

# **Terms of Reference for Environmental Assessment**

**New Landfill Footprint** 

**Beechwood Road Environmental Centre** 

Workshop on Alternatives To, Alternative Methods & Evaluation Criteria

March 25, 2010

### **AGENDA**

6:00 Register/Supper

6:15 Opening remarks and overview of workshop

– Randy Harris

The participants will be divided into three groups: A, B or C. There are three tables, each with a facilitator, focusing on one of three topics: 1) Alternatives to a new landfill footprint; 2) Alternative methods or ways of developing a new landfill footprint, and 3) criteria that will be used in the EA to compare alternatives and identify a preferred alternative. Each person will receive a workbook to complete tonight. Each group will go through the workbooks assisted by a facilitator. You will receive some information and then be asked for your input/opinion. There will be a short break between table sessions. When we reconvene you will rotate to the next group. Everything you need is in the workbook. If you have questions, the facilitator will help and further technical resources are also available. There is space available in the workbook for you to add any comment or question that you want.

TIME	Table 1: Alternatives To	Table 2: Alternative Methods	Table 3: Evaluation Criteria
6:30	Group A	Group B	Group C
7:25	BREAK	BREAK	BREAK
7:30	Group C	Group A	Group B
8:25	BREAK	BREAK	BREAK
8:30	Group B	Group C	Group A

9:25 Summary and Wrap Up

9:30 Adjourn

#### Please tell us about yourself.

Under the Freedom of Information and Protection of Privacy Act and the EAA, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public records files for this matter and will be released, if requested, to any person.

NAME:	
ADDRESS:	
DOSTAL CO	DE
	DE
PHONE:	
EMAIL:	
GROUP.	(A, B  or  C)

## Tell us what you think!

imp	rove it? Did v	k about the wor ve discuss the ri ed more space.		f
				_



#### TABLE 1: ALTERNATIVES TO A NEW LANDFILL

Facilitator: Michelle Armstrong (FoTenn)
Technical Support: Ted O'Neill (Golder)

## Part 1: Need and the Rationale for Waste Disposal Services in Eastern Ontario

- Since the Minister of the Environment rejected WM's previous EA, we have listened to the community and considered the need for the future of the Napanee landfill and waste disposal services in Greater Napanee and eastern Ontario. We have concluded that there continues to be an opportunity for WM to meet these needs, in a manner consistent with the wishes of Napanee, its residents and the province of Ontario. The current landfill can be safely closed and monitored and a new integrated waste management facility established to take its place.
- Under its current Certificate of Approval, the Napanee Landfill can accept a maximum of 125,000 tonnes of waste per year for disposal. Up until 2004, the site was operating at that fill rate. At that time, WM made the decision to divert waste that had previously gone to the Napanee Landfill to other locations in order to extend the life of the site as presently approved. These alternatives are environmentally and economically less preferred than having disposal capacity at the Napanee Landfill. The current approved landfill on the WM property will reach capacity in the near future.
- WM conducted an analysis to estimate the need for landfill disposal. Since the landfill site is located in eastern Ontario, the waste disposal needs were limited to eastern Ontario. Eastern Ontario includes the following census divisions, as defined by Statistic Canada for 2006:

 Durham (pop. 561,258)
 Northumberland (pop. 80,963)

 Haliburton (pop.16,147)
 Ottawa (pop. 812,129)

 Hastings (pop. 130,474)
 Peterborough (pop. 133,080)

 Kawartha Lakes (pop. 74,561)
 Prescott and Russell (pop. 80,184)

 Lanark (pop. 63,785)
 Prince Edward (pop. 25,496)

 Leeds and Grenville (pop. 99,206)
 Renfrew (pop. 97,545)

 Lennox and Addington (pop. 40,542)
 Stormont, Dundas and Glengarry (pop. 110,399)

 Frontenac (pop.143,865)
 Frontenac (pop.143,865)

Table 1: Eastern Ontario Waste Generation and Diversion (2006)

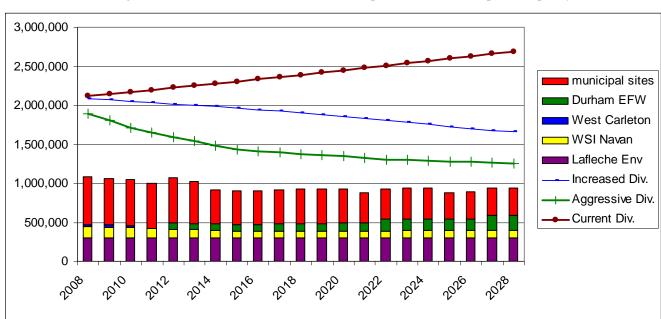
• These census divisions have a total population of 2,469,634, or 20% of the total 2006 Statistics Canada population for Ontario. It is assumed that the amount of waste generation on a per capita basis is consistent across the province, therefore the estimated 2006 waste generation and disposal quantities for eastern Ontario are as shown in Table 2.

Table 2: Eastern Ontario Waste Generation and Diversion (2006)

	<b>Total Waste Generated</b>	<b>Waste Diverted</b>	<b>Residual Waste Disposed</b>
Residential	1,043,340	302,293 (29%)	741,047
Non residential	1,523,587	177,078 (12%)	1,346,509
Total	2,566,927	479,371 (19%)	2,087,556



- Based on this information, the 2008 need for residual waste disposal capacity in eastern Ontario is conservatively taken as 2.1 million tonnes per year, of which 1.3 million tonnes is from non-residential sources.
- Next we looked at existing disposal capacity in eastern Ontario. This includes four privately-owned and several municipally-owned landfills in eastern Ontario.
- Based on the available information, we estimated that the municipal sites in eastern Ontario are currently accepting approximately 560,000 tonnes of waste per year. A number of these sites will be reaching capacity and closing over the next several years and there are no major municipal landfill developments or expansions planned. This will put continued pressure on the existing privately-owned landfill sites in eastern Ontario.
- Next we estimated the projected waste disposal needs under three scenarios:
  - o Scenario 1 the status quo, which was based on waste generation increasing at an annual increase of 1.2% and waste diversion remaining constant at the current levels of 30% for residential and 12% for IC & I;
  - o Scenario 2 increased diversion, which is the same waste generation increase along with an increase in diversion rates of 1.5% per year until 60% diversion rate is reached; and
  - o Scenario 3 aggressive diversion, which is the same waste generation increase along with an increase in diversion rates of 2% per year up to 60%.
- Our analysis showed that with an aggressive increase in waste diversion (Scenario 3), there is an expected disposal capacity deficit ranging from approximately 520,000 to 708,000 tonnes per year until 2015. Thereafter, the highly aggressive waste diversion assumptions, particularly those for IC&I waste in the City of Ottawa, lead to a disposal deficit which ranges from 310,000 to 510,000 tonnes per year through the year 2028.



• Figure: Eastern Ontario Residual Waste Disposal Needs vs. Disposal Capacity

- This analysis concludes that there is an ongoing need for residual waste disposal services in eastern Ontario for at least the next 20 years. The disposal capacity deficit assuming an increase in current diversion rates ranges from about 720,000 to 1.0 million tonnes per year. Providing an annual residual waste disposal capacity in the range of 400,000 tonnes per year would provide a key service to the communities in eastern Ontario while encouraging the development of higher diversion rates and alternative technologies through the Beechwood Road Environmental Centre for managing the residual waste stream.
- Since the Site is strategically located in the geographic centre of Eastern Ontario, in terms of both haul distances and routes, and since the other private disposal sites are located a considerable distance away in the more eastern parts of the province, it is clear that there is an opportunity for extending the historic waste management role of the WM's Napanee Site as a significant component in the residual waste disposal infrastructure servicing generators in eastern Ontario.
- Based on the above we determined that a new landfill footprint would need to be approximately 13 million cubic metres in size.



# <u>Discussion and Comments on Need and the Rationale for Waste Disposal Services in Eastern Ontario</u>

. Do you	understand the analysis that WM undertook to determine if there is a need for waste disposal services in eastern Ontario?
. Are the	ere other assessment factors that should be included in the analysis? What are they?
-	
-	
-	
-	
-	
. Do you	u generally agree that there is a need for waste disposal services in eastern Ontario even with aggressive increases in waste diversion efforts? If no, please share your reasoning.



## Part 2: Alternatives To a New Landfill Footprint

- After reaching the conclusion that there the need for waste disposal services in eastern Ontario and that we had 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;

March 25, 2010

- 2. Use current landfill site as a transfer and processing facility and haul wastes to a disposal facility elsewhere;
- 3. Construct a thermal destruction facility at the site;
- 4. Establish a new landfill elsewhere in Ontario;
- 5. Close the current landfill and establish a new landfill footprint on site; and,
- 6. Close the current landfill and establish a new landfill footprint for disposal of residual wastes on-site as part of a comprehensive waste management system that encompasses an facility for increased waste diversion, energy conservation, and opportunities for economic development and community benefits.

#### Table: Summary of Screening to Identify Reasonable and Practicable Alternatives

Assessment Factor	Alt. #1: Do Nothing	Alt. #2: Transfer Facility	Alt. #3: Thermal	Alt. #4: New Landfill Elsewhere	Alt. #5: New Landfill On-site	Alt. #6: New Landfill On-site – Diversion
a) Consistent with WMCC opportunity?	No	Yes	Yes	Yes	Yes	Yes
b) Technically Feasible?	Yes	Yes	Yes	Yes	Yes	Yes
c) Able to be approved?	Yes	Yes	Yes	Yes	Yes	Yes
d) Consistent with core business competencies?	Yes	Yes	Yes	Yes	Yes	Yes
e) Consistent with strategy for responsible waste management?	No	No	Yes	Yes	No	Yes
f) Enables WMCC to continue to provide cost effective services?	No	No	No	Yes	Yes	Yes
g) Acceptable economic risks and benefits?	No	No	No	No	No	Yes

- Alternative 6, the closure of the current landfill, the construction and operation of a new landfill footprint located north and/or northeast of the current landfill and the establishment of several activities to enhance diversion of waste from the landfill is the preferred alternative. Implementation of this alternative will provide additional waste disposal capacity for Greater Napanee and eastern Ontario for an estimated 20 years. In addition, its location in the east part of Ontario is strategic and economically favourable in terms of haul distances and routes, since other area landfill sites are located in the Ottawa area.
- Finally, WM developed an overall concept to meet the needs for waste disposal in eastern Ontario. Known as the Beechwood Road Environmental Centre (BREC), the proposed new facility comprises several activities to enhance diversion, promote green energy production, provide economic and community benefits and provide for disposal of residual wastes in an environmentally safe manner.



## **Discussion and Comments on Alternatives To a New Landfill Footprint**

1. Do you understand the analysis that WM undertook to determine alternatives to meeting the need for waste disposal services in eastern Ontario?
2. Are there other "alternatives to" that should be considered? What are they?
3. Are there other evaluation criteria that should be considered in the assessment? What are they?
4. Do you agree with the screening of alternatives to determine if they are reasonable and practical?
5. Do you agree with the conclusion that alternative 6 is the preferred alternative?



#### TABLE 2: ALTERNATIVE METHODS (WAYS) FOR DEVELOPING A NEW LANDFILL FOOTPRINT

Facilitator: Bhagya Weerasinghe (Golder)

Technical Resource: Randy Harris (Waste Management)

• WM conducted an analysis to determine if there was a need for providing waste disposal services in eastern Ontario and alternatives to provide this service. We concluded that there was a need and that the preferred way of meeting this need was to close the current landfill and establish a new landfill footprint on the site and provide enhanced waste diversion activities to minimize residual waste that would need to be landfilled. In EA terms, this is known as the preferred alternative or proposed 'undertaking' (Discussed at Table 1).

• 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, envelopes (or areas) for potential development of landfill footprints will be determined. During the EA, a reasonable number of reasonable alternatives will be identified within the development envelopes.

• To identify potential envelopes we determined the approximate area needed to develop a new landfill footprint with an approximate volume of 13 million cubic metres, which would not be higher than the current landfill. We determined that we needed approximately 50 to 55 ha of land.

• Next, we looked at the lands that we currently owned or leased and the constraints on these lands (see Figure).

• WM lands in the south east were excluded because they were separated from other WM lands by privately owned property and were too small for development of the required facilities.

• Next, we excluded the wetland conservation areas on the northwest part of the property as well as a corridor of land in the middle of our property that is occupied by the Hydro transmission corridor and Marysville Creek.

• Two areas were identified which were too small for development as a landfill footprint, but were suitable for potential development of infrastructure such as entrance, scales, maintenance facilities and diversion facilities. One parcel is located immediately east of the existing landfill and the other is located along Johnson's Line East about 1 km north of Beechwood Road.

• The remaining area was identified as an area where landfill footprint alternatives could be located. Other infrastructure to support landfilling and waste diversion operations could be located in this envelope as well as community facilities.

• The envelope for potential development can be divided in half (approximately) thus creating two areas for development of landfill footprint alternatives – the western envelope and eastern envelope.

• The 50-55 ha required for landfill footprint would occupy most of the land within each envelope.

• It is anticipated that two or more alternatives would be identified during the EA for both the western and eastern envelopes.

• 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.



# CONSTRAINTS AND DEVELOPMENT OPPORTUNITIES FOR NEW LANDFILL FOOTPRINT WASTE MANAGEMENT OF CANADA CORPORATION

#### LEGEND

777

PROPERTY BOUNDARY OF LANDS OWNED/OPTIONED BY WASTE MANAGEMENT
POTENTIAL DEVELOPMENT AREA FOR LANDFILL FOOTPRINT, INFRASTRUCTURE,
AND/OR COMMUNITY LANDS

POTENTIAL INFRASTRUCTURE AREA

CONSTRAINT HYDRO CORRIDOR

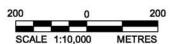
EE

CONSTRAINT MARYSVILLE CREEK

CONSTRAINT WETLAND CONSERVATION AREA

r -- --

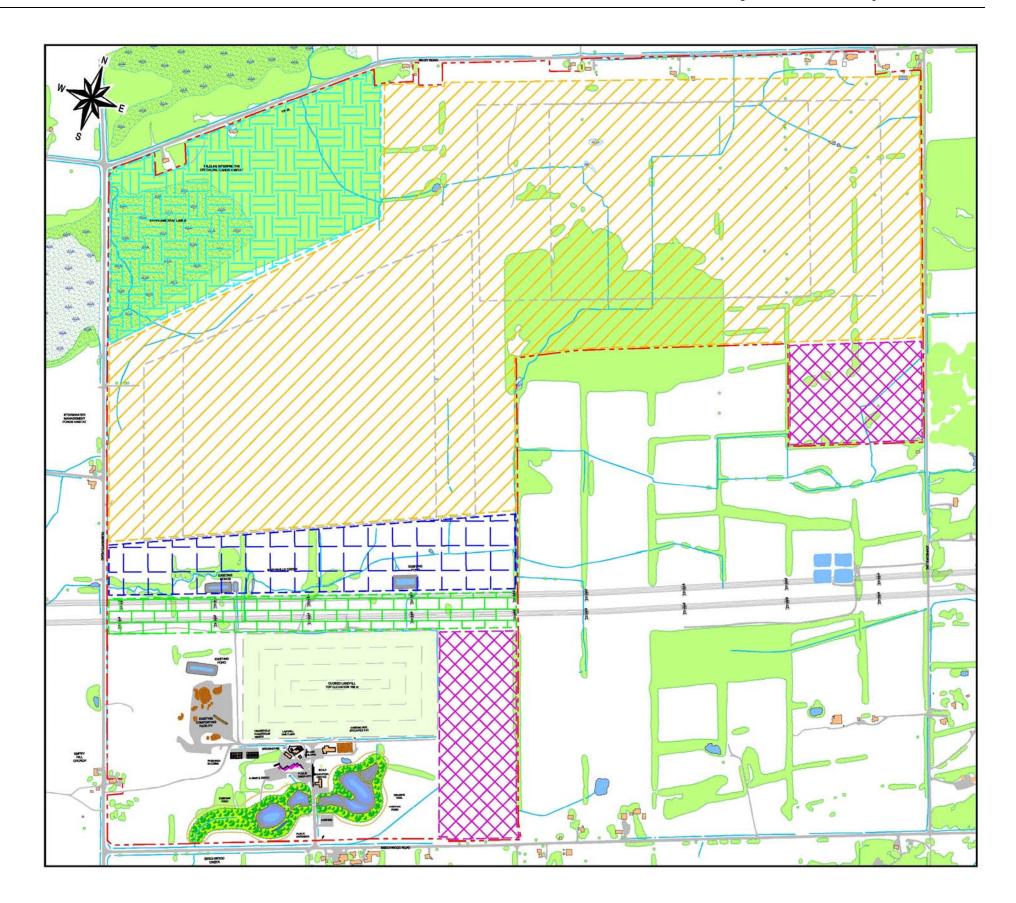
LANDFILL ALTERNATIVE FOOTPRINT













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

I. Do yo	ou understand the analysis that WM undertook to determine general areas (envelopes) for developing new landfill footprint alternatives and other components of the BREC?
2. Are y	ou in agreement with the constraint areas? If no, how would you change them?
3. Are y	ou 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?



#### TABLE 3: CRITERIA FOR EVALUATING ALTERNATIVES METHODS FOR DEVELOPING A NEW LANDFILL FOOTPRINT

Facilitator: Blair Shoniker, AECOM

Technical Resource: Tim Murphy (Waste Management)

- WM conducted an analysis to determine if there was a need for providing waste disposal services in eastern Ontario and alternatives to provide this service. We concluded that there was a need and that the preferred way of meeting this need was to close the current landfill and establish a new landfill footprint on the site and provide enhanced waste diversion activities to minimize residual waste that would need to be landfilled. (i.e., as discussed at Table 1)
- WM identified constraint areas and areas for potential development of landfill footprint alternatives (discussed at Table 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 of each alternative will be assessed and documented.
- The environment may be divided into several components for study. WM has identified the following environmental components which will be studied during the EA:

o Atmospheric Environment	O Archaeology and Cultural Heritage
o Geology and Hydrogeology	o Transportation
o Surface Water Resources	o Land Use
o Terrestrial Environment	o Economic
o Aquatic Environment	o Social
o Aboriginal	

- The rationale for each component of the environment is presented in the Table.
- Each component can then be divided into sub-components. For example, air quality, odour and noise would be considered three sub-components of the atmospheric environment component. A rationale for each sub-component is provided in the Table below.
- Indicators are the specific parameters that will be studied for each environmental sub-component. For example, indicators for the Terrestrial Ecosystems sub-component are:
  - o Predicted impact on vegetation communities due to project;
  - o Predicted impact on wildlife habitat due to project; and,



- o Predicted impact of project 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 sub-component. 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 sub-components. The following table, taken from another EA, shows how the various technical discipline leaders ranked their respective environmental sub-components from "least preferred" to "most preferred."

<b>Environmental Criteria</b>	Weighting	Alternatives					
		A	В	С	D		
Air quality	very important	Less Preferred	Less Preferred	Most Preferred	Least Preferred		
Odour		Least Preferred	Less Preferred	Most Preferred	Less Preferred		
Visual impact		Less Preferred	Most Preferred	Least Preferred	Most Preferred		
Noise		Most Preferred	Less Preferred	Less Preferred	Least Preferred		
Site D&O			Equally I	Preferred			
Aquatic ecosystems		Less Preferred	Least Preferred	Most Preferred	Most Preferred		
Groundwater quality	important		Equally I	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	less important		Equally I	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 sub-component 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 weighting factor which was provided by the community. In the above example, the community placed the highest importance on air quality, odour, visual impact, noise, site D&A 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. Do you agree with the environmental components that have been identified? If no, what changes would you suggest?
2. Do you agree with the environmental sub-components that have been identified? If no, what changes would you suggest?
3. Do you agree with the rationale provided for the environmental components and sub-components? If no, what changes would you suggest?
4. Do you agree with the indicators provided? If no, what changes or additions would you make? (make changes on the table).
5. Please rate the criteria according to the importance you place on each. This information will be used in the aggregation of preferences for the alternatives.
(Please make changes on the table and provide the rationale for the importance that you selected).



## Proposed Assessment Criteria, Rationale, Indicators & Criteria Rating

Component	Sub-component	Rationale	Indicators	Possible Additional Indicators	Criteria Rating	Rationale			
Environmental Criteria – Natural Environment									
Atmospheric	Air quality	Waste disposal facilities and associated operations can	Modelled air concentrations of indicator		Very Important				
Environment		produce gases containing contaminants that degrade air quality if they are emitted to the atmosphere.	compounds (organics, particulates)		Important				
		Construction and operation activities at a waste	Number of off-site receptors potentially affected (residential properties, public		Logg Important				
		disposal facility can lead to increased levels of particulates (dust) in the air. Changes in air quality	facilities, businesses, and institutions)		Less Important				
		may affect human health.			Not Important				
	Noise	Construction and operation activities at the facility may	Predicted site-related noise		Very Important				
		result in increased noise levels resulting from the site.	Number of off-site receptors potentially		Important				
			affected (residential properties, public facilities, businesses, and institutions)		Less Important				
					Not Important				
	Odour	Continued operation of the waste disposal facility may	Predicted odour emissions		Very Important				
		result in changes in the degree and frequency of odours from the site	Number of off-site receptors potentially		Important				
		nom the site	affected (residential properties, public facilities, businesses, and institutions)		Less Important				
			racinities, businesses, and institutions)		Not Important				
Geology and	Groundwater quality	Contaminants associated with waste disposal sites have the potential to enter the groundwater and impact offsite groundwater or surface water.	Predicted effects to groundwater quality at property boundaries and off-site		Very Important				
Hydrogeology					Important				
					Less Important				
					Not Important				
Surface Water	Surface water quality	Contaminants associated with waste disposal sites have the potential to seep or runoff into surface water.	Predicted effects on surface water quality on-site and off-site		Very Important				
Resources					Important				
					Less Important				
					Not Important				
	Surface water quantity	The construction of physical works may disrupt natural surface drainage patterns and may alter runoff and	<ul><li>Change in drainage areas</li><li>Predicted occurrence and degree of off- site effects</li></ul>		Very Important				
		peak flows. The presence of the facility may also			Important				
		affect base flow to surface water.	site criects		Less Important				
					Not Important				
Terrestrial	Terrestrial ecosystems	Waste disposal facility construction and operations	Predicted impact on vegetation		Very Important				
Environment		may remove or disturb the functioning of natural terrestrial habitats and vegetation, including rare,	communities due to project		Important				
		threatened or endangered species.	Predicted impact on wildlife habitat due to project						
			Predicted impact of project on vegetation and wildlife including rare,		Less Important				
			threatened or endangered species		Not Important				



Component	Sub-component	Rationale	Indicators	Possible Additional Indicators	Criteria Rating	Rationale					
Environmental Criteria – Natural Environment											
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> <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 Not Important						
Environmental Criteria – Human Environment											
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.	Cultural and heritage resources on-site and in vicinity     Predicted impacts to cultural and heritage resources on-site and in vicinity		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.	Presence of archaeological resources on-site     Significance of on-site archaeology resources potentially displaced/disturbed		Very Important Important Less Important Not Important						
Transportation	Effects on airport operations	There is the potential for bird strikes for aircraft using Tyendinaga Mohawk airport and the private airfield located on Lots 14 and 15 Concession III.	Bird strike hazard to aircraft in Local Study Area		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> <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> <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> <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 Not Important						



Component	Sub-component	Rationale	Indicators	Possible Additional Indicators	Criteria Rating	Rationale			
Environmental Criter	ia – Human Environment								
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.	Ratio of air space achieved to volume of soil to be excavated and area of cell base and leachate collection system to be constructed		Very Important				
					Important				
					Less Important				
					Not Important				
	Continued service to customers	The WSI Navan landfill site provides an important and affordable service to its users, particularly in the east end of Ottawa.	Total optimized site capacity and site life		Very Important				
					Important				
					Less Important				
					Not Important				
	Economic benefit to local	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 supplying products or services directly, or as secondary suppliers.	<ul> <li>Employment at site (number and duration)</li> <li>Opportunities to provide products or services</li> </ul>		Very Important				
	municipality				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.	Predicted changes in landscapes and views		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	Type(s) and proximity of off-site recreational resources within 500 m of landfill footprint potentially affected		Very Important				
					Important				
					Less Important				
					Not Important				
Aboriginal	Potential effects on aboriginal communities	The facility construction and operations may adversely affect local aboriginal communities.	Potential effects on use of lands for traditional purposes		Very Important				
					Important				
					Less Important				
					Not Important				
Technical Criteria									
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> <li>Complexity of site infrastructure</li> <li>Operational flexibility</li> <li>Interaction with existing site infrastructure</li> <li>Soil management requirements</li> </ul>		Very Important				
					Important				
					Less Important				
					Not Important				

