



March 4, 2015

Via: Email

Ms. Kim Wingrove
Chief Administrative Officer
The Township of Guelph-Eramosa
8348 Wellington Road 124,
Rockwood, ON N0B 2K0

Dear Ms. Wingrove:

**Re: James Dick Construction Limited Proposed Hidden Quarry,
Ecological Comments Response and Additional Studies Review
Project No.: 300032475.0000**

Introduction

This letter has been compiled to summarize R.J. Burnside & Associates' (Burnside) additional technical Peer Review of the James Dick Construction application for licensing under the Aggregate Resources Act (ARA) to extract below the water table at their proposed Hidden Quarry location between Acton and Rockwood. Burnside has been retained to act as the Ecology reviewer by the Township of Guelph-Eramosa. These comments are further to Burnside comments related to the Natural Environment of April 7, 2014.

The following provides peer review comments for the Response Matrix prepared by James Dick Construction Limited (JDCL) which provided comments submitted by Adam Huycke, Acting Intermediate Planner, Community Development at the Regional Municipality of Halton, dated September 23, 2014 and respective responses prepared by GWS Ecological & Forestry Services Inc. (GWS) dated September 23, 2014 on behalf of JDCL. In addition to the JDCL Response Matrix, this letter also responds to additional studies provided by the Concerned Residents Coalition (CRC), including:

- Species at Risk Evaluation, July 4, 2014 (Bill McMartin, GAIA EcoConsultants); and,
- Aquatic Habitat and Fish Survey of Brydson Creek, January 2015 (K. Schiefer, Ph.D., Aquatic Ecologist).

Regional Municipality of Halton Comments and JDCL Response Matrix

The following responses have been labelled to correspond with the numbering system applied to the matrix provided by JDCL. It should be noted that the comments provided in this letter are limited to the natural heritage ecology concerns raised in items numbered 27 to 38 of the matrix.

Comment 27: In general, Halton Region wished to have additional detail regarding the extent of Field Surveys and Species observations conducted on adjacent lands in Halton Region. GWS responded that their normal practice is to not record off-site data by property ownership and further that Highway 7 forms a significant obstruction to wildlife movement. GWS has also made a statement that only common birds and mammals were observed utilizing properties in Halton and that all reported Species at Risk were found inhabiting lands in Wellington County (north side of Highway 7). Burnside suggests that the locations of the species documented during field data collections should be mapped, especially for species that are sensitive, rare, threatened or endangered, or field data sheets should be included as an appendix. However, we do not believe the inclusion of these resources within the report would change the findings presented.

Comment 28: We agree with the conclusions presented for the Significant Woodland feature located on the lands adjacent to the site. No negative impacts are predicted provided that adequate buffers are established, mitigation measures are followed and that the existing water balance is maintained. We note that there is agreement between the Halton Region comment and the GWS response.

Comment 29: It would appear that the GWS response to the Halton Region comment is incomplete within the matrix. We note that JDCL undertakes that quarterly monitoring of the Brysdon Spring for surface water conditions, including temperature, quality and flow will be included in the monitoring program. We suggest that more frequent monitoring may be appropriate seasonally and in the early stages of development. Monthly monitoring is a more typical monitoring standard for aggregate operations.

Comment 30: Halton Region notes that a Haul Route Study has been requested and notes that the Terms of Reference should include criteria for route selection to include impact minimization and avoidance of environmental features and functions. The response notes that the Highways and Arterials that will be used by the proponent have the planned function of carrying trucks and truck use as currently permitted. As such no change in use on the haul routes is proposed. The Terms of Reference for the Haul Route Study requires an assessment of anticipated truck traffic volumes and if the truck volumes attributable to this proposal will increase that the evaluation approach for reviewing the alternative routes will include environmental criteria including disruption to sensitive land uses, impacts to residents, property impacts and disturbance to built heritage features and archaeological resources. It is suggested that matters related to the Haul Route Study will be dealt with through the review of that study.

Comment 31: As both MNRF and GRCA are satisfied with the proposed setbacks then we have no further comment.

Comment 32: Regarding the Greenbelt Planning designations related to the Site, we note that the Region has provided some explanation of the policies with specific references. The comments conclude, however, that there are no external connections in the vicinity of the subject property and hence the External Connections policies of the Greenbelt Plan would not apply for this proposal. GWS on behalf of JDCL agrees with this analysis.

Comment 33: No comments required regarding additional documents as we understand that they have been made available to Halton Region for review.

Summary of Matrix Comments Responses

In general Burnside feels based on our review that the findings of the Natural Heritage Reporting are accurate and provide appropriate recommendations for both protection (setbacks and buffers) and mitigation measures to minimize or negate any potential effects to the features and functions of the natural heritage system on and surrounding the proposed Hidden Quarry. Additional information may be helpful to the reader, as discussed above, to round out the technical reporting for this Site.

Species at Risk Evaluation

This report prepared by Mr. McMartin of GAIA EcoConsultants includes additional field data collection to determine if the Site and surrounding lands provide habitat for any Species at Risk (SAR) that may be located within the study area. The potential list of SAR is determined through a desktop review and verified through site specific surveys and ground truthing of habitat features. During this site visit a list of breeding birds and other incidental wildlife observations was compiled. Mr. McMartin then assessed the habitat conditions provided both within the Hidden Quarry site and on the adjacent lands.

Mr. McMartin did not find breeding evidence of any birds listed under the Endangered Species Act 2007 as Threatened or Endangered. He assessed that the Site has potential to provide feeding and foraging habitat for a number of these species; however, this was not confirmed during his Site visit. Snapping turtle, a species listed as Special Concern was documented on and in the immediate vicinity of the Site. This species is not regulated under the ESA 2007; however, its habitat may be considered Significant Wildlife Habitat, and should be discussed in further detail. We are not suggesting additional field data collection and mapping but rather that additional mitigation measures would minimize the potential for adverse effects. Potential impacts to this habitat may be mitigated through exclusion fencing, best management practices, worker education programs and pre-construction SAR surveys, minimizing the potential for any adverse effects. Rehabilitation and mitigation plans are required under the Aggregate Resources act and are expected to be included as notes on the application (site) plans.

According to the Site Plans date July 14, 2014, tree removal will not occur during the breeding bird season. Therefore, additional mitigation measures to ensure that the proposal is in accordance with the Migratory Birds Convention Act are not required.

Aquatic Habitat and Fish Survey of Brydson Creek

This survey and assessment included field classification of aquatic habitats and an opportunistic fish species inventory completed using dip nets in Brydson Creek. Through this assessment it was determined that this watercourse, originating on the lands located to the south west of the Hidden Quarry Site, provides coldwater habitat for brook trout. A number of different age classes of fish were captured using dip nets and redds (brook trout spawning beds) as noted during the survey. The frequency of redds and the health and abundance of fish specimens indicates that this watercourse provides preferred habitat for brook trout.

This report also provides landscape scale assessment of the potential significance of the aquatic habitat within Brydson Creek and the existing brook trout fishery. Much of this assessment is not referenced adequately and would require additional background study support to confirm its conclusions.

In Section 5.0 Concerns of the Schiefer Report it discusses that "...the future well-being of the stream ecosystem and brook trout population is strongly linked to maintaining the quantities and quality of groundwater discharge..." Potential impacts to the brook trout habitat include: changes to water quality and quantity and temperature. Schiefer notes that "...bedrock blasting and excavation well below the water table, raises serious concerns related to the future hydrogeological conditions in the downstream area...need for very detailed and reliable sampling, measurement, modelling and assessment of these hydrogeological features as a precondition..." However, based on Burnside's detailed peer reviews of the proposed quarry application and supporting technical studies to date, including the Hydrogeology and Hydrology Study and the Level 2 Natural Environment Report, it is our opinion that the proposed quarry operations will not cause a change that is significant enough to result in adverse effects to the resident fish population.

This assessment is based on the conclusion that the water balance to the watercourse will be maintained with no predicted decrease in flow. The existing background studies did not definitively determine if water from the open water area of the quarry will be connected through groundwater to Brydson Creek beyond incidental infiltration. The outflow from the quarry will result in a localized increase to surface water temperatures in the Creek, however the extensive groundwater discharge to the Creek will quickly mitigate that temperature change. Any change in temperature will be within the preferred range for brook trout, and any additional species for which Brydson Creek may provide habitat. Water quality will not be affected by any discharge from the proposed open aquatic features in the quarry if the water quality parameters of the license are met. Therefore, it is not expected that the proposed Hidden Quarry will result in an adverse effect to the local brook trout fishery provided that best management practices and standard Erosion and Sediment Control mitigation measures are followed.

Summary

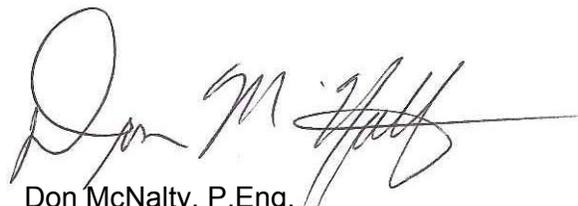
The Hidden Quarry site is located in an area that is surrounded by features that may provide habitat for a number of species; however, extraction of stone below the water table is an interim land use, which, through the application of the ARA required mitigation and rehabilitation plans, is not likely to result in a measurable impact to the natural heritage features or functions at a landscape scale.

Yours truly,

R.J. Burnside & Associates Limited



Nicholle Smith
Senior Terrestrial Ecologist
NJS/DM:sd



Don McNalty, P.Eng.
VP - Public Sector

cc: Liz Howson, MSH Planning (enc.) (Via: Email)