

September 13<sup>th</sup>, 2005

ATTN. Stan Holiday, Senior Planner  
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**Re: Peer Review of Terms of Reference for Environmental Impact Statement for Proposed Dolostone Quarry (Lowndes Quarry) - (Stantec Consulting Limited – March 4, 2005)**

Dear Mr. Holiday,

Dougan & Associates and C. Portt & Associates have completed a peer review of the Terms of Reference for the Environmental Impact Statement (EIS) for the proposed Lowndes Quarry prepared by Stantec Consulting Limited. As you are aware, authorization to proceed with the peer review was provided to us on June 9<sup>th</sup>, 2005. The review is limited to providing comments on the EIS Terms of Reference (dated March 4<sup>th</sup>, 2005). A more comprehensive review of the actual EIS will be provided once a draft of that study has been completed. This review has been scoped to focus on the general approach rather than the preliminary findings of the inventory work.

The purpose of reviewing the Terms of Reference is to evaluate the following:

- conformity with the City of Hamilton EIS Guidelines;
- thoroughness of the background review;
- suitability of methodologies used to evaluate existing conditions, identify and assess impacts, mitigation and monitoring measures.

The comments provided below are intended to ensure that the EIS is completed to a standard that addresses key ecological issues at the appropriate scale and level of detail.

## 1.0 GENERAL COMMENTS

1.1 **The proposed EIS report outline presented in the Terms of Reference (TOR) is generally consistent with the City of Hamilton EIS Guidelines.** Nevertheless, a comparative assessment of the proposed EIS TOR and the EIS Guidelines (dated June 2004) has identified several gaps. These have been highlighted in Sections 1.2 through 1.8.

### 1.2 Description of the Proposal

The Description of the Proposal provided in Section 1.1 of the TOR should be expanded to include more details with respect to the individual components listed in the EIS Guidelines below.

- a) *what is proposed;*
- b) *the purpose of the proposal;*
- c) *the timing of construction/development;*

- d) the existing land use and activities on-site;
- e) a general site location map, showing main roads;
- f) a site plan, if necessary, (at an appropriate scale) with dimensions, showing the location of building(s), septic areas, grade changes, driveways, etc.;
- g) a recent air photo map of the subject site at a scale of approximately 1:2000 identifying:
  - the limits of the ESA from the Official Plan;
  - Areas of Natural And Scientific Interest (ANSI) as defined by the Ontario Ministry of Natural Resources and the affected Conservation Authority;
  - vegetation communities, based on OMNR Ecological Land Classification for Southern Ontario;
  - Provincially Significant Wetlands (PSW) and their classification, as well as other wetland areas as defined by the Ontario Ministry of Natural Resources and the Conservation Authority;
  - permanent and intermittent water features such as, headwaters, rivers, streams, lakes and ponds, springs, and seeps;
  - registered flood or fill lines as defined by the Conservation Authority; and,
- h) activities associated with the proposal which may have an environmental impact (e.g. work on stream banks, tree-cutting, removal of vegetation, earth-moving, excavation and post-construction activities).
- i) Other development applications known to be in progress in the area which would affect the natural heritage features.

It is acknowledged that the Site Plans, Operational Plans and Progressive Rehabilitation Plans that will be submitted with the final EIS shall include detailed descriptions of items a) through f); however Section 1.1 of the EIS TOR should be modified to ensure that detailed discussions of all these items, particularly items g, h and i are also included.

### 1.3 Study Area

The study area has not been formally defined. The study area should be appropriate for the zone of potential impact, bearing in mind that the impacts on the biophysical aspects of streams may extend some distance downstream. Similarly, impacts to linkages and adjacent natural heritage features can extend considerable distance off-site.

### 1.4 Describing the Surrounding Environment

Biophysical descriptions of the surrounding environment are presented in EIS TOR Section 2.0 (Approach), Section 3.0 (Regional Context) and Section 4.0 (Existing Conditions). While the approaches discussed in these sections are generally consistent with the City's EIS Guidelines, it would be beneficial to include a separate sub-section within Section 3.0 that describes in functional terms the interdependencies of the various natural areas. For example, EIS TOR Section 3.2.3 which discusses landscape connectivity at the regional scale could be elevated to Section 3.3. A similar subsection which discusses linkages at the site level could also be included under Section 4.0 (Existing Conditions).

### 1.5 Impact Assessment & Mitigation

Section 6.0 of the EIS TOR is generally consistent with the City's EIS Guidelines; however the outline does not suggest that there will be a discussion of impact avoidance, alternatives, buffers or compensation. Similarly, the outline does not include a section that evaluated impacts to the greenlands system and linkages at the regional and site scale. In general, we support the approach to the impact assessment as outlined in Section 6.0 and 7.1. The proposed approach suggests that the impact analysis will 1) document all anticipated potential impacts of the proposal on the natural environment and functions as "gross impacts" or "pre-mitigation impacts", 2) describe and discuss how various mitigation measures will be applied to avoid or minimize impacts, and 3) provide a summary of "net impacts" once mitigation measures are applied (as per Section 7.1). We endorse this approach and believe it to be more transparent than blended approaches, as it clearly outlines how each anticipated impact shall be addressed.

## 1.6 Monitoring

The recommended monitoring plan presented in Section 7.3 of the EIS TOR is not entirely consistent with the City's EIS Guidelines. This section should be elevated to form its own chapter and expanded to describe the different types of monitoring that may potentially be required as part of the proposal. Both compliance monitoring and performance monitoring should be discussed in detail. For each monitoring parameter/indicator, the EIS should include the following:

- rationale for monitoring the specific parameter – how it relates to the impact assessment
- explanation of risk levels associated with each parameter/indicator. (i.e. what are the accepted thresholds for each parameter indicator)
- description of the monitoring measures/protocols - in sufficient detail so monitoring can be replicated by others
- specifics on the timing, duration and frequency of monitoring
- list of parties responsible for monitoring
- list of parties responsible for reporting monitoring results and reporting frequency
- list of parties/agencies responsible for reviewing the monitoring findings.
- identification of a feedback loop or mechanism by which unacceptable monitoring results are dealt with (i.e. contingency plans)

It would also be informative if there was a description of how the monitoring will relate to the Operational Plan and Adaptive Management Plan.

## 1.7 Cover Letter Pg. 2 Para. 1 states:

*Recommendations will be made for revising the September 2004 Site Plan to exclude quarrying from inside the PSW and to ensure extraction only occurs within the ESAs where adverse effects will not be caused or can be mitigated.*

This statement should be removed or re-phrased as the impact assessment component has yet to be completed. ESA boundary delineation will form a large component of that analysis. It is premature to presume where the limits of extraction will be in the TOR.

## 1.8 General

Most of the EIS TOR outline is written in past tense. Given that the TOR are intended to establish the specific terms and conditions for the EIS, it would be more appropriate to discuss these in the future tense. Sources of existing data should be updated so that all currently available information is included in the document.

The reviewers understand that much of the background and inventory work for the EIS has been completed or is ongoing; however the progress of this work should be discussed in an independent status report rather than within the context of the yet to be agreed upon TOR.

## 2.0 SPECIFIC COMMENTS

### 2.1 Comments on Section 1.2 – Environmental Policy Context

This section does not mention all relevant Provincial and Federal Legislation. Relevant statutes should include, at a minimum the Federal Fisheries Act, Federal Species at Risk Act, and Provincial Endangered Species Act.

## 2.2 Comments on Section 2.1 – Background Resources

EIS TOR Section 2.1 lists a variety of information sources that will be consulted to obtain background information on the site and environs. It is recommended that additional sources to be consulted include the following:

- Hamilton Natural Heritage Database (from City and Hamilton Conservation Authority)
- Ontario Breeding Bird Atlas (square data and site specific data from atlas volunteers)
- Hamilton Herpetofaunal Atlas
- R.O.M. Mammal Database
- Ontario Mammal Database (S. Dobbyn)
- Ontario Odonate Atlas (NHIC)
- MNR District Ecologist should also be contacted.

## 2.3 Comments on Section 2.2 – Vegetation and Vascular Plants

It is not clear when and how much time will be expended on the various data collection tasks outlined. The site is relatively large, and it is important for the reviewers to understand the extent of effort to be assigned to each task. Mapping the habitat for significant species (including Species at Risk) and submission of Ecological Land Classification data cards for each polygon should be added to the TOR.

## 2.4 Comments on Section 2.3.1 – Winter Wildlife Surveys

*Winter wildlife surveys were conducted on February 27, March 1 and 4, 2004 and February 11, 2005. 2004 surveys consisted of transects through the northern third of the site, and 2005 surveys studied deer use of the southeastern portion of the site. Surveys were primarily focused on deer use of the areas identified by the MNR as locally significant deer wintering areas. Opportunistic observations of other wildlife signs were also made during these surveys.*

The winter is also a good time to detect mustelids such as Ermine, Long-tailed Weasel, and Mink. This could be useful for identifying denning sites. Was this a consideration? Denning sites of mustelids may merit designation as Significant Wildlife Habitat (SWH). Surveying the study area in winter may also help identify potential wildlife movement corridors, another important criterion when evaluating SWH.

## 2.5 Comments on Section 2.3.3 – Breeding Birds

Given the size of the site, it is questionable whether the amount of time dedicated to performing the breeding bird surveys is sufficient. Ideally, the surveys should cover all portions of the site at least twice.

## 2.6 Comments on Section 2.4 – Aquatic Resources

The level of sampling effort should be described in more detail (i.e. total length of stream sampled). Data should be collected at a level that is appropriate to draw conclusions with respect to the existing fish community.

## 2.7 Comments on Section 4.4 – Wildlife

*The revised species list will be included as an appendix to the report. The list will be discussed with reference to significance and sensitivity of species, communities and habitats. A map will be included showing the locations of transects, stations and species occurrences, where appropriate.*

It is not clear how the level of significance or sensitivity will be assessed.

Aside for winter wildlife surveys to document use by White-tailed deer, no specific surveys for mammals appear to have been considered. It is possible, based on the habitats present, that Southern Flying Squirrels may be present on the property.

**2.8 Comments**

The level of fish sampling effort should be described. It should be sufficient to provide an adequate basis for any conclusions drawn with respect to the existing fish community.

**2.9 Comments on Section 5.0 – Analysis**

*Features that meet the criteria will be mapped. To date, endangered and threatened species, ANSIs and significant valleylands have not been identified on the subject lands.*

At least one endangered species, Butternut (*Jugans nigra*), is known to occur on the site. It is premature to rule out the potential presence of significant features until the EIS and its analyses are complete. This statement should be removed.

**2.10 Comments on Section 5.7 – Significant Wildlife Habitat**

It would be helpful to include an explanation of how the data would be used to interpret and assess the presence of SWH. We concur that assessment of SWH is not straightforward; therefore it would be helpful to indicate whether MNR or other authorities on the subject would be consulted to assist in interpretation of SWH where interpretations are unclear.

**2.11 Comments on Section 6.0 – Potential Impacts, Mitigation and Rehabilitation**

This section should include a sub-section on Linkages, Species at Risk, and other significant attributes and ecological functions.

**2.12 Comments on Section 6.3 – Potential Impacts, Mitigation and Rehabilitation - Aquatic Habitat**

Section 6.3.2 indicates that the Draft Recovery Strategy for Redside Dace in Ontario will be considered during the design of mitigation. Is it implicit that this document will also be considered in the identification of potential impacts?

Please do not hesitate to contact me should you have any questions.

Sincerely,



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Att.