

*** Niagara Regional Council Approved Report PWA 32-2010/CSD 43-2010
on April 22, 2010, Option #1 – 55% Diversion**

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REPORT TO: Chair and Members of the Public Works Committee

AND

Co-Chairs and Members of the Corporate Services Committee

SUBJECT: Contract Award for Garbage, Recycling and Organics Collection Services

RECOMMENDATION(S)

That this Committee recommend to Council that:

1. The seven year contract for 2009-RFP-44 "Collection/Haulage of Garbage, Recyclables, Organic Waste and White Goods", starting March 1, 2011 be awarded to Halton Recycling Ltd., doing business as Emterra Environmental, for the following collection services;

a) one of the following two options for garbage, recycling, organics and white goods collection:

Option 1 – 55% Diversion:

As part of a strategy to achieve an estimated 55% waste diversion, provision of Base and Enhanced Services, at a first year contract cost of \$16,550,866 (exclusive of tax) and a seven year total estimated cost of \$122,821,183 (exclusive of tax), consisting of:

- i) Weekly garbage collection for the low density residential sector and other eligible properties, with a one container (bag/can) limit for the low density residential sector (one to six unit residential buildings) and container limits for other sectors as outlined in Appendix IV of this report;
- ii) Weekly Blue and Grey Box recycling collection for the low density and high density residential sectors, designated business areas and other eligible properties;

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- iii) Weekly Green Bin organics collection for the low density residential sector, designated business areas and other eligible properties;
- iv) Weekly leaf/yard material collection, with no grass collection, for the low density residential sector, which includes a separate leaf/yard material and brush collection in April and November in urban areas only;
- v) Weekly collection of household bulky items and white goods as previously approved for the low density residential sector;
- vi) Once per year Christmas tree collection, special set out service and garbage container (bag/can) exemptions as previously approved for the low density residential sector.

OR

Option 2 – 65% Diversion:

As part of the current strategy to achieve an estimated 65% waste diversion, provision of Base and Enhanced Services, at a first year contract cost of \$16,772,697 (exclusive of tax) and a seven year total estimated cost of \$124,096,316 (exclusive of tax), consisting of:

- i) Every other week garbage collection for the low density residential sector and other eligible properties, with a three container (bag/can) limit for the low density residential sector (one to six unit residential buildings), and container limits for other sectors as outlined in Appendix IV of this report;
 - ii) Weekly garbage collection for designated business areas;
 - iii) Weekly Blue and Grey Box recycling collection for the low density and high density residential sectors, designated business areas and other eligible properties;
 - iv) Weekly Green Bin organics collection for the low density residential sector, designated business areas and other eligible properties;
 - v) Weekly leaf/yard material collection, with no grass collection, for the low density residential sector, which includes a separate leaf/yard material and brush collection in April and November in urban areas only;
 - vi) Weekly collection of household bulky items and white goods as previously approved for the low density residential sector;
 - vii) Once per year Christmas tree collection, special set out service and garbage container (bag/can) exemptions as previously approved for the low density residential sector.
- b) Enhanced Services as selected by local municipalities for litter bin collection, front end garbage bin collection services and additional curbside collection in designated areas, as outlined in Appendix IV of this report.

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- c) Public open space street side collection of recyclables on a per stop basis as a provisional enhanced service, as selected by local municipalities and outlined in this report.

- 2. The award of the provisional item in 2009-RFP-44 for Green Bin organics collection service for multi-residential buildings be deferred pending confirmation of available organics processing capacity and affordability of this service.

- 3. A grass collection ban be implemented effective March 1, 2011 at an estimated annual first year cost savings of \$458,900 per year with weekly garbage collection (\$294,000 in collection cost savings plus \$164,900 in processing cost savings) or \$742,900 with every other week garbage collection (\$578,000 in collection cost savings plus \$164,900 in processing cost savings).

If Council elects to provide grass collection, Emterra’s first year cost will have to be increased by \$294,000 for weekly garbage collection or \$578,000 for every other week garbage collection, which is the collection cost component of this service option.

- 4. The collection contract agreement with Halton Recycling Ltd., doing business as Emterra Environmental, be prepared by the Director of Legal Services.

- 5. The Regional Chair and Regional Clerk be authorized to execute the collection contract agreement on behalf of the Corporation.

- 6. The Waste Management Services By-Laws 95-2008 and 117-2008 be amended to reflect the new service levels as approved by Council.

- 7. Staff be directed to review the current waste diversion target and timelines and report back to Waste Management Planning Steering Committee and Public Works Committee.

EXECUTIVE SUMMARY

This report recommends the award of the new seven year waste collection services contract to Halton Recycling Ltd., doing business as Emterra Environmental, on the basis that they are the low cost proponent for all collection service scenarios and all collection areas in response to the Region’s Request for Proposal (RFP). The report also recommends collection service levels in the new contract for those service options where

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pricing was requested in the RFP (as directed by Council). Specifically, those service level options are as follows:

- Weekly curbside garbage collection with a one container (bag/can) limit vs. every other week curbside garbage collection with a three container (bag/can) limit;
- Weekly vs. alternating weekly Blue and Grey Box collection; and
- Full ban on curbside grass collection vs. a partial ban on curbside grass collection in the summer months vs. no ban on grass collection.

A comprehensive cost benefit analysis was undertaken to determine the incremental cost impact of the different service levels on overall waste management system operating costs.

Weekly collection of Blue and Grey Box material from all residential properties and eligible commercial properties is recommended due to the fact that it will enhance waste diversion, is considered an industry best practice and is affordable due to industry stewardship funding.

A full ban on the curbside collection of grass clippings is also recommended which will reduce organics collection and processing costs by \$455,000 to \$739,000 per year, reduce odours at the Walker Composting Facility and free up capacity in the Walkers facility for additional Green Bin material.

With respect to the frequency of curbside garbage collection, the report presents two options for Committee consideration.

Every other week garbage collection with a three bag/can limit is seen as a key element of the Region's current goal of achieving 65% waste diversion, by providing a strong incentive for more residents to fully use their Green Bin and Blue/Grey Boxes on a weekly basis. Every other week garbage collection combined with weekly Blue/Grey Box and Green Bin/leaf and yard material collection results in an estimated increase in overall waste system costs (combined collection, processing and disposal costs) of approximately \$423,100 per year, or a \$2.21 per household per year increase, compared to the projected operating cost of current service levels, modified with a one container garbage limit (modified status quo). This option also preserves more long term Regional landfill disposal capacity compared to other options.

Weekly garbage collection with a change to a one bag/can per week limit is expected to allow the Region to achieve 55% waste diversion by providing more incentive for residents to use their Green Bin and Blue/Grey Boxes on a weekly basis. Weekly garbage

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collection combined with weekly Blue/Grey Box and Green Bin/leaf and yard material collection results in an estimated increase in overall waste system costs of approximately \$702,100 or a \$3.67 per household per year increase compared to the operating cost of modified status quo service levels.

Regardless of which option is selected by Committee and Council, it is recommended that staff be directed to complete a new long term waste management strategy, which would include a review of diversion targets and timelines. This strategy would make recommendations on diversion targets based on a consideration of Niagara Region’s current diversion performance, recent experience in other municipalities, new waste processing technologies and proposed provincial legislation that would require producers of products and packaging to become responsible for recycling post-consumer waste.

The report also recommends deferring the award of the provisional RFP item for Green Bin organics collection service for multi-residential buildings pending confirmation of available organics processing capacity and affordability of this service.

The report does not recommend same side of road collection in rural areas.

FINANCIAL IMPLICATIONS

The principal decisions for Council are:

- 1. Garbage collection frequency and associated diversion targets; and
- 2. Grass collection or no grass collection (grass ban).

The following section describes the financial implications associated with these options, based on best available information.

- 1. Garbage Collection Frequency and the Associated Diversion Targets:
 - **Option 1** - Weekly curbside garbage collection with a one bag/can limit (55% diversion target) OR
 - **Option 2** - Every other week curbside garbage collection with a three bag/can limit (65% diversion target).

Weekly Blue/Grey Box and Green Bin/leaf and yard material collection services are the same for each option.

First Year Annual Collection Cost

Table 1 lists the first year annual collection cost, with a full grass ban for each option.

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Table 1 - Cost Impact of Collection Options

Garbage Collection Options and Associated Diversion Rates	Year 1 Annual Collection Contract Cost (with full grass ban)
Option 1 Weekly garbage with 1 bag/can limit (~55% Diversion)	\$16,550,866
Option 2 Every other week garbage with 3 bag/can limit (~65% Diversion)	\$16,722,698
Difference	(\$171,832)

Option 1 – 55% Diversion: Weekly garbage, weekly Blue/Grey Box and weekly Green Bin/leaf and yard material collection with a grass ban:

The annual cost of the new collection contract for weekly garbage collection, weekly Blue/Grey Box and weekly Green Bin/leaf and yard material collection, plus weekly multi-residential recycling (new service), is projected to be \$16.6 million (exclusive of tax), which is an increase of 0.6% compared to the value of the current collection contract (\$16.5 million) for Base and Enhanced Services.

Option 2 - 65% Diversion: Every other week garbage, weekly Blue/Grey Box and weekly Green Bin/leaf and yard material collection with a grass ban:

The first year annual cost of the new collection contract based on every other week garbage, weekly Blue/Grey Box and weekly Green Bin/leaf and yard material collection, plus weekly multi-residential recycling (a new service) is projected to be \$16.8 million (exclusive of tax), which is an increase of 1.8% compared to the value of the current collection contract (\$16.5 million).

Projected Total System Operating Costs (2012)

Table 2 lists the first year annual collection cost, with a full grass ban for Options 1 and 2.

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Table 2 - Projected Total System Operating Cost Impact of Collection Options

Garbage Collection Options and Associated Diversion Rates	Projected Total System Operating Costs in 2012 (with full grass ban)	Projected Impact on System Operating Costs in 2012 Compared to Modified Status Quo (with full grass ban)
Option 1 Weekly garbage (1 bag/can limit), Blue/ Grey Box and Green Bin/leaf and yard material collection (~55% Diversion)	\$24,404,700	\$702,100
Option 2 Every other week garbage (3 bag/can limit), weekly Blue/ Grey Box and Green Bin/leaf and yard material collection (~65% Diversion)	\$24,125,700	\$423,100
Difference	\$279,000	\$279,000

Option 1 – 55% Diversion: Weekly garbage, weekly Blue/Grey Box and weekly Green Bin/leaf and yard material collection with a grass ban:

Option 1 results in an estimated increase in overall annual waste system operating costs of approximately \$702,100 or a \$3.67 per household per year increase compared to the projected cost of modified status quo service levels.

Option 2 - 65% Diversion: Every other week garbage, weekly Blue/Grey Box and weekly Green Bin/leaf and yard material collection with a grass ban:

Option 2 results in an estimated increase in overall waste system operating costs of approximately \$423,100 per year, or a \$2.21 per household per year increase compared to the projected cost of modified status quo service levels.

Compared to Option 1, the 2012 annual system operating costs for Option 2 are lower by \$279,000, which makes Option 2 more affordable. Further savings of a similar magnitude can be expected over the remaining five years of the collection contract. There is also the potential to defer the closing of Humberstone Landfill Site, which will result in further savings.

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Although the collection contract costs are slightly lower for Option 1 compared to Option 2, from a total system operating cost perspective (i.e. collection, processing and disposal costs for curbside collected residential garbage, recyclables and organics), Option 2 is less expensive. This is based on the assumption that the 2012 diversion rates will be achieved, and that higher diversion rates will drive overall system costs.

Specifically, the projected annual system operating cost is lower in Option 2 due to three main factors:

- i) Increased net processing revenue from the sale of more Blue/Grey Box recyclables;
- ii) Increased funding from industry stewardship programs for increased diversion of Blue/Grey Box material; and
- iii) Decreased curbside garbage tonnages being directed to the Walker Landfill.

2. Grass Ban:

- Full grass ban - no grass collection (recommended) OR
- No grass ban - grass clippings collected.

This report recommends a full ban on the collection of grass and the associated savings are included in the costs shown in Table 1. If Council elects to provide grass collection, Emterra's first year cost will have to be increased by \$294,000 for weekly garbage collection or \$578,000 for every other week garbage collection, plus an additional \$164,900 in annual processing costs would have to be budgeted.

Over the seven year contract period, the collection and processing cost burden for collection of grass (no grass ban) is between \$3.2 million (in Option 1) and \$5.2 million (in Option 2).

Any provisional items for enhanced services will be charged back directly to those municipalities who have requested such services.

PURPOSE

The purpose of this report is to obtain approval for award of the seven year collection contract to Halton Recycling doing business as Emterra Environmental (Emterra). The report also provides recommendations with respect to garbage and recycling collection frequency options, a ban on grass collection and provisional services to be implemented as part of the new collection contract.

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BACKGROUND

The new collection contract, which begins on March 1, 2011, provides the opportunity to implement services that will increase diversion rates and optimize collection efficiencies.

In 1997, Regional Council established a waste diversion target of 65% diversion by 2012. The target was set based on results from the Region's Waste Diversion Strategy which set out the potential diversion that could be achieved if all the recommended diversion programs/services were implemented. Appendix I contains other municipal diversion rates and services for reference.

The Level of Service Study was initiated in 2006 in order to identify options to maximize waste diversion and meet Council's 65% diversion target. This study identified that every other week garbage collection would be necessary to achieve 65% waste diversion. The first report on service levels was presented to Waste Management Planning Steering Committee in June 2007. Over the past three years numerous presentations and reports have been presented to committees and Council with background research and recommendations for new service levels.

An extensive public consultation process was also undertaken to obtain input on the various Level of Service options. The results of the public open house feedback (82 respondents) and telephone survey (800 respondents) showed strong public support for the 65% waste diversion goal (94% level of support) and for the continued expansion of waste diversion services (82% - 92% support). Support for every other week waste collection was largely limited to the Region's Waste Management Advisory Committee, a public focus group (43 participants) and environmental groups. Support for weekly waste collection with a one container limit was the preferred option in the public open house and in the telephone survey results, with 58% and 53% in support respectively. Various concerns have been raised by Regional Committees and Council with respect to the decreased customer service level related to every other week garbage collection, which is needed to allow the Region to achieve the 65% diversion goal. The related consideration, made by some Councillors at the March 11, 2010 Committee of the Whole meeting, was that the diversion target (diversion rate and/or target date) could be amended in order to balance diversion benefits with service impacts.

Appendix II contains the detailed results of the public consultation process and Appendix III contains the history of reports and presentations related to the service levels and the new collection contract.

A summary of previously approved services/programs which are expected to contribute to a 50% diversion rate is outlined in Table 3.

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Table 3 Program Enhancements to Achieve 50% Diversion

Program Area	Service Description and Estimated Start Date	% Diversion
Blue/ Grey Box Recycling	<ul style="list-style-type: none"> • Plastics optical sorting technology – 2010 • Household aerosol cans and empty paint cans – 2010 • Public Open Space Recycling Pilot – 2010 on • Multi-residential recycling Region-wide - Mar 2011 	1.5%
Green Bin Organics	<ul style="list-style-type: none"> • Relaunch Green Bin program - full impact in 2010 • Expand Green Bin program to West Lincoln and Wainfleet - Mar 2011 	3%
Other Diversion	<ul style="list-style-type: none"> • Municipal Hazardous & Special Waste • Electronic Equipment • Tires • Reuse 	1.4%

As reported in PWA 119-2009, the Ministry of Environment (MOE) is proposing a shift towards full Extended Producer Responsibility (EPR) for a range of products and packaging. EPR means that producers (brand owners or first importers) become fully responsible for the end of life management of their products and packaging. The EPR initiatives being considered by the MOE will further improve diversion opportunities for the residential and institutional, commercial and industrial (IC&I) sectors.

REPORT

1.0 RFP for Collection /Haulage of Garbage, Recyclables, Organic Waste and White Goods

1.1 Overview of RFP Structure

In the fall of 2009, 2009-RFP-44 “Collection /Haulage of Garbage, Recyclables, Organic Waste and White Goods” was released to the market place, and closed on February 1, 2010.

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The RFP requested pricing for collection service to low density residential properties under four main collection scenarios:

- Weekly garbage and weekly Blue/Grey Box collection;
- Weekly garbage and alternating weekly Blue/Grey Box collection;
- Every other week garbage and weekly Blue/Grey Box collection; and
- Every other week garbage and alternating weekly Blue/Grey Box collection.

All scenarios include weekly curbside Green Bin/leaf and yard collection, weekly collection of Blue/Grey Box material from multi-residential buildings and weekly garbage and Blue/Grey Box collection in designated business areas.

The RFP also requested pricing for three different grass collection scenarios for each main collection scenario:

- No grass ban – Year round grass collection with leaf and yard material from all low density residential properties, which requires separate collection of leaf and yard material, including grass, in urban areas during the months of April, May, June, October and November;
- Partial grass ban - Grass collection with leaf and yard material in April, May, June, October and November only, which requires separate leaf and yard material collection, including grass, in urban areas during the five months of the year listed above, and no grass collection in July, August and September; and
- Full grass ban - No grass collection, with provision of separate leaf and yard material collection (excluding grass) in urban areas during the months of April and November.

The complete list of Base and Enhanced services is provided in Appendix IV.

A number of provisional service items were included in the RFP as well, including a phased in implementation of multi-residential Green Bin organics collection over two years starting in 2012.

The RFP was divided into three Collection Areas whereby a proponent could submit a proposal for any of three individual areas or any combination of the three. Proponents were also asked to provide a discount should they be successful in winning all three collection areas or two collection areas together. The intent was to increase competition and cost efficiencies through economies of scale in the RFP.

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Staff included several requirements in the RFP to increase service levels, optimize efficiencies and reduce costs such as the following:

- Mandatory requirement of 80% full time employees
- Spare fleet ratio of 10%
- One route supervisor for every 15 trucks
- Requirements for placement of empty containers back to the curb
- Installation of global positioning systems on collection vehicles for tracking data
- Consideration of the use of alternative fuels and/or technology (green fleet)
- Removal of municipal boundaries for routing purposes
- Allowed change of collection days only if the Proponent can show efficiencies and costs savings as a result
- All vehicles except spares or seasonal yard waste collection vehicles must be brand new at the start of the contract
- Provision for additional full-time on-road supervisors or lead hands during peak collection periods
- Provision for additional collection services during April and September in areas highly populated with off campus housing
- Protocol for educating customers when set outs are non-compliant

The Region developed a detailed RFP document which contained several clauses to protect the interests of the Region. Internal and external legal counsel was sought throughout the development stages of the RFP document. Clauses regarding dispute resolution, events of default and remedies were explicitly presented in the RFP document. A Change of Work clause was also included to allow for negotiation in good faith by both parties should the scope of work dramatically change during the term of the Contract. Additionally, clauses were included to manage any change in legislation such as a transition into full Extended Producer Responsibility.

1.2 RFP Process

A total of six companies submitted proposals. The RFP evaluation process consisted of three stages: Stage 1 - Mandatory Requirements, Stage 2 - Technical Evaluation and Stage 3 - Pricing Evaluation. All Proponents made it through Stage 1, Mandatory Requirements. An Evaluation Committee was established to review Stage 2 submissions and score all compliant proposals based on the following criteria:

- Company Profile and Experience
- Reference Checks

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- Organization/Management Team
- Health and Safety, Customer Service and Contingency Plans
- Vehicles and Equipment
- Alternative Green Technology and/or Fuel
- General Understanding of Work and Quality of Submission

The Evaluation Committee included four staff from the Waste Management Services Division and an external consultant specializing in waste management.

In order to proceed to Stage 3 a proponent must have obtained 800 out of 1000 points on the Technical Evaluation. After careful review and applying points based on pre-set criteria, four proponents were invited to ratify their proposals and agree to have their price envelopes opened. The proponents who proceeded to Stage 3 were (in alphabetical order):

- BFI Canada Inc.
- Emterra Environmental
- Miller Waste Systems Inc.
- Modern Landfill Inc.

Stage 3 - Pricing Evaluation involved calculating the seven year contract cost for all 12 collection scenarios in all three collection areas to determine the low cost bids for each scenario.

1.3 RFP Proposal Results

Total seven year contract costs were calculated by applying an annual escalation factor (5% for fuel escalation and 1.8% for CPI) to the Base and Enhanced Service Level Costs for each proponent. Emterra Environmental (Emterra) has the lowest costs for all collection service scenarios and all collection areas with first year costs, ranging from \$15,621,996 to \$17,300,997. Notwithstanding this cost escalations scenario, Emterra Environmental is the low bidder across all servicing options. The description of service scenarios and the associated cost/benefit analysis are in Section 2. Appendix V provides the first year pricing for each collection frequency option by each proponent. Emterra's bid is \$1.7M - \$3.9M less than the range of costs from the second lowest bid proponent.

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Emterra's low cost of service compared to the other bidders may be due to the following factors:

- Use of a non-union workforce.
- Use of one person side loading trucks for recycling collection.
- Use of a standardized collection fleet with maintenance provided by the truck supplier.
- Use of lighter chassis collection vehicles as compared to other proponents.

A more detailed description of Emterra's proposal is provided in Section 1.4 below.

1.4 Emterra's Technical Proposal

The Evaluation Committee found Emterra's proposal to be very detailed and well presented. The key components of Emterra's technical proposal are highlighted below.

1.4.1 Alternative Fuel

Emterra's prices are based on the use of a bio-diesel in all of their vehicles. In their technical bid submission, Emterra provided detailed information on the economic factors and environmental benefits associated with both bio-diesel and compressed natural gas. However, Emterra only provided a firm price submission for bio-diesel. Emterra proposes to use B20 biodiesel (which contains 20% biodiesel and 80% petroleum diesel) during the spring, summer and fall and B5 biodiesel during the winter months. Emterra outlined the following benefits of using biodiesel in their fleet:

- Because bio-diesel is made from vegetable oils, animal fats, recycled restaurant greases and liquid waste feedstock with high sugar content, it is a renewable, cleaner-burning, biodegradable, non-toxic, almost free of sulfur and diesel exhaust odour. Biodiesel also produces less air pollutants and greenhouse gases (GHG) than regular petroleum based diesel.
- B20 improves the lubricity of diesel fuel, which will enhance engine performance and can prolong engine life and decrease fleet operating costs.
- Using B20 reduces carbon dioxide by 15% (lifecycle), carbon monoxide by 12.6%, hydrocarbons by 11%, particulate matter by 12%, toxic air emissions by 12 to 20% and mutagens by 20%.
- Assuming no change to current routing, by using B20 biodiesel, Emterra estimates that a reduction of up to 6,500 tonnes (i.e. 16%) of greenhouse gas emissions over the term of the contract. This would be reduced by using B5 biodiesel in the winter months.

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- Biodiesel also generally comes from local sources, which means Emterra can reduce importation of foreign fuel while supporting local economies and local job creation.

1.4.2 Fleet Configuration

Emterra provided detailed information on vehicles being utilized in each collection area for each collection stream, including daily productivity assumptions. Emterra has also factored in their bid, a spare fleet and spare labour component in the order of 10 and 15 percent respectively.

Emterra has proposed the use of two standardized vehicle types for all curbside garbage, recycling and organics collection, which may result in significant operational flexibility and efficiencies. For example, a rear load, two compartment compaction truck will have the ability to collect one or two material types at any given time. Emterra also provided details on the factors affecting their vehicle type and quantity selection. Under the two collection options (weekly and every other week garbage collection, with a full grass ban), Emterra's proposed vehicle count is comparable to that of the second lowest bidder.

1.4.3 References

It should be noted that Emterra did not receive many evaluation points for the quality of their client references, although some clients interviewed, stated that service quality did improve once new management personnel came on board.

1.4.4 Customer Service Components

Emterra noted in their submission that they have three possible locations within Niagara Region to set up their facility, which will include a call centre, administrative office and vehicle yard.

Emterra provided detailed customer and issue resolution/reporting plans, consisting of four dedicated customer service representatives, a customer tracking database, a follow up plan with the customer and Region, and an after-hours response protocol.

Emterra identified in their submission their senior level Contract Administer and two Route Supervisors who each have several years of contract experience.

A detailed implementation plan was included in their submission which provided specific tasks to be undertaken from the award of the Contract to the start of the Work. Daily

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activities and tasks, prior to the commencement of each morning through to when the collection vehicles and staff return at the end of the day, were also outlined.

Emterra has confirmed that with a May 1st award, they will be able to purchase the required assets to perform the work outlined in 2009 RFP-44 for March 1, 2011.

2.0 Cost Benefit Analysis of Base and Enhanced Collection Service Options

2.1 RFP Pricing for all Collection Service Scenarios

Table 4 lists Emterra first year costs for all collection service options in all collection areas.

Since Emterra did not provide any discount for a partial grass ban, the costs are categorized with grass collection (no grass ban), and with no grass collection (grass ban).

Table 4 – Emterra’s First Year Costs for Collection Service

Collection Service Options	Emterra First Year Costs
Note: All scenarios include weekly Green Bin and leaf/yard collection	
With grass collection (No grass ban)	
Every Other Week Garbage, Alternating Weekly Blue/Grey Box	\$16,309,582
Every Other Week Garbage, Weekly Blue/Grey Box	\$17,300,997
Weekly Garbage, Alternating Weekly Blue/Grey Box	\$15,916,354
Weekly Garbage, Weekly Blue/Grey Box	\$16,845,224
With no grass collection (Full grass ban)	
Every Other Week Garbage, Alternating Weekly Blue/Grey Box	\$15,731,283
Every Other Week Garbage, Weekly Blue/Grey Box	\$16,722,698
Weekly Garbage, Alternating Weekly Blue/Grey Box	\$15,621,996
Weekly Garbage, Weekly Blue/Grey Box	\$16,550,866

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The lowest cost service option is weekly garbage, weekly Green Bin/leaf and yard material and alternating weekly Blue Box and Grey Box collection, with no collection of grass, at a first year cost of \$15,621,996.

Unlike other proponents' bids, Emterra's total collection cost with every other week garbage collection is slightly higher (ranging from \$110,000 to \$172,000 higher) than collection costs with weekly garbage collection. This is due to the fact that Emterra proposed to co-collect garbage and organics on one vehicle when garbage is collected weekly, but would run separate trucks for garbage and organics when garbage is collected every other week.

Collection of grass increases annual collection costs by \$294,000 (weekly garbage option) or \$578,000 (every other week garbage option), plus increases compost processing costs by \$161,000 per year.

Moving from alternating weekly Blue and Grey Box collection to weekly collection of both Blue and Grey Box material increases annual collection costs by \$928,900 (weekly garbage) to \$991,400 (every other week garbage). This issue is further discussed in Section 2.3.

2.2 Diversion Impact

The waste collection options and the associated estimated residential diversion impacts are described in Table 5. For reference the RFP pricing from Section 2.1 is listed for each scenario.

Table 5 – Diversion Impact of Collection Options

Waste Collection Options	RFP Pricing (First Year)		Estimated Residential Diversion %
	with grass collection	with no grass collection	
MODIFIED STATUS QUO: Weekly garbage with one bag/can limit, alternating weekly Blue and Grey Box collection and approved enhancements outlined in Table 3	\$15,916,354	\$15,621,996	~50+%
OPTION 1: Weekly garbage with one bag/can limit and weekly Blue and Grey Box collection	\$16,845,224	\$16,550,866	~ 55%

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OPTION 2: Every other week garbage with three garbage bag/can limit and weekly Blue and Grey Box collection	\$17,300,997	\$16,722,698	~ 65%
OPTION 3: Every other week garbage with three garbage bag/can limit and alternating weekly Blue and Grey Box collection	\$16,309,582	\$15,731,283	~ 60%

Staff did not conduct detailed system cost modelling of Option 3 on the basis that reducing garbage collection frequency to every other week without increasing recycling collection to weekly for Blue and Grey Box material did not receive any support from the public or Councillors at the Committee of the Whole meeting on March 11, 2010.

2.3 System Operating Cost Analysis for Diversion Scenarios

The purpose of this analysis to identify estimated operating costs associated with the Base and Enhanced services from a system perspective. Provisional services are not addressed in this section.

The system operating cost analysis addresses collection, processing and disposal costs for curbside collected residential garbage, recyclables and organics in the year 2012 (year 2 of the contract). Year 2 costs are used to model the system operating costs and associated tonnages that are projected to be achieved in 2012 under modified status quo (~50% diversion), Option 1 (~ 55% diversion) and Option 2 (~65% diversion). The full diversion impact of the new collection services is not expected in Year 1 of the contract.

Estimated system operating costs and incremental cost increases/decreases for the three Collection Options are summarized in Table 6 (a) and (b). The costs associated with residential curbside collection tonnages are also compared for the options with and without grass collection. The analysis is based on best available information.

The key factors and assumptions which were used for the purposes of isolating incremental cost increases/decreases include the following:

- i) The 2009 Base and Enhanced collection contract costs were replaced with the Emterra 2012 RFP pricing for each diversion scenario. Pricing and tonnages for diversion and garbage streams are based on 2012 estimates in order to model the 50%, 55% and 65% diversion rates that may be achieved in the year 2012 (year 2 of the contract).
- ii) The tonnages diverted/disposed for the 50% and 65% diversion rates are based on the Level of Service Rate Model projections, completed by Watson and Associates,

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as of November 2009. The tonnages for the 55% diversion rate were extrapolated based on the 50% and 65% diversion rate tonnages.

- iii) Since a price for the current garbage collection service (two can/bag limit) was not requested in the RFP, the 50% diversion scenario (modified status quo) includes the reduced one bag/can limit as opposed to the two bag/can limit.
- iv) Program operating costs directly related to changes in tonnage in each stream were adjusted in each scenario. Operating costs reflect stable recycling markets and available organics processing capacity at established processing costs.
- v) An estimated 4,000 tonnes of grass clippings would not be collected curbside under a full grass ban.
- vi) Future processing and landfill capital costs incurred by the Region have been excluded from the analysis because they are consistent for each diversion scenario and therefore will not affect the incremental cost increases/decreases. Capital costs related to collection, composting and contracted landfill services are included in contract costs.
- vii) Planning and administration (i.e. salaries, overhead, etc.) were excluded in the analysis because they are consistent for all options.

Table 6 System Operating Cost Comparison by Collection Option

a) Total System Operating Cost Comparison by Diversion Scenario in 2012

Estimated System Operating Costs	Modified Status Quo Weekly garbage (1 bag/can limit), alternating weekly Blue/ Grey Box and weekly Green Bin/leaf and yard material collection (50+% Diversion)	Option 1 Weekly garbage (1 bag/can limit), weekly Blue/ Grey Box and weekly Green Bin/leaf and yard material collection (~55% Diversion)	Option 2 Every other week garbage (3 bag/can limit), weekly Blue/ Grey Box and weekly Green Bin/leaf and yard material collection (~65% Diversion)
Grass Ban			
Total Annual Cost	\$23,702,600	\$24,404,700	\$24,125,700
Total Annual Cost per Household	\$124.02	\$127.69	\$126.23
No Grass Ban			
Total Annual Cost	\$24,207,900	\$24,907,700	\$24,914,300
Total Annual Cost per Household	\$126.66	\$130.32	\$130.36

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b) Incremental System Operating Cost Comparison by Collection Option in 2012

Estimated Incremental System Operating Costs	Option 1 Weekly garbage (1 bag/can limit), weekly Blue and Grey Box and weekly Green Bin/leaf and yard material collection (~55% Diversion)	Option 2 Every other week garbage (3 garbage bag/can limit), weekly Blue and Grey Box and weekly Green Bin/leaf and yard material collection (~65% Diversion)	
	Change in Cost +/- compared to Status Quo	Change in Cost +/- compared to Status Quo	Change in Cost +/- compared to Option 1
Grass Ban			
Annual Cost Difference	\$702,100	\$423,100	(\$279,000)
Household Cost Difference	\$3.67	\$2.21	(\$1.46)
No Grass Ban			
Annual Cost Difference	\$699,800	\$706,400	\$6,600
Household Cost Difference	\$3.66	\$3.70	\$0.04

Total System Cost Impact:

From a system cost perspective, Option 2 (~65% diversion) with no grass collection, (every other week garbage with a three container (bag/can) limit, weekly Blue/ Grey Box and weekly Green Bin/leaf and yard material collection) is the lowest cost option. The total 2012 annual cost is estimated to be \$24,125,700 or \$126.23 per household.

Option 2 cost is higher than the modified status quo option (~50% diversion) by approximately \$423,100 and lower than Option 1 (~55% scenario) by approximately \$279,000. Although the actual collection contract costs for Option 2 are higher than in Option 1, the annual system cost is lower due to three main factors:

- iv) Increased net processing revenue from the sale of more Blue/Grey Box recyclables;
- v) Increased funding from stewardship programs for increased diversion of Blue/Grey Box material (improved effectiveness and efficiency factor); and
- vi) Decreased curbside garbage tonnages being directed to Walker Landfill.

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2.4 Recycling Collection Frequency

Regardless of the changes to garbage collection frequency and limits, staff recommends that weekly Blue and Grey Box collection be implemented for the following reasons:

- Niagara is the only remaining Region with alternating weekly Blue/Grey Box collection;
- With the expected transition to full industry funding, it will be to the benefit of Regional taxpayers to have a higher level of Blue/Grey Box collection service, which is comparable to services received by other municipalities;
- It is anticipated that weekly Blue and Grey Box collection will result in more materials being captured; and
- The increased frequency of Blue/Grey Box collection service will assist in addressing potential storage capacity shortages and in reducing Blue/Grey Box overflows and associated windblown recyclables.

2.5 Garbage Collection Frequency

Weekly garbage collection with a one bag limit and with weekly Blue and Grey Box collection (Option 1) results in additional system costs of \$3.67 per household per year compared to modified status quo, and is expected to achieve 55% diversion by providing a greater incentive to divert waste. It also offers the highest level of customer service by providing all collection on a weekly basis.

Every other week garbage collection with weekly Blue/ Grey Box collection (Option 2) results in an estimated increase of \$2.21 per household per year compared to modified status quo, assuming ~65% diversion is achieved. Staff had anticipated a greater cost saving for every other week garbage collection than was offered by Emterra. However, every other week garbage collection is still projected to result in the highest level of diversion because it provides a strong incentive for residents to use their Green Bins and Blue/Grey Boxes on a weekly basis. In addition to the financial benefits, there are several environmental benefits associated with a higher diversion rate:

- i) Conservation of landfill capacity, which will continue to increase in value as Regional landfill sites close;
- ii) Conservation of non-renewable resources;

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- iii) Reduced use of energy and reduced pollution e.g. processing/manufacturing using raw material requires more energy and consumption of fossil fuels and involves emissions of air and water pollutants;
- iv) Net reduction in Green House Gas (GHG) emissions through increased composting and recycling;
- v) Reduced methane gas and leachate production from the diversion of organics from landfill; and
- vi) Avoided pesticide and fertilizer use from application of finished compost.

2.6 Grass Ban

This report recommends that grass collection not be provided (grass ban). If Council decides to provide grass collection, the increase to the system 2012 costs range between \$503,000 (in Option 1) and \$788,600 (in Option 2) based on two key factors:

- i) Increased curbside collection costs for the organics material stream;
- ii) Increased organics tonnage which would require processing at Walker compost facility.

A full grass ban is recommended based on the following considerations:

- i) A majority of major cities/regions in Southwest Ontario have implemented a full or partial grass ban from their Green Bin and/or leaf and yard collection programs.
- ii) A grass ban will reduce annual collection and processing costs by \$503,000 to \$788,600 per year, result in less odours at the Walker compost facility and preserve composting capacity for additional Green Bin material.
- iii) Residents who wish to continue to bag their grass can deliver the grass to either a Regional facility or to the Walker compost facility, at no cost. Grass delivered to these sites will be composted.

2.7 Collection Options Recommendation

Based on full consideration of financial and environmental impacts, staff is recommending the implementation of:

- i) Option 1 - Weekly curbside garbage collection with a 1 bag/can limit OR
Option 2 -Every other week curbside garbage collection with a 3 bag/can limit;
- ii) Weekly Blue and Grey Box collection; and
- iii) No collection of grass clippings, (grass ban).

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3.0 Evaluation of Provisional Service Items

A number of Provisional Service Items were included in the RFP as described below:

3.1 Green Bin Organics Collection from Multi-Residential Buildings

Staff included the collection of Green Bin organics from multi-residential buildings with seven to twenty units starting in 2012 and twenty-one or more units starting in 2013 in the RFP as a provisional item. Emterra proposed a cost of \$145,080 (exclusive of tax) for the first year of the program and an annual cost of \$300,240 (exclusive of tax) per year for servicing all buildings starting in 2013.

The Region retained the services of a consultant to assess the implications of providing Green Bin organics collection services to the multi-residential sector. Based on a 50% recovery rate of organics and the current multi-residential population, servicing this sector would result in approximately 1,335 tonnes per year of Green Bin organics being collected once fully implemented.

The processing cost for the organic material at Walker Industries is projected to be \$88.56 per tonne in 2013. As stated above, the program is projected to recover 1,335 tonnes of Green Bin organics annually; therefore, the annual processing costs would be approximately \$118,200.

Collection and processing of Green Bin organics from all multi-residential buildings starting in 2013 will cost \$418,500 per year or \$20.12/unit/year. In addition, one time costs for the purchase of in-unit containers and 120 L organic carts are estimated to be \$137,000.

Mixed use buildings that exceed curbside organics volumes would be added to the organics program on a per stop contract price basis.

Collection of Green Bin organics from multi-residential and mixed use (with a residential component) buildings would provide the following benefits:

- Offers equal waste diversion services to all residents;
- Assists building owners to reduce the cost of private waste collection services;
- Reduces the amount of organic waste going to landfill which reduces greenhouse gas emissions and leachate emissions from landfills.

However, confirmation of adequate available organics processing capacity is still needed. The issue of available capacity and associated pricing would require a final

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evaluation in terms of affordability. It is therefore recommended that a decision on award of this provisional item be deferred. Staff will request an eighteen month extension to the provisional pricing for Green Bin organics collection service for multi-residential buildings from Emterra to provide time to prepare a business case for adding this service.

3.2 Curbside Collection of Waste Electronics

As per Report PWA 87-2009, staff included the collection of waste electronics (e.g. televisions, computers, monitors, etc.) in the RFP as a provisional item. Emterra proposed an annual cost of \$188,700 (weekly garbage scenario) and \$132,090 (every other week garbage scenario). These annual costs are collection costs only, and are net of any funds Emterra would receive from Ontario Electronic Stewardship (OES) to cover recycling costs.

Staff is not recommending the implementation of this service component based on the following:

- The recycling of waste electronics and electrical equipment (WEEE) is now funded through OES;
- OES does not pay for the costs associated with the curbside collection of WEEE;
- OES is looking at expanding its drop off locations for WEEE in order to meet their diversion targets.

3.3 Transfer Facility at Niagara Road 12 Landfill

As part of the RFP, staff requested that Proponents provide an annual savings associated with the delivery of Green Bin Material and Blue and Grey Box Materials from the municipalities of Grimsby, Lincoln and West Lincoln to a transfer facility located at the Niagara Road 12 Landfill Site. Emterra proposed an annual savings of \$200,000.

Staff has recently issued an RFP for the design and construction of this transfer facility, and as such, staff will need to evaluate the system costs and benefits once these bids are received. Staff will also request that Emterra hold their discounted price for this provisional item until such time as a full cost/benefit analysis is completed.

Staff will report back with a recommendation to Council on this item.

3.4 Same Side of the Road Collection Service

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On October 22, 2009, staff was directed by Council to include same side of the road collection service on local rural roads as a provisional item in the RFP in order for Council to better assess this service option. To this end, Emterra proposed an annual savings of approximately \$66,000 if same side of the road collection service is selected.

Staff is not recommending the implementation of this service component based on the following:

- limited cost savings associated with same side of road collection;
- three municipalities explicitly do not support this collection option or have significant concerns and two of these municipalities have a significant proportion of affected rural roads;
- potential safety issues, which are related to the amount of traffic, winter weather conditions, children/elderly crossing the road and perceived service reduction.

3.5 Recycling in Public Spaces

Emterra submitted a price of \$130 per stop per year to service recycling bins along street sides. This Enhanced Service will be offered starting in 2011 should municipalities purchase the appropriate recycling bins and wish to have these bins serviced under this contract. Recycling bins in parks and arenas will be collected by municipal staff and taken to one onsite location where the Contractor will collect this material as part of Base Services.

3.6 Clear Bags for Garbage

The RFP did make provision for the implementation of a Clear Bag Garbage Collection Program at any time in the contract period at no cost with notice to the contractor, subject to approval by Council.

Mandatory use of clear bags for garbage is one mechanism used to change behaviour and motivate participation in diversion programs.

Subject to future approval by Council, a clear bag pilot can be implemented after the Region determines how the every other week and/or reduced garbage bag/can limits would impact the diversion rate. Based on monitoring and evaluation of waste collection changes that would be in effect beginning March 1, 2011, the pilot could be implemented in 2013 to 2014.

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4.0 Social Marketing, Outreach and Enforcement

Targeted messaging to deal with concerns and questions from residents will occur as programs are implemented. A draft Social Marketing and Public Education Strategy for the Level of Service and Rate Study was prepared by the Communications Specialist, Public Works and was provided to WMPSC at their May 27, 2008 meeting. The strategy is being updated and activities will be implemented following approval of the collection frequency options and the new collection contract award. Promotion of the approved changes will begin as early as May 2010, with an article to be published in the upcoming Green Scene newsletter. Staff will retain a communication and graphic design firm or use in-house resources to assist with the development of the required communication pieces. Staff will also use social marketing techniques to continue to encourage diversion efforts.

As part of Niagara's efforts to encourage diversion, Staff will be bringing forth a report later this year for Council's approval with respect to the required revisions on the Waste Management By-law. The By-law is used as a tool to gain compliance and educate residents and other stakeholders.

Staff was requested to research the enforcement practices of other municipalities recycling By-laws and whether other municipalities impose fines to those who either do not participate in recycling programs or have large amounts of recycling in their garbage. A list of municipal by-law practices is included in Appendix V.

Niagara's By-Law states that fines could be issued to someone with more than 5% recyclable material in the garbage. The fine amount is \$100 for setting out non-compliant materials for collection. To date, staff has been successful in gaining compliance through the issuance of friendly reminders and warning letters.

Based on review of other municipalities, Niagara Region is similar in enforcement of their Waste By-law. Verbal warnings, friendly reminders, and compliance letters are used to obtain compliance.

It is anticipated that with the number of proposed changes and the introduction of new services, approximately four to six additional temporary contract staff will be required in 2011 to assist with management of the new collection contract and changes in services levels.

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5.0 Diversion Target Review

Regardless of which collection option is selected by Committee and Council, a review of diversion targets and timelines should occur based on a consideration of Niagara's current diversion performance, recent experience in other municipalities, new waste processing technologies and the proposed Waste Diversion Act amendments that would require producers of products and packaging to become responsible for recycling post-consumer waste.

A new long term strategic plan should be developed following:

- i) Selection of collection service levels for the new contract;
- ii) Amendments to Waste Diversion Act (WDA), which will identify a new EPR program schedule and clarify municipal service delivery roles; and
- iii) Revisions to municipal waste tonnage projections.

CONCLUSIONS

It is recommended that the year contract for 2009-RFP-44 "Collection / Haulage of Garbage, Recyclables, Organic Waste and White Goods" be awarded to Emterra on the basis that their proposal has the lowest costs for all collection service scenarios and all collection areas.

The recommended collection service levels in the new contract are as follows:

- **Option 1** - Weekly curbside garbage collection with a 1 bag/can limit OR
- **Option 2** - every other week curbside garbage collection with a 3 bag/can limit;
- Weekly Blue and Grey Box collection from all residential buildings; and
- Full ban on collection of grass clippings.

The decision on frequency of garbage collection is a tradeoff between reaching established diversion targets and customer service levels.

A review of diversion targets and timelines will be undertaken as part of a new long term waste management strategic plan. The review would be based on the consideration of Niagara's current diversion performance, recent experience in other municipalities, new waste processing technologies and the proposed WDA amendments that would require producers of products and packaging to become responsible for recycling post-consumer waste.

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Appendices

- Appendix I - Level of Service Diversion Rate Backgrounder - Municipal/Regional Diversion Rates & Services by Waste Collection Option
- Appendix II - Level of Service Public Consultation Process (2007 to 2010)
- Appendix III - History of Committee Reports and Presentations Related to Waste Management Level of Service and New Collection Contract
- Appendix IV- Summary of Base and Enhanced Service by Sector
- Appendix V – Proposal Price Matrix
- Appendix VI - Municipal Enforcement Practices

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Appendix I

Level of Service – Diversion Rate Backgrounder

Municipal/Regional Diversion Rates & Services by Garbage Collection Option

Municipality/Region	Diversion Rate (as reported for WDO or as provided by Municipality)	Garbage Collection Frequency	Recycling Frequency	Organics	Leaf and Yard Material	Data Sources
1. Every Other Week Garbage Collection						
Durham Region	49.44% in 2008	4 container (bag/can) limit every other week in Area 2 (Ajax, Oshawa, Pickering, Whitby); Area 1 (Brock, Scugog, Uxbridge, Clarington) moving to every other week in 2009	Weekly two stream	Weekly green bin	Every other week from April to early December (max of 3 bundles of brush included per collection)	Town of Whitby & Durham websites, Durham staff
Whitby	61% in 2007					
Toronto	59% in 2008 for single family residential 43.95% in 2008 for multi- family and single family	Full-user pay, range of wheeled cart sizes every other week, (ranges equivalent from 1 to 4.5 bags/cans)	Every other week one stream (cart)	Weekly green cart	Every other week from April to mid December (bundled brush included)	City of Toronto website
York Region	52.96% in 2008	Container limit varies slightly by local	Every other week one	Weekly green bin	Every other week from April to	York Region, Richmond Hill

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Municipality/Region	Diversion Rate (as reported for WDO or as provided by Municipality)	Garbage Collection Frequency	Recycling Frequency	Organics	Leaf and Yard Material	Data Sources
		municipality	stream		Nov./Dec. (bundled brush included, grass is banned)	and Vaughan websites
Markham	73% in 2008 (not WDO rate, includes residue)	3 container limit (not enforced) every other week	Weekly one stream			Town of Markham website
2. Implementing Every Other Week Garbage Collection						
Halton	51.13% in 2008 61.1 % April-Sept 2008	Began every other week garbage collection in April 2008 with 6 container limit	Weekly one stream	Weekly green bin	Every other week from April to mid December in urban areas only (bundled brush included)	Halton website and staff
Durham Region Area 1 (Brock, Scugog, Uxbridge, Clarington)	Included as part of overall Durham Region rate of 49.44% in 2008	3 container limit weekly – moving to 4 container limit every other week in 2009	Every other week two stream	Weekly green bin	Every other week and/or monthly depending on municipality April to November (max of 3 bundles of brush included per collection)	Durham website and staff

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Municipality/Region	Diversion Rate (as reported for WDO or as provided by Municipality)	Garbage Collection Frequency	Recycling Frequency	Organics	Leaf and Yard Material	Data Sources
3. Weekly Garbage with One Container (Bag/Can) Limit (or similar programs)						
Barrie	43.65% in 2008	1 container limit	Weekly two stream	Weekly green bin	Weekly 7 months, biweekly 2 months, no service 3 months (bundled brush included)	Barrie website
Orillia	52.9% in 2008	Each unit receives 40 garbage tags annually. Bag tags 5 for \$8.25 (\$1.65 each). Diapers placed in clear bag and are excluded from limit	Weekly two stream	Weekly green bin	Weekly (bundled brush included)	Orillia website
County of Simcoe	46.9% in 2008	1 container limit weekly. 2 containers accepted on Victoria Day, Thanksgiving Day and Christmas Day.	Weekly two stream	Weekly green bin	Spring and Fall collections with the exception of Innisfil, which has an additional summer collection. Must be placed in kraft paper bags,	County of Simcoe website

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Municipality/Region	Diversion Rate (as reported for WDO or as provided by Municipality)	Garbage Collection Frequency	Recycling Frequency	Organics	Leaf and Yard Material	Data Sources
					unwaxed cardboard boxes or rigid open top container (except a blue box). No plastic bags accepted.	
4. Implementing Weekly Garbage with One Container (Bag/Can) Limit						
Hamilton	44.31% in 2008	1 container limit beginning April 5, 2010 (with 3 containers the week after major holidays); currently 2 container limit with second clear bag allowed. Second clear bag allowance will cease April 5, 2010	Weekly two stream	Weekly green bin	Two containers, bags or bundles may be placed at the curb for collection each week in addition to green cart. There is no quantity limit during specific collection weeks in the spring and fall (for leaf and yard waste).	Hamilton website and staff

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Municipality/Region	Diversion Rate (as reported for WDO or as provided by Municipality)	Garbage Collection Frequency	Recycling Frequency	Organics	Leaf and Yard Material	Data Sources
5. Clear Bag for Garbage						
Township of Algonquin Highlands, Ontario	32.75% in 2008	Currently mandatory clear bag No curbside collection, 5 drop off depots (rural, seasonal residents) Privacy bag allowed	No curbside collection, 5 drop off depots	No organics program	Only accepted at 2 depots \$10/cu. Yd.	Township of Algonquin Highlands website and staff
City of Guelph, Ontario	40.26% in 2008	'Wet dry' program Bi-weekly in clear bags or loose in marked container Privacy bag not allowed	Weekly in see-through 'blue' bags or loose in marked container	Weekly in see-through 'green' bags	2 times/year in spring and fall Kraft paper bags, jute bags or labelled container No limit	City of Guelph website and staff
Municipality of Centre Hastings, Ontario	WDO impact not available as Municipality is part of Quinte Waste Solutions data which includes other jurisdictions	3 days/week Collected by Municipality Privacy bag allowed	Weekly (Hungerford collected twice weekly) Collected by Quinte Waste Solutions	No organics program	Do not have a strict policy. Fall pick up for 3-4 weeks in urban centre (Madoc) but may also pick up in spring. Plastic bags accepted but leaves removed at landfill.	Municipality of Centre Hastings and Quinte Waste Solutions websites and staff

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Municipality/Region	Diversion Rate (as reported for WDO or as provided by Municipality)	Garbage Collection Frequency	Recycling Frequency	Organics	Leaf and Yard Material	Data Sources
					Leaves are either used for cover or burned. Do not accept grass clippings.	
6. Other Examples						
Peel Region	48.98% in 2008	2 container limit weekly	Weekly one stream	Weekly green bin	Brampton & Mississauga – weekly 5 months, biweekly 3 months; Caledon biweekly April – November (bundled brush included)	Peel website

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Appendix II

Level of Service Public Consultation Process (2007 to 2010)

An extensive public consultation process was also undertaken to obtain input on the various Level of Service options. The results of the public open house feedback (82 respondents) and telephone survey (800 respondents) showed strong public support for the 65% waste diversion goal (94% level of support) and for the continued expansion of waste diversion services (82% - 92% support). Support for every other week waste collection was largely limited to the Region's Waste Management Advisory Committee, a public focus group (43 participants) and environmental groups. Support for weekly waste collection with a one container limit was the preferred option in the public open house and in the telephone survey results, with 58% and 53% in support respectively. Various concerns have been raised by Regional Committees and Council with respect to the decreased customer service level related to every other week garbage collection, which is needed to allow the Region to achieve the 65% diversion goal. The related consideration, made by some Councillors at the March 11, 2010 Committee of the Whole meeting, was that the diversion target (diversion rate and/or target date) could be amended in order to balance diversion benefits with service impacts.

A summary of input/comments is described below.

1.0 Standing Committees of Council

1.1 Waste Management Advisory Committee (WMAC)

- Consensus Position Paper was issued on September 11, 2007 supporting the Level of Service recommendations.
- Further to the consensus position, WMAC has passed two resolutions requesting that the clear bag pilot be implemented as part of the Level of Service options. The pilot was recommended based on the ease of enforcement at the curb and the high potential diversion impact.
- WMAC members also completed a comprehensive survey. The members were asked if they supported, did not support, or were undecided/no conclusion regarding each of the recommended options for immediate implementation and the options that required further investigation/research. There was overwhelming support for the majority of recommendations.
- On June 9, 2009, WMAC passed a motion for consideration by WMPSC that a clear bag program be implemented on contract start (with or without a change to the garbage bag/can limits), if every other week garbage collection is not approved.

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1.2 Landfill Site Public/Citizens' Liaison Committees (PLC/CLC)

Based on circulation of the Level of Service to all **PLC/CLC** members and a presentation to a Chair's meeting, one response was received from a member of the Glenridge Landfill Citizens' Committee. The suggestion was to assess resident satisfaction as part of the Level of Service review and secondly to better educate homeowners and school children about the importance of diverting household hazardous wastes from landfills.

2.0 Area Municipal Councils

Six Area Municipalities provided formal comments:

- Thorold provided suggestions to facilitate implementation of the proposed changes, and were in agreement with the financial recommendations;
- Port Colborne requested more information on the Rate Study;
- Lincoln and Pelham supported the Study, although during later discussions on the new collection contract, Pelham Council providing the following comments:
 - They feel that bi-weekly garbage collection is not frequent enough;
 - Alternating weekly recycling set-out is confusing – all recycling should be collected weekly; and
 - That the proposed two bag bi-weekly collection limit be phased in from the four bag limit (two bags every two weeks) to a three bag limit for one year and then to a two bag limit;
- Niagara Falls passed resolutions that they were not in support of every other week garbage collection, unless a public meeting was held and costs saving measures are considered; and
- West Lincoln did not support any changes to garbage collection service/limits and Green Bin organics collection in the rural area. As part of later comments on the new collection contract, West Lincoln Council and Mayor reiterated that Council and the residents are opposed to every other week garbage collection. Council also did not support the proposed one bag limit per household.

3.0 WMPSC/Regional Council

WMPSC members and Regional Councillors requested more supporting information/research related to the Level of Service recommendations during 2007 and 2008. In addition, WMPSC requested that the report recommendations be changed to reflect an increase in increments of .25 cents per garbage container (bag/can) tag, rather than an increase for inflation of 2% per year, applied every three years. Further public consultation, in the form of public open houses in each municipality, was requested by WMPSC to obtain input on the various options under consideration (see section 8.0 for summary of results).

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In 2009 and 2010, concerns were raised by certain members of WMPSC and Council with respect to the decreased customer service level related to every other week garbage collection. The related consideration, made by some Councillors at the March 11, 2010 Committee of the Whole meeting, was that the diversion target could be amended in order to balance diversion benefits with service impacts.

4.0 Environmental Groups

The WMAC had asked that the Consensus Position and Level of Service information be circulated to environmental groups for comments and/or endorsement in late 2007. Five of the six groups that provided comments were in support of the LOS/RS recommendations. The group that did not provide specific comment on the waste collection changes, offered suggestions for improvement to waste management programs.

5.0 General Public (unsolicited comments)

Approximately twenty-six phone calls, emails and letters on the Level of Service were received from January 2007 to May 1, 2008, the period of time over which unsolicited calls were actively monitored for the purposes of reporting back on public feedback. Over half were supportive of every other week garbage collection and/or the Level of Service recommendations generally. Initially, sixteen comments (of the twenty six comments) were not supportive of every other week garbage collection. When staff had the opportunity to clarify why this option was being implemented, the success of other municipalities and that organics and recycling would still be collected weekly, six of the sixteen residents became supportive. Additionally, concerns over a two garbage container (bag/can) limit for large families were noted.

6.0 Media Articles

Letters to the editor and articles in local newspapers were also recorded from July 2007 to May 1, 2008, which was during the period of more intense media interest regarding the Level of Service. Thirty-one Level of Service related comments were noted:

- Two-thirds were supportive or neutral regarding the recommendations, which included every other week garbage collection.
- Remaining one-third, which included letters to the editor and a viewpoint article, did not support every other week garbage collection. However, certain concerns mentioned can be addressed through the Illegal Dumping Management Strategy, targeting messaging and the Social Marketing and Public Education Strategy (Appendix A). For example, to deal with the odour concern, it will be communicated that with the use of the weekly Green Bin program, odorous material will be removed from the garbage stream.

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7.0 Focus Groups on Proposed Changes to Waste Collection Service

Focus groups were carried out in April 2008 to obtain input on the proposed behaviour change incentives, in the form of changes to waste collection service. The five focus groups, with a total of 43 participants, had representation from all twelve area municipalities and from a range of demographics with an urban/rural mix. The key results include the following:

- Strong support for the target of 65% by 2012. Most felt it was not aggressive enough and could be either higher or achieved faster.
- The most acceptable garbage collection combination was a three bag/can limit with every other week garbage collection. Combined with this was a strong view that weekly two stream Blue/Grey Box (container/fibre) collection should be provided.
- Individually the garbage collection options that were reviewed had the following support:
 - every other week garbage collection 62% supportive or neutral,
 - garbage bag/can limits 63% supportive or neutral,
 - full user pay 47% supportive or neutral,
 - clear bag for garbage 40% supportive or neutral.

8.0 Telephone and Public Open House Results

Twelve public open houses were held across the Region in the summer of 2008 – one in each area municipality. There were 97 participants and 82 feedback surveys that were completed. In order to supplement the open houses, a telephone survey was undertaken to ensure statistically representative results. Approximately 800 telephone interviews were completed, and the results were generally consistent with the input received from the open houses. The extent of support for each Level of Service options is listed in the below chart:

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Survey/Feedback Form Question	% Support	
	Telephone Survey	Feedback Survey
Support for 65% Diversion Goal	94%	97%
Diversion Options:		
West Lincoln/Wainfleet Weekly Green Bin Program	84%	99%
Three New Reuse Centres	88%	96%
Two New Household Hazardous Waste Facilities	82%	94%
Recycling in Public Spaces	91%	91%
Increased Education for Diversion Programs	92%	89%
Waste Collection Changes:		
Weekly Garbage Collection, 1 container (bag/can) limit	53%	58%
Every Other Week Collection, 3 container limit	30%	42%
Every Other Week, 2 container limit	23%	33%
Test Clear Bag System	52%	53%
Collect Blue & Grey Recycling Box Weekly	70%	66%
Collection Exemptions (Diapers/Medical Conditions)	75%	78%

In summary, the key outcomes are as follows:

- Very high support for achieving the 65% diversion goal,
- Very high support for implementing diversion options,
- Medium to low support for various garbage collection changes, with greater support for continued weekly garbage collection with 1-container limit followed closely by implementing a clear bag pilot.

**Appendix III
History of Committee Reports and Presentations Related to Waste Management
Level of Service and New Collection Contract**

Date	Item	Committee	Title
April 3, 2007	Presentation	WMPSC	Key Items and Decision Points for Waste Management Services
May 15, 2007	Presentation	WMPSC	Service Level Review and Rate Study
June 6, 2007	Presentation	PWC	Service Level Review and Rate Study
June 26, 2007	Presentation and Report	WMPSC	WM Level of Service and Rate Study PWA105-2007 Draft Level of Service and Rate Study
June 27, 2007	Presentation	Planning and Public Works	Waste Management Services Level of Service and Rate Study
July 10, 2007	Presentation	WMAC	Waste Management Services Level of Service and Rate Study
August 7, 2007	Presentation and Report	WMPSC	Waste Management Level of Service and Rate Study CSD100-2007/PWA105-2007 Revised Draft Level of Service and Rate Study
August 8, 2007	Presentation and Report	Planning and Public Works/ Corporate Services	Waste Management Level of Service and Rate Study CSD100-2007/PWA105-2007 Draft Level of Service and Rate Study
August 16, 2007	Presentation	COTW	Waste Management Services Level of Service and Rate Study
September 18, 2007	Correspondence	WMPSC	WMAC Consensus Position Paper
October 30, 2007	WMAC Minutes and Business Arising from the Minutes	WMPSC	WMAC Level of Service Summary of Comments and Consensus Position WMAC Motion for Clear Bag Pilot in Town of Pelham
December 11, 2007	Presentation, Memo and Consultant Report	WMPSC	Collection Efficiencies and System Costs for Niagara Region
	Memo		Waste Collection Pilot – Revised
March 4, 2008	Presentation	WMPSC	Waste Collection Services Options Research, DFA Inc.
	Memo		Level of Service and Rate Study – Project Update
April 15, 2008	Report	WMPSC	Curbside Collection Efficiencies and System Costs

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Date	Item	Committee	Title
April 16, 2008	Report	Planning and Public Works Committee	PWP21-2008 - Curbside Collection Efficiencies and System Costs
May 27, 2008	Presentations Report	WMPSC	Presentations: 1. Focus Group Sessions for Level of Service – Waste Collection Options 2. Level of Service and Rate Study - WMPSC Consensus Position Level of Service Backgrounder for Consensus Position
July 8, 2008	Presentations	WMPSC	Level of Service Project Update: Level of Service, Public Consultation – Telephone Survey Level of Service, Public Consultation – Public Open Houses
September 9, 2008	Presentation Memo Memo Memo	WMPSC	Level of Service Public Consultation Activities Addendum Item - Waste Management Level of Service Study Waste Management Level of Service Study Clear Bag Pilot Support
September 17, 2008	Memo	Planning and Public Works Committee	Addendum Item – Waste Management Level of Service Study
October 21, 2008	Presentation and Report	WMPSC	Waste Management Level of Service Implementation Strategy
October 29, 2008	Presentation and Report	Planning and Public Works Committee	PWA111-2008 - Waste Management Level of Service Implementation Strategy
December 2, 2008	Presentation	WMPSC	The Next Collection Contract – Opportunities to Increase Waste Diversion and Reduce Costs
December 10, 2008	Presentation	Integrated Community Planning and Public Works Committee	The Next Collection Contract – Opportunities to Increase Waste Diversion and Reduce Costs

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Date	Item	Committee	Title
February 25, 2009	Memo	Integrated Community Planning and Public Works Committee	Waste Management Service Changes and Estimated Diversion Impact 2009-2012
June 23, 2009	WMPSC	Memo	Proposed Service Changes for New Collection Contract – Update
July 22, 2009	Presentation and Report	Integrated Community Planning and Public Works Committee	The Next Collection Contract - Opportunities to Increase Waste Diversion and Improve Efficiencies
November 4, 2009	Report	Integrated Community Planning and Public Works Committee	PWA 108-2009 - Amendments to Eligibility Criteria for Curbside Waste Collection
November 17, 2009	Oral update	WMPSC	Update on Waste and Recycling Collection Contract
February 9, 2010	Oral update	WMPSC	Update on Waste and Recycling Collection Contract and Service Options Approval Process
March 11, 2010	Presentation	COTW	Waste and Recycling Collection Service Options – Strategic Discussion

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Appendix IV

Summary of Base and Enhanced Services by Sector

Part A - Summary of Base Level of Service by Sector

1. Residential Sector

Property Type	Service	Garbage	Bulky & White Goods	Recycling	Organics	Leaf/ Yard	Brush
Low density residential curbside (single family, low-rise, town-houses, etc.) 1-5 units	Current	2 bag/can limit weekly, \$1 tags for additional bag/can	Call-in service year round	Alternating weekly Blue/Grey Boxes	Weekly Green Bins	Weekly	6 x per year
	New	1 bag/can limit weekly or 3 bag/can limit every other week (EOW), \$1 tags for additional bag/can	No change	Weekly or alternating weekly Blue/Grey Boxes	No change	No change	Min. 6 x per year
Multi-res with 6 units	Current	12 bag/can limit weekly	No service	Alternating weekly Blue/Grey Boxes or Carts	No service	No service	No service
	New	6 bag/can limit weekly or 18 bag/can limit EOW, \$1 tags for additional bag/can	Call-in service year round	Weekly Blue/Grey Boxes or Carts	Weekly Green Bins	Weekly	Min 6 x per year
Multi-res (high-rise) with 7 or more units ¹	Current	12 bag/can limit weekly	No service	No service or limited service (enhanced or alternating weekly Blue/Grey Boxes or Carts)	No service	No service	No service
	New	6 bag/can limit weekly or 18 bag/can limit EOW (no bag tags)	No change	Weekly Blue/Grey Boxes or Carts	Provisional organics collection	No change	No change

Note 1 Multi-res (high-rise) properties with 7 or more units are only eligible for curbside collection if they are not using private containerized waste collection and are able to stay within the waste set out limits.

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2. Mixed-Use Buildings

Property Type	Service	Garbage	Bulky & White Goods	Recycling	Organics	Leaf/ Yard	Brush
Inside BIA	Current	7 bag/can limit weekly	No service	Alternating weekly Blue/Grey Boxes	Weekly Green Bins collection	No service	No service
	New	No change	No change	Weekly Blue/Grey Boxes/ Carts – (mandatory)	Weekly Green Bins/Carts collection	No change	No change
Outside BIA ¹	Current	7 bag/can limit weekly	No service	Alternating weekly Blue/ Grey Boxes or carts 'residential quantities'	Weekly Green Bins 'residential quantities'	No service	No service
	New	18 bag/can limit EOW OR 6 bag/can limit weekly	No change	Unlimited quantities, with case by case review of excessive quantity of commercial material	Weekly max 4 Green Bins with Provisional unlimited organics (parallel to multi-res sector)	No service	No change

Note 1. Mixed-use properties with a residential component outside the BIA (or designated business area) are only eligible for curbside collection if they are not using private containerized waste collection and are able to stay within the waste set out limits.

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3. IC&I Buildings

Property Type	Service	Garbage	Bulky & White Goods	Recycling	Organics	Leaf/ Yard	Brush
Small IC&I properties outside designated business areas ¹	Current	7 bag/can limit weekly	No service	Alternating weekly Blue/ Grey Boxes or carts 'residential quantities'	Weekly Green Bins 'residential quantities'	No service	No service
	New	10 bag/can limit EOW OR 4 bag/can limit weekly	No change	Weekly max 4 Blue/ 4 Grey Boxes or 2 carts (mandatory)	Weekly max 4 Green Bins	No service	No service

Note 1. No service to the following properties:

- **industrial properties in industrial parks/zones,**
- **IC&I buildings greater than three storeys' (excluding Regional and municipal facilities) and**
- **IC&I properties using private containerized garbage collection or are not able to stay within the garbage set out limits**

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Part B - Summary of Enhanced Service by Municipality

Municipality	ELOS Service	Description
Grimsby	Street Litter Receptacle	3 x weekly
	Additional Garbage Curbside	1 additional pick up / week in BIA max.12 bags per collection day
Lincoln	Containerized Garbage Service	weekly as scheduled
	Recycling Cart	weekly both streams
Pelham	Street Litter Receptacle	2 x weekly
	Containerized Garbage Service	Weekly as scheduled
	Recycling Cart	weekly both streams as scheduled
West Lincoln	Containerized Service	weekly as scheduled
	Additional Garbage Curbside	1 additional pick up / week in BIA max. 7 bags per collection day
Wainfleet	None	
Niagara-on-the-Lake	Additional Garbage Curbside	2 additional pick ups per week in BIA 20 container limit
	Curbside Cardboard Collection	2 additional pick ups / week in BIA
St. Catharines	Street Litter Receptacle	4 days per week downtown 1 day per week on regular streets Variable at parks/cemeteries Port Dalhousie 7 days/week May 1 – Oct 31 1 day/week Nov 1 – April 28
	Containerized Garbage Service	Various for multi residential buildings as scheduled
	Additional Garbage Curbside	4 days per week downtown (Tues/Thurs/Sat/Sun)
	Containerized Cardboard Service	weekly downtown as scheduled
	Recycling Cart	weekly both streams as scheduled
	Additional Recycling Curbside	1 per week downtown (Thursday)
Thorold	Street Litter Receptacles	3 x week in BIA
	Additional Garbage Curbside	2 additional days /week downtown max. 7 bags per collection day
	Additional Recycling Curbside	2 additional days / week BIA

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Municipality	ELOS Service	Description
Fort Erie	Street Litter Receptacle	2 x weekly for Jarvis St. and Ridge Rd. areas
Niagara Falls	Street Litter Receptacle	7 x weekly for Mainline (designated route) including recycle from OMG bins 1 day per week on regular streets Chippawa 1 week on collection day
	Additional Garbage Curbside	All commercial /tourist businesses - additional limit to 15 containers from May long weekend to Labour Day - designated addresses
Port Colborne	Recycling Cart	weekly both streams as scheduled
Welland	Recycling Cart	weekly both streams as scheduled

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Appendix V

Proposal Price Matrix

Collection Scenarios	Proponents Bids for All Three Collection Areas (Year 1)					
	Emterra (Area 2 and 3 Aggregated plus Area 1)	Miller (Aggregated)	Modern (CNG 2&3 and Diesel 1)	Modern (Diesel - Aggregated)	BFI (Diesel)	BFI (CNG)
No Grass Ban						
Bi-Weekly Waste, Alternating Recycling	\$16,309,582	\$20,817,580	\$19,369,757	\$18,053,387	\$19,588,061	\$20,693,807
Bi-Weekly Waste, Both Streams Recycling	\$17,300,997	\$21,788,725	\$21,494,070	\$20,007,788	\$19,588,061	\$20,693,807
Weekly Waste, Alternating Recycling	\$15,916,354	\$21,915,748	\$22,870,711	\$21,197,667	\$20,803,265	\$21,977,609
Weekly Waste, Both Streams Recycling	\$16,845,224	\$22,450,219	\$22,851,081	\$21,178,331	\$20,803,265	\$21,977,609
Partial Grass Ban						
Bi-Weekly Waste, Alternating Recycling	\$16,309,582	\$20,794,023	\$19,369,757	\$18,053,387	\$19,588,061	\$20,693,807
Bi-Weekly Waste, Both Streams Recycling	\$17,300,997	\$21,765,476	\$21,494,070	\$20,007,788	\$19,588,061	\$20,693,807
Weekly Waste, Alternating Recycling	\$15,916,354	\$21,898,608	\$22,870,711	\$21,197,667	\$20,803,265	\$21,977,609
Weekly Waste, Both Streams Recycling	\$16,845,224	\$22,439,501	\$22,851,081	\$21,178,331	\$20,803,265	\$21,977,609
Full Grass Ban						
Bi-Weekly Waste, Alternating Recycling	\$15,731,283	\$20,778,319	\$18,647,662	\$17,394,913	\$19,588,061	\$20,693,807
Bi-Weekly Waste, Both Streams Recycling	\$16,722,698	\$21,749,909	\$20,695,257	\$19,291,134	\$19,588,061	\$20,693,807
Weekly Waste, Alternating Recycling	\$15,621,996	\$21,887,181	\$22,120,221	\$20,486,866	\$20,803,265	\$21,977,609
Weekly Waste, Both Streams Recycling	\$16,550,866	\$22,432,356	\$22,100,591	\$20,467,531	\$20,803,265	\$21,977,609

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**Appendix VI
Municipal Enforcement Practices**

Hamilton	Halton	Peel	Ottawa	Toronto
Enforcing the Waste By-law				
The By-law is used as an information tool. Almost always friendly warning via written correspondence is used. On road staff have form letters to deliver if they observe issues.	Philosophy is education and outreach first. Verbal warnings, flyers, compliance notices or invoice for waste removal are issued to enforce the By-law.	Send out a coordinator to educate at least 2 times. If this doesn't work then an officer visits. The officer will normally provide written warning. Ticket issued at fourth visit.	Uses friendly approach to start and then may lead to warning and fines in order to achieve compliance.	City uses a combination approach to enforce By-law. Verbal warnings, notices of violation. Enforcement action and tickets for repeat offenders. Generally residential properties are not fined unless illegal dump. City is stricter with commercial properties.
Recyclables Allowed in Garbage				
The By-law does not allow recyclable material in the garbage, including yard and organics. There is a 0% contamination limit. Only warnings have ever been issued.	By-law states that recyclable material must NOT be placed in the garbage. If it is observed in the garbage resident receives a letter, a Blue Box and a warning that material may not be collected in the future.	By-law does not specifically state a limit of recycling allowed in garbage but does infer it is not to be placed in the garbage.	By-law does not allow mixing of garbage and recycling. There is not a percentage that is allowed. Contractor tags and leaves behind garbage that contains recycling. By-law officer may issue warning.	By-law does not allow recyclables in garbage. Have \$125 fine for setting out (garbage/recyclable materials/yard waste) that is not free from contamination. Residential sector normally complies after notice is received.
Fine Amounts				
\$100	\$150	\$105		\$125 Residents normally complies after notice is received