



Appendix E
**Draft EA Work Plans to Government Review Team
Report and Materials**





Terms of Reference for a New Landfill Footprint Consultation Record

Introduction

This appendix describes the Draft EA Work Plans sent to members of the Government Review Team (GRT) on April 22, 2010.

Appendix E.1 contains the EA Work Plan Package, which consisted of a personalized cover letter to each GRT member, the Draft EA Work Plan Report, Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources Table, and a Constraint Map. The GRT contact list that the EA Work Plans were sent to is also included in this section. Appendix E.2 contains the correspondence (emails/letters/telephone) from the GRT with respect to the Draft EA Work Plans.





Appendix E.1 EA Work Plan Package

- Cover letter
- Work Plan Report
- Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources Table
- Constraint Map
- GRT Contact List for EA Work Plans



EA Work Plan Cover Letter Sent to Members of the GRT
(see Table WP-1 for list of GRT Members that invitation letters were sent to)



**WASTE MANAGEMENT
OF CANADA CORPORATION**

R.R. #6
1271 Beechwood Road
Napanee, ON K7R 3L1
(613) 388-1057
(613) 388-2785 Fax

April 22, 2010

Name of the GRT Member
Position
Name of the Government Agency & Department
Address
City, Province, Postal Code

Dear _____:

RE: Waste Management of Canada Corporation, Beechwood Road Environmental Centre (BREC), Environmental Assessment New Landfill Footprint

On March 3, 2010 Waste Management of Canada Corporation (WM) announced a proposal for a new integrated waste management facility known as the Beechwood Road Environmental Centre (BREC). At the same time, we commenced an Environmental Assessment (EA) of a new landfill footprint, which would be one component of the BREC. An Open House was held in Napanee on March 10, 2010 to introduce the BREC proposal and the EA approval process which begins with the preparation of a Terms of Reference (TOR) for the EA studies of the new landfill footprint. A workshop was held on March 25, 2010 where members of the public met with WM staff to discuss the project, ask questions and provide input. Participants discussed an analysis of the need for the project, alternatives to the project, constraint assessment identifying areas where a new landfill footprint could be constructed and evaluation criteria for assessing and comparing alternatives. A second Open House was held on April 14, 2010, where we provided feedback on input received and concerns and issues raised so far, in the process and provided general information on proposed technical study requirements for the EA.

Information on the BREC proposal, the Notice of Commencement of the EA, display boards and other materials from the Open Houses and Workshop may be found at the project website located at the following URL:
<http://brec.wm.com>

At this stage of the TOR development process, we are preparing a work plan for conducting the EA, including the various technical studies that will be required in the EA. A copy of the draft EA work plan is attached to this letter. We are seeking your input and comments on the draft materials, or selected parts of the draft. We will use your input to finalize the work plan for inclusion in the TOR, which is expected to be submitted to the Ministry of the Environment (MOE) at the end of May. The main part of the attached document describes the overall approach that we are proposing to follow in the EA, including the study areas, time frames and technical studies that will be used in the assessment. The proposed consultation program that would be used in the EA is also included. Individual technical work plans to address environmental components are provided in appendices to the work plan. The work plan for each environmental component is brief – about a page each – and general in nature. This level of detail is considered to be appropriate for the TOR. More detailed work plans will be developed in consultation with the Government Review Team (GRT) reviewers at the beginning of the EA once the TOR has been approved.

As part of the GRT, we are asking you to review the attached work plan and provide feedback comments to be considered in finalizing the TOR. Please feel free to address the entire document or only selected parts of it that you consider appropriate to your area(s) of expertise. To facilitate your review, the discipline leads responsible for conducting the assessments for each component of the environment that will be studied in the EA are available to meet with you (in person or by phone) to answer questions, discuss the material and hear your suggestions. The attached table lists the discipline leads and their responsibilities. One of these individuals will be contacting you in a few days to discuss the attached documentation.

Thank you very much for your time and attention to this request. Please call if you have any questions or concerns.

Yours truly,

A handwritten signature in black ink, appearing to be 'Tim Murphy', written in a cursive style.

Tim Murphy, MCIP, RPP
Waste Management of Canada Corporation

cc: Ted O'Neill, Golder Associates Ltd.

Attachments:

Table 1: Discipline Leads Responsible for Conducting the Assessment for Each Component of the Environment

Table 1: Discipline Leads Responsible for Conducting the Assessment for Each Component of the Environment

Technical Area of Responsibility	Name of EA Project Team Member	Email	Telephone Number
Atmosphere – Air Quality	Sean Capstick Golder Associates Ltd.	scapstick@golder.com	(905) 567 6100 Ext. 1145
Atmosphere – Odour	Ravi Mahabir Golder Associates Ltd.	rmahabir@golder.com	(905) 567 6100 Ext. 1475
Atmosphere - Noise	Danny Da Silva Golder Associates Ltd.	dandasilva@golder.com	(905) 567 6100 Ext. 1376
Geology and Hydrogeology	Dave Harding WESA	dharding@wesa.ca	(613) 839 3053
Surface Water	Doug Kerr Golder Associates Ltd.	dvkerr@golder.com	(613) 592 9600 Ext. 3312
Biology – Aquatic Ecosystems	John Seyler Golder Associates Ltd.	jseyler@golder.com	(705) 524 6861
Biology – Terrestrial Ecosystems	Ryan Zimmerling Golder Associates Ltd.	rzimmerling@golder.com	(613) 592 9600 Ext. 4276
Archaeology and Cultural Heritage	Hugh Daechsel Golder Associates Ltd.	hdaechsel @golder.com	(613) 592 9600 Ext. 4229
Transportation	Bassam Hamwi Morrison Hershfield	bhamwi@morrisonhershfield.com	(613) 739 3241
Land Use	Michelle Armstrong FoTenn Consultants Inc.	armstrong@fotenn.com	(613) 542 5454
Socio-economic	Peter Brown Golder Associates Ltd.	pjfbrown @golder.com	(905) 567 6100 Ext. 1439
Site Design and Operations	Paul Smolkin Golder Associates Ltd.	psmolkin@golder.com	(613) 592 9600 Ext. 3251

DRAFT WORK PLAN

April 2010

Work Plan for Environmental Assessment of Proposed New Landfill Footprint in Napanee

Submitted by:
Waste Management of Canada Corporation
R.R. #6
1271 Beechwood Road
Napanee, ON K7R 3L1



DRAFT WORK PLAN FOR ENVIRONMENTAL ASSESSMENT

Table of Contents

1.0 INTRODUCTION.....	1
2.0 EA APPROACH.....	1
2.1 Phased Approach	1
2.2 Environmental Components	1
2.3 Study Areas	2
2.4 Time Frame	2
3.0 WORK SCOPE	3
3.1 Phase 1 – Characterize Existing Environment and Predict Effects of Proposed Alternatives.....	3
3.1.1 Task 1 - Identifying Alternative Methods for New Landfill Footprint	3
3.1.2 Task 2 - Describing Environment Potentially Affected.....	4
3.1.3 Task 3 - Identifying Mitigation Measures to be Incorporated in the Design of Each Alternative	4
3.1.4 Task 4 - Predict Environmental Effects for Each Alternative	4
3.2 Phase 2 - Assess Effects and Identify Preferred Alternative.....	4
3.2.1 Refine Mitigation Measures and Determine Net Effects.....	4
3.2.2 Task 6 - Compare Alternatives.....	5
3.2.3 Task 7 - Identify Preferred Alternative.....	5
3.2.4 Task 8 – Conduct Cumulative Effects Assessment.....	6
3.3 Phase 3 - Prepare and Submit EA Documentation.....	6
3.3.1 Task 9 - Prepare EASR/TSDs.....	6
3.3.2 Task 10 - Submit Draft EASR to MOE	6
3.3.3 Task 11 - Submit Final EASR to MOE	6
3.3.4 Task 12 - Technical Support During Review Period.....	7
3.4 Consultation.....	7
3.4.1 Task 13 – EA Open House #1	7
3.4.2 Task 14- Workshop on Alternative Methods	7
3.4.3 Task 15 - Open House #2.....	7
3.4.4 Task 16 - Open House #3.....	7
3.4.5 Task 17 - Kitchen Table Meetings and Special Technical Sessions	8

DRAFT WORK PLAN FOR ENVIRONMENTAL ASSESSMENT

3.4.6	Task 18 - Website, EA Newsletters and Email Blasts	8
3.4.7	Task 19 - Agency Coordination and Meetings	8
4.0	SCHEDULE	9

TABLES

Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

FIGURES

Figure 1: Constraints and Development Opportunities for New Landfill Footprint

APPENDICES

APPENDIX A

Atmosphere Work Plan

APPENDIX B

Geology and Hydrogeology Work Plan

APPENDIX C

Surface Water Work Plan

APPENDIX D

Biology Work Plan

APPENDIX E

Cultural Heritage Resources Work Plan

APPENDIX F

Transportation Work Plan

APPENDIX G

Land Use Work Plan

APPENDIX H

Agriculture Work Plan

APPENDIX I

Socio-Economic Work Plan

APPENDIX J

Aboriginal Work Plan

APPENDIX K

Site Designs and Operations Work Plan

APPENDIX L

Stakeholder Consultation

1.0 INTRODUCTION

The purpose of this document is to present the proposed work plan for the environmental assessment (EA) of Waste Management Corporation of Canada's (WM) new landfill footprint at the existing Napanee site. Comments from the Government Review Team (GRT) and interested parties are welcomed and will be considered in the preparation of the Terms of Reference (TOR).

This proposed work plan, which is part of the TOR, presents the scope of work required to complete the EA, including the scope of technical studies for each of the environmental components, public consultation, effects prediction/assessment, mitigation, EA documentation and submission. The work plan also presents proposed schedules for the technical studies. Work plans for the individual technical disciplines are included in Appendices A to J. The work plan for design and operation is provided in Appendix J.

2.0 EA APPROACH

2.1 Phased Approach

It is proposed that the EA work will be undertaken in three phases as follows:

- Phase 1 – Characterize Existing Environment and Predict Effects of the Proposed Alternatives;
- Phase 2 – Identify Preferred Alternative; and
- Phase 3 – Prepare and Submit EA Documentation.

Consultation with the public, agencies and other stakeholders will be ongoing throughout the EA process.

2.2 Environmental Components

The environmental components that will be evaluated in the EA, sub-components, rationale, indicators and data sources are listed in the attached Table B-1.

Environmental Components

- Atmospheric Environment (Appendix A);
- Geology and Hydrogeology (Appendix B);
- Surface Water (Appendix C);
- Biology (Appendix D);

- Cultural Heritage Resources (Appendix E);
- Transportation (Appendix F);
- Land Use (Appendix G);
- Agriculture (Appendix H)
- Socio-economic (Appendix I); and
- Aboriginal (Appendix J).

Technical Criteria

- Site Design and Operations (Appendix K).

2.3 Study Areas

Data for the EA will be collected and analyzed for three generic study areas that will be presented in the TOR, as follows:

- On-site – the lands owned and/or optioned by WM for the proposed new landfill footprint;
- Site Vicinity – the lands in the vicinity of the Napanee Landfill (within 500 metres (m) of the alternative Napanee Landfill waste footprints, which will be developed during the EA); and
- Regional – the lands within about 25 km of the Site for socio-economic environment.

2.4 Time Frame

The EA will consider potential effects on the environment associated within three timeframes as follows:

- Construction;
- Operations (20 years); and
- Post-closure.

3.0 WORK SCOPE

3.1 Phase 1 – Characterize Existing Environment and Predict Effects of Proposed Alternatives

This initial phase of the EA studies comprises four tasks, which involve identifying alternative methods, characterizing existing environmental conditions, determining mitigation measures that will be incorporated into the design of alternatives, and predicting the effects of the alternatives on the environment.

3.1.1 Task 1 - Identifying Alternative Methods for New Landfill Footprint

Potential land envelopes or areas where new landfill footprints could be constructed have been identified during the preparation of the TOR. Early in the EA studies, approximately 4 or 5 reasonable landfill footprints will be proposed by the project team in consultation with the public and GRT. The new landfill footprints will provide approximately 13 million cubic metres of air space and will be required to meet all applicable Ministry of the Environment (MOE) requirements. The proposed alternatives will include development options on both the western and eastern portions of the lands owned or optioned by WM (see Figure 1). WM is proposing that the height of the new landfill footprint alternatives will be no greater than the current landfill height but this could be changed through the consultation process.

The alternative new landfill footprints that will be developed will comprise a range of features and variables, including for example, footprint configuration, location of entrance, access roads, location of BREC components such as materials recycling facility, construction and demolition facility, organics facility, landfill gas to energy facility, greenhouses, community features, etc.

During the EA, the project team will describe the alternative new landfill footprints and associated facilities in sufficient level of detail (i.e., conceptual designs) for assessment by individual environmental component leads. A draft Conceptual Design Document (CDD) will be prepared and distributed to each of the environmental component leads for further analysis. The characteristics of the existing and proposed site design and engineering system requirements, including in-design mitigation measures, can affect the environment and site activities such as operational and maintenance requirements. These potential effects will be assessed in the EA.

3.1.2 Task 2 - Describing Environment Potentially Affected

The project team will collect information and conduct studies (desktop and field) to describe components and sub-components of the environment identified in the TOR that may be affected by the undertaking. This will be done for each of the alternative methods identified in the previous task. The environmental components, sub-components, rationale, indicators and data sources that will be used in the analysis of each component are presented in Appendices A to J.

3.1.3 Task 3 - Identifying Mitigation Measures to be Incorporated in the Design of Each Alternative

Following identification of a reasonable number of alternatives (Task 1) and the characterization of existing environmental conditions (Task 2), the project team will conduct a preliminary assessment of potential effects. Potential mitigation measures to be incorporated into the conceptual design of the alternatives will also be developed. The project team will then finalize the CDD, updating the conceptual designs, including in-design mitigation measures. The CDD will serve as the common basis for conducting the assessment of alternatives.

3.1.4 Task 4 - Predict Environmental Effects for Each Alternative

In this final task for phase 1, the project team will predict the effects of each alternative (i.e., including in-design mitigation measures) on the environment. The assessment will be done for each component of the environment based on the existing environmental conditions (determined in Task 2) and the conceptual designs for each alternative including mitigation (determined in Task 3).

3.2 Phase 2 - Assess Effects and Identify Preferred Alternative

3.2.1 Refine Mitigation Measures and Determine Net Effects

The EA project team will identify linkages (i.e., direct or indirect effects of the undertaking on an environmental component via another component, such as groundwater discharge to surface water). Linkage diagrams will be prepared by the environmental component leads. These diagrams will serve as the basis for conducting an integrated assessment of effects.

Prediction of future environmental conditions associated with each alternative landfill footprint will be undertaken by each discipline lead using modelling and other methods. Assessment of potential effects will be done using appropriate objectives, standards, policies and legislation. Further mitigation measures, if required, will be identified and refined as necessary. The project team will update and revise the conceptual design plans for the alternative footprints. The final conceptual designs will be documented in the EA Study Report (EASR).

Finally, the EA project team will repeat prediction of future environmental effects, assuming all mitigation measures are in place. The remaining effects or “net effects”, if any, will be documented.

3.2.2 Task 6 - Compare Alternatives

In this task, the net effects of each alternative method (landfill footprint and associated facilities) will be examined to determine if each would ultimately be approvable under the Ontario Environmental Protection Act (EPA). Should an alternative be found to not be approvable due to unacceptable net effects (i.e., no further refinement of mitigation is possible) or technical reasons, then the alternative would be eliminated from further consideration. At this point, the project team may also consider additional alternative landfill footprints that may have been identified by the public or other parties during the EA process. Should an additional alternative(s) be developed, it (they) would also be subjected to the analysis described in Task 3.

When the alternatives have been finalized, a comparative evaluation of alternative landfill footprints will be conducted to identify a preferred alternative. Each alternative will be compared using the criteria, indicators, criteria weighting and data sources presented in the TOR. This analysis will be undertaken by the EA project team.

3.2.3 Task 7 - Identify Preferred Alternative

In this task, the advantages and disadvantages of the alternative landfill footprints will be described based on the comparative evaluation. The relative importance of the criteria will be as described in the TOR. The outcome of this ranking exercise will be the identification of a preferred alternative.

3.2.4 Task 8 – Conduct Cumulative Effects Assessment

The assessment of cumulative effects is routinely included in federal environmental assessments, but not in Ontario EAs. WM is proposing to conduct this additional analysis, which will consider the combined or cumulative effects on the environment of “net effects” identified previously, with the effects of other projects that occur during the same timeframe and geographic area. For example, the cumulative effects assessment will consider the combined effects of the new landfill footprint with other BREC components such as materials, recycling facility, construction and demolition facility, etc.

3.3 Phase 3 - Prepare and Submit EA Documentation

The third and final phase of the EA will be the preparation and submission of the EA documentation. The EASR will be based on the results of the individual technical studies and the consultation program, which will be documented in Technical Support Documents (TSDs) and a series of consultation reports, respectively.

3.3.1 Task 9 - Prepare EASR/TSDs

Key information and findings from the TSDs and consultation reports will be compiled into the EASR by the EA Team.

During the preparation of the TSDs and EASR, the project team will conduct meetings or telephone calls with the MOE, MNR, Environment Canada, conservation authorities and other government staff to discuss the EA studies and findings. Input and comments received from the public, aboriginal groups, government agencies and other stakeholders will be considered in the preparation of the final reports.

3.3.2 Task 10 - Submit Draft EASR to MOE

This task is the submission of the EASR in draft form to the MOE and includes tracking and follow-up to ensure all reports are received by the GRT.

3.3.3 Task 11 - Submit Final EASR to MOE

This task is the formal submission of the revised EASR, based on comments received from the GRT and the MOE in Task 10.

3.3.4 Task 12 - Technical Support During Review Period

Golder and sub-consultant staff will be available for technical support during the review period. This will include answering questions/comments received and documenting responses. It is anticipated that comments and responses will be presented in a separate report.

3.4 Consultation

The detailed work plan for completing the consultation program is contained in Appendix L. The following sections provide a summary of the consultation tasks.

3.4.1 Task 13 – EA Open House #1

This task will include preparation for and attendance at the first Open House held during the EA. The purpose of the Open House is to present and receive feedback on the predicted environmental effects of the alternative landfill footprints, as well as other information on subjects such as potential end uses of the site and the Property Value Protection Plan.

3.4.2 Task 14- Workshop on Alternative Methods

The purpose of this Workshop is to present and receive feedback on evaluation of alternatives to a new landfill footprint, alternative methods or ways of developing a new landfill footprint, and criteria that will be used in the EA to compare alternatives and identify a preferred alternative.

3.4.3 Task 15 - Open House #2

The purpose of this Open House is to present and receive feedback on alternatives evaluation of alternatives and identification of the preferred alternative.

3.4.4 Task 16 - Open House #3

The purpose of this Open House is to present and receive feedback on the draft EASR.

3.4.5 Task 17 - Kitchen Table Meetings and Special Technical Sessions

Key Golder staff will be available to prepare for and attend special meetings with individuals, organizations or community groups as necessary. It is anticipated that the meetings will consist of an informal presentation and discussion of results, technical studies and questions/answers. These meetings will enable discussions of issues in greater detail than is possible in the Open House format.

3.4.6 Task 18 - Website, EA Newsletters and Email Blasts

In this task, drafts and final text will be prepared for the WM website, EA Newsletters and email blasts. These communication vehicles are intended to be effective ways of providing information to the public and other stakeholders.

3.4.7 Task 19 - Agency Coordination and Meetings

To ensure that agency contacts are coordinated and documented fully, Mr. O'Neill will serve as coordinator to be a one-window point of contact with agencies. It is anticipated that meetings will be required between members of the project team and various regulatory agencies during the preparation of the EA.

4.0 SCHEDULE

The TOR will be submitted to the MOE at the end of May 2010 and it is expected that it will be posted on the EBR for public comment during the month of June 2010. A decision by the Minister on the TOR is expected this summer. Assuming that the Minister approves the TOR, the EA is expected to begin in September 2010.

As noted previously, the EA will be undertaken in three phases. Phase 1 is initiation of the EA process, Phase 2 is assessment of effects and identification of a preferred alternative and Phase 3 is preparation and submission of the EA documentation.

At the completion of Phase 1 of the EA studies, existing environmental conditions will be characterized and conceptual designs for the landfill footprint development alternatives will be completed, including mitigation measures, as required. The bulk of the work in this phase will be the development of predictions for the various environmental components.

At the completion of Phase 2 of the EA, a preferred alternative will be identified. The analysis methods and spreadsheets for undertaking the comparative evaluation will be developed during the preparation of the draft TOR, and consequently, the detailed comparative evaluation task can be completed after the effects prediction analysis is complete.

In the third and final phase of the EA, the necessary EA documentation will be prepared, reviewed by the WM team and formally submitted to the MOE. Documentation of the study findings will begin as early as November 2010 and continue intermittently as study results are completed.

APPENDIX A

Atmosphere Work Plan

DRAFT

ATMOSPHERIC WORK PLAN

The atmospheric environment is comprised of three sub-components: air quality, noise and odour. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures (if required) and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including information available from the following resources:
 - Atmospheric studies from the previous EA;
 - Ongoing monitoring assessments for the current landfill;
 - Environment Canada and MOE air quality monitoring data from local stations; and,
 - Review site records related to air emission (odour) and noise complaints;
- Conduct site reconnaissance to confirm site information compiled from existing documentation and finalize location and nature of potential off-site receptors.
- Determine "linkages" with other components and data generation/transfer requirements (e.g., link with natural environment, link with transportation component).
- Consult with the MOE and other members of the GRT to decide on air dispersion / noise modelling approach and protocols to be used in the assessment.
- Based on consultation with MOE, the review of existing information and the project description, identify information gaps and data needs.
- Conduct on-site air quality/ odour sampling (if required) to characterise sources of odour and provide data for input to the air quality and odour assessments.
- Conduct noise measurement surveys to determine baseline noise levels at potential sensitive points of reception, and along haul routes, and to determine noise levels from on-site sources, i.e., landfill equipment operations.
- Define baseline conditions for the project, based on available monitoring data.
- Upon collection of data required for the assessment of air quality and odour emissions, embark on the following studies:
 - Assessment of Alternatives: This study will focus on the subject of the Environmental Assessment (i.e., the landfill) and assess emissions from the various alternatives. Emissions from each alternative (including LFG collection system, haul roads, excavation operations etc.) will be estimated. This will be

DRAFT WORK PLAN FOR ENVIRONMENTAL ASSESSMENT

followed by the execution of an atmospheric dispersion model for each alternative. The results of this study will be predicted maximum air quality and odour effects associated with each of the alternatives. This study will focus on property line and sensitive receptors. Results will be used to assist in ranking of project alternatives.

- Ontario Regulatory Permitting Assessment: This study will focus on the final selected alternative based on input from the various technical components, and specifically on the sources at the larger integrated waste management site that require regulatory permitting in Ontario under O.Reg.419/05. These sources include the proposed landfill gas collection system, the material recycling facility, and the organics composting operation. Emission estimates will be generated for each of the sources that will require regulatory permitting. These estimates will be input to an atmospheric dispersion model for the site to predict the maximum off-property effects of operations, and to determine the ability of the site to comply with the MOE's air quality criteria and odour guidelines. This study will be based on the Ontario regulatory receptor grid, and discrete sensitive receptors.
- Cumulative Assessment: This study will assess the combined impact of the larger integrated waste management site and other sources of air emissions within the local area. One option for achieving this will be combining model predictions of the proposed waste management site with available ambient monitoring data. This study will focus on receptors that represent the locations of monitoring stations, or areas of interest identified by the study team.
- In support of the air quality and odour studies listed above the following will be completed:
 - The development of an AERMOD atmospheric dispersion model for the site, which will be used to predict effects of the proposed operations. Based on the complexity (or simplicity) of local conditions, changes to the selected atmospheric dispersion model may be made. Changes to the dispersion model will be done in consultation with the MOE.
 - Development of a site-specific meteorological dataset will be compiled, based on available well established datasets. The sources of the data will be reviewed with the MOE prior to finalisation of the modelling dataset.
 - Assessment of mitigation measures inherent in the project design and those that may be necessary to improve operations.
- Upon collection of data required for the assessment of noise emissions, embark on the following studies:
 - Assessment of Alternatives: This study will focus on the subject of the Environmental Assessment (i.e., the landfill) and assess emissions from the various alternatives. Emissions from equipment operating within each alternative (including LFG collection system, haul roads, excavation operations etc.) will be based on measurements from the existing landfill or emissions data from Golder's database of similar noise sources. This will be followed by the execution of a noise prediction model for each alternative. The results of this study will be predicted worst-case hour operation associated with each of the

DRAFT WORK PLAN FOR ENVIRONMENTAL ASSESSMENT

alternatives. This study will focus on off-site sensitive points of reception. Results will be used to assist in ranking of project alternatives.

- Ontario Regulatory Permitting Assessment: This study will focus on the final selected alternative based on input from the various technical components, and specifically on the sources at the larger integrated waste management site that require regulatory permitting in Ontario in accordance with MOE noise guidelines. These sources include the proposed landfill gas collection system, the material recycling facility and the organics composting operation. Source noise emissions will be based on data from Golder's database of similar noise sources and/or manufacturer's specifications. This data will be input to a noise prediction model for the site to predict the off-site noise emissions associated with the worst-case hour operations, and to determine the ability of the site to comply with the MOE's noise guidelines.
- In support of the noise study listed above the following will be completed:
 - The development of an ISO 9613 prediction model for the site, which will be used to predict effects of the proposed operations.
 - Haul route noise assessment, using STAMSON or other approved prediction models, to predict the effects of the proposed haul route on sensitive points of reception.
 - Provide acoustic specifications for mitigation measures inherent in the project design and those that may be necessary to improve operations and ensure compliance with MOE noise guidelines.
- Generate predictions (air quality, odour and noise) for use in non-atmospheric EA components (e.g., terrestrial component).
- Compile and document climate normals for the project site, and document the existing climatic conditions;
- Prepare a monitoring program appropriate for the preferred alternative, and conceptual contingency plan approaches;
- Document the assessments listed above, data sources and assessment results in an Atmospheric Technical Support Document (TSD) that will form an appendix to the EA;
- Participate in meetings with the government review agencies as required; and
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

APPENDIX B

Geology and Hydrogeology Work Plan

GEOLOGY AND HYDROGEOLOGY WORK PLAN

The geology and hydrogeology environmental component includes the sub-components groundwater quality and groundwater flow. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

- Compile and interpret information from defined background sources;
 - Compile and review published geological and hydrogeological maps and reports, water well data, regional groundwater and wellhead protection studies, regional and local topographic and drainage mapping, previous subsurface investigation findings, properties and interpretation;
 - Compile and review current conceptual geological and hydrogeological model of site and existing landfill; and
 - Develop groundwater flow model for new landfill footprint alternatives.
- On the basis of the current models, prepare preliminary conceptual model of geological and hydrogeological conditions in the area of proposed new landfill expansion alternatives (envelopes);
- Conduct additional subsurface investigations to characterize the overburden and bedrock geology and physical properties in the area of the proposed new landfill expansion alternatives to an EA level of detail (i.e., cored boreholes with downhole geophysical logging; rotary/percussion drilled holes with downhole geophysical logging);
- Install an array of nested groundwater monitors completed at different elevations in order to characterize both the horizontal and vertical groundwater flow regime;
- Characterize the hydraulic conductivity of the bedrock formations and zones, (i.e., possibly using packer testing, hydro-geophysical logging, pumping tests, rising or falling head tests in monitoring wells);
- Determine seasonal variation in groundwater levels and flow orientations;
- Collect groundwater samples to characterize background groundwater quality;
- Determine soil characteristics and distribution of soil thickness across area of proposed new landfill alternatives;
- Develop final conceptual model of geological and hydrogeological conditions in the area of proposed new landfill expansion alternatives, including groundwater and surface water interaction;
- Develop calibrated groundwater flow model for use in simulation of potential effects of proposed new landfill expansion;

DRAFT WORK PLAN FOR ENVIRONMENTAL ASSESSMENT

- Based on the Conceptual Design Document, conduct predictive modelling of landfill performance (flow and transport modelling) and contaminating lifespan as per Ont. Reg. 232/98 for each of the alternatives;
- Based on the proposed conceptual design alternatives, in-design mitigation measures and the results of predictive modelling, complete an evaluation of potential effects of each alternative on the hydrogeological environment;
- Compare the degree of potential effects using the criteria and indicators for the geological and hydrogeological component, rank the alternatives, and identify the preferred alternative from the geological and hydrogeological perspective;
- Prepare groundwater monitoring program for the preferred alternative, and conceptual contingency plan approaches;
- Document the factual information, analysis and comparative assessment in a Geological and Hydrogeological Technical Support Document (TSD) that will form an appendix to the EA;
- Participate in meetings with the government review agencies as required; and
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

APPENDIX C

Surface Water Work Plan

DRAFT

SURFACE WATER WORK PLAN

The surface water environmental component has the sub-components surface water quantity and surface water quality. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

- Compile and interpret information from defined background sources including:
 - Surface water reports from previous EA and annual monitoring reports;
 - Topographic mapping and aerial photography to define drainage network and drainage watersheds/sub-watersheds, discharge locations; and
 - Published sources (annual reports, MOE, Environment Canada, Conservation Authority) to characterize water quality and stream flow.
- Conduct site reconnaissance to confirm the information from available sources;
- Establish surface water flow and water quality monitoring station locations and monitoring program to obtain representative information;
- Summarize existing surface water flow and quality representative of conditions upstream and downstream of proposed new landfill expansion alternatives;
- Using a hydrological model, calculate surface water runoff and peak flows in the area of the proposed expansion under existing conditions, using design storms as set out in Ont. Reg. 232/98;
- Based on the Conceptual Design Document, predict and assess future surface water runoff and peak flows and quality conditions associated with each of the proposed expansion alternatives;
- Compare these predictions to the existing conditions; determine changes and potential adverse effects on downstream water courses. Determine if mitigation measures are required, and if so develop conceptual mitigation, i.e., engineered stormwater management measures/facilities;
- Based on the proposed conceptual design alternatives, in-design mitigation measures and the results of predictive modelling, complete an evaluation of potential effects of each alternative on the surface water environment;
- Compare the degree of potential effects using the criteria and indicators for the surface water component, rank the alternatives, and identify the preferred alternative from a surface water perspective;
- Prepare a stormwater monitoring program appropriate for the preferred alternative, and conceptual contingency plan approaches;

DRAFT WORK PLAN FOR ENVIRONMENTAL ASSESSMENT

- Document the factual information, analysis and comparative assessment in a Surface Water Technical Support Document (TSD) that will form an appendix to the EA;
- Participate in meetings with the government review agencies as required; and
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

DRAFT

APPENDIX D

Biology Work Plan

DRAFT

BIOLOGY WORK PLAN

The biology environmental component has the sub-components terrestrial ecosystems and aquatic ecosystems. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

- Compile and interpret information from defined background sources including:
 - Biology reports from previous EA and ongoing terrestrial and aquatic surveys;
 - Published information from MNR, CWS, DFO and Conservation Authority, including potential Species at Risk (SAR); and
 - Aerial photos and topographic and drainage mapping.
- Characterize terrestrial environment baseline conditions in the area of the proposed expansion and vicinity including occurrence and distribution of wetlands, vegetation communities and wildlife (e.g., birds, mammals, reptiles, amphibians by means of breeding bird surveys, amphibian surveys, rare plant and insect assessment, snake/turtle surveys, mammal surveys, specific surveys for any identified SAR); natural areas such as significant wetlands, woodlands, valley lands and wildlife habitat, and habitat for endangered and threatened species;
- Characterize existing aquatic ecosystems, including drainage ditches and natural watercourses by fish community surveys, aquatic habitat assessment, benthic invertebrate sampling programs, water quality and flow information;
- Based on the Conceptual Design Document, and considering in-design mitigation measures, assess potential impacts of the proposed new landfill alternatives on the natural environment;
- Determine if mitigation and/or habitat compensation measures are required to avoid or reduce potential adverse impacts and, if so, develop conceptual mitigation;
- Prepare natural environment monitoring program for the preferred alternative that is integrated with the proposed surface water monitoring program, and develop conceptual contingency measure approaches;
- Document the factual information, analysis and comparative assessment in a Natural Environment Technical Support Document (TSD) that will form an appendix to the EA;
- Participate in meetings with the government review agencies as required; and
- Provide technical support to the regulatory agencies and public during the review of the draft EA.

APPENDIX E

Cultural Heritage Resources Work Plan

DRAFT

CULTURAL HERITAGE RESOURCES WORK PLAN

The Cultural Heritage Resources environmental component has the sub-components of archaeological resources and cultural heritage resources. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

Compile and interpret information from defined background sources including:

- Archaeology reports from the previous EA and available from the Ministry of Culture;
- Ministry of Tourism and Culture has indicated that site area has high archaeological potential; and
- Site reconnaissance to confirm the information from available sources and plan field work programs.
- Complete Built Heritage Resources and Cultural Heritage Landscapes Checklist and submit to the Ministry of Culture to determine if a qualified heritage consultant needs to be retained to carry out a Heritage Impact Assessment;
- Complete Stage 1 and Stage 2 archaeological and cultural heritage assessments in areas that may be disturbed by new landfill alternatives and associated facilities;
- If necessary due to the presence and significance of resources identified, complete Stage 3 and 4 assessments;
- Provide mitigation measures, as required, to manage potential impacts and/or preserve/protect significant features;
- Based on the Conceptual Design Document, predict and assess potential impacts on archaeological and cultural heritage resources associated with each of the proposed expansion alternatives;
- Compare the degree of potential effects using the criteria and indicators for the archaeological and cultural heritage components, rank the alternatives, and identify the preferred alternative from a surface water perspective;
- Document the factual information, analysis and comparative assessment in an Archaeological and Cultural Heritage Technical Support Document (TSD) that will form an appendix to the EA;
- Complete submissions to the Ministry of Tourism and Culture to obtain the required approvals and clearances;
- Participate in meetings with the government review agencies as required; and
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

APPENDIX F

Transportation Work Plan

DRAFT

TRANSPORTATION WORK PLAN

The transportation environmental component has the sub-components of airport and access roads. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

- Compile information from background sources including:
 - Traffic volumes and mix;
 - Vehicular operating speeds;
 - Roadway and intersection geometrics (including horizontal and vertical curves; passing zones; turning radii, etc.);
 - Traffic controls as well as regulatory signage and pavement markings;
 - Historical collision records;
 - Trip generation information from other comparable landfill sites operated by Waste Management;
 - Active and passive methods successfully used by Waste Management and other landfill operators for bird control at sites within close proximity to airports.
- Refine the study area for each sub-component based on the expected influence area. In the case of the road network, impacts on the road geometrics and operations will be assessed for an area that includes roads (independent of classification or jurisdiction) that directly link the site to the nearest interchange on the provincial highway system. In the case of airport operations, the study area will extend eight kilometres from the site.
- Undertake necessary liaison with members of the Government Review Team (GRT) to achieve early consensus on study area; extent of impact (e.g., trip generation rate, collision frequency/severity); and expected effectiveness of potential mitigation measures (e.g., bird control strategies).
- Provide input to the assessment of alternative landfill footprints, site accesses and haul routes, placement of weight stations or control gates; as well as site development sequencing/phasing.
- Compare the alternatives using the criteria and indicators for the Transportation component, rank the alternatives, and identify the preferred alternative from a Transportation perspective;
- Predict the expected change in traffic volumes; traffic mix; and collision frequency/severity.
- Identify road improvements (e.g., addition of auxiliary lanes or extension in the length of existing auxiliary lanes; intersection improvements (e.g., modification to lane configuration and turning radii); introduction/upgrading of traffic controls; and changes to passing zones.
- Document the analysis assumptions, findings and mitigation measures in a Technical Support Document that will form an appendix to the EA.

DRAFT WORK PLAN FOR ENVIRONMENTAL ASSESSMENT

- Participate in meetings with the government review agencies as required.
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

DRAFT

APPENDIX G

Land Use Work Plan

DRAFT

LAND USE WORK PLAN

The land use environmental component has the sub-component of effects on current and planned future land uses. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

- Compile and interpret information from defined background sources including:
 - Provincial Policy Statement 2005;
 - Official Plans for Town of Greater Napanee and Hastings County;
 - Zoning By-laws for Town of Greater Napanee and Township of Tyendinaga;
 - Aerial photographic mapping and field reconnaissance;
 - Published information on public recreational facilities and activities;
 - Reconnaissance to confirm data from information sources;
 - Former new landfill footprint Environmental Assessment for Richmond landfill site
- Meet with municipal officials to determine planned development and land use, including any applications for approval currently submitted;
- Based on the Conceptual Design Document, and considering in-design mitigation measures, identify potential adverse effects on current and planned future land use;
- Compare these predictions to the existing conditions. Determine if mitigation measures are required, and if so develop conceptual mitigation;
- Compare the degree of potential effects using the criteria and indicators for the land use component, rank the alternatives, and identify the preferred alternative from a land use perspective;
- Document the factual information, analysis and comparative assessment in a Land Use Technical Support Document (TSD) that will form an appendix to the EA;
- Participate in meetings with the government review agencies as required; and
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

APPENDIX H

Agriculture Work Plan

DRAFT

AGRICULTURE WORK PLAN

The agriculture environmental component has the sub-component of effects on agricultural land and agricultural operations. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

- Compile and interpret information from defined background sources including:
 - Provincial Policy Statement 2005;
 - Official Plans for Town of Greater Napanee and Hastings County;
 - Zoning By-laws for Town of Greater Napanee and Township of Tyendinaga;
 - Aerial photographic mapping and field reconnaissance;
 - Published information on public recreational facilities and activities;
 - Published information on agricultural land classification and agricultural or agri-related uses in the area;
 - Reconnaissance to confirm data from information sources; and,
 - Former new landfill footprint Environmental Assessment for Richmond landfill site.
- Meet with municipal officials to determine planned agricultural operations, including any applications for approval currently submitted;
- Based on the Conceptual Design Document, and considering in-design mitigation measures, identify potential adverse effects on agricultural land and agricultural operations;
- Compare these predictions to the existing conditions. Determine if mitigation measures are required, and if so develop conceptual mitigation;
- Compare the degree of potential effects using the criteria and indicators for the agriculture component, rank the alternatives, and identify the preferred alternative from an agricultural perspective;
- Document the factual information, analysis and comparative assessment in a Agriculture Technical Support Document (TSD) that will form an appendix to the EA;
- Participate in meetings with the government review agencies as required; and
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

APPENDIX I

Socio-Economic Work Plan

DRAFT

SOCIO-ECONOMIC WORK PLAN

The socio-economic environmental component has the sub-component of effects on the cost of services to customers, continued service to customers, economic effects on the local municipality, effects on recreational resources and visual impact. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

The indicators associated with the first three sub-components listed above utilize information that comes directly from or is calculated from the Conceptual Design Document. As such, there are no work plan tasks specific to these sub-components.

Recreational Resources

- Define existing recreational resources in the study areas, including parks, trails, playing fields and other facilities;
- Define opportunities to provide new recreational resources as part of the Project;
- Assess the effects of the alternatives on existing resources and opportunities to provide new resources; and
- Develop strategies to mitigate adverse effects and maximize benefits to recreational resources.

Visual Impact Assessment

- Define the existing visual conditions of the site from off-site viewpoints, and document through written and photographic record;
- Determine the viewpoints (directions, distances) from which the proposed landfill expansion alternatives will be visible and take photographs from those viewpoints;
- Using Visual Software integrated with photographs, a digital terrain model of the site and surrounding area, and site grading plans from the Conceptual Design Document, superimpose each of the proposed new expansion alternative landforms to establish the appearance of the site from off-site viewpoints, both during operations and post-closure;
- Using the Visual Software, assess the effects of vegetation growth over time, during both operational and post-closure periods; and
- Develop strategies to mitigate visual impacts and improve the appearance of the site, as required.

Comparison of Alternatives

- Compare the degree of potential effects using the criteria and indicators for the socio-economic component (including quantitative assessment of visual impact for off-site receptors), rank the alternatives, and identify the preferred alternative from a socio-economic perspective;
- Document the factual information, analysis and comparative assessment in a Socio-economic Technical Support Document (TSD) that will form an appendix to the EA;
- Participate in meetings with the government review agencies as required; and
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

DRAFT

APPENDIX J

Aboriginal Work Plan

[Not available at this time]

DRAFT

APPENDIX K

Site Designs and Operations Work Plan

DRAFT

SITE DESIGN AND OPERATIONS WORK PLAN

The site Design & Operations (D&O) environmental component has the sub-component of site design & operations characteristics. The following tasks will be undertaken to characterize existing environmental conditions, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking.

- Compile information from background sources including:
 - Digital topographic mapping, drainage features, ground cover;
 - Aerial photography;
 - Existing site infrastructure and facilities; and
 - Requirements for site design specified in Ont. Reg. 232/98 Landfill Standards.
- Develop alternative landfill footprints and grading plans to reasonably represent the characteristics of the possible range of alternatives within the land envelope identified for the new landfill expansion. This includes landfill base elevations, height, sideslope geometry and top area contours;
- Calculate total footprint area, total airspace, corresponding estimated waste tonnage capacity and site operational period;
- Integrate alternative footprints with overall site development concept (i.e., BREC waste diversion components, site roads, screening berms, buffer zones, etc.) and develop landfill site sequencing/phasing plans;
- Estimate excavation and fill quantities and construction and operations materials requirements, and prepare overall soil balance for each alternative;
- Complete geotechnical assessment (static and seismic stability and settlement analysis) of alternatives;
- Prepare conceptual design of leachate containment and management system (liner and leachate collection system), following the requirements on Ont. Reg. 232/98;
- Prepare conceptual design of final cover system;
- Prepare estimate of landfill gas generation and prepare conceptual design of landfill gas management system;
- Prepare Draft Conceptual Design Document and circulate to other EA component disciplines to serve as common basis for their individual assessments;

DRAFT WORK PLAN FOR ENVIRONMENTAL ASSESSMENT

- Based on the findings and requirements as a result of the EA component disciplines, make necessary modifications and update the Draft Conceptual Design Document to Final status, which will form a Technical Support Document (TSD) to the EA;
- Compare the alternatives using the criteria and indicators for the D&O component, rank the alternatives, and identify the preferred alternative from a D&O perspective;
- Participate in meetings with the government review agencies as required; and
- Provide technical support during the review of the draft EA by the regulatory agencies and public.

DRAFT

APPENDIX L

Stakeholder Consultation

[Not available at this time]



Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

COMPARATIVE EVALUATION OF ALTERNATIVES IN THE ENVIRONMENTAL ASSESSMENT

Introduction

The following draft table (Table B-1) will be finalized and included in the Terms of Reference (TOR) after consideration of comments and input from the public and agencies. Table B-1 presents a set of criteria represented by environmental components and sub-components, which are grouped into three categories; namely, environmental, socio-economic and technical (site operation and design). Each environmental sub-component includes a statement of rationale, indicators that will be used for measurement and data sources. In the Environmental Assessment (EA) information and data will be collected for each environmental sub-component and used in a comparative evaluation of alternatives. The outcome of the assessment will be the identification of a preferred alternative.



Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

Environmental Component	Environmental Sub-component	Rationale	Indicators	Data Sources
Atmosphere	Air quality	A new landfill footprint 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 new landfill footprint can lead to increased levels of particulates (dust) in the air. Changes in air quality can affect human health.	<ul style="list-style-type: none"> Predicted air concentrations of indicator compounds (organics, particulates) at the property boundary and off-site receptors; and Number of off-site receptors potentially affected¹ (residential properties, public facilities, businesses, institutions and farm operations). 	<ul style="list-style-type: none"> Environment Canada or MOE hourly meteorological data and climate normals Site studies, reports and air quality monitoring data Aerial photographic mapping and field reconnaissance Air quality assessment
	Noise	Construction and operation activities at a new landfill footprint can result in increased noise levels resulting from the continued landfill and associated operations.	<ul style="list-style-type: none"> Predicted site-related noise at the property boundary and off-site receptors; and Number of off-site receptors potentially affected (residential properties, public facilities, businesses, institutions and farm operations). 	<ul style="list-style-type: none"> Site equipment noise measurements Aerial photographic mapping and field reconnaissance Noise prediction assessment
	Odour	Operation of a new landfill footprint and associated operations can result in changes in the degree and frequency of odours from the site.	<ul style="list-style-type: none"> Predicted odour emissions at the property boundary and off-site receptors; and Number of off-site receptors potentially affected (residential properties, public facilities, businesses, institutions and farm operations). 	<ul style="list-style-type: none"> Published and odour source data Environment Canada or MOE hourly meteorological data Odour complaints history Aerial photographic mapping and field reconnaissance Odour assessment

¹ "Potentially affected" means that the project has the potential to interact with the environment.

Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

Environmental Component	Environmental Sub-component	Rationale	Indicators	Data Sources
Geology & Hydrogeology	Groundwater quality	Contaminants associated with a new landfill footprint can enter the groundwater and impact off-site groundwater or surface water.	<ul style="list-style-type: none"> Predicted effects to groundwater quality at the property boundary. 	<ul style="list-style-type: none"> Hydrogeological and geotechnical studies Water well records Determination of water well users in the area Annual Site Monitoring Reports Proposed leachate control concept designs Environment Canada Canadian Climate Normals Leachate generation assessment
	Groundwater flow	Groundwater flow rates and directions are important considerations in the transport of potential contaminants.	<ul style="list-style-type: none"> Predicted groundwater flow characteristics. 	<ul style="list-style-type: none"> Hydrogeological studies and water level measurements Water well records Groundwater flow modelling

Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

Environmental Component	Environmental Sub-component	Rationale	Indicators	Data Sources
Surface Water	Surface water quality	Contaminants associated with a new landfill footprint and associated facilities can seep or runoff into surface water.	<ul style="list-style-type: none"> Predicted effects on surface water quality and sediment on-site and off-site. 	<ul style="list-style-type: none"> Topographic maps Air photos Facility layout and drainage maps and figures Proposed on-site stormwater management concept designs for site expansion alternatives Proposed leachate control concept designs for site expansion alternatives Annual monitoring reports Interviews and discussions with WM staff, MOE, MBQ and Authorities, Conservation Environment Canada Published water quality and flow information from MOE, Environment Canada and conservation authorities Site reconnaissance On-site and off-site surface water and leachate monitoring programs
	Surface water quantity	The construction of physical works associated with a new landfill footprint can disrupt natural surface drainage patterns and can alter runoff and peak flows. The presence of the facility can also affect baseflow to surface water.	<ul style="list-style-type: none"> Change in drainage areas; and Predicted occurrence and degree of off-site effects to surface water flows. 	

Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

Environmental Component	Environmental Sub-component	Rationale	Indicators	Data Sources
Biology	Terrestrial ecosystems	Construction and operation of a new landfill footprint can remove or disturb the functioning of natural terrestrial habitats and vegetation, including rare, threatened or endangered species.	<ul style="list-style-type: none"> Predicted impact on vegetation communities due to project; Predicted impact on wildlife habitat due to project; and Predicted impact of project on vegetation and wildlife including rare, threatened or endangered species. 	<ul style="list-style-type: none"> Site surveys Published data sources
	Aquatic ecosystems	Construction and operation of a new landfill footprint can remove or disturb the functioning of natural aquatic habitats and species, including rare, threatened or endangered species.	<ul style="list-style-type: none"> Predicted changes in water quality; Predicted impact on aquatic habitat due to project; and Predicted impact on aquatic biota due to project. 	
	Cultural landscape	Cultural landscape can be altered by the construction of a new landfill footprint. The use and enjoyment of cultural landscape can also be impacted by the ongoing operation of the new landfill.	<ul style="list-style-type: none"> Cultural landscape on-site and in site vicinity; and Predicted impacts to cultural and heritage resources on-site and in site vicinity. 	<ul style="list-style-type: none"> Published data sources Stage 1 and Stage 2 (possibly Stage 3 and 4) archaeological and cultural/heritage assessments Commemorative statements
Cultural Heritage Resources	Built heritage	Built heritage can be altered by the construction of a new landfill footprint. The use and enjoyment of built heritage can also be impacted by the ongoing operation of the new landfill.	<ul style="list-style-type: none"> Built heritage on-site and in site vicinity; and Predicted impacts to built heritage on-site and in site vicinity. 	
	Archaeological resources	Archaeological resources are non-renewable cultural resources that can be destroyed by the construction and operation of new landfill footprint.	<ul style="list-style-type: none"> Presence of archaeological resources on-site; and Significance of on-site archaeology resources potentially displaced/disturbed. 	

Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

Environmental Component	Environmental Sub-component	Rationale	Indicators	Data Sources
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.	<ul style="list-style-type: none"> Bird strike hazard to aircraft in Regional Study Area. 	<ul style="list-style-type: none"> Transport Canada data sources Traffic study
	Effects from truck traffic along access roads	Truck traffic associated with a new landfill footprint may adversely affect residents, business, institutions and movement of farm vehicles in the site vicinity.	<ul style="list-style-type: none"> Potential for traffic collisions; Disturbance to traffic operations; and Proposed road improvement requirements. 	
	Effects on current and planned future land uses	A new landfill footprint 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 sensitive uses in the vicinity of the site.	<ul style="list-style-type: none"> Current land use; Planned future land use; and Type(s) and proximity of off-site sensitive land uses (i.e., dwellings, churches, cemeteries, parks) within 500 m of landfill footprint potentially affected. 	<ul style="list-style-type: none"> Official Plans for Napanee and Hastings Aerial photographic mapping and field reconnaissance Published data on public recreational facilities/ activities Township of Greater Napanee Zoning Township of Tyendinaga Zoning Provincial Policy Statement, 2005
Land Use				

Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

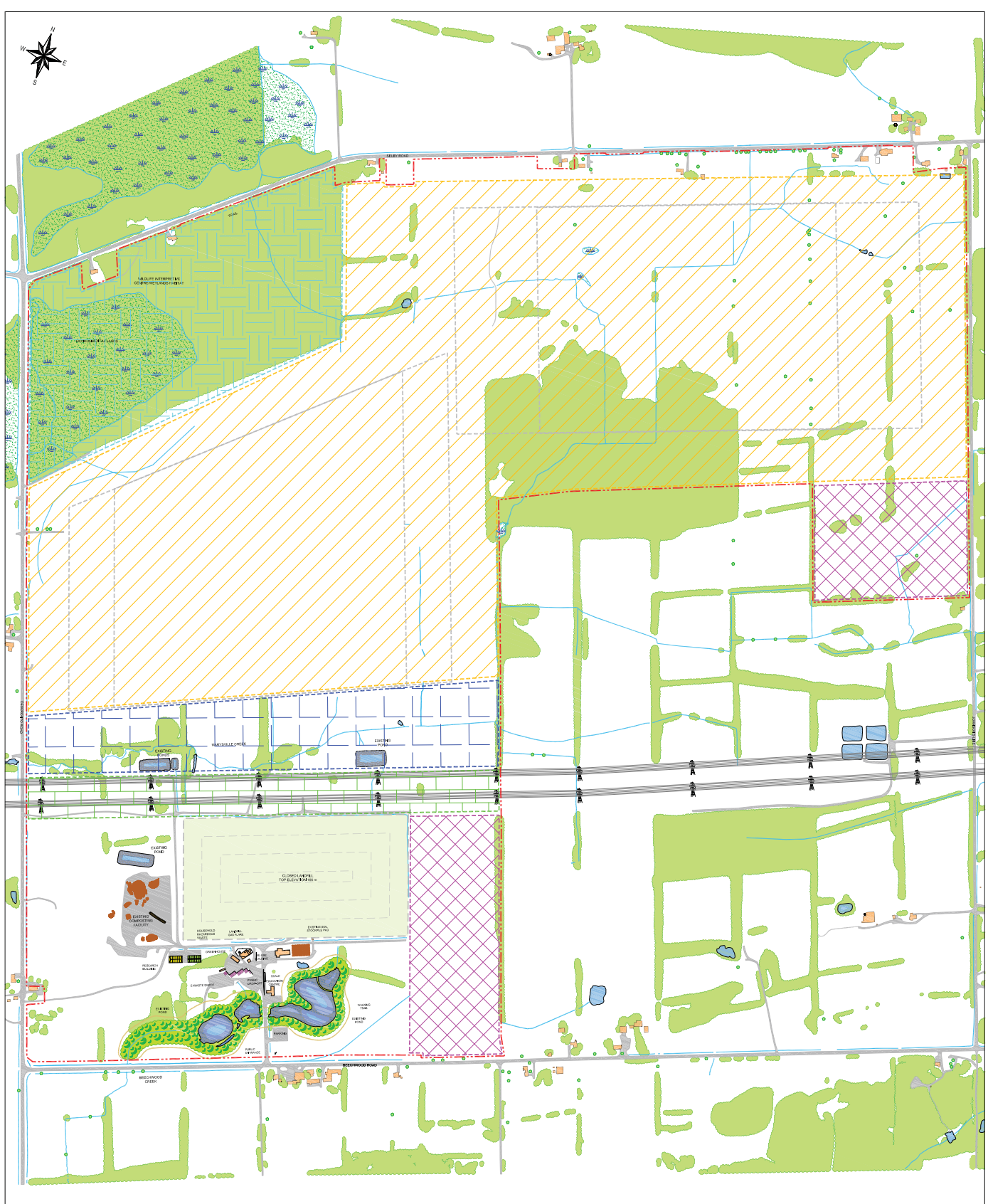
Environmental Component	Environmental Sub-component	Rationale	Indicators	Data Sources
Agriculture	Effects on agricultural land and agricultural operations	The agricultural land base or agricultural operations may be impacted by the new landfill footprint.	<ul style="list-style-type: none"> Predicted impacts on agricultural land; Predicted impacts on agricultural operations; and Type(s) and proximity of agricultural operations (i.e., organic, cash crop, livestock). 	<ul style="list-style-type: none"> Provincial Policy Statement, 2005 Official Plans for Napanee and Hastings Aerial photographic mapping and field reconnaissance Town of Greater Napanee Zoning Township of Tyendinaga Zoning Canadian Lands Inventory (CLI) mapping

Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

Environmental Component	Environmental Sub-component	Rationale	Indicators	Data Sources
Socio-economic	Effects on the cost of services to customers	The costs of construction and operation of a new landfill footprint can affect the price of tipping fees, subsequently affecting the cost of service to customers.	<ul style="list-style-type: none"> Ratio of air space achieved to area of disposal cell base to be constructed 	<ul style="list-style-type: none"> Site expansion alternatives
	Continued service to customers	The Napanee landfill provides an important and affordable service to its users.	<ul style="list-style-type: none"> Total site capacity and site life 	<ul style="list-style-type: none"> Site expansion alternatives
	Economic effects to local municipality	The continued use of the facility because of the construction of a new landfill footprint can 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 for local firms supplying products or services directly, or as secondary suppliers.	<ul style="list-style-type: none"> Employment at site (number and duration) Opportunities to provide products or services (estimated value of goods and services to be purchased in study area) 	<ul style="list-style-type: none"> Site expansion alternatives
	Effects on recreational resources	The new landfill footprint and associated facilities may include opportunities to provide new recreational resources to the community.	<ul style="list-style-type: none"> Change in access to, or use of, recreational resources, such as parks, trails, playing fields and other facilities in the study areas. 	<ul style="list-style-type: none"> Site expansion alternatives Aerial mapping and field reconnaissance Municipal recreation information
	Visual impact of the facility	The contours of a new landfill footprint can affect the visual appeal of a landscape.	<ul style="list-style-type: none"> Predicted changes in perceptions of landscapes and views 	<ul style="list-style-type: none"> Site expansion alternatives Site grading plans Aerial mapping and field reconnaissance Visual simulations Canadian Society of Landscape Architects reference library Ontario Horticultural Trades Association reference manual

Table B-1: Proposed Assessment Criteria, Rationale, Potential Indicators and Data Sources

Environmental Component	Environmental Sub-component	Rationale	Indicators	Data Sources
Aboriginal	Potential effects on aboriginal communities	The facility construction and operations a new landfill footprint may adversely affect local aboriginal communities.	<ul style="list-style-type: none"> Potential effects on use of lands for traditional purposes 	<ul style="list-style-type: none"> Discussions with MBQ
Site Design and Operations	Site design and operations characteristics	The characteristics of the existing and proposed site design and engineered system requirements, including mitigation measures, can affect site activities and operational and maintenance requirements.	<ul style="list-style-type: none"> Complexity of site infrastructure Operational flexibility Interaction with existing site infrastructure Need to import soils for daily cover and landfill containment system construction 	<ul style="list-style-type: none"> Existing and proposed site environmental control system designs and operational requirements Site expansion alternatives and associated phasing of operations Potential daily cover and soil/aggregate quantities



LEGEND

- 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
- CONSTRAINT MARYSVILLE CREEK
- CONSTRAINT WETLAND CONSERVATION AREA
- LANDFILL ALTERNATIVE FOOTPRINT

160 0 160
SCALE 1:14,000 METRES

DRAFT



Figure 1

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

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
Environmental Assessment		MOE EAAB	<p>Ariane Heisey Supervisor Project Coordination Section 14th Floor 2 St Clair Ave W Toronto ON M4V1L5 416-314-7241 ariane.heisey@ontario.ca</p>
Atmosphere	Air Quality & Odour	MOE EAAB- Air Approvals	<p>Approvals Director Low, Victor Phone: 416-314-7009 Email: victor.low@ontario.ca Address: Victor Low Supervisor, (Acting) - AIR AND NOISE 12th Flr 2 St Clair Ave W Toronto ON M4V1L5</p>
	Odour	MOE EAAB- Air Approvals	<p>Eastern Region Technical Support Supervisor Stewart, Penny Phone: 613-548-6931 Email: penny.stewart@ontario.ca Address: Penny Stewart APEP Supervisor - TECHNICAL SUPPORT SECTION Unit 3 1259 Gardiners Rd PO Box 22032 Kingston ON K7M8S5</p>

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
	Noise	MOE EAAB- Air Approvals	Thomas Shevlin, P.Eng. Senior Review Engineer Ministry of the Environment Environmental Assessment and Approvals Branch 2 St. Clair Ave. W., 12th Floor Toronto ON M4V 1L5 Voice 416-314-8302 or 1-800-461-6290 Fax 416-314-8452 thomas.shevlin@ontario.ca
Geology and Hydrogeology	Groundwater Quality & Flow	MOE Kingston	Kyle Stephenson Hydrogeologist - TECHNICAL SUPPORT SECTION Unit 3 - 1259 Gardiners Rd PO Box 22032 Kingston ON K7M8S5 kyle.stephenson@ontario.ca
Surface Water	Surface Water Quality and Quantity	MOE Kingston	Dana Cruikshank Surface Water Specialist Technical Support Section Unit 3 1259 Gardiners Rd PO Box 22032 Kingston ON K7M8S5 dana.cruikshank@ontario.ca

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
		Quinte Conservation	Quinte Conservation 2061 Old Highway 2, R. R. #2, Belleville ON Canada K8N 4Z2 T613-968-3434 F613-968-8240 quinteca@quinteconservation.ca
Biology	Terrestrial	Ministry of Natural Resources Bancroft District	<p>REMOVED</p> <p>Mike Turner, District Planner</p> <p>Ministry of Natural Resources Bancroft District MINDEN AREA OFFICE</p> <p>Hwy 35-By-Pass PO-Box 820 Minden ON K0M2K0 T: (705) 286-5216 F: (705) 286-4355 Mike.turner@ontario.ca</p> <p>Leala Pomfret Species at Risk Agreement Coordinator - PETERBOROUGH DISTRICT South Tower 1st Flr 300 Water St PO Box 7000 Peterborough ON K9J8M5 leala.pomfret@ontario.ca</p>
	Aquatic	Fisheries and Oceans	<p>Fisheries and Oceans Peterborough Office</p> <p>501 Towerhill Rd., Unit 102 Peterborough, ON K9H 7S3 ReferralsPeterborough@DFO-MPO.GC.CA</p>

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
Archaeology and Cultural Heritage	Cultural Landscape	Ministry of Culture	Ms. Paula Kulpa, Heritage Adviser Culture Services Unit Programs and Services Branch Ministry of Culture 400 University Avenue, 4th Floor Toronto ON M7A 2R9 Paula.Kulpa@ontario.ca 416-314-7120
	Built Heritage	Ministry of Culture	Ms. Katherine Kirzati Heritage Planner Culture Division Culture Services Unit Ministry of Tourism and Culture 400 University Ave, 4th Floor Toronto, Ontario M7A 2R9 Katherine.Kirzati@ontario.ca Phone: 416-314-7643 Fax: 416-212-1802
	Archaeological Resources	Ministry of Culture	Jim Sherratt Archaeology Review Officer - CULTURE PROGRAMS UNIT 4th Flr 400 University Ave Toronto ON M7A2R9 jim.sherratt@ontario.ca
Transportation	Airport	Transport Canada	Adrienne Labrosse Transport Canada Wildlife Control Specialist Safety and Security Aerodrome Safety Branch 330 Sparks St., Place de Ville, Tower C, 4th Floor Ottawa, Ontario K1A 0N5 Tel: (613) 990-4869 Fax: (613) 998-7416 E-mail: adrienne.labrosse@tc.gc.ca

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
	Access Routes/traffic levels	Ministry of Transportation	Mr. Peter Makula, Manager Eastern Region Engineering Office Ministry of Transportation Postal Bag 4000, 355 Counter Street Kingston ON K7L 5A3 peter.makula@ontario.ca
Land Use	Hydro Corridor	Ontario Power Corporation	Mr. Steve Hounsell Senior Advisor, Sustainable Development Ontario Power Generation 700 University Ave. Toronto ON M5G 1X6 T: (416) 592-2766 F: (416) 592-7097 steve.hounsell@opg.com
		ORC EA contact for Provincially Owned Hydro Corridors	Lisa Myslicki Hydro One Environmental Coordinator Ontario Realty Corporation 1 Dundas Street West, Suite 2000 Toronto, Ontario M5G 2L5 (416) 212-3768 Lisa.Myslicki@ontariorealty.ca

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
		Hydro One Networks Inc. EA contact	Brian McCormick Hydro One Networks Inc. Manager, Environmental Services and Approvals 483 Bay Street Toronto, Ontario M5G 2P5 (416)345-5000
	Agriculture	Ministry of Agriculture & Rural Affairs	REMOVED Mr. David Cooper Manager Environmental & Land Use Policy Ministry of Agriculture, Food and Rural Affairs 1 Stone Road W., 3rd Floor Guelph ON N1G 4Y2 T: (519) 826-3117 F: (519) 826-3109 david.cooper@ontario.ca
			John O'Neill Rural Planner Ontario Ministry of Agriculture, Food and Rural Affairs 59 Ministry Road Kemptville Ontario K0G 1J0 613-258-8341 John.O'Neill@ontario.ca
			Mr. Ray Valaitis, Rural Planner Central and North Region Ministry of Agriculture, Food and Rural Affairs RR #3, 95 Dundas Street, Brighton ON OK 1H0 T: 613-475-4764 F 613-475-3835 ray.valaitis@ontario.ca

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
	recreational use	Ministry of Health Promotion	Mr. Craig Stewart, Manager Recreation Unit Sports and Recreation Branch Ministry of Health Promotion 18th Floor, 393 University Avenue Toronto ON M7A 2S1 Craig.stewart@ontario.ca
	Municipal affairs and housing	Ministry of Municipal Affairs & Housing	Mr. Michael Elms, Manager Eastern Municipal Services Office Ministry of Municipal Affairs & Housing Community Planning and Development 8 Estate Lane, Rockwood House Kingston ON K7M 9A8 Michael.Elms@ontario.ca
	Town of Greater Napanee	Town of Greater Napanee	Charles McDonald, Director of Development Services P.O. Box 97 124 John Street Napanee, ON K7R 3L4 T: 613-354-3351 F: 613-354-6545 cmcdonald@greaternapanee.com
	County of Lennox and Addington	County of Lennox and Addington	Larry Keech, CAO Postal Bag 1000 97 Thomas St. E. Napanee ON K7R 3S9 T: 613-354-4883 F: 613-354-3112 lkeech@lennox-addington.on.ca

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
	County of Hastings	County of Hastings	Brian McComb, Director of Planning Postal Bag 4400 235 Pinnacle Street Belleville, ON K8N 3A9 T: 613-966-1319 F: 613-9662574 mccombb@hastingscounty.com
	Township of Tyendinaga	Township of Tyendinaga	Steve Mercer, Clerk 859 Melrose Road, RR1 Shannonville, ON K0K 3A0 T: 613-396-1944 F: 613-396-2080 clerk@tyendinagatownship.com
Socio Economic	Energy	Ministry of Energy and Infrastructure	<p>Alan Jenkins Sr. Policy Specialist Energy Supply and Competition Branch Ministry of Energy and Infrastructure 880 Bay Street 3rd floor Toronto, ON, M7A 2C1 T: 416-325-6926 F: 416-325-6972 Allan.jenkins@ontario.ca</p> <p>AWAY UNTIL AUGUST 2010 Kevin Pal Manager Strategic Policy Branch Ministry of Energy and Infrastructure 880 Bay Street 6th floor Toronto, ON, M7A 2G1 T: 416-327-7204 F: 416-327-7204 Kevin.pal@ontario.ca</p> <p>Kevin Dowling Team Leader - PROVINCIAL TRANSIT POLICY OFFICE Suite 3000 777 Bay St Toronto ON M7A2J8</p>

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
	Sport/recreation and tourism	Ministries of Citizenship and Immigration, Culture, Tourism and Health Promotion	Ms. Mary Beach, Manager East Region Ministries of Citizenship and Immigration, Culture, Tourism and Health Promotion 347 Preston Street, 4th Floor Ottawa ON K1S 6B7 Mary.Beach@Ontario.ca
	Tourism	Ministry of Tourism	Mr. Darryl Soshycki, Manager Strategic & Corporate Policy Unit Tourism Policy and Research Branch Ministry of Tourism 15th Floor, 700 Bay Street Toronto ON M7A 2E1 T: (416) 212-1676 F: (416) 314-7341 Darryl.soshycki@ontario.ca
	Education/schools	Ministry of Education	Mr. Steven Mitchell, O.A.A., Architect Pupil Accommodation Unit Business Services Branch Ministry of Education 21st Floor, Mowat Block, 900 Bay Street Toronto ON M7A 1L2 T: (416) 325 2015 F: (416) 325 4024 Steven.mitchell@ontario.ca
	Resource-based Tourism	Ministry of Tourism	Blair Harris Tourism Industry Adviser - KINGSTON OFFICE Ontario Government Bldg/Beechgrove Complex 51 Heakes Lane Kingston ON K7M9B1 T: 613-531-5581 Blair.Harris@ontario.ca

Table WP-1: GRT Contact List for Environmental Assessment Work Plans

April 2010

Environmental Component	Sub- Component	GRT Agency	GRT Contact Person
	Human Health		<p>Sylvia Shedden Director, Environmental Health Branch Public Health Division 21st Flr 393 University Ave Toronto ON M7A2S1 T: (416) 212-6359 sylvia.shedden@ontario.ca</p>
			<p>Kitty Ma Safe Environments Program Health Canada 2301 Midland Avenue Toronto, ON M1P 4R7 E-mail: kitty_ma@hc-sc.gc.ca 416-954-2206</p> <p>Melanie Lalani Regional Environmental Assessment Coordinator Melanie_lalani@hcsc.gc.ca Phone: (416) 954-5013 Health Canada - Ontario Region 180 Queen Street West, 10th Floor Toronto, Ontario M5V 3L7 Fax: (416) 952-4444</p>
Site Design & Operations		MOE EAAB- Waste Approvals	<p>Craig Dobiech Senior Environmental Officer - KINGSTON DISTRICT OFFICE Ministry of the Environment Unit 3 1259 Gardiners Rd PO Box 22032 Kingston ON K7M8S5 craig.dobiech@gov.on.ca</p>



Terms of Reference for a New Landfill Footprint Consultation Record

Appendix E.2 Correspondence

- Emails/Letters Received



EA Work Plan Correspondence with a Member of the GRT

From: Shevlin, Thomas (ENE) [mailto:Thomas.Shevlin@ontario.ca]

Sent: April 28, 2010 4:32 PM

To: BREC

Subject: RE: Work Plan for EA New Landfill Footprint, Waste Management of Canada Corporation, Beechwood Road Environmental Centre

Mr O'Neill,

I don't believe I am the appropriate contact for this task at this time. I have provided comments on the noise aspects of EA documents in the past, and that is still the extent of my EA involvement.

As these tasks normally come to my Supervisor from Project Coordination , that may be the appropriate place to go.

Thomas Shevlin, P.Eng.
Senior Review Engineer
Ministry of the Environment
Environmental Assessment and Approvals Branch
Air and Noise Unit
2 St. Clair Ave. W., 12th Floor
Toronto ON M4V 1L5

Voice 416-314-8302 or 1-800-461-6290

Fax 416-314-8452

From: BREC [mailto:BREC_WMCCTORdevelopment@golder.com]

Sent: April 28, 2010 4:00 PM

To: Shevlin, Thomas (ENE)

Subject: Work Plan for EA New Landfill Footprint, Waste Management of Canada Corporation, Beechwood Road Environmental Centre

Dear Mr. Shevlin:

Waste Management Canada Corporation has recently commenced an Environmental Assessment of a proposed new landfill footprint, which is one component of an innovative, integrated waste management facility proposed to be located in Napanee.

Attached to this email please find a letter from Mr. Tim Murphy, Waste Management Canada Corporation, providing a draft work plan for technical studies to be conducted during the EA and a request to obtain your comments and input on the work plan.

Please contact the undersigned if you have any difficulty opening the attached file or have any questions. A hard copy of the letter has been sent to you by regular mail.

Thank you for your time and attention to this request.

Ted O'Neill

EA Work Plan Correspondence with a Member of the GRT

From: Turner, Mike (MNR) [mailto:mike.turner@ontario.ca]
Sent: April 29, 2010 8:29 AM
To: BREC
Subject: RE: Work Plan for EA New Landfill Footprint, Waste Management of Canada Corporation, Beechwood Road Environmental Centre

This project is not within the area of my mandate. I have forwarded it to Leala Pomfret in our Peterborough office. Please refer any further correspondence concerning this matter to her at leala.pomfret@ontario.ca

Thank you

Mike

Mike Turner
MNR District Planner
Banroft District
705-286-5216

From: BREC [mailto:BREC_WMCCTORdevelopment@golder.com]
Sent: Wednesday, April 28, 2010 4:00 PM
To: Turner, Mike (MNR)
Subject: Work Plan for EA New Landfill Footprint, Waste Management of Canada Corporation, Beechwood Road Environmental Centre

Dear Mr. Turner:

Waste Management Canada Corporation has recently commenced an Environmental Assessment of a proposed new landfill footprint, which is one component of an innovative, integrated waste management facility proposed to be located in Napanee.

Attached to this email please find a letter from Mr. Tim Murphy, Waste Management Canada Corporation, providing a draft work plan for technical studies to be conducted during the EA and a request to obtain your comments and input on the work plan.

Please contact the undersigned if you have any difficulty opening the attached file or have any questions. A hard copy of the letter has been sent to you by regular mail.

Thank you for your time and attention to this request.

Ted O'Neill

EA Work Plan Correspondence with a Member of the GRT

From: Cooper, David (OMAFRA) [mailto:david.cooper@ontario.ca]
Sent: April 29, 2010 10:32 AM
To: BREC
Subject: RE: Work Plan for EA New Landfill Footprint, Waste Management of Canada Corporation, Beechwood Road Environmental Centre

Please direct future correspondence to our ministry contact for this file:

John O'Neill
Rural Planner
Ontario Ministry of Agriculture, Food and Rural Affairs
59 Ministry Road
Kemptville Ontario K0G 1J0
613-258-8341
John.O'Neill@ontario.ca

From: BREC [mailto:BREC_WMCCTORdevelopment@golder.com]
Sent: Wednesday, April 28, 2010 4:00 PM
To: Cooper, David (OMAFRA)
Subject: Work Plan for EA New Landfill Footprint, Waste Management of Canada Corporation, Beechwood Road Environmental Centre

Dear Mr. Cooper:

Waste Management Canada Corporation has recently commenced an Environmental Assessment of a proposed new landfill footprint, which is one component of an innovative, integrated waste management facility proposed to be located in Napanee.

Attached to this email please find a letter from Mr. Tim Murphy, Waste Management Canada Corporation, providing a draft work plan for technical studies to be conducted during the EA and a request to obtain your comments and input on the work plan.

Please contact the undersigned if you have any difficulty opening the attached file or have any questions. A hard copy of the letter has been sent to you by regular mail.

Thank you for your time and attention to this request.

Ted O'Neill

J.E. (Ted) O'Neill (B.Sc. (Hon.)) | Associate, Environmental Assessment & Biology Group Manager|
Golder Associates Ltd.
32 Steacie Drive, Kanata, Ontario, Canada K2K 2A9
T: [+1] (613) 592 9600 | **F:** [+1] (613) 592 9601 | **C:** [+1] 613 799 7109 | **E:** TONEill@golder.com |
www.golder.com

EA Work Plan Correspondence with a Member of the GRT

-----Original Message-----

From: Kitty Ma [mailto:kitty.ma@hc-sc.gc.ca]

Sent: April 29, 2010 4:04 PM

To: BREC

Subject: Kitty Ma/HC-SC/GC/CA is out of the office this afternoon.

I will be out of the office starting 2010-04-27 and will not return until 2010-05-19.

For urgent matters related to environmental assessment, please contact Melanie Lalani at Melanie.Lalani@hc-sc.gc.ca

Ministry of Tourism and Culture

Ministère du Tourisme de la Culture

347 Preston Street, 4th floor
Ottawa, ON K1S 3J4

347 rue Preston 4^{ieme} étage
Ottawa (Ontario) K1S 3J4



April 29, 2010

Tim Murphy
Waste Management of Canada Corporation
R.R. #6
1271 Beechwood Road
Napanee, ON K7R 3L1

Dear Mr. Murphy:

RE: Waste Management of Canada Corporation, Beechwood Road Environmental Centre (BREC), Environmental Assessment New Landfill Footprint

Thank you for your letter of April 27, 2010 seeking our input into the proposed work plan for your environmental assessment.

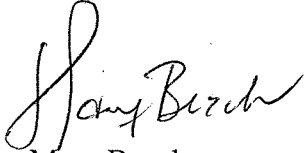
From the Ministry of Tourism and Culture's perspective, my Tourism Industry Advisor in Kingston, Blair Harris, and Sharon Proulx, my Regional Advisor for Culture, Sport and Recreation in Kingston, have each reviewed the documents. They each report that the draft work plan as presented is acceptable.

In your letter you allude to the potential for a discipline lead(s) to follow up with me in the very near future to discuss the documentation. I would ask that if this is necessary to please contact my staff directly at the following coordinates:

Tourism	Community Culture, Sport & Recreation
<p>Blair Harris Tourism Industry Advisor Regional Services Branch Ontario Ministry of Tourism and Culture Ontario Government Beechgrove Complex 51 Heakes Lane, Kingston ON K7M 9B1 Tel: (613)-531-5581 Toll-free within 613 area code: 1-800-293-7543 Ext. 5581 Fax: (613)-531-5585 blair.harris@ontario.ca</p>	<p>Sharon Proulx Regional Advisor Regional Services Branch Ontario Ministry of Tourism and Culture Ontario Government Beechgrove Complex 51 Heakes Lane, Kingston ON K7M 9B1 Tel: (613)-531-5582 Toll-free within 613 area code: 1-800-293-7543 Ext. 5582 Fax: (613)-531-5585 sharon.proulx@ontario.ca</p>

Based on "*Appendix E - Cultural Heritage Resources Work Plan*" and the specific references to the Ministry of Tourism and Culture, it appears that you have already been in contact directly with the Ministry of Tourism and Culture's Heritage Operations Unit in Toronto. I ask that you please continue to keep them apprised as the unit is responsible for the cultural heritage and archaeological aspects of the project.

Sincerely

A handwritten signature in cursive script, appearing to read "Mary Beach".

Mary Beach
Area Manager

"c": Ms. Wai Kok, Ministry of Culture, Programs and Services - Culture Services

"c": Mr. Blair Harris, Regional Advisor, Ministry of Tourism and Culture

"c": Mrs. Sharon Proulx, Regional Advisor, Ministry of Citizenship & Immigration

EA Work Plan Correspondence with a Member of the Technical Study Team

-----Original Message-----

From: Mahabir, Ravi

Sent: April 30, 2010 2:15 PM

To: Weerasinghe, Bhagya

Cc: O'Neill, Ted; Da Silva, Danny (Mississauga); Capstick, Sean

Subject: 10-1126-0011: Record of Conversation with Penny Stewart

Importance: Low

Hi Bhagya,

Please see attached record of discussion with Penny Stewart.

The Atmospheric Environment Review by the Easter Region Technical Support Section is on hold pending official MOE project kick-off my Ariane.

Thanks

Ravi

RECORD OF TELEPHONE CONVERSATION

CALL TO / FROM Penny Stewart

DATE April 30, 2010

TELEPHONE No. 613 548 6931

PROJECT No. 10-1126-0011

MADE / RECEIVED BY: RAVI MAHABIR

JOB TITLE: _____

RE: Follow up on documentation (workplans) sent
to GRT members.

Tech Supp. Manager
District Manager
EAAB.

Bruce
Trevor Douglas
Ariane

} contacted
by Penny.

Penny has contacted the above listed people to
get the official MOE documentation started.

She understands that this is preliminary
feedback prior to the Draft TOR
being issued, however she cannot
move ahead w/ review until the
official word is received from EAAB.

ACTION:

Ted/Bhagya to contact Ariane and
let her know of need to give Penny
the green light.

Ravi to follow up w/ Penny after Ariane contacts
Penny.

COPIES TO:

TON / BW / DDS



**Golder
Associates**

EA Work Plan Correspondence with a Member of the Technical Study Team

From: Kerr, Douglas (Ottawa)
Sent: April 30, 2010 4:04 PM
To: O'Neill, Ted; Weerasinghe, Bhagya
Cc: Smolkin, Paul
Subject: WM MOE Contacts

Hi Bhagya/Ted,

I had called the Kingston office of the MOE this afternoon to discuss the draft work plan package that was sent to the surface water group. I didn't speak to anyone but I did get a return phone message from Peter Taylor of that group.

He basically stated that they have had some internal discussions to clarify the process for this consultation and that they haven't looked at the package yet as this needs to be coordinated through the EA Approvals Branch. He suggested I call Penny Stewart to discuss.

It sounds like we need Penny to solicit comments from the reviewers or need her to ask them to provide us with comments directly.

I assume this will go for all MOE contacts. Can you let me know how to proceed, I haven't called Peter Taylor or Penny back.

Doug

EA Work Plan Correspondence with a Member of the GRT

From: Harris, Blair (MCI) [mailto:Blair.Harris@ontario.ca]
Sent: May 3, 2010 9:32 AM
To: BREC
Subject: RE: Work Plan for EA New Landfill Footprint, Waste Management of Canada Corporation, Beechwood Road Environmental Centre

Hi Ted.

My response to this request has been incorporated in a reply from my manager, Mary Beach of the Ministry of Tourism and Culture in Ottawa. It is kind of complicated in that I represent Tourism interests, another colleague in Kingston represents community culture interests and then there is the Culture and Heritage Branch of our ministry in Toronto who represent the heritage/archaeological aspects and for which the report indicates communication has been made with them. ☺

All the best!

Blair Harris
Tourism Industry Advisor
Regional Services Branch
Ontario Ministry of Tourism and Culture
Ontario Government Beechgrove Complex
51 Heakes Lane, Kingston ON K7M 9B1
Tel: (613)-531-5581 Toll-free within 613 area code: 1-800-293-7543 Ext. 5581
Fax: (613)-531-5585 e: blair.harris@ontario.ca

From: BREC [mailto:BREC_WMCCTORdevelopment@golder.com]
Sent: April 28, 2010 4:01 PM
To: Harris, Blair (MCI)
Subject: Work Plan for EA New Landfill Footprint, Waste Management of Canada Corporation, Beechwood Road Environmental Centre

Dear Mr. Harris:

Waste Management Canada Corporation has recently commenced an Environmental Assessment of a proposed new landfill footprint, which is one component of an innovative, integrated waste management facility proposed to be located in Napanee.

Attached to this email please find a letter from Mr. Tim Murphy, Waste Management Canada Corporation, providing a draft work plan for technical studies to be conducted during the EA and a request to obtain your comments and input on the work plan.

Please contact the undersigned if you have any difficulty opening the attached file or have any questions. A hard copy of the letter has been sent to you by regular mail.

Thank you for your time and attention to this request.

Ted O'Neill



Ministry of
Transportation

Ministère des
Transports

PLANNING AND DESIGN SECTION
Eastern Region Engineering Office
355 Counter Street, Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel: 613-545-4865
Fax: 613-540-5106

FACSIMILE TRANSMITTAL SHEET

TO: TIM MURPHY

FAX: (613) 388-2765

DEPT / ORGANIZATION: WASTE
MANAGEMENT OF CANADA
CORPORATION

DATE: MAY 5, 2010

FROM: STACY SWEEZEY

TOTAL NO. OF PAGES INCLUDING COVER: 2

RE: BEECHWOOD ROAD
ENVIRONMENTAL CENTRE -
MTO PRELIMINARY COMMENT

☐ URGENT

☐ FOR REVIEW

☐ PLEASE COMMENT

☐ PLEASE REPLY

Hi Tim

Please see the following one-page letter, containing ministry comment pertaining to the Draft Work Plan, for the Beechwood Road environmental Centre.

The hardcopy of this letter is in today's mail.

Thanks

Stacy Swezey

Corridor Management Planner

Eastern Region, MTO

EA Work Plan Correspondence Letter from a Member of the GRT

Ministry of Transportation

Corridor Control Unit
Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
Kingston, Ontario K7L 5A3
Tel.: 613 545-4865
Fax: 613-540-5106
Stacy.Sweezy@Ontario.ca

Ministère des Transports

Unité de contrôle des couloirs routiers
Section de la planification et de la conception
1355, boulevard John Counter
CP/Service de sacs 4000
Kingston (Ontario) K7L 5A3
Tél.: 613 544-2220
Téléco. 613 540-5106



Waste Management of Canada Corporation
R.R. #6, 1271 Beechwood Road
Napane, ON
K7L 3L1

May 5th, 2010

Attention: Tim Murphy, MCIP, RPP
Fax no. (613) 388-2785

Dear Mr. Murphy:

**Re: Waste Management of Canada Corporation (WM)
Beechwood Road Environmental Centre (BREC)
Environmental Assessment (EA) New Landfill Footprint
Lots 1, 2, & 3, Con 4, Geographic Township of Richmond
Town of Greater Napane, County of Lennox & Addington
Highway 401, MTO Eastern Region, Bancroft Area**

This will acknowledge receipt of WM correspondence dated April 27, 2010, provided as cover to a DRAFT WORK PLAN document entitled, 'Work Plan for Environmental Assessment of Proposed New Landfill Footprint in Napane', prepared by WM, dated April 2010. The Ministry of Transportation (MTO) has reviewed the document, and provides the following comments.

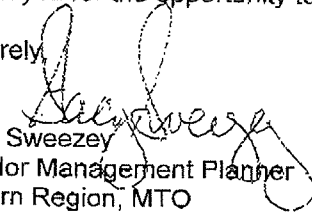
It is noted that the proposal to use the site as an environmental centre, is in the preliminary stages. A Terms of Reference is being developed, presently preparing a work plan for conducting the required EA, including the various technical studies that will be required for the EA. As noted in Appendix F, Transportation Work Plan, the Draft Work Plan includes a transportation environmental component, which will undertake to assess impacts to roads (independent of classification or jurisdiction), including road geometrics and operation.

As the site is 1.3 km north of the Highway 401 / Deseronto Road Interchange, MTO has concerns regarding the proximity and traffic impacts of the commercial land use to the interchange. MTO requests the submission of a traffic impact study (TIS), which clarifies impacts to the Highway 401 / Deseronto Road Interchange. The TIS is to identify if any highway improvements are warranted, and make recommendations to mitigate the impacts to the highway. In the event there is to be future phasing of development, please prepare the study to show impacts at all stages of development, including full build-out of the property. Please refer to the Ministry of Transportation General Guideline for the Preparation of Traffic Impact Studies, dated January 2008, at the ministry website. www.mto.gov.on.ca/english/engineering/management/corridor/ The ministry contact for traffic information at the subject interchange is Dave Edwards, Information Supervisor, MTO Traffic Section (613) 545-4695. Dave may be able to provide information useful in the preparation of the traffic analysis.

Please forward all future correspondence and documentation, pertaining to the BREC to MTO at the contact name and address in the letterhead.

I thank you for the opportunity to provide comment.

Sincerely,


Stacy Sweezy
Corridor Management Planner
Eastern Region, MTO

cc:

**Ministry of
Agriculture, Food
and Rural Affairs**

95 Dundas St.,
Brighton, Ontario K0K 1H0
Tel: (613) 475-4764
Fax: (613) 475-3835

**Ministère de
l'Agriculture, de l'Alimentation
et des Affaires rurales**

95 rue Dundas
Brighton, Ontario K0K 1H0
Tél.: (613) 475-4764
Télééc.: (613) 475-3835



**Food Safety and Environmental Policy Branch
Environmental Land Use Policy Unit**

May 5, 2010

Tim Murphy
Waste Management of Canada
R.R.# 6 1271 Beechwood Road
Napanee, Ontario
K7R 3L1

Dear Mr. Murphy:

Subject: Draft EA Terms of Reference for Beechwood Road Environmental Centre
Town of Greater Napanee, Lennox & Addington County

Staff of this Ministry have completed a review of the above-noted report. Consideration has been given to the matter in terms of the goals, objectives, programs and policies of this Ministry.

The purpose of the proposed Terms of Reference is for a new landfill footprint for the existing Napanee landfill site located in concession 4, lots 1 & 2 (Richmond), Town of Greater Napanee.

This Ministry has no concerns with the proposed Terms of Reference.

Should you have any questions or wish to discuss this matter further, please contact this office.

Yours truly,

Ray Valaitis
Rural Planner





Ontario Realty Corporation
Société immobilière de l'Ontario

One Dundas Street West, Suite 2000, Toronto, ON M5G 2L5
1, rue Dundas Ouest, bureau 2000, Toronto, ON M5G 2L5

May 12, 2010

To: Mr. Tim Murphy

Re: ORC EA requirements

Thank for Contacting the ORC regarding the proposed undertaking.

ORC is required, by the MOE and the environmental assessment act, to follow the "MEI Class EA Process for Realty Activities Other Than Electricity Projects (approved April 2004, amended September 11, 2008)" prior to any activities on ORC managed lands.

The Class EA parent document can be found at:

[http://www.ontariorealty.ca/Assets/MEI+Class+EA+Document+\(amended\)_11Sep2008.pdf](http://www.ontariorealty.ca/Assets/MEI+Class+EA+Document+(amended)_11Sep2008.pdf)

ORC is responsible to provide customer-focused real estate services to the Ontario government, which includes strategic portfolio, asset, property and land management. ORC strives to optimize the value of the government's real estate portfolio and recognizes the importance of protecting the public's interest, when managing these lands.

Please note that if ORC managed lands are to be directly impacted, Environmental Assessment requirements may need to be completed, prior to allowing the undertaking; however, ORC may require additional information, if ORC managed lands are within the study area as lands may be indirectly impacted. ORC requests to be involved with notifications regarding the project as the operation of the expanded facility may impact ORC managed lands. This also includes lands managed by Hydro One on behalf of ORC.

ORC would like to review and have full reliance on all reports to assess the facility's relation and potential impact to ORC managed lands. This is, but not limited to, all environmental and geotechnical reports as it relates, especially to, soil and groundwater. Depending on report findings, ORC may request that more stringent reporting be completed to ensure that ORC managed assets are not impacted by the expansion and subsequent operation of the facility.

If the proposed undertaking has a potential to cause impacts to MEI-owned property, it also has the potential to cause net negative environmental effects. Our comments are intended to ensure that outstanding issues of environmental, socio-economic and cultural heritage concerns related



www.ontariorealty.ca



416.327.3937



416.327.1906



to this property, as well as complying with all regulations, will be appropriately addressed prior to the commencement of this undertaking. ORC looks forward to continuing communication regarding this project.

Please note that in addition to the above requirements, and if required, depending on the type of realty agreement, ORC may also be required to circulate First Nations regarding the undertaking.

Please contact the undersigned if you have any additional questions.

Regards,

A handwritten signature in black ink that reads "L. Myslicki".

Lisa Myslicki
Environmental Coordinator
Ontario Realty Corporation - Professional Services
1 Dundas Street West,
Suite 2000, Toronto, Ontario
M5G 2L5
(416) 212-3768
lisa.myslicki@ontariorealty.ca





May 14, 2010

Waste Management of Canada Corporation
R.R. #6, 1271 Beechwood Road
Napanee, Ontario K7R 3L1

Attention: Mr. Tim Murphy, MCIP, RPP

Dear Mr. Murphy:

**RE: Draft Work Plan for Proposed Beechwood Road Environmental Centre
Environmental Assessment**

I am in receipt of the draft Environmental Assessment (EA) work plan for the above-noted proposal submitted under cover of your April 27, 2010 correspondence.

As requested, County staff has now reviewed the draft work plan and provide the following comments as you finalize the EA's work plan.

1) Transportation Work Plan, Appendix F

- a) Both site construction and long term site operation impacts on the road network should be assessed with appropriate mitigating measures identified.
- b) The road network study area should be expanded beyond roads that directly link the site to the nearest interchange on the provincial highway system. More specifically, the study area should include portions of County Road 10 south of Highway 401, County Road 11 east of County Road 10 and County Road 1 east of County Road 10. A trip distribution study should be undertaken to assess impacts on these study area roads.
- c) Impacts on the adjacent County road drainage systems due to storm water being directed off the proposed site should be considered with appropriate mitigating measures identified. In particular, this review should consider the capacity of roadside ditches and entrance/centerline culverts under County roads within the study area. I note that there is general reference to adverse effects on downstream water courses noted in Appendix C, Surface Water Work Plan.

...../2

- d) As part of the review of mitigating measures to ensure the safety of pedestrian and vehicular traffic, the need for zone and continuous streetlight illumination on study area County roads should be considered as part of the operations review. It should be noted that any new streetlighting introduced will become an additional operating and maintenance expense to the local municipality.
- e) Changes in Level of Service demands created by this proposal that may result in additional municipal maintenance and operations demands and expenses should be considered.
- f) The County roads in the vicinity of the site, and in particular County Road 10, are subject to annual 5 tonne/axle load restrictions from March 1st to April 30th. Although vehicles carrying municipal solid waste are exempted from the restriction, the number of vehicles exempted will increase significantly. The impact on the structural integrity of these roads when subjected to increased heavy loads during this period must be considered with appropriate mitigating measures identified.
- g) It should be noted that County Road 10 is a boundary road between the County of Lennox and Addington and the Township of Tyendinaga. It is therefore subject to joint jurisdiction regarding maintenance, operations and right-of-way control matters such as entrances.

2) Land Use Work Plan, Appendix G

Due to the increase in heavy truck traffic that County Road 10 is expected to receive, the need for restrictions on development and severances should be considered. The County currently classifies the affected section of County Road 10 as "Rural Collector" but it may require a re-classification to a new "Rural Arterial" status in order to limit the potential for future development and severances. A change of this magnitude should further be considered for impacts on Official Plans of the County of Hastings, Town of Greater Napanee and Township of Tyendinaga. If significant truck volumes are anticipated on other County roads in the vicinity, these development restrictions should be considered there also.

3) General

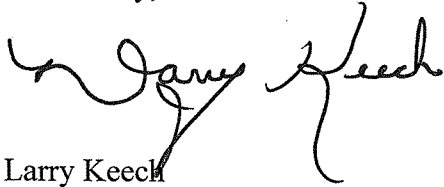
Due to the many complex issues the County must consider as a result of this proposal, undoubtedly the County will need to rely on external peer review consulting services. Although these needs are not specifically identified at present, please be advised that the County will be seeking financial compensation from the proponent for any costs incurred in order to obtain these consulting services.

I trust these comments will be of assistance to your development of the proposal's draft work plan and terms of reference.

...../3

Thank you for providing the County with the opportunity to provide input. I shall look forward to continued communications with you as the EA process advances.

Yours truly,

A handwritten signature in black ink, appearing to read "Larry Keech". The signature is fluid and cursive, with the first name "Larry" and last name "Keech" clearly distinguishable.

Larry Keech
Chief Administrative Officer/Clerk