure 3: Comparison of Ontario Large Municipal Dual and Single Stream Average Program Performance 2008-2010 (Data from *An Assessment of Single and Dual Stream Recycling*, WDO-CIF)

- Some municipalities are transitioning to two stream collection for cost savings. The Township of Drummond-North Elmsley is transitioning to dual stream recycling with an expected 25% reduction in processing costs compared to the price increase

proposed by the processing contractor to maintain single stream collection
(<https://thecif.ca/two-stream-collection-as-a-solution-to-troublesome-fiber-markets/>)

Staffing Costs

- Rolling out a cart-based collection program requires additional staff to assist with the transition. Conversion to automated carts is a major program overhaul requiring many months of preparation. The reported range is ten (10) months to five (5) years, with the general trend to be in the realm of years, not months. This includes lead-in, P&E, phone centre training and support, and post-distribution follow-up (CIF Project 888, Jan. 2016).
- For the 2016 rollout of their cart program, Peel Region aimed to hire 21 curbside representatives for delivery support, curbside checks, and field education activities (roughly 1 staff per 15,000 households).

Contamination

- Single stream is a recycling collection method in which all unsorted or commingled recyclable materials are collected in one container at the curb and placed in the collection vehicle in a commingled state until processed at a MRF specially designed for sorting & processing mixed loads of recyclables. In dual or multi-stream recycling, the resident sorts their recyclable materials and places them in different containers (i.e. blue/grey boxes) before they are collected and taken to a MRF. Cart collection systems are predominantly single stream. The CIF Project 888 report recommends single stream for cart collection systems, since providing two carts approximately doubles costs compared to single stream. In addition, alternating weeks for carts can confuse residents.
- Single stream carts have higher residue rates (percentage of rejected material during processing). The higher contamination of materials in single stream carts results in more material being sent to landfills, a decreased value of commodities and difficulties finding end markets (C. Lakhan, 2015, Comparison of Single and Multi-Stream Recycling Systems in Ontario, Canada).
- The Continuous Improvement Fund (CIF) has reported that the average single stream residue rate for Ontario municipalities in 2019 was 30.3%. The average multi-stream residue rate in 2019 was 9.5%, as shown in Figure 4.

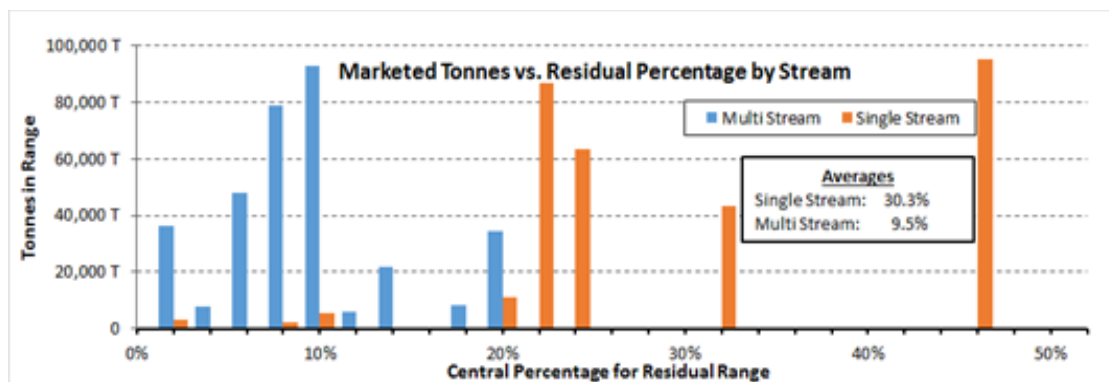


Figure 4: Comparison of Marketed Tonnes vs. Residual Percentage by Stream (CIF, 2019)

- Glass can be particularly problematic, as it is more prone to breakage in single stream systems. Dual stream recycling processing has higher glass recovery rates (WMAC presentation, March 26 2013).
- Paper is also vulnerable to contamination. A study cited An Assessment of Single and Dual Stream Recycling (2013) reported that single-stream material has eight times the yield loss of curbside-sorted material.
- In Peel Region, prior to the implementation of cart-based collection, recycling contamination was over 10% and organics contamination was approximately 3%. After implementation of the cart-based system, contamination rates in curbside recycling carts is over 20% and the contamination in organics carts is over 6%. These contamination rates are comparable to the contamination experienced in other municipalities with cart-based collection systems. (Region of Peel Council Report May 7, 2018)
- In addition to higher annual residue rates, Peel reported the following results after the first quarter of 2016, the first year of transitioning to cart-based collection
 - Residue rates increased by ~2,600 tonnes in Q1 2016 over Q1 2015, with a 22% increase in residue shipped from the MRF
 - Scrap metal increased 76.9%
 - MRF downtime increased to an estimated 380 hours (26 days) of processing to remove non-recyclable materials
 - MRF stoppages increased from 11 per day (pre-carts) to 21 per day, largely to remove home health care waste

- Based on this, by the end of the year Peel would have incurred an additional ~\$490,000 to landfill residue, manage scrap metal and cover processing fee adjustments for increased inbound non-recyclable contamination tonnage.
(<https://thecif.ca/automated-cart-collection-what-we-have-learned/>)
- Managing the contamination will require a multi-pronged approach. Peel Region plans to use communications, enforcement and the development of a mixed waste processing facility. The mixed waste processing facility will mitigate the impacts of recycling and organics incorrectly placed in the garbage, but not the contamination in the recycling and organics programs. A 6-month resident awareness campaign is being implemented at an estimated cost of \$375,000 (May 7, 2018 Region of Peel Council Report)

Other Potential Impacts of Cart-Based Collection

Windblown Litter

- In Peel Region, based on feedback from Regional and Local Municipal staff and residents, there has been a reduction in windblown litter and improved streetscape aesthetics. (Region of Peel Report WMSAC - 3/2017)

Reduced Worker Injuries

- In Peel Region, in 2015, prior to the cart collection program, 25 injuries were reported by the collection contractor. In 2016, the collection contractors reported 10 injuries. (Region of Peel Report WMSAC -3/2017).
- Safety issues that are reduced through automated systems include:
 - Repetitive strain injuries
 - Exposure to sharps
 - Physical fatigue
 - Direct exposure and risk of injury from unfavourable weather
 - Exposure to traffic risks while working at side and rear of collection vehicles

Resident Experience

- Some potential considerations of cart collection systems include:
 - Convenience
 - Wheeled cart can be easier for some residents to maneuver compared to carrying boxes
 - Long Driveways

- Long Driveways may pose a challenge for some residents.
- Storage Space and Capacity
 - Carts can offer additional storage capacity, which can contribute to increased participation in recycling programs.
 - There may be potential issues for residents with limited space to store carts.
- Street Parking
 - Parked cars can be problematic for cart collection. Some municipalities have areas that cannot be serviced by fully automated cart collection vehicles.
- Narrow Streets and Lanes
 - Narrow streets impact the ability of automated collection vehicles to access carts.
- Weather
 - Snow and ice can create difficulty for wheeling carts as well as create issues with cart placement.
- Excess Waste
 - A system must be in place to manage excess waste that does not fit inside the cart (i.e. collection of extra bags)

Overview of Niagara Region's Waste Management System and Associated Considerations for the City of Niagara Falls

An overview of Niagara Region's waste management system is highlighted below, with a summary of considerations if the City of Niagara Falls was to assume management and delivery of these services.

1. Curbside Collection Contract

1.1 Base Services

Waste Stream	Service	Low Density Residential Properties	Multi-Residential Buildings (high-rise) with 7 or more units	Mixed-Use Properties	IC&I Properties	Multi-Purpose Properties
Garbage	Current	Weekly collection. One (1) container (bag/can) limit per unit per property. Garbage tags for additional bag/can. Amnesty week and exemptions.	Weekly collection. One (1) container limit per unit weekly, to a max. of twelve (12) containers per building. No garbage tags. Amnesty week.	<u>Inside DBAs</u> Weekly collection. Seven (7) container limit per property. No garbage tags. Amnesty week. <u>Outside DBAs</u> Weekly collection. Six (6) container limit, per property, weekly. No garbage tags. Amnesty week.	<u>Inside DBAs</u> Weekly collection. Seven (7) container limit. No garbage tags. <u>Outside DBAs</u> Weekly collection. Four (4) container limit. No garbage tags.	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
	As of Oct.19, 2020	Every other week Curbside or On-Site collection 2 bag/can limit per unit Garbage tags for additional bags/cans Amnesty Week and Exemptions	Every other week Curbside or On-site collection 2 bag/can limit per unit, to a max. of 24 per building. No garbage tags.	<u>Inside DBAs</u> Weekly Curbside or On-Site collection 4 bag/can limit per property <u>Outside DBAs</u> Every other week Curbside or On-Site collection	<u>Inside DBAs</u> Weekly Curbside or On-Site collection 4 bag/can limit per property <u>Outside DBAs</u> Every other week Curbside or On-Site collection	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.

Waste Stream	Service	Low Density Residential Properties	Multi-Residential Buildings (high-rise) with 7 or more units	Mixed-Use Properties	IC&I Properties	Multi-Purpose Properties
			Amnesty Week and Exemptions	8 bag/can limit per property	8 bag/can limit per property	
Bulky and White Goods	Current	Unlimited collection of both bulky and white goods. Call-in service or online booking year round.	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
	As of Oct.19, 2020	Four (4) Bulky Item limit per residential unit, per collection. White goods collection discontinued. Call-in service or online booking year round for Bulky Items.	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.

Waste Stream	Service	Low Density Residential Properties	Multi-Residential Buildings (high-rise) with 7 or more units	Mixed-Use Properties	IC&I Properties	Multi-Purpose Properties
Recycling	Current	Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes/Carts	Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts	<u>Inside DBAs</u> Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts <u>Outside DBAs</u> Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts	<u>Inside DBAs</u> Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts <u>Outside DBAs</u> Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
	As of Oct.19, 2020	Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes/Carts	Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts	<u>Inside DBAs</u> Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts <u>Outside DBAs</u> Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts	<u>Inside DBAs</u> Weekly Curbside or On-Site collection Unlimited Blue/Grey Boxes or Carts <u>Outside DBAs</u> Weekly Curbside or On-Site collection Max. 8 Blue/Grey Carts/Equivalent Boxes	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.

Waste Stream	Service	Low Density Residential Properties	Multi-Residential Buildings (high-rise) with 7 or more units	Mixed-Use Properties	IC&I Properties	Multi-Purpose Properties
Organics	Current	Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings	Weekly Curbside or On-Site collection Maximum 4 Green Bins (Curbside) or unlimited Green Carts (request basis only) No collection of grass clippings	<u>Inside DBAs</u> Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings <u>Outside DBAs</u> Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings	<u>Inside DBAs</u> Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings <u>Outside DBAs</u> Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
	As of Oct.19, 2020	Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings	Weekly Curbside or On-Site collection Maximum 4 Green Bins (Curbside) or unlimited Green Carts (request basis only) No collection of grass clippings	<u>Inside DBAs</u> Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings <u>Outside DBAs</u> Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings	<u>Inside DBAs</u> Weekly Curbside or On-Site collection Unlimited Green Bins/Carts No collection of grass clippings <u>Outside DBAs</u> Weekly Curbside or On-Site collection Max. 8 Green Carts/Bins No collection of grass clippings	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.

Waste Stream	Service	Low Density Residential Properties	Multi-Residential Buildings (high-rise) with 7 or more units	Mixed-Use Properties	IC&I Properties	Multi-Purpose Properties
Leaf and Yard Waste	Current	Weekly Curbside or On-Site collection Unlimited No collection of grass clippings	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
	As of October 19, 2020	Weekly Curbside or On-Site collection Unlimited No collection of grass clippings	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
Brush	Current	Curbside or On-Site collection 8 weeks per year – four (4) weeks in the spring and four (4) weeks in the fall, on regular Collection Day	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.

Waste Stream	Service	Low Density Residential Properties	Multi-Residential Buildings (high-rise) with 7 or more units	Mixed-Use Properties	IC&I Properties	Multi-Purpose Properties
	As of Oct.19, 2020	Curbside or On-Site collection 8 weeks per year – four (4) weeks in the spring and four (4) weeks in the fall, on regular Collection Day	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
Christmas Trees	Current	Curbside or On-Site collection One (1) week per year on resident's Collection Day	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
	As of Oct.19, 2020	Curbside or On-Site collection One (1) week per year on resident's Collection Day	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.

Waste Stream	Service	Low Density Residential Properties	Multi-Residential Buildings (high-rise) with 7 or more units	Mixed-Use Properties	IC&I Properties	Multi-Purpose Properties
Batteries *Pending Council approval	Current	Curbside or On-Site collection One (1) week per year on resident's Collection Day (usually during Earth Week)	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.
	As of Oct.19, 2020	Curbside or On-Site collection One (1) week per year on resident's Collection Day (usually during Earth Week)	No service	No service	No service	At Niagara Region's discretion, each individual property type on the overall property is subject to their respective eligibility requirements and collection limit.

1.1.1 Special Exemptions

- Diaper exemption collection provided for eligible LDR properties (i.e. two (2) or more children, under the age of four, in diapers, or daycares). Diapers must be placed inside a clear bag (i.e. one (1) clear bag for LDR properties with two (2) children, and (2) clear bags for LDR properties three (3) or more children).
- Weekly collection provided, as part of Emterra and Miller contracts.
- Medical waste exemption collection provided for individuals living with a medical condition, group homes (i.e. provided with 52 free medical waste tags each year).
- Weekly collection provided, as part of Emterra and Miller contracts.
- Additional information on the diaper and medical waste exemption programs can be found at: <https://www.niagararegion.ca/waste/collection/exemptions/default.aspx>
- Amnesty week collection (i.e. double weekly or EOW garbage limits) is provided during the five (5) collection days immediately following Christmas for LDR and MR properties only, with Emterra and Miller contracts.
- No garbage tags are required for these additional garbage containers during this week only.

1.2 Enhanced Services

1.2.1 Additional Garbage Collection

- Weekly garbage collection, with a maximum seven (7) container limit, for IC&I and MU properties inside Niagara Falls DBAs, with Emterra and Miller contracts. No garbage tags allowed for additional containers.
- Eight (8) additional garbage containers per collection between Victoria Day and Thanksgiving Day, for those food and lodging properties located inside the Lundy's Lane, Clifton Hill/Victoria Ave, Main Street, and Queen Street DBAs only, with Emterra and Miller contracts.
- **Beginning October 19, 2020**, Every other week garbage collection, with a maximum twelve (12) container limit, instead of eight (8) containers, for MU properties outside the DBAs, as part of the Miller contract. No garbage tags allowed for additional containers.
- Containerized (i.e. front-end) garbage collection at designated Niagara Falls MR and MU properties (collection frequency varies by location), with Emterra and Miller contracts.

1.2.2 Litter Bin Collection

- Once-per-week collection of public space litter bins at various locations inside and outside Niagara Falls DBAs. Collection is provided seven (7) days-per-week inside the Lundy's Lane, Clifton Hill, and Victoria Avenue DBAs (i.e. Mainline), on a year-round basis, with Emterra.
- **Beginning October 19, 2020**, Once-per-week collection of public space litter bins at various locations inside and outside Niagara Falls DBAs. Collection is provided seven (7) days-per-week inside the Lundy's Lane, Clifton Hill, and Victoria Avenue DBAs (i.e. Mainline DBAs), from mid-May to mid-October only, as part of the Miller contract.
- **Beginning October 19, 2020**, Weekly garbage collection, with a maximum six (6) container limit, for MU properties outside DBAs, as part of the Miller contract. No garbage tags allowed for additional containers.

1.2.3 Public Space Recycling (PSR)

- Once-per-week collection of public space recycling bins located inside and outside Niagara Falls DBAs, with Emterra.
- Beginning October 19, 2020, once-per-week PSR collection provided at various locations inside and outside the Niagara Falls DBAs. Collection is provided seven (7) days-per-week inside the Lundy’s Lane, Clifton Hill, and Victoria Avenue DBAs (i.e. Mainline DBA), from mid-May to mid-October only, with Miller contract.

1.3 Considerations for the City of Niagara Falls

Considerations and Actions to be Taken
<p>Transition of the Blue Box program to extended producer responsibility is anticipated between 2023 and 2025 and municipalities would no longer be responsible for the recycling collection (unless Niagara Falls decides not to transition, but in that case, there will be added tax burden).</p> <p>City actions:</p> <ol style="list-style-type: none">1. Procure a collection contractor;2. Develop and maintain system(s) for identification of collection service/limits for each property type, bulky goods bookings, garbage tags, special set-out service, diaper and medical exemptions;3. Manage customer service calls, online inquiries, etc.; and4. Develop new program communication and promotion for distribution.

2. Disposal and Processing

2.1 Household Hazardous Waste (HHW) Program

- Regional HHW depots are located at
 - Thorold Yard;
 - Niagara Road 12 Landfill, West Lincoln;
 - Humberstone Landfill, Welland; and
 - Bridge Street Drop-off Depot, Fort Erie (receives a subset of HHW material e.g. batteries, oil, propane tanks and cans of paint).
- A list of acceptable materials at HHW depots can be found on Niagara Region’s website:
<https://niagararegion.ca/waste/disposal/default.aspx?c=Household+Hazardous+Waste>

Considerations and Actions to be Taken
<p>Niagara Falls residents would no longer be able to use Regional HHW depots.</p> <p>City actions:</p> <ol style="list-style-type: none">1. Procure new HHW service provider(s) to operate depot(s) and to process collected materials, as well as, locate a new depot(s) location.2. Development of new program communication, promotion, and distribution.3. Manage customer service calls, online inquiries, etc.

2.2 Drop-Off Depots

- Regional drop-off depots are located at:
 - Niagara Road 12, West Lincoln (Grimsby, Lincoln, Pelham and West Lincoln residents only);
 - Humberstone Landfill, Welland;

- Bridge Street, Fort Erie; and
- The Recycling Centre, Niagara Falls (receives only a subset of material e.g. Blue Box recyclables, large hard plastics, electronics, grease, fats and oils, bicycles, textiles)
- Walker’s drop-off depot is located at 2800 Thorold Townline Road, Thorold.
- Reuse centres are located at Humberstone Landfill, Welland, and Niagara Road 12, West Lincoln.
- In addition to receiving the garbage waste stream (with the exception of the Recycling Centre), materials accepted for diversion at drop-off depots include the following:
 - Blue Box recyclables;
 - Leaf & yard, grass clippings, and brush material;
 - Drywall*;
 - Tires;
 - Asphalt & shingles;
 - Electronics;
 - Mattresses/box springs*;
 - Fats/Oils/Grease;
 - Wood waste*;
 - Porcelain*;
 - Bicycles;
 - Large hard plastics;
 - Textiles;
 - Scrap metal; and
 - Styrofoam.

*Excluding Walker’s depot

- Disposal fees for materials can be found on Niagara Region’s website:
<https://www.niagararegion.ca/waste/landfills/default.aspx>.

Considerations and Actions to be Taken
<p>Niagara Falls residents and IC&I sector would no longer be able to use Regional drop-off depots, but could continue to utilize Walker’s depot. Niagara Region has secured a cost for residents of Niagara region at Walker’s drop-off depot that may not be applicable to Niagara Falls residents.</p> <p>There are some minor differences between the disposal tipping fees charged at Niagara Region depots and Walker’s depot, including:</p> <ul style="list-style-type: none">• Walker’s depot charges H.S.T., which Niagara Region’s depots are exempt from charging; and• Clean soils are free at Niagara Region depots, but charged the waste tipping fee rate for residents at Walker’s depot. <p>Any non-profits located within the City of Niagara Falls would no longer be eligible for Niagara Region’s tipping fee exemption.</p> <p>City actions:</p> <ol style="list-style-type: none">1. Determine if Walker’s requires a contract for Niagara Falls residential and IC&I use of drop-off depot.2. Development of new program communication, promotion and distribution.3. Manage customer service calls, online inquiries, etc.

2.3 Landfill Sites

2.3.1 Open Sites

- In addition to the above Regional drop-off depots, Niagara Region is responsible for the operation of two (2) open landfill sites located at Humberstone Landfill, Welland, and Niagara Road 12, West Lincoln.
- Responsibilities include landfilling operations, leachate and methane collection system monitoring and maintenance, site maintenance, scale operations, etc.

Considerations and Actions to be Taken

Potential financial considerations for current and long-term costs related to tonnage of Niagara Falls' garbage disposal at Humberstone landfill site.
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City actions:

- | |
|---|
| <ol style="list-style-type: none">1. Procure disposal contract with Walker's or another disposal site;2. Development of new program communication, promotion and distribution3. Manage customer service calls, online inquiries, etc. |
|---|

2.3.2 Closed Sites

Niagara Region is responsible for the ongoing maintenance and post-closure landfill liability of all 12 closed landfill sites, including the Mountain Road landfill in Niagara Falls, until their contaminating lifespan is reached.

- Responsibilities include operation, maintenance and replacement of infrastructure to keep human health and the environment safe.
- The total landfill liability cost for all 12 closed landfill sites is approximately \$61 million, of which Mountain Road accounts for \$15.5 million (based on 2019 Landfill Liability Model).
- Mountain Road landfill specific considerations include:
 - 2019 operating expenditures related to the Mountain Road landfill site's leachate treatment, monitoring and maintenance costs was approximately \$400K.
 - Capital expenditure related to the Mountain Road landfill site was approximately \$2.1 million, from its date of acquisition to 2019.
 - Stormwater management pond and SCADA upgrades are planned for 2020, at a total cost of approximately \$630K.
 - Aging leachate collection system that will require retrofits, at a projected cost of \$1.85 million (2021-22), as well as converting the site for end-use of \$1 million (2022).

Considerations and Actions to be Taken

Although the City does not wish to own/manage closed landfill sites, there are financial considerations if Mountain Road landfill is assumed by the City.

Potential financial considerations for long-term costs related to use of Humberstone and Bridge Street landfill sites for disposal of Niagara Falls' garbage
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City actions:

- | |
|--|
| <ol style="list-style-type: none">1. Procure contracts for Mountain Road landfill site monitoring and other program/service and site requirements. |
|--|

2.4 Composting Operations

- Niagara Region provides leaf and yard waste composting operations at two (2) landfill sites located at:
 - Bridge Street Landfill, Fort Erie; and
 - Niagara Road 12, West Lincoln.
- Food waste organics are also accepted for drop-off at:
 - Humberstone Landfill, Welland; and

- Niagara Road 12, West Lincoln.
- Walker’s provides composting processing operations, on contract with Niagara Region and food waste organics are accepted for drop-off.
- Acceptable organic materials for drop-off at all locations include leaf & yard waste, including grass clippings, and brush materials.

Considerations and Actions to be Taken
Niagara Falls residents and IC&I sector would no longer be able to use Regional drop-off depots but can continue to utilize Walker’s depot. City actions: <ol style="list-style-type: none">1. Procure a compost-processing contract with Walker or another processor.2. Development of new program communication, promotion and distribution.3. Manage customer service calls, online inquiries, etc.

2.5 Recycling Processing

- Niagara Region provides dual stream (i.e. Blue and Grey Box) recycling processing and marketing of all curbside, depot and IC&I collected materials, including the City of Niagara Falls, at its Niagara Recycling facility in Niagara Falls.

Considerations and Actions to be Taken
Transition of the Blue Box program to extended producer responsibility is anticipated between 2023 and 2025 and municipalities would no longer be responsible for recycling processing and marketing (unless Niagara Falls decides not to transition, but in that case, there will be added tax burden). City actions: <ol style="list-style-type: none">1. Negotiate contract with Niagara Recycling for processing of recyclables if dual-stream collection program is maintained, or procure a new processor.2. Development of new program communication, promotion and distribution.3. Manage customer service calls, online inquiries, etc.

3. Program Support and Related Functions

3.1 Public Outreach and Education

- Niagara Region is responsible for providing the following public outreach and education activities related to waste management services:
 - Programs aimed at increasing waste diversion at landfill sites (i.e. Broken Spoke, Rigid plastic recycling, textiles etc.).
 - Programs aimed at increasing waste diversion in MR buildings (i.e. Eco-Ambassador, Green Cart and Textile recycling programs).
 - Programs aimed at increasing waste diversion in the IC&I sector (i.e. Rethink your Waste at the Workplace).
 - Targeted campaigns based on Niagara region trends/audits at the Recycling Centre.
 - Ability to report illegal dumping on public property for investigation.
 - Access to Special Events Recycling and Organics service for public events.
 - Curriculum linked presentations to educate schools on the Region’s programs and services and the importance of reducing and diverting waste.

- Interactive presentations to educate community groups on the Region's programs and services and the importance of reducing and diverting waste.
- Summer camp program designed to engage children in learning about the importance of reducing and diverting waste.
- Information booths at community events and participation in community parades designed to engage with the public to educate them about the Region's programs and services.
- Tours of the Region's Recycling Centre to educate schools and the public on the innovative technology used to sort and process Blue/Grey Box material.
- Multi-tiered approach to promotion/education of diversion programs (i.e. newspaper advertising, social media, specialty advertising, radio etc.).
- Development and distribution of promotion and education material (i.e. Collection Guide, Green Scene newsletters).
- Promotional material used at information booth and presentations to promote waste diversion (i.e. recycled pencils, recycled Frisbees, recycled rulers etc.).
- Print materials to support diversion programs (i.e. non-compliance stickers, brochures, flyers, posters, door hangers etc.) and other waste management print materials (i.e. garbage tags).
- Creative development and design of promotion and education material
- Waste management web/mobile application designed to administer waste collection reminders and service interruption notifications to residents.
- Team of waste management interns who assist in the distribution of promotion and education material and administer our public outreach program (i.e. presentations, summer camps, Special Events Recycling and Organics program etc.).

Considerations and Actions to be Taken
<p>Niagara Falls residents and IC&I sector would no longer receive Niagara Region's promotional materials, including Collection Guide, Green Scene newsletter, etc. or access to Niagara Region's various outreach programs.</p> <p>City actions:</p> <ol style="list-style-type: none">1. Develop and distribute collection guide and other program support material.2. Deliver public outreach and education to Niagara Falls residents and IC&I sector.3. Manage customer service calls, online inquiries, etc.

3.2 Container Sales and Distribution

- New homeowners and new renters are entitled to obtain **one (1)** of each of the curbside waste diversion containers (i.e. Blue Box, Grey Box, Kitchen Catcher and Green Bin), for free, if they do not have them already.
- Broken curbside waste diversion containers will be replaced, free-of-charge.
- Residents can purchase curbside waste diversion containers and backyard composters, at a subsidized price by Niagara Region.
- Residents can bring their broken curbside waste diversion containers, or purchase a new one, at the following locations:
<https://www.niagararegion.ca/waste/containers/container-locations.aspx>

- Recycling and organics carts are available for purchase, at a subsidized price by Niagara Region, to IC&I, MU, and MR properties (with seven (7) or more units). These carts can be ordered online:
<https://www.niagararegion.ca/waste/containers/cart-order-form.aspx>

Considerations and Actions to be Taken
<p>Niagara Falls residents, MR, MU and IC&I sectors would no longer be able to purchase waste diversion containers, at a subsidized price, from Niagara Region locations.</p> <p>City actions:</p> <ol style="list-style-type: none">1. Procure its own waste diversion containers2. Manage the distribution of these waste diversion containers3. Manage customer service calls, online inquiries, etc.

3.3 By-law Enforcement/Contract Supervision

- Waste Management contract supervisors and advisors are responsible for administering waste collection contracts, providing on-road supervision, ensuring compliance with municipal by-laws, responding to escalated complaints, and conducting investigations of residential and IC&I properties.
- The Waste Management By-law 2017-56 can be found on Niagara Region’s website: <https://www.niagararegion.ca/government/bylaws/most-requested-by-laws.aspx>

Considerations and Actions to be Taken
<p>Currently, Niagara Region’s Planning & Development staff, along with Waste Management staff, review all planning applications and provide comments as they pertain to waste collection eligibility for new developments. This would no longer be provided for Niagara Falls applications, if collection service were no longer provided by Niagara Region.</p> <p>City actions:</p> <ol style="list-style-type: none">1. Manage the contract through enforcement, on-road supervision, and review planning applications, etc.2. Manage customer service calls, online inquiries, etc.

3.4 Illegal Dumping Program

- Niagara Region works, in partnership with all LAMs and Crime Stoppers, to address any issues of illegally-dumped material in non-designated areas, such as public roads, ditches, public property, rural areas, vacant lots, and in public litter receptacles.
- Niagara Region has implemented a rewards program for reporting incidents of illegal dumping: <https://www.niagararegion.ca/waste/contact/dumping/default.aspx>.
- A monetary reward is given to any person whose report of illegal dumping results in an **act of compliance** (i.e. the person who was reported illegally dumping, returned to the site and removed the dumped materials), or to any person whose report of illegal dumping leads to a **conviction**.

Considerations and Actions to be Taken
<p>City actions:</p> <ol style="list-style-type: none">1. Investigate any issues of illegally dumped materials.2. Develop illegal dumping program.

Considerations and Actions to be Taken
3. Manage customer service calls, online inquiries, etc.

3.5 Customer Service and Complaint Management

- Niagara Region’s Waste Management Customer Service Representatives and staff provide information and responses to inquiries from Niagara residents, businesses, LAMs, other government agencies, etc. on all waste management-related programs and services, including collection, diversion, disposal, etc.
- The Waste Info-Line (905-356-4141 or 1-800-594-5542) is operated Monday to Friday, from 8:00 a.m. to 5:00 p.m. or online: www.niagararegion.ca/waste

Considerations and Actions to be Taken
City actions: 1. Manage customer service calls, online inquiries, etc.

3.6 Mandatory Reporting – Resource Productivity & Recovery Authority (RPR) Datacall

- The RPR Datacall is the source of data for determining the net Blue Box system cost and for allocating funding to Ontario municipal programs under the Blue Box Program Plan.
- Each year, Ontario municipal programs providing recycling services must complete the Datacall to be eligible to receive this Blue Box funding.
- An Ontario municipal program must complete the Datacall if it provided Blue Box collection (i.e. curbside or depot) and/or processing services to its residents in the previous year, and if all the tonnes, costs and revenue associated with these services are not reported by another program.
- Ontario municipal programs need to also report the following municipally-managed residential solid waste management services (if applicable) in the Datacall:
 - Other (i.e. non-Blue Box) recyclable materials collection and/or processing
 - Organic collection and/or processing
 - Municipal hazardous or special waste collection
 - Waste electrical and electronic equipment collection
 - Garbage collection and/or disposal

Considerations and Actions to be Taken
Currently, Niagara Region is responsible for completing the RPR Datacall, on behalf of all 12 LAMs, including Niagara Falls. City actions: 1. Track program data and tonnages 2. Complete annual RPR Datacall submission for City’s waste management program