

Waste Management of Canada Corporation

## **Public Workshop Sessions Summary Report**

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DRAFT FOR DISCUSSION

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# 1. Introduction

Waste Management of Canada Corporation (WM), owners and operators of the existing Ottawa Waste Management Facility (Ottawa WMF) have initiated an Environmental Assessment (EA) seeking approval for a new landfill footprint at the existing Ottawa WMF. The new landfill footprint will be one component of the proposed West Carleton Environmental Centre (WCEC). The proposed WCEC will be an integrated waste management facility that will include:

- Waste diversion and recycling operations;
- Composting operations;
- Renewable energy facilities;
- Recreational lands for community uses; and,
- A new landfill footprint for disposal of residual waste materials.

Public and external agency consultation is a key component of EA's and as such, has been incorporated into this process. A Notice of Commencement for this project, inviting initial input, was issued on April 13, 2010 and Public Open Houses were held from April 19-April 22, and April 29, 2010. Following the Open Houses, the first round of Workshops was held on May 3-5, 2010. An additional Workshop was added to the ToR consultation program at the request of a local Councillor on May 13, 2010. This Report provides a summary of the events that took place at the Workshops.

## 1.1 Objective of the Workshops

The main objective of the Workshops was to provide an alternative forum for discussion than the Open Houses and also to provide additional detail on the rationale/need for the new landfill footprint, alternatives to, alternative methods, and the criteria and indicators for evaluation, along with the proposed elements of the WCEC. Similar to the Open Houses, all of the information collected will form part of the consultation record and the input will be incorporated into drafting the ToR. Four topic areas were presented as follows:

1. Project Rationale
2. Alternatives To
3. Alternative Methods
4. Evaluation Criteria

Each attendee was given a Workshop Workbook (**Appendix A**) to record their comments for each of the specific comments at the end of each topic area. A technical resource and facilitator were with each group and worked through the four topic areas listed above. This interaction allowed for an exchange of information that can be used to enhance the overall project.

## 1.2 Date, Time and Location of the Workshops

The first round of Workshops was scheduled as follows:

1. Monday, May 3<sup>rd</sup> – WM Hauling Office, Stittsville, ON.
2. Tuesday, May 4<sup>th</sup> – Carp Agricultural Hall, Carp, ON.
3. Wednesday, May 5<sup>th</sup> – Brookstreet Hotel, Kanata, ON.

All three of the Open Houses were scheduled to commence at 6:00 p.m. and run until 9:00 p.m. It should be noted that due to low registration numbers, the Tuesday May 4<sup>th</sup> Workshop in Carp was cancelled.

An additional Workshop was added at the request of the local Councillor for Stittsville, and was held at the same time as the other Workshops, as follows:

4. Thursday, May 13<sup>th</sup> – St. Stephen Catholic School, Stittsville, ON.

All Workshops had a pre-registration for members of the public that wished to attend, but drop-ins were also welcome. The pre-registration sign-up forms were available at each of the Open House events and there was a reminder on the project website as well.

## 2. Project Team Members in Attendance

The following project team members were in attendance at the Workshops to lead the groups and answer questions:

WORKSHOP #1 – WM HAULING OFFICE	
WM	Consulting Team
<ul style="list-style-type: none"> <li>• Tim Murphy</li> </ul>	<p><b>AECOM</b></p> <ul style="list-style-type: none"> <li>• Larry Fedec</li> </ul> <p><b>Fotenn Consulting</b></p> <ul style="list-style-type: none"> <li>• Michelle Armstrong</li> </ul>

WORKSHOP #2 – CARP AGRICULTURAL CENTRE, CARP	
WM	Consulting Team
<ul style="list-style-type: none"> <li>• Workshop cancelled due to poor registration</li> </ul>	

WORKSHOP #3 – BROOKSTREET HOTEL, KANATA	
WM	Consulting Team
<ul style="list-style-type: none"> <li>• Tim Murphy</li> <li>• Ross Wallace</li> </ul>	<p><b>AECOM</b></p> <ul style="list-style-type: none"> <li>• Larry Fedec</li> <li>• Catherine Parker</li> </ul> <p><b>Fotenn Consulting</b></p> <ul style="list-style-type: none"> <li>• Michelle Armstrong</li> </ul>

<b>WORKSHOP #4 – ST. STEPHEN CATHOLIC SCHOOL, STITTSVILLE</b>	
<b>WM</b>	<b>Consulting Team</b>
<ul style="list-style-type: none"> <li>• Tim Murphy</li> <li>• Ross Wallace</li> <li>• Cathy Smithe</li> <li>• Don Wright</li> <li>• Wayne French</li> </ul>	<p><b>AECOM</b></p> <ul style="list-style-type: none"> <li>• Larry Fedec</li> <li>• Blair Shoniker</li> <li>• Catherine Parker</li> </ul> <p><b>Fotenn Consulting</b></p> <ul style="list-style-type: none"> <li>• Michelle Armstrong</li> </ul> <p><b>Golder</b></p> <ul style="list-style-type: none"> <li>• Michelle Armstrong</li> <li>• Paul Smolkin</li> <li>• Ted O'Neill</li> </ul>

### 3. Information Presented

Information presented at the Workshops was in the form of a brief introductory presentation (See **Appendix B**) and through the Workbooks distributed to each participant. As mentioned above, the Workbooks were broken down into four separate discussion areas:

1. Part A: Need and Rationale for Waste Disposal Services in Ottawa
  - Projections
  - Variables
  - Other Factors
  - Rationale
2. Part B: Alternatives to the Undertaking
  - Screening Questions for Alternatives
  - Alternative #1
  - Alternative #2
  - Alternative #3
  - Alternative #4
  - Alternative #5
  - Preferred Alternative – Alternative #3
3. Alternative Methods
  - Ways of developing a new landfill footprint
4. Evaluation Criteria
  - Criteria to be used in the EA to compare alternatives and identify a preferred alternative

The workshops were meant to be an interactive forum to encourage dialogue between the participants and the Project Team. Typically, the facilitator at each table would walk the group members through the topic areas and participants were able to ask questions, which the facilitator or the technical resource person would answer. If the question could not be answered, the question was recorded so that the Project Team could devise an appropriate answer and respond in due time.

## 4. Attendance

Over the course of the Workshops, there were a total of approximately 80 participants. Details about the individual Workshops are outlined below.

Participants were encouraged to provide written comments in their workbooks throughout the session, and were asked to either submit them at the end of the night, or take them home to complete them and submit them in the days following the Workshop.

All individuals and/or agency representatives who signed in with their contact information have been added to the project-specific contact database. This database will be used during the remaining phases of the ToR phase to contact/inform interested public and key stakeholders of study issues and events.

### 4.1 Workshop #1 – WM Hauling Office, Carp/Stittsville

A total of nine people attended the first Workshop. Those in attendance were largely local residents and landowners, and a small number of local business owners. Local Councillors also attended the Workshop. Overall, there was good dialogue with a majority of the questions related to the need/rationale for the undertaking, and the Alternatives to the Undertaking. Neither Alternative Methods nor the proposed criteria and indicators were discussed, due to the lengthy dialogue regarding the Need/Rationale and the Alternatives to the Undertaking. A follow-up session with these participants was proposed and the offer of attending another workshop was also extended in order to continue the discussion on the topics not addressed.

### 4.2 Workshop #2 – Carp Agricultural Centre, Carp

As previously mentioned, due to low registration, the second workshop in Carp was cancelled. The few stakeholders that had registered for the session were contacted and encouraged to attend one of the other Workshops.

### 4.3 Workshop #3 – Brookstreet Hotel, Kanata

A total of 23 people attended the third Workshop. Those in attendance were largely local residents and landowners, and a small number of local business owners. Local Councillors were also in attendance for this session as well. As was the case at the first Workshop, neither Alternative Methods nor the proposed criteria and indicators were discussed, due to the lengthy dialogue regarding the Need/Rationale and the Alternatives to the Undertaking. A follow-up session with these participants was proposed and the offer of attending another workshop was also extended in order to continue the discussion on the topics not addressed.

### 4.4 Workshop #4 – St. Stephen Catholic School, Stittsville

A total of 48 people attended the final Workshop. Those in attendance were largely local residents and landowners, and a small number of local business owners. Local Councillors were also in attendance for this session. Participants were divided into five smaller groups of between 8-10 people each for this session. Facilitators were able to lead each of their groups through the Workbooks, and all topic areas were discussed. At the end of the

evening, each group prepared their key points of discussion/ main concerns and a representative presented them to all attendees.

## 5. Summary of Comments Received

Two methods of gathering comments from the Workshops were implemented; 1) A note taker at each of the workshops; and, 2) the submission of completed Workbooks by attendees. In addition to the notetaking, at the fourth workshop, flip charts were used to record comments and questions at each of the groups.

To date, seven Workbooks from the Workshops have been received. Responses to the questions in the Workbooks are provided on the tables that follow. Minutes of the meetings can be found in **Appendix C**, which provide a summary of the verbal comments recorded on the flip charts and documented by the note takers.



Need/Rationale and Alternatives To	
Do you understand the analysis that WMCC undertook to determine if there is a need for waste disposal services in Ottawa?	<ul style="list-style-type: none"> <li>Not entirely, but appreciate that WM sees need to deal with IC&amp;I waste.</li> <li>Is the need to understand how to handle waste? Waste in Ottawa? The waste of Ottawa's businesses? Landfill/waste disposal sites in Ottawa versus elsewhere?</li> <li>Yes, there is a need, and we understand how you did the analysis.</li> <li>No I do not understand the analysis as it is not based on correct numbers. This does not cause me to believe there is a waste disposal service need in Ottawa behind what is in place.</li> <li>The analysis is vague in that it leads you to wrong assumptions (eg. 10 year limit), diversion rate.</li> </ul>
Do you agree that there is a need for waste disposal services in Ottawa even with aggressive increases in waste diversion efforts?	<ul style="list-style-type: none"> <li>Yes</li> <li>No, more information required. We weren't sure of the question. Why not consider education (recognize that it's not WM's responsibility) but maybe if the province put resources into reduction of IC&amp;I. The model would yield different results. What happens if 60% diversion can't be achieved? Are we being asked "should facilities be located in Ottawa?" or "Do the people of Ottawa need waste disposal?"</li> <li>Info is not available to accurately address.</li> <li>I agree that all waste has to be dealt with but the method is in question. There are better technologies available today that make landfilling unacceptable.</li> <li>Not in Ottawa, alternatives outside of Ottawa make sense.</li> </ul>
Are there other factors that should be included in the analysis? Is so, what are they?	<ul style="list-style-type: none"> <li>The assumptions to be clear that the focus is on the economics only. What would happen to Waste Management Services apart from WM? What other options are to be considered? (although clearly a separate consultation)</li> <li>Yes, but I don't understand.</li> <li>Yes, more diversion – would justify less landfill space for same intake.</li> <li>Yes, identify a sustainable diversion etc. levels so the next site will have a lifespan that exceeds 100 years.</li> </ul>
Do you understand the analysis that WM undertook to determine alternatives to meeting the need for waste disposal services in Ottawa?	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes, but it is not complete. Eg. what is the impact of Alternative #1? There could be very positive incentives for diversion if no capacity exists.</li> </ul>
Are there other "alternatives to" that should be considered? What are they?	<ul style="list-style-type: none"> <li>Enhanced diversion at the site – "on-site sorting". City only waste.</li> <li>Yes, more diversion.</li> <li>Yes, make it economically motivating for diversion and introduce penalties for the landfill. Centres of Excellence where Ontario decides zones where provincial landfill sites make logical sense (eg. geologically) etc.</li> </ul>
Do you agree with the assessment of alternatives to determine if they are reasonable and practical?	<ul style="list-style-type: none"> <li>Yes</li> <li>Additional details on the impact of each alternative on the quantity of waste which is to be diverted versus going to landfill, as well as the cost.</li> <li>More work is needed for alternatives to landfill (eg. elsewhere!), new Provincial Diversion Act</li> </ul>
Do you agree with the Screening Questions applied to each of the alternatives?	<ul style="list-style-type: none"> <li>No responses received.</li> </ul>
Do you agree with the conclusion that Alternative #3 is the preferred alternative?	<ul style="list-style-type: none"> <li>Yes I do – my table did not and I explained to the facilitator that I disagreed with our "tables view". I think Alternative #3 is the way to go and WM is on the right track.</li> <li>No, WM should take the lead and invest/build diversion facilities first, then determine the need for a landfill.</li> <li>No.</li> </ul>

Alternative Methods for a New Landfill Footprint	
Do you understand the analysis that WM undertook to determine general areas (envelopes) for developing new landfill footprint alternatives and other components of the WCEC?	<ul style="list-style-type: none"> <li>No</li> <li>Could have been made easier for community to understand</li> <li>Understand the map, yes.</li> <li>Yes (2)</li> </ul>
Are you in agreement with the constraint areas? If no, how would you change them?	<ul style="list-style-type: none"> <li>In general, yes. Just concerned about the Goulbourn Wetlands Area.</li> <li>I don't know the area well enough to comment.</li> <li>Yes, but stay away from the Wetland.</li> </ul>
Are you in agreement with the potential development areas (envelopes)? If no, how would you change them?	<ul style="list-style-type: none"> <li>In general, yes.</li> <li>I don't know the area well enough to comment.</li> <li>CAZ could be used as potential development area.</li> </ul>
How many alternative methods should be considered in the EA? Why?	<ul style="list-style-type: none"> <li>We don't know how many possible options we have but I like the number 4 depending on cost. Also wondering does footprint X with 3 different heights count as 1 or 3? So I say 4 or 4x3 depending on height and scalloping (shapes).</li> </ul>

Evaluation Criteria for Detailed Comparative Evaluation of Footprint Alternatives	
What in the Natural, Social, Cultural and Economic Environments do you value most?	<ul style="list-style-type: none"> <li>No responses received.</li> </ul>
Do you agree with the environmental components and criteria that have been identified? If no, what changes would you suggest?	<ul style="list-style-type: none"> <li>No responses received.</li> </ul>
What about the components or criteria are important to you?	<ul style="list-style-type: none"> <li>No responses received.</li> </ul>
Do you agree with the indicators provided? If not, what changes or additions would you make?	<ul style="list-style-type: none"> <li>No responses received.</li> </ul>

In addition to the questions in the Workbooks, participants were asked to provide a criteria rating for each of the criteria that WM has identified for study during the EA. Only two participants provided comments in this section of the Workbook.

Component	Criteria	Criteria Rating	Number of Responses	Rationale	
Atmospheric Environment	Air quality	Very Important	2		
		Important			
		Less Important			
		Not Important			
	Noise	Very Important			
		Important	2		
		Less Important			
		Not Important			
	Odour	Very Important	2		
		Important			
		Less Important			
		Not Important			
Geology and Hydrogeology	Groundwater quality	Very Important	2		
		Important			
		Less Important			
		Not Important			
Surface Water Resources	Surface water quality	Very Important	2		
		Important			
		Less Important			
		Not Important			
	Surface water quantity	Very Important	1		
		Important	1		
		Less Important			
		Not Important			
Terrestrial Environment	Terrestrial ecosystems	Very Important	2		
		Important			
		Less Important			
		Not Important			
Aquatic Environment	Aquatic ecosystems	Very Important	2		
		Important			
		Less Important			
		Not Important			
Archaeology and Cultural Heritage	Cultural and heritage resources	Very Important			

Component	Criteria	Criteria Rating	Number of Responses	Rationale
		Important	1	
		Less Important	1	
		Not Important		
	Archaeological resources	Very Important		
		Important	2	
		Less Important		
		Not Important		
Transportation	Effects on airport operations	Very Important	1	
		Important		
		Less Important	1	
		Not Important		
	Effects from truck transportation along access roads	Very Important	2	
		Important		
		Less Important		
		Not Important		
Land Use	Effects on current and planned future land uses	Very Important	1	
		Important	1	
		Less Important		
		Not Important		
	Displacement of agricultural land	Very Important	2	
		Important		
		Less Important		
		Not Important		
Economic	Effects on the cost of services to customers	Very Important		
		Important	1	
		Less Important		
		Not Important	1	
	Continued service to customers	Very Important	1	
		Important		
		Less Important		
		Not Important	1	
	Economic benefit to local municipality	Very Important	1	
		Important		
		Less Important		
		Not Important	1	

Component	Criteria	Criteria Rating	Number of Responses	Rationale
Social	Visual impact of the facility	Very Important	1	
		Important		
		Less Important		
		Not Important		
	Local Residents	Very Important	1	Too close to residential areas!
		Important		
		Less Important		
		Not Important		
	Recreational Facilities	Very Important		
		Important	1	
		Less Important		
		Not Important		
Aboriginal	Potential effects on aboriginal communities	Very Important		
		Important		
		Less Important		
		Not Important	1	
Site Design and Operations	Site design and operations characteristics	Very Important	1	
		Important		
		Less Important		
		Not Important		

## 6. Summary

The Workshops were held from May 3-5, 2010 at three locations in the west end of Ottawa. The second workshop, scheduled to take place on May 4 in Carp, was subsequently cancelled due to low registration. An additional Workshop was added to the ToR consultation program at the request of a local Councillor and was held on May 13, 2010. This first round of Workshops was held to discuss the development of the draft ToR including the rationale, alternatives to, alternative methods, and criteria and indicators for evaluation, along with the elements of the WCEC. The Workshops provided an opportunity for the public and other stakeholders to discuss the proposed undertaking, as well as their issues or concerns, directly with WM and their consulting team. This feedback will be used in the development of the draft ToR.

The first round of Workshops was well attended, except for the Carp location which, as mentioned, had to be cancelled. The participants provided a full spectrum of comments and views from positive and supportive to negative and unresponsive. Over the course of the first set of Workshops, there were a total of approximately 80 attendees. The following a list is not meant to be exhaustive, but a snapshot of the main issues/common themes raised:

- Need/Rationale
  - Opportunity Analysis – some felt more information was required, while others were supportive and understood the need for additional waste disposal capacity
  - Do recycling rates support a diversion facility?
  - Can the IC&I sector be forced to divert more of their waste?
  - Importing waste from areas outside of Ottawa
- Alternatives To
  - Why are other sites not considered suitable?
  - How can we be assured that this site is suitable given the past issues?
  - Why can't a thermal destruction facility be developed?
  - How much waste is being exported currently?
  - How will you incorporate costs into your evaluation?
- Alternative Methods
  - Make sure that the Wetlands remains untouched.
  - Make sure the ToR will provide several footprint options
- Evaluation Criteria/Indicators
  - Cost should be included
  - What is the weighting?

WM and the project team plan to review the issues and concerns raised and address them as appropriate as this project proceeds.

# **Appendix A**

**Workshop Workbooks**



**Terms of Reference for Environmental Assessment**

**New Landfill Footprint**

**West Carleton Environmental Centre**

**Workshop on Project Rationale, Alternatives To, Alternative Methods & Evaluation Criteria**

May, 2010

## AGENDA

- 6:00 Sign-in/Light refreshments
- 6:15 Opening remarks and overview of workshop
- 6:30-8:45 Facilitated Discussion

Participants will remain as one group or will be divided into a number of smaller groups depending on the total number of participants. A technical resource and facilitator will take each group through **four topics** in the workbook:

- Part A: Project Rationale**
- Part B: Alternatives To** the undertaking
- Part C: Alternative Methods** or ways of developing a new landfill footprint
- Part D: Evaluation Criteria** that will be used in the EA to compare alternatives and identify a preferred alternative

Waste Management is seeking your input and opinion on these topics. Your comments on these topics will be used to prepare the Terms of Reference (TOR) for an Environmental Assessment (EA) of a new landfill footprint at Waste Management's West Carleton Environmental Centre (WCEC) on Carp Road. We encourage you to record your comments for the specific questions at the end of each topic area in this workbook. You may leave the workbook with us at the end of the evening.

- 8:45 Summary and Wrap Up
- 9:00 Adjourn

### Please tell us about yourself.

Please note that information related to this Study will be collected in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments received will become part of the public record and may be included in Study documentation prepared for public review.

**NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_  
\_\_\_\_\_

**POSTAL CODE:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_

**EMAIL:** \_\_\_\_\_

### Tell us what you think!

What did you think about the workshop? How could we improve it? Did we discuss the right topics? Use the back of the page if you need more space.

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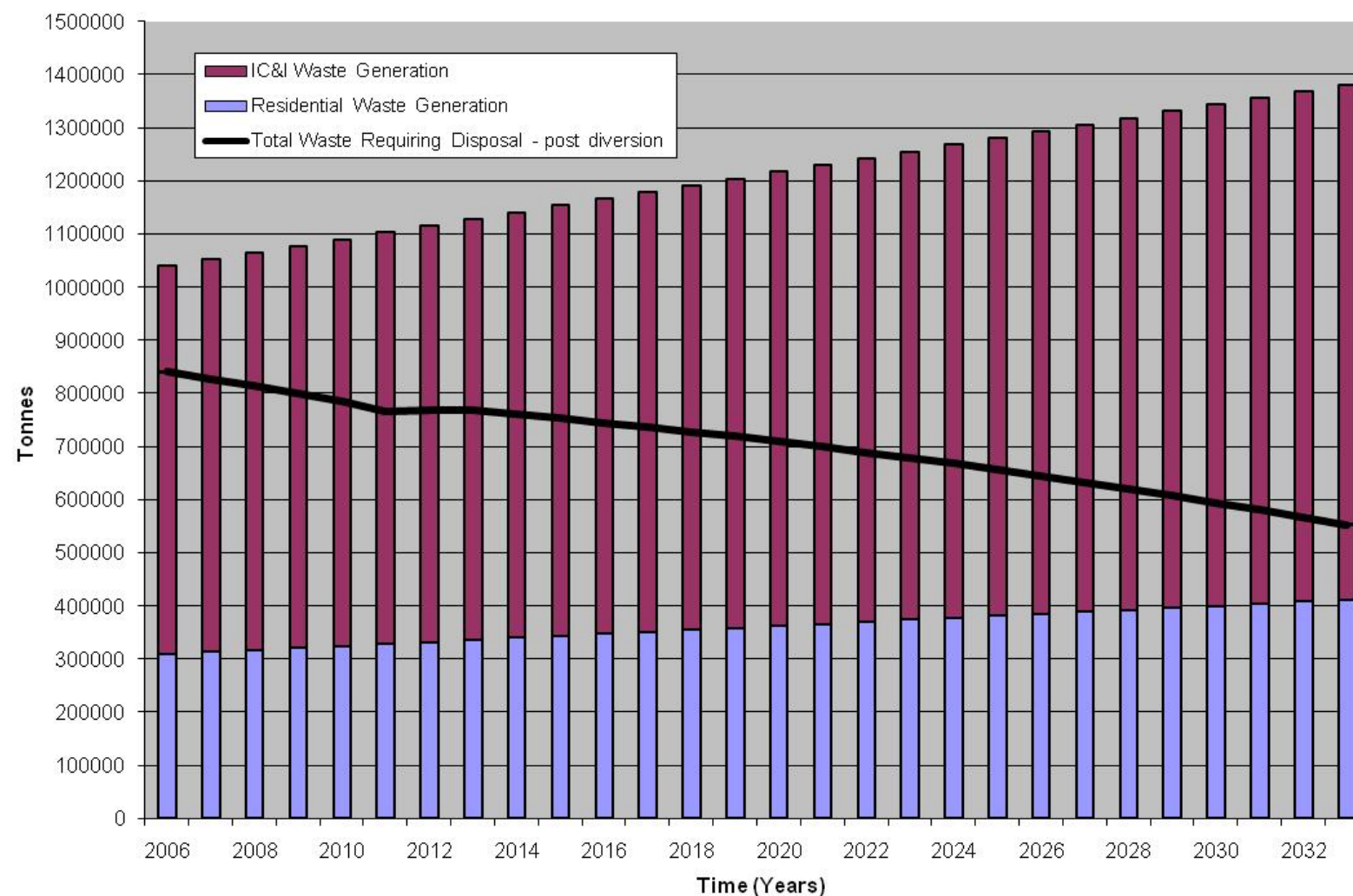
## Part A: Need and the Rationale for Waste Disposal Services in Ottawa

- The existing Ottawa Waste Management Facility (Ottawa WMF) is expected to reach its current approved capacity by September 2011. Accounting for further growth, diversion and the role of the current waste disposal facilities, WM believes there is an on-going need for residual waste disposal capacity services within the City of Ottawa and the surrounding communities. WM intends to consider the future operating role of its facility in Ottawa to meet this disposal need.
- The Ottawa WMF has accepted up to 400,000 tonnes of waste annually for disposal. WM made the decision to divert waste that had previously gone to the Ottawa WMF to other locations in order to extend the life of the site. These alternatives are environmentally and economically less preferred than having disposal capacity at the site of the Ottawa WMF.

### Projections

- The City of Ottawa’s current population projections use a 2006 base population of 870,800 and project growth to a population of 1,136,000 by 2031. This represents annual growth in the order of 1.2%. Projected future waste quantities generated in the City of Ottawa were developed based on population and per capita waste generation. The projected annual quantities of waste generated within Ottawa are shown in *Figure 1*, for both residential and IC&I wastes, assuming no change in the per capita waste generation rate applied to population increases. Using the base year of 2006, projections are shown for a typical 20 year planning period from 2014 to 2033. WM believes it will take until at least 2014 to obtain approval and develop new disposal capacity.

**Figure 1. Residential and IC&I Waste Generation & Disposal Projections (2006-2033)**



- The City has set a target of diverting 60% of the residential waste stream away from disposal by 2008. In April 2009, the City of Ottawa released “Diversion 2015: An IC&I 3R Waste Diversion Strategy for Ottawa”. The strategy outlines the goal of increasing IC&I waste diversion from the current 17% to achieving 60% by 2015.

### Variables

The quantity of waste remaining after diversion programs that requires disposal may vary based on a number of factors, which may be difficult to predict:

- Population growth is greater or less than projected.
- Economic growth
- City policies including Diversion 2015
- Provincial Waste Diversion Act and other provincial initiatives
- Pricing and markets for recyclable commodities
- Border restrictions for waste sent to the U.S.
- Moving from 17% to 60% diversion (i.e. 43% increase) of IC&I waste in under six years would be a significant achievement which would require a fundamental change in the way businesses in Ottawa manage their wastes. Significant amounts of recyclables and organic materials will need to be diverted and absorbed through existing and new processing facilities and markets. Absorbing this additional tonnage would be a challenge for existing infrastructure and markets, requiring a comprehensive market development strategy and a substantial planning effort.
- Based on the uncertainties presented, for planning purposes, WM has identified a scenario where a longer time period will be required to achieve a 60% waste diversion rate for IC&I wastes. For the purpose of describing the rationale for the proposed undertaking, WM assumes that the 60% IC&I waste diversion rate may be achieved by the end of the 20 year planning period (i.e. in 2033). This reflects a diversion rate increase of 2% annually in keeping with industry norms experienced in Ontario for diversion in the IC&I sector.

- The total annual quantity of waste requiring disposal after considering diversion and the above variables is shown on Figure 1.

**Other Factors**

- WM has an agreement with the City of Ottawa to reserve between 75% to 90% of their Ottawa WMF landfill disposal capacity for wastes generated within Ottawa. The percentage of the capacity reserved depends on the percentage of the City’s residential waste disposed at the WMF. Historically, WM has received up to 30% of the City’s residential wastes for disposal, requiring that 90% of the landfill capacity be reserved. In the case of a year where the WMF receives no Ottawa residential waste, then 75% of the landfill capacity is reserved for Ottawa generated wastes. The service area for the Ottawa WMF is all of Ontario.
- It is evident that there is an ongoing need to provide disposal capacity for residual wastes remaining after diversion programs within the City of Ottawa. The Ottawa WMF has played a significant role in meeting the needs for both residential and IC&I waste disposal capacity for the City of Ottawa and neighbouring municipalities. Given that the Ottawa WMF will reach capacity in approximately September 2011, the future generation of residential and IC&I wastes within the area serviced by the Ottawa WMF, and the intention of WM to continue its business operations in the City, there is a need to develop additional waste disposal capacity.
- In terms of waste disposal options, there are two city-owned landfill properties in the City of Ottawa (Trail Waste Facility and Springhill landfill) and there are two privately owned landfills (WMCC’s Ottawa WMF and WSI’s Navan landfill). Another landfill facility, the Lafleche Environmental Landfill, is located east of the City but does provide some disposal capacity to Ottawa waste generators. Waste from the Ottawa area is now also being disposed at landfill sites located within western New York State. In addition, a pilot or evaluation facility for the thermal treatment of waste has also been developed at the Trail facility through a partnership between the City and Plasco Energy. This facility would manage residential waste from the City.
- For planning purposes, WM assumes that the five Ontario based disposal sites presently serving waste generators within Ottawa will continue in the future. These five disposal facilities are assumed to provide all of the required disposal capacity for waste generated within the City of Ottawa during the planning period. If a long term Plasco facility is developed, it is assumed to manage the residential waste stream which historically has been directed to the City’s Trail Waste Facility and the Ottawa WMF.
- WM has developed a scenario for planning purposes where implementation of a Plasco facility may take a period of time such that ongoing disposal of residual residential waste may be required at the Ottawa WMF. Under this scenario it is assumed that the Ottawa WMF would continue to receive up to 30% of the City’s residential waste (after 60% diversion). Consistent with the existing agreement, WM would reserve up to 90% of its disposal capacity for Ottawa generated wastes. The quantity of material received and utilized as cover material at the site is in addition to the waste volume disposed. The future disposal requirements for the Ottawa WMF are shown in Figure 2 and summarized in Table 1.

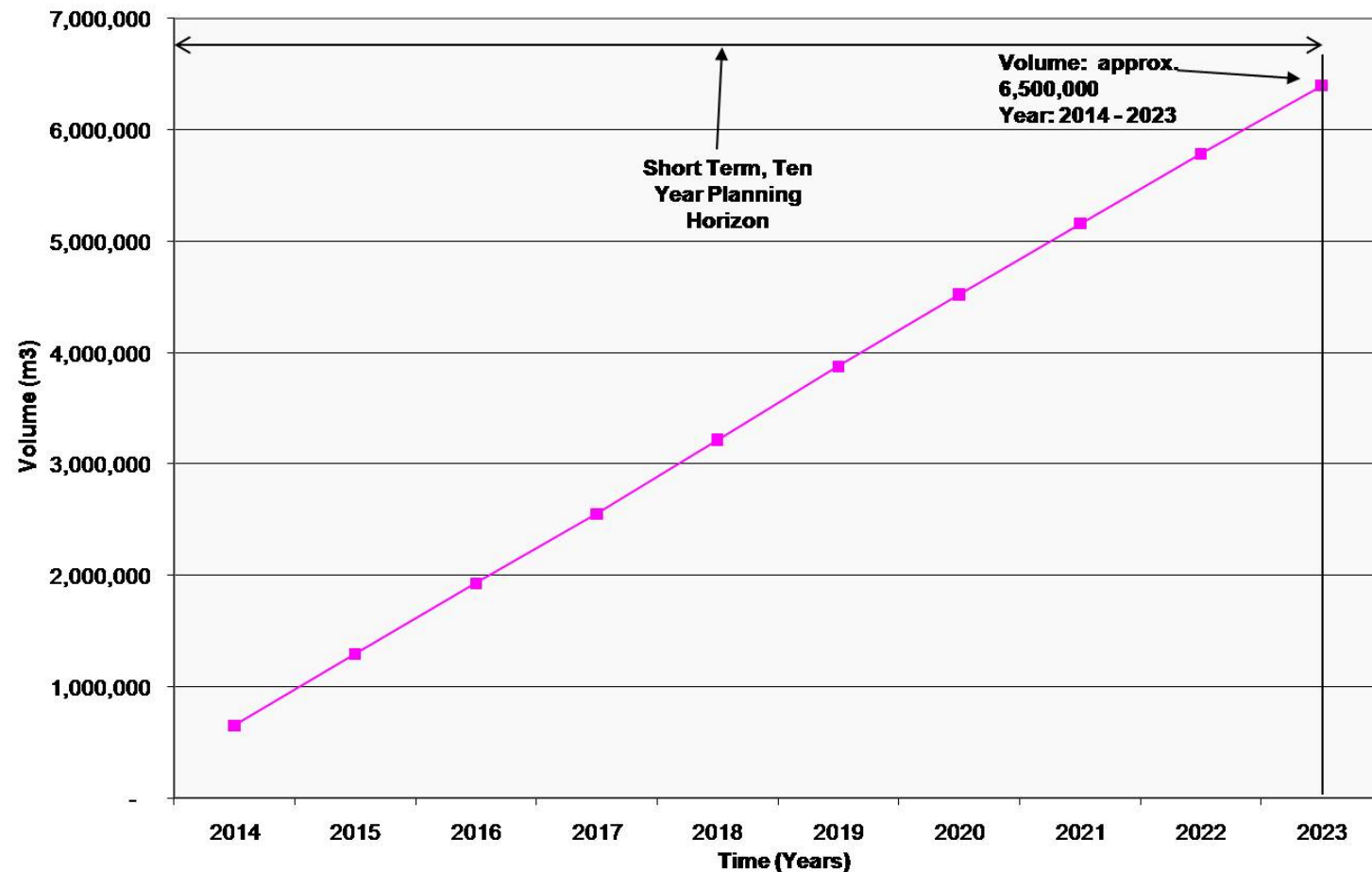
**Rationale**

- The assumptions related to the achievement of waste diversion rates have a significant influence on the volume of disposal capacity to be provided by WM in Ottawa. As described earlier, WM believes that additional time is required to develop the markets and infrastructure to achieve the 60% IC&I diversion target. In addition, the schedule with respect to the City’s implementation of alternative disposal technologies is not yet known. Based on these factors, WM believes that in the short term, a 10 year planning horizon is appropriate and reasonable (i.e. not a typical 20 year planning period).
- A long term planning horizon is typically set as a potential benchmark, which is often re-evaluated in future years to determine whether or not the assumptions still hold true. If not, revised projections/assumptions are usually made to adjust the baseline to reflect actual current conditions.
- Based on the above, we determined that a new landfill footprint would need to be approximately 6.5 million cubic metres in size.

<b>Table 1 – Disposal Requirements for West Carleton Environmental Centre</b>	
<b>Scenario</b>	<b>Time Period 10 Years (2014-2023)</b>
Cumulative Annual Volume (m <sup>3</sup> )	6,500,000
Cumulative Annual Tonnes	4,030,000
Average Annual Tonnes	403,000

## Part B: Alternatives To the Undertaking

Figure 2 Volume Range of Disposal Requirements for Ottawa WMF (m<sup>3</sup>)



- It cannot implement a municipal waste diversion program such as curbside recycling;
- Export would affect their business; and,
- Thermal technology is not economically viable because waste volumes are too small.”

- Based on the above statements within the Code of Practice, WM has identified and assessed only those alternatives that are appropriate and reasonable for WM to implement. WM is committed to pursuing the development of waste diversion programs and facilities to support the achievement of the City’s waste diversion targets. The City of Ottawa has also identified the goal of achieving a 60% diversion from disposal rate for industrial, commercial and institutional (IC&I) wastes by 2015. To achieve this goal, the City has identified the requirement for support and cooperation from IC&I waste generators and private waste service providers. WM intends to work with the City to support their diversion targets as identified through their policies and minimize the disposal of post diversion residuals. This will also minimize the amount of waste disposal capacity required.

- After reaching the conclusion that there is the need for waste disposal services in Ottawa and that we have an opportunity to provide those services, we looked at different ways of meeting the need. In EA terms this is known as assessing “Alternatives To”.

- First we identified a number of potential alternatives on how to provide waste disposal services. The alternatives identified and considered were:

1. Do nothing;
2. Develop a thermal destruction (waste to energy) facility at the WCEC;
3. Close the current landfill and establish new landfill disposal capacity at the WCEC;
4. Establish a new landfill elsewhere; and,
5. Export waste to other facilities.

- The Ministry of Environment (MOE) Code of Practice Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario (October, 2009) outlines the consideration of alternatives to by private proponents like WM. The Code of Practice states:

“...what is reasonable for one proponent to implement may not be reasonable for another when trying to solve a similar problem because the circumstances between proponents may vary widely. A private sector proponent’s inability to expropriate land or implement public programs will influence the range of alternatives it may examine.”

- As it relates to WM and its business, the Code of Practice also makes reference to private sector proponents in the waste industry as follows:

“The private sector proponent may only consider landfill or on-site diversion because:

**Screening Questions for Alternatives**

- An assessment of the five alternatives was undertaken to confirm their feasibility with respect to addressing the need/rationale established. A series of questions were applied to each of the alternatives to determine if they were feasible, achievable and reasonable for WM to implement. The questions applied to each of the alternatives include:
  - Will the alternative address the need/rationale for additional waste disposal capacity within the City of Ottawa?
  - Is the alternative economically viable and acceptable?
  - Is the alternative technically feasible?
  - Is the alternative consistent with the principles of responsible waste management?

**Alternative #1 – Do Nothing**

- The “do nothing” alternative means that WM would continue to use the existing Ottawa WMF landfill for residual waste disposal until it reaches the currently approved capacity, in the next 2-3 years. Once this landfill has reached capacity, customers that have historically used the site would be required to find other means of managing their wastes for disposal in the future. Further, the ‘do nothing’ alternative would not address the current local waste disposal needs of the City of Ottawa, which would force waste generators within the City to look outside of the municipal boundaries to dispose of locally created waste. WM does not consider the “do nothing” alternative a reasonable option for its ongoing business, its customers, the City of Ottawa or the Province of Ontario.

**Alternative #2 – Thermal Destruction**

- With respect to alternative technologies, in 2004, the City of Ottawa completed a review of technologies available for processing and disposal of residual waste as part of their Integrated Waste Management Master Plan (IWMMP) Phase II work. Subsequently, the City issued a Request for Expressions of Interest (REOI) in 2006 to confirm the scope of technologies available for processing and disposal, excluding landfill. In general, the thermal waste technologies submitted under the REOI can reduce the volume of waste by upwards of 90%. The City report noted that the capital costs of these approaches is in the range of \$150-\$230 million for conventional incineration, and \$195-\$230 million for gasification technologies. This work was to be the foundation of a Residual Waste Management Plan to be prepared by the City.
- WM is not aware of the City’s Residual Waste Management Plan being advanced any further. However, the City has entered into a contract with Orgaworld for the composting of residual source separated organic materials (i.e. green bin waste). In addition, WM understands that the City has entered into an agreement with Plasco Energy for the potential development of a full scale plasma gasification facility to manage residential residual waste.
- Currently, WM’s only commercially proven means of disposal as an alternative to landfill is mass-burn waste to energy technology. This disposal technology is available through WM’s subsidiary, Wheelabrator Technologies. In May 2009, WM formed a joint venture company called S4 Energy Solutions in conjunction with a plasma gasification technology developer. Waste Management is also pursuing alternative thermal technologies through its recent strategic investment in Enerkem Inc. Enerkem has developed a proprietary thermo-chemical gasification process to convert waste materials into a synthetic gas which is then converted to liquid fuels like ethanol.
- In summary, WM believes that plasma gasification technology is very promising, but WM is not yet ready to deploy it on a commercial scale due to the technical complexities of the feedstocks, the capital costs to develop the facilities, and it has not yet been successfully demonstrated at the appropriate scale for municipal solid waste. We expect the development and deployment timeframe to be approximately 4 to 7 years and the company’s expectations are that the largest processing size would be approximately 500 tonnes/day. Further, Ottawa City Council has yet to make a determination on their REOI for alternative technologies and those that they will pursue, if any. WM had submitted for the technology (thermal) that Wheelabrator provides, and as such, uncertainty exists as to whether or not the City will select this type of technology. WM would need to be guaranteed that a certain quantity of waste would be devoted to this alternative technology, to ensure the economic viability.

**Alternative #3 – New landfill footprint at WCEC**

- Under this alternative, the existing landfill would be closed once it reaches its approved capacity and a new landfill footprint would be established on contiguous WM property north or west of the current landfill. Given the role of the Ottawa WMF within WM’s business operations and to waste generators within the City of Ottawa, developing new landfill disposal capacity will allow the ongoing operation of the WMF. The disposal capacity will be provided for those residual wastes remaining after both residential (MSW) and IC&I diversion.
- In short, this alternative would meet WM’s stated goal by continuing to provide waste disposal services to its customers and would be constructed and operated as an environmentally sound landfill. WM owns or has options to purchase the necessary contiguous property to construct new landfill disposal capacity and the required infrastructure for the new landfill is already in place or can be put in place in a cost-effective manner.
- Further, this alternative is consistent with responsible waste management strategies as it provides a local solution to waste management (no exporting) and will incorporate enhanced waste diversion activities to reduce the overall volume of waste disposal capacity required. Development of this alternative would also provide a reasonable timeframe (i.e. approximately 10 years) for WM to pursue the development and implementation of an alternative thermal technology with the City of Ottawa.

**Alternative #4 – New landfill elsewhere**

- Under this alternative, the current landfill would close and new landfill disposal capacity would be developed on a site completely separate from the Ottawa WMF. The new landfill capacity would be built elsewhere within the City of Ottawa in order to continue to serve the existing clients and market area for the Ottawa WMF. This would require WM to determine an appropriate location and obtain the site for landfill development. In order to achieve this alternative, a site selection process would be undertaken in order to identify a suitable site within the City of Ottawa, as well as obtaining all necessary regulatory approvals and agreements.
- WM does not own, nor is it aware of, other lands within the City of Ottawa that have been identified as suitable for new waste disposal capacity. As a private corporation, WM does not have the powers of expropriation if such a location existed. The development of a new landfill at a site elsewhere in the City of Ottawa is also not an economically attractive option. If a new site was identified and approved, it would require a significant investment with respect to land purchase, building, services and utility construction and creation of infrastructure and management. The ability to utilize the required infrastructure for the new landfill that is already in place at the current WMF operation would be lost. In recent years, WM has also invested a significant amount of money into their Ottawa facility in order to improve some of the legacy issues and operations. These operational investments would be transferred over to the new landfill.
- For the above reasons, WM does not believe that establishing a new landfill at another location in Ontario is a practical or reasonable option.

**Alternative #5 – Export wastes elsewhere**

- This alternative would see wastes delivered to the site or another location, processed (if necessary) and then transferred to other waste disposal facilities. It is anticipated that the waste would be transferred to other facilities in Ottawa (i.e. Trail Road, Springhill, WSI Navan), eastern Ontario (Lafleche) or New York State. The availability of potential locations in Ottawa and eastern Ontario is very limited.
- Relying on a third party for disposal is not economically acceptable as WM's customers would not only be charged for transfer fees as well as disposal fees but also subjected to the risks associated with the transboundary movement of wastes. Reliance on a third party disposal facility would put WM at a significant disadvantage competitively. This alternative is also not consistent with responsible waste management strategies or principles as it is not a local solution and relies on shipping waste to other jurisdictions within the province, which are already experiencing an identified shortage of approved disposal capacity. Further, it is no longer acceptable to assume that waste may be exported to the United States because of the gradual restrictions on the seamless transfer of waste across the border. These restrictions include strong political opposition and the Province of Ontario reaching an agreement to phase out shipments of municipal waste to Michigan by the end of 2010. In addition, at anytime the Canada/U.S. border may be closed to waste shipments due to national security issues and as such, the waste would need to be dealt with at a local level. Given the political nature of waste disposal, WM believes that it is in Ottawa's and Ontario's long term economic interests to ensure that the City and surrounding communities are self sufficient in waste disposal capacity.

**Preferred Alternative – Alternative #3**

- Based on the foregoing analysis, WM has concluded that New Landfill Disposal Capacity at the WCEC is the only reasonable alternative that may be implemented within a 10 year planning horizon. At that point WM may be in a position to consider the development of a thermal or other technology alternative. Implementation of the new landfill footprint alternative will ensure additional waste disposal capacity for waste generators in the City of Ottawa and neighbouring municipalities is available for approximately 10 years.
- This preferred alternative is WM's proposed undertaking which will be considered further in the EA.

**Discussion and Comments on Need/Rationale and Alternatives To**

1. Do you understand the analysis that WMCC undertook to determine if there is a need for waste disposal services in Ottawa?


2. Do you agree that there is a need for waste disposal services in Ottawa even with aggressive increases in waste diversion efforts?


3. Are there other factors that should be included in the analysis? If so, what are they?


4. Do you understand the analysis that WM undertook to determine alternatives to meeting the need for waste disposal services in Ottawa?




5. Are there other “alternatives to” that should be considered? What are they?


6. Do you agree with the assessment of alternatives to determine if they are reasonable and practical?


7. Do you agree with the Screening Questions applied to each of the alternatives?


8. Do you agree with the conclusion that Alternative #3 is the preferred alternative?



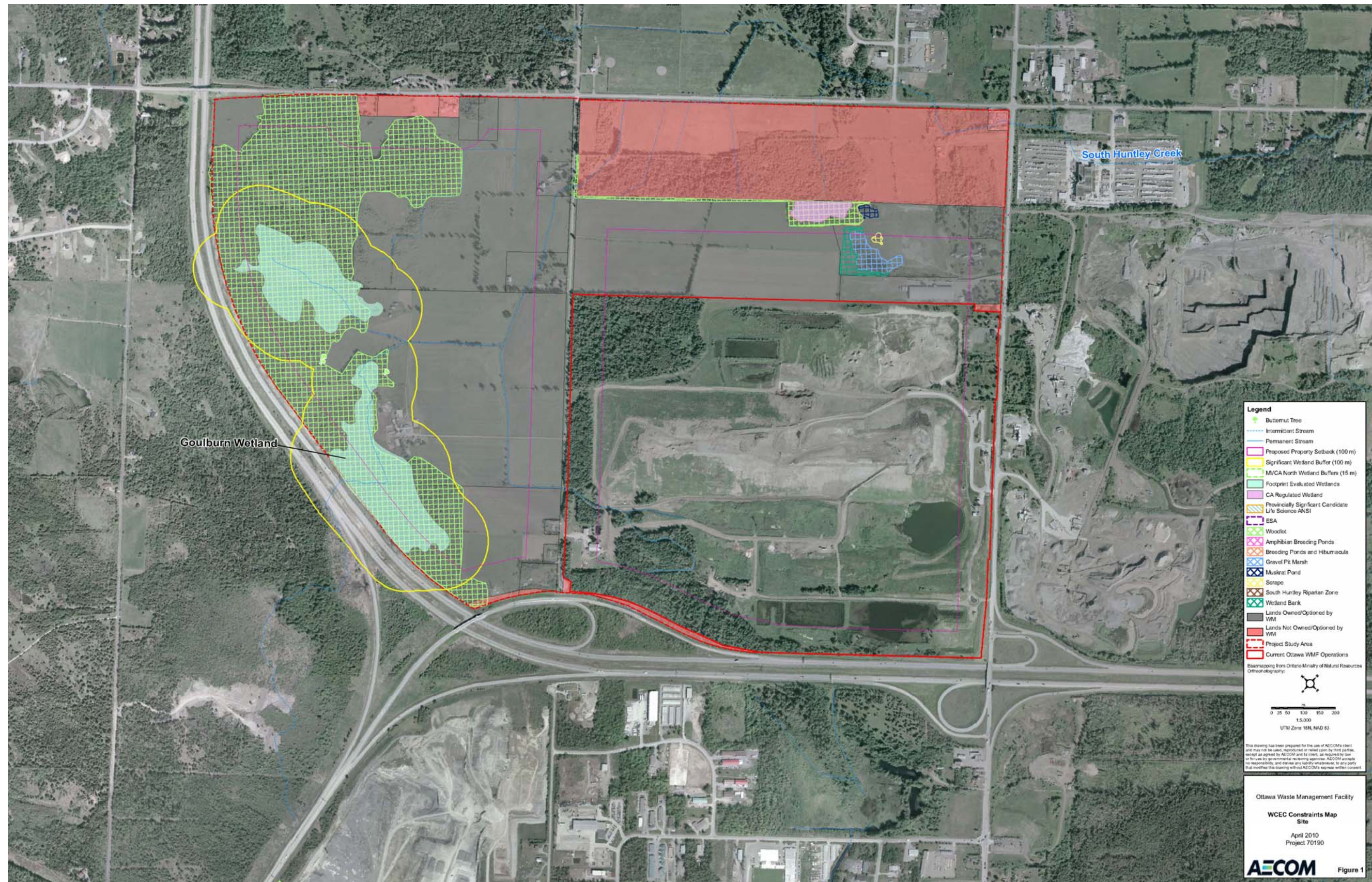

### **Part C: Alternative Methods (ways) for developing a new landfill footprint**

- Identification and evaluation of 'Alternative Methods' or different ways that the project can be developed is a key element of the Environmental Assessment process. WM is proposing to compare alternative footprints for the new landfill at the EA stage. At the TOR stage, an envelope (or areas) for potential development of landfill footprints will be determined. During the EA, a number of reasonable alternative methods will be identified within the development envelope.
- First we identified our study area for implementing our preferred alternative of a new landfill footprint at WCEC. We identified our study area for this purpose to be the lands within the area bordered by Hwy 417, Carp Road and Richardson Sideroad. This area is shown on Figure 2.
- WM owns or has options to purchase a large portion of the lands within this study area. These lands are shown on Figure 2. WM also owns some smaller areas of land on the east side of Carp Road.
- The alternative methods that can be developed on the WM owned or optioned properties are a function of a number of site-specific factors that include existing natural features, land use constraints, transportation access, the provision of perimeter buffer zones, and landfill design and operations considerations.
- Figure 2 shows lands that would be excluded from potential development and the reasons for their exclusion plus some additional land use features (i.e. natural features, buffer areas, land use constraints, etc). Other constraints and features may exist within the area that will be identified as part of the EA, but are not necessarily exclusionary in nature.
- The remaining area was identified as an area where landfill footprint alternatives could be located. It is anticipated that the existing infrastructure to support a landfill operation will be used, but also new infrastructure for the new footprint and waste diversion operations could be located in this envelope as well as community facilities.
- The area needed to develop a new landfill footprint with an approximate volume of 6.5 million cubic metres, would require approximately 40 to 45 ha of land.
- The 40 to 45 ha required for a landfill footprint would occupy most of the land within the envelope. Other facilities would be located around the perimeter and on the current landfill site area.
- It is anticipated that two or more alternatives would be identified during the EA within the identified envelope.
- The alternatives will comprise different landfill footprint dimensions (variation in height, width, length, etc.), location of entrance, infrastructure, waste diversion facilities and community facilities.
- During the EA, alternatives will be identified, evaluated and preferred alternative identified.





FIGURE 2: CONSTRAINTS AND DEVELOPMENT OPPORTUNITIES FOR NEW LANDFILL FOOTPRINT



**Discussion and Comments on Alternatives Methods for a New Landfill Footprint**

1. Do you understand the analysis that WM undertook to determine general areas (envelopes) for developing new landfill footprint alternatives and other components of the WCEC?


2. Are you in agreement with the constraint areas? If no, how would you change them?


3. Are you in agreement with the potential development areas (envelopes)? If no, how would you change them?


4. How many alternative methods should be considered in the EA? Why?




### Part D: Evaluation Criteria for evaluating different landfill footprints during the EA

- WM identified constraint areas and areas for potential development of landfill footprint alternatives (discussed at Group 2). During the EA, a number of reasonable alternatives will be identified, assessed and preferred alternative identified.
- To assist in the assessment and comparative evaluation of alternatives in the EA, the environment will be studied to determine and document existing conditions. Predicted future conditions for each alternative method will be assessed and comparative evaluation undertaken to determine a preferred alternative. The advantages and disadvantages of each alternative will be assessed and documented.
- For the purposes of discussion, the environment may be divided into several components for the study. WM has identified the following environmental components which will be studied during the EA:

<b>Atmospheric Environment</b>	<b>Archaeology and Cultural Heritage</b>
<b>Geology and Hydrogeology</b>	<b>Transportation</b>
<b>Surface Water Resources</b>	<b>Land Use</b>
<b>Terrestrial Environment</b>	<b>Economic</b>
<b>Aquatic Environment</b>	<b>Social</b>
<b>Aboriginal</b>	

- The rationale for each component of the environment is presented in the attached Table.
- Each component can then be divided into criteria. For example, air quality, odour and noise would be considered three criteria of the atmospheric environment component. A rationale for each criteria is provided in the attached Table.
- Indicators are the specific parameters that will be studied for each environmental criterion. For example, indicators for the Terrestrial Ecosystems criteria are:
  - Potential effects on vegetation communities;
  - Potential effects on wildlife habitat; and,
  - Potential effects on vegetation and wildlife including rare, threatened or endangered species.
- During the EA, baseline environmental data will be collected for each alternative, each environmental component and each environmental criteria. Future environmental conditions will be predicted and assessed and information developed to enable a detailed comparative evaluation of alternatives.



- During the EA each technical discipline leader (e.g., atmospheric environment leader) will compare and rank alternatives for each of their environmental criteria. The following table, taken from another EA, shows how the various technical discipline leaders ranked their respective environmental criteria from “least preferred” to “most preferred.”

**Example of how evaluation criteria are applied to ranking of alternatives**

Environmental Criteria	Alternatives			
	A	B	C	D
Air quality	Less Preferred	Less Preferred	Most Preferred	Least Preferred
Odour	Least Preferred	Less Preferred	Most Preferred	Least Preferred
Visual impact	Less Preferred	Most Preferred	Least Preferred	Most Preferred
Traffic	Less Preferred	Least Preferred	Most Preferred	Most Preferred
Noise	Most Preferred	Less Preferred	Less Preferred	Least Preferred
Site D&O	Equally Preferred			
Aquatic ecosystems	Less Preferred	Least Preferred	Most Preferred	Most Preferred
Groundwater quality	Equally Preferred			
Surface water quality	Less Preferred	Least Preferred	Most Preferred	Less Preferred
Terrestrial ecosystems	Less Preferred	Most Preferred	Least Preferred	Less Preferred
Cultural & heritage resources	Least Preferred	Less Preferred	Less Preferred	Most Preferred
Recreational facilities	Most Preferred	Most Preferred	Least Preferred	Least Preferred
Archaeological resources	Equally Preferred			
Effects of costs on customers	Most Preferred	Less Preferred	Least Preferred	Less Preferred
Continued service to customers	Most Preferred	Less Preferred	Least Preferred	Least Preferred
Economic benefit to community	Less Preferred	Most Preferred	Less Preferred	Least Preferred

- In the final stages of the detailed comparative evaluation of alternatives it is necessary to combine (aggregate) the individual preferences for each environmental criteria into a single preference rating for each alternative in order to rank the alternatives and identify a preferred alternative.
- The aggregation of preferences uses a qualitative analysis completed by the community. In the above example, the community placed the highest importance on air quality, odour, visual impact, noise, site D&O and aquatic ecosystems and the lowest importance on archaeology and economic benefits. This information was used to determine the final overall preferences for the alternatives.



**Discussion and Comments on Evaluation Criteria for Detailed Comparative Evaluation of Footprint Alternatives**

1. What in the Natural, Social, Cultural and Economic Environments do you value most?


2. Do you agree with the environmental components and criteria that have been identified? If no, what changes would you suggest?


3. What about the components or criteria are important to you?


4. Do you agree with the indicators provided? If no, what changes or additions would you make? (make changes on the table).




Proposed Assessment Criteria, Rationale, Indicators & Criteria Rating

Component	Criteria	Rationale	Indicators	Possible Additional Indicators	Criteria Rating	Rationale
<b>Environmental Criteria – Natural Environment</b>						
Atmospheric Environment	Air quality	Waste disposal facilities and associated operations can produce gases containing contaminants that degrade air quality if they are emitted to the atmosphere. Construction and operation activities at a waste disposal facility can lead to increased levels of particulates (dust) in the air. Changes in air quality may affect human health.	<ul style="list-style-type: none"> <li>Modelled air concentrations of indicator compounds (organics, particulates)</li> <li>Number of off-site receptors potentially affected (residential properties, public facilities, businesses, and institutions)</li> </ul>		Very Important	
					Important	
					Less Important	
					Not Important	
	Noise	Construction and operation activities at the facility may result in increased noise levels resulting from the site.	<ul style="list-style-type: none"> <li>Predicted site-related noise</li> <li>Number of off-site receptors potentially affected (residential properties, public facilities, businesses, and institutions)</li> </ul>		Very Important	
					Important	
					Less Important	
					Not Important	
	Odour	Continued operation of the waste disposal facility may result in changes in the degree and frequency of odours from the site	<ul style="list-style-type: none"> <li>Predicted odour emissions</li> <li>Number of off-site receptors potentially affected (residential properties, public facilities, businesses, and institutions)</li> </ul>		Very Important	
Important						
Less Important						
Not Important						
Geology and Hydrogeology	Groundwater quality	Contaminants associated with waste disposal sites have the potential to enter the groundwater and impact off-site groundwater or surface water.	<ul style="list-style-type: none"> <li>Predicted effects to groundwater quality at property boundaries and off-site</li> </ul>		Very Important	
					Important	
					Less Important	
					Not Important	
Surface Water Resources	Surface water quality	Contaminants associated with waste disposal sites have the potential to seep or runoff into surface water.	<ul style="list-style-type: none"> <li>Predicted effects on surface water quality on-site and off-site</li> </ul>		Very Important	
					Important	
					Less Important	
					Not Important	
	Surface water quantity	The construction of physical works may disrupt natural surface drainage patterns and may alter runoff and peak flows. The presence of the facility may also affect base flow to surface water.	<ul style="list-style-type: none"> <li>Change in drainage areas</li> <li>Predicted occurrence and degree of off-site effects</li> </ul>		Very Important	
					Important	
					Less Important	
					Not Important	
Terrestrial Environment	Terrestrial ecosystems	Waste disposal facility construction and operations may remove or disturb the functioning of natural terrestrial habitats and vegetation, including rare, threatened or endangered species.	<ul style="list-style-type: none"> <li>Predicted impact on vegetation communities due to project</li> <li>Predicted impact on wildlife habitat due to project</li> <li>Predicted impact of project on vegetation and wildlife including rare, threatened or endangered species</li> </ul>		Very Important	
					Important	
					Less Important	
					Not Important	
Aquatic Environment	Aquatic ecosystems	Waste disposal facility construction and operations may remove or disturb the functioning of natural aquatic habitats and species, including rare, threatened or endangered species.	<ul style="list-style-type: none"> <li>Predicted changes in water quality</li> <li>Predicted impact on aquatic habitat due to project</li> <li>Predicted impact on aquatic biota due to project</li> </ul>		Very Important	
					Important	
					Less Important	



Component	Criteria	Rationale	Indicators	Possible Additional Indicators	Criteria Rating	Rationale
<i>Environmental Criteria – Human Environment</i>						
Archaeology and Cultural Heritage	Cultural and heritage resources	Cultural/heritage resources could be displaced by the construction of waste disposal facility components. The use and enjoyment of cultural resources may also be disturbed by the ongoing facility operation.	<ul style="list-style-type: none"> <li>Cultural and heritage resources on-site and in vicinity</li> <li>Predicted impacts to cultural and heritage resources on-site and in vicinity</li> </ul>		Very Important Important Less Important Not Important	
	Archaeological resources	Archaeological resources are non-renewable cultural resources that can be destroyed by the construction and operation of a waste disposal facility.	<ul style="list-style-type: none"> <li>Presence of archaeological resources on-site</li> <li>Significance of on-site archaeology resources potentially displaced/disturbed</li> </ul>		Very Important Important Less Important Not Important	
Transportation	Effects on airport operations	There is the potential for bird strikes for aircraft using Carp airport	<ul style="list-style-type: none"> <li>Bird strike hazard to aircraft in Local Study Area</li> </ul>		Very Important Important Less Important Not Important	
	Effects from truck transportation along access roads	Truck traffic associated with the landfill may adversely affect residents, business, institutions and movement of farm vehicles in the site vicinity.	<ul style="list-style-type: none"> <li>Potential for traffic collisions</li> <li>Disturbance to traffic operations</li> <li>Proposed road improvement requirements</li> </ul>		Very Important Important Less Important Not Important	
Land Use	Effects on current and planned future land uses	The facilities may not be fully compatible with certain current and/or planned future land uses. Current land uses (e.g., agriculture) may be displaced by facility development. Waste disposal facilities can potentially affect the use and enjoyment of recreational resources in the vicinity of the site.	<ul style="list-style-type: none"> <li>Current land use</li> <li>Planned future land use</li> <li>Type(s) and proximity of off-site recreational resources within 500 m of landfill footprint potentially affected</li> <li>Type(s) and proximity of off-site sensitive land uses (i.e. dwellings, churches, cemeteries, parks) within 500 m of landfill footprint potentially affected</li> </ul>		Very Important Important Less Important Not Important	
	Displacement of agricultural land	Agricultural land will be displaced by the development of the facility if the facility is located away from the lands currently designated to accommodate waste management facilities.	<ul style="list-style-type: none"> <li>Current land use</li> <li>Predicted impacts on surrounding agricultural operations</li> <li>Type(s) and proximity agricultural operations (i.e. organic, cash crop, livestock)</li> </ul>		Very Important Important Less Important	



Component	Criteria	Rationale	Indicators	Possible Additional Indicators	Criteria Rating	Rationale
<b>Environmental Criteria – Human Environment</b>						
Economic	Effects on the cost of services to customers	The costs of continued operation of a waste disposal facility will affect the price of tipping fees, subsequently affecting the cost of service to customers. The greater the air space achieved for a lower capital cost will enable a lower cost of services to be provided.	<ul style="list-style-type: none"> <li>Ratio of air space achieved to volume of soil to be excavated and area of cell base and leachate collection system to be constructed</li> </ul>		Very Important Important Less Important Not Important	
	Continued service to customers	The Ottawa WMF provides an important and affordable service to its users, particularly in the east end of Ottawa.	<ul style="list-style-type: none"> <li>Total optimized site capacity and site life</li> </ul>		Very Important Important Less Important Not Important	
	Economic benefit to local municipality	The continued use of the facility will provide economic benefits to the local community in the form of new employment opportunities in both the construction and day-to-day operation. This also has the potential for increased employment opportunities in local firms.	<ul style="list-style-type: none"> <li>Employment at site (number and duration)</li> <li>Opportunities to provide products or services</li> </ul>		Very Important Important Less Important Not Important	
Social	Visual impact of the facility	The contours of a waste disposal facility can affect the visual appeal of a landscape.	<ul style="list-style-type: none"> <li>Predicted changes in landscapes and views</li> </ul>		Very Important Important Less Important Not Important	
	Local Residents	Waste disposal facilities can potentially affect local residents in the vicinity of the site	<ul style="list-style-type: none"> <li>Number of residents</li> </ul>		Very Important Important Less Important Not Important	
	Recreational Facilities	Waste disposal facilities can potentially affect the use and enjoyment of recreational resources in the vicinity of the site	<ul style="list-style-type: none"> <li>Type(s) and proximity of off-site recreational resources within 500 m of landfill footprint potentially affected</li> </ul>		Very Important Important Less Important Not Important	
Aboriginal	Potential effects on aboriginal communities	The facility construction and operations may adversely affect local aboriginal communities.	<ul style="list-style-type: none"> <li>Potential effects on use of lands for traditional purposes</li> </ul>		Very Important Important Less Important Not Important	
<b>Technical Criteria</b>						
Site Design and Operations	Site design and operations characteristics	The characteristics of the existing and proposed site design and engineered system requirements will affect site activities and operational and maintenance requirements.	<ul style="list-style-type: none"> <li>Complexity of site infrastructure</li> <li>Operational flexibility</li> </ul>		Very Important Important	





			<ul style="list-style-type: none"><li>• Interaction with existing site infrastructure</li><li>• Soil management requirements</li></ul>		Less Important		
					Not Important		

**THANK YOU**



# **Appendix B**

**Workshop Introductory  
Presentation**



Waste Management  
Workshop – May 13, 2010  
St. Stephen's School, Stittsville



# Workshop Overview

- Welcome / Thank You
- Workshop Objectives
  - To obtain community input on proposed new landfill footprint, including:
    - Need for additional disposal capacity
    - Alternatives for proposed disposal
    - Methods to evaluate alternatives
    - Criteria to evaluate alternatives



# Project Context - Focus

- Proposed new landfill footprint primarily focused on waste generated in Ottawa
- Will provide some capacity for waste from outside Ottawa area based upon settlement agreement with City & WM
- Waste capacity between 75% and 90% reserved for waste from Ottawa



# Project Context - Need

- Proposed new landfill footprint will focus on industrial, commercial & institutional (IC&I) waste
- Approximate split of waste is 70% IC&I and 30% residential
- Approximate waste generated in total in Ottawa area is 1,000,000 tpy



# Project Context - Policy

- City responsible for residential waste
- Province responsible for IC&I waste
- Residential generators are served by City programs and facilities
- IC&I generators are served by private programs and facilities



# Project Context - Options

- IC&I generator decisions are guided by policy, regulation, markets and costs
- IC&I disposal options limited in Ottawa and Eastern Ontario currently
- IC&I waste is being shipped out of the Province for disposal currently





# Project Context - Alternatives

- Alternatives for waste management include process decisions, such as diversion and disposal
- Alternatives for waste management include technology decisions, like thermal treatment and landfill



# Project Context - Alternatives

- The proposed new landfill footprint is one component of an integrated waste management complex, that includes diversion and disposal and energy
- Province has strict regulation governing modern landfill designs that address liner, gas and leachate systems



# Project Context - Alternatives

- Mass burn thermal treatment requires large up front capital investment and dedicated waste supply
- Emerging technologies present options for management of waste streams, but require further evolution to reach proven commercial solutions



# Small Group Sessions

- Facilitators for each small group
- Flipcharts and workbooks to record group and individual comments
- 30 minutes per issue and 2 hours total
- Reconvene in plenary at 8:45 pm
- Each small group report back their main comments in 5 minutes



# Appendix C

## Workshop Minutes

## Minutes of Meeting

Date of Meeting	May 5, 2010	Start Time	6:15 pm	Project Number	60116860
Project Name	Waste Management West Carleton Environmental Centre EA				
Location	Brookstreet Hotel, Kanata				
Regarding	WCEC Workshop				
Attendees	Tim Murphy	Waste Management			
	Larry Fedec	AECOM, Environmental Engineer			
	Catherine Parker	AECOM, Environmental Planner			
	Michelle Armstrong	Fotenn Consultants, Land Use Planner			
	Councillor Shad Qadri	Ward 6, Stittsville			
	Councillor Eli-El Chantiry	Ward 5, West Carleton			
	Councillor Marianne Wilkinson	Ward 4, North Kanata			
	Public Members				

**PLEASE NOTE:** If this report does not agree with your records of the meeting, or if there are any omissions, please advise, otherwise we will assume the contents to be correct.

What will the EA address?
Is this considered an expansion of the existing landfill, or a new landfill?
Would the recycling facilities still move ahead if the landfill component of the proposal does not get approval?
Does WM intend to have the diversion facility up and running on Day 1 of the new landfill opening?
Will the current landfill close regardless of this new EA?
Does WM have a choice to “preserve” their allotted capacity and extend the life of the landfill?
What is the tonnage of waste that came through the gates in 2009?
How will our comments be incorporated into the ToR?
When did the consultation requirements for C of A change and how?
Will the 2,700 comments provided for the last ToR be considered for the current proposal?
If the markets for diverted wastes are not economically viable, what will happen to the material that is to be diverted?
Why would WM only be recycling 20% over time when diversion rates are expected to increase to 60% over time at the WCEC?
What happens if WM is losing money by diverting waste? Would WM continue to divert waste at a loss, or would the waste go to the landfill?
How is this proposal different from the first proposal?

Figure 1 of the workbook is misleading because it only deals with waste generation, not diversion.
Does the City have an implementation plan for achieving the 60% diversion rate they have targeted in the 2015 plan for IC&I?
What is the capacity of the other landfills in Ottawa? Are you doubling the capacity?
Does increased diversion and a slowly growing population not mean a decreased volume of waste overtime? If so, where is the need for this?
What is the percentage of Ottawa's garbage that is being shipped to New York state?
How does IC&I waste affect Ottawa's taxpayers?
What is the capacity left at the Trail Road facility?
Is there any diversion infrastructure in place for IC&I waste currently?
Would your diversion efforts increase the overall diversion rate?
Does the Province have a waste management strategy regarding landfill location and capacity?
Has Ottawa been in a true growth curve for the last 5 years?
If you get approval for this landfill, is it easier to get an expansion to the site in the future?
Have diversion programs for electronic waste been considered in your determination of need?
The wording of the agreement with the City is confusing and poorly worded. Residential waste should be removed from the Need argument.
Reword the statement that 10% of the City's Residential waste capacity requires you to reserve 90% of the landfill for Ottawa waste. Indicate that the 90% number is for residential and IC&I waste, leaving 10% for non-local waste.
If the City of Ottawa says no residential waste capacity is needed, then would WM be free to take waste from anywhere?
Could residential waste from Toronto go to a transfer station and then go to the WM site?
WM should consider limitations on receiving waste from communities outside of Ottawa.
It makes good business sense for WM to fill up this landfill in the least amount of time possible.
The document says the excess capacity can come from Ontario, so could it come from Toronto or Windsor?
If the economy is right and the capacity of a landfill is there, couldn't Ontario decide to import waste from outside the province, as Quebec has done? For example, Orgaworld currently does this.
What about future changes to the facility? Would they be subject to another EA process?
Clarification of total generation vs. Diversion vs. Total capacity should be provided, ie. A better graph.
WM is assuming that they can divert approximately 100,000 tonnes annually, but we assume other companies will divert as well.
Our concern is that a new landfill with capacity will lessen the incentive to divert more material because it keeps the costs of landfilling low.
What will the 100,000 tonnes of waste you plan to divert be comprised of?

<p>If 30% of waste is organic, and you were to build an organics facility, then couldn't you reduce your landfill size by 30%?</p>
<p>The plan would be a lot more palatable if you committed to 60% diversion and only proposed a landfill for the remaining 40%. It would be tougher to fight you. This proposal feels too similar to the 1st.</p>
<p>The Diversion 2015 report contains waste composition statistics.</p>
<p>Does WM want to get into recyclables (ie. Cardboard) where other companies are already operating?</p>
<p>Has WM ever approached the provincial government to request regulatory changes?</p>
<p>What is the % of waste streams into the landfill? (ie. organics, C&amp;D, etc.)</p>
<p>Why is WM pre-determining that a new landfill has to be inside the City of Ottawa? Why couldn't you buy cheaper land outside of the City?</p>
<p>As a resident, I'm not concerned about WM's business model.</p>
<p>How are the alternatives determined?</p>
<p>Why doesn't "Do Nothing" more clearly state that it applies to maintaining IC&amp;I and not the residential sector?'</p>
<p>At \$80/tonne and 4,000,000 tonnes, it's \$320 million in revenue. WM could afford to go outside of Ottawa.</p>
<p>WM is already trucking waste long distances. All of their infrastructure could be replicated at the new site and I don't see it as costing a significant amount more.</p>
<p>The proposal has changed, and been improved, but it's still a "dump". We can't argue though that the model makes sense from a business standpoint.</p>
<p>WM needs to also address their community. WM's views are not the only ones that count. The Ministry will consider our views as well. The costs of building the landfill here or outside of Ottawa are the same.</p>
<p>Can't WM make better use of the methane gas?</p>
<p>Do you have a decommissioning plan for the existing landfill?</p>
<p>Could the leachate curtains at the existing landfill fail over time? The leachate is an ongoing concern for residents.</p>
<p>Can we get clarification on the technology used in the old landfill vs. the new landfill?</p>
<p>Is it a seamed liner? What is the life expectancy of the liner?</p>
<p>What is the oldest existing landfill site using the double liner system?</p>
<p>How does the liner react to bio-chemicals?</p>
<p>The analysis of alternatives has to consider need first, then whether the need is enough to justify the investment in the technology.</p>
<p>Will this landfill accept hazardous waste?</p>
<p>How does WM monitor whether hazardous wastes are being dumped?</p>
<p>Is WM willing to go above and beyond the standard double-liner system given that the site is on fractured bedrock?</p>



Is the mass-burn vs. landfill option an either/or situation?

There will never be a shortage of waste going to the landfill; the volumes don't seem to go down. WM could spend the money and as long as the revenue stream and sale of power from the facility are covering the payments. If we are waiting three years to have a mass-burn facility, then I think this is a better option.

Is this a scoped EA, or a full EA?

Would WM be willing to invest in a system that is over and above the minimum requirements?

Since WM gets a consistency of waste, why can't you invest in an EFW?

Payback of EFW can be made over a longer period of time.

It would seem that the revenues associated with the proposed landfill could also be diverted to gasification as a waste stream.

If a gasification project, like Plasco, can accept and manage IC&I waste stream, what would prevent them from considering an EFW facility?

If we can incinerate the waste, why would we build a new landfill in a residential area?

If WM plans to divert and sort the waste, wouldn't WM have control over a waste stream going to the gasification plant? Can't WM control the waste stream through the selection of their contracts?

What about variable pricing to attract materials for EFW?

Control the gasification input with a diversion plant. WM is not reliant solely on what comes through their gates. Diversion plant combination is possible due to the fact that it doesn't require an EA.

The up-front cost is only 1/2 the issue. How much electricity can be produced and sold and at what price is the issue that matters.

If gasification puts WM at a price disadvantage, how can the community ever expect WM to do any diversion? Diversion also puts WM at a disadvantage, since nothing is as cheap as a landfill.

4-7 years is not that long to wait, since it is only 3 extra years over Alternative #3. If Alternative #1 is sustainable for 4 years then it is also sustainable for 7.

## Minutes of Meeting

Date of Meeting	May 3, 2010	Start Time	6:15 pm	Project Number	60116860
Project Name	Waste Management West Carleton Environmental Centre EA				
Location	WM Hauling Office, Stittsville/Carp				
Regarding	WCEC Workshop				
Attendees	Tim Murphy	Waste Management			
	Larry Fedec	AECOM, Environmental Engineer			
	Michelle Armstrong	Fotenn Consultants, Land Use Planner			
	Councillor Shad Qadri	Ward 6, Stittsville			
	Councillor Eli-EI Chantiry	Ward 5, West Carleton			
	Public Members				

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Are imported waste numbers used?
I am concerned about closing the border; can they actually close the border to IC&I waste? Isn't that against the FTA?
I didn't know there were other landfills in Ottawa.
The average amount of waste WM has accepted is 250,000 tonnes.
A distinction should be made between the waste received at the gate, and what portion goes into the landfill.
The 400,000 tonnes should be clearer.
The numbers for the diversion need to be strengthened. They need to be looked at more closely. They start to look very weak when you look closely. WM needs to be very clear about the numbers.
There is no incentive to recycle. There needs to be provincial legislation to make recycling mandatory. Then the diversion rates need to go way up.
Does the agreement apply to the new landfill site or does it apply only to the existing site?
Is 75% of the landfill capacity enough to handle all of the IC&I wastes in Ottawa?
Up until 2 years ago, WM was receiving up to 30% residential waste.
WSI has a transfer station for hauling waste to other areas (eg. Seneca Falls)
Is compaction of markets a factor in pricing and volume of a landfill?
This could be a joint Federal/Provincial EA. Should be EA be modeled on a federal EA, it would need a more rigorous analysis of need than what is currently in this document.
The 10-15 year window is a little misleading – we have to look beyond 10 years unless WM is going

to walk away from the site.
If the numbers don't really make sense, it's not really a strong argument. Negative or positive, it needs to make sense.
What will be the technology in 10 years?
Which numbers aren't correct? The total tonnes? When do you reach the diversion target? The assumptions should be clearer.
Why are you only looking at the landfill for the EA?
What will be the diversion rate at WCEC?
If the facilities are build right away, then the diversion rates should be established at the beginning.
When the ToR is submitted, it should be clear about the diversion rates at the beginning. They have to be realistic.
We need to have more models for recyclables.
What specifically will be on the site? MRF? Are there any details on these facilities?
Do the numbers assume a somewhat "lukewarm" diversion effort? If the province intervned with legislation then this "best case scenario" for a landfill size might not actually be needed. Are the numbers being used to justify a larger landfill footprint? How committed to diversion is WM?
Can WM not take the lead in increasing the diversion rate?
The provincial diversion act is mostly complete but not enacted – why wouldn't you assume diversion?
What happens if the waste stream isn't there? How much is driven by the size of the landfill in terms of revenue generation? Is it simply economically viable at 6 million m <sup>3</sup> ?
The recycling facilities need only a C of A to operate.
Determine what the best case scenario is, and have a business case somewhere in between.
Can WM make a profit for the EFW?
Comment - In Europe, the pay back for a thermal facility is 10 years.
Comment - The Brampton facility is \$105/tonne plus energy produced. This is a broad blanket statement but without evidence as to why.
Are the quotes from "Code of Practice" really appropriate? They seem self-serving. Are they really in context?
Why isn't WM looking at Thermal Destruction (not mass-burn technology) which is used in Europe/Sweden?
Federal criteria is "public concern". Prevailing winds lead to residential subdivisions, so thermal will be an issue in terms of impacts.
A key factor in the new site is finding a clay site. The environmental considerations are more important than the ownership issues.
What is the service area for the landfill?
Is the contract in breach because WM has not been accepting waste?

Why does the Napanee EA include Ottawa?
How can you justify importing wastes from other municipalities and bringing waste into Ottawa? Why wouldn't you restrict it to just Ottawa?
Can't WM have a green bin equivalent for the IC&I sector? WM could make a big dent in the waste generated if they did that.
Maybe the stream should be restricted to a reasonable distance (ie. 100 km); a good neighbour policy.
What is the business model?
Can there be a workshop in Carp next week?
Examples of EFN Burnaby, BC – emissions of less than 4 trucks daily Brampton, ON These examples should be made available
Why aren't the CAZ lands being considered?
The owned lands on the east side of Carp should be considered, and the impacts should be looked at.
I hope that WM takes an ecosystem approach. They need to do good EA studies.
I don't see how we can make a decision on a landfill footprint.
Will we have another opportunity to comment on the development envelope?
Will WM make this approach much cleaner and broader before you submit the ToR? Will they make sure the people are well-informed so they can make a proper decision?
The packages need to be much simpler to address the most common denominator.

## Minutes of Meeting

Date of Meeting	May 13, 2010	Start Time	6:15 pm	Project Number	60116860
Project Name	Waste Management West Carleton Environmental Centre EA				
Location	St. Stephen Catholic School, Stittsville				

Regarding WCEC Workshop – Flip Charts Content

Attendees	Tim Murphy	Waste Management
	Ross Wallace	Waste Management
	Don Wright	Waste Management
	Cathy Smithe	Waste Management
	Wayne French	Waste Management
	Larry Fedec	AECOM
	Blair Shoniker	AECOM
	Catherine Parker	AECOM
	Michelle Armstrong	Fotenn Consultants, Land Use Planner
	Paul Smolkin	Golder
	Ted O'Neill	Golder
	Councillor Shad Qadri	Ward 6, Stittsville
	Councillor Eli-El Chantiry	Ward 5, West Carleton
	Councillor Gord Hunter	Ward 9, Knoxdale-Merivale
	Public Members	

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Is waste being exported to the US from Ottawa currently being disposed of at a WM owned facility in New York state?
What is the status of the agreement between WM and the City of Ottawa in regards to the 75-90% reservation of capacity for the City, especially in current years when you have accepted much less waste?
How can WM and citizens get the government to force diversion for the IC&I sector?
Is there any committed volume or % diversion for the WCEC?
Will IC&I waste be source separated or co-mingled?
Comment - I would like to see WMCC put forward a plan that will accelerate diversion. It feel like this proposal will provide cheap disposal and thereby discourage diversion.
The 10 year time horizon for the landfill seems very short.
Will WM be seeking another landfill approval on this site after 10 years?
Are notes available from other workshops?

What is the mandate of this group? To provide comments to provincial/municipal authorities?
If IC&I is private sector, and most viable going outside province or U.S., would it be more cheaper to provide waste disposal in Ottawa?
If landfill expansion is approved, then will Ottawa WMF expansion be needed?
Does waste from Ottawa area go to WM landfill in the US? – if yes, doesn't that meet some of the capacity issues?
Comment - I don't want recyclables shipped to Ottawa from elsewhere (methane explosives)
Clarify IC&I facility? Source-separated or combined material?
Can we reformat the books, they are terrible to deal with?
Why are our tipping fees higher?
Where are the Napanee analyses available?
Do you agree that by providing a local landfill you are reducing the costs to IC&I sector, thereby reducing their likelihood to divert?
Is diversion a local market or international?
How many other facilities like this in North America?
Can the government mandate where you get your waste from?

***Below is a summary of the flip charts and notes taken at each Table.***

**Table 1**

- Where are the IC&I diversion rates and numbers from?
- Alternatives considered
- Is there a guarantee for the IC&I numbers?
- Cost is the driving factor (profit driven)
- Are provincial diversion targets realistic?
- Waste from private is a by-product of consumers
- Incentives to divert are low, flip the cost model
- WM could change drivers in markets
- When would the facility be built?
- Want solid commitment on diversion elements (want to see it)
- Thought closure was 2010
- Longer life because of current diversion?
- Alternative #1 would turn into Alternative #5
- Regulate customers to separate the waste streams (Alternative #2)
- Gasification pilot projects?
- How long a timeframe for Thermal?
- How different is residential to IC&I waste (Composition)
- Province regulates classifications of waste types?
- Profile of waste (rating)?
- Contamination of current site
- Proposal is close to residential lands
- What is the current radius for studying residential impacts?

- How can we determine if contamination is from existing landfill or if there is potential leak in the new liner?
- Where is the CAZ?
- How far out are the monitoring wells? (distance)
- How do you differentiate current water contamination versus a leak in the current liner?
- Any contamination elsewhere in the vicinity of the site?
- People on Carp Road had to go to wells?
- Weren't forced, water was coming to Stittsville
- Similar issues with Trail Road
- Can't be secure forever (ie. Liner)
- Must ensuring monitoring takes place
- Can't use facilities as leverage/justification, they need to be there now
- Would like to see costs as it relates to economics of the site/undertaking
- Profiles/elevations (ie. Storeys) – show them
- Identify current access points
- Why are flares still going?
- Other side of William Mooney?
- How many stacks are coming down?
- What is the ultimate height?
- Economic rationale that makes 400,000 tonnes more favourable (excluding all associated infrastructure)

**Table 2**

- Capacity vs. Average tonnage - Up to 400,000
- Is this needed given what has actually been taken in historically?
- The EA will show WM in the best light
- Operational issues that stopped the last proposal
- What is the actual amount planned to be diverted? It isn't clear and we want a commitment.
- Traffic and transportation issues need to be studied for the EA
- What was the population of Ottawa last time WM got approval for this site?
- Why do we reduce/recycle if new landfills are still being proposed?
- How does residential waste factor into this? It relates to the City agreement
- Origin of the waste is a concern
- 90% of Ottawa generated waste is still assumed because of the agreement
- City policy in place, but no formal jurisdiction (only the province does)
- When will the provincial regulations come through? Changes to the Act are expected in the next few weeks, but regulations will follow over time
- WM should wait until regulations
- WM should start with diversion – take the lead on this before considering a landfill
- Is there a way to recycle things in the future that are landfilled today?
- Can WM seek further approvals in 10 years?
- How does 400,000 tonnes convert to m<sup>3</sup>?
- Why aren't we moving the site elsewhere?
- Too many residences nearby
- The landfill is full, close it.
- Landfill is needed, but should go to a better site, or should be removed in 10 years (ie. Taken apart)

- Need is there because of residual waste, but the location isn't good
- Why didn't the City/Province prevent increased residential development?
- Are there plans for more EFWs?
- Mass-burn considered "old technology", only effective for mixed waste stream
- Gasification is proven only for homogeneous waste
- Will the studies be thorough enough to identify if this isn't a good site?
- Will the site be excavated?
- The parameters of the site footprint will be determined during the EA
- Emergency planning must be strict
- All government agencies will have a chance to review and comment on the ToR
- In tweaking the design to mitigate impacts, is it approvable if they don't meet all the standards?

**Table 3**

- The ToR timeline is much shorter (2 months) than MOE guidelines (6 months)
- 400,000 tonnes per year – WM is asking to double the tonnage taking. Average is less. Clarify tonnage per year.
- Surrounding communities should be identified
- City of Ottawa agreement – should it be modified or cancelled for new site
- Population projection numbers being used are too high
- Figure 1 assumes no change in waste generation per capita?
- 10 year versus 20 year planning horizon
- Diversion 2015 city strategy
- Enforcement of provincial regulations on IC&I waste producers
- Waste capacity difference between Figure 1 and the City of Ottawa 2015 report (WM is 1,000,000, City is 860,000)
- Where does 2% increase in diversion IC&I come from? Why so low?
- New provincial regulations (Act) could increase diversion in IC&I significantly – reconsider need in context of new Act?
- Impact of the Green Bin program?
- Agreement with the City of Ottawa – will it still be enforced?
- Why not wait for more revised waste diversion bill to be tabled? Would give this exercise more value.
- Incineration provides disposal plus energy
- Alternative technologies for thermal that should be looked at
- What would be cost per tonne to be disposed in thermal technology?
- WM has partnered with other companies – pilot in Ottawa
- Site not environmentally suitable for a landfill – what others were considered?
- Constraints are not comprehensive
- The process needs more time

**Table 4**

- Numbers for waste generation for 2006-2010 as a reality check on the waste generation predictions (ie. do a sensitivity analysis)
- Explain the difference between 860,000 tonnes and 1.1 million tonnes that are provided in the City of Ottawa request and the WM number.
- WM should commit to help and push the province to force accelerated diversion and minimize disposal as well as set diversion targets (%) for the WCEC.



- We don't agree that, considering local demand, 2% diversion per year is enough. 400,000 tonnes per year maybe more than is required.
- If this City is not counting on WM for residential waste, please clarify what amount of waste would come from outside of Ottawa.
- Does the agreement with the City apply to the new landfill footprint?
- Will WM commit to a maximum % that can come from outside of Ottawa?
- Since the city is not counting on WM for residential waste, there is no commitment of tonnage available and therefore, no business case for WM to be able to consider any thermal technology.
- The City has indicated their intent to send their residential waste to Plasco.
- WM needs to clarify that the site life is based on volume/air space – it is not necessarily a 10 year expansion. Make this expectation clear or make a time commitment (preferably).
- Has WM really evaluated the potential to build a new landfill elsewhere?
- Workbook should say “Is the alternative economically, socially and environmentally viable and acceptable”.
- The analysis is not thorough enough and not well enough explained.
- We agree that exporting waste should be stopped within a custom time frame. We need to do an analysis to see what time frame this corresponds to. If it is short enough, then don't create artificial/unnecessary landfill airspace.
- We don't agree, at this point, that Alternative 3 is the preferred Alternative.
- Why is WM proposing a new landfill footprint and not a lateral expansion onto the existing landform? This should be considered.

#### *Summary and Main Points*

- WM should commit to push the province to legislate accelerated diversion and minimize disposal and commit/set diversion targets (%) for the WCEC.
- In view of the above, the diversion rate increase will be more than 2% per year. Therefore don't need 400,000 tonnes per year.
- WM needs to clarify that the site life is actually volume based, not necessarily a 10 year expansion. Make the expectation clear or will WM make a time limiting commitment?

#### *Alternative #4 New Landfill Elsewhere*

- Has WM really evaluated the potential before dismissing it?
- Recommend they look elsewhere

#### *Needs Assessment*

- Not thorough enough and not well enough explained
- Is Alternative #3 the Preferred Alternative? We don't agree.

#### *Screening Question, 2<sup>nd</sup> Bullet*

- Should be revised: “Is the alternative economically, socially and environmentally viable and acceptable”.

**Table 5**

- Proponents take from 6-9 months to prepare a ToR. Why rush to submit the ToR?
- “Up to 400,000 tonnes”? The average has been 250,000 tonnes. WM should be clearer about their average tonnage.
- Is there a limit on the amount of waste per year? No, there is no limit.
- People have a concern about “surrounding communities” – they should be identified.
- Does Ottawa WMF receive municipal waste? Yes, 2,000 tonnes per year.
- 1-2% growth for population seems high – Stats Can says 0.9% growth between 2001 and 2006.
- Shouldn't waste generation per capita reduce over time? Figure 1 assumes that there will be no waste generation per capita?
- How do people feel about the 10 year versus the 20 year planning horizon?
- Are we going to be back here in 10 years for another landfill? We will always need a disposal component – after 10 years, then what? What will be the most economic?
- Alternative disposal methods will be better? (eg. thermal gasification)
- Shorter time frame allows for new technologies to be implemented.
- Landfilling is the cheapest option – there is no incentive to do anything else with the garbage.
- How can the City's Diversion 2015 strategy be enforced if it's a provincial mandate?
- There is currently no incentive to divert – landfilling is too cheap.
- People want green options – consumers will choose green companies who have good diversion practices.
- Where does the 2% annual increase in waste diversion come from?
- If the Province changes the regulations, then the rate of diversion would increase dramatically.
- Should there be reconsideration in a couple of months after the Draft Act is out for review by the public? Why rush the process?
- What will be the impact of the Green Bin program?
- There are still odour and aesthetic issues towards Kanata.
- Will the City agreement be enforced?
- The City has said that they don't need capacity at the Ottawa WMF going forward.
- WM is currently investigating whether the Agreement would be applied to a new landfill site.
- For Figure 2 in the workbook, should the line be straight? Wouldn't it be more curved? This figure looks too simplistic.
- Incineration is a good idea – it is a disposal method but it also supplies electricity. It would be more economic.
- What are the impacts of incineration? These technologies are not new – aren't they very well tested in Sweden? Is there smell? Pollution?
- Are Ontario's Air Quality standards very high?
- The “Code of Practice” quote says “waste volumes are too small”. This seems to contradict the graph.
- In Brampton, they had two issues: the up-front costs and the uncertainty of the waste volumes.
- WM is investigating other technologies, but they should be brought on sooner.
- How is a suitable site defined in regards to Alternative #4?
- What other sites were considered?
- Save space for future green energy such as wind or solar. Large-scale wind turbines may create community concern.
- There are other constraints that are not considered on the map.
- 3-hour workshop is not enough time to explore the issues.

**Table 6 Notes***Part A – Needs and Rationale*

- How many tonnes of IC&I waste is being diverted currently?
- Of the waste that WM accepts, how much is diverted at the landfill currently?
- The size of the landfill is a disincentive to waste diversion
- The waste diversion incentive will be monetary and policy driven
- Recognize need for waste disposal capacity, but don't understand how to get numbers
- Need more explanation for disposal within Ottawa
- Information is not readily available to answer
- We have not had the time to review information provided
- Page 3 – 2nd bullet – last sentence – is WM only looking at the Ottawa WMF site?
- Community does not understand justification of 400,000 tonnes

*Part B – Alternatives*

- 10 years – means 10 years of operation – after approval
- Want a “full” EA
- Incineration is too expensive for an alternative
- Another option – site separation
- Dry waste – site separation option
- Should City be involved in process (ie. # of bags at curb, recycling bylaw for IC&I, but beyond WM control)

*Part C – Alternative Methods*

- Put in constraints owned by WM for CAZ on map
- Yes – area owners and possible development area understood
- WM should stay out of constrained areas (wetlands)
- An alternative – stay lower in elevation
- Number of footprints maybe premature

**Table 6 General Notes**

- How do future diversion rates change?
- Would Carp facility have organic handling facility? There will be composting – many municipalities believe diversion of organics is the only way to achieve 60% diversion rate
- How much is WM diverting? Currently not much – more with WCEC
- I don't understand diversion – how much is coming in? Of the waste accepted by WM, where does it go?
- Size of the landfill is a disincentive for diversion
- Incentive will be monetary
- When you look at a full EA
- When you did Artist Rendering, why didn't you put nearby housing?
- What is the life of the landfill? 10 years