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1 Briefing Note – Waste Collection Schedule Options

Subject

The purpose of this briefing note is to identify alternatives for potential optimization of the City's waste collection service delivery through changes to waste collection boundaries and/or amendments to the waste collection schedule.

Background

In September 2001, Council approved the harmonization of waste collection services which included the creation of the current waste collection zones, approving the five-day collection week and establishing the waste collection days. Best efforts were made to minimize changes, post amalgamation, to the waste collection day for most neighbourhoods.

Since 2001, the Waste Collection Section has experienced an increase of approximately 14% in the number of properties serviced. The majority of the housing growth has affected waste collection servicing requirements in the communities of Flamborough, Ancaster, Glanbrook, Stoney Creek, and the southern portion of Hamilton Mountain. The Waste Collection Section has accommodated services for this growth without making any significant changes to the neighbourhood waste collection day. Minor changes in Ancaster, Stoney Creek, and Waterdown have been made in order to balance workloads. In both of these communities, the waste collection day change was accepted by residents.

The City provides all curbside waste collection services over a Monday to Friday, five-day waste collection week. There are eleven public holidays throughout the year which results in either a shift in the collection schedule or overtime costs for working on the holiday. Six of these holidays fall on a Monday including Family Day, Easter Monday, Victoria Day, Civic Holiday, Labour Day, and Thanksgiving. Public holidays which may fall on other days include New Year's Day, Good Friday, Canada Day, Christmas Day and Boxing Day.

In 2006, Council directed staff to provide information on the potential impacts and savings of implementing a four-day waste collection schedule. As part of the 2006-2007 recycling system review a detailed analysis was presented on the operational and financial considerations of adopting a four-day waste collection week. The analysis indicated that a four-day collection week could create cost savings; however, this alternative was not pursued at that time due to other factors including contractual amendments for the City's waste facilities, costs for public communications, and union buy-in.

Considerations/Options

As part of the 2020 waste system planning review, the City has the opportunity to consider changes to the waste collection schedule. Potential considerations include the following:

- Adjustments to the waste collection day for certain areas to help balance workloads;
- Re-investigating the option of a four day waste collection schedule, i.e. Tuesday to Friday; and/or
- Possible amendments to the collection boundaries.

Revising the City's waste collection schedule/approach could provide opportunities for efficiencies, cost savings, and environmental impact mitigation. Potential benefits include:

- Fleet optimization through route improvements;
- Fuel savings by reducing non-productive travel time; and
- Environmental benefits through reduced greenhouse gas emissions.

The considerations associated with amending the waste collection schedule are outlined in Table 1.1.

Table 1.1 Implications associated with amending the waste collection schedule

Public Acceptability	• Residents in affected areas could see a change in their waste collection day or change in the time when materials are collected. • There is a possibility that some residents may set out waste materials on the wrong day, especially if they have been accustomed to the same waste collection day for a long period of time. From past experience with waste collection changes, most residents adapted to the change within a short time frame.
Financial Implications	**Costs** • One-time costs would be necessary for a communication strategy to communicate potential waste day changes. **Savings** • Potential savings for the number of vehicles and labour required to provide waste collection. • The 2006-2007 collection system review showed a potential savings of $200,000 annually for a four day waste collection schedule at that time. • Savings for fleet maintenance and fuel savings with adopting optimized collection routes. Vehicles could be better utilized as the result of less travel time.

Table 1.1 Implications associated with amending the waste collection schedule	
Environmental Impacts	• Potential for reduced greenhouse gas emissions with some options.
Potential General Implementation Requirements and/or Barriers	• Union support is necessary for services provided by municipal employees, particularly if there are significant changes to the waste collection schedule, i.e. four-day waste collection week • Re-alignment of all collection services/contracts and coordination with processing and disposal operations is necessary in order to implement potential changes to the waste collection schedule.

Municipal Scan

Some Ontario municipalities have adopted a four day waste collection week to mitigate waste collection schedule changes to accommodate holidays on Mondays, i.e. Tuesday to Friday collections. These municipalities include the City of Toronto, City of Vaughan, municipalities in Durham Region, and County of Wellington.

Other options including waste collection best management practices for municipal operations are available through staff participation with professional organizations and peers.

2 Briefing Note – Waste Collection Service Delivery

Subject

The purpose of this briefing note is to provide information on service delivery options for the City's curbside waste collection programs.

Background

Since April 2002, the City has operated its curbside waste collection programs using a blend of public and contracted service providers. To facilitate collection services the City is divided into six zones, consisting of two urban zones (A1, B1), two suburban zones (A2, B2), and two rural zones (A3, B3). The zones include the following areas:

- Zone A1 includes Hamilton neighbourhoods below the escarpment, comprised of Wards 2, 3, 4 and 5;
- Zone A2 includes West Hamilton and Dundas, comprised of Wards 1 and 13;
- Zone A3 includes Flamborough and rural Ancaster, comprised of Wards 14 and 15;
- Zone B1 includes Hamilton and Stoney Creek neighbourhoods on the escarpment, comprised of Wards 6, 7, 8, and 9;
- Zone B2 includes Stoney Creek, comprised of Ward 10; and
- Zone B3 includes Glanbrook and Ancaster, comprised of Wards 11 and 12.

Municipal employees collect organic waste, garbage, leaf & yard waste, and bulk waste in Zones A1, A2, A3 and a Contractor collects the same material streams in Zones B1, B2, and B3. Recycling collection and front-end bin collection is and has been provided under contract since prior to amalgamation.

Council approved a public-contracted collection model in 2006 (for the collection contract 2006 to 2013) and 2013 (for the collection contract 2013 to 2020). As part of these previous reviews the City used a managed competition system which allowed the creation of an internal costing team to submit pricing for waste collection services on behalf of the public sector. The City also established an internal costing team to submit pricing for recycling collection services for the City's "A" zones. In both cases, recycling collection remained as a contracted service due to favourable pricing from the private sector.

Considerations/Options

The City needs to confirm its waste collection service model in preparation of the 2020 waste collection contracts. These approaches could include:

- Status Quo. Continuing with the public-contracted service model as currently provided;
- Allowing the public sector to bid on providing recycling collection to all or part of the City;

- Amending the waste collection zones to allow a redistribution of works;
- Employment of a different model, such as the public sector servicing areas currently serviced by the private sector and vice versa.

Municipal Scan

There is a wide range of service delivery opinions amongst municipalities. Table 2.1 provides a municipal scan of waste collection service providers. One reason municipalities privatize waste collection services is the potential to reduce their program costs with the assumption that they will receive competitive pricing offered by private-sector companies. Depending on economic conditions, municipalities may receive favourable pricing through their bid process if there are multiple companies willing to compete for the contract. In the absence of competition, contract pricing may not be favourable. If there are other restrictions imposed by the municipality these may also result in increased costs. Alternatively, the philosophy of the hybrid public/contracted collection system is to encourage an atmosphere of competition between the service providers to ensure value for the municipality.

The City utilizes an Activity Based Costing (ABC) model to compare the costs of its waste collection service providers. As part of the 2020 waste collection system review, staff will be updating the ABC model to assist with the review of future waste collection services.

Table 2.1 Municipal waste collection service providers

Municipality	Waste Collection Service Provider(s)
Durham Region	Public Sector & Service Contractor
City of Guelph	Public Sector
Halton Region	Service Contractor
City of Hamilton	Public Sector & Service Contractor
Niagara Region	Service Contractor
City of Ottawa	Public Sector & Service Contractor
Region of Peel	Service Contractor
County of Simcoe	Service Contractor
City of Toronto	Public Sector & Service Contractor
Region of Waterloo	Service Contractor
York Region	Service Contractor

3 Briefing Note – Garbage Collection Frequency

Subject

The purpose of this briefing note is to provide information regarding bi-weekly waste collection.

Background

The City currently provides weekly collection of garbage for single-residential units including a one container limit with the use of trash tags for additional garbage. Bi-weekly garbage collection is an alternative to this collection frequency. In a bi-weekly scenario the City could provide weekly collection of recyclables and organics and bi-weekly collection of garbage and bulk waste.

Weekly Garbage Collection

Weekly collection of garbage has both advantages and disadvantages:

Advantages

- Convenience for the public
- High public acceptability - current level of service
- Fewer concerns due to odours since diapers and pet waste are in the weekly waste stream, especially in warmer months
- The schedule is easier for residents to remember
- Avoids the requirement for promotion and education in preparation for a new collection system
- Reduced need for special considerations
- No impact to other operations

Disadvantages

- Requires a larger fleet size to collect garbage
- Residents may not be maximizing diversion and disposal capacity, i.e. it may be just as easy to put material in the garbage as it would be to recycle or compost as all material is picked up weekly

Bi-Weekly Garbage Collection

Bi-weekly garbage collection consists of collecting garbage every second week while continuing to collect recyclables and organic materials weekly or bi-weekly. Bi-weekly garbage collection with weekly recyclables and organic collection also has advantages and disadvantages.

Advantages

- Bi-weekly garbage collection offers reduced collection costs, assuming that the frequency of diversion programs remain the same. These collection cost savings are realized through having half of all households serviced on one week, with the other half serviced on alternate weeks. Recycling and organics could be collected weekly for all households. The 2011-2012 analysis of the bi-weekly option indicated a potential cost savings of $1.2M at that time.
- Bi-weekly collections helps to increase waste diversion. Residents are more likely to sort organics and recyclables if these streams are collected weekly. Potential opportunity for revenues from increased recyclables.
- Reduced environmental impact due to fewer garbage collection vehicles being on the road at any one time.
- Extend the longevity of the City's landfill site (further information is included in Briefing Note #8).

Disadvantages

- Bi-weekly collection may be perceived as a service reduction by some of the public.
- There may be potential for storage concerns if garbage is stored for two weeks. Some residents may express concerns regarding odours since diapers and pet waste are in the bi-weekly waste stream unless an alternative program for special considerations is established (see Briefing Note 6).
- There will be the need for increased communication to ensure residents are aware of and use the appropriate schedule for waste set-out. Amending the waste collection schedule will require additional one-time costs associated with an education campaign to inform the public of the changes.
- Possible risk of collection challenges, i.e. incidents of missed collection during the transition phase with the new schedule.

Municipal Scan

Some municipalities have or are employing bi-weekly collection as outlined in Table 3.1.

Table 3.1 Municipal collection frequency

Municipality	Garbage Collection Frequency	Residential Diversion Rate (reported by Waste Diversion Ontario in 2014)
City of Brantford	Weekly, five container limit	35.5%
Durham Region	Bi-weekly (2006), four container limit	55%
City of Guelph	Bi-weekly (2012), automated cart collection	66.5%
Halton Region	Bi-weekly (2008), three container limit	56.0%
City of Hamilton	Weekly, one container limit	48.0%
Niagara Region	Weekly, one container limit	51.7%

Table 3.1 Municipal collection frequency		
Municipality	**Garbage Collection Frequency**	**Residential Diversion Rate (reported by Waste Diversion Ontario in 2014)**
City of Ottawa	Bi-weekly (2012), six item* limit	45.5%
Region of Peel	Bi-weekly (Jan. 2016), automated cart collection	45.1%
County of Simcoe	Weekly, one container limit	59%
City of Toronto	Bi-weekly (2002), automated cart collection	51.9%
Region of Waterloo	Bi-weekly (March 2017), four container limit	51.7%
York Region	Bi-weekly (2005), three item* limit	61.3%

Note* - An item is either a garbage container/bag or bulk item, e.g. one piece of furniture

4 Briefing Note – Waste diversion containers

Subject

The purpose of this briefing note is to provide information on waste diversion container options and automated waste collection.

Background

Green Cart Program

In 2006, the City's organic waste collection program was introduced to curbside residential properties. Most properties received a 120 litre green cart, while neighbourhoods in downtown Hamilton received smaller 40 litre green carts. After the green cart program launch, staff received requests from residents for smaller green carts, primarily from smaller households and townhouse complexes. Through Report PW11030e, Council approved the phase in of smaller green carts for the City's organics collection program. Larger sized green carts are emptied using a semi-automated cart tipper, while the smaller green carts are emptied manually.

Recycling Program

The City has historically supplied curbside recycling boxes for residential properties at no charge as a means to encourage participation in the City's recycling program. Over the years, the size of the blue boxes has increased from 53 litres (14 gallons) to 83 litres (22 gallons) to provide increased storage capacity for recyclable materials. Through Report PW11030e, the City amended its recycling collection program to allow residents to use alternative recycling containers including larger sized containers with lids. This change was made to help reduce escaped waste to decrease the amount of litter on streets, particularly on windy days.

The City has an approved user fees for the purchase of greater than two blue boxes and the purchase of additional green carts. Historically and at this time, the fee is not being collected but is available should staff be directed to start charging for additional blue boxes and/or green carts.

Automated Collection

Some jurisdictions across North America have adopted automated waste collection programs. These programs typically involve supplying the property with one or more wheeled collection containers which can range in size from 80 litres to 360 litres. Automated collection is generally associated with bi-weekly collection programs and single-stream recycling collection. Municipalities with bi-weekly cart collection programs offer the larger sized containers which helps residents to store their waste materials for the two-week period. Some municipalities have implemented an automated cart recycling collection program as a means to enhance participation in recycling programs

and avoiding the need for households to use multiple blue boxes. This type of automation can decrease the physical demands on Waste Collection Operators.

Considerations/Options

Green Cart Program

Staff can continue to review waste diversion container preferences as well as distribution practices. Based on demand, it is expected that the large 120 litre carts will continue to be used for the organics collection program for larger facilities including municipal buildings, multi-residential buildings, and commercial properties. Smaller green carts will likely continue to be preferred by many residential properties as they offer reduced storage space requirements. Smaller carts encourage the use of the cart for household organic waste rather than yard waste. Smaller carts are more cost effective since they are available at a lower capital cost compared to the larger carts.

Recycling Program

Staff can continue to investigate the City's practices with recycling container distribution including the type of containers used, pick-up locations, user fee(s), and distribution method.

Automated Collection

Transitioning from a manual curbside collection system to an automated system has a number of considerations. The main benefits of automated systems include:

- In some cases, automated collection offers efficiency gains in time savings and a potential reduction in fleet size if operating a reduced work week or bi-weekly collection.
- Improved health and safety for waste collection employees and reduced costs for worker injuries; and
- Supports participation in waste diversion programs.

While automated collection offers several advantages, there are other challenges or considerations which need to be addressed. They include the following:

- Financial impacts - Adopting an automated cart system requires significant capital costs to purchase and deploy curbside containers and automated or semi-automated collection vehicles. Automated collection of single-stream recyclable materials will require a single-stream processing system which has significant capital cost requirements.
- Cart placement - The proper placement of the carts at the curb or roadside is essential to achieve optimum efficiency. Carts set out incorrectly require additional handling which negates time savings gained with automated collection.
- Storage Requirements - Municipalities with high-density neighbourhoods face the challenge of on-site storage, especially if households have to store multiple carts for different waste collection programs.

- Geographic considerations - Automated collection is best suited for communities with low-density housing, streets without on-street parking, and relatively flat terrain. On-street parking poses a challenge because the vehicle operator has to exit the vehicle to collect the containers.
- Contamination - There is a potential for increased contamination in the recycling program because contaminants are less visible to the waste collection operator.

Municipal Scan

Most municipalities have a fee-based system for the supply of containers for their waste diversion program. Table 4.1 includes information on waste diversion container practices from other municipalities which currently operate a manual waste collection program.

Municipalities in southern Ontario which have recently adopted automated collection programs include City of Guelph, City of Toronto, and Region of Peel. These municipalities have bi-weekly collection and single stream material recycling facilities.

Table 4.1 Waste Container Distribution

Municipality	Recycling Program	Organics Program
Durham Region	2 blue box supplied no charge for new residents	1 green bin supplied no charge for new residents
City of Hamilton	2 blue boxes supplied per year at no cost User fee approved but not currently in place	1 green bin supplied no charge for new residents Damaged green carts are replaced at no charge
Halton Region	1 blue box supplied per year at no cost	$15 per green bin
Niagara Region	$6 per recycling container	$22 per green bin
Region of Waterloo	1 blue box supplied no charge for new residents. Other residents are required to purchase blue boxes at a retail location	1 green bin supplied no charge for new residents
Municipalities in York Region	Costs range from $9 to $13 depending on the municipality	Costs range from $18 to $22.50 depending on the municipality

5 Briefing Note – Waste Management Facility Requirements

Subject

The purpose of this briefing note is to provide information on the structural requirements for waste management facilities.

Background

The City of Hamilton (City) currently owns the following waste management facilities:

- Three Transfer Stations/Community Recycling Centres (TS/CRC) (Mountain, Kenora and Dundas);
- Central Composting Facility (CCF);
- Material Recycling Facility (MRF); and
- Glanbrook Landfill

Transfer Stations / Community Recycling Centre (TS/CRC)

The City's TSs were constructed between 1979 to 1980 and the CRCs were built between 2005 to 2008. These facilities are owned by the City and are currently operated by Progressive Waste Solutions Inc. Each facility includes a TS that is utilized by curbside waste collection vehicles and industrial, commercial, and institutional customers. The CRC includes a household hazardous waste depot and a container station where residential and small commercial vehicles are able to drop-off garbage and recyclables. The Mountain TS/CRC also includes a Reuse Centre where the public can drop off and purchase reusable household items.

In response to recommendation (viii) of the Council approved 2012 Solid Waste Management Master Plan (SWMMP), City staff has engaged a consultant to perform the operational review and needs analysis of the Transfer Stations and Community Recycling Centres. This project will provide information that can be used to determine if and when an additional TS/CRC is required within the City limits or if the expansion of the existing facilities are required and viable.

Central Composting Facility (CCF)

The City currently owns and operates a CCF that is designed to process source separated organic waste (SSO). The CCF is operated under contract by Maple Reindeers/Aim Environmental Group. The CCF has a design capacity of 60,000 tonnes and a peak capacity of 90,000 tonnes per year. The CCF processes approximately 32,000 tonnes of SSO generated annually by the City's program. The CCF also processes approximately 38,000 tonnes of SSO from the Regional Municipality of Halton and the County of Simcoe through the sale of merchant capacity.

Since the beginning of CCF operations in 2006, the CCF has received several upgrades including the installation of a materials grinder and associated conveyors to manage leaf and yard waste accepted through the green cart program. Upgrades to the odour control system were also made to the facility. Upgrades for compliance with the new Provincial compost requirements are ongoing.

Material Recycling Facility (MRF)

The City currently owns a two-stream MRF which includes two separate areas to process container materials and paper materials collected through the City's recycling program. The MRF is operated under contract by Canada Fibers Ltd. The MRF annually processes approximately 45,000 tonnes blue box materials and has an annual design capacity of 94,000 tonnes.

The MRF building is a brownfield development and the original building envelope was constructed between the 1950s to 1970s. Over the years, the MRF has undergone significant upgrades including $8.1 million in renovations in 2006 to 2008 to bring the building envelope up to current building standards. The processing equipment to handle container materials at the MRF was replaced in 2008 at a cost of $2.7 million and has received several updates in 2013. A new optical sorting system will be installed in 2016 which will improve the processing capability for container materials. The existing processing equipment for paper materials is currently owned by Canada Fibers Ltd. and has an expected lifespan until 2020. The City's future recycling processing contract will need to consider options to effectively process materials.

The City completed several reviews related to single-stream recycling. In 2003, the City issued a Request for Proposals (RFP) for the design-build and operation of a single-stream materials recycling facility in conjunction with the RFP for the design-build and operation of the City's Central Composting Facility. The City did not proceed with the construction of the single-stream MRF due to financial requirements of constructing two waste diversion facilities. In 2006-2007, the City issued a RFP to retrofit the existing MRF with a single-stream recycling system. The City did not pursue this option due to costs. At the time, the capital costs for the single-stream processing system was $15.1 million.

Considerations/Options

Future program changes and external regulatory requirements such as the Waste-Free Ontario Act (Bill 151) could result in changes to these waste management facilities and contracts. For example, a change in collection days could have impacts on the required hours of operation, peak capacity thresholds/approvals and processing equipment.

Municipal Scan

There are a variety of configurations within Ontario including contracting out of these processing requirements or the deployment of two-stream or single-stream recycling. Table 5.1 includes a high level summary of the processing systems used by several

Ontario municipalities. Many municipalities in Ontario have adopted single-stream recycling systems to simplify sorting requirements for residents. Single stream recycling is often linked with bi-weekly collection and automated cart collection.

Table 5.1 Municipal Waste Processing Systems		
Municipality	**Recycling Program**	**Organics Program**
Durham Region	Materials are processed at their regionally owned two-stream MRF	Materials are processed at a privately operated composting facility
City of Guelph	Materials are processed at their municipally owned single-stream MRF	Materials are processed at their municipally owned composting facility
Halton Region	Materials are sent to a privately operated single-stream MRF	Materials are processed at Hamilton's CCF
City of Hamilton	Materials are processed at City owned two-stream MRF	Materials are processed at City owned CCF
Niagara Region	Materials are processed at their regionally owned two-stream MRF	Materials are processed at their municipally owned composting facility
City of Ottawa	Materials are sent to a privately operated two-stream MRF	Materials are processed at a privately operated composting facility
Region of Peel	Materials are processed at their regionally owned single-stream MRF	Materials are processed at their regionally owned composting facility
County of Simcoe	Small portion of paper materials processed at their regionally owned MRF. Most materials are sent to other two-stream MRFs	Materials are processed at Hamilton's CCF
City of Toronto	Materials are processed at their municipally owned single-stream MRF	Materials are processed at their municipally owned composting facility
Region of Waterloo	Materials are processed at their regionally owned two-stream MRF	Materials are processed at Guelph's CCF
York Region	Materials are processed at their regionally owned single-stream MRF	Materials are processed at their regionally owned composting facility

6 Briefing Note – Processing capabilities of pet waste and diapers

Subject

The purpose of this briefing note is to outline the waste disposal considerations related to pet waste and diapers.

Background

Pet waste and diapers pose a challenge for municipal waste collection programs and have limited opportunities for diversion from landfill. Pet waste and diapers are currently collected in the residual waste stream in Hamilton's curbside collection program.

From previous curbside residential waste audits completed in 2014, approximately 6% of the waste stream is comprised of diapers. Diapers are often cited as a concern for households to comply with garbage container limits. To address this matter, the City of Hamilton implemented a special consideration policy to assist households with young children or medical conditions which may have an increased amount of household waste due to diapers.

Considerations/Options

The City's Central Composting Facility (CCF) is designed to process organic waste, excluding pet waste and diapers. There are several factors which need to be considered if pet waste and/or diapers are processed at the CCF, which includes operational considerations, regulatory requirements, and financial impacts.

Operational and Financial Considerations

The CCF would require capital upgrades to process pet waste and diapers. Allowing diapers in the organics stream will significantly increase the amount of plastic in the feedstock, therefore the CCF would require additional processing equipment and upgraded screening equipment to remove the plastic contaminants. Removal of additional contaminants would affect operating costs.

Regulatory Requirements

The City would need to apply to the Ministry of the Environment and Climate Change (MOECC) for an amendment to the existing site Certificate of Approval to allow pet waste and diapers to be processed in the composting operation. The CCF must follow the provincial guidelines for the Production and Use of Aerobic Compost in Ontario. According to the current guidelines, the CCF currently produces Category 'A' unrestricted compost or Category 'B' NASM which is sold or transported to the agricultural market and soil blenders. Other lower grades of compost have limited use

such as landfill cover. Allowing materials such as diapers and pet waste in the feedstock increases the risk of not meeting composting parameters.

Municipal Scan

Only a few municipalities include pet waste and diapers in their waste diversion program as outlined in Table 6.1. Municipalities which accept both pet waste and diapers in their organics collection program typically have specialized anaerobic digestion composting facilities which are designed to process these materials.

As part of their transition to bi-weekly garbage collection, municipalities supplied information to residents on proper methods of handling pet waste and diapers through their communication materials. In some cases, municipalities created specialized services to handle diaper waste, e.g. Halton Region developed a 'diaper bag tag' program to allow households to set out a clear bag containing diapers in addition to the bi-weekly container limit.

Table 6.1 - Municipal waste management programs

Municipality	Method of handling Pet Waste	Method of handling Diapers	Garbage collection program
Durham Region	Disposed in garbage	Disposed in garbage	Bi-weekly, four container limit
City of Guelph	Included in organics program	Disposed in garbage	Bi-weekly, automated cart collection
Halton Region	Disposed in garbage	Disposed in garbage	Bi-weekly, three container limit
City of Hamilton	Disposed in garbage	Disposed in garbage	Weekly, one container limit
Niagara Region	Included in organics program	Disposed in garbage	Weekly, one container limit
City of Ottawa	Animal bedding allowed in organics program. Feces is disposed in the garbage	Disposed in garbage	Bi-weekly, six item limit
Region of Peel	Disposed in garbage	Disposed in garbage	Bi-weekly, automated cart collection
County of Simcoe	Disposed in garbage	Disposed in garbage	Weekly, one container limit
City of Toronto	Included in organics program	Included in organics program	Bi-weekly, automated cart collection
Region of Waterloo	Included in organics program	Disposed in garbage	2017 Bi-weekly, four container limit
York Region	Included in organics program	Included in organics program	Bi-weekly, three item limit

7 Briefing Note – Transfer Station / CRC Disposal Fees

Subject

The purpose of this briefing note is to provide information on the disposal fee structure at the City's three Transfer Stations / Community Recycling Centres (TS/CRCs).

Background

The City's current disposal fee structure at the Transfer Stations and Community Recycling Centres was introduced in 1999. The disposal fee structure includes the minimum disposal fee for residential customers for loads up to 100 kilograms, and a disposal fee for commercial customers and residential loads greater than 100 kilograms. Commercial customers are required to pay for all loads including recyclable materials. There is no charge for residential customers to dispose of recyclable materials. The following recyclable materials are accepted at the Community Recycling Centres at no charge for residential customers:

- blue box recyclables, i.e. containers, paper materials;
- leaf and yard waste;
- scrap metal and appliances;
- bulky rigid plastics;
- electronics;
- televisions and computer monitors;
- tires;
- clean wood; and
- household hazardous waste.

In addition, residents have the opportunity to take reusable items such as clothing and household goods to the Reuse Store located at the Mountain CRC.

Since 1999 the minimum fee has been adjusted as per the approved user fees that are a part of the annual operating budget process. A historical summary of tipping fees is included in Table 7.1.

Table 7.1 – Tipping Fee Rates

Year	Minimum Tip Fee	Tipping Fee / 100 kg
1999 - 2002	$ 5.00	$ 7.50
2003	$ 7.50	$ 8.00
2004	$ 7.50	$ 8.40
2005	$ 7.50	$ 9.00
2006	$ 7.50	$ 10.15
2007	$ 7.75	$ 11.00
2008	$ 8.00	$ 11.25

Table 7.1 – Tipping Fee Rates		
Year	**Minimum Tip Fee**	**Tipping Fee / 100 kg**
2009	$ 8.00	$ 11.25
2010	$ 8.25	$ 11.50
2011- 2016	$ 8.50	$ 11.75

The revenues generated from the disposal fees are included in the annual operating budget. A historical summary of the revenues generated from TS/CRC disposal fees is included in Table 7.2.

Table 7.2 – Transfer Station Revenues	
Year	**Revenues**
2010	$ 4,348,918
2011	$ 4,386,605
2012	$ 4,017,997
2013	$ 3,843,060
2014	$ 3,869,316
2015	$ 3,727,110

Considerations/Options

Potential adjustments to the disposal fees in the future can impact the operating budget.

Municipal Scan

Most municipalities have disposal facilities where residents and commercial customers can dispose various types of waste materials. The tipping fee structure varies greatly among municipalities. In most cases, residential customers are required to pay a minimum fee for small loads delivered to the disposal facilities. A municipal scan with high level details on waste disposal facility rates is included in Table 7.3.

Table 7.3 Municipal Waste Disposal Facility Fees		
Municipality	**Minimum Tip Fee**	**Tipping Fees (based on metric tonne)**
Durham Region	$5 per load	• Free disposal for household hazardous waste, waste electronics, tires, and bale wrap; • $120 tonne for garbage, residential recyclables, yard waste, mixed loads
City of Guelph	$3 for 50 kg or less	• Disposal fees charged for all materials; rates range from $60 to $75 per tonne
Halton Region	$5 for 50 kg or less	• Free disposal for residential recyclables; • $165 tonne for garbage disposal

Table 7.3 Municipal Waste Disposal Facility Fees		
Municipality	**Minimum Tip Fee**	**Tipping Fees (based on metric tonne)**
City of Hamilton	$8.50 for 100 kg or less	• Free disposal for residential recyclables; • $117.50 tonne for garbage disposal
Niagara Region	$5 for 60 kg or less	• Free disposal for residential recyclables; • Rates range from $75 to $100 per tonne depending on the waste material
City of Ottawa	N/A	• Free disposal for residential recyclables; • Rates range from $106 to $212 per tonne depending on the waste material
Region of Peel	$5 for 50 kg or less	• Free disposal for residential recyclables; • $100 tonne for garbage disposal over 50 kg
County of Simcoe	$5 to $10 per load	• Free disposal for residential recyclables and organics; • Rates range from $75 to $310 per tonne depending on the waste material, i.e. construction waste, garbage and mixed waste
City of Toronto	$10 for 92 kg or less	• Free disposal for residential recyclables up to 20 kg; • Rates range from $81.92 to $109.27 per tonne depending on the waste material
Region of Waterloo	$5 for 50 kg or less	• $37 per tonne for recyclables & organic waste; • $77 per tonne for garbage
York Region	$10 to $89 per load depending on the vehicle size	• Free disposal for residential recyclables; • $100 tonne for garbage

8 Briefing Note - Glanbrook Landfill Lifespan

Subject

The purpose of this briefing note is to provide information on the remaining lifespan of the Glanbrook Landfill Site (Site).

Background

The Site has been in operation since 1980 and is approved to have a maximum capacity of 14,821,000 m^3 of municipal solid waste (MSW). Currently, operations and planning reports have received approval for filling plans that would utilize 13,258,000 m^3 of MSW, within Stages 1 to 3 of development. A development plan for Stage 4 and the remaining 1,563,000 m^3 has recently been submitted to the Ministry of Environment and Climate Change.

The waste footprint is 63 hectares and has a network of cells in Stages 1 to 3, which have been, or will be, excavated below grade and then systematically filled with residual waste to the projected approved design grades. Most recently, disposal operations have been focused on meeting design grades for Stage 1 and Stage 2. It is estimated that the total waste capacity of Stage 1 and 2 will be fully consumed by 2018.

Development plan approval has been received for the construction of Stage 3 cells. Preparations related to leachate management, storm-water management, and long term design planning have been implemented for Stage 3. Stage 3 has an estimated capacity of 4,855,000 m^3, or equivalent to approximately 30 years of disposal capacity.

Full capacity of the Site will be achieved by 2045, based on current air space consumption rates at the Site reported in May 2016. The Site lifespan could be extended to 2049 with the application of a 1% per annum growth rate to current waste generation rates, as well as improvements in future diversion programs. With the potential future approval of Stage 4, the Site lifespan could be extended an additional 10 years to 2055.

Considerations/Options

The 2012 Solid Waste Management Master Plan's guiding principles focus on preserving the landfill:

1. The City of Hamilton must lead and encourage the changes necessary to adopt the principle of Waste Minimization.
2. The Glanbrook Landfill is a valuable resource. The City of Hamilton must minimize residual waste and optimize the use of the City's diversion and disposal facilities.

As part of the long term waste planning process a broad range of factors could be examined, which may include the following:

- Alternative disposal technologies such as:
  - Energy from waste, e.g. thermal technologies such as gasification and pyrolysis, and non-thermal technologies such as mechanical biological treatment;
  - Waste stabilization, i.e. a process where the waste sent for disposal is run through a process similar to composting and made inert, which reduces leachate and minimizes landfill gas;
  - Mechanical separation where waste sent for disposal is sorted before going into landfill so that recyclable and compostable materials can be extracted; and
  - Acquire new landfill capacity.

The planning process for waste disposal technologies will require considerable time due to the complexity of the technologies involved, environmental considerations, and legislative requirements. It is anticipated that the disposal technologies review will continue beyond 2020.

9 Briefing Note – Multi-residential and Commercial Waste Diversion Program Participation

Subject

The purpose of this briefing note is to review the participation rates for diversion programs in multi-residential buildings and eligible commercial properties.

Background

Multi-residential waste diversion program

The City of Hamilton offers waste collection to multi-residential buildings with a site design which accommodates waste collection vehicle access. Participation in the organics and recycling programs are required for a building to receive municipal garbage collection. Roll out of the organics program to multi-residential buildings was initiated in 2006. Since then, various engagement projects have been utilized to assess participation in the waste diversion programs. These projects include:

- Utilizing unaddressed ad-mail to send communication materials to apartment residents;
- Surveying tenants, superintendents and property managers to understand their waste management behaviours and understand potential barriers to waste diversion;
- Providing extensive communications packages, including tenant and superintendent guides, signage, improved labels for containers; and
- Providing waste management presentations to tenants.

The City of Hamilton performs multi-residential waste audits to review building participation and performance in waste diversion programs. In the 2014 multi-residential waste audit, there was 91.2% participation in the recycling program and 29.4% participation in the organics program based on the buildings included in the audit. Participation was defined as one blue cart set-out for every 10 units per week and one green cart set-out for every 15 units per week.

The following activities relating to multi-residential diversion are planned for 2016:

- Seasonal waste audits through Waste Diversion Ontario;
- Host waste diversion stakeholder workshops for property owners to discuss partnerships, the City's waste diversion expectations and pursue partnerships to increase effectiveness of multi-residential waste diversion programs;
- Establish a community ambassador program out of partnerships with property owners.
- Complete a public engagement survey to assess the community's opinion of waste management systems.

Commercial properties waste diversion program

Staff initiated work on the green cart program for eligible commercial properties in 2013. Prior to that time, a limited number of commercial properties were participating in the program based on interest from individual businesses. The rollout to commercial properties included site visits to ensure the properties received appropriate tools and information to participate in the program. Site visits and roll outs to new properties were last completed in 2015. As of the last review in 2015, there were 713 commercial properties in the City that were eligible to participate in the curbside organics program. Of those, 434 were actively participating in the program. There is likely some variance in these numbers, due to changes in type of business at any given location, changes in ownership or on-site staff, and properties discontinuing their participation for other reasons. In 2016, the commercial organics program has been limited to maintenance.

Considerations/Options

The following factors need to be considered as part of the delivery of the City's multi-residential waste diversion program:

- The extensive resources required to maintain and monitor the multi-residential diversion program throughout the City to eligible properties.
- Waste audit results indicate engagement projects completed to date have had minimal impact on diversion rates.
- Commitment of property owners to ensure their tenants participates in the City's diversion programs.

Due to the significant labour requirements to continue the commercial green cart program as provided during the program launch, a modified program could be considered. Other considerations include:

- Providing information about the green cart program to new commercial properties;
- Promote the program on the City website with an option for businesses to check their eligibility for the program;
- Visit interested businesses to deliver information packages; and
- Follow up with businesses by phone and use online resources to find new eligible commercial properties instead of going door to door.

Municipal Scan

Most municipalities in Ontario provide a multi-residential recycling program in their community. In many cases, multi-residential programs experience similar challenges similarly to Hamilton's program including tenant issues, resource requirements, and communication issues. Hamilton's multi-residential waste diversion rate is approximately 16.3% which is comparable to other municipalities including the City of Ottawa (19.4%) and City of Toronto (26.2%), as reported through the Ontario Municipal Benchmarking Initiative (2014).

The Continuous Improvement Fund, operated through Waste Diversion Ontario, has provided assistance to municipalities by creating guidelines and best practices for municipal multi-residential recycling programs. One of the best practices currently used by Hamilton's program is the use of educational materials geared towards the unique requirements for multi-residential buildings.

10 Briefing Note – Waste Diversion Rates

Subject

The purpose of this briefing note is to provide information on the City's waste diversion rate.

Background

The City completes waste audits to assess waste characteristics and participation in the City's waste programs. According to waste composition audits conducted in May 2015, the average multi-residential unit generates approximately 8.3 kilograms of waste per week which includes garbage, recyclables and organics combined. Of that amount, garbage represents 6.8 kilograms and on average 38.5% (2.6 kilograms) of that garbage could have been diverted through the recycling program or organics program.

According to the curbside single family waste composition audit conducted in May 2014, the average single family home generates approximately 14 kilograms per week of garbage, recyclables and organics combined. Of that amount, garbage represents 5.6 kilograms and on average 52% (2.9 kilograms) of that garbage could have been diverted.

Considerations/Options

The City of Hamilton is planning several activities in 2016 in an effort to increase waste diversion. The following public education projects are being pursued:

- Launch a mobile waste application for cell-phones including a web tool for Android and iPhone.
- Translate the waste information on the City's website using Google Translator.
- Translate waste management informational posters into five languages.
- Develop a webpage and video targeting for multi-residential residents.

The following community engagement efforts are also planned:

- Host waste diversion stakeholder workshops for property owners to discuss partnerships, the City's waste diversion expectations, and pursue partnerships to increase effectiveness of multi-residential waste diversion programs.
- Develop a community ambassador program through partnerships with multi-residential property owners.
- Complete a public engagement survey to assess the community's opinion of waste management services.

- Roll out a corporate recognition program to acknowledge City facilities with high waste diversion performance.

The following measures are being completed:

- Investigate service requests logged for illegal dumping and determine the effectiveness of promotion and education campaigns relating to the same.
- Review online waste exchange programs in area municipalities.
- Perform seasonal waste audits in curbside residential properties beginning in May 2016.

Municipal Scan

Hamilton's waste diversion rate compared to other municipalities in Ontario is shown in Table 10.1.

Table 10.1 – Municipal Waste Diversion rates

Municipality	Diversion Rate (Reported to WDO in 2014)
City of Brantford	35.5%
Durham Region	55%
City of Guelph	66.5%
Halton Region	56%
City of Hamilton	48%
Niagara Region	51.7%
City of Ottawa	45.5%
Region of Peel	45.1%
County of Simcoe	59%
City of Toronto	51.9%
Region of Waterloo	51.7%
York Region	61.3%

11 Briefing Note – Trash Tag Program

Subject

The purpose of this briefing note is to provide information on the community's usage of the trash tag program.

Background

On February 22, 2012, Council approved the current waste collection system for the period of April 2013 to March 2020. As part of this collection system, Council approved the continuation of the weekly one container garbage limit for residential households, which included a trash tag program to provide households with up to 26 tags per year. The intent of the trash tag system is to provide flexibility for residents to set out additional garbage containers during any week throughout the year. One of the goals of the trash tag program is to reduce the possibility of illegal dumping of household garbage.

Twelve trash tags are included in the City's garbage and recycling guide which is mailed to eligible curbside residential properties by Canada Post in the spring each year. The twelve trash tags represent one extra bag or container of garbage per month. Residents requiring the remaining fourteen trash tags can pick them up at a Municipal Service Centre, or call 905-546-CITY, or complete a web form on the City's website and the fourteen additional trash tags would be mailed to their home.

The trash tag program has also been integrated with the City's special consideration policy which provides an increased garbage container limit for households with unique circumstances. Since 2013, households approved for the special consideration policy receive 104 trash tags which can be used at any time during the year. The City has experienced a 63% increase in the number of properties approved for the special consideration policy, compared to 2013. This significant change is partly due to the flexibility of the trash tag program, as well as, changes to the special consideration policy which were introduced in 2013.

Table 11.1 outlines the yearly number of requests for the "additional fourteen" trash tags between 2013 to 2016.

Table 11.1 - Requests for "Additional 14" Trash Tags

	2013 (Mar. to Dec.)	2014	2015	2016 (Jan. to May)	2016 Year end Projected
No. of Requests	9,378	11,128	12,758	5,760	11,500
% requests based on eligible households	5.5%	6.5%	7.3%	2.7%	6.3%

Based on the number of requests since 2013, approximately 93% of eligible households are able to comply with the current garbage container limit, without requesting the additional fourteen trash tags.

The City has used a staged distribution method due to cost considerations and the success rate with unaddressed mail delivery by Canada Post. Over the years, staff has improved the distribution system for the City's garbage and recycling guides which has a 97% success rate with the current delivery method.

Considerations/Options

Future Program Analysis:

The City needs to determine if the trash tag program will continue to be part of the City's future waste collection program, and the method to deliver this service. The factors that need to be considered include the following:

- the number of trash tags to be provided to eligible properties; and
- distribution method for trash tags.

Municipal Scan

Most municipalities offer a garbage tag system to supplement their curbside garbage collection program. In most cases, the use of garbage tags form part of the municipality's garbage program to help reduce container limits while offering some flexibility to residents to set out additional garbage if required. Table 11.2 includes a summary of garbage tag costs from other municipalities.

Table 11.2 – Municipal Garbage Tag System

Municipality	Garbage Tag Overview
Durham Region	• $2.50 per garbage tag. • Available for sale at municipal buildings
Halton Region	• $2 per garbage tag. Minimum purchase is a sheet of 5 tags for $10 • Available for sale at municipal buildings and several retail locations
City of Hamilton	• 14 trash tags available per year at no charge
Niagara Region	• $2 per garbage tag • Available for sale at select municipal buildings and retail locations
Region of Peel	• $1 per garbage tag. Minimum purchase is a sheet of 5 tags for $5 • Available for sale at municipal buildings and online

Table 11.2 – Municipal Garbage Tag System	
Municipality	**Garbage Tag Overview**
County of Simcoe	• $3 per garbage tag. Minimum purchase is a sheet of 5 tags for $15 • Available for sale at municipal buildings and retail locations
City of Toronto	• $3.39 per garbage tag. • Available for sale at select retail locations
Municipalities in York Region	• $2 per garbage tag. Minimum purchase is a sheet of 5 tags for $10 • Available for sale at municipal buildings

12 Briefing Note - Impact on Illegal Dumping

Subject

The purpose of this briefing note is to provide information concerning current initiatives to improve neighbourhood cleanliness and address illegal dumping concerns.

Background

Hamilton along with many communities across North America faces the challenge of 'waste in the wrong place' which includes concerns related to intentional littering and depositing waste materials in incorrect or inappropriate areas. The City has been extensively involved with a wide range of activities to address cleanliness concerns. A proactive enforcement pilot launched in April 2012 to address illegal dumping across the City was approved as a permanent program in December 2015. The pilot has been funded from existing accounts in Public Works (Operations Division) and Planning and Economic Development (Parking and By-law Services Division). The following positive outcomes have been reported over the last three years:

- Decreased dumping activity at the hotspots identified by Council in Report PW11052/PED11127;
- Recovery from fines and through court actions;
- Courts are now imposing substantially higher fines due to the impact that illegal dumping has on communities;
- Increased fines are serving as an effective deterrent to illegal dumping;
- Enforcement strategies continue to be refined – Project Trash Talk; and
- The weekly bulk waste collection program has resulted in additional requests for bulk waste collection.

In addition, the following citizen engagement litter remediation programs continue to be valuable in supporting neighbourhood cleanliness through the efforts of volunteers:

- Tim Horton's Team Up to Clean-Up;
- Adopt-a-Park;
- Neighbourhood Clean Team;
- Great Canadian Shoreline Clean-Up;
- Downtown BIA Cigarette Litter Prevention Program;
- Beautiful Alleys;
- Escarpment Project Annual clean-up; and
- Keep Hamilton Clean and Green.

Considerations/Options

Current City programs and established volunteer initiatives require continued support in order to maintain and increase awareness and education specific to "*Put Waste in the Right Place*", including:

- Continue monitoring illegal dumping complaints;
- Improvements to the Solid Waste, Streets, Parks and Yard Maintenance By-laws to enhance the effectiveness of enforcement of illegal dumping;
- Continue to engage citizen volunteers and local business sponsors in litter control and beautification of municipal parks, roads, neighbourhood public spaces; and
- Maintain interdepartmental discussions on a regular basis to enable successful and time-sensitive anti-dumping programs.

As part of the development of new waste management system, the Operations Division could continue to work with Municipal Law Enforcement staff to continue the positive improvement in reducing illegal dumping in Hamilton.

Municipal Scans

All municipalities deal with concerns related to illegal dumping and maintaining community cleanliness. Oftentimes, when municipalities change their garbage container limit or introduce bi-weekly garbage collection services, residents express concerns that the change could increase the possibility of waste in the wrong place. Like Hamilton, most municipalities utilize similar practices to deal with illegal dumping concerns, for example:

- Clauses in their municipal by-laws to enforce property cleanliness;
- Provide ongoing inspection of dumping hotspot areas; and
- Operate neighbourhood clean-up program.

13 Briefing Note – Continuous Improvement

Subject

The purpose of this briefing note is to provide information on continuous improvement opportunities to enhance the operation of the City's waste management services.

Background

The Operations Division has implemented several initiatives to support continuous improvement of the City's waste programs. These initiatives include the following:

Waste Collection Services

- Route Optimization - The Operations Division is committed to advancing its work on route optimization for waste collection services. Progress to date includes collecting baseline data, completion of a third-party report, and investigating possible software solutions.
- Automated Vehicle Location Solution - The City's waste collection fleet will be part of the City's rollout for the corporate Automatic Vehicle Location (AVL) solution for the City's Central Fleet and Hamilton Paramedic Services (HPS).
- Vehicle dash camera system - The City adopted a vehicle dash camera system in 2015 as a pilot project to assist with improving driver behaviour and support staff training. Due to the pilot's success, this system was approved for full integration with the waste collection fleet as outlined in Staff Report PW16025.
- Safety & Compliance - Several strategies have been implemented which focus on improving the City's Commercial Vehicle Operators Registration (CVOR) rating including a new driver training program and a CVOR safety action plan which has helped to improve the City's CVOR rating.
- Organizational changes - Staffing adjustments have been made to support the technical and operational advancements in the Waste Collection Office focusing on technological advances for the public sector's waste collection operations.

Waste Processing & Disposal

- Diversion programs - The City introduced a cell phone and battery collection program at municipal facilities. Bulky rigid plastics were added to the recycling collection program at the City's Community Recycling Centres.

- Processing equipment - The City is planning to install a new optical sorting system at the City's materials recycling facility. The optical sorter will be capable of processing a wide range of plastic products currently collected in the City's curbside recycling program.
- Energy savings – The landfill gas to energy facility located at the City's Glanbrook Landfill site helps to produce approximately 26 million kilowatt-hours of renewable energy for the Ontario power grid on an annual basis. Staff is investigating the feasibility of installing ground mounted solar panels at the Glanbrook Landfill site.

Considerations/Options

Staff can continue to investigate best practices in the waste management field which can help improve the City's service delivery. There may be opportunities to introduce changes to streamline the City's services including new technologies and alternate waste handling methods. The upcoming waste management contracts provides the chance of including new innovative systems which can help improve the City's waste management operations. While most of the continuous improvement initiatives occur at the operations level outside of public view, the ultimate goal is to provide efficient and cost effective services for the City's communities.

14 Briefing Note – Impact of the Waste Free Ontario Act (Bill 151)

Subject

The purpose of this briefing note is to provide information on the Waste Free Ontario Act (Bill 151) and its potential impact to the City's integrated waste management system.

Background

Ontario's Ministry of the Environment and Climate Change (MOECC) introduced the Waste Free Ontario Act, Bill 151 ("Bill 151") on November 26, 2015. Bill 151 replaces the existing Waste Diversion Act (2002), which regulates the reduction, reuse and recycling of waste in Ontario. Bill 151 includes new requirements for producers to take full responsibility for their products and packaging and be accountable for reducing waste associated with these materials. Bill 151 was passed by the Ontario Legislature on June 1, 2016. Bill 151 includes the Resource Recovery and Circular Economy Act, 2015 and the Waste Diversion Transition Act, 2015. The government has indicated that it will also finalize the draft Strategy for a Waste-Free Ontario: Building the Circular Economy within three months of the legislation coming into effect.

Resource Recovery and Circular Economy Act

The *Resource Recovery and Circular Economy Act* establishes a new outcomes-based system where Producers would be responsible for their products and packaging and be accountable for recovering resources and reducing waste associated with these materials. The overall aim of the Act is to:

- Reduce waste and recover resources through product life cycle;
- Hold producers responsible for waste handling;
- Provide convenient and reliable waste collection and management services;
- Increase opportunities and markets for recovered materials;
- Promote public awareness;
- Minimize the need for waste disposal; and
- Promote competition.

The Act includes the creation of the Resource Productivity and Recovery Authority which has new objectives and powers to oversee the new producer responsibility system and the transition of current waste diversion programs to the new framework.

Waste Diversion Transition Act

The *Waste Diversion Transition Act* sets out the provisions and overseeing an orderly transition from current waste diversion programs to the new producer responsibility system. This includes establishing rules for existing waste diversion programs and

developing wind-up plans during the transition to new producer responsibility. Under the new system, producers will be required to pay stewardship fees to Industry Funding Organizations.

The *Waste Diversion Transition Act* allows municipalities to receive 50% of total net costs incurred to operate municipal recycling programs. The *Waste Diversion Transition Act* also includes a dispute resolution process for municipalities and Industry Funding Organizations in the event that future regulations change the percentage paid to municipalities.

Municipal Feedback

During the review period for Bill 151, the City of Hamilton supported comments made by the Association of Municipalities of Ontario (AMO) on the draft Act, including:

- Municipal governments have long advocated for a new legislative framework for waste diversion.
- Municipalities strongly support the Province's legislative intent to move towards producers fully funding the end-of-life costs associated with managing products and packaging rather than relying on the property tax base to fund these costs.
- The primary concern is that Bill 151 does not provide the municipal sector with any ability to protect its interests in the operation and funding of current integrated waste management systems. Municipal governments will still be required to operate and fund the integrated waste management system for all materials that are not designated and materials that end up in waste and/or litter streams.
- Given the potential impacts that new programs and recovery schemes may have on the systems currently managed and paid for, municipal governments require a seat at the table when decisions are being made about these programs.

Considerations/Options

The Act has potential impacts to the City's integrated waste management system. Bill 151 presents many unknown variables to waste system planning. Municipalities need to be represented throughout the implementation process for Bill 151. The City will continue to pay attention to the outcomes of Bill 151 and how the Act will impact The City will continue to pay close attention to the outcomes of Bill 151 and how the Act will affect the City's recycling services as part of the 2020 waste system review. The Province has stated that it will ensure proper consultation, careful consideration and cooperation between government, municipalities and producers is maintained during the transition of the Blue Box program. As part of the development of the new Regulations, a number of factors need to be contemplated, including:

- Potentially stranded assets and liabilities of current municipal programs;
- Accessibility to waste diversion services, promotion and education, and projected outcomes; and
- Timelines for "wind-up" process of current programs including collection of used tires, waste electronics, household hazardous waste, and Blue box collection.

At this time municipalities do not have a legislated role in the Act which may result in municipalities becoming service providers to the designated producers. Municipalities will need to decide whether or not to continue providing waste management services for designated materials and will need to negotiate contracts with the producers to receive payment of these services.

As a result of the *Waste-Free Ontario Act* and the implementation of a producer responsibility waste management and diversion initiative, municipalities may be hesitant to implement new waste diversion programs and services in their communities until further clarification and direction is given as a result of the Act.

It is understood the current integrated waste collection service delivered by municipalities to their residents will likely remain in place due to their effectiveness at collecting and diverting waste material. Producers may want more control of the processing of designated materials. As a result, there is concern for municipalities that have infrastructure for the collection, transfer, and processing of waste material that they may be left with stranded assets that are no longer required.