TO: Chair and Members Public Works Committee

WARD(S) AFFECTED: CITY WIDE

COMMITTEE DATE: June 18, 2012

SUBJECT/REPORT NO:
Multi-Residential Waste Diversion Plan and Green Cart Program for City Buildings (PW11096b) - (City Wide) (Outstanding Business List Item)

SUBMITTED BY: E. (Beth) Goodger Acting General Manager Public Works Department

PREPARED BY: Adam Watson (905) 546-2424, Extension 5522
Raffaella Morello (905) 546-2424, Extension 3445

SIGNATURE:

RECOMMENDATION
(a) That Report PW11096b respecting the Multi-Residential Waste Diversion Plan and Green Cart Program for City Buildings be received;
(b) That the action plans contained in Appendices C and D to Report PW11096b be initiated by staff;
(c) That the General Managers of City Departments direct staff to accept and participate in all waste diversion programs to the best extent possible;
(d) That the Outstanding Business item referring to Multi-Residential Waste Diversion Program be identified as completed and removed from the Public Works Committee Outstanding Business List.

EXECUTIVE SUMMARY
At the May 7, 2011, Public Works Committee received Information Report PW11096a and recommended the following, which was approved by Council on May 9, 2012:
“(a) That staff immediately utilize all available resources to work with multi-residential, superintendents and building owners to increase the participation and diversion rates in medium and poor performing buildings;
(b) That staff be directed to report back to Public Works Committee in June with a plan of action to address the multi-residential sector waste rates and enforcement;

(c) That the Green Cart program be immediately implemented in all municipally owned and operated facilities.”

As of 2010, all of the multi-residential facilities had access to recycling and green cart programs however efforts are required to increase diversion. An action plan is proposed in Report PW11096b as Appendix C to focus on getting the buildings on track with dedicated staff and a team of students. As of September a total of 6.4 staff (2.4 full time employees and four (4) temporary staff) will be focusing on the multi-residential sector through 2014.

The recycling program was implemented in most municipal facilities in 2004. Although significant progress has been made in providing recycling and green carts in municipal facilities, more effort is required particularly in the area of green carts and an action plan is presented in Report PW11096b as Appendix D. To be successful the program needs the commitment from all Departments to provide and actively participate in programs. The Operations & Waste Management Division can provide the tools and the services to collect and process waste materials; however, it also requires the attention of those occupying and looking after buildings and facilities to fully participate in the waste diversion programs.

It is recommended that the action plans in Report PW11096b as Appendices C and D be approved and that the General Managers from all Departments direct staff to accept and participate in waste diversion programs to the best extent possible.

Alternatives for Consideration - See Page 7

FINANCIAL / STAFFING / LEGAL IMPLICATIONS

Financial:

Capital Costs

The Green Cart Implementation capital project 512094528 currently has $1.5 million that has been intended for the implementation of waste diversion programs in the commercial and municipal sectors.

The implementation costs associated with the multi-residential diversion costs were funded from this project account. The costs associated with the multi-residential action plan, approximately $195,000 would be funded from the Green Cart Implementation capital project account.

The costs associated with the development of the action plan for municipal facilities as outlined in Report PW11096b as Appendix D will be shared with the roll-out of the commercial green cart program. It is estimated that this will be half of a student team and vehicle, at an annual cost associated with half a student team at about $37,000.
There is adequate funding in capital project account 512094528 to cover the cost of containers, program launch communication materials and program distribution for the municipal sector as well as the commercial sector.

The need for replacement diversion containers will be monitored relative to the Annual Diversion Container Replacement Program capital project 5121290200 which has a 2012 budget of $790,000.

Operating Costs

Improving waste diversion in the multi-residential sector requires the on-going provision of program education materials and tools (resident print material, labels, posters, direction signs, superintendent information). This cost increase of $85,000 was identified in Report PW12004a, “Solid Waste Management Master Plan Review”, which was referred to the June 18, 2012 Public Works Committee. The collection and processing costs for multi-residential waste diversion do not vary significantly from previous costs and tonnages have been addressed through the operating budget since the program was fully implemented in 2010.

Expansion of the green cart program to some municipal facilities may be undertaken within existing operations and budgets. Implementation at some facilities will have an impact on operating budgets for collection services within the buildings, curbside collection costs, and/or organic waste processing costs. These facilities will be more fully determined through the updated inventory and implementation costs can be included for consideration in future budget deliberations.

Staffing: The staffing for the follow up on the multi-residential waste diversion services will be covered from the existing staff complement and re-assignment of time, including the equivalent of .4 FTE at a supervisory level, one dedicated policy analyst and the equivalent of one customer service coordinator. In addition, there are two (2) temporary students working full-time on the multi-residential sector and commencing in September this number will be increase to four (4) temporary students. The temporary student positions will continue through 2014 and re-evaluated at that time.

In addition, two (2) additional students will be shared for the waste diversion program in municipal facilities and the launch of the green cart program to the commercial sector commencing in September through 2013.

The temporary student staffing for the multi-residential, municipal and commercial sector waste diversion programs is funded from the Green Cart Capital project 512094528.

Legal: The recommendations outlined in this report do not have legal implications.

HISTORICAL BACKGROUND

The information and recommendations outlined in this report have City wide implications and relate to waste diversion programs provided across the City.
As an introduction to moving forward on multi-residential and municipal waste diversion programs, the status of past activities and accomplishments are reviewed.

Multi-Residential Waste Diversion

As indicated in Information Report PW11096a, the green cart program was implemented to about 1000 multi-residential buildings from 2008 to 2010. Although early signs of reasonable participation and waste diversion were promising, it became apparent that participation had waned, waste diversion was about 21% in 2011 and dedicated resources would be required to revitalize the multi-residential program. An update was provided in Report PW11096a along with a presentation to the May 7, 2012 Public Works Committee meeting. The 2012 Solid Waste Management Master Plan also recommended improvements to waste diversion in the multi-residential sector.

For reference, Information Report PW11096a is attached to Report PW11096b as Appendix A.

Municipal Waste Diversion

The 2001 Solid Waste Management Master Plan (SWMMP) provided the framework for the City’s waste management system. The 2001 SWMMP included recommendation 19 which encouraged the City to lead-by-example in its operations:

“That the General Managers review and report back on how their respective department's policies, by-laws and operations can be enhanced to implement and support the Solid Waste Management Master Plan.”

In 2004, the Public Works, Infrastructure and Environment Committee passed a motion to implement the recycling program in City facilities where changes could be made within existing operations and budgets. The complete motion and follow up actions are contained in a Project Update “Corporate Waste Management Program - Solid Waste Management Master Plan (SWMMP) Recommendation 19 (CWMP05-001)” attached to Report PW11096b as Appendix B, as presented to Council on June 16, 2005. A staff working group was formed with representatives from various Departments including Waste Management, Facility Services, Recreation, Parks, Fire Prevention, and Police Services to initially implement the recycling program to City facilities. Together, they created an effective program to meet the individual needs of the various types of municipal buildings. The rollout of the recycling program began in early 2005 and was provided to approximately 129 buildings. The recycling program was provided to police stations, fire stations, libraries, City Hall, Municipal Service Centres, work yards, Ivor Wynne Stadium, arenas, recreation centres, golf courses, senior centres, Macassa Lodge, Dundurn Castle, and several leased offices.

Following the implementation of the residential curbside green cart program in 2006, and in response to some keen interest by several City building operators, the green cart program was implemented in several facilities over the past few years. These locations include:

- City Hall
- Hamilton Convention Centre

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These initiatives came from an interest on the part of the facility managers and staff and have been delivered using existing resources. Although staff at other municipal facilities also expressed an interest in having the green cart program in their workplace, barriers such as access, contracts, collection resources and costs limited the ability to expand the program further.

The corporate green cart program model operates in a similar fashion to the City’s residential green cart program. Facilities use the standard green carts being used in the City’s curbside program. Green carts are collected either by City collection staff or through the City’s waste collection contractor depending on the waste collection zone. Green carts are generally placed in the washrooms, lunchrooms, kitchens, cafeterias, food preparation areas, and change rooms depending on the type of facility and waste being generated. The number of green carts provided to the facilities is based on the quantity of organic waste that is generated.

Waste audits were completed at four locations that have the green cart program in place to assess the performance of the existing programs. These facilities include the Wentworth Operations Centre, City Hall, Public Health Services office, and one leased office in the Hamilton City Centre. The waste diversion rate among these locations ranged from 74% to 80% which indicates that both the green cart program and recycling program can greatly reduce the amount of garbage being landfilled.

This report will provide the Public Works Committee with plans of action to address the multi-residential sector and the expansion of the green cart program to municipal facilities.

**POLICY IMPLICATIONS**

The recommendation in this report are guided by the City’s Corporate Strategic Plan, the Public Works Business Plan, “Innovate Now!”, the Solid Waste Management Master Plan.


The recommendations in this report support the Public Works Department’s objectives on “greening” and stewardship by providing waste diversion programs.
2. Solid Waste Management Master Plan (SWMMP)

The information in this report supports several recommendations in the SWMMP, including:

- Implementing waste diversion programs to help increase the City’s waste diversion rate (Recommendation #3);
- The City to lead by example by considering the SWMMP recommendations into its operations (Recommendation #19).

### RELEVANT CONSULTATION

The implementation of the original waste diversion program for the multi-residential sector included focus groups and meetings with building superintendents. More recently contact has been made with the superintendents of about 25 multi-residential facilities, and it is expected that additional follow up will be made with another 25 to 30 buildings over the summer.

The existing waste diversion program for municipal facilities has operated in partnership between the facility operators and the collection operations provided through the Operations & Waste Management Division. Staff from various Divisions will continue to work together as part of the expansion of the green cart program to municipal facilities.

### ANALYSIS / RATIONALE FOR RECOMMENDATION

Comments in this section relate to rationale for the diversion plans to improve waste diversion programs in the multi-residential sector and the municipal facilities that will contribute to overall waste diversion in the City.

**Multi-Residential Waste Diversion Action Plan**

The plan for the multi-residential sector in Report PW11096b as Appendix C to this report will enable a more focused approach involving the owners, property managers, superintendents and residents of buildings. There is significant capacity in the multi-residential sector to reach a better balance of diversion with the curbside waste diversion programs.

The initial task of information gathering from buildings will provide valuable information in reconnecting with building operators. Community engagement and community outreach activities will supplement and enhance the programs.

A team of four (4) students will be supported by the Waste Customer Service Coordinators, a policy analyst and portions of time from two (2) supervisors. The cost associated with the hiring of students with two (2) vehicles will be approximately $145,000 for one year.

A follow up waste audit would be carried out in the fall of 2013 to obtain results. The cost of the audit would be in the order of $50,000.

The total cost associated with this action plan would be about $195,000 which can be funded from the Green Cart Implementation capital.
Municipal Waste Diversion Program

In reviewing the successes in the delivery of waste diversion programs to municipal facilities, it is noted that in some cases the programs are not in the public eye, so it is not apparent that the programs exist. For example, the green cart program at the Convention Centre and the Farmers’ Market operate behind the scenes and are mainly used by the facility operators and vendors.

For most City buildings that have the green cart program in place, the green carts are located in areas for staff use only such as staff lunchrooms therefore the program is not visible to the public.

The green cart program may be expanded to other municipal facilities within existing operations and budgets. Others may require budgetary and operational considerations. The on-going success of the program will require the cooperation of those operating the facilities. Operations & Waste Management can implement the program in conjunction with other divisions however, similar to other waste diversion programs, participation by those in facilities is critical from day to day.

The focus will be to provide green cart collection at locations which would generate a significant quantity of organic waste. Based on the waste audit results at several City offices, approximately 30% of the waste generated from an office is organic waste, and 50% is recyclable materials. Expanding the program to sites that are involved with special events such as recreation centres also provides flexibility to handle requests from event organizers who wish to promote a “green” event.

**ALTERNATIVES FOR CONSIDERATION**

The following sections speak to the proposed actions for improving waste diversion in the multi-residential sector and municipal facilities.

1. **Multi-Residential Waste Diversion Action Plan**

   The detailed implementation plan and schedule are contained in Report PW11096b as Appendix C to this report. The plan addresses community outreach and engagement, staffing and ongoing monitoring.

   The alternative of continuing to try and address the low participation, low diversion and contamination with limited resources would not improve waste diversion in the multi-residential sector.

2. **Waste Diversion in Municipal Facilities**

   In response to the 2001 SWMMP recommendation, the City initiated the corporate waste diversion program in 2005 with the expansion of the recycling program to approximately 130 City buildings including administrative offices, works yards, libraries, recreation centres, and other sites.

   A plan to implement the green cart program in additional municipal facilities is included in Report PW11096b as Appendix D to this report.
The alternative would be to allow the current level of participation by existing municipal facilities to continue which would send mixed messages to the community, not striking a balance between what residents do at home and what they do in City facilities.

**CORPORATE STRATEGIC PLAN**


**Skilled, Innovative & Respectful Organization**

- A skilled, adaptive and diverse workforce, i.e. more flexible staff

**Financial Sustainability**

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

**Environmental Stewardship**

- Reduced impact of City activities on the environment

**Healthy Community**

- An engaged Citizenry

**APPENDICES / SCHEDULES**

- Appendix A - Information Report PW11096a
- Appendix B - Project Update - Corporate Waste Management Program
- Appendix D - Corporate Waste Diversion Program
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INFORMATION REPORT

<table>
<thead>
<tr>
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<td>May 7, 2012</td>
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<td>Multi-Residential Waste Diversion Program Update (PW11096a) - (City Wide) (Outstanding Business List Item)</td>
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<tr>
<td>SUBMITTED BY:</td>
<td>Gerry Davis, CMA General Manager Public Works Department</td>
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<tr>
<td>PREPARED BY:</td>
<td>Adam Watson (905) 546-2424, Extension 5522</td>
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Council Direction:

At the December 5, 2011, Public Works Committee meeting staff was directed to report back at the end of the first quarter of 2012 respecting the Multi-Residential Waste Diversion Program.

Further to Report PW12004a on the Solid Waste Management Master Plan Review staff would like to take this opportunity to provide an implementation plan that focuses on the Multi Residential Diversion Strategy identified in the Enhanced Diversion Approach of the 2012 SWMMP.

Information:

Following the Fall/Winter 2011 data collection on the performance of the Multi-Residential Green Cart Program, staff was able to compile and compare building data acquired from the last three years of monitoring.

<table>
<thead>
<tr>
<th>Monitoring Category</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td>Participation Rate</td>
<td>91%</td>
<td>77%</td>
<td>69%</td>
</tr>
<tr>
<td>Estimated Capture</td>
<td>21%</td>
<td>21%</td>
<td>18%</td>
</tr>
<tr>
<td>Contamination</td>
<td>53%</td>
<td>63%</td>
<td>46%</td>
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The decrease in building participation and organics capture rates indicates that a renewed focus and additional outreach activity is required to maintain and improve the performance of the program. Report PW12004a indicates that an increased focus on the multi-residential sector will be one of the key waste management activities over the next several years. Staff will be assessing the successes and shortcomings observed.
at different buildings over the first three years of program operation and developing a new strategy to identify best practices and work to implement them throughout all multi-residential properties.

**Multi-residential Implementation Strategy:**

Staff has begun the development of a renewed strategy for improving the diversion performance in multi-residential buildings. The initial task is to undertake a data collection exercise aimed at determining the current best practices and barriers to achieving success in recycling and organics diversion. Over the past three years it has been observed that there is a large variation in the performance of buildings in terms of the amount of waste diverted. A significant portion of buildings have achieved waste diversion rates of 40-60%, whereas some properties have been unable to regularly operate the diversion programs and achieve diversion rates of 10%. In between these groups there are many buildings that have achieved modest diversion results, or have done well to capture divertable waste, but have had problems minimizing rates of contamination in both the blue and green carts. Through site visits and interviews with staff and management at high, medium and poor performing buildings, it is anticipated that information on both the source of performance barriers and the keys to program success will be gathered, and a strategy that incorporates on-the-ground, Hamilton-specific information will be prepared and poorer performing buildings will be provided with practical solutions to problems they currently face.

Following this phase, the next step will be to take the findings of the initial phase and review current program promotion and education materials to ensure that they accurately reflect the needs of buildings. Some of the potential adjustments to the current outreach practices may be the use of pictorial and multi-lingual materials to improve communication with non-English speakers, additional information/training sessions for tenants, and the use of awards, incentives or building champion initiatives aimed at achieving a higher level of tenant and superintendent engagement in the waste diversion programs.

Through the review of program performance it has become apparent that some multi-residential properties have not chosen to participate in diversion programs, regardless of the support offered to them by staff. Therefore, concurrent to the outreach work being undertaken at multi-residential properties, staff will also be undertaking a review of the waste management by-law to provide for stricter container limits and greater enforcement powers to deal with non-compliant buildings.

The table below outlines a proposed timeline for the implementation of the renewed waste diversion approach in multi-residential buildings.

**Implementation Steps for Waste Diversion in Multi-Residential Buildings**

<table>
<thead>
<tr>
<th>Step</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continued consultation with stakeholders (e.g., building managers, residents) on key issues and barriers to waste diversion in multi-residential buildings and their possible solutions.</td>
<td>2012 (ongoing)</td>
</tr>
</tbody>
</table>
In addition to the tasks outlined above, staff will continue to offer day-to-day support for the existing multi-residential program through customer service staff and collections operations.

It is important to note that 15-20% of buildings surveyed are using the diversion programs as was originally intended in the original launch of the program and are achieving waste diversion rates that would rank as some of the highest in Canada. These properties only require occasional support to keep their programs operating at an optimal level. It is anticipated that many other buildings can improve their performance to this level through additional program enhancements proposed.
To: Mayor Larry Di Ianni and Members of Council

From: Beth Goodger,
       Director
       Telephone: 905.546.2424 Ext. 4409
       Facsimile: 905.546.4473
       E-mail: bgoodger@hamilton.ca

Date: June 16, 2005

Re: Corporate Waste Management Program - Solid Waste Management Master
    Plan (SWMMP) Recommendation 19 (CWMP05-001)

This is an update for Council on the status of the Corporate Waste Management Program,
respecting Outstanding Business Item “Implementation of Recycling Program in All Municipal
Facilities” from the Public Works, Infrastructure and Environment (PWIE) Committee.

On June 7, 2004, PWIE Committee passed that the following motion:

(a) That the City of Hamilton establish recycling programs in all City of
    Hamilton facilities including offices, all Public Works yards and municipal
golf courses, in support of Recommendation 19 of the City’s Solid Waste
Management Master Plan to lead by example reaching the City’s target
of 65% diversion from landfill;

(b) That staff report back with a detailed plan on the requirements to
    implement recycling programs in all municipal facilities, which outlines:
    (i) the current status of recycling at City facilities
    (ii) requirements to implement recycling programs at facilities where
         recycling is not currently available including costs and
             operational changes

(c) That recycling programs be implemented in City facilities as soon as
    possible where changes can be made within existing operations and
    budgets.

The motion was approved by Council on June 16, 2004. As a result of this motion, a working
group was formed consisting of the following departments:

- Waste Management
- Culture and Recreation
- Parks
- Facilities
- Fire and Police

Meetings commenced August of 2004.
The working group developed a comprehensive database of current waste and recycling programs in all city owned facilities.

There are over 400 facilities and parks in the City of Hamilton. An overview of the facilities is provided in the table below:

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Number of Facilities</th>
<th>Number of Recycling Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire stations including administration</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Police Stations</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Arenas</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>Recreation/Community Centres</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>Municipal Service Centres, City Hall, Yards, Wentworth Street Operations and MRTC</td>
<td>49</td>
<td>7</td>
</tr>
<tr>
<td>Libraries</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>Museums</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Central Utilities Plant (CUP)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Parks</td>
<td>276</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>434</strong></td>
<td><strong>81</strong></td>
</tr>
</tbody>
</table>

It is apparent that the types of facilities and their recycling status and needs are very diverse. As has been our previous practice relative to enhancing the multi-residential recycling program, the City’s Fire Prevention Bureau was consulted to ensure the placement of containers in each type of facility complies with the Ontario Fire Code.

The working group started to consider how the recycling program might be delivered and what things might be done easily and quickly. Arenas were identified as a starting point as there was not a current recycling program at any of the twenty-one City arenas and the Culture and Recreation staff was keen to proceed. In November 2004, Gartner Lee performed a three-week waste composition study at two arenas, to determine the amount and classification of recyclable material generated (Lawfield Arena and North Wentworth Arena). The audit demonstrated that approximately 50% of waste generated at these two arenas is composed of recyclable material.

At the SWMMP Steering Committee meeting on February 8, 2005, staff reported that the Waste Management Division completed an internal request for information from the City’s General Managers on existing waste management programs in municipal facilities and staff will utilize the information to develop the corporate recycling strategy. The Steering Committee directed staff to implement the Corporate Waste Management Program by June 30, 2005.

Since that time, staff has made a presentation to Corporate Management Team (CMT) on March 24, 2005 regarding the status of the Corporate Waste Management Program.

Staff continued to develop a plan, while commencing the actual program delivery where blue boxes and carts could be used, because they are regular stock for the residential recycling program.
Blue recycling carts were delivered to all City Fire and Police stations during the last week of March and collection began the first week of April.

The delivery of office recycling containers to City Hall, town halls, offices and libraries will commence when the office containers are received in four to six weeks. Roll-out of the recycling program in remaining City facilities is anticipated to be complete by the end of the summer. Container delivery will be in the following order:

- City Hall / Municipal Service Centres / Wentworth Street Operation / MRTC / Offices / Libraries
- Museums / CUP / Yards
- Arenas / Recreation Centres
- Parks

Procurement of three-stream recycling containers and desk side office recycling containers for City facilities is currently underway. Request for Quotations were distributed on May 9 and quotes were received by May 18.

As arenas were intended to be the first type of facility to receive recycling, the focus was diverted as the containers for arenas would take up to six weeks for manufacturing/delivery. Also most arenas do not operate during summer months therefore other facilities took priority.

In the interim, LURA Consulting has been retained to assist as Project Coordinator, to develop a detailed step-by-step implementation plan and oversee rollout requirements for this City wide project. The Project Coordinator will also develop a staff training program to ensure recycling material are collected correctly within each facility and assist in the development of communication material.

On a corporate level an email was sent to CMT to report on new and existing recycling initiatives within different departments. Some initiatives include:

- Double-siding and reducing hard copy material
- Making note pads from single sided paper
- Printer upgrades that facilitate double-sided copies
- Recycling archived documents
- Recycling unclaimed vehicles, old signs, meter posts
- Public space recycling at some City parks and festivals
- Waste Management office three-stream waste collection system (which includes organics)
- CMT adopted the printing of business cards on recycled paper as corporate policy.

In the future, further opportunities to corporately reduce and recycle include:

- Reduction of paper waste (double-sided copying, review of business processes)
- Reuse of materials (paper reuse)
- Policy changes within by-laws and property leases to make recycling mandatory
- Green procurement (purchasing of “green” products which are less harmful to the environment than the next best alternative)

City facilities are currently paying for garbage collection service under separate contracts. Under the new Waste Collection Services contract April 2006, City facilities have been
incorporated into the front bin services. Currently Waste Management cost allocates $1.19 million in tipping fees to other divisions for garbage disposal. The implementation of a recycling program will reduce the amount of garbage being disposed, therefore reducing the cost of garbage collection and disposal. Recyclable materials have the benefit of receiving revenue associated with the sale of commodities, which offsets the expense of collection and processing. The total cost of recycling collection and processing (minus revenue) is approximately $81 per tonne.

The Public Works Department is taking a lead role in covering the costs of the Corporate Waste Management Program as per CMT. The initial start-up cost of implementing this corporate wide recycling program will initially be funded from Waste Management capital account 5120595525 for the Solid Waste Management Master Plan - Planning and Approvals. The estimated cost of implementation is $550,000. Waste Management will seek to recover some of this cost from other departments/divisions for reduction in garbage collection and disposal costs. Future maintenance costs will be cost allocated back to the individual department/division.

If you have any questions about the corporate recycling program, please do not hesitate to contact me or Pat Parker, Manager of Solid Waste Planning at Ext. 3916.

Yours truly,

E. (Beth) Goodger,
Director of Waste Management

AP/ac

Distribution:

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Blair Smith, C. E. T., Manager of Waste Collection
Craig Murdoch, Manager of Waste Disposal
Action Plan for Improving Waste Diversion in Multi-Residential Buildings

1.0 Introduction

As of 2010, all multi-residential facilities in the City had access to the green cart program. Recycling was introduced in 2003-04. The inventory consists of 1,000 buildings with about 45,000 units broken down into:

- 409 small buildings with 3,383 units
- 215 medium sized buildings with 5,905 units
- 376 large buildings with 35,376 units

The multi-residential sector represents approximately 30% of the residential units in the City and generates 20% of the waste managed by the City. Multi-residential units generate less waste per unit than single family units due to smaller household size and a lack of leaf and yard waste.

Currently the waste diversion rate in the multi-residential sector is 21%. It is estimated that the multi-residential sector has the potential to divert upwards of 55% of waste from landfill. Therefore an action plan has been developed in efforts to improve waste diversion in the multi-residential sector.

1.1 The Action Plan

The initial task of collecting data to determine barriers and good practices to achieving success in waste diversion programs has commenced. At this time two (2) students are visiting a sampling of 50 to 60 buildings at both ends of the participation spectrum to find what successful buildings are doing right and what challenges the less successful buildings are facing. As the information is received it is being compiled in a database by a program analyst in a form that will be used when the full slate of visits starts. The information will be used to develop an emerging tool kit for property managers/superintendents and information for residents. This task will be carried out through the summer.

During this time, it is also proposed that a meeting be held with several of the prominent multi-residential property owners and management firms in the City to discuss the serious nature of waste diversion in the multi-residential sector. The City has invested in the programs and has developed waste diversion facilities to accommodate the multi-residential materials, and there is an expectation that multi-residential buildings will participate. Also presented will be options for consequences should buildings not participate. Concepts of garbage limits, declined service and enforcement will be presented.
By late summer the team of students will start the complete task of building-by-building visits. In September, a second team of two students will be added. Each team of students will be provided with a vehicle, communication materials (to be discussed later) and waste diversion containers (green carts, kitchen bins, two-stream reusable recycling bags). When the students experience difficult situations in dealing with building property managers or superintendents, they will be assisted by a Waste Customer Service Coordinator. As part of the database, the students will maintain an inventory of supplies distributed by location.

It is expected that the full round of visits will take about one year, considering scheduling, documentation and revisiting challenges. It is proposed to do a follow up waste audit of multi-residential buildings in the fall of 2013 for the purpose of monitoring progress.

1.2 Waste Management By-law and Enforcement Strategy

Through the review of program performance it has become apparent that some multi-residential properties have not chosen to participate in diversion programs, regardless of the support offered to them by staff. Therefore, concurrent with the outreach work being undertaken at multi-residential properties, staff will also be undertaking a review of the waste management by-law to provide for stricter container limits and greater enforcement provisions to deal with non-compliant buildings.

To provide the necessary incentive for multi-residential properties to actively participate in the waste diversion programs provided to them, the weekly allowable garbage limit will established on a per unit basis to an amount that is comparable to the current single-family limit. Performance standards for both the recycling and organics streams will also be determined.

As the work on the by-law revisions are underway, consultation with the building owners and property management will be undertaken to communicate with them the proposed changes to the by-law and to allow them advance notice to prepare for stricter garbage limits and increased diversion program participation.

The enforcement strategy for multi-residential will involve the completion of waste volume limit calculations, appropriate garbage limits and enforcement options for the multi-residential sector. The options could include limiting the number of lifts or containers, charging fees for quantities over the limit or declining to provide collection service. It is expected that an enforcement strategy would be presented to Public Works Committee in 2013.
1.3 Community Engagement

In conjunction with the actions and strategy components outlined above, staff will also design and implement community engagement activities targeting building owners, property managers, superintendents and tenants with the goal of increasing the capacity of the multi-residential sector to manage and improve the performance of the waste diversion programs in their own buildings.

It is proposed to include dedicated space for multi-residential information on the City’s website. This webpage will contain general program information, digital copies of the existing outreach materials and a question and answer section that will cover common or recurring concerns and issues faced by multi-residential properties.

The establishment of reward and recognition and building champion programs aimed at achieving a higher level of tenant and superintendent engagement in the waste diversion programs in their building will be explored in 2013.

1.4 Outreach Materials Review

Based on the findings of the superintendent interviews and site assessments performed, a review the existing communications materials will be undertaken to identify the need for revisions to existing materials or the creation of new materials to assist building staff in improving the operation of the diversion programs. Some of the potential adjustments to the current outreach practices may be the use of pictorial and multi-lingual materials to improve communication with non-English speakers, appropriate font sizes and improved signage to indicate the location of the waste diversion containers on the property.

Commencing in 2013 staff will also begin to prepare and distribute a yearly waste collection calendar/update to multi-residential units, similar to the calendar currently provided to single-family homes.

The annual operating costs associated with these outreach enhancements would require consideration in future budget deliberations as indicated in the 2012 Solid Waste Management Master Plan Report 12004a presented to the Public Works Committee on April 16, 2012.

1.5 Staffing

To implement the necessary site visits and to provide the continued support to the multi-residential sector necessary to maintain and improve the diversion programs, four (4) temporary students will be hired on a continuous basis commencing in Fall 2012 until the end of 2014. One policy analyst and the equivalent and one Customer Service Coordinators (CSC) will be dedicated to focus on the multi-residential sector effective Summer 2012. Staff will be supervised by .4 of an FTE from existing supervisory staff.
1.6 Timelines

Table 1 shows the implementation plan components and associated timelines.

<table>
<thead>
<tr>
<th>Table 1 - Multi-Residential Implementation Plan (Timeline)</th>
<th>2012 Q3</th>
<th>2012 Q4</th>
<th>2013 Q1</th>
<th>2013 Q2</th>
<th>2013 Q3</th>
<th>2013 Q4</th>
<th>2014 Q1</th>
<th>2014 Q2</th>
<th>2014 Q3</th>
<th>2014 Q4</th>
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</thead>
<tbody>
<tr>
<td>1. Stakeholder Consultation &amp; Program Monitoring</td>
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<td>c) Site Visits</td>
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<tr>
<td>2. Outreach Materials Review</td>
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<td>3. Waste Management By-Law Revisions</td>
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<td>b) Owner/PM Consultation</td>
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<td>c) Passage of By-Law</td>
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<td>4. Strategy Implementation</td>
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<td>5. Community Engagement</td>
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<td>b) Review of Potential Engagement Strategies</td>
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<td>c) Development and Implementation of Engagement Strategies</td>
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Corporate Waste Diversion Program Plan

1.0 Introduction

The blue box/cart recycling program was introduced in 81 of 434 City facilities in 2003-04. The green cart program is currently available in approximately 25 facilities. At the Public Works Committee meeting on May 7, 2012, it was requested that the green cart program be provided at all City facilities. This plan provides an approach to appropriately expanding the program to City facilities.

1.1 Program Initiation

Staff from Public Works and Recreation has met to commence follow up on the Public Works Committee's recommendation concerning the expansion of the green cart program to municipally owned facilities.

There are opportunities to make improvements immediately to the existing waste diversion program including better signage for waste diversion containers and program information for staff. This task has been initiated.

The inventory of buildings that do not have the green cart program will be updated and criteria established to evaluate the suitability of facilities for the program. Once the list of eligible facilities is complete it is proposed that field checks be undertaken to an update the list of appropriate facilities for the provision of full waste diversion program implementation which includes recycling and organics collection.

An implementation schedule will be developed to expand the green cart program to municipal facilities as soon as possible where changes can be made within existing operations and budgets. It is proposed that this be undertaken by September 2012 to identify which facilities would have budget or contractual implications for the future.

1.2 Program Rollout

The focus would be to make the green cart program available for locations which generate a significant amount of organic waste and can be collected through the City’s curbside waste collection routes. The main considerations include the number of employees, type of waste generated, and food service areas such as concession stands. The types of facilities that are suited for the green cart program include facilities with staff lunch rooms, fire stations, recreation centres/arenas with food service areas, and municipal buildings with banquet facilities. The program for the new locations will be set up similarly to the program currently in operation. This includes the supply of green carts similar those currently being used for the residential program and collection through the existing curbside cart-based program.
It is intended to update the inventory of facilities to see what remains to receive full waste diversion programs and to determine the costs, if any, associated with the further implementation of the programs. If there are costs, alternative sources of funding would be reviewed including possible enhancements in the 2013 budget deliberations. The anticipated rollout schedule is outlined in Table 1.

1.3 Staffing

A team of two (2) temporary students will be hired commencing in September and through 2014 to assist with the delivery of the program including delivering containers and printed materials to the facilities, and assisting with staff orientation. The students will spend about half of their time on waste diversion in municipal facilities and half of their time on the delivery of the green cart program to the commercial sector.

With the exception of the student team, the administrative activities for the program will be undertaken by existing staff as part of their regular duties.

1.4 Project Costs

The capital costs associated with the provision of containers for the waste diversion programs may be funded from the Green Cart Implementation capital project 512094528, including the $37,000 associated with the student team for the rollout.

There is no operating budget impact from the initial program implementation. There may be operating budget impacts at some facilities which would be identified for consideration in the 2013 budget deliberations.

1.5 Implementation Timeline

The program delivery schedule is outlined in Table 1. Staff has commenced the review of the waste services currently provided to municipal facilities. Over the next few months, a staff team lead by the Operations & Waste Management Division will meet with the municipal facility operators to develop the program requirements for each site. Site inspections will be completed to determine the container requirements and collection needs.

The delivery of the materials for the municipal waste diversion program will coincide with the launch of the green cart program to eligible commercial properties. Once the rollout is complete, on-going support will be necessary to ensure the smooth operation of the program.
### Table 1 – Municipal Building Waste Diversion Program

<table>
<thead>
<tr>
<th>Description</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
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<td>Q3</td>
<td>Q4</td>
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<tr>
<td>a) Consult with Building Operators</td>
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<tr>
<td>b) Site inspections – collect data, identify program requirements</td>
<td>X</td>
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<tr>
<td>c) Identify capital and operating considerations (i.e. collection containers, collection methods, communication materials)</td>
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<tr>
<td><strong>2. Program Rollout</strong></td>
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<tr>
<td>a) Coordinate program delivery to municipal buildings</td>
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<tr>
<td>b) Develop staff training requirements</td>
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<tr>
<td>c) Monitor distribution and facility set-up</td>
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<td><strong>3. Program Evaluation</strong></td>
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<td>a) Evaluate performance</td>
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<tr>
<td>b) Identify opportunities for improvement</td>
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