

Appendix 2: Waste Strategy Deliverables Update

Appendix 2 provides an update on the Waste Strategy deliverables and work completed since the last update report on May 28, 2015. Table 1 below provides an overview of the deliverables required to complete the Long Term Waste Management Strategy.

Table 1: Overview of Steps to Complete the Long Term Waste Strategy

Deliverables	Overview
Stakeholder and Public Consultation and Engagement Plan, Communications Plan (Deliverable 1)	This document outlines key stakeholders and opportunities and tactics for engagement. A separate Communications Plan, developed by Strategic Communications staff, complements the consultation plan and is a living document that identifies strategic objectives, key messages and tactics to promote the Waste Strategy to the public and stakeholders.
Current Waste Management Profile (Deliverable 2)	This report documents each aspect of the City of Toronto's waste management system, including but not limited to programs, initiatives and facilities. It also provides a history of waste management in Toronto; and an overview of waste policy and legislation, education and enforcement, and performance monitoring.
Needs Assessment (Deliverable 3)	This document will determine the City's waste management needs over the 30 to 50 year planning horizon. The Needs Assessment consists of three components: Vision and Guiding Principles; projections; and gaps and challenges.
Identify Options to Address Needs (Deliverable 4)	Deliverable 4 includes the development of a list of potential options covering the full range of the waste management hierarchy, with a primary focus on the 3Rs.
Detailed Evaluation of Options, Identify Recommended Options & Current System Overlay (Deliverable 5)	Specific evaluation methodology and criteria are being developed to include: environmental criteria, social criteria, and financial criteria, which will support a triple bottom line evaluation. This deliverable will conclude with a series of recommended options that are deemed suitable for implementation in the City of Toronto. They will be combined with the current system to identify all the components (recommended and current) that would form the future waste management system for Toronto.
Strategy Roadmap Development (Deliverable 6)	Once a recommended list of options has been compiled and combined with the current system, a "roadmap" for implementation will be developed.
Final Strategy (Deliverable 7)	The final step is the preparation of the Long Term Waste Management Strategy, which describes the identified options and outlines the preferred long term waste management system. The Waste Strategy will fully document the process undertaken in the above tasks, key information gathered, decisions made, and supporting rationale.

Further details on each deliverable are provided below.

Deliverable 1: Stakeholder and Public Consultation and Engagement, Communications Plan

During June and July 2015, staff and the project team undertook extensive consultation and engagement activities to gather feedback on the draft Vision Statement, draft evaluation criteria and the preliminary list of options. During that time, staff engaged with members of City Council, the Stakeholder Advisory Group, key stakeholders, and the general public through a combination of in-person meetings and online engagement tools.

Appendix 3 highlights the feedback received during Phase 2 consultations.

City Council Engagement

On June 1, 2015, the General Manager of Solid Waste Management Services distributed Project Update #4 to the Mayor and Members of City Council. This fourth project update included the draft Vision Statement, a high level overview of the preliminary options categories and draft evaluation criteria. It also highlighted the Public Information Centre details, the interactive online survey, and the Wast(ED) Educational Speaker Series.

On May 25 & 27, 2015, Solid Waste Management Services staff hosted Councillor briefing sessions to provide Councillors and their staff with an update on: work-in-progress; the project process; an overview of the public and stakeholder engagement content and details; and ways for the public to provide their feedback and get/stay involved in the project.

Throughout the summer months, Solid Waste Management Services staff provided an opportunity to meet with each Member of City Council to provide an update on the development of the Waste Strategy. Members of City Council will continue to be kept up to date on the project process for the duration of the development of the Waste Strategy.

Stakeholder Advisory Group

A Stakeholder Advisory Group has been established to provide input and feedback to the Project Team at key points in the development of the Waste Strategy. The group consists of key stakeholders from various organizations with expertise and an interest in the waste that is managed by the City. Members represent the following sectors: local business improvement areas, environment, education and academia, multi-residential, social planning, waste industry representatives, and retail. All Stakeholder Advisory Group meetings are open to the public and the meeting minutes are posted on the project website.

The Stakeholder Advisory Group has met three times since May 2015. Table 2 below outlines the meeting goal for these meetings.

Table 2: Stakeholder Advisory Group Meeting Objectives (May 2015 - June 2015)

Meeting Date	Meeting Goal & Objective
May 22, 2015	Discuss the overall approach for Public Information Centre (PIC) #2 and get feedback on the proposed content for Phase 2 Consultation. Specific objectives include: <ul style="list-style-type: none"> • Present Survey #3 in demonstration mode and request feedback on content • Present the overall approach to PIC #2 • Present the proposed PIC #2 presentation and request feedback on approach and content
June 18, 2015	To present results from Survey #2, draft evaluation criteria and preliminary options, and to get feedback on these items through group discussions. Specific objectives include: <ul style="list-style-type: none"> • Present results from Survey #2 and draft vision statement • Present program options and seek feedback on criteria used to evaluate those options • Program facility options and seek feedback on criteria used to evaluate those options • Provide an update on SAG meeting schedule and next steps in the project process
August 26, 2015	To follow-up on the June 2015 Stakeholder Advisory Group meeting. Specific objectives include to: <ul style="list-style-type: none"> • Present & Discuss Recommended Vision and Guiding Principles • Present & Discuss Recommended Evaluation Process, Criteria and Priorities • Present & Discuss Recommended Options • Present and Discuss Next Steps for the Fall

The Stakeholder Advisory Group will continue meeting during the Waste Strategy development.

Public Information Centres

As part of the Phase 2 consultation, four Public Information Centres were held in June 2015 with a total of 68 participants. The meeting details are outlined in Table 3 below.

Table 3: Public Information Centre Details

Date	Time	Location	Attendance
Tuesday, June 9, 2015	6:30-9:00 p.m.	Etobicoke Collegiate Institute	11
Monday, June 15, 2015	5:00-9:00 p.m.	Metro Hall	22
Saturday, June 20, 2015	1:00-3:30 p.m.	North York Memorial Hall	10
Wednesday, June 24, 2015	6:30-9:00 p.m.	Scarborough Civic Centre	25

The Public Information Centres provided an overview of the project process and the gaps and challenges of the current waste management system that have been identified by the project team. Input was sought on the draft Vision Statement, the preliminary list of options, and the draft detailed evaluation criteria.

Each meeting began with an open house for participants to view project information panels and speak with the project team. When the open house concluded, a formal presentation was provided on the Waste Strategy process, preliminary Vision and Guiding Principles, preliminary options, and draft evaluation criteria. During the remaining meeting time, attendees participated in facilitated small group discussions. All feedback received was documented, reviewed by the project team, and will become part of the project's record.

The meetings were promoted using a variety of communications tactics, including advertising through the following methods:

- Print media: METRO and Metroland Community Newspapers
- Online media: Inside Toronto, NOW, CP24, The Weather Network, and Facebook
- Out-of-home: TTC information screens
- Digital engagement: social media, project website, and the Waste Strategy e-mail subscribers list
- Stakeholder Advisory Group and key stakeholder networks

Participants in the facilitated group discussions at the Public Information Centres were very engaged and the input provided was thoughtful and valuable.

Key Stakeholder Meetings

In April and May of 2015, Solid Waste Management Services staff met with representatives from the following key stakeholder groups to solicit advice and specific input into their area of expertise or interest:

- Current service providers
- Environmental interest groups and Toronto First Nations
- Multi-residential organizations
- Non-profit sector
- Ratepayer associations

The same organizations were invited to a follow-up key stakeholder meeting held in June 2015 to solicit their feedback on the draft Vision Statement, preliminary list of options, and draft evaluation criteria. Approximately 15 key stakeholders attended the meeting and provided valuable feedback into the development of the Waste Strategy.

Additional meetings have been held with staff from the Ministry of the Environment and Climate Change and City Divisions, Agencies and Corporations, including Toronto Public Health, Toronto Transit Commission, and the Environment and Energy Division. Staff have also continued to engage members of the Executive Environment Team, which consists of senior management representatives from City Divisions, Agencies and Corporations.

In addition, staff continue to bring forward project information to the Green Lane Landfill First Nations communities and Public Liaison Committee during the development of the Waste Strategy.

Community Outreach Events

Staff engaged students from a Grade 12 computer science class at Woburn Collegiate Institute in a competition to develop mobile phone software applications, focussing on an aspect of Solid Waste Management Services' business as part of a class project. Four software applications were created using open data from Solid Waste Management Services. The applications were presented to staff in a demonstration forum in May 2015. The winning app "BinLoco" locates the nearest litter bin and provides valuable operational information. This outreach provided a unique opportunity to engage youth on the Waste Strategy. The students own the applications and the City will not endorse or procure any of the developed applications.

Information on the Waste Strategy has been provided during the 2015 Community Environment Days season. Members of the public could speak with staff to learn more about the project and the various ways in which to become engaged. Tablets were also available at events so residents could complete Survey #3 online while at the event.

Staff have continued to organize "Wast(ED)" Educational Speaker Series events in which industry experts partake in a moderated panel discussion on specific areas of waste management. The events feature leading Toronto initiatives that are changing the way we reduce, reuse and recycle. "Wast(ED): Clothing" was held on May 27th, 2015 and involved a panel of experts that discussed clothing creation, consumption, sharing, and repairing. The panelists included speakers from the following organizations: Fashion Takes Action, Pret a Preter Clothing Library, Mountain Equipment Co-op, Toronto Clothing Repairathon, and Goodwill.

"Wast(ED): Food" was held on July 9, 2015 and involved a panel of experts that turn food waste into healthy meals, black gold, and renewable energy. The panelists included speakers from the following organizations: Second Harvest, ZooShare, Informa Market Research, FoodShare Toronto, and Not Far from the Tree.

The "Wast(ED)" events have been very well received and attended. Approximately, 60 people attended "Wast(ED): Clothing" and 80 people attended "Wast(ED): Food". A fourth event to discuss Recovery is being considered.

As part of the Waste Strategy, Solid Waste Management Services will be a program sponsor of an art installation for Scotiabank Nuit Blanche, which will be held on October 3 – 4, 2015. The art installation demonstrates "everything must go somewhere", thus there is no "away" to which things can be sent. This installation will confront the public with the unimaginable cumulative mass of waste that society produces and will bring awareness to the limited landfill space available and the actions and choices people make.

Communication and Engagement Tools

Project Update #4 was released in early June 2015 and included information regarding the draft Vision Statement, draft evaluation criteria, and preliminary options. It also promoted and encouraged participation in Survey #3 and the four Public Information Centres.

Project Update #4 was communicated to the public and stakeholders through a variety of internal and external communication tactics including: the project website, social media, Waste Strategy e-mail subscribers list, posters at Community Centres, Civic Centres, libraries, and Solid Waste Management Services facilities, prepared “matte” stories for the Mayor and Members of City Council, leveraging Stakeholder Advisory Group member networks, and internal staff communications.

Survey #2, which sought feedback on the Vision and Guiding Principle themes, was released to the public in early April 2015 and closed on May 29, 2015. The Survey was promoted using the same tactics as Project Update #4, noted above. In total, 681 surveys were completed.

The project website (www.toronto.ca/wastestrategy) continues to be updated with new information, as it becomes available. All communication and outreach materials direct participants to the web site for more detailed information. Since January 2015, over 9,000 people have visited the site.

In conjunction with Phase 2 Public Information Centres, the project website hosted an interactive online engagement tool (Survey #3) that allowed participants to consider the economic, social and environmental evaluation criteria and provide their thoughts on the relative importance of the criteria. In addition, this online engagement opportunity allowed for commentary on the options. The survey was open from June 9, 2015 until July 24, 2015 and a total of 1,134 people provided nearly 4,300 comments.

Staff utilize social media (e.g. Twitter) to assist with promoting the development of the Waste Strategy. Tweets are sent via the Strategic Communications (@TorontoComms) or Get Involved (@GetInvolvedTO) Twitter accounts and are used to promote upcoming events, the release of a Project Update or survey, and to initiate thought and discussion on waste-related topics. The project also has a dedicated hashtag (#TOWastestrategy) in order to further encourage social media engagement.

Staff are maintaining a log of comments that are received through the project e-mail address (wastestrategy@toronto.ca), phone, mail, and fax. Currently, there are 710 subscribers to the email listserv. Between January 1, 2015 and August 11, 2015, the City received 73 comments via e-mail from the public. The comments were predominately questions about: the details of Survey #3; the current waste collection program and sorting; requests to be added to the Waste Strategy e-mail subscribers list; and suggestions for the Waste Strategy. Suggestions included: ways to further reduce and reuse waste; ways to manage residual waste; ideas on alternative ways to collect waste at different areas in the City; and reference to other cities and processes that are good examples of managing waste.

During this time period 25 phone calls were received. The phone calls were regarding: how certain items should be disposed; inquiries on collection; damaged bins; suggestions on how to

educate the public on managing waste; and contact information for addition to the Waste Strategy e-mail subscribers list. No mail or faxes were received between January and the middle of August.

Deliverable 2: Current Waste Profile

To initiate the development of the Waste Strategy, a comprehensive Current Waste Profile report was created to document each aspect of the City of Toronto's current waste management system. The City of Toronto Solid Waste Management Services Division is one of the largest municipal solid waste management operations in North America, servicing nearly 1,000,000 customers.

The Current Waste Profile provides details on the following information:

- The history of waste management in Toronto
- Review of municipal, provincial and federal waste-related policy and legislation
- Detailed overview of the solid waste system (collection, transfer, processing, and disposal)
- Waste generation, composition, and diversion rates
- Privately managed waste
- Solid waste education and enforcement
- Financial overview
- Progress and performance monitoring

The Current Waste Profile, which is now finalized, is being used as the foundation from which future project deliverables are to be developed.

Deliverable 3: Needs Assessment

The *Needs Assessment* will examine the 30 to 50 year planning horizon and identify where the City needs to go during that period. It consists of three main components: Vision and Guiding Principles; Projections; and Gaps & Challenges. The Vision and Guiding Principles were reviewed in the body of the Staff Report. The following outlines the Projections and Gaps & Challenges.

Projections

Long term waste quantity and composition projections has been developed to identify the future system needs (including policies, programs, facilities and contracts). This task helps to identify potential short comings or opportunities in the system's capacity over the duration of the planning period. The draft waste projection document is currently being finalized as part of Deliverable 2.

As part of the development of the Waste Strategy, an updated comprehensive assessment of when Green Lane Landfill will reach its capacity is being undertaken. Based on available data from 2014 it is anticipated that Green Lane Landfill will reach capacity in 2029.

Gaps & Challenges

This assessment was undertaken to review the current system and identify the primary needs, challenges, and opportunities for the City’s waste management system that are present or may be experienced in the future. This assessment helped to ensure the options identified address key areas where gaps, challenges, and opportunities already do or are anticipated to exist in the future.

A preliminary Gaps & Challenges update was presented in the May 28, 2015 update report to Public Works and Infrastructure Committee. Table 4 below highlights, in alphabetical order, the final list of gaps and challenges. For each identified gap or challenge, a summary of the challenge is provided. This finalized list is directly related to the final list of options to be considered.

Table 4: Final Gaps & Challenges Identified by Consultant
(Presented in alphabetical order)

Gap/ Challenge	Summary of Key Challenges for the City
Drop-off Facilities	How to provide its customers with convenient options which promote greater diversion and are flexible to accommodate changing waste streams and resident accessibility.
Dufferin Waste Management Facility	The City has a Material Recovery Facility that was decommissioned in November 2014. A key challenge facing the City is to examine the function and role of the entire Dufferin Waste Management Facility to identify future roles within the City’s integrated solid waste management system.
Future Waste Processing Capacity	Maximize the use of its facilities and infrastructure, in particular waste processing capacity, and maintain sufficient capacity in the system to address its future demands and understand the availability of local options and competition for services in the marketplace in the future.
Impacts of a Changing Waste Stream	The changing composition of the waste stream and the ability for programs and infrastructure to adapt to these changes.
Impacts of Energy Costs on the Waste Management System	The current system is heavily dependent on energy, in particular for the collection of waste, and energy costs are expected to continue to increase in the future.
Impacts of Intensification	The impacts of intensification, in particular increasing density and multi-residential development, and the changes required to manage additional waste generated by housing units with typically lower waste diversion performance records and in areas that are more difficult to collect using traditional methods.

Gap/ Challenge	Summary of Key Challenges for the City
Multi-residential Waste Diversion	The need for increased waste diversion in the multi-residential sector to support its diversion goals, and reduce the amount of material currently being landfilled as well as reduce the ability for new buildings and redevelopments to bypass Solid Waste Management Services' requirements for collection and diversion.
Performance Measures	The need for a more robust group of performance metrics and targets that will more accurately measure waste management system performance and account for changing waste streams, composition, community demographics, etc.
Public Education and Engagement	The ability to reach out to a diverse community to educate its customers on program changes, good waste management practices, and where possible, how to better reduce and reuse.
Regulatory, Control and Role/ Responsibility Challenges	The uncertainty and risk for the City as a result of having a system where some waste management responsibilities are outside of the City's control and potential impacts on the City's system with respect to external parties making changes.
Residual Waste Disposal Capacity	Extending the life of Green Lane Landfill and finding new waste disposal options to cover the disposal needs for the 30 to 50 year planning period of the Strategy.
Solid Waste Services for the IC&I Sector	Trying to find a mechanism to allow the City to influence greater waste diversion in the Industrial Commercial & Institutional sector for waste materials being generated within the City of Toronto, but managed outside the City of Toronto waste management system.
Transfer Station at Commissioners St.	As part of the development of the City's waterfront is the decision needed about the future of the Commissioners St. Transfer Station; whether it can be relocated or closed to accommodate redevelopment of the current site. If the facility is relocated, there are options to construct a new facility that may or may not include a residential drop-off facility. If the facility is closed, the City will need to decide how the current services available at the Commissioners Transfer Station will be replaced.
Value of Food and Food Waste	The need to firstly decrease the amount of food that is being wasted, and secondly to increase the amount of food waste that is being captured for diversion.
Waste Financing System	The development of a new financing strategy that will allow the City to move toward greater waste diversion while balancing program sustainability and in support of the need for long-term infrastructure investments.

Gap/ Challenge	Summary of Key Challenges for the City
Waste Recovery Technologies	Diminishing landfill disposal capacity. Alternative processing technologies could divert additional materials from disposal and extend the life of the Green Lane Landfill.
Waste Reduction & Reuse	How to better promote and facilitate the reduction and reuse of waste materials to prevent waste from entering the system and requiring management through collection, processing and/or disposal.

Deliverable 4: Identify Options to Address Needs

Appendix 1 provides an overview of the options that will be considered as part of the development of the Long Term Waste Management Strategy. In addition to a listing of the new options added as a result of the consultation process, Appendix 1 also provides further detail on each option under consideration.

Deliverable 5: Detailed Evaluation of Options, Identify Recommended Options and Current System Overlay

Deliverable 5 consists of three main components: detailed evaluation of options; identification of recommended options; and the current system overlay. An overview of the detailed evaluation of options was provided in the body of this Staff Report. An overview of how the recommended options are determined and overlaid onto the current system are outlined below.

Once the evaluation criteria and priorities have been applied to each option, a series of recommended options that are deemed suitable for implementation in the City of Toronto will be identified. They will be combined with the current system to identify all the components (recommended and current) that would form the future waste management system for Toronto. This step will help to pull the entire system together and consider all options in an integrated system context. This “overlay” will represent the future system at the end of the planning period.

Deliverable 6: Strategy Roadmap Development

Once a recommended list of options has been compiled and combined with the current system, a “roadmap” will be developed. This roadmap will guide the implementation of options and required supporting changes and will provide a general timeframe for implementing the recommendations. The roadmap will also identify the necessary financial, staff, and facility resources required for a successful implementation as well as suggested promotion and educational activities to support each recommendation. This roadmap will include timelines for the short term, mid-term and long term of the Waste Strategy.

A Waste Reduction and Diversion plan for 2016 to 2026 will be developed and will focus on waste reduction, reuse and recycling options.

Deliverable 7: Final Waste Strategy

The final deliverable for the project will be the preparation of the Waste Strategy document, which will describe the identified options and outline the preferred long term waste management system. The Waste Strategy will fully document the process undertaken in the aforementioned tasks, key information gathered, decisions made, and supporting rationale.

It is anticipated that the final Waste Strategy Report and Roadmap Plan will be brought forward to the Public Works and Infrastructure Committee and City Council in Q2 2016 for consideration.