SUBJECT: 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 (PW07151b) - (City Wide)

RECOMMENDATION:

(a) That Report PW07151b, be received;

(b) That enhanced enforcement of the Solid Waste Management By-Law 09-067 be undertaken, through the allocation of an additional one half (0.5) full time employee (FTE) from the existing Municipal By-law Enforcement staffing complement in 2010 at no net cost and further that this be referred to the 2010 Budget Process;

(c) 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.

(d) 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.

Gerry Davis, CMA
General Manager
Public Works Department
EXECUTIVE SUMMARY:

In 2007, Council approved additional changes to the City’s waste management system to increase diversion from landfill. Together the changes were expected to achieve 55% diversion and staff were directed to explore options to further increase diversion to 65% by 2011.

Significant progress has been achieved over the past 8 years with respect to the Solid Waste Management Master Plan. Hamilton is certainly considered a municipality in the forefront of providing integrated waste management services to its residents; however, we are still falling short of our target. The projected overall diversion rate for 2009 is 45%.

Currently overall diversion is expected to be 42% by the end of 2009 and 47% diversion for the residential component of the waste stream. Diversion rates for 2010 are projected to be 47% overall and 50% for residential. Diversion rates are likely to increase in 2010 and 2011; however, achieving 55% diversion is not expected at this time based on current diversion levels. An additional 23,000 tonnes of material would need to be diverted to achieve 55% diversion and over 47,000 tonnes would need to be diverted to achieve 65% diversion, based on 2009 tonnages.

Staff reviewed other diversion options that could be implemented and considered program changes that would increase diversion, while minimizing costs and changes to residents. Given the current fiscal restraints staff are recommending that consideration be given to:

- Focus on successful implementation of the April 2010 one container limit for waste collection
- Provide necessary enforcement of the Solid Waste By-Law to assist with the implementation of the one-container limit and address any multi-family facilities that have refused to participate in the green cart program
- Undertake a detailed analysis on diversion initiatives that could be implemented in the short-term and address areas not currently served through existing diversion programs, including:
  - Street Sweeping recycling program
  - Drywall gypsum recycling program
  - Extending the Green Cart program and expanded recycling to eligible commercial properties
  - Education program to promote the use of cloth diapers
- Defer consideration of other options to increase diversion to the Solid Waste Management Master Plan that is scheduled to be completed in 2010.

This approach will enable the City to continue to move forward with its diversion programs, although it will mean that its target of 65% diversion from landfill will take longer than expected to achieve.
BACKGROUND:
The information in this report has City wide implications.

This Report follows up on Report No. PW07151 Status of Options for Increasing Diversion and Landfill Capacity which was approved, as amended, by Council on November 28, 2007. In addition the Report is intended to provide the status on diversion options and an update on the Solid Waste Management Master Plan (SWMMP) Review.

Based on the amended SWMMP Recommendation #3: “The City must strive to meet an aggressive objective of 65% waste diversion by the end of 2011, based on 2006 waste diversion rates”, and subsequent to report PW07151, waste management staff have focused efforts on the following to improve diversion and extend the capacity of the Glanbrook landfill;

- The implementation of the multi-residential diversion program has been accelerated in 2008 and on schedule for completion by the end 2009;
- A one (1) container limit on garbage has be established for implementation on March 31, 2008 together with:
  - three (3) grace weeks following Victoria Day, Thanksgiving and New Years when residents could set out up to three (3) containers of garbage;
  - a transition period between March 31, 2008 and March 28, 2009 during which enforcement will focus on education and customer service;
  - a special consideration process for medical circumstances, families with three (3) or more children under the age of five (5) years, residential day care businesses and agricultural operations has been established and operational for six months; and
  - an allowance in the event that should residents require set outs beyond the weekly one (1) container limit, that an additional one (1) clear plastic bag is permitted to be set out for the period of March 30, 2009 to April 5, 2010, providing that it does not contain Unacceptable Garbage.
- Solid Waste Management By-Law 09-067 approved by Council April 1, 2009, reflects current programs and service levels;
- Effective March 31, 2008, appropriate compostable liners have been accepted in the City’s Green Cart program; and
- Staff continues to explore options to reduce waste and to increase diversion to achieve the 65% diversion target.

Status of SWMMP Recommendations
The aspects of the SWMMP that contribute directly to waste diversion that have been implemented include;

- Centralized Composting Facility
- Community Recycling and Reuse Centres
- three (3) stream collection system for recyclables, organics and garbage for curbside residences
flexible enforcement system
• comprehensive public education, awareness and marketing program
• siting consideration to neighbourhood issues
• monitoring through waste composition studies
• annual report cart documents progress
• corporate recycling program (lead by example)

The SWMMP recommendations that support diversion but **have not** been completed are;

• state-of-the-art Materials Recycling Facility (MRF) to divert conventional “dry” recyclable materials
• state-of-the-art Energy from Waste (EFW) facility
• three (3) stream collection system for recyclables, organics and garbage for multi-residential residences
• user-pay system to encourage diversion and fund waste management facilities
• enforcement systems that become progressively rigorous as waste diversion systems come into operation

### ANALYSIS/RATIONALE:

Staff has taken a critical look at how the City can build on its successes to move to 65%. This review included assessment of current programs, discussions with the Solid Waste Management Master Plan Steering Committee, the Waste Reduction Task Force, other municipalities and various companies.

Given the fiscal constraints and contractual obligations for waste collection and recycling services until April 2013, the focus of the review was on short term options that could be recommended for implementation in 2010-2011 and have low capital costs, low operating costs, minimal implications considerations and high diversion potential. Other options short term are discussed in the Alternatives Section of the report, however, for the most part the cost of the initiative outweighs the benefit, net operating costs are substantial and a diversion potential is not quantifiable.

### Short Term Diversion Options

A number of options have been considered for potential implementation in 2010-2011. The analysis of each option has considered the diversion impact/potential, implementation considerations and cost implications – including capital costs, net operating costs or saving (collection and disposal costs minus the landfill savings).

The following options stand out as having the highest potential, considering the criteria outlined above;

- Enhanced By-Law Enforcement
- Recycling of Street Sweepings
- Drywall Diversion at CRCs
- Commercial Diversion
- Disposable Diaper Reduction
Enhanced By-Law Enforcement

This option originated within report PW07151 in October 2007 and emphasised that a more progressive enforcement system would complement the multi-residential program and the container limit. With the subsequent approval of Solid Waste Management By-law 09-067 Municipal Law Enforcement staff now has clear and accurate by-law provisions to communicate and assist residents in complying.

There is high compliance with the container limits from a participation perspective; however, organics are still not being captured to the degree required to achieve high diversion. The By-Law Enforcement will also assist with ensuring all multi-family facilities are participating in the Green Cart Program. Some buildings have refused to participate during the roll-out of the program.

It is estimated that enhanced enforcement would currently have an impact of diverting an additional 5,000 tonnes or 2% of waste from landfill.

The implementation considerations involve the reallocation of an additional 0.5 FTE toward enforcement of By-law 09-067, which would result in a full time Municipal Law Enforcement Officer dedicated to waste. The additional cost to the Waste Management program resulting from the increase in cost allocation from Parking and By-Law Services to fund the enhanced enforcement would be offset by savings in disposal costs for any waste diverted from landfill. As a result there would be no net budget impact.

Recycling of Street Sweepings

Recent consultation with a business in Stoney Creek that recycles street sweepings into clean road sand indicates that there is a potential of diverting 7,200 tonnes or 2.8% of waste from the City’s landfill. Discussions with Flow Kleen indicate that they are currently contracted with Brampton to process their catch basin residue and street sweepings and produce a winter control product used by the municipality.

Staff is consulting with the Road Operations & Maintenance Section staff to confirm if Flow Kleen’s product would satisfy the requirements of the winter control procedures in the City of Hamilton. A business case will be developed outlining impacts on operations and financial implications.

Drywall Diversion at CRCs

New West Gypsum Recycling (NWGR) has recycled more than 3.5 million tonnes of gypsum since its inception in 1986. They operate recycling plants in Canada, Europe, United States, and are the world leader in the recycling of gypsum waste and drywall/plasterboard products.

Waste audits at Hamilton Community Recycling Centres indicate that drywall/gypsum account for 8.6% of material and it is estimated that drywall recycling would have an impact of diverting an additional 3,700 tonnes or 1.45% of waste from landfill.

Quality of the drywall is a variable that needs to be considered when implementing this program as the material cannot contain asbestos and greater than a 2% contamination rate invokes a penalty cost.
Cos implications would include one-time capital costs of $8,000 per CRC to set up covered 40 yard bins for collection purposes, for a total of $24,000. There is also a tipping fee for diverting waste to NWGR, which would be offset by savings in disposal costs. Discussions will be required with the new operator at the CRCs, BFI Canada Inc. in order to fully determine the cost implications of this option.

Commercial Diversion

This option includes the provision of green carts and enhanced recycling service to eligible commercial properties and properties in Special Policy Areas, representing ~5,000 businesses. Discussion with Hamilton Association of Business Improvement Areas (HABIA) during the development of By-Law 09-067 confirmed their enthusiasm regarding diversion. These properties have specific service level expectations, physical constraints and receive curbside collection service but more importantly would have an impact of diverting an additional 5,000 tonnes or 2% of waste from landfill.

Implementation considerations would involve frequency of collection and collection vehicle routing and availability.

Cost implications would involve a $2 million dollar capital cost for collection equipment, containers and outreach material, which is already budgeted as part of previously approved Capital for the Green Cart program). Net operating costs would amount to $129,000 per year resulting in $26 per tonne. This full operating cost would not be required in 2010, as the program would take time to implement.

Disposable Diaper Reduction

This diversion option being recommended involves the reduction of disposable diapers through policy design, awareness campaigns and incentive programs (coupons) to promote and encourage the use of cloth diapers over disposable diapers. The awareness campaign would include educating and promoting the public on the benefits of using cloth diapers and diaper services. This would be an opportunity to utilize additional outreach resources and education to target families with children under the age of 5 that apply for special considerations for container limits each year and to partner with various cloth diaper businesses.

Assuming 25% of people replace the use of disposable diapers with cloth diapers approximately .0.8% of waste could be diverted from the landfill (an additional 2,100 tonnes per year).

Cost implications include costs for incentive programs, such as coupons for cloth diapers, perhaps a week of diaper service ($15.00) and outreach material and staff to communicate the program.

Net operating costs would amount to $73,000 per year resulting in $35 per tonne

Long Term Diversion Options

Staff is currently writing terms of reference to invite qualified consultants with knowledge and expertise in the field of solid waste management planning to submit a proposal for the review of the City of Hamilton’s Solid Waste Management Master Plan.
The City has a mandate to provide solid waste management services to the residential sector of the City of Hamilton. The Solid Waste Management Master Plan (SWMMP) provides direction for optimizing the current and future residential solid waste programs to best meet the financial, environmental and sustainability needs of the City of Hamilton over the next twenty five years.

The City of Hamilton’s current Solid Waste Management Master Plan (SWMMP) was developed by a 32 member Public Advisory Committee (PAC) over the course of 16 months from June 2000 to September 2001.

The PAC represented a number of community sectors: the general public, local environmental groups, the Hamilton Chamber of Commerce, the public and separate school boards, McMaster University and Mohawk College, which developed strategies and recommendations to find solutions to address diminishing landfill capacity.

The Solid Waste Management Master Plan was approved by Council in December 2001, consisting of nineteen (19) recommendations geared to preserving the Glanbrook landfill capacity by achieving a waste diversion target of 65% by 2008. The recommendations of the SWMMP are attached as Appendix A for ease of reference. At that time it was estimated that the Glanbrook landfill had a capacity for twenty-five (25) years if the target of 65% diversion was reached by 2008.

Significant progress has been achieved over the past 8 years with respect to the recommendations and a chronology of events that have transpired and put Hamilton in the forefront of providing integrated waste management services to residents is set out in Appendix B attached to this report.

In November 2007 Council revised the 65% diversion target by 2008 to a more achievable time frame. The recommendation now states that the City must strive to meet an aggressive objective of 65% waste diversion by the end of 2011. In an effort to meet the waste diversion objective, staff has investigated short term diversion options, however long term alternatives need to be investigated as well and the Master Plan review process should assist staff and Council in making educated decisions in the near future.

In the long term (post 2011), options could be considered for implementation through the SWMMP review, such as:

- Bi-weekly waste collection
- Single Stream Recycling
- Full utility based funding
- Landfill bans on materials (enforcement at the curb and CRCs)
- Material Bans at curbside (WDO designated materials)
- Pre-disposal mechanical sorting of recyclables
- Landfill mining
- Durable Goods Collection (recovery of materials collected as part of bulk collection)
- Collection of additional materials at CRCs; construction and demolition debris, treated wood and wood furniture, upholstered furniture, textiles, and bale wrap
ALTERNATIVES FOR CONSIDERATION:

Due to diversion potential, implementation considerations and cost implications, staff is not recommending pursuing the following options in the short term, however they should be considered as part of the SWMMP review for implementation post 2011, subject to available budget.

Additional Outreach and Education

Community outreach and education is critical to the success of waste diversion programs. As well, the addition of new programs as discussed in this report will need to be communicated. Enhanced outreach and education may include additional tours, presentations and advertising. This would require additional resources in staffing and production of materials.

Although it is difficult to quantify exact diversion potential of additional outreach activities, diversion would certainly increase as residents become more knowledgeable of the City’s programs.

A business case and communication program would need to be developed to determine costs. Adding $0.50 per household for materials and a FTE to the Community Outreach group would result in an operating cost of approximately $170,000 per year.

Mattress Diversion at Community Recycling Centres

Mattress recycling involves the process of dismantling the product and selling off components to various markets. Mattresses do not compact well therefore diverting from the landfill would be beneficial but also problematic to implement since end markets require the mattresses be dry for processing, requiring covered bins at the CRCs for collection.

Cost implications would include one-time capital costs of $8,000 per CRC to set up covered 40 yard bins for collection purposes, for a total of $24,000. The net operating costs are estimated to be $312,000 per year equating to $1,028 per tonne.

With the numerous take back programs available to residents and minimal diversion potential, costs outweigh the benefit to pursuing this diversion option.

Corporate Green Cart Diversion

There are approximately 145 corporate facilities in the City of Hamilton (excluding parks). A small number of facilities have received organics collection on an as requested basis. The implementation of green carts at the additional 130 facilities has a potential diversion of 0.05% (130 tonnes/year) and an operating cost of $10,630/year ($80/tonne). There is also a capital cost of approximately $45,000 to implement the program. This option is not recommended at this time, due to the high cost for low diversion potential.

Festival and Special Event Diversion

Currently festivals and special events do not receive organics collection but do have recycling collection. Past pilots have indicated that there is only a potential of 0.007% diversion (18 tonnes/year) from the 40 major festivals and special events.
Therefore, due to the high cost and low diversion potential this is not a recommended diversion option for the short term.

Public Works Report Waste Management Services for Festivals and Special Events will be submitted concurrent to this report, and discusses the budget required to fully fund the provision of full waste management services at approved festivals and special events.

**Curbside Reuse Events**

Curbside reuse events are community or area based events where residents “curbside shop”. They are advertised well in advance and for convenience extend over a weekend. Previous experience with this type of event for the area around McMaster University found that the operating costs were over $2,000 per event ($140/tonne) with an additional cost of $5,000 to advertise each event. Historically, a great deal of material is left curbside which requires collection and ultimately ends up in the landfill. Given the low diversion potential of these events and high net operating costs, staff does not recommend pursuing this option in the short term.

The current call-in bulk collection system does not lend itself to this type of event.

**Clear Bags**

The use of clear bags to deter residents from placing recycling and organics in the garbage is not considered to be a viable option given the success of the one plus one program initiated in April 2009. Records indicate that the use of the “plus one” clear bag has not been widely used by Hamilton residents, and given the compliance numbers staff would recommend not pursuing this as a diversion option at the present time.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

The financial and staffing implications of implementing each of the options has been specified throughout the report.

There are no legal implications associated with the recommended options.

**POLICIES AFFECTING PROPOSAL:**

The recommendations in this report are guided by the SWMMP, the Public Works Business Plan and Corporate Strategic Plan.

**SWMMP**

Recommendation 2 is the guiding principle that, “The Glanbrook 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 other recommendations of the Master Plan supports this principle.

Recommendation 8, “The City of Hamilton should adopt flexible enforcement systems that become progressively rigorous as waste diversion systems come into operation, recognizing the socio-economic and cultural diversity of the City,” has been partially implemented with the April 2009 approval of Solid Waste Management By-law 09-067
and a flexible enforcement system. The part that has not been implemented is the more rigorous implementation.

Recommendation 10, “The City of Hamilton must implement, sustain and support a comprehensive public education, awareness and marketing program in all areas of the city outlining the benefits and encouraging participation in waste reduction, re-use, and recycling programs.” is being implemented through the existing Community Outreach budget and through the capital budget related to program implementation. The addition of an outreach staff in 2010 would ensure that education and awareness is maintained with new multi-residential residents and also provide dedicated staff time to waste reduction activities.

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 Business 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.

**RELEVANT CONSULTATION:**

The contents and recommendations of this report were presented to the Solid Waste Management Master Plan Steering Committee and the Waste Reduction Task Force and both Committees support the recommendations.

The reallocation of resources to provide for enhanced enforcement of the Solid Waste-By-law has been discussed with Parking and By-Law Services Division of the Planning and Economic Development Department. Staff are in agreement that the change can be accommodated within the existing complement.

In addition staff has consulted with the City’s Roads & Winter Control section and City of Brampton Roads Department regarding street sweepings recycling and the effects on winter control policies.
CITY STRATEGIC COMMITMENT:

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☑ Yes ☐ No

Environmental Well-Being is enhanced. ☑ Yes ☐ No

Economic Well-Being is enhanced. ☑ Yes ☐ No

Does the option you are recommending create value across all three bottom lines? ☑ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☐ Yes ☑ No
# Solid Waste Management Master Plan Recommendations

## Guiding Principles

1. The City of Hamilton must maintain responsibility for the residual wastes generated within its boundaries. Inter-regional diversion facilities will be considered.

2. The Glanbrook 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.

## System Recommendations

3. The City of Hamilton must set an aggressive objective of 65% waste diversion by the end of 2008, based upon 2000 waste generation rates.

4. The City of Hamilton must develop a waste management system that contains the following waste diversion components:
   - State-of-the-art Material Recycling Facility (MRF) to divert conventional "dry" recyclable materials
   - A centralized composting facility capable of managing household organic and leaf and yard wastes
   - Community Recycling & Reuse Centres

5. A new state-of-the-art Energy From Waste (EFW) facility may form part of the City of Hamilton's waste management system so the need for the EFW facility must be revisited in 2006 to determine if such a facility is needed to optimize the disposal capacity at the Glanbrook landfill site. Our diversion rates will be continuously monitored in order to determine the likelihood of success of achieving our 2006 diversion target.

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.

7. The City of Hamilton will consider the potential need for a user-pay system to encourage waste diversion and fund the waste management activities.

8. The City of Hamilton should adopt flexible enforcement systems that become progressively rigorous as waste diversion systems come into operation, recognizing the socio-economic and cultural diversity of the City.

9. The City of Hamilton should implement the components of the new waste management system as soon as possible based upon their diversion potential and operational viability.
### Solid Waste Management Master Plan Recommendations

<table>
<thead>
<tr>
<th>Sustainable Development</th>
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<tbody>
<tr>
<td><strong>10</strong> The City of Hamilton must implement, sustain and support a comprehensive public education, awareness and marketing program in all areas of the city outlining the benefits and encouraging participation in waste reduction, re-use, and recycling programs.</td>
</tr>
<tr>
<td><strong>11</strong> The siting of any new waste management facilities must consider neighbourhood issues, equity for its communities and the location and concentration of existing waste facilities.</td>
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<td><strong>12</strong> The City of Hamilton should seek opportunities to share waste diversion (recycling or organics) facilities with neighbouring municipalities.</td>
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<td><strong>13</strong> The City of Hamilton is committed to continually improving its waste management system and will support annual investment in research and development.</td>
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</tbody>
</table>
| **14** The City of Hamilton should continue to lobby the federal and provincial governments to do everything in their power to support municipalities with waste management programs with appropriate legislation, funding and fiscal policy.  
In the short term the City of Hamilton should request the Province to enact and implement Bill 90 as soon as possible. |
| **15** The City of Hamilton should enter any Public-Private partnerships with caution. If pursued, the City should ensure it retains sufficient control and financial protection, to allow the City to continue to deliver the service should the private partner be unable or unwilling to fulfil its obligations. |
| **16** The City of Hamilton should monitor the waste composition regularly to provide feedback on the effectiveness of the overall waste management system and public communication program. |
| **17** The City of Hamilton should establish a waste management implementation task force to help staff and politicians implement and monitor the new waste management system. |
| **18** The City of Hamilton should produce an annual report card to document progress toward its waste diversion objectives and the implications of that progress. |
| **19** 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. |
# Waste Management Division
## A Chronology

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
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<tbody>
<tr>
<td><strong>2009</strong></td>
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<tr>
<td>March 2009</td>
<td>Hamilton’s ‘One Plus One’ program (one container of waste plus one clear bag) implemented on the way to a one container garbage limit for April 2010.</td>
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<td><strong>2008</strong></td>
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<tr>
<td>December 2008</td>
<td>Roll-out of organics collection from multi-residential facilities continued. Phase 2 of the implementation plan completed, 578 buildings and 8,285 units currently receiving weekly organics collection.</td>
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<tr>
<td>December 2008</td>
<td>Glanbrook Gas-to-Energy project commissioned</td>
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<td>April 2008</td>
<td>A new recycling contract with National Waste Services Inc. began.</td>
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<td>April 2008</td>
<td>Appropriate certified compostable liners are accepted in the City’s Green Cart Program.</td>
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<td>March 2008</td>
<td>White Goods and Scrap Metal curbside collection program ended.</td>
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<td>Spiral cardboard cans accepted in the Blue Box Program.</td>
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<td>Transition period for one (1) container limit began allowing a maximum of three (3) containers of garbage weekly.</td>
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<td>March 2008</td>
<td>Residents have access to three (3) Community Recycling Centres for this service six (6) days a week.</td>
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<td>The Household Special Waste depot located at 239 Lottridge Street North in Hamilton was closed.</td>
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<td><strong>2007</strong></td>
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<tr>
<td>November 2007</td>
<td>Hamilton City Council supported Report PW07151 “The Status of Solid Waste Management Master Plan, Options for Increasing Diversion and Landfill Capacity” which states that a one (1) container limit/household/week of garbage be established on March 31, 2008.</td>
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<td></td>
<td>The container limit will be phased-in over two (2) years and will offer grace periods and special considerations for medical circumstances and families with three (3) or more children under the age of five (5) and legitimate farm properties.</td>
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<tr>
<td>November 2007</td>
<td>Staff developed an implementation plan for the roll-out of organics to multi-residential buildings and received Council approval to accelerate the program in 2008 for completion by the end of 2009.</td>
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<tr>
<td>September 2007</td>
<td>Transfer and Disposal Review initiated to plan for new contracts required for January 1, 2010 for the operation of the Community Recycling Centres (CRCs), Reuse Store, Transfer Stations, Glanbrook Landfill Site and Leaf &amp; Yard Waste Composting Facility</td>
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<tr>
<td>May 2007</td>
<td>The third and final Community Recycling Centre (CRC) opened on Kenora Avenue.</td>
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<tr>
<td>April 2007</td>
<td>Recycling Program Review completed and Council approved continuation of two stream collection and processing system, award of new collection contract and installation of a new container line for the Materials Recycling facility (PW07057/FCS07052)</td>
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<tr>
<td>April 2007</td>
<td>Two (2) containers/bundles of leaf and yard waste could be set out with Green Carts every week.</td>
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<tr>
<td>March 2007</td>
<td>Recycling program review was completed to evaluate options for service delivery, resulting in a new service provider and continuation of two stream recycling system.</td>
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<td><strong>2006</strong></td>
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<tr>
<td>September 2006</td>
<td>Recycling Program Review initiated after Council approved Report PW06064a/FCS060 to end the contract with Halton Recycling Ltd. in March 2008</td>
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<tr>
<td>June 2006</td>
<td>The Central Composting Facility (CCF) began operation.</td>
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<td>April 2006</td>
<td>The Dundas Community Recycling Centre (CRC) opened.</td>
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<td>April 2006</td>
<td>City wide roll-out of the Green Cart Program to eligible curbside collection properties.</td>
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<td><strong>2005</strong></td>
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<tr>
<td>September 2005</td>
<td>Mountain Community Recycling Centre and Re-use store opened.</td>
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<tr>
<td>July 2005</td>
<td>SWARU facility was decommissioned and demolished.</td>
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<tr>
<td>June 2005</td>
<td>Award of Waste Collection Contract for new Three Stream Collection System (Report PW04114b)</td>
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<tr>
<td>April 2005</td>
<td>The Municipal Recycling Facility (MRF) underwent upgrades to accommodate polystyrene and plastic film recycling.</td>
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<tr>
<td>February 2005</td>
<td>Composting Facility ground breaking and commencement of construction</td>
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<td><strong>2004</strong></td>
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<tr>
<td>November 2004</td>
<td>Approval of a new Three Stream Collection system for 2006. The new collection system includes: Weekly Organics Collection in Green Carts; Weekly Waste Collection, co-collected with Organics; Weekly Two Stream Recycling Collection; Seasonal Leaf &amp; Yard Waste Collection in the spring and fall; and Call in Bulk Collection (Report PW04114a)</td>
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<tr>
<td>November 2004</td>
<td>Approval to construct the City's first Community Recycling Centre (Report PW04119)</td>
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<tr>
<td>November 2004</td>
<td>Approval to undertake an $8.1 Million Materials Recycling Facility Retrofit (Report PW0476b/FCS04097b)</td>
</tr>
<tr>
<td>July 2004</td>
<td>Award of Composting Facility RFP (Report PW0476/FCS04097)</td>
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<tr>
<td>May 2004</td>
<td>Organics Demonstration Project Expanded</td>
</tr>
<tr>
<td>February 2004</td>
<td>Diversion Facility Site Selection Process &amp; Preferred Municipal Site Approved (Report PW04017)</td>
</tr>
<tr>
<td>2003-2004</td>
<td>Recycling Program Improvements (Interim Recycling Program launched, Multi-</td>
</tr>
<tr>
<td>Date</td>
<td>Milestone</td>
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<tr>
<td>2003</td>
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<tr>
<td>September 2003</td>
<td>Approval to partner with Niagara on Alternative Disposal Technologies</td>
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<tr>
<td>2002</td>
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<tr>
<td>December 2002</td>
<td>Approval of SWMMP Implementation Plan, Diversion Facility Site Selection Criteria and SWARU Closure (TOE02220/FCS02146)</td>
</tr>
<tr>
<td>September 2002</td>
<td>Organics Demonstration Project Launched in 2300 homes</td>
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<tr>
<td>April 2002</td>
<td>Harmonization of Waste Collection Services</td>
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<tr>
<td>2001</td>
<td></td>
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<tr>
<td>December 2001</td>
<td>SWMMP Approval by Council of 19 Recommendations (TOE01210 &amp; TOE01013A)</td>
</tr>
<tr>
<td>September 2001</td>
<td>Council approved harmonized collection service levels for the new boundaries of the City of Hamilton (Report TOE01118a)</td>
</tr>
<tr>
<td>Spring 2001</td>
<td>Council approved Leaf &amp; Yard Waste Program Changes</td>
</tr>
</tbody>
</table>

As at: October 2009