

Preliminary Comments on Stantec EIS for Clarke Road Improvements

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Context: As discussed Oct. 29, 2018 with Stantec and City Staff, EEPAC will provide preliminary comments on the EIS for the municipal class environmental study report (ESR) for the Clarke Road Improvements. Upon receiving and reviewing the environmental study report for the municipal class EA Clarke Road Improvements, EEPAC will finalize the comments for the project. In the ESR, EEPAC will be looking for a complete description of the present and predicted environmental conditions of the site, including both terrestrial and aquatic environmental conditions, assurance that adverse impacts will be minimized and that mitigations will be more than sufficient. This will require more detailed mitigation and compensation plans than are presently in the EIS.

Summary of EIS: The proposed project will expand Clarke Road from two to four lanes with consideration given to the ultimate build-out to six lanes. The project will also necessitate widening or possible reconstruction of the J.W. Carson Bridge, which crosses the Thames River. The proposed project addresses increased traffic volumes associated with development. The construction will occur in a particularly sensitive area, and will impact the Fanshawe Wetlands PSW, unevaluated wetlands, significant valley lands, Kilally Forest ESA, potential ESA and the Thames River. Within the study site there are reports of 18 animal (birds, reptiles, mammals), three fish and seven plants SAR. Diversity is high; 263 plant species were identified, of which 175 were native. Five plant species have a rank of S2 or S3, and nine native species had a coefficient of 8, indicating intact remnant natural systems. The EIS also identifies numerous potential impacts, including threats to SARs, loss of habitat for SARs, loss of provincially rare species and others. These losses will be difficult to mitigate and compensate, and will be costly. Monitoring must be a part of the plan. Given the sensitivity of the site, it is critical that the EIS is an accurate and detailed description of the present terrestrial and aquatic ecosystem condition. Complete knowledge of present conditions is critical in order that: 1) the best choice is made for the preferred alternative, 2) baseline conditions are accurately documented, and 3) the ecosystem is protected and there is accountability.

Comments:

1. **Ecological and environmental water quality monitoring is critical, and presently inadequate.** Presently the EIS provides what appears to be a single measurement at one site for pH, conductivity, dissolved oxygen and temperature. There is also a basic description of the aquatic habitat. This is inadequate to provide an accurate estimate of pre-disturbance conditions. Pre-construction conditions need to be measured, recorded and evaluated to establish the existing environmental/ecological baseline for the area where the work is proposed. Also, the monitoring program needs to record and measure any changes, including any potential adverse impacts on environmental/ecological health of this system. The monitoring program should be conducted for a minimum period of one year prior to finalizing the design and construction of this proposed work and be monitored for a minimum of 2-3 years following the construction period. This monitoring program should be based on professionally recognized monitoring program protocols, be comprehensive and should include terrestrial, aquatic and water quality monitoring components. Water quality monitoring should include basic water chemistry (major anions

and cations, nutrients, including nutrient constituents, contaminants, chlorophyll a, dissolved oxygen, pH and specific conductivity) together with BioMapping and/or aquatic biomonitoring following CABIN protocols. Water quality monitoring should be done multiple times to capture seasonal variations, and should include samples upstream and downstream of the construction site. As noted in the EIS, the bridge and construction will have impacts on the adjacent terrestrial and aquatic systems. It must be ensured that there is an accurate baseline assessment to determine post construction impacts and appropriate mitigation and compensation to protect the ecosystem.

2. Sediment Erosion Control Plan (SECP) - critical steps required for the design component of the proposed infrastructure that will require careful planning and monitoring. Based on the EIS, it is clear that an important issue will be the erosion control measures proposed for this project. Without control measures, erosion may have significant effects on the ecological/environmental system, negatively impacting both the terrestrial and aquatic ecosystems. Erosion controls must be proposed and adequately outlined to protect SAR, aquatic water quality and aquatic and terrestrial ecosystems. These controls must be extremely robust and sufficient to avoid sediment intrusion and impact. The proposed SECP/measures should be in principal developed and described in the ESR of this Municipal class EA. The supervision and review of the SECP, mitigations and implementations must be done by the Consultant, the City staff and UTRCA , to ensure accountability.

3. Additional detailed studies are required to better document SAR as is recommended in the EIS report. Additional detailed environmental studies are recommended. These include surveys, recording and determining the presence or absence of SAR, both aquatic and terrestrial, and should be included as a part of the Municipal Class EA Study's Environmental Study Report (ESR) together with all applicable recommendations for protection of these species and overall ecological health of the system. Examples include documenting Queensnake hibernaculum and hairy sedge microenvironment. Is there evidence that hairy sedge can be successfully transplanted? Where is there suitable habitat for such a transplant? Similar questions regarding Weak bluegrass and rhombic-leaved sunflower.

4. The underlying principals and general outline of the proposed compensation and mitigation plans that will be developed and presented for the MNRF and DOF approval permits need to be identified and recommended by the ESR of this Municipal Class EA. The recommended mitigation and compensation plans and costs associated with this work are critical requirements for the success of the proposed work and should be part of the ESR record.

5. The ESR needs to include a proposed design for the storm/drainage and Storm Water Management (SWM) water quantity/quality plan and the location of storm outlets. The ESR needs to provide a storm/drainage and SWM plan to determine where discharges of storm sewers will occur. This is a critical piece of water quality control.

6. Invasive species control measures need to be described in more detail. Plans to minimize invasive species are described very generally. With selection of the preferred option, we expect to see more detailed plans in the ESR.