TO: Chair and Members  
Public Works Committee

WARD(S) AFFECTED: CITY WIDE

COMMITTEE DATE: June 14, 2010

SUBJECT/REPORT NO:
Status of Solid Waste Management Master Plan, Options for Increasing Diversion and Landfill Capacity - Follow Up Report on Additional Diversion Options to Reach 65% Waste Diversion (PW07151c) - (City Wide)  
(Outstanding Business List Item)

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SIGNATURE:

RECOMMENDATION:

(a) That Report PW07151c be received;

(b) That a competitive process for the recycling of street sweepings be undertaken as soon as possible, and that the results of the process be referred to the 2011 budget process for deliberation;

(c) That a competitive process for the recycling of drywall be undertaken as soon as possible, and that the results of the process be referred to the 2011 budget process for deliberation;

(d) That the implementation of the Commercial Green Cart Program, at an estimated net operating cost of $450,000, be identified as a budget pressure for 2012 and referred to the 2012 budget process for deliberation;

(e) That staff continue to work with internal and external agencies to collaborate on education and the possibility of incentives for the use of cloth diapers.
EXECUTIVE SUMMARY

This report has been prepared in response to Public Works Committee Report PW07151b, recommended by the Committee on November 2, 2009 and approved by Council on November 11, 2009 directing staff to undertake a detailed analysis on the following four options to further increase diversion from landfill and to report back in June 2010:

“(a) That Report PW07151b respecting Status of Solid Waste Management Master Plan, Options for Increasing Diversion and Landfill Capacity – Follow-up Report on Additional Diversion Options to Reach 65% Waste Diversion, be received;

(b) That staff be directed to undertake a detailed analysis and report back by June 2010 on the following options to further increase diversion from landfill beyond the current level of 47% overall diversion (2010 projected):
   (i) Street sweeping recycling program;
   (ii) Drywall gypsum recycling program at Community Recycling Centres;
   (iii) Provision of green carts and enhanced recycling service to eligible commercial facilities throughout the City; and
   (iv) Education and awareness program to promote and encourage use of cloth diapers;

(c) That the Solid Waste Management Master Plan Review that is scheduled for 2010 consider alternatives to reach 65% diversion and recommend a revised date for achieving this target.”

The purpose of this report is to report back on item (b) to provide program information, costing, budgeting impacts, timing and recommendations for moving forward with these options.

Constraints in the current budget, contractual arrangements and purchasing processes prevent the implementation of these programs in 2010. Appropriate purchasing processes will provide information for street sweeping and drywall recycling programs that can be considered in the 2011 budget process. Contractual arrangements will not facilitate the green cart program at eligible commercial properties until 2012. However these diversion options have the potential to divert 18,700 tonnes of waste from landfill over the next two (2) to three (3) years. This equates to a value of approximately $1.5 million in avoided landfill replacement cost.

It is recommended that the necessary steps be undertaken to include these programs in the 2011 or 2012 budget processes.

Alternatives for Consideration - See Page 6
FINANCIAL / STAFFING / LEGAL IMPLICATIONS

Financial:  The financial impacts associated with each of the recommendations have been specified throughout the report. The table below summarizes the estimated annual diversion and costs for each of the options and includes the estimated avoided value associated with siting a new landfill.

<table>
<thead>
<tr>
<th>DIVERSION OPTION</th>
<th>POTENTIAL TONNES</th>
<th>POTENTIAL DIVERSION</th>
<th>ESTIMATED NET OPERATING COST</th>
<th>AVOIDED LANDFILL REPLACEMENT VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Sweeping Recycling</td>
<td>10,000</td>
<td>4.49%</td>
<td>$460,000</td>
<td>$800,000</td>
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<tr>
<td>Drywall Recycling</td>
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<td>$177,000</td>
<td>$296,000</td>
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<td>Commercial Green Cart</td>
<td>5,000</td>
<td>2.25%</td>
<td>$450,000</td>
<td>$400,000</td>
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<tr>
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<td>unknown</td>
<td>unknown</td>
<td>unknown</td>
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<tr>
<td><strong>TOTALS</strong></td>
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<td><strong>8.4%</strong></td>
<td><strong>$1,087,000</strong></td>
<td><strong>$1,496,000</strong></td>
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</table>

Staffing:  There are no staffing implications associated with the recommendations in this report, although some of the options explored did have staffing requirements.

Legal:  There are no legal implications associated with the recommendations in this report, although there will be legal input associated with outcomes of the competitive purchasing processes requiring contractual arrangements.

HISTORICAL BACKGROUND

The subject of this report is rooted in the December 2001 approval of the Solid Waste Management Master Plan (SWMMP), and the significant strides that the City of Hamilton has made in improving waste diversion in the past ten (10) years increasing from 17% diversion in 2001 to a residential diversion rate of 47% in 2009. Based on achieving a diversion rate of 65% by 2011, the capacity of the Glanbrook landfill is about 33 years.

At Public Works Committee on November 2, 2009 staff was directed to undertake a detailed analysis and report back by June 2010 on diversion of street sweepings, drywall gypsum, green carts at eligible commercial properties and promotion of use of cloth diapers.
POLICY IMPLICATIONS

The recommendations in this report are guided by the Corporate Strategic Plan, the Public Works Business Plan 'Innovate Now!', the Solid Waste Management Master Plan (SWMMP) and the Purchasing Policy.

Corporate Strategic Plan

The recommendations of this report will further the Desired End Results within a number of the Focus Areas such as:

- **Environmental Stewardship**
  There is value to diverting waste from landfill so that our natural resources are protected and enhanced. Furthermore, diversion of materials from landfill would reduce the impact of Hamilton’s industrial, commercial, private and public operations on the environment.

- **Financial Sustainability**
  As the recommendations generate savings versus the status quo, or provide greater value versus the cost of siting a new landfill, this report contributes to delivery of municipal services and management of capital assets/liabilities in a sustainable, innovative and cost effective manner.

- **Skilled, Innovative & Respectful Organization**
  The recommendations reflect staff’s desire for more innovation, greater teamwork, and a better client focus.

Innovate Now! - Public Works Business Plan

As the Public Works Department strives to be recognized as the centre of environmental and innovative excellence in Canada, the vision drivers and actions of the Public Works Strategic Plan affecting the recommendations in this report are:

- **Communities: Services our communities connect with and trust**
  Waste management services and improvements recommended in this report contribute to the Public Works Department’s leadership on “greening” and stewardship providing residents with appropriate services and contributing to a reduction in greenhouse gasses.

- **Finances: Providing financial management for the long haul**
  The implementation of programs that have no net negative impact on the budget represents sound and efficient financial management.

- **Processes: Business processes are defined and aligned**
  Waste diversion programs that are cost neutral or cost savings align with the Strategic Plan.
Solid Waste Management Master Plan (SWMMP)

Recommendation #2 is the guiding principle that “The Glenbrook landfill is a valuable resource, and the City of Hamilton must optimize the use of its disposal capacity to ensure that there is a disposal site for Hamilton’s residual materials that cannot be otherwise diverted.” Continuing to implement the recommendations proposed in this report supports this principle.

Recommendation #5, revised in December of 2006 around the early closure of SWARU, states “That in view of the early closure of SWARU, the General Manager of Transportation, Operations and Environment begin exploring the need for a new state-of-the-art Energy From Waste (EFW) facility to form part of the City of Hamilton’s waste management system to optimize the disposal capacity at the Glenbrook landfill site immediately instead of 2006 as set out in Recommendation 5 of the SWMMP.” A component of the review of the SWMMP explained in this report will incorporate and consider this technology.

Recommendation #6, “The City of Hamilton should adopt a three-stream waste collection system (recyclables, organics and residual garbage), commencing with a pilot test in 2002 to identify and resolve operational and implementation considerations” is further supported by the implementation of the Green Cart program at eligible commercial properties throughout the City.

Purchasing Policy

The procurement of street sweeping and drywall gypsum recyclers will follow the appropriate tendering practice as outlined in this corporate policy.

RELEVANT CONSULTATION

Staff has consulted with the Public Works Department: Operations and Waste Management Division, and Environment and Sustainable Infrastructure Division.

Staff also consulted with the City of Brampton regarding their street sweeping program, and some of the BIAs with regard to the commercial green cart program.

ANALYSIS / RATIONALE FOR RECOMMENDATION

Based on the detailed analysis of the diversion options identified and budgetary, contractual and operational constraints and considerations, most program changes will need to be implemented in conjunction with future budget processes.

It is recommended that:

(a) a competitive purchasing process be undertaken as soon as possible for the recycling of street sweepings and that the outcome of the process be included in the 2011 budget process, in conjunction with reconciling the Roads costs and the Waste Disposal revenues;
(b) a competitive purchasing process be undertaken as soon as possible for the recycling of drywall gypsum and that the outcome of the process be included in the 2011 budget process;

(c) the implementation of green carts at eligible commercial properties be included in the 2012 budget process subject to available capacity at the Central Composting Facility; and

(d) staff work with internal and external partners dealing in family and child care to promote the merits of cloth diapers and consider possible incentives.

**ALTERNATIVES FOR CONSIDERATION:**

The consideration of alternatives for diverting waste from landfill is not simply about the cost associated with a particular diversion program. In accordance with a triple bottom line approach, consideration should also be given to the environmental and community impacts. The cost to landfill in Ontario and Canada tends to be inexpensive compared to most diversion programs until it is necessary to factor in the cost of replacing a landfill. Many Ontario municipalities have exhausted their landfill capacity and have had to seek alternative capacity and diversion and disposal options to manage waste.

It is estimated that the replacement cost for landfill is about $80 per tonne. Although this figure cannot be used for budgeting purposes, it is a good comparator in assessing the cost of diversion programs if the estimated 18,700 tonnes from implementation of street sweeping recycling, drywall recycling and commercial organics was realized. This would equate to $1.5 million in avoided landfill replacement costs. In addition, the siting of new landfills can have significant divisive impacts on a community.

In this report, the detailed analysis of diversion programs for street sweepings, drywall and organics collection for eligible commercial properties has been undertaken in conjunction with current operations and operational constraints. Due to budget and contractual arrangements, implementation would occur over a period of time. In addition, overall program costs are expressed as net costs because contracts restrict the release of unit costs for competitive reasons.

1. **Street Sweeping Recycling Program**

In preparation for 2011 staff has investigated options that involve recycling of all or some of the street sweepings as a means of reducing costs. These options are evaluated in the Detailed Analysis of Options attached to Report PW07151c as Appendix “A”.

As staff is aware that there are at least two companies that can undertake recycling of street sweepings, it is proposed that a competitive process be issued in the coming months, so that a formal proposal can be put forward in the 2011 budget. The competitive process should either require that the product be recycled for reuse in applications other than winter control or that satisfactory testing prove the acceptability
for winter control use. It is estimated that the cost associated with street sweeping recycling would be approximately $460,000.

The 2010 budget was reduced by $250,000 in anticipation of implementing the street sweeping recycling program in 2010. The Operations & Waste Management Division will look for ways to mitigate this budget pressure in other areas of its operations.

Removing 10,000 tonnes of street sweepings from landfill equates to approximately $800,000 in avoided landfill replacement value.

2. **Drywall Gypsum Recycling Program**

Approximately 3,700 tonnes of drywall could be diverted from landfill through recycling. Staff is aware of only one company that recycles drywall at this time. New West Gypsum Recycling (NWGR) is located in Oakville and will take drywall for recycling for fees that include transportation and processing.

Initially staff suggests it would be most feasible to start a drywall recycling program out of the Kenora Transfer Station, as this facility has more space and flexibility than the Mountain and Dundas Transfer Stations.

It is estimated that a capital investment of approximately $12,000 for a covered bunker would be required at each transfer station. This could be funded from existing capital in the Solid Waste Management Master Plan, Planning and Approvals account 5120595525. The estimated net cost of a program with New West would be approximately $177,000 per year, which includes additional staffing at the transfer station, transportation and processing costs and reduced operating costs of tonnage to landfill.

Although New West is the only known company recycling drywall at this time, it would be appropriate for a competitive process to be undertaken to confirm this or to seek out other qualified bidders. The cost of implementation of this program would be included in the budget deliberations for 2011.

It is noted that the landfill replacement costs associated with 3,700 tonnes of material would be $296,000, so implementation of this program would have a value associated with avoiding the cost of siting a new landfill.

3. **Commercial Green Cart Program**

It is estimated that implementation of the green cart program at eligible commercial properties would generate approximately 5,000 tonnes of organic material.

There is adequate funding in the Green Cart Implementation Capital account to provide for the containers and communication materials to accommodate the implementation.

Waste Collection staff indicates that the collection of materials at the estimated 4,000 business locations can be integrated into the current collection system at no additional cost. Most of these businesses are on existing routes and are receiving garbage collection by the same co-collection vehicles that collect organics. It would be the same
waste material dumped into different hoppers on the truck. In contracted areas, the contractor is paid by the number of stops, which is the same for garbage and organics.

As the Central Composting Facility (CCF) is currently at capacity with organic materials from the City’s residential green cart program and from other municipal contracts, the contracted portion of the facility would need to be reduced to accommodate the commercial sector. It was always the intent that the CCF capacity be first and foremost for City use as a means of increasing diversion and preserving landfill capacity.

Because of the contractual arrangements of the CCF, the earliest that capacity could be made available would be early 2012 due to termination clauses. Upon approval of this report staff would initiate an appropriate process to make capacity available.

Considering the City’s processing costs at the CCF, lost revenues at the CCF and reduced operating costs of removing tonnage from the landfill, the net cost associated with the implementation of green cart organics at eligible commercial properties would be approximately $450,000. This would need to be identified as a budget pressure for 2012.

Similarly to the other programs, diversion of 5,000 tonnes of commercial organics would result in a value of avoided landfill replacement costs of $400,000.

4. **Awareness Program to Encourage Use of Cloth Diapers**

The intent last November was to concentrate on outreach as well as research the possibility for incentives for alternatives to disposable diapers and staff has contacted the following local companies to obtain feedback in this regard:

- **Comfy Cotton Diaper Service Inc.** (Comfy 2009) – Service areas cover the Greater Toronto area, and extend west through Hamilton, Stoney Creek, Kitchener, Waterloo and Guelph

- **Bear Bottoms Diaper Service** (Bear 2009) – serving Kitchener, Waterloo, Cambridge and Hamilton areas.

There is some indication of an increase in diaper service inquiries, which could be attributed to the limit of one container for curbside collection. Staff has received a number of calls from families with two children under the age of five seeking advice on how to comply with the one container limit since April 2010.

Feedback and statistics from the reusable diaper service industries support the notion that, not only are cloth diapers better for baby and the environment, they can also be more economical and just as convenient. It is estimated that each baby in disposable diapers contributes 1.47 tonnes of waste to landfill by age three (3) and that families using disposables increase their garbage by 50%. Staff has determined that there are areas across the community (i.e. Public Health, Hamilton Health Sciences, Early Years Centres, etc.) that could assist further in promoting and developing the concept of cloth diapers and will work with internal and external agencies in this regard to collaborate on the promotion and possibility of incentives toward the use of cloth diapers.
These efforts have the potential to result in waste diversion however the amount of material diverted is difficult to predict and has not been included in the diversion tonnage at this time.

5. **Solid Waste Management Master Plan Review**

Contract C11-17-10, seeking a qualified consultant to assist in the review of the City of Hamilton's Solid Waste Management Master Plan (SWMMP) closed on April 15th, 2010. The review will involve an innovative stakeholder driven process that will consider the City's objectives to provide sustainability, resource conservation, source reduction and recycling, renewable energy, maximum material recovery, and environmental protection for solid waste management planning through 2035.

The review of the SWMMP will evaluate existing collection, transfer, recycling, processing and disposal operations and recommend programs, changes and new initiatives that will help the City meet newly established diversion targets and develop a long term plan for disposal of post source (residual) separated municipal solid waste. It is anticipated that the term of the SWMMP review will extend over sixteen months and be effective through September 2011.

The process over the next sixteen months will involve an integrated planning process based on:

- Participatory decision-making and consensus building process with stakeholders and the community;
- Establishment of a cohesive framework for promoting and implementing programs to minimize environmental impacts and to enhance resource conservation opportunities in the Operations & Waste Management Division waste management programs; and
- An Integrated Waste Management Master Plan that will serve as a business planning tool to identify long-term financing strategies, facility requirements and programs requirements necessary to provide solid waste services to the growing population in the City for the next 25 years.

**CORPORATE STRATEGIC PLAN**


**Skilled, Innovative & Respectful Organization**

- A skilled, adaptive and diverse workforce, i.e. more flexible staff
- More innovation, greater teamwork, better client focus
- Opportunity for employee input in management decision making

**Financial Sustainability**
Vision: To be the best place in Canada to raise a child, promote innovation, engage citizens and provide diverse economic opportunities.
Values: Honest, Accountability, Innovation, Leadership, Respect, Excellence, Teamwork

- Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative and cost effective manner

**Intergovernmental Relationships**
- Influence federal and provincial policy development to benefit Hamilton

**Environmental Stewardship**
- Reduced impact of City activities on the environment

**Healthy Community**
- Plan and manage the built environment

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**APPENDICES / SCHEDULES**

Appendix “A” - Detailed Analysis of Options
DETAILED ANALYSIS OF OPTIONS

The following analysis explains the details about processes and costs of the program options.

1. Street Sweeping Recycling Program

1.1 Overview

The 2010 budget for OWMD was based on 10,000 tonnes of street sweepings being collected and disposed.

Reuse of recovered spring street sweeping and catch basin extract materials is governed by the following Provincial regulations and policies;

- Ontario Regulation 153/04 – Records of Site condition, Part XV.1 of the Environmental Protection Act: Pertains to the environmental quality of soil, ground water and sediment at a given site;

- Inert Fill Policies by the Ministry of the Environment and the Ministry of Natural Resources outlining conditions by which fill can be relocated from one site to another;

- Ontario Regulation 339/00 – Classes of Contaminants – Exemptions, Environmental Protection Act: Pertains to the exemption of contaminants in substances used on a highway by a road authority for the purpose of keeping the highway safe for traffic under conditions of ice and snow; and

- Ontario Provincial Standard Specifications (OPSS), which set standards defining the composition of aggregates, sand and other materials.

The options explored included two (2) private companies, MegaCity Environmental Solutions Inc. and Flow-Kleen Technology Limited, and the possibility of the City recycling the street sweepings on its own. In this review consideration was given to the quality of the material before and after processing. It is recognized that street sweepings contain oils and chemicals from vehicles and therefore landfilling materials is not the best environmental option for managing street sweepings.

Costs provided are the net program costs as unit costs for various activities are confidential in contractual agreements.

In anticipation of implementing the street sweeping recycling program in 2010, an adjustment was made to the 2010 Roads Operations budget. The budget was reduced by $250,000 based on potential savings in disposal costs and the cost allocation for the disposal of this material at the City’s landfill. As part of the more detailed business case
analysis it was found that while there is a savings to the Roads Operations budget, there is also an impact on the revenues in the Disposal Operations budget.

1.2 Flow-Kleen Technology Limited

Flow-Kleen Technology Limited processes sediment from storm sewer basins and street sweepings through a wastewater treatment system to recover winter sand for reuse on municipal roads. Their Certificate of Approval permits the processing of non-hazardous solid waste up to 150 tonnes per day. The total amount of waste and processed material stored at the site is not to exceed 2,250 tonnes at any time.

Currently the Cities of Edmonton and Brampton implement a recycling program for recovered spring catchbasin extracts and street sweeping material as part of long term sustainability objectives. The recycling program involves the recovery and processing of these materials through a specialized contractor, for eventual reuse as either winter sand or general purpose fill. Brampton piloted catchbasin sand recycling in 2008 with Flow-Kleen and capitalizing on the success of the pilot began recycling street sweepings in 2009. Note however, Brampton uses a 20:1 ratio of pickle mix in their winter control operations. The processing carried out by Flow-Kleen consists of a screening and washing method that removes debris, fine sediments and potential contaminants. The wash water is re-circulated in the process.

Discussions with the Manager of Road Operations, Works and Transportation at the City of Brampton are positive regarding their program. They have reduced consumption of aggregate resources, and the 5,230 tonnes of material sent to Flow-Kleen in 2009 returned as 4,400 tonnes of winter sand. The City of Brampton has realized savings of $55,000 per year with this initiative. There is some concern about the impact of the process on the abrasive properties of the sand and its potential to diminish the effectiveness as a traction enhancing agent on road surfaces. Some further evidence in the form of independent testing may be necessary to allay this concern if this option was to be pursued.

This option would require significant capital investment in covered structures (domes) for the storage of salt, sand and the final mixed product at an estimated cost of $1 million. In addition, consideration would need to be given to an appropriate location for the structures.

The operating cost of the program includes the cost of collecting the material at designated sites, transportation to their facility for processing, return of the material and cost to reconstitute the material into a usable winter control material. The net cost of the street sweeping program includes the Flow Clean activities, avoided landfill operating costs for the portion shipped to Flow-Kleen, costs associated with preparing the recycled sand for winter use and the cost of disposing of the portion of the material the City would continue to manage. The net cost of the program would be $439,000. Combined with the capital cost, this option is prohibitive.

1.3 Mega City Environmental Solutions Inc.
Mega City is a North York company that receives street sweepings and recycles them for re-use in construction projects. They have a Certificate of Approval from the Ministry of the Environment for the recycling process.

The program includes the cost of collecting the material at designated sites, transportation to their facility and processing. Based on the 2010 budget the cost of street sweepings to Roads is offset by the revenues in Waste Disposal, there is not savings on a portion of the street sweepings sent to recycling and sending the full amount of street sweepings to MegaCity results in a further shortfall in Disposal revenues. However this cost/revenue could be reconciled in future budget processes with Roads and Waste Disposal now residing in the same Public Works division.

The net cost of the street sweeping program including the Mega City activities and avoided landfill operating costs would be approximately $460,000.

1.4 City Recycling of Street Sweepings

The possibility of the City undertaking the recycling of its own street sweeping was considered in a preliminary way. The City does not have a Certificate of Approval to recycle the material. Capital costs would include the same structural costs required in the Flow-Kleen scenario plus the hire (rental, lease or purchase) of screening and washing equipment. Screening the material without washing it would not remove the contamination on the sand. The approvals and cost of this undertaking make this option prohibitive to implement.

2. Drywall Gypsum Recycling Program

2.1 Overview

Gypsum is composed of calcium sulphate (CaSO₄) and Water (H₂O) and is commonly referred to as drywall or sheet rock. The advantages of gypsum board are fire resistance, sound resistance and low cost, which is why it is extensively utilized in residential construction.

Recent studies have indicated that gypsum waste comprises 27 per cent of the total wastes from residential construction (Recycling Council of Ontario, 2005) it is not identified as a recycled material under Ontario Regulation 103/94. Recovery rate of gypsum wallboard in Canada is 33%, where asphalt is 72% and concrete and rubble are 42% (Recycling Council of Ontario, 2005).

2.2 New West Gypsum Recycling

Drywall is accepted at a facility in Oakville called New West Gypsum Recycling (NWGR) and converted into a material that goes into new drywall with 15% recycled content.

NWGR has the potential to increase the recycled content to 20% should their feedstock increase. They currently accept and process waste drywall from many communities in Ontario including Halton, Durham, York, Peel and Ottawa.
Drywall is accepted at the City's three Transfer Stations (TSs) and Community Recycling Centres (CRCs) as garbage, and constitutes 8.6% of the 42,183 tonnes of garbage based on a 2007 waste audit at the Mountain Transfer Station. This represents a potential to divert 3,542 tonnes from landfill which equals 1.5% of the TS/CRC garbage.

Kenora Transfer Station (TS) is the only facility at present that has the space required to accommodate a drywall bunker (collection area). Additionally, its geographical proximity to transportation networks is advantageous for transporting the material.

Residents and Commercial users would place drywall waste in a bunker constructed on the TS portion of the site. When the bunker is full, its contents would be inspected, non-acceptable items would be removed and then the material would be prepared for shipping in an appropriate container.

Disposal
The City’s contract with the TS service provider, BFI Canada Inc. (BFI), allows for the addition of materials for recycling. The handling and transfer requirements for drywall would require discussion and agreement with BFI.

Community Outreach
Drywall would be added to the list of acceptable items for the Kenora Street Transfer Station on the website as well as in printed material. New West can assist in growing the drywall recycling portion of our waste diversion efforts through their current customer base.

Financial Implication
Cost implications would include a one-time capital cost for covered bunker construction of approximately $12,000, in addition to ongoing operating costs stated below.

Operating costs of the program include transportation to the New West facility in Oakville and the New West processing fee.

A disposal fee would continue to apply at the TSs however as disposal fees are currently charged for these materials as garbage, the revenue generation is not projected to increase.

Net operating costs would be approximately $177,000 per year.

Although New West is the only company that staff is aware of that recycles drywall, it would be prudent to undertake a competitive purchasing process to bear this out or reveal other bidders.

2.3 Commercial Green Cart Program
Field surveys of eligible commercial properties have found that approximately 70-75% of the properties, or 4,000 properties, are currently using the City’s waste collection programs offered to them. In consultation with business owners it has been
determined that the many businesses would only require one (1) 120 litre green container to accommodate their weekly output of organic waste. However, for businesses that generate a larger amount of organic waste, such as restaurants, small grocery stores, florists and hairdressers a larger number of containers will be required. It is the intention to provide as much organics collection capacity as is required by each business, with the expectation that high organics generating businesses will require an average of four (4) 120 litre containers. It is estimated that approximately 7,000-8,000 120 litre carts will be required to rollout the program.

Program Implementation/Cart Distribution

The distribution of the Commercial Green Cart Program be undertaken in two (2) phases. Phase 1 would see the program delivered to 1,500 properties in Business Improvement Areas (BIAs), while Phase 2 would be the remaining 2,500 properties. This would take about five (5) months.

The same delivery approach would be taken as the implementation of the curbside and multi-residential programs. Students would deliver the green carts and communication materials and engage business owners and employees about program information.

Tonnage Estimations and Overall Impact on Waste Diversion

While the intent of the commercial rollout will be to provide collection capacity for 100% of the organic waste generated by businesses, it is estimated that initial organics capture rates will be closer to 50%, similar to that observed in the curbside rollout. It is also considered that the capture rate will increase as the program matures.

Although tonnage estimations are difficult to determine for the commercial sector, staff received some useful information from the City of Toronto on their commercial organics program and found the average capture for their participating businesses to be fifty (50) kilograms per week. The businesses participating in the Toronto program would be considered high organics generators (e.g. restaurants, small grocery stores, florists), of which it is estimated there are 1,000 of these properties eligible to receive this program in Hamilton. For the remaining 3,000 commercial properties, it is estimated that organics capture will be considerably lower due to the lower amount of organic waste generated by these businesses.

It is estimated that the organic waste collected from the commercial sector will be approximately 5,000 tonnes per year.

Financial Implications

The collection of green carts for the commercial sector is proposed to be undertaken by the existing curbside collection fleet. At present, these vehicles are already collecting garbage from these businesses using split-bodied vehicles with available capacity to accept all of the organics projected to be generated by these businesses. Therefore, staff anticipates no additional operating expenses will be incurred from the expansion of curbside organics collection to eligible commercial properties at the service levels
currently provided to them. For the areas of the city that are provided curbside waste collection through a private contractor, there will also be no anticipated additional costs as the contractor is already paid the per stop fee to collect garbage from these commercial locations and the addition of organics collection is already covered under this per stop fee.

As the Central Composting Facility (CCF) is currently at capacity with organic materials from the City’s residential green cart program and from other municipal contracts, the contracted portion of the facility would need to be reduced to accommodate the commercial sector. It was always the intent that the CCF capacity be first and foremost for City use as a means of increasing diversion and preserving landfill capacity.

Because of the contractual arrangements of the CCF, the earliest that capacity could be made available would be early 2012 due to termination clauses. Upon approval of this report staff would initiate an appropriate process to make capacity available.

Considering the City’s processing costs at the CCF, lost revenues at the CCF and reduced operating costs of removing tonnage from the landfill, the net cost associated with the implementation of green cart organics at eligible commercial properties would be approximately $450,000. This would need to be identified as a budget pressure for 2012.