

TABLE 1
INCORPORATION OF COMMENTS/FEEDBACK RECEIVED INTO THE
PROPOSED ENVIRONMENTAL ASSESSMENT (EA) TERMS OF REFERENCE – “ALTERNATIVES TO”

Comment Received	How it was incorporated into the EA Terms of Reference
SECTION 1: UNDERTAKING AND SCOPE OF AVAILABLE ALTERNATIVES	
<i>Question No. 1 - Do you agree with the Region’s intent to evaluate alternatives (see workshop Handbook) that minimize the role of landfill in the future disposal system?</i>	
<p>Agreed with statement – 93% of respondents. Overall, the respondents indicated that landfilling is not a sustainable means of waste disposal. Respondents indicated that the recognized and most advanced technologies should be considered in the evaluation of alternatives.</p>	<p>The purpose of the undertaking for the Durham/York Residual Waste Disposal Study reflects the level of support expressed at these workshop sessions for the evaluation of alternatives that minimize the role of landfill as follows:</p>



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<p>Disagreed with statement - One respondent (Alternative Technology Vendor). Suggested an alternative (Controlled Waste Collection) system as a solution to minimize the role of landfill in the future disposal system. Some attendees did not respond to this question.</p>	<p><i>The purpose of the undertaking is to process - physically, biologically and/or thermally - the waste that remains after the application of both Regions’ at-source waste diversion programs in order to recover resources - both material and energy - and to minimize the amount of material requiring landfill disposal.</i></p> <p><i>In proceeding with this undertaking only those approaches that will meet or exceed all regulatory requirements will be considered.</i></p>
<p><i>Question No. 2 - Given that Durham currently diverts approximately 35% of its waste and given that York currently diverts approximately 24% of its waste; is it reasonable to accept that communities in Durham and York would be able to meet the Province’s proposed 60% by 2010 diversion target and, if so, how do you think this could be accomplished?</i></p>	



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<p>Most respondents agreed that it was reasonable to accept that communities in Durham and York would be able to meet the Province’s proposed 60% diversion target.</p> <p>Respondents indicated that the diversion targets could be reached by:</p> <ul style="list-style-type: none"> • Placing emphasis on broader public education regarding the current waste diversion programs in place; • Providing incentives and disincentives to support existing waste management programs; • Some improvements to existing levels of service such as green bin (organic) collection. 	<p>Background Document 2-1, Purpose and Need for the Undertaking, includes an assessment of the current diversion performance in Durham and York, and projections for future diversion performance and waste quantities. Assessment of the potential performance of the planned waste diversion systems in both municipalities, coupled with the potential for additional at-source waste reduction over the planning period, indicates that a 60% diversion target is reasonable for the purpose of this study. Waste diversion is the priority method of waste management for both Durham and York. An assessment of further additional at-source diversion measures will be completed during the EA study. Diversion measures indicated by the public that attended these and future workshops will be considered in this assessment.</p>
<p>Some respondents were skeptical of reaching the 60% diversion target providing a variety of reasons including:</p> <ul style="list-style-type: none"> • Individual residents ability to comply with program requirements due to lifestyles, age and other demographic factors; • Issues related to servicing multi-family unit dwellings. 	
<p><i>Question No. 3 - Do you agree with the need or preference to recover resources that remain in the residual waste stream? For example: (a) Recyclables such as metal? (b) Energy (e.g.: Energy from Waste or EFW Facility)</i></p>	

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<p>Question No. 3(a)</p> <p>95% of respondents agreed with the need or preference to recover recyclables that remain in the residual waste stream.</p> <p>One disagreed with this statement.</p>	<p>The purpose of the undertaking developed for the Durham/York Residual Waste Disposal Study, as noted above, reflects the need to recover resources both material and energy from the residual waste stream</p>
<p>Question No. 3(b)</p> <p>86% of respondents agreed with the need or preference to recover energy from the residual waste stream.</p> <p>One respondent disagreed and a few did not respond to this statement.</p>	<p>The purpose of the undertaking developed for the Durham/York Residual Waste Disposal Study, as noted above, reflects the need to recover resources both material and energy from the residual waste stream</p>
<p><i>Question No. 4 - Are there other – than those identified in the workshop Handbook – technologies or approaches that the Regional Municipalities of Durham and York should be considering for the management of the wastes that will remain after achieving the 60% waste diversion target? Are there approaches that should not be considered?</i></p>	
<p>The responses to this question varied. A number of respondents indicated lack of knowledge regarding potential technologies or approaches.</p> <p>Suggested technologies and approaches included:</p> <ol style="list-style-type: none"> a. EFW within controlled facilities; b. Controlled Waste Collection (unsolicited proposal received and filed for future reference). c. Greater public education regarding unnecessary packaging d. Deposit/return approaches e. Systems that combine composting and incineration 	<p>Background report 2-2, on “Alternatives to” addresses the range of technologies and approaches suggested during public consultation. Individual responses are as follows:</p> <ol style="list-style-type: none"> a. EFW approaches have been considered in the context of the screening criteria and have been determined to be reasonably available for the purpose of the Durham/York Residual Waste Disposal Study and would be considered during the evaluation of “Alternatives to”. b. Controlled Waste Collection appears to be a method of providing the necessary infrastructure to support source-separated diversion. Approaches that could result in additional at-source diversion will be assessed during the

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<ul style="list-style-type: none"> f. Systems that combine biological and physical processing g. Use of Class B compost h. Manufacturer responsibility i. Emerging technologies such as thermal depolymerization j. Minimization of landfilling k. Discussions with, and research into, waste management in other jurisdictions 	<p>evaluation of “Alternatives to”.</p> <ul style="list-style-type: none"> c. Public education and avoidance of unnecessary packaging will be reviewed during the examination of additional at-source diversion measures as part of the evaluation of “Alternatives to”. d. Deposit/return approaches will be reviewed during the examination of additional at-source diversion measures as part of the evaluation of “Alternatives to”. e. The “Alternatives to” that would be evaluated in the Durham York Residual Waste Management Study, will be developed in the context of Integrated Waste Management System Planning. Essentially, alternative systems that are capable of managing the residual waste that remains after at-source diversion will be developed and evaluated. These systems would be developed based on the combination of at-source diversion assumptions, reasonable alternatives for the treatment of the remaining residual municipal solid waste (RMSW) and landfill disposal of materials that remain after treatment. Systems may combine reasonable alternatives for the treatment of remaining RMSW such as composting and incineration. f. See response to e. noted above g. Use of Class B compost will be addressed when examining the net effects of biological treatment processes to manage RMSW. As noted in Background Report 2-2, the ability of biological processes to divert RMSW from landfill would be increased if the regulatory environment in Ontario permitted the marketing and use of Class B compost.

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	<ul style="list-style-type: none"> h. At-source waste reduction measures such as manufacturer responsibility will be reviewed during the examination of additional at-source diversion measures as part of the evaluation of “Alternatives to”. i. Thermal depolymerization and other chemical treatment approaches were considered in the context of the screening criteria and were determined not to be reasonably available for the purpose of the Durham/York Residual Waste Study. This conclusion was based primarily on the lack of large-scale experience in managing MSW in North America, and that current information indicates that it cannot manage the full RMSW stream. j. The purpose of the undertaking proposed for the Durham/York Residual Waste Study focuses on the need to minimize the amount of material requiring landfill disposal. k. Considerable research into waste management technologies and approaches used to manage RMSW in North America and other jurisdictions across the globe was undertaken to develop the overview of waste management approaches in Background Report 2-2. Additional research will be undertaken, as needed, during the evaluation of “Alternatives to”.
<p>Some respondents expressed concerns regarding health and environmental effects associated with the technologies identified in the workshop Handbook.</p>	<p>Protection of human health and the environment from potential impacts associated with waste management facilities is addressed through regulations set by the Province of Ontario. In proceeding with this undertaking only those approaches that will meet or</p>

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	<p>exceed all regulatory requirements will be considered. The proposed evaluation Criteria and Indicators for the evaluation of “Alternatives to” will allow for the comparative evaluation of the potential effects to the environment (as defined broadly by the EAA) in order to select a preferred alternative that would have the least potential net effect on the environment. As part of the comparative evaluation process, those systems that produce less effects than others would be advantaged in the comparison.</p>
SECTION 2: SCREENING CRITERIA	
<i>Question No. 5 - Do you agree with the following screening criteria that are proposed to be applied to the various waste management technologies? Are there additional screening criteria that should be applied?</i>	
Screening Criteria: Proven Technology. The technology or approach must have a proven operating history at a capacity similar to that required by the Region of Durham and York Region. A proven operating history is defined as operating for at least 2 years following the successful commissioning of the facility in North America (or anywhere with similar waste management requirements).	
<p>Agreed with this statement – 65% of respondents.</p>	<p>This screening criterion has been applied to the various waste management technologies to determine those that are reasonable to carry forward in the evaluation of “Alternatives to”.</p>
<p>Disagreed with this statement – 23% of respondents. Respondents argued that Canada should take the initiative to research new technologies more thoroughly prior to their implementation. The remaining 12% of respondents did not address this question.</p>	
Screening Criteria: Environmental Suitability. It must be demonstrated that the technology or approach will not have unacceptable effects on the environment and public health and safety (as defined by current regulatory requirements) and that all applicable environmental approvals can be secured.	

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<p>Agreed with this statement - 81 % of respondents. The responses indicated that the environment should be given a high priority when selecting a preferred technology.</p>	<p>This screening criterion has been applied to the various waste management technologies to determine those that are reasonable to carry forward in the evaluation of “Alternatives to”. The availability of operating results and data indicating that technologies are capable of meeting Ontario’s regulations will be a requirement for technologies to be considered during the EA Study.</p>
<p>The responses also emphasized that any alternative technologies that are considered should meet and be able to exceed any requirements and regulations that are in place at the time of implementation of the preferred technology.</p>	
<p>Disagreed with this statement – 7% of respondents. The remaining responses provided in the workbook did not address this question.</p>	
<p><u>Screening Criteria: Applicability to Subject Waste Stream.</u> The technology will process the post diversion waste stream and The residuals, requiring further treatment or landfill disposal, from the technology or approach must be minimal (i.e. less Than 25% by volume of input).</p>	
<p>Agreed with this statement - 65 % of respondents indicating that the preferred technology or approach must significantly reduce the quantity of residual material requiring landfill disposal.</p>	<p>This screening criterion has been applied to the various waste management technologies to determine those that are reasonable to carry forward in the evaluation of “Alternatives to”. Technologies that could contribute to the diversion rate of the two municipalities and will decrease the volume of residual requiring landfill disposal will be considered as viable alternatives, including those that represent a viable alternative in combination with another alternative.</p>
<p>Disagreed with this statement - 16 % of respondents. The respondents were skeptical that technologies would not be able to reduce the residuals requiring disposal to only 25% by volume of input, others felt that the volume of residuals that require landfilling should be reduced significantly more. The remaining 18 % of responses provided in the workbook did not address this question.</p>	
<p>SECTION 3: COMPARATIVE EVALUATION CRITERIA</p>	

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<p>Question No. 6. What priority (high, medium or low) should be given to the proposed categories of comparative evaluation criteria? In the blank rows, you may identify any additional categories you feel warrant consideration along with a suggested priority.</p>	
<p>Workshop participants identified their preferred ranking of the five proposed environmental categories.</p>	<p>Based on the input from the respondents, the following preliminary priorities have been established:</p> <p>High Priority Natural Environment</p> <p>Medium Priority Social/Cultural, Economic/Financial, Technical</p> <p>Lower Priority Legal</p> <p>These priorities will be confirmed as part of Step 1 of the EA Study with the public and review agencies.</p>
<p>A number of suggested environmental categories were suggested by the respondents, and are identified as follows. The only additional categories identified by more than one person were public health/health and safety and sustainability.</p> <ul style="list-style-type: none"> a. Public Health and Safety b. Sustainability c. Attitude Changes towards Waste d. Flexibility/Adaptability 	<ul style="list-style-type: none"> a. Public Health and Safety is addressed under the “Natural Environmental” category during the “Alternatives to” phase of the Study. This category addresses predicted emissions to air and water, need to manage hazardous residues, and potential impacts to land. b. The principles of sustainability are addressed in the categories of comparative evaluation criteria as they address the ‘three pillars’ of sustainability being the natural, social and economic environment. Elements of sustainability such as recovery of energy and material resources, as well as potential land-use issues are addressed. c. This is not considered an environmental category, but rather an element of the waste management system in both Durham and York that is required to increase at-source diversion. d. Flexibility / Adaptability is not considered a category, but an indicator for the criteria under the category of Technical, regarding

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	the technical risks associated with the waste management alternatives. This has been included as an indicator under this criterion.
<p>Question No. 7</p> <p><u>Review and prioritize the list of draft evaluation criteria under each category, and suggest any additional criteria and indicators, which you feel should be considered in the Study.</u></p>	
<p>Environmental Criteria</p> <p>Participants provided a range of comments, which provided rationale to support the prioritization of environmental criteria.</p>	No requests were made to modify proposed criteria and indicators.
<p>Additional environmental criteria were proposed as follows:</p> <ul style="list-style-type: none"> a. Cumulative Effects b. Potential need for contingency capacity (continued export of waste outside of study area) c. Flexibility to adjust or decrease volumes of waste d. Impact from transporting waste e. Environmental impact of energy, materials produced or consumed f. Human health and safety g. Impact on endangered species h. Location 	<ul style="list-style-type: none"> a. The potential environmental burden at a global or macro environmental scale are addressed by the environmental criterion. The potential impacts to air, water and land, will be considered in respect to the current status of these environmental aspects within the study area. b. The potential need for contingency capacity is addressed through the technical criterion. c. The flexibility of the technologies is addressed through the technical criterion. d. The potential impact of transporting waste within the study area to the location where a preferred technology/approach could be sited will be addressed as part of the consideration of “Alternative Methods”. The impact of transporting waste outside of the study area to disposal facilities that are currently used by Durham and York, will be considered during the evaluation of the “Do Nothing” alternative, in regards to the potential impacts to air, water and

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	<p>land.</p> <ul style="list-style-type: none"> e. The environmental impact of energy, materials produced or consumed, are addressed through the criterion related to consumption/preservation of non-renewable resources. f. Human health and safety through proposed criterion related to the environmental burden at a global or macro environmental scale, which addresses predicted emissions to air and water and the need to manage hazardous residues. g. The potential for impacts on endangered species is addressed through criterion that examines the potential for destruction of sensitive terrestrial and/or aquatic habitats. h. The potential impact related to location, are addressed through social/cultural criterion that examine the potential for land use conflicts from siting of facilities required for the alternative. This will be addressed in more depth during the evaluation of “Alternative Methods”.
<p>Social/ Cultural Criteria</p> <p>Respondents provided some comments, which provided rationale to support the prioritization of social/cultural criteria.</p>	<p>No requests were made to modify proposed criteria and indicators.</p>
<p>Additional social/cultural criteria were proposed, most of which were comments regarding the need for communications and public education, and others that repeated certain criteria that related to other environmental categories.</p> <p>In addition, a number of suggestions related to facility sizing and siting issues that would be addressed during the consideration of “Alternative Methods”, such as social justice / siting equity, facility size and multiple facilities.</p>	<p>Additional comments related to the need for communications and education will be considered during the examination of additional at-source diversion.</p> <p>Proposed criteria and indicators that primarily related to facility sizing and siting, will be considered when finalizing the proposed evaluation methodology, criteria and indicators for the evaluation</p>

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<p>multiple facilities.</p> <p>No additional proposed criteria were made that would apply to the Social/Cultural category during the evaluation of “Alternatives to”.</p>	<p>of “Alternative Methods”.</p>
<p>Economic/Financial Criteria</p> <p>Respondents provided some comments, which provided rationale to support the prioritization of economic/financial criteria.</p>	<p>No requests were made to modify proposed criteria and indicators</p>
<p>Additional economic/financial criteria were proposed as follows:</p> <ul style="list-style-type: none"> a. Potential for partnerships with other municipalities to generate revenue and provide options for residue disposal b. Tax implications c. Site Costs d. Removal of risk associated with cross-border shipment of waste e. Contract penalties f. Potential for other revenues g. Effect of waste derived products on markets h. Life expectancy of program/technology i. Value of forests in regards to oxygen production / green house gas reduction 	<ul style="list-style-type: none"> a. The potential for partnerships is one that could apply broadly to all of the potential technologies/approaches considered in the evaluation of “Alternatives to” as thus would not serve as a criteria for the purpose of evaluating systems. Over the course of the study, it may be apparent that opportunities exist to provide excess capacity in the early stages of the planning period to neighbouring municipalities provided it would benefit the proponents and the broader environment. Municipal solid waste originating from outside the Study Area, particularly from smaller neighbouring communities outside the Greater Toronto Area, would offer a potential waste stream that could be managed by surplus capacity incorporated into the undertaking, should this be determined to be beneficial. b. The economic/financial criterion regarding net system costs per tonne will address all costs associated with the systems, including taxes, which are a relatively minor component. c. All site costs will be addressed by the economic/financial criterion regarding net system costs per tonne. d. Risks associated with the cross-border shipment of waste will be

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	<p>addressed through the technical risk criteria.</p> <ul style="list-style-type: none"> e. Contract penalties will be addressed through the legal/contractual risk criteria. f. Potential for other revenues, will be addressed by the economic/financial criterion regarding net system costs per tonne, and through the examination of technical risks associated with the availability of viable potential markets for processed materials. g. The potential effect of waste derived products on established markets will be addressed indirectly through the proposed evaluation criteria and indicators. The potential value of such products will be determined, in part based on the assumption of lower market value, and the sensitivity of system costs base on the ability to market some of these materials (i.e. class B compost) will be assessed. Given the potential quantity of marketable waste derived products originating in Durham/York, it would be unlikely to have an effect on markets for other cleaner and more significant product streams such as recovered recyclables. h. All of the “Alternatives to” that will be evaluated in this study, must be capable of managing the waste originating in Durham and York over the 35-year planning period, and thus must have the potential for the same life expectancy. The need for replacement, and system upgrades will be addressed during the development of the net costs for each system. i. Natural Environmental criterion/indicators related to predicted emissions will address the potential green house gas emissions associated with the potential “Alternatives to”.
Legal Criteria	



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<p>Few comments were provided in regards to this criteria and indicators and none requested any adjustment to the proposed criteria and indicators.</p>	
<p>Additional legal criteria were proposed as follows:</p> <ul style="list-style-type: none"> a. Future litigation on public health/environmental concerns b. Legal/political barriers created by opposition groups c. Time d. Legal/contractual risks if Michigan border is closed to waste e. Put or Pay 	<ul style="list-style-type: none"> a. This is not a criterion or indicator for which distinct differences could be identified for the potential “Alternatives to” and thus cannot be used in a comparative evaluation process. b. This is not a criterion or indicator for which distinct differences could be identified for the potential “Alternatives to” and thus cannot be used in a comparative evaluation process. c. This is not a criterion or indicator for which distinct differences could be identified for the potential “Alternatives to” and thus cannot be used in a comparative evaluation process. Based on our preliminary review of the technologies to be considered in the evaluation of “Alternatives To”, the actual implementation time frame (i.e., construction, commissioning, etc.) is very similar for each type of technology being considered. d. This is addressed by the proposed legal criterion and indicators, as the ability to cross the border with waste is directly related to the type and complexity of the approvals required to do so. e. This is addressed by the proposed legal criterion and indicators, as the need or requirement for ‘put or pay’ arrangements is dependent on the degree to which the system relies on partnerships with the private sector.
<p>Technical Criteria</p> <p>Few comments were provided in regards to this criteria and indicators and none requested any adjustment to the proposed criteria and</p>	



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indicators.	
<p>Additional technical criteria were proposed as follows:</p> <ul style="list-style-type: none"> a. Potential for accidental release of waste into the environment b. Susceptibility of technology to escalating energy costs c. Ability to produce value added products to the community 	<ul style="list-style-type: none"> a. The potential for accidental releases of waste to the environment will be addressed by the technical criteria, which includes an indicator regarding the reliability of the alternative and component technologies. b. The susceptibility of the technology to escalating energy costs is addressed through the economic/financial criterion related to the sensitivity of system costs and affordability to external financial influences. c. The ability to produce value added products to the community is addressed through the environmental criterion related to the potential to increase diversion rate from disposal and/or make best use of residual waste materials.
<i>Additional Comments</i>	
<p>Additional comments were provided by the respondents in regards to the following:</p> <ul style="list-style-type: none"> Comments about the workshop, regarding location, amenities, structure. Comments about the consultative process regarding the need to bring residents from both municipalities to the table. Comments about the workshop materials to improve their presentation and content. Comments about the regulatory process in Ontario. Comments about potential siting locations within the 	<p>Additional comments regarding the workshop sessions, materials and consultative process are being considered during the development of the consultation sessions that will be held to support public review and comment on the Draft EA Terms of Reference.</p> <p>Comments regarding the regulatory process, potential siting locations and diversion initiatives are being compiled during the development of the Draft EA Terms of Reference for consideration during the EA Study.</p>



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<p>municipalities.</p> <p>Comments about diversion initiatives, reinforcing comments provided regarding the need for public education, incentives and deposit/return.</p>	