Durham/York Residual Waste Study

Executive Summary

Thermal Facility Site Selection Process

Results of Step 7: Evaluation of Short-List of Sites and Identification of Preferred Site

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GENIVAR

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Executive Summary

The Minister of the Environment approved the Terms of Reference for the Durham/York Residual Waste Environmental Assessment Planning Study (the Study) on March 31, 2006. In Accordance with the approved EA Terms of Reference, potential siting locations for the preferred technology would be determined and evaluated. Based on the evaluation of these potential locations (Alternatives Methods) it is concluded that the preferred long-term site for a thermal treatment facility for managing the residual waste remaining after achieving 60% to 75% diversion is the site referred to as Clarington 01 which is owned by the Region of Durham, located south of Highway 401, west of Osbourne Road and north of a CN Rail corridor, in the Municipality of Clarington.

ES-1 Preferred Long-Term Residual Processing System

The preferred long-term residuals processing system identified to manage the post-diversion or residual wastes is System 2(a) – Thermal Treatment of MSW and Recovery of Energy followed by Recovery of Materials from the Ash/Char. More specifically, System 2(a) entails the establishment of thermal treatment capacity to process the residual waste stream and recover energy, followed by the removal of materials that may be sold to market from the ash/char residue, and finally the landfilling of all process residues (non-combustible materials removed prior to treatment and from the ash/char).

Although System 2(a) has been has been approved as the Preferred Long Term Residual Processing System, it is important to note that new technologies categorized in System 2(b) – Thermal Treatment of Solid Recovered Fuel were recognized as offering important benefits. As a result it was approved that the competitive process used during the evaluation of Alternative Methods will allow for the submission of proposals to implement both System 2(a) and System 2(b), with the final decision on the technologies used to implement the preferred residuals processing system being based on the results of this competitive process.

ES-2 Identification of the Short-List of Sites

Following the identification of a preferred technology, a seven-step facility site selection process was initiated to identify a Preferred site for development of the Preferred Durham/York residual waste processing system (i.e. a new thermal treatment facility).

Steps 1-5 of the site selection process were completed and issued for public and agency review in March 2007. Through the completion of these steps a Long-list of potential locations were evaluated resulting in the identification of a Short-List of five (5) sites to be carried forward into the Short-List evaluation process. The Short-List of sites are referred to as follows:

- Clarington 01/02
- Clarington 03
- Clarington 04
- Clarington 05
- East Gwillimbury 01

A detailed account of the steps taken to identify the Short-List of sites is provided in the report entitled Draft Report - *Thermal Facility Site Selection Process Results of Steps 1-5 Identification of the Short-List of Alternative Sites, March 2007* [3] available at www.durhamyorkwaste.ca.

After issuing the draft report identifying the Short-List of sites, two of the six sites were removed from consideration. Site Clarington 02 was removed from the Short-List as the land use designation for the property changed in late March 2007 such that the site no longer met Step 2 evaluation criteria. Site Clarington 03 was removed from the Short-List as the site was withdrawn from consideration by the private owner of the property, such that this site could no longer be considered a 'willing seller' property.

ES-3 Step 6: Alignment of Siting Process and Competitive Process

It was originally envisioned in the EA Terms of Reference (Step 6) that potential technology vendors would be provided the opportunity to submit a site along with their technology during the Request for Qualifications (RFQ) process. Under the advisement of procurement and legal counsel, it was determined that these two processes (submission of a site, and submission of technology qualifications) should be completed as two entirely separate processes. Completing these processes as part of the same competitive process could represent an unfair advantage to those vendors offering both a site and a technology versus only those vendors providing a technology and thereby jeopardize the success of the competitive process.

By "uncoupling" the RFQ and Request for Proposals (RFP) process from the siting process, it allowed for a more "fair" process to those involved and also allowed for the completion of siting activities in advance of the completion of the formal RFQ/RFP process for technology(ies). The siting component of Step 6 was addressed through the development of a Request for Expressions of Interest (REOI) which included distribution to potential technology vendors to provide the opportunity for this group to potentially offer up a site through a formal competitive process as described in the approved EA Terms of Reference.

ES-4 Step 7: Evaluation of the Short-List Sites

Following consultation on the Short-List of potential sites, a detailed comparative evaluation of the sites was initiated. This assessment considered a broad range of potential impacts from the potential development of the sites as well as impacts related to the haul routes, transfer requirements and requirements for additional infrastructure to develop the sites.

Step 7 utilized criteria and indicators to measure potential effects. Identification of siting preferences considered relative advantages and disadvantages based on net effects after the consideration of mitigative measures reasonably available to address the potential of an effect being realized.

The evaluation criteria applied at this Step were assembled under 5 categories:

- Public Health and Safety and Natural Environment;
- Social and Cultural;
- Economic / Financial;
- Technical Suitability; and

- Legal.

Table 3.1 in the Draft Report entitled *Thermal Facility Site Selection Process, Results of Step 7: Evaluation of Short-List of Sites and Identification of Consultants Recommended Preferred Site, September 2007* provides a detailed explanation of the evaluation categories, criteria, and indicators as well as the rationale for considering and applying each indicator

Alternative Site Impact Assessments

For the purpose of applying the evaluation criteria and indicators, determining potential effects and the availability of mitigative measures, and the net effects associated with each Short-List site, detailed impact assessments were completed by experts in the disciplines associated with each criterion. The results of the impact assessments are detailed in separate reports as follows:

- Report on Potential Air Quality Impacts
- Report on Potential Water Quality Impacts (Surface Water and Groundwater)
- Report on Potential Environmentally Sensitive Areas and Species Impacts and Potential Aquatic and Terrestrial Ecology Impacts
- Report on Compatibility with Existing and/or Proposed Land Uses
- Report on Archaeological and Cultural Resources
- Report on Potential Traffic Impacts
- Report on Capital Costs, Operation and Maintenance Costs
- Report on Compatibility with Existing Infrastructure and Design/Operational Flexibility
- Report on Complexity of Required Approvals and Agreements

Short-List Sites Advantages and Disadvantages

The following table summarizes the advantages and disadvantages associated with each of the Short-List sites based on net effects associated with the evaluation criteria categories:

Table ES-4.1 Summary of Short-List Sites Advantages and Disadvantages

Environmental Category	Clarington 01	Clarington 04	Clarington 05	East Gwillimbury 01
PRIORITY: HIGH				
Public Health and Safety and Natural Environment Considerations	ADVANTAGE	NEUTRAL	MAJOR DISADVANTAGE	DISADVANTAGE
PRIORITY: MEDIUM				
Social and Cultural Considerations	ADVANTAGE	DISADVANTAGE	DISADVANTAGE	NEUTRAL
Economic/Financial Considerations	ADVANTAGE	DISADVANTAGE	NEUTRAL	NEUTRAL
Technical Considerations	ADVANTAGE	NEUTRAL	ADVANTAGE	ADVANTAGE
PRIORITY: LOW				
Legal Considerations	NEUTRAL	DISADVANTAGE	DISADVANTAGE	NEUTRAL

Table ES-4.1 Summary of Short-List Sites Advantages and Disadvantages

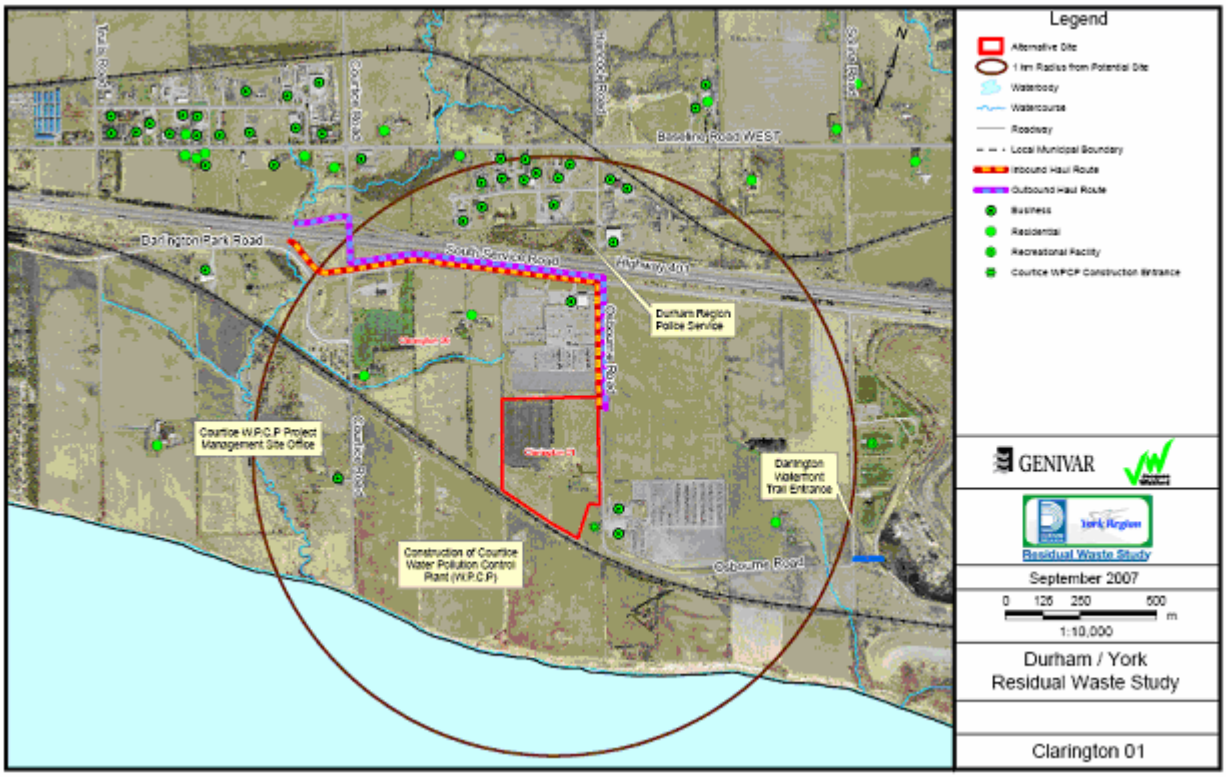
Environmental Category	Clarington 01	Clarington 04	Clarington 05	East Gwillimbury 01
Overall:	**ADVANTAGE**	**DISADVANTAGE**	**DISADVANTAGE**	**NEUTRAL**

Based on the consideration of the advantages and disadvantages, the Recommended Preferred site to manage the post-diversion or residual wastes from the proposed thermal treatment facility is Clarington 01. This site is considered to represent the preferred balance of advantages and disadvantages based on the priorities associated with each of the environmental considerations noted in the above table.

ES-5 Description of Recommended Preferred Site, Clarington 01

Site Clarington 01, illustrated in the following Figure ES-5.1, is undeveloped land owned by the Region of Durham, south of Highway 401 in the Municipality of Clarington. The site is located on the west side of Osbourne Road north of a CN Rail corridor. There are commercial properties north of the site. The lands east and west of the site are undeveloped and are currently used for agricultural purposes. The Courtice Water Pollution Control Plant, which is scheduled to be completed in 2007, is being built just south of the site. The Darlington Nuclear Generating Station is located approximately 0.5 kilometres to the east. The nearest major intersection is Highway 401 and Courtice Road, which is approximately 1.7 kilometres from the site. The site is approximately 12.1 hectares in area and is located in the Clarington Energy Park.

Figure ES-5.1 Recommended Preferred Site Location



ES-6 Next Steps

The following provides an outline of the next steps in the completion of the Durham/York Residual Waste Study.

Public and Agency Consultation

On September 25, 2007 the Joint Waste Management Group will receive the Consultants Recommendation on the Preferred Site and will be requested to authorize the release of the Draft Report entitled *Thermal Facility Site Selection Process, Results of Step 7: Evaluation of Short-List of Sites and Identification of Consultants Recommended Preferred Site, September 2007* including all supporting documentation for public and agency consultation. With authorization, the public and agency consultation will be completed as follows:

1. The consultant team's draft report and supporting documentation will be released to the public and government review agencies for a period of 30 days starting on September 26, 2007 and ending on October 13, 2007.

2. Notification will be issued of the availability of the draft report by way of direct contact with the established public and government review agency list and by way of the website and local media for the general public.

3. Copies of the draft documentation will be forwarded to the public and government agencies in the established contact lists and copies placed in the local libraries, municipal offices and on the study website for public review.

4. Public Information Sessions will be held in both Durham and York during October, 2007. These sessions will be held to allow the public an opportunity to ask questions of the consultants and Regional staff.

5. A telephone poll will be conducted during late October or early November, 2007, reaching individuals in Durham and York Regions to determine their support for the Recommended Preferred site.

6. Comments received during the draft report review period will be documented and included in the final report on the Preferred site to be submitted to both Regional Councils for approval. Comments will be considered and addressed, as appropriate, during finalization of this report.

Preparation of an Interim EA Planning Document

Following the approval of the Preferred site by Durham and York Regional Councils, an Interim EA Planning document will be prepared. This document will outline the EA process followed to date, including:

1. Development and approval of the EA Terms of Reference;

2. Evaluation of Alternatives to and the identification of thermal treatment as the Preferred system; and,

3. Evaluation of Alternative Methods and the identification of the Preferred site.

This document will form the basis of the draft EA document that will be submitted to the Minister of the Environment in late 2008/early 2009. Over the course of 2008, the Interim EA Planning document will be updated as additional studies are completed and the preferred technology vendor is identified. At that time the formal EA submission (including a draft and final EA document) will be prepared.

Competitive Process to Identify the Preferred Technology Vendor

The engagement of the private sector to Design, Build and Operate the proposed thermal treatment facility is being undertaken in two (2) stages as follows:

Stage 1: Request for Qualifications

On July 12, 2007, Durham Region's Finance Department, co-ordinated and issued a Request for Qualifications (RFQ) for the Thermal Treatment of Residual Waste. This RFQ along with the Request for Proposals (scheduled to be issued in early 2008) form part of the evaluation of Alternative Methods and will be documented in a separate summary report.

The release of the RFQ is the first step in the process of the Regions of Durham and York identifying, assessing the qualifications of, and ultimately selecting a vendor and a specific form of thermal treatment technology that meets the aforementioned principles. Those proponents who respond to this RFQ, and satisfy its requirements, will be qualified to submit a detailed proposal.

Stage 2: The Request for Proposal Process

Following completion of the RFQ stage, Qualified Respondents will be invited to provide detailed proposals in response to an RFP that will include the design, construction and operating contract (collectively the "RFP"). The RFP will describe the Regions' requirements and performance expectations for design, construction and operation of the thermal treatment facility. The Regions will evaluate the detailed proposals received from the Qualified Respondents. The Regions will also seek any necessary clarifications, and then determine whether the Regions' objectives can be met. After reviewing the RFP submissions, the successful Qualified Respondent (the "Preferred Vendor") will be selected for the purposes of concluding a contract.

The above timing is tentative and subject to change at the sole discretion of the Regions.