



# NATURAL RESOURCE SOLUTIONS INC.

Aquatic, Terrestrial and Wetland Biologists

May 20, 2019

Project 2264A

David Donnelly  
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276 Carlaw Ave, Suite 203  
Toronto, ON M4L 3L1



Dear Mr. Donnelly:

**RE: Peer Review of Environmental Impact Study, 11063 & 11191 Hwy 27, City of Vaughan – East Kleinburg Developments Inc.**

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Natural Resource Solutions Inc. (NRSI) was retained by Donnelly Law in April 2019 to undertake a peer review of an Environmental Impact Study (EIS) that had been prepared to support the Official Plan Amendment (OPA) application for the proposed development located at 11063 and 11191 Highway 27 in the City of Vaughan, Region of York (Beacon 2017). East Kleinburg Developments Inc./1045501 Ontario Limited (the applicant) retained Beacon Environmental Limited (Beacon) to complete the EIS.

In addition to the EIS, that is dated April 2017, NRSI also reviewed the following documents in order to further understand the subject property and the proposed development:

- Kirby 27 Developments & East Kleinburg Developments Inc Functional Servicing Report (SCS Consulting Group Ltd. 2017)
- Response to Circulation Comments – East Kleinburg Developments Inc./1045501 Ontario Ltd. Official Plan Amendment Application (Beacon 2018)
- Official Plan Amendment Planning Opinion Report – 11063 & 11191 Highway 27, City of Vaughan (Malone Given Parsons Ltd. 2017)
- Addendum to Malone Given Parsons Ltd. Official Plan Amendment Planning Opinion Report (Malone Given Parson Ltd. 2018)

The peer review was completed through a desktop review of the reports, background information and relevant policy to ensure an informed review, followed by an assessment of the environmental rationale provided for the proposed development / OPA application. The documents were reviewed as a whole, as well as more specifically as they relate to Redside Dace (*Clinostomus elongatus*).

Comments on the EIS are presented below by report section.



## 2.0 Policy Review

- Section 2.1 – Provincial Policy Statement, states there is a Provincially Significant Wetland (PSW) to the east of the subject property, but does not mention the

Environmentally Significant Area (ESA) or Area of Natural and Scientific Interest (ANSI) (as identified under Schedule 3 of the City of Vaughan OP). The ESA and ANSI should be discussed.

- A review of Official Plan Amendment (OPA) 601 for Kleinburg-Nashville Community Plan should be provided.
- Section 2.3 – York Regional Official Plan (OP) states that the content and scope of an EIS is to be determined through a pre-consultation meeting and a Terms of Reference (TOR) shall be submitted to the approval authority early in the application process. Was a TOR completed for this EIS? If so, it should be Appended to the EIS. If not, was there a reason that one was not completed? Was the scope of the EIS field studies agreed to?
- Section 2.4 – City of Vaughan OP states the TOR of this EIS is in accordance with the environmental policies in the City's Environmental Management Guidelines. The TOR should be Appended to the EIS.
- A review of the federal *Fisheries Act* and *Species at Risk Act* should be included in the EIS.

### 3.0 Methodology

- Section 3.1 – Background Review, identifies the resources utilized to gather information for this project, but seems to omit several important wildlife atlases and sources which should be examined in order to fully inform a SAR screening and assessment. Examples of some of the resources which are typically reviewed include:
  - Ontario Butterfly Atlas (Jones et al. 2018)
  - Ontario Odonate Atlas (NHIC 2018)
  - Ontario Mammal Atlas (Dobbyn 1994)
  - Ontario Reptile and Amphibian Atlas (Ontario Nature 2018)
  - Atlas of the Breeding Birds of Ontario (BSC 2006)
  - Land Information Ontario (LIO) Metadata Management Tool (LIO 2019)
- In addition, a SAR assessment was not provided and it is not clear if one was completed for species that have the potential to occur within the subject property. Hence, it is not possible to ascertain if the assessment of potential SAR habitats was completed properly. Further clarification is requested. A screening/assessment of Significant Wildlife Habitat (SWH) within Ecoregion 6E Criteria Schedule has not been provided. This screening ensures that the potential presence of SWH, including Species of Conservation Concern (SCC) habitat, within the subject property is adequately addressed. The screening should be completed and appended to the EIS.
- Section 3.2 outlines the field investigations completed by Beacon on the subject property. There is no reference to a map which outlines the monitoring stations, or areas assessed; just an existing conditions map. A map showing the stations locations should be provided, which will help determine if the subject property was adequately assessed.
- Table 1 should list all surveys completed on all dates, as well as provide weather conditions, time of day, and biologist names who conducted the survey.
- Section 3.2, Table 1, indicates that Ecological Land Classification and Flora surveys were conducted on September 1, 10, and 22, 2015. Vascular flora inventories should be completed in 3 different seasons (i.e. spring, mid-summer and fall). Further clarification is requested on why it was done all within the fall season; many vegetation species would have been missed.
  - Section 3.2.1 indicates that floristic inventories were undertaken during all field surveys on the subject property. These should be listed in Table 1. Appendix D,

which lists the vegetation species, does not list species by ELC community; this should be done.

- ELC data sheets should be appended.
- Section 3.2.3 indicates that the TRCA/CVC Guidelines for Headwater Drainage Features were followed, yet only 1 field visit was completed. It should be explained why the required 3 site visits were not completed, including the required first visit during the spring freshet. Was a headwater drainage feature (HDF) assessment report prepared and reviewed by the Toronto Region Conservation Authority (TRCA)? The report should be appended to the EIS, or at least referred to, as well as any pertinent comments from the TRCA.
- Section 3.2.6 - Bats states that there are no buildings on site that would be suitable for bats and that no bat surveys were completed for that reason. Were the trees within the subject property that have the potential to be impacted, assessed for cavities? It is NRSI's experience that Aurora District MNRF typically accepted Guelph District's methods for assessing bat habitat, which requires cavity assessments be completed on isolated trees (MNRF Guelph District – Use of Buildings and Isolated Trees by SAR bats Survey Methodology, October 2014). Although it is rare, coniferous trees can also provide potential roost habitats. Further clarification on bat assessments is required.

#### 4.0 Existing Conditions

- Section 4.1, does not include a description of Unit 25: SAS1, but should.
  - Section 4.2 – Provincially Significant Wetlands identifies the East Humber Wetland Complex as being east of the subject property. Having context such as distance away would be helpful, especially if there are potential impacts. Impacts to the PSW, however, are not discussed later in the document, which may mean there are no impacts expected. Further clarification is required.
- There is no discussion/description of the Significant Valleyland, ANSI, or ESA areas.
- No information on other species such as reptiles (snakes, turtles), mammals, bat cavities, butterflies, and damselflies and dragonflies. Information from the atlases should be utilized and summarized for the subject property.
- Section 4.3 - Flora – Butternuts, states that 20 Butternut trees were identified, of which 9 were planted. Information should be provided on the 11 Butternut that are protected by the Endangered Species Act (including location), and a summary of their health assessment and category should be provided. These results will inform the buffer assessment.
- Section 4.4 - Fish and Fish Habitat
  - The report should identify whether any of the ponds are connected to the East Humber River. It appears a culvert connects the small pond on the eastern edge of the subject property to the East Humber River. Details should be provided.
  - The EIS should identify whether or not the ponds provide habitat for fish.
- Section 4.5 – Geomorphology. NRSI reviewed Appendix E and has the following comments:
  - The culvert is identified as a 1.5m X 0.75m concrete box culvert. Photo 1 appears to show the culvert conveys a significant amount of water. Clarification should be provided as this relates to fish habitat and connectivity.
  - Figure 2 shows the culvert photo location as being within reach EHR-1, but a review of Google Earth and the Retrofit SWM Pond Figure 2.3 (FSR drawing) appear to show it in the second reach, EHR-2. Please provide clarification and ensure the meander width calculations take the culvert location into account.

- Summarized points within this section indicate meander belt width of 110m for EHR-2, but there is no mention of the recommended width for EHR-1 (the Geomorphic report identifies it as 85m).
- Section 4.6 – Headwater Drainage Feature (HDF) states that the HDF contributes flow to the East Humber River, which are unlikely from groundwater.
  - As there was only 1 HDF assessment completed for this feature, it is unknown whether it could support fish at any point during the year, or if it is ephemeral or intermittent. Further information should be provided.
  - This section states that there was no response from the MNRF on whether they would identify this feature as regulated Redside Dace habitat or not. Has a response been provided since the EIS was submitted in April 2017? The HDF may be identified as contributing habitat, which would have implications on the proposed development. Further information should be provided, including the management recommendation for the HDF.
- Section 4.8 – Bats
  - Information should be provided on whether the trees provide bat habitat. A cavity assessment should be completed and correspondence with the MNRF/MECP provided.
- Section 4.9 Amphibians and Other Wildlife

This section provides information on the amphibian breeding surveys, but does not list any other wildlife species. Were any other wildlife species observed, such as turtles, mammals, or butterflies? Further details should be provided.

## 5.0 Proposed Development

- This section states that one existing pond within the subject property will be retrofitted to provide stormwater management functions.
  - Within the Functional Servicing Report, it provides further information on what is being proposed for the development which should be referred to under the Proposed Development section of the EIS to ensure a full understanding.
  - Additional information on the SWM and where the bottom draw outlet would be, including appending the Retrofit drawing from the FSR to the EIS would assist readers in understanding what is being proposed.
  - The EIS indicates that a 3m deep permanent pool depth and bottom draw outlet will be constructed to supply cool outflow, but Figure 2.3 of the FSR shows the bottom draw going into the next small pond, to another proposed bottom draw outlet. Will this second pond also be modified? Has the MNRF/MECP affirmed this approach? The second pond and any works associated with it are within regulated habitat for Redside Dace.

## 6.0 Impact Assessment

- The impact assessment states that the proposed development limit respects the limit of development agreed upon with the TRCA. The SWM retrofit is not within the limit of development and is below the top of bank. Clarification is required.
- Section 6.1 Fish & Fish Habitat, states that there is no impact expected as it relates to Redside Dace habitat as all proposed development is outside of the regulated habitat (meanderbelt + 30m), including the existing pond that will be retrofitted to a SWM pond.
  - Is the pond that is being retrofitted to become a SWM facility currently connected to the eastern most pond, which outlets to the East Humber River? If yes, this would be direct fish habitat, and would be provided protection/require mitigation measures under the *Fisheries Act*.

- It should be clarified whether the HDF is considered regulated habitat for Redside Dace or not.
- The Retrofit SWM Figure 2.3 (FSR) shows that the proposed bottom draw outlet will be within the regulated habitat for Redside Dace. It shows a proposed outlet headwall within the small pond, and then another proposed bottom draw outlet connecting to the existing culvert that goes into the East Humber River. Were any assessments done on that culvert to show what temperature is currently discharging into the East Humber River? Is that culvert connected to the river or is it a barrier to fish? Will additional flow, even if minimal, result in erosion at the culvert exit? Is work going to occur within the small eastern pond to put the bottom draw culvert in? Is the existing culvert going to require any works? How will the bottom draw connect to the existing culvert? What is being done to protect fish while this work is occurring (i.e. turbidity monitoring)? Further information and clarification are needed.
- Temperature mitigation from the proposed SWM pond has been (somewhat) addressed in the EIS, but dissolved oxygen levels and turbidity have not, as related to Redside Dace requirements. These need to be addressed for the development, as well as for the construction phase of the development.
- The Geomorphic report indicates that there is evidence of active channel processes including extensive valley wall contact points and valley slope failure. Are any of those active channel process occurring around the culvert? Further information and clarification are needed with regards to the outlet location.
- The culvert location is identified in EHR-1, whereas it is actually in reach EHR-2 based on mapping. Is the mapping wrong and the report correct? This could change the meander belt width requirements. The report and maps should be clarified and/or corrected.
- Does the HDF provide indirect fish habitat, or does any part of it provide direct fish habitat closer to the East Humber River? Without knowing whether MNRF (now MECP) considers this occupied or contributing habitat it is difficult to determine if impacts will occur. Has MNRF provided a response? MNRF requested an Information Gathering Form be filled out when a better understanding of the proposed works were known, in order to determine SAR implications. Was this done? Was a response received? Correspondence with the MNRF should be provided.
- Section 6.2 – Flora
  - The Butternut trees should be discussed in greater detail. Their locations are shown on Figure 2, but this does not differentiate between planted trees and trees protected by the ESA. The Butternut category should be depicted on Figure 2. The EIS should describe the implications of the naturally occurring Butternut.
  - Will the Hard-stemmed Bulrush be impacted by the proposed development? If so, the EIS should recommend it be transplanted.
  - Figure 3 shows a small portion of surveyed dripline, but there are other forested communities within the subject property where no dripline is shown. Please provide rationalization for this, or show the surveyed dripline where applicable.
- Section 6.3 Vegetation and Pond Removal, states that there are no impacts expected from vegetation removal except for the removal of SWD3-2 and MAM2-10 communities. No compensation has been proposed for any pond removal.
  - MAS2-1 is being removed as well, and should be detailed.
  - NRSI recommends that mitigation measures, such as a wildlife salvage occur prior to any pond removal.

- NRSI recommends compensation for tree removal.
  - Vegetation removal should be addressed in relation to the Migratory Birds Convention Act, as well as the protection of SAR bats.
  - Further information on how and where the water will be drained to should be provided to ensure no impacts to the East Humber River (e.g. due to turbidity levels).
- Section 6.4 - Breeding Birds, states that there will be no impacts to birds.
  - This section should recommend appropriate timing windows for development in relation to the Migratory Birds Convention Act.
  - Were the potential impacts to Barn Swallow habitat (i.e. areas they forage) assessed, such as pond removal? Discussions on construction related impacts should be provided. As ponds are to be removed where Barn Swallows likely forage, will the proposed buffers provide sufficient habitat for foraging? Will any recommendations be made with regards to buffer treatment/management to promote Barn Swallow foraging?
  - The EIS states no impact to Eastern Wood-pewee. Reference should be made to the appropriate buffer widths.
- Section 6.5 – Bats, states that there are no suitable vegetation communities or structures present, but as previously mentioned, there is no information on whether any cavity assessments were completed on any of the trees within the golf course. Further information is required to determine if any impacts are expected. Discussions with the MECP should occur prior to any tree removals as they relate to potential bat habitat. Appropriate timing windows should be cited to avoid impact to SAR bats.
- Section 6.6 – Amphibians, should recommend that a wildlife salvage be undertaken prior to pond removal.
- In general, the EIS does not provide sufficient detail on potential impacts to Redside Dace, bat SAR, or SWH, and hence, it is not possible to determine 'no impacts' to the species, the woodland, or the East Humber River. Specifically, the impact analysis should include the following information:
  - Additional information on the HDF, its assessment, management recommendation, and correspondence with the TRCA.
  - Information from MNRF (now MECP) on SAR, including clarification on whether an Information Gathering Form was submitted for the SAR identified in the background review. Monarch should be addressed by the EIS.
  - More information should be provided on the proposed SWM pond, specifically related to Redside Dace and potential erosion. The EIS indicates that no work will occur within the meander belt, but mapping within the FSR shows some works within this area, which is regulated habitat for Redside Dace. The EIS must discuss current temperature coming from the culvert, as well as turbidity/water quality currently outletting from the ponds and address future conditions.
  - No information has been provided on indirect impacts, which are impacts associated with site conditions that have been altered due to development. These can include sedimentation and erosion, changes to groundwater and surface water flow patterns, changes to water quality, indirect impacts to wildlife (e.g. through noise, light), and indirect impacts to aquatic habitats. These should be discussed in the EIS.
  - Induced impacts should also be discussed in the EIS, which may include use of the area by residents and impacts from pets.

- It is our understanding that a Tree Inventory report was completed. This report should be compatible with appropriate bylaws and should consider potential impacts to breeding birds and SAR bats. This report was not made available to NRSI for review.

## 7.0 Recommended Mitigation Measures

- Terminology such as “reasonable measures” and “best efforts” may not be adequate when dealing with SAR such as Redside Dace. The *Guidance for Development Activities in Redside Dace Protected Habitat* document (MNRF 2016) outlines minimum thresholds that are required. These thresholds are listed in Section 7.4 of the EIS, yet the EIS does not provide a convincing argument that these thresholds will be met and therefore there will be no impact to Redside Dace. Information and correspondence from the MNRF (now MECP) should be included to identify the Ministry is satisfied by the approach presented. Monitoring of stormwater discharge should be recommended to ensure targets are being met.
- A spill response plan should also be prepared prior to commencement of construction.
- Appropriate timing windows for SAR bats should be discussed.
- Timing windows for turtles should also be reviewed as they may be utilizing the ponds for overwintering. Although no turtles were mentioned in the EIS, turtle surveys were not completed. A wildlife salvage for the ponds would benefit all wildlife inhabiting the ponds.
- No recommendations have been made to maintain or enhance the quality of the natural features on site. Recommendations could include buffer plantings, as well as transplanting the cultivated Butternut trees.

## 8.0 Policy Conformity

- Section 8.1 - Policy Conformity - PPS, notes that the wetland and top of bank were staked. Where is the wetland that was staked? Figure 2 identifies “MNRF Wetlands”. Were these wetlands evaluated according to provincial protocol? Was the MNRF consulted with regards to wetland removal? Correspondence with the MNRF in this regard should be provided and/or reported on in this EIS. The SWM pond retrofit is within the significant woodland and valley feature and this has not been addressed within the EIS.
- Section 8.2 – Greenbelt Plan. The EIS states the Greenbelt policies do not apply based on justification presented by MGP in a separate report. NRSI is not an expert in this area and recommends a Planner be retained to review the MGP Planning Justification Report for accuracy.
- The City of Vaughan OPA 601 has not been discussed within the EIS. OPA 601, Section 4.10.7.1 #8 indicates that the City shall require the restoration and re-vegetation of valley lands, and areas bordering streams and watercourses for new development, as a condition of approval for Plans of Subdivision. This has not been addressed in the EIS.
- Section 8.6 Endangered Species Act – It appears the MNRF (now MECP) has not been consulted with regards to Butternut or Redside Dace. In our opinion, the EIS does not provide enough details to ensure these species will not be impacted, however if the MNRF/MECP has provided approval, then NRSI does not have any further concerns.
- There is no discussion on the federal *Species at Risk Act* or the *Fisheries Act*. Redside Dace are listed federally as well, and a self-assessment and/or Request for Review is required for the proposed works within the high-water mark by the Department of



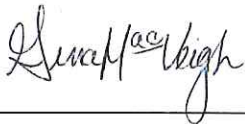
Fisheries and Oceans (DFO). The ponds, if connected to the Humber River, should be assessed to determine the need for further review.

It is NRSI's opinion that the EIS does not provide adequate information or a fulsome impact assessment to determine conformity with the applicable Acts and Policies. This especially applies to Redside Dace and the proposed SWM pond retrofit as it relates to work within the regulated habitat, turbidity, temperature, and erosion and sediment controls during pond removals and SWM retrofit works.

We trust that the information provided in this review is clear, but please do not hesitate to contact either of the undersigned with any questions or comments.

Sincerely,

Natural Resource Solutions Inc.



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and



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