

April 2, 2012

Municipality of Hastings Highlands
33011 Hwy. 62 North
P.O. Box 130
Maynooth, Ontario, K0L 2S0

By E-mail

Attention: Frank Mills, CBO/CLEO

**Re: Class EA for the Septage Management Strategy
Investigation of Candidate Sites
Our Project No. 2083075G**

Dear Frank:

The Evaluation of Candidate Areas and Candidate Sites report dated March 9, 2012 identified and ranked five (5) candidate sites. As noted in the report and discussed at the March 21, 2012 Council meeting there were a number of issues requiring clarification to confirm the advantages and disadvantages in the comparative evaluation. Based on the MNR March 20, 2012 preliminary comments and further consideration of the environmental evaluation criteria we provide a re-assessment of the site rankings.

Further to the resolution of Council March 21, 2012 we have developed the following work program and budget to evaluate the Candidate Sites as presented in the March 9, 2012 report. This program is not only limited to a preliminary hydrogeological investigation of the two (2) highest ranked sites, but includes consultation activities to address all outstanding issues identified in the chart on page 36 of the March 9, 2012 Evaluation of Candidate Areas and Candidate Sites report. Furthermore we acknowledge receipt of a letter from the PLCA dated March 20, 2012 and a letter from Tony Fleming dated March 26, 2012 which requires a response for the public record.

Re-Assessment of Site Ranking

As discussed at the March 21st meeting there were two (2) mapping discrepancies between the County Official Plan, the County aerial photography and the Land Information Ontario mapping which required clarification to confirm the application of the 500m water setback on two (2) of the sites.

Site No. 1 Lake St. Peter WDS – there is a large Environmental Protection designation shown on the County Official Plan north of the WDS. Based on a site reconnaissance a poorly drained area may exist extending from the wetland to the west. Application of a 500m setback from this feature would still result in an area deemed potentially suitable for dewatering trenches, although it would be approximately 20 to 30 ha.

Site No. 15 Lot 18, Con. 3 Monteagle – there is a small wetland complex to the west of the candidate site. Application of a 500m setback from this feature would result in no area deemed suitable for dewatering trenches (a combination of 500m setback from major water and residential dwellings). This site is eliminated from further consideration.

In consideration of the MNR preliminary review comments, detailed further in this letter, the Ministry provided additional data with respect to Natural Heritage Features and Areas for the Candidate Sites. As a 500m setback has been applied to the watercourse and wetland features there is limited potential for impact, however the sensitivity of the feature due to wildlife habitat and fisheries is considered in the comparison. See changes **in bold** to Table 8 from the March 9, 2012 report.

Based on the initial MNR comments, the ranking of the Candidate Sites is as follows:

1. Site No. 3
2. Site No. 1
3. Site No. 17
4. Site No. 16

MNR Consultation

The February 28, 2012 'draft' Evaluation of Candidate Areas and Candidate Sites report was filed with Bruce Mighton, MNR Bancroft Area Supervisor. Specific to Sections 3.0 and 4.0 of the report we requested clarification and any relevant documentation on the natural heritage features on or in close proximity to the five (5) sites. We received a reply March 20, 2012 (attached) from Peter Mabee, A/Area Supervisor. Generally the following was provided:

- Clarification on some County mapping of wetland discrepancies
- Identification of moose and deer habitat
- Identification of forest harvest considerations
- Clarification of cold water fisheries issues
- Identified potential Species At Risk for each site
- Confirmed land disposal costs

It is recommended that a meeting be scheduled with the appropriate MNR staff to discuss and review their mapping on a number of features. In addition we require confirmation of forest harvesting schedules and aggregate resource classifications. None of this additional data will effect the overall ranking of the sites.

Public Consultation

Although the 3 candidate sites owned privately are not presently ranked in the top 2, we recommend that each landowner be given the opportunity to review our findings and discuss. We propose that a meeting be held at the Municipal Office with each of the property owners to discuss the rationale that their property did not rank as high as others. Alternatively I could arrange to meet them at their site, which would involve additional scheduling, travel and time to complete.

Preliminary Hydrogeological Investigations

In Section 4.2 of the Evaluation of Candidate Areas and Candidate Sites report a proposed list of activities were presented. This writer attended the Site No. 1 Lake St. Peter WDS candidate site on March 21, 2012 to assess accessibility and confirm physiographic features to determine the scope of work necessary. Furthermore, the Site No. 3 Papineau Lake WDS candidate site was reviewed in consideration of Council's instruction to maximize efficiency and minimize costs through the scheduling of fieldwork for the investigation of the 2 sites. The original proposal suggested a \$10,000 to \$15,000 cost per site.

The attached summary table lists the activities and a proposed schedule. The backhoe is to be scheduled by the Township in consultation with Jp2g field staff.

Feasibility Study

Based on favourable results of the preliminary hydrogeological study a feasibility assessment will be completed which identifies all approvals requirements and estimate of probable costs for the site.

Investigation of Candidate Sites		April 2, 2012
1.	Project Management –preparation of work plan, re-assessment of site ranking and project administration	Jp2g \$2,500.00
2.	MNR Consultation – ½ day travel and meeting at the Bancroft Area Office, update draft report	Jp2g \$1,250.00
3.	Public Consultation – ½ day travel and meeting at the Township Municipal Office, update draft report	Jp2g \$1,100.00
4.	Prepare draft response to the PLCA letter dated March 20, 2012 pertaining to the evaluation of Approaches and Candidate Sites	GGG \$1,500.00 Jp2g \$1,500.00
5.	Preliminary Hydrogeological Study Site No. 1 - one (1) day backhoe test pit program and elevation - field survey (maybe 1 ½ days) - mapping, RUPO assessment and report Preliminary Hydrogeological Study Site No. 3 - one (1) day backhoe test pit program and - elevation field survey - mapping, RUPO assessment and report	Jp2g \$19,500.00 Backhoe \$By Others
6.	Feasibility Study - planning and development requirements - capital cost estimates	Jp2g \$1,500.00 GGG \$1,500.00

The above noted assumes Tasks 2 and 3 are completed concurrently. The cost of the fieldwork for Task 5 is dependent on equipment availability and site accessibility to conduct the fieldwork. The results of the Task 5 and 6 investigations will be compiled in a report and presented to Council.

Yours truly,

Jp2g Consultants Inc.
ENGINEERS • PLANNERS • PROJECT MANAGERS



Kevin Mooder, MCIP, RPP
Project Manager

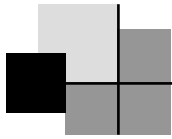
KJM/dr

Encl.

c.c.: - Tony Guerrero, P. Eng.



Andrew Buzza, P. Geo
Sr. Hydrogeologist



SUMMARY TABLE AND SCHEDULE OF WORK ACTIVITIES PROPOSED HASTINGS HIGHLANDS SEPTAGE DISPOSAL FACILITY TWO CANDIDATE SITES

Schedule	Description of Work	Party
<p>To supplement initial review under the Class EA</p> <p>April, 2012</p>	<p>Desk top review of all pertinent information to characterize the site within its hydrogeological setting. The information will include but is not limited to the following:</p> <ul style="list-style-type: none"> • MOE water well records • Existing monitoring reports of the South Papineau Lake Road and Lake St. Peter Landfill Sites • Existing operational reports of the South Papineau Lake Road and Lake St. Peter Landfill Sites • Geologic Mapping (bedrock and overburden) • Ontario base mapping • National topographic series mapping 	Jp2g
<p>April 2012</p>	<p>Site reconnaissance visit to:</p> <ul style="list-style-type: none"> • Determine site conditions for possible trenching locations in a 3 ha area • Confirm proximity to nearby water courses • Assess topography and surface drainage • Assess the possible direction of groundwater flow 	Jp2g Twp.
<p>May 2012</p>	<p>Completion of test pit program with the use of a backhoe to:</p> <ul style="list-style-type: none"> • Determine the nature and thickness of overburden materials • Determine the presence of any shallow groundwater and direction of flow • Installation of groundwater level monitoring piezometers • Field elevation survey of piezometers • Determine the soil percolation time 	Jp2g Twp.
<p>May 2012</p>	<p>Preparation and submission of report outlining:</p> <ul style="list-style-type: none"> • Site description and location • Evaluation Criteria <ul style="list-style-type: none"> ○ Topography and drainage ○ Proximity to wells and waterways ○ Surficial and bedrock geology ○ Site physiography ○ Hydrogeology ○ Hydrogeological suitability to establish a Dewatering Trench to address MOE Reasonable Use Policy Objectives • Proposed Monitoring Compliance Program 	Jp2g

Table 8
Evaluation of Candidate Sites For The
Dewatering Trench Area

Environmental Screening Criteria	Advantages	Disadvantages
Public Health and Safety	<ul style="list-style-type: none"> - Site 1 is located over 1 km from wells, Site 17 over 700m to wells, all other sites able to provide >500m - All sites are remotely situated, and will have limited impact to residents along haul route - All sites are capable to restrict access 	<ul style="list-style-type: none"> - All sites require hydrogeological study to confirm groundwater flow direction, depth to watertable and bedrock
Natural Heritage Features and Areas	<ul style="list-style-type: none"> - All sites able to provide >500m from major surface water except Site 15 which has been eliminated from further consideration - Site 16 and 17 on private lands, no natural heritage concerns related to Crown land stewardship 	<ul style="list-style-type: none"> - Site 1, 3 and 16 confirm surface drainage at proposed trench dewatering location - Site 1 after consultation with County/MNR on EP wetland designation reflects a poorly drained area north of the site, resulting in a 30+/- ha potential area deemed suitable for dewatering trenches although in a location of steep topography - All sites require an EIS to confirm natural heritage features at the proposed trench dewatering location and access road - Site No. 1 Lake St. Peter is a natural lake trout lake 'at capacity' will receive drainage from the dewatering trench area - Site No. 1 Papineau Creek is a natural brook trout creek - Site No. 1 Boulter Lake is a cold water lake which supports naturally Kokanee Salmon - Site No. 3 Papineau Lake is a cold water natural lake trout lake although not considered at capacity by MOE - Site No. 17 Cardwell Lake is managed as put-grow and take rainbows (cold water not having the same sensitively as lake trout or brook trout) - Site No. 17 Blairs Lake is a natural brook trout lake, although >750m - Site 17 access road crossing of Watson Creek cold water fishery - Sites 1 and 17 potential moose aquatic feeding areas in the adjacent wetlands - Sites 1 and 3 mapped deer wintering area stratum 11 (not critical thermal cover) - Site 16 high potential of whippoorwill, boblink, and barn swallow - Site 17 high potential whippoorwill and blanding's turtle

Environmental Screening Criteria	Advantages	Disadvantages
Social and Cultural Considerations	<ul style="list-style-type: none"> - Site 1 and 3 Crown lands transfer of ownership free of encumbrances subject to consultation with MNR - Site 15 and 16 not in proximity to Crown forest or aggregate resources 	<ul style="list-style-type: none"> - Site 16 and 17 transfer subject to restrictions - Site 16 may not be willing to sell - Site 17 legal access via forest access road from East Lake Road to be confirmed - Site 16 proximity to numerous landowners - Site 1, 3 and 17 consultation MNR required regarding forestry and/or aggregate resources - Site 16 landowner requested logging rights, all private landowners requested hunting rights - Site 1 and 3 consultation with Algonquins of Ontario regarding transfer to Crown lands (maybe Site 17)
Technical and Cost Considerations	<ul style="list-style-type: none"> - Site 1 and 3 low purchase price - Sites 1, 3 and 16 direct access (Site 1 subject to MTO consultation) - Site 16 is already partially cleared which minimizes site preparation costs - All sites are capable of fencing the proposed dewatering trench area, and restricting access from Provincial Hwy. 127 for Site 1, or from a municipal road for the other Sites - Access road for Site 1, 3 and 16 is between 200 to 300m - Sites 1, 3 and 17 are located close to Maynooth - Sites 1 and 3 are capable of expanding the property to address RUPO 	<ul style="list-style-type: none"> - Site 16 request lease agreement - Site 17 confirm status East Lake Road forest access - Site 16 is not centrally located in the municipality - Site 17 1 km of gravel surface roadway - Site 16 has limited ability to expand to address RUPO

- Notes:
1. Site 15 has been eliminated from further consideration due to inability to provide 500m setbacks from residential development and major surface water bodies.
 2. Changes to the March 9, 2012 Table 8 shown in bold type based on preliminary MNR review comments dated March 20, 2012.