

## **CITY OF HAMILTON** PUBLIC WORKS DEPARTMENT Environmental Services Division

то:	Chair and Members Public Works Committee			
COMMITTEE DATE:	November 16, 2020			
SUBJECT/REPORT NO:	Solid Waste Management Master Plan Five-Year Review (PW20072) (City Wide)			
WARD(S) AFFECTED:	City Wide			
PREPARED BY:	Ryan Kent (905) 546-2424 Ext. 7686			
SUBMITTED BY:	Craig Murdoch Director, Environmental Services Public Works Department			
SIGNATURE:	c.m/c.l			

#### RECOMMENDATION

That the proposed City of Hamilton Solid Waste Management Master Plan 2020 Update be approved, as summarized in Appendix "A" attached to Report PW20072.

#### **EXECUTIVE SUMMARY**

The City of Hamilton (City) waste management system includes waste collection, processing/recycling and disposal infrastructure. To prioritize and guide the future of this system, the City established a 25-year Solid Waste Management Master Plan (SWMMP) in 2001. This original master plan included guiding principles, a waste diversion target of 65% and recommended action items for staff to carry out in support of the principles and goals. One of the objectives of the original SWMMP was to conduct regular updates to ensure that the plan was staying current and continued to meet the needs of residents and the City. The SWMMP was reviewed and updated in 2012 with revised guiding principles and action items based on new information and consultation with the public.

The purpose of this report is to seek approval of the 2020 update to the SWMMP which includes 11 new action items to guide the Waste Management system for the next five years (2021 to 2025). This timeframe also allows staff to evaluate the impacts of the

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transition of the blue box program to producer responsibility set to occur by December 31, 2025.

#### Alternatives for Consideration – See Page 7

#### FINANCIAL – STAFFING – LEGAL IMPLICATIONS

- Financial: There are no financial implications associated with the recommendation in this report as all immediate action items are achieved within current capital and operating budgets. The 10-year Capital forecast for an additional (4<sup>th</sup>) transfer station / community recycling centre and other studies and possible program implementation is \$29M or \$21M Net of DC funding. This doesn't include major facility construction or replacement. All projects are subject to Council approval during annual budget process reviews.
- Staffing: There are no staffing implications associated with the recommendations in this report.
- Legal: There are no legal implications associated with the recommendations in this report.

#### HISTORICAL BACKGROUND

In 2001, Hamilton's first SWMMP was approved by Council. This plan established a 25year road map for Hamilton's waste system, a diversion goal of 65% by the end of 2008 and established two guiding principles to direct the work of the SWMMP:

- 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.

Notable objectives that were adopted at this time included adding organic waste collection for both single-family and multi-residential properties, investigating the option of an energy from waste facility, working towards state-of-the-art waste facilities including updating Hamilton's Material Recycling Facility (MRF) and constructing and operating new facilities such as an organics processing facility and community recycling and reuse centres.

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In 2012, staff updated the SWMMP which maintained a diversion target of 65% by 2021 and revised the guiding principles to include that:

- 1. The City of Hamilton must lead and encourage the changes necessary to adopt the principle of waste minimization.
- 2. The Glanbrook landfill is a valuable resource. The City of Hamilton must minimize residual waste and optimize the use of the City's diversion and disposal facilities.
- 3. The City of Hamilton must maintain responsibility for the residual wastes generated within its boundaries. Inter-regional facilities may be considered for both divertible material and residual waste.

Notable objectives included an operational review of the City's transfer stations and community recycling centres, a feasibility study on single-stream recycling processing, increasing waste diversion through the green bin program and to review the SWMMP prior to its end date.

The 2020 SWMMP update serves as this review. The updated SWMMP recommends the guiding principles from the 2012 SWMMP be maintained as they are still relevant.

What has been added to the updated SWMMP is summarized in Appendix "A" attached to Report PW20072. This includes 11 action items have been established to guide Waste Management through the next five years and include:

- 1. Developing new waste performance metrics and related policies
- 2. Supporting community reduce and reuse programs
- 3. Updating waste audit methodology
- 4. Improving existing programs such as business recognition, diversion at special events and school education
- 5. Reviewing the trash tag program
- 6. Investigating the management of construction and demolition waste
- Carrying out feasibility studies related to development options for the Materials Recycling Facility and Central Composting Facility should processing no longer be completed at our facilities
- 8. Developing inter-municipal policies and investigating inter-municipal partnerships
- 9. Preparing for the next waste collection contract in 2028
- 10. Increasing curb side enforcement capabilities
- 11. Exploring green procurement options

## POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Aside from the existing City's Solid Waste Management Master Plan which directs work related to the waste management system, there are no additional policy implications or legislated requirements.

### **RELEVANT CONSULTATION**

The following groups have been consulted or informed and are supportive of the recommendation:

Public Works Department – Environmental Services Division (Waste Collection Section and Recycling & Waste Disposal Section)

Waste Management Advisory Committee

Residents and business owners in the City of Hamilton through public consultation

## ANALYSIS AND RATIONALE FOR RECOMMENDATION

There were several key tasks accomplished in developing the 2020 SWMMP update including:

- 1. Stakeholder consultation to receive input from the public and staff through surveys and focus groups on current waste programs and appetite for future programs and technologies for the waste system.
- 2. Review of programs and policies other municipalities have implemented that have contributed to improved waste system performance.
- 3. Identify waste technologies that are either established or emerging in other municipalities that may be applicable to Hamilton.
- 4. Staff evaluation of potential action items for inclusion in the SWMMP update.

At the conclusion of tasks 1, 2 and 3, the consultant hired by the City to conduct the SWMMP update provided a technical report to staff with the detailed findings of each task. The details of the key tasks are summarized below:

#### Stakeholder Consultation

There were two types of stakeholder consultation included in this task: an online survey and focus groups. The survey was open from January 6 to February 7, 2020. A total of 3,788 surveys were completed and it took respondents and average of 16 minutes to complete the survey. The survey included specific questions directed at residents in single-family homes and multi-residential homes as well as Hamilton business owners. Similarly, there were three focus groups carried out: the first included residents from single-family homes, the second included residents/property managers from multi-

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residential buildings and the third had representatives from Hamilton's business community.

Municipal Benchmarking of Programs and Policies Resulting in Improved Waste System Performance

This task included a detailed municipal scan of the waste management programs and policies of 13 Ontario municipalities and 5 municipalities outside of Ontario. The municipalities included in this task are listed in Table 1. Many of these municipalities had SWMMPs of their own that were used as sources of information and included waste diversion targets and actions on how to realize these targets.

Toronto	Ottawa	London	Sudbury	Guelph	Peel Region	
Oxford	Halton	Niagara	Durham	Waterloo	Dufferin	
County	Region	Region	Region	Region	County	
York	Vancouver	Edmonton	Calgary	Halifax	Victoria	
Region						

#### Table 1: Municipal Scan Subject Municipalities

### Waste Technologies

The consultant cast a wide net to identify potential waste technologies applicable to Hamilton. This included a review of readily available information from a variety of technical organizations or authorities in both the private and public sectors, by those involved in research of waste technologies, and municipalities currently involved in developing SWMMPs. Although this task identified numerous potential waste technologies, detailed further study on each technology would be needed to determine the pros and cons of each if introduced into Hamilton and the specific circumstances of its waste system.

#### Staff Evaluation of Proposed Action Items

The first three tasks were information gathering activities used to generate a list of potential action items. The fourth task involved staff evaluating each potential action item and determining if they would be included in the SWMMP. For an action item to be presented to staff, it had to have been supported by the public, was a program or policy that had been successful in one of the municipal scan subjects and/or found to be an established or emerging technology. There were three main factors influencing staff's selection of action items.

The first factor is the transition of responsibility for the blue box program (both collections and processing) from Ontario municipalities to producers. The City owns and contracts out the operation of its Material Recycling Facility (MRF) and contracts

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out collection of recyclables throughout the City. These activities represent significant capital and operating expenditures to the City and as such there will not be any investment in facility infrastructure prior to regulations being finalized. This is currently

planned to be completed in 2025. As an example, there was strong public support in the survey for increasing the materials accepted in Hamilton's blue box program however, this was not selected as an action item due to the required capital investment in the MRF and pending regulation changes.

Second is the work that staff are already engaged in. There were some items that made the list of potential action items that staff are currently working on and therefore were not included as new action items. An example of this is working to reduce the generation and use of single-use plastics. This received strong public support and is something that many municipalities are currently working on; however, City staff are in the process of developing a strategy to reduce single-use plastics in Hamilton which includes monitoring announcements from other levels of government and as such, this was not included as a new action item in the 2020 SWMMP update.

The third factor affecting the evaluation of potential action items is long-term uncertainty. As previously mentioned, it is planned for Ontario to have new regulations on the transition of the responsibility of the blue box program. This transition is planned to occur between January 1, 2023 and December 31, 2025 and Council has endorsed a preferred transition date between April 1, 2023 and December 31, 2023. Due to the potential significant impacts of the transition of the blue box program, staff focused on the selection of action items that could be implemented over the next five years (2021 to 2025) and that would better position the City for potential uncertainty of the new blue box program. Additionally, the future of the City's Central Composting Facility (CCF) was also considered under this factor. This facility currently processes all of the green bin material collected in the City; however, there is the potential for the next operating contract of the CCF to include the processing of material off-site. Due to this fact, staff did not entertain any new action items that focused on changing the current green bin program.

#### 2020 SWMMP Goals and Action Items

During the review of the SWMMP it was recommended the City should maintain the three guiding principles from the 2012 SWMMP as these remain relevant and there is no need to revise these. An updated waste diversion target has not been proposed in the 2020 SWMMP; however, one of the action items is for staff to determine a new waste diversion target as well as new key performance indicators (KPIs) to measure the success of the waste management system. These changes are required as current diversion rates include blue box material that most likely will not be included in Hamilton's system after the blue box program transitions to producers, and the waste

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diversion rate metric will only provide partial information on program performance. As noted above, there are a total of 11 action items included in the 2020 SWMMP covering a planning period from 2021-2025. In advance of 2025 and following the transition of the blue box program, the SWMMP will be reviewed and action items updated for the next five-year period. In addition, following transition of the Blue Box program and any other significant legislation changes, the SWMMP will be reviewed to establish a new long term plan for our waste system.

### ALTERNATIVES FOR CONSIDERATION

Council could decide to not approve the SWMMP in its entirety found in Appendix "A" attached to Report PW20072 and direct staff to revise the guiding principles or action items included as part of the 2020 SWMMP. This alternative would require staff to revise Appendix "A" attached to Report PW20072 and present a new SWMMP to the Public Works Committee for approval.

- Financial: There are no financial implications associated with this alternative as all action items are achieved within current capital and operating budgets.
- Staffing: There are no staffing implications associated with this alternative.

Legal: There are no legal implications associated with this alternative.

### ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

#### **Clean and Green**

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

### **Built Environment and Infrastructure**

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

## APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW20072 – City of Hamilton's Solid Waste Management Master Plan 2020 Update