Oxford Street West and Gideon Drive Environmental Assessment (EA) Study' s Environmental Impact Study (EIS)
Comments from EEPAC on EIS Jan. 12, 2022
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***Summary***
The study area is in an ecologically sensitive area, and within an area of rapid development in the city of London. It is in very close proximity to Kains Woods, an ESA, Tributary C (Figure 1, ~<400 m), a rare, cold-water stream that is connected to the Thames River, and significant valleylands. The proposed intersection improvements are required because of increased traffic volumes and a need to address safety issues resulting from rapid development, limited access to public transportation and opportunities for active transportation. EEPAC's concerns are mainly associated with the potential environmental/ecological adverse impacts on Tributary C, which is the only documented cold water stream in the City of London.

The documents pertaining to the alterations at the Gideon intersection and this EIS refers to the potential future widening of Oxford Street and other existing and future development activities in this region. The EIS needs to acknowledge the City's commitment, responsibility and accountability to protect this rare ecologically, extremely sensitive and important stream system by ensuring compliance with the Municipal Class EA Schedule 'C' Storm/Drainage and Stormwater Management, Transportation and Sanitary Trunk Servicing Works for Tributary 'C' (Tributary 'C' Class EA) recommendations that provided provisions to ensure protection and preservation of the Tributary C cold water system, aquatic life and fishery. This Class EA was accepted by the City Council & MECP.

EEPAC's comments on the present EIS report should be viewed as preliminary because EISs typically represent environmental/ecological support information to Class EA projects reports that encompass and identify all components of the project. EEPAC has not received this Oxford Street West and Gideon Drive Class EA project report and we did not have all information required in time to properly and comprehensively review the project in order to report our full comments in time for our February meeting.

***Comments***
*Aquatic*

The study area includes Tributary C, a rare, cold-water stream that supports a population of brook trout. The study area also provides habitat and spawning areas for several species at risk. To protect both the stream and its ecosystem, it is imperative that stream water temperatures remain cold (optimum temperatures for growth are between 13° C and 16.1° C) (Hokanson et al. 1973; Dwyer et al. 1983) and the water quality needs to be maintained and protected. As a result of extended road surfaces there will be increased impermeable surfaces, and therefore, increased peak flows and volumes under the post-development conditions. This will result in increased surface/storm water flows from the project catchment areas, and these will require pretreatment to protect the stream if these flows will be discharged into Tributary "C". Any

direct storm/surface discharges to this system will introduce warm waters and contaminants. Under climate change, these problems will be exacerbated as temperatures rise and precipitation increases and becomes more variable, specifically during extreme storm events. Potential changes to the hydrology (surface flows and groundwater) must be considered and addressed in all City's future plans. Maintaining cool temperatures and good water quality conditions are absolutely critical and important for the preservation of this rare and natural cold water system, aquatic life, and fisheries.

*Recommendations:*

1. *All proposed design of storm drainage servicing (minor/major surface drainage/stormwater conveyance systems, outlet discharges and SWM) works for the Oxford Street West and Gideon Drive Class EA shall comply with the Municipal Class EA, Schedule 'C' Storm/Drainage and Stormwater Management, Transportation and Sanitary Trunk Servicing Works for Tributary C recommendations to ensure that surface/storm drainage water quality will be maintained and preserved to protect Tributary C environmental/ecological conditions and associated cold water fisheries.*

2. *All stormwater outlets for minor and major flows should be identified on maps in figure 1 or 2 and will require water quality pre-treatment measures and plans for the removal of silt, sediment and salt need to be identified for the existing and/or proposed surface/stormwater discharges into the Tributary 'C' water resources system.*

3. *EEPAC should be allowed the time upon receiving a complete package of all reports, including the storm water servicing, hydrologic report, and class EA, to do a thorough review. This would provide EEPAC assurance that the City is sincere in their commitment and responsibilities to protect Tributary C.*

4. *We note in the geotechnical assessment (pg. 3) that borehole data used in the geotechnical report was collected in 2000-2015. Given the considerable recent housing development occurring in the area and increase in impervious surfaces, this data may not reflect current conditions. We recommend additional time to ensure that there is a comprehensive understanding of the hydrology prior to further construction to ensure that Tributary C is protected.*

5. *The stream temperature is presumably maintained by groundwater inputs. Although we have not had time to carefully review the geotechnical report, groundwater is very close to the surface in places. Is it possible that changes to drainage in this project could lead to changes in the relative proportion of groundwater relative to surface flows entering Tributary C? How will the city ensure this does not happen? Places in the EIS indicate uncertainty around groundwater and surface flows. For example, on page 25 it says "In support of this new housing development, drainage patterns have been altered, but inputs to Tributary C should be maintained." We need to know that the drainage patterns "will" maintained – it is not an option.*

6. *To ensure no harm comes to the stream, there needs to be a commitment to monitoring. At present, the baseline conditions have been determined using limited or old data. For example, water quality has been measured at two sites collected on one day in Sept. 2021. Water quality includes four variables, temperature, pH, conductivity, and dissolved oxygen. Stream water chemistry is highly variable temporally and can not be captured in a single day measurement. Fish data is from 1999 and 2010; invertebrate data is from 1999-2002. This is insufficient to provide present baseline conditions and shows a lack of commitment to monitoring and stream protection. Were aquatic measurements collected for previous EAs for recent development in this region? How has the stream changed in response? Is a monitoring program implemented as part of the development projects? Is there any sense of how the stream is doing? What is being planned for this project? As pointed out in section 8.4, factors that could impact fish include turbidity and nutrient loads and neither has been measured, despite the potential for these to increase from road construction, fertilizer use etc. Do we know whether ground water or surface flows into Tributary C have changed as a result of housing development projects? Were monitoring plans implemented for previous projects? What are the findings?*

*Terrestrial*

1. This study area includes several species at risk including the Eastern Peewee, which relies on the walnut tree habitat. Based on a previous EA, the walnut inclusion area is being lost. (see Figures 8 and 9 - Figure 3 and 4 below).

*Recommendation:*
*An additional 20 trees are targeted for removal. EEPAC recommends walnut trees be avoided. However, if walnut trees are removed how will they be compensated. EEPAC recommends that the species planted must be native. This should improve habitat for woodland birds like the Eastern Wood-Peewee.*

2. Barns Swallows have been spotted in the past within the study area foraging for food.
*Recommendation*
*It appears from the air photos (figure 2) that there is a barn on the subject lands. EEPAC recommends a check for Barn Swallow nests/roosts to be undertaken before the structure is removed. If nests are found, it is recommended that a kiosk be built using materials from the old barn be used as compensation. Cole Engineering has a history of successful kiosk construction. https://www.thespec.com/news/hamilton-region/2017/07/07/inside-ontario-s-fight-to-save-declining-barn-swallows-one-bird-house-at-a-time.html*

3. There is the potential presence of nesting bats within the subject area since there were reported occurrences of SAR bats in the surrounding area.
*Recommendation*
*EEPAC recommends to perform a tree cavity search prior to tree removal as some trees have been noted as potential nesting habitat.*

4. Monarch butterflies have been spotted in subject area along with potential larva feeding habitant (milk weed) also in subject area. Milkweed is the only source of food for the growing Monarchs.

*Recommendation*

*EEPAC recommends milkweed planting in nearby subject area to compensate for any loss of potential habitant (milkweed) for monarch larva.*

*Alternatives*

The preferred alternate has the greatest impact on the ecological integrity and preservation of the existing environmental/ecological conditions of the area. Potentially, it also contributes to increased air and noise pollution, road kill and safety concerns for cyclists and pedestrians. The EIS suggests that idling cars at a stop light increase pollution, but having no light will increase speeds and road kill. At the presentation, it was explained that cyclists would have to walk their bikes at the round about – we are uncertain that many cyclists will adhere do this. How safe will this really be for cyclists and pedestrians? The plan is unclear about the connectivity of sidewalks for pedestrians. Will there be a sidewalk all the way down Oxford and Kains Road? How safe are round abouts for pedestrians? Gideon Road has become a popular running and cycling route – how will this be taken into consideration as the area expands? Are there plans for bike paths and sidewalks on Gideon Road? Widening roads increases individual automobile use, which is the number one greenhouse gas emitter on London (https://getinvolved.london.ca/climate/widgets/49286/photos/19337). This alternative, therefore, is in direct conflict with finding ways to reduce greenhouse gases.

We also note a private property just to the west of the planned intersection that is within the study area. Figure 1 of the geotechnical report shows that this driveway and property will lead to problems with traffic flow at the intersection, yet no mention is made of this home.

*Recommendations:* Reduce the need for individual vehicles by having a public transportation plan in place and an effective active transportation network, which would negate the need to accommodate so many cars. Instead consider option 1 or 2, which has less ecological impact, increases safety and reduces vehicular traffic and helps address the climate change emergency.

*Recommendations*: If there hasn't been, there should be a discussion with the home owner regarding the planned alternatives. This driveway and property need to considered in a review of the alternatives. As well, the safety of this entryway at a roundabout should be part considerations of the proposed alternatives.

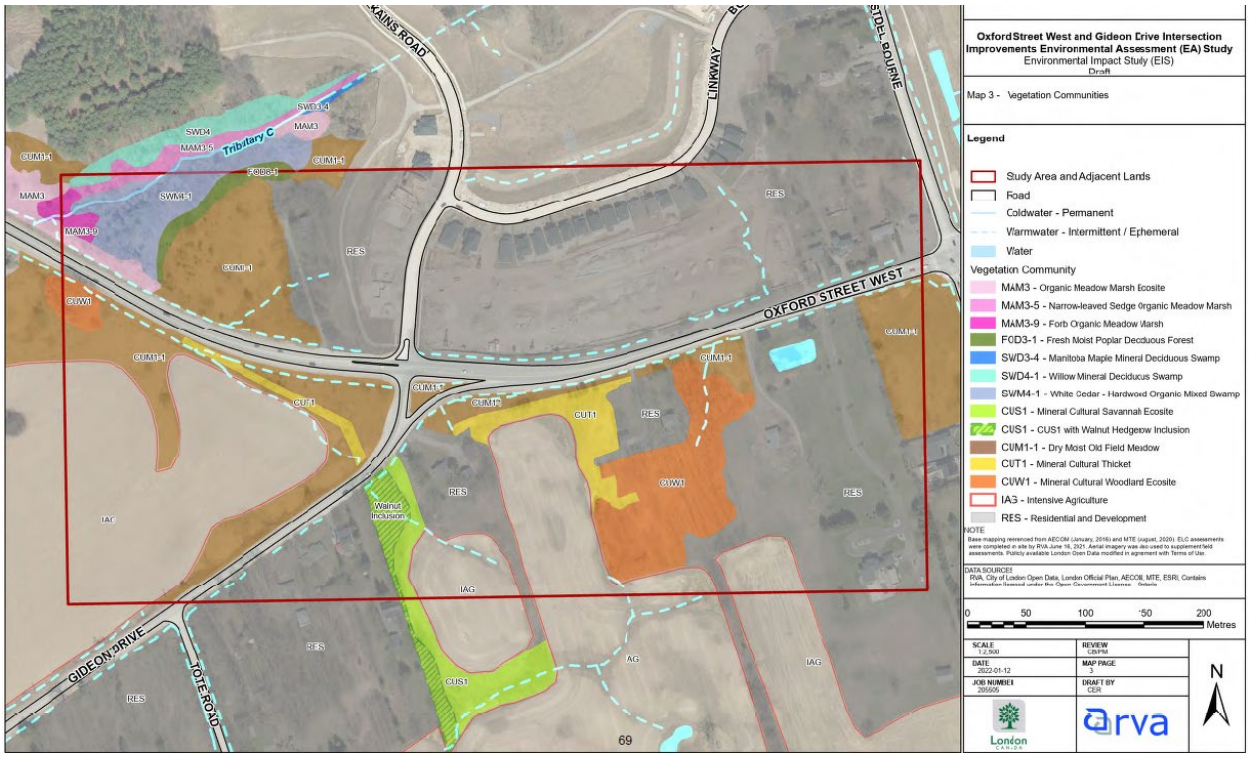
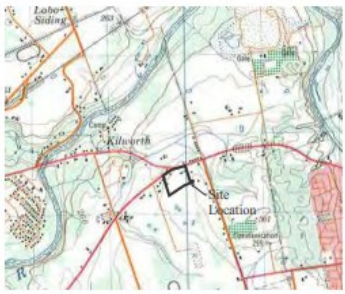

Oxford Street West and Gideon Drive Intersection Improvements Environmental Assessment (EA) Study
Environmental Impact Study (EIS)
Draft
Map 3 - Vegetation Communities
Legend
Study Area and Adjacent Lands
Road
Coldwater - Permanent
Warmwater - Intermittent / Ephemeral
Water
Vegetation Community
MAM3 - Organic Meadow Marsh Ecosite
MAM3-5 - Narrow-leaved Sedge Organic Meadow Marsh
MAM3-9 - Forb Organic Meadow Marsh
FOD3-1 - Fresh Moist Poplar Deciduous Forest
SWD3-4 - Manitoba Maple Mineral Deciduous Swamp
SWD4-1 - Willow Mineral Deciduous Swamp
SWM4-1 - White Cedar - Hardwood Organic Mixed Swamp
CUS1 - Mineral Cultural Savannah Ecosite
CUS1 - CUS1 with Walnut Hedgerow Inclusion
CUM1-1 - Dry Moist Old Field Meadow
CUT1 - Mineral Cultural Thicket
CUW1 - Mineral Cultural Woodland Ecosite
IAG - Intensive Agriculture
RES - Residential and Development
NOTE
DATA SOURCES
0 50 100 200
Metres
SCALE
DATE
2022-01-12
JOB NUMBER
DRAFT BY
REVIEW
MAP PAGE
N
OXFORD STREET WEST
GIDEON DRIVE
TOTE ROAD
LINKWAY
Tributary C
Walnut Inclusion
69

Figure 1

Figure 2

Figure 3


Figure 9: Tree Preservation and Compensation
(2017 City of London Air Photo)




0 1,000
Scale 1:50,000
Key Plan

1 CUW1 Mineral Cultural Woodland Ecosite
(Black Walnut dominant)
2 CUS1 - Mineral Cultural Savannah Ecosite with Walnut Hedgerow inclusion
3 CUT1 Mineral Cultural Thicket Ecosite

R1 Maintained lawn and residential dwelling
R2 Maintained lawn and garage

A Active Agriculture

- Tree Removal and Preservation Area

- Proposed Tree Compensation Area (1:1)

Print on 11X17, Landscape Orientation
0 160
Scale 1:5000
August 2020

MTE


Gideon Dr
Walnut Inclusion
R1
R2
3
1
1b
A
2
BLOCK 40
MULTI-FAMILY
1.729 ha
BLOCK 41
EXISTING RESIDENTIAL
0.936 ha
BLOCK 46
0.3m RESERVE
BLOCK 47
0.3m RESERVE
ROAD WIDENING
0.133 ha
STREET A
STREET B
Subject Lands
APPROXIMATE LIMIT OF URBAN GROWTH BOUNDARY
Figure 4