

March 17, 2021

Phil Masschelein
Sifton Properties Limited
1295 Riverbend Road, Suite 300
London, Ontario
N6K 0G2

Project No. 60557861

VIA EMAIL

Dear Mr. Masschelein:

**Subject: Kilally Lands – Environmental Impact Study Addendum
Caverhill Plan of Subdivision File #TS2017-004**

Further to comments received from the City of London, the Upper Thames River Conservation Authority (UTRCA) and the Ecological and Environmental Planning Advisory Committee (EEPAC), we are providing this Environmental Impact Study (EIS) addendum to address ecological buffers, buffer treatments and other environmental management recommendations. Specific comments received are addressed in a comment response table provided under separate cover.

We have revised our Environmental Management Plan **Figure 8** (attached) with the most recent Plan of Subdivision, showing the ecological buffers, park blocks, stormwater management block and revised trail alignment. Relevant updates to the Plan of Subdivision include:

- Relocation of the street entrance from Kilally Road to the west,
- Relocation of the stormwater management facility (Block 25) to the northwest corner of the site,
- Increase in the size of Open Space Parkland Block 22 (0.47 ha),
- Realignment of the multi-use trail to avoid the Environmentally Significant Area (ESA) and its buffer.

1.0 Ecological Buffers

The requirements for ecological buffers for the Kilally Lands (Caverhill Plan of Subdivision) are based on the protection of the Kilally Environmentally Significant Area (ESA) along the eastern, northeastern and northern limits of the Plan of Subdivision. The requirements for buffer widths and treatments with rationale are as follows:

Eastern Buffer, 25 m: Along the eastern limits the lands adjacent to the Plan of Subdivision are primarily a cultural Deciduous Plantation (CUP1) and a cultural White Spruce – European Larch Coniferous Plantation (CUP3-8), separated by a maintained gas pipeline easement.

Although these communities originated as plantations, they are succeeding into more naturalized woodlands. Within the 25 m buffer is an existing tree-line that is to be preserved and enhanced with tree and shrub plantings. This buffer is intended to provide edge and rooting zone protection for adjacent trees and separation of the vegetation communities from the development sufficient to protect the integrity of the woodlands and habitat within this part of the ESA. At the southeast corner, the recommended buffer is 10m from the adjacent Cultural Woodland (CUW1) as this community is sparsely tree and isolated from the adjacent wooded areas of

the ESA. Given that the adjacent communities have a low sensitivity, based on a low Floristic Quality Index (>50% of species with a low sensitivity ranking), the 25m and 10m buffer are considered to be adequate for the protection of the adjacent communities.

As noted, the eastern buffer should be enhanced with native tree and shrub plantings to increase the density of vegetated cover between the residential development and the ESA. This development-buffer limit should be fenced without gates to prevent landowner encroachment into the buffer and ESA.

Northeastern Buffer, 20 m: Along the northeastern limits the lands adjacent to the Plan of Subdivision (Low Density Residential Block 2) include a Dry-Moist Oldfield Meadow (CUM1-1), with a Dry-fresh White Cedar Mixed Forest (FOM4) between the meadow and the Thames River, and a Moist Sugar Maple Deciduous Forest (FOD6) more to the north. Considerations for buffering include the protection of these communities, but also the protection of the Thames River corridor and habitat for Species at Risk potentially occurring within this reach of the Thames River.

The majority of the development-buffer interface along this part of the Plan of Subdivision is along the meadow community (CUM1-1) for which the 20 m buffer will be more than sufficient to protect rooting zones and the integrity of the community, plus separation from the low density residential lots. As with other boundaries to the ESA and its buffer, this limit should be fenced, without gates.

It should be noted that a conservative approach was taken to the delineation of the ESA boundary with the application of Guideline 7a where old-field meadow (CUM1-1) was included to minimize edge effects. This application inherently includes buffer capacity within the ESA boundary. Alternatively, the application of Guideline 7e could justifiably been applied to include only the meadow inclusion in FOM4 bringing the ESA boundary to the top-of-slope. It could then be argued that there is a 30 m buffer between the development and the ESA.

With respect to separation between the development and the Dry-fresh White Cedar Mixed Forest (FOM4) there is **30-40 m** when considering the meadow inclusion along the southern limits of the community. This meadow was included in the community as it was situated below the top-of-slope. This inclusion is recommended for tree and shrub planting to increase the area of the forest community and to stabilize the slope. The separation of this forest from the development and with the planting of the exposed slope will ensure protection of the community and a net gain in habitat.

With respect to the Thames River, within this part of the Plan of Subdivision the distance between the development limits and the Thames River is a minimum of **80 m**. Areas to the east and west of this section are great than 100m.

Two SAR snake species have been recorded for the area including the study area for the Kilally Lands; these species are the queen snake (*Regina septemvittata*) and the eastern hog-nosed snake (*Heterodon platirhinos*). The queen snake's habitat is typically river/stream shorelines and the forest habitat adjacent to rivers/streams. The Ministry of Natural Resources and Forestry's (MNRF) Habitat Protection Summary for Queensnake identifies the queen snake's Regulated Habitat to be **30 m** from its riverine habitat inland. Based on this regulated area distance, the queen snake's habitat should be more than adequately protected by the 80 m from the river to the development. The eastern hog-nosed snake is more of a generalist and, therefore, uses a range of habitat types including open vegetation (open forests and shrubland) in proximity to water, including wetlands. While the critical habitat of the eastern hog-nosed snake has yet to be defined, some of the species' preferred habitat does occur within the ESA lands. Given this, we are of the opinion that the protection of the riverine

habitat along the Thames River and the adjacent forests, with wetland/pond pockets (Open Aquatic Ecosites, OAO) northwest of the Plan of Subdivision limits, will afford sufficient protection for the eastern hog-nosed snake.

Based on the potential for the presence of eastern hog-nosed snake and the limited meadow habitat within the area, we recommend that the buffer along the northeastern limits of the Plan of Subdivision be restored with native meadow plantings including a meadow seed mix and shrubs.

It should be noted that with the above recommended buffer that the Candidate Significant Wildlife Habitat (SWH) within the ESA will be protected. These Candidate SWH include bat maternity colonies, eagle and osprey nesting, foraging and perching habitat, and special concern/rare wildlife habitat for the eastern wood-peewee.

Northern Buffer, 20 m: Along the northern limits the lands adjacent to the Plan of Subdivision include a Moist Sugar Maple Deciduous Forest (FOD6) with two pond/wetland pockets (Open Aquatic Ecosites, OAO). The proposed development within this part of the Plan of Subdivision is the stormwater management facility (Block 25, Open Space SWM Pond). The development, design and approvals for the stormwater management facility is the subject of the City of London's Kilally South, East Basin Municipal Class EA. Any further buffer considerations should be part of the site-specific considerations for the approvals of that facility. Notwithstanding this, we are of the opinion that the 20 m buffer in this area is sufficient to protect the ESA and its features and functions.

We note that the above recommended buffers are consistent with and exceed the minimum buffer widths recommended in the City of London's Environmental Management Guidelines (2007).

2.0 Park Blocks – Management

Parkland Block 22 is situated on lands immediately adjacent to the Kilally ESA presenting an opportunity for additional buffer capacity. Parkland Block 22 overlaps with a well treed residential property. The Detailed Design for the Plan of Subdivision should include the preservation and protection of as many mature trees as possible within this block. Additional tree planting should also be considered for areas along the northern perimeter of the block.

3.0 Multi-use Trail Alignment

With the realignment of the multi-use trail to areas outside of the ecological buffers for the Plan of Subdivision, no additional buffer width should be required to provide protection of the Kilally Lands – Caverhill Plan of Subdivision.

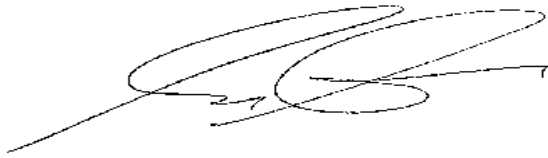
4.0 Infill Planting

We have removed the infill planting areas shown within UTRCA lands and have included an area inside of the proponent owned lands (shown on Figure 8). The area proposed for infill planting is the area of exposed slope within the delineated Dry-fresh White Cedar Mixed Forest (FOM4) community, but outside of the forest dripline. As noted above, this inclusion is recommended for tree and shrub planting to increase the area of the forest community and to stabilize the slope.

While within the ecological buffer, the existing Kilally Road north of Block 22 represents an opportunity for restoration. A portion of this area is situated within the Plan of Subdivision lands and the remaining is City of London roadway. The extend of restoration would be limited to the area east of the residential property on the north side such as to allow access to the property. The restoration area would require removal of the paved surface of the road, base material, replacement of fill and topsoil, then seeding and planting.

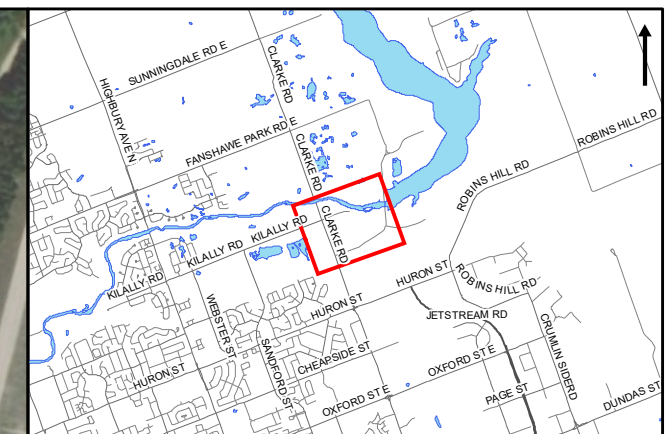
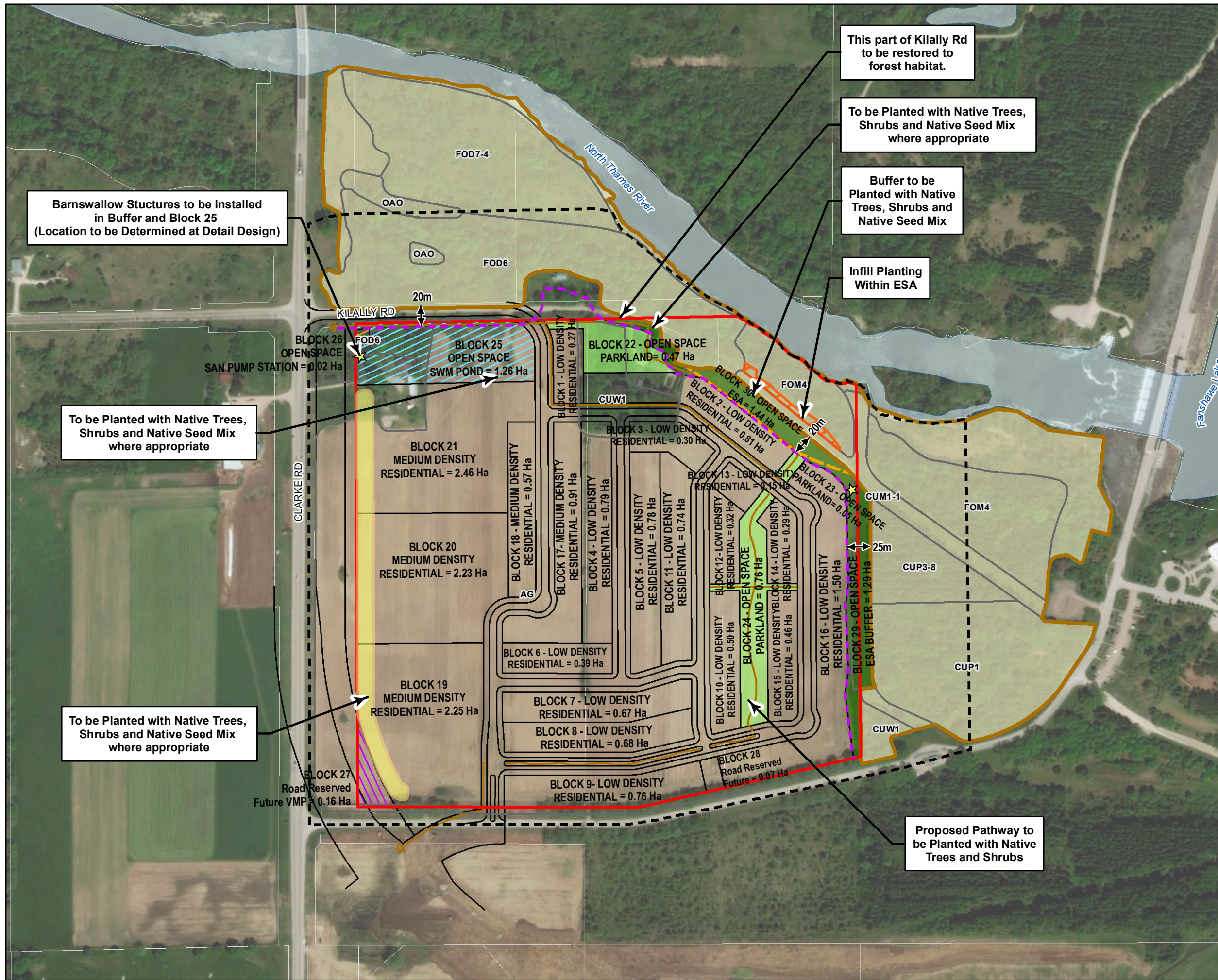
Should you have any questions or concerns, please do not hesitate to contact me at 343-543-9463.

Sincerely,
AECOM Canada Ltd.

A handwritten signature in black ink, appearing to be 'G. A. Epp', written over a light blue horizontal line.

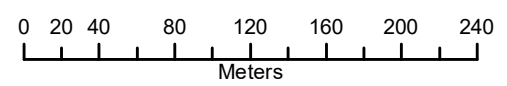
Gary A. Epp, M.Sc., Ph.D.
Practice Lead, Ecology & Senior Ecologist
Impact Assessment & Permitting, Environment

GE:ge
Attach.



Legend

- Subject Lands
 - Study Area
 - ★ Proposed Barn Swallow Habitat
 - Waterbody
 - ELC
 - Property Parcel
 - Proposed ESA Boundary
 - Infill Planting (0.09ha)
- Proposed Layout**
- Proposed Design
 - Erosion Hazard limit (Geotech, Peto, MacCallum, Jan 2018)
 - Potential Pathway
 - Natural Heritage Buffer
 - Open Space (SWM Pond)
 - Open Space (Sanitary Pumping Station)
 - Road Dedication
 - Proposed Noise Berm (0.77ha)
 - Open Space (ESA Buffer)
 - Open Space (Parkland)
 - Open Space (ESA)
- ↔ ##m Width of Buffer



Kilally Lands Environmental Impact Study

Environmental Management Plan

March 2021	1:4,000	Datum: NAD 83, Zone 17 Source: City of London, LIO Base Map: ESRI, Others
P#: 60557861	V#:	

Figure 8

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