

Responses to EEPAC Comments on the Draft Plan of Subdivision File 9T-20502 - 2331 Kilally Rd and 1588 Clarke Rd.

GENERAL COMMENTS FROM EEPAC	RESPONSE FROM AECOM
<p>The lack of reference to the work done for the Kilally Basin EIS and the Clarke Road Bridge EA is a glaring fault with the report. Although it is clear the field work was done prior to those two reports, the Clarke Road Bridge EA was placed on the public record well before the publication date of this EIS, and the Kilally Basin EIS was well advanced (EEPAC received an update from the consultants last year). To ignore both the Clarke Road Bridge EA and the Kilally Basin EIS in the long term impacts section means the comments about long term direct impacts in this EIS understate impacts because impacts are cumulative and not isolated from one another. For example, the emergency overland flow from the SWM facility on this site is not shown in this EIS, even though it appears in the City lead EA for the SWM system.</p>	<p>The Environmental Impact Study (EIS) prepared by North-South Environmental as part of the Kilally South East Basin Municipal Class EA was not complete until September 2020. The AECOM Kilally Lands Plan of Subdivision Environmental Impact Study was completed in March 2020, therefore the information from the Kilally South East Basin (EIS) could not have been incorporated into our report. Notwithstanding this, we will incorporate information from the Kilally South East Basin (EIS) and the Clarke Rd Bridge EA into an updated EIS for the Kilally Lands Plan of Subdivision.</p>
<p>It is extremely unfortunate the Clarke Rd Bridge replacement and Kilally development projects aren't being considered jointly given that the SWM construction will precede the development. This piecemeal approach is undesirable at best, actively detrimental at worst. The City must consider the "big picture" in terms of these coincident development projects. There should be crosstalk between these projects to ensure the resulting development projects do not have unintended consequences.</p>	<p>See above</p>
EEPAC RECOMMENDATIONS	RESPONSE FROM AECOM
BUFFERS	
<p>EEPAC emphatically disagrees with Recommendation 2 (buffers) on page 45 and summarized on page 49.</p> <p>pg 49 "Recommendation 2 – the recommended buffer zones outlined above and delineated on Figure 8 should be implemented as protection measures and established as "no development" areas. Buffers may include multi-use trails."</p> <p>How are multi-use (i.e. paved) trails - that require tree removal (in a significant woodland no less) considered "no development"?</p> <p>The proposed buffer is insufficient given the sensitivity of the floodplain. Section 9.2.1 is the consultant's buffer justification however, EEPAC believes this is the first time it has seen this "backwards" rationale for a buffer:</p> <p>p. 45 - "The determination of buffer area dimensions is most dependent upon which activities will be permissible within the buffer. The nature of the development also affects how extensive the buffer zone should be, based on noise, dust, and lighting levels produced, and the degree of alteration of the existing habitat."</p> <p>There is no citation for this statement (We assume this is Castelle 1993 who is mentioned on page 44).</p>	<p>The buffer section of the EIS did not articulate the full extent of the buffers as shown on Figure 8. AECOM has reviewed the buffer section, clarified the recommended buffers and provided rationale for the buffer widths in the enclosed addendum.</p> <p>Note that the buffer width for the eastern property limits is 25m from rear lot-line to the woodland (this includes the 5m from the tree row); along the north eastern limits the buffer is 20m from the rear lot-line to the ESA boundary; and 20m along the north side. The buffers are predominately 20 m + from the proposed ESA boundary (only exception is a small stretch in the SE Subject Lands).</p>
<p>Given the high sensitivity of the Thames River Valley as shown in the EAs for the SWM works and for the Clarke Road Bridge replacement, EEPAC would have expected the consultant to indicate the width of the buffer was based on the habitat being protected rather than the nature of the development.</p> <p>In addition to site-specific biophysical factors (i.e., soils, slopes, local hydrology), Adamus (2007) asserts that buffer widths must be determined with consideration for:</p> <p>Adjacent land use activities; The amount and configuration of development in the adjacent lands and landscape; The structure and type of vegetation in the buffer; and The particular species the buffer is being designed to protect.</p>	<p>see above</p>

EEPAC RECOMMENDATIONS, CONTINUED	RESPONSE FROM AECOM
BUFFERS	
<p>Significant work has been done on buffers and was summarized by Beacon Environmental in 2012 in work done for the Credit Valley CA, where Adamus is cited. For example: Beacon Environmental on buffers (hyperlink to report)</p> <p>Page 48 of Beacon cites a study McWilliam et al. (2010), of over 180 areas adjacent to 40 different publicly owned forests in southern Ontario. These studies documented encroachments in 99% of areas within 20 m of the forest edge, with the most obvious and severe encroachments recorded within the first 10 m.</p> <p>Page 23 of Beacon also points out that "...studies underscore two important and related points for riparian systems: (1) that forest cover and land uses upstream tend to have a significant impact downstream, so that the benefits of buffers cannot simply be assessed on site-specific scale, and (2) depending on the upstream conditions, even substantial site-specific buffers may not be enough to compensate for broader, landscape-level habitat loss and degradation."</p> <p>Beacon summarized its recommendations in the following table [included in the original letter from EEPAC], which synthesized the work it reviewed and considered buffer widths as high, medium, and low risk of avoiding impacts on adjacent natural features. As indicated on the table, a 10-20 m buffer means a moderate degree of risk to the natural features. 10m is certainly on the low end of that range and 5 m is high risk.</p> <p>RECOMMENDATION 1: A 20 m buffer should be the minimum buffer from the ESA. Furthermore, if only a 10 m buffer is the final figure, any multi-use pathway should be outside the buffer and be in the setback not the buffer.</p>	see above
<p>EEPAC suggests that an even wider buffer is indirectly supported by the consultants on page 37 of the EIS when AECOM points out damage to the ESA is likely during construction.</p> <p>p. 37 "Damage to Adjacent Natural Features - roots may be damaged by machinery and soils may be compacted during grading and construction along the edge of the Kilally Forest, thereby affecting the health of edge plants. In order to address root damage, it will be necessary to prune roots of adjacent trees during grading and excavation. To avoid compaction of soils, root zones around trees within natural heritage features will need to be fenced. Most areas will be avoided by restricting construction to areas outside the features."</p>	see above
BUFFER ZONE PLANTINGS	
<p>p. 40 and section 9 discusses plantings of vegetation. Is it going to be required or not? Some places say will (section 9) and in others, 'should be considered'. P. 38 - creation of Ad-hoc Trails - An increase in human presence in natural features adjacent to residential development. Fencing, education, and dense buffer plantings should be considered during the final design stage to deter human intrusion into natural areas." It is not enough to say that people stay on paved trails. It also takes time for native vegetation to grow in and it is not any guarantee of compliance.</p>	Native plantings within the buffers will be a requirement for the development's Site Plan. Furthermore, fencing (without gates) along the rear lot-lines of the residential properties backing onto the ESA and its buffers will be required.
<p>Recommendation 4 on page 46 and Recommendation 10 on page 49 regarding buffer zone plantings are contradictory. Recommendation 10, planting for the multi-use pathway, ignores that multi use pathways are a min of 4 m wide along with a 1 m mowed strip on either side. Therefore there really is no 5 m buffer and the so-called 10 m buffer is in reality nothing of the sort.</p>	The EIS will be updated to address compensation measures. It is suggested that compensation plantings could be done within the ESA within exposed portions of the southwest slope, to improve slope stability in this area.
<p>Infill plantings in the ESA shown on Figure 8 on UTRCA lands is supported provided done in consultation with UTRCA's Forester. A donation from the proponent to the UTRCA to fund this work should be considered to maximize the amount of money towards plantings. (The after tax benefit of a donation might exceed a straight cash requirement)</p>	We have revised the areas for ESA infill plantings to an area along an exposed slope within the ESA community FOM4.
<p>Recommendation 6 includes an edge management plan. There is nothing in the report that states what such a plan is, who does it, when, and who approves it.</p> <p>RECOMMENDATION 2: An edge management plan must be prepared and approved by the City and the UTRCA as a specific condition in the development agreement.</p>	An Edge Management Plan can be part of implementation recommendations for detailed design.

SPECIES AT RISK	
RECOMMENDATION 3: – EEPAC supports page 37 which recommends consultation with MECP to address potential mitigation measures for American Chestnut and candidate SAR habitat within the Study Area for Chimney Swift, Northern Myotis, Little Brown Myotis and Tri-colored Bat, noting that a permit will be required for removal of barn swallow habitat.	Noted.
RECOMMENDATION 4: EEPAC adds that the UTRCA Forester as well as UTRCA biologist be consulted. The Forester is involved in a variety of tree preservation and tree banks in the Province.	Agreed.
Even though the provincial recovery strategy for American Chestnut (MNR 2012) recommends “that trees planted for horticulture, landscaping or research be exempt from the habitat regulation, EEPAC points out the Government’s response statement (2013) to the Recovery Strategy for American Chestnuts stated: Identify and assess planted populations of American Chestnut across Ontario to: • determine the genetic parentage (i.e., which one or more species of chestnut the tree is derived from) and geographical source of the trees, where possible; • act as potential sources of genetically-resistant trees for future restoration efforts and research purposes; and • reduce the risk of spreading blight from planted chestnut trees to naturally-occurring American Chestnuts.	The American Chestnut trees recorded were found on the property on the northside of Kilally Road and were confirmed to be planted by the property owner. A letter was sent to MNR Jan 2019 regarding these trees, however, no response was received. Any further actions with regards to these trees would be the responsibility of the private landowner.
RECOMMENDATION 5: Any change in land use must have a holding provision that requires a detailed environmental management plan that is produced in conjunction with the City plans for the SWM project which will proceed the development.	Noted.
LOSS OF BARN SWALLOW HABITAT	
It is specious to say that a loss of 20 barn swallow nests will result in no net loss because they will be replaced with kiosks. Given the lack of success of kiosks in the London area, it is not supported by the data to say no net impact. RECOMMENDATION 6: The NE patch of Study Area has meadow habitat and is further from Clarke Rd and the Veterans Memorial Parkway expansion. Consideration should be given to locating the nesting structure(s) there as it falls within the proposed 10 m buffer and includes suitable foraging habitat already.	Noted. We will review and consider the location of nesting structures in relation to foraging habitat.
RECOMMENDATION 7: Any structures must have capacity for a minimum of 20 nests. A greater number would be better to allow for growth of the colony if the structures prove successful.	Agreed.
EEPAC questions how will success of the structure be monitored? What steps will be taken to promote colonization of the artificial structures if the swallows don't move in on their own (playback of BASW calls etc. could be used in conjunction with monitoring to determine effectiveness of structures). Consideration should be given to reviewing the work of Cole noted in the following web site: https://www.coleengineering.ca/blog/2017/07/saving-ontarios-barn-swallow-population RECOMMENDATION 8: The monitoring plan include the monitoring of replacement barn swallow habitat and other compensatory mitigation be required if the replacement nesting habitat fails before the subdivision is assumed.	We will review the linked website. Monitoring of Barn Swallow structures will be added to the Environmental Monitoring Program/Plan. The plan will identify corrective measures for potential failures.
RECOMMENDATION 9: The subdivision, perhaps in the park, contain educational signage / plaques to discuss SAR including the purpose of the barn swallow structures. This seems an excellent opportunity for educating the community living so near the CA and can instill a sense of community pride in the swallows and their habitat.	We agree. We will recommend installation of signage for the barn swallow structures to both decrease disturbance and provide education.
REDUCING HUMAN INTRUSION INTO THE ESA	
The EIS points out on p. 34 Compacted Soils – “A small well used trail is located at the northern edge of the Subject Lands. The trail surface is compacted soil which creates a small void in vegetation and also contributes to the potential for human intrusion into the natural areas further compacting soil within them.” RECOMMENDATION 10: A condition of the development agreement require the proponent to scarify this trail so that it is visually eliminated to reduce the likelihood of encroachment.	We will consider including recommendations to rehabilitate the areas where the existing foot trail has resulted in compacted soils.

REDUCING HUMAN INTRUSION INTO THE ESA, CONTINUED	
<p>The EIS further notes on page 38 that an increase in human presence in natural features adjacent to residential development. Fencing, education, and dense buffer plantings should be considered during the final design stage.</p> <p>What is “education”? Simply handing people information is not education. Constant reminders in the form of permanent signage would likely be more effective. Signage should explain the significance of the river valley in this location, why it should be protected (left alone). Regular mailings about the ESA including the City’s Living with Natural Areas should be provided to residents.</p>	Agreed. We will revise this section of the EIS to be specific and include signage.
<p>EEPAC notes that Figure 7 shows lots within Regulation limits. Can Section 28 approval require signage?</p>	Section 28 approval is the jurisdiction of the Upper Thames River Conservation Authority (UTRCA).
<p>EEPAC also notes another reason for signage and significantly more buffering is the presence in the river valley of endangered species.</p>	Noted
<p>RECOMMENDATION 11: All properties adjacent to the buffer and setback be required to be fenced with no gates.</p>	Fencing without gates will be a condition of the Site Plan Approval for the development.
<p>RECOMMENDATION 12: Once 70% of the units are constructed, each unit must receive a copy of the City’s Living with Natural Areas brochure. This should be a condition of the development agreement or the City’s responsibility</p>	Agreed. Homeowner’s packages should include a copy of the City of London’s “Living with Natural Areas” brochure.
<p>EEPAC agrees with the installation of protective fencing during construction as per recommendation 3 of the EIS. However, this is a standard condition.</p>	Noted
<p>Recommendation 5 of the EIS is standard and supported.</p>	Noted
<p>EEPAC agrees with Recommendation 1 on p. 44 of the EIS that the delineation of the Kilally Forest Environmentally Significant Area be amended on Schedule B-1 of the City of London’s Official Plan and Map 5 of the London Plan to reflect the boundaries shown on Figure 5 of this report. EEPAC believes this recommendation is already in progress as a result of Council’s actions related to the Kilally Basin SWM EA.</p> <p>RECOMMENDATION 13: If the City has not amended the delineation of the Kilally Forest ESA, it should be part of the change in land use and zoning related to this application.</p>	Noted
<p>Recommendation 11 of the EIS proposes that a detailed Environmental Monitoring Program should be prepared prior to the initiation of construction. The questions are: at what point in the process does this occur, who reviews and approves it and what are warranty periods? Further, if encroachment is noted, the program must have some recommendations for how to pay for fixes. Monitoring should be done in conjunction with the City which is building the storm facility. Ideally, such monitoring could be funded from DCs as well as by the proponent.</p> <p>However, Beacon p. 3 noted that monitoring:</p> <p>While monitoring can readily document what is happening within the buffer (e.g., increases in wildlife use or vegetation development for example), and within the core natural area (e.g., shifts in bird species abundance and diversity), only a very carefully designed and well-replicated study with controls may be able to detect if any changes (or lack thereof) in the core habitat are related to the presence (or absence) of a buffer. Often, in real world situations, there are not opportunities to create adequate replicates, or set aside control sites. In addition, monitoring (particularly long-term monitoring) requires both a financial and resource commitment that is beyond the means of most jurisdictions. It also requires individuals who understand the importance of good study design, and are able to make sense of intensive and temporally extensive data, something that is seldom, if ever, undertaken in Ontario for projects under the Planning Act</p>	To be addressed by the City of London.
<p>RECOMMENDATION 14: EEPAC be circulated on the proposed environmental management plan for comment prior to its acceptance by the City.</p>	Noted. This is at the discretion of the City of London.
<p>RECOMMENDATION 15: The study design for monitoring be reviewed by the City and UTRCA as a condition of the development agreement.</p>	Agreed.

INDIRECT IMPACTS	
<p><i>“Lighting and Noise Impacts – The proposed development will result in an increase in lighting and noise within the Study Area. The introduction of lighting can influence wildlife in natural areas, particularly nocturnal species. The effects of lighting on natural areas may cause certain species of wildlife to move away from the natural areas within the subject lands. In order to limit the potential impacts of light on the adjacent natural heritage features, recommendations will be made to limit or relocate lighting in areas adjacent to natural heritage features and to select lighting standards that minimize diffuse light. Light standards and fixtures can also be shielded to reduce the direct light exposure to natural areas. Dense planting in buffer areas may be considered for noise reduction in select areas. “</i></p> <p><i>EEPAC is unclear when “recommendations will be made to limit or relocate lighting in areas adjacent to natural heritage features...”. It is also unclear what these recommendations will be based on.</i></p> <p>RECOMMENDATION 16: A condition of the development agreement include shielded light standards and fixtures to reduce direct light exposure by requiring the new City of London Bird Friendly Skies lighting design criteria are followed http://www.london.ca/business/Planning-Development/Pages/Bird-Friendly-Skies.aspx</p>	<p>We will review the recommendation and clarify.</p>
<p><i>Glass windows placed near an ESA are going to be especially prone to bird collisions. Therefore, EEPAC recommends:</i></p> <p>RECOMMENDATION 17: Bird-friendly glass materials be used for homes in the development especially those along the outer border facing the ESA. EEPAC or The Advanced Facility for Avian Research at Western University would be pleased to provide detailed information on suitable materials and their application/installation.</p>	<p>Agreed that the requirement for bird friendly glass material be used for homes along the ESA side of the development.</p>
SUBDIVISION DESIGN	
<p><i>Is the entrance off Kilally Road necessary? It seems to require eliminating environmentally significant land and will increase traffic on Kilally along the natural heritage leading to increased noise, pollution, runoff, roadkill, and other negative impacts.</i></p> <p>RECOMMENDATION 18: Have an entrance from Clarke Rd directly on the west side, and leave the north side closed to road traffic from Kilally.</p>	<p>A direct entrance to the proposed subdivision from Clarke Road is not possible for several reasons: the property does not have frontage on Clarke Road, a Hydro Transmission line runs along Clarke Road, and a direct entrance from Veteran's Memorial Parkway would not be possible.</p>
<p><i>EEPAC notes that missing from the EIS is any discussion or mention of the temporary sewage pumping station to be located at the northwest corner of the site. The Sanitary Servicing Report for the site found on the City web site is silent on where any overflows from the pumping station will go. EEPAC assumes it would be to the Thames which would result in negative impacts at the point of discharge and downstream. This missing element from the EIS leaves EEPAC to recommend the following.</i></p> <p>RECOMMENDATION 19: The application not be accepted as complete until the EIS is modified to deal with the impacts of having a sewage pumping station adjacent to a sensitive habitat.</p>	<p>We will add text to address any potential impacts from the temporary pumping station.</p>
CRITIQUE OF EIS FINDINGS	RESPONSE FROM AECOM
<p><i>This document contains vital but missing information that reinforces many of the gaps we considered as part of the EMG review. There are recommendations for pre-construction plans that have not materialized yet. EEPAC would appreciate the opportunity to review these plans.</i></p>	
<p><i>1.1 pg 1 – It is unclear where property access was available and how much of the Study Area and Subject Lands it covered. Did access permit adequate assessment of Study Area? How was this evaluated & assessed?</i></p>	<p>We will revise figures and text to show where property access was granted and where we assessed.</p>

CRITIQUE OF EIS FINDINGS, CONTINUED	RESPONSE FROM AECOM
<p><i>Figure 3 pg 11 – How were wildlife monitoring locations determined and deemed sufficient to capture wildlife within the Study Area sufficiently?</i></p>	<p>Breeding bird point counts were established at three locations (at least 200 m apart to reduce double counting) near the edge of the Subject Lands each adjacent to a different vegetation community to capture the diversity of birds in the Study Area.</p> <p>The amphibian station was established on Kilally Rd adjacent to and within range of the OAO communities, where it was safe for staff to conduct night surveys. No other suitable amphibian breeding sites were identified.</p> <p>Snake cover-boards were placed among tall grasses and forbs in locations with open canopy that would receive significant sunlight throughout the day spaced out along the edges of the Subject Lands.</p>
<p><i>3.2.3.2 Results pg 20 – It is unfortunate that there were no survey dates in mid-May. July 11 is late for a breeding bird survey as many early breeding species would be finished breeding at this time and may have started to move more widely than during peak breeding activities (mid- May to late June).</i></p>	<p>This survey, occurring only one day outside of the breeding bird season, did not seem to influence the results. The survey on July 11, 2017 resulted in a large diversity and density of bird species.</p>
<p><i>3.2.4.2 Results pg 21 – How confident are the surveyors in their survey results given road noise obscured their ability to hear calls? This would appear to be contrary to the accepted protocols for amphibian surveys and calls into question the reliability of the results.</i></p>	<p>Survey staff were able to hear amphibian species outside of the 100m survey area during a high background noise evening. This shows that if amphibians were present and calling within the 100m survey area, they would have been heard and recorded.</p>
<p><i>4.2 Provincially Recognized Features and Species There are recognized bird species observed at Fanshawe CA that are not represented here. Full list on eBird: https://ebird.org/hotspot/L459666</i></p>	<p>We did not use eBird in our background analysis. We will review and revise the EIS to include any relevant information.</p>