Environmental and Ecological Planning Advisory Committee Report

10th Meeting of the Environmental and Ecological Planning Advisory Committee
September 20, 2018
Committee Rooms #1 and #2

Attendance

PRESENT: S. Levin (Chair), A. Boyer, C. Dyck, P. Ferguson, S. Hall, K. Moser, S. Sivakumar, C. Therrien, R. Trudeau and I. Whiteside and H. Lysynski (Secretary)

ALSO PRESENT: C. Creighton, L. Pompilii and S. Wise

REGRETS: E. Arellano, C. Evans, B. Krichker and N. St. Amour

The meeting was called to order at 5:02 PM

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

None.

3. Consent

3.1 9th Report of the Environmental and Ecological Planning Advisory Committee

That it BE NOTED that the 9th Report of the Environmental and Ecological Planning Advisory Committee, from its meeting held on August 16, 2018, was received.

4. Sub-Committees and Working Groups

4.1 3080 Bostwick Road

That the attached Working Group comments with respect to the application by MHBC Planning relating to the property located at 3080 Bostwick Road BE FORWARDED to S. Wise, Senior Planner, for consideration.

4.2 Southdale Road Environmental Assessment

That the attached, revised, Working Group comments relating to the Southdale Road Environmental Assessment, from Pine Valley to Colonel Talbot Road BE REFERED to S. Shannon, Technologist II, City of London and S. Muscat, AECOM.

5. Items for Discussion

5.1 Canadian Pacific Railway Crossing at Adelaide Street North – Municipal Class Environmental Assessment

That it BE NOTED that the Notice of Study Completion for the Adelaide Street North Municipal Class Environmental Assessment Study Public Review, was received.

6. Deferred Matters/Additional Business

6.1 (ADDED) Commissioners Road West Realignment Class EA Study - Notice of Completion

That it BE NOTED that the communication dated September 13, 2018 from T. Koza, Project Manager, City of London, with respect to the Commissioners Road West Realignment Class Environmental Assessment Study - Notice of Completion, was received.

7. Adjournment

The meeting adjourned at 6:07 PM.

3080 BOSTWICK RD (at Southdale Road) RESIDENTIAL DEVELOPMENT c/o YORK DEVELOPMENTS

Review of EIS by Stantec, dated May 1, 2018, exp Hydrogeology report dated February 2018, and Parish Aquatic Services Erosion Assessment report dated May 2016.

All received after EEPAC's August 2018 meeting when requested by the Committee
Reviewed by S. Levin, B. Krichker, and I. Whiteside

General Comments:

EEPAC has site specific concerns and recommendation related to the EIS, Groundwater Study, and Erosion Assessment of Thornicroft Drain as outlined in the Document Review section, below. However, the Committee also has broader concerns regarding this development and other current and future adjacent developments in the Southwest Area of the City, specifically in the Talbot, Lambeth, and Bostwick Planning Districts. We have reviewed several studies for proposed developments in these Districts, and several consistent themes have emerged thereof, namely:

1. The lack of a system wide approach to evaluate environmental and ecological impacts, with individual projects looked at in isolation to adjacent developments. Rather, the cumulative impacts from future and existing developments should be used to look at the system's overall environmental and ecological health. For example, several of the proposed developments will be required to relocate existing onsite wetlands; however, there appears not to have been any coordination among the various involved parties to maximize the ecological benefit therefrom. Another example is the cumulative impact of stormwater runoff from the developments, with each development ignoring surface water flows from adjacent sites and their cumulative impact on soil erosion and sedimentation on downstream ecological receptors.

2. Certain proposed developments will rely on private SWM systems for part or the entire site. EEPAC's concern is twofold. First, SWM appear to rely on LID measures to limit surface run-off, with the reports implying that the measures will serve to manage stormwater quality and quantity to a certain extent. Our concern with respect to the reliance on LID measures is that a) the long term efficacy of the measures is not demonstrated and performance may degrade with time; and b) provisions for long term maintenance of the LID measures are not outlined, which is an added concern if the LID feature is located on private property. Secondly, the reports did not provide an estimate of retention/detention capacity of the storm water management systems during major and minor storm events. This figure is important to determine peak flow into the drainage channels to ensure that there is no adverse impact to downstream ecological receptors (e.g. fish habitat) via increased sediment flow or channel erosion.

3. The proposed developments are located in part of the Dingman Creek subwatershed, specifically Tributaries B, C, and D. However, none of the reports received to date for this area have referenced Dingman Creek Subwatershed Study Update 2004 ("DCSSU"). That document has been approved by the City Council and not superseded or rescinded, and is thus still applicable. In EEPAC's opinion, all DCSSU objectives and requirements should be referenced in relevant reports for new developments and all new developments should be screened against DCSSU requirements to ensure adherence. It also should be noted that the DCSSU includes (among others): the recommendations for the water resources and environmental requirements; SWM criteria and environmental targets; and, the

requirements for preservation and protection of the environmental/ecological existing conditions of the system based on the tributaries approach. The reports provided for this proposed development and others have not identified these requirements, nor have they demonstrated compliance with these requirements, nor have their analysis been based on the system approach.

With these three points in mind, EEPAC is recommending that the City consider defer approval until a comprehensive plan can be developed for the entire area to deal with the cumulative impacts from the developments, including demonstrated compliance with the DCSSU criteria and recommendations for the relevant tributaries to Dingman Creek. Such deferral would be consistent with the London Plan, which requires that surface and groundwater features and their hydrological functions are to be considered as part of the systems approach to land use planning (paragraph 1302).

Document Review:

EEPAC's comments are primarily related to groundwater and surface water management during and after construction. Our chief concern is related to the impact of any discharge into Thornicroft Drain, which is a tributary to Dingman Creek and has a warm water fishery downstream of the proposed development. Our comments below are informed by the Erosion Assessment prepared by Parish. Key points from that report are:

- The channel on the site (Thornicroft Drain) is characterized as "Transitional or Stressed", meaning channel morphology is within the range of variance for similar streams, but evidence of instability is frequent. The report found evidence of aggradation and widening within the study area, with the reach having "low ecological health" for among other reasons, a high degree of sediment suspended in the water column. Channel degradation appears to be caused by stormwater flows released upstream (e.g. from developments North of Southdale Rd.)
- Discharging directly to the watercourse is not the preferred solution, even with erosion protection established. The report recommends locating the stormwater outlet away from the existing watercourse and constructing an outlet change that incorporates natural in stream flow energy dissipation measures prior to entering the watercourse. The report goes onto note that localized erosion control will not mitigate the on-going issues affecting the watercourse, and that future large scale remediation work along Thronicroft drain is anticipated.

Theme 1 – Dewatering During Construction

The hydrogological report identifies shallow groundwater as close as ~4.5 meters below ground surface, present in a silty sand aquifer that extends throughout the site, with a hydraulic conductivity assumed to be 10^{-4} to 10^{-5} m/s (n.b. Single Well Recovery Tests were not done because the recharge in the wells was *too rapid* to measure). The report also does not characterize seasonal fluctuations in the water table, and thus the water table could be higher during construction. Lastly, the report identified surface water samples with levels of iron and aluminum that exceed the Ontario Provincial Water Quality Objectives.

The report is not specific on whether expected a Permit to Take Water will be required as part of the construction. However, given the hydraulic conductivity and relatively shallow depth of the underlying sandy silty aquifer, it is possible, especially given the site design calls for buildings up to 21 stories tall. EEPAC also has concerns that the water balance within the channel can be impacted by dewatering activities, as surface water quantity and quality may have substantial influence on adjacent groundwater conditions (and vice-versa). For instance, if the dewatering activities are taking place near to the channel, surface water flows could be diminished potentially impacting the downstream woodlot and warm water fishery. Conversely, dewatering discharges that end up in the channel may cause erosion and sediment problems within the channel, again impacting downstream receptors.

Recommendations:

1. Establish whether a Permit to Take Water will be required by evaluating seasonal groundwater fluctuations and expected excavation depths during construction.
2. Further characterize the surficial aquifer to determine the cone of influence during potential dewatering activities, with a particular focus on identifying dewatering activities that will impact surface water flows in the channel.
3. Establish a dewatering plan that includes an Erosion Sediment Control Plan, as well as appropriate measures to ensure the channel is not impacted by the dewatering activities.
4. During construction and post-construction dewatering, groundwater and surface water quality sampling should be conducted to ensure no change to the baseline conditions. Special attention should be paid to ensure that any discharged water met the Ontario Provincial Water Quality Objectives.
5. Even if a permit to take water is not required as volumes will be below the permit threshold, special attention should be paid to maintain the sites current equilibrium, and limiting any discharge to the channel to amounts that are removed as part of dewatering.

Theme 2 – Stormwater Management

The site's approach to stormwater management is described in detail in the report entitled *Storm Drainage and Stormwater Management Plan* (2016) prepared by IBI Group. EEPAC has not received this report to review. The EIS provided some details from that report, including *inter alia* the following:

- Stormwater Management will be provided by a "Permanent Private Stormwater System", with quantity controls within each block for up to the 100-year storm event to the event feasible (n.b. the concept/ definition of what is "feasible" and what is "not feasible" is not defined).
- Future public roads will drain into Thornicroft drain without quantity control, and major flows up to the 250-year storm event (and presumably beyond) will drain directly into the open channel via the proposed street pattern.
- LID measures may be used to increase the existing infiltration and help manage stormwater run-off. However, the actual efficacy of these measures was not quantified given the site mostly consists of apartment blocks and associated parking lots was not articulated.
- Stormwater quality control measures were not articulated (e.g. for salt and from parked cars), which is important given the preliminary site design is composed of largely apartment blocks and associated parking lots.

EEPAC's concern is that the stormwater management plan, as it stands, will result in a significant increase in the flow into Thornicroft Drain, both through direct surface water flow and potentially through increased groundwater flow. Furthermore, the intensity/ velocity of that flow will be much greater than currently exists as the nature of the development with parking lots, roads, and buildings (i.e. impermeable) will result in a much higher peak discharge. As outlined in the Erosion Assessment prepared by Parish, Thornicroft drain does not have the capacity to handle large inflows without further degradation. The proposed stormwater management plan is at direct odds to the conclusions of the Erosion Assessment, which recommended no direct discharges to the channel. The current plan, as is, will likely have an adverse negative impact on the downstream warm water fishery and woodlot, and follow-on impacts to Dingman Creek.

Recommendations:

6. Redesign the stormwater management system such that it meets current best practices. This may require work during the Southdale Road widening. These include, at minimum, quantity and quality

control of stormwater discharges up to the 100-year storm event for the entire site (pre-and-post construction), with sufficient retention/detention capabilities to protect the integrity of Thornicroft drain. Of particular note, the stormwater management system appears to rely on secondary infiltration to detain the water, yet the hydrogeological report did not provide a seasonal evaluation of groundwater levels to determine whether the underlying sandy/silty aquifer can indeed absorb the water under a worst case scenario (e.g. high water table with a major storm event).

7. Should the revised stormwater management plan include LID systems, these systems be placed on public property, as the eventual homeowner may lack the desire or skill in maintain the LID measures and run-off may consequently increase over time as the efficacy of the LID measures wane.

EEPAC would also like to review the *Storm Drainage and Stormwater Management Plan* (2016) prepared by IBI Group, as well as any other SWM report completed and update for the subject site, and provide recommendations.

Theme 3 – Fluvial Geomorphic Study of Thornicroft Drain and DCSSU Compliance

Recommendation:

8. Consistent with the a recommendation from the Erosion Assessment prepared by Parish, EEPAC echoes their recommendation that a comprehensive fluvial geomorphic investigation of the entire tributary be undertaken to assess the geomorphic character and systemic processes operating within the tributary to properly assess potential risk to downstream areas and develop responsible long-term solutions relating to urban development and SWM.
9. We also recommend that the City include a holding provision for this development until the developer or the consulting engineer demonstrate that the design will be in compliance with the approved DCSSU (2004) criteria and recommendations for this tributary and with the recommendations of the Parish report.

Southdale Road West Improvements (Pine Valley to Colonel Talbot Road)
September 10, 2018 (received at August 2018 EEPAC meeting)
Reviewed by: Carol Dyck, Peter Ferguson, Sandy Levin, Randy Trudeau

Major Concerns:

Lack of clarity regarding location of and impact to plant species with high coefficient of conservation.

Loss of 1.3 ha of Eastern meadowlark habitat with no consideration for overall loss of habitat in the Southwest of London, nor a Habitat Management Plan for the required compensatory mitigation.

Lack of clarity regarding responsibility for the culvert structure south of Southdale Road West and plans for improvement.

EIS did not include looking for barn swallow nests in the culvert.

Loss of and/or disturbance to wetlands.

High potential for spreading invasive species.

Overall high levels of development in the area as well as potential for several future projects requires a holistic look at species and habitat management in southwestern London. Three consultants did work in the area for three different projects.

1. Lack of Clarity regarding plant species
The reviewers found that the list of sensitive species in this EIS was unclear. In particular, it was not clear (e.g., page 17, North Talbot PSW – Patch 10059 and page 18, Patch 10063) as to where in the vegetation communities some of the plant species with a high co-efficient of conservation are located and therefore, it is not clear what the impacts of construction activities and/or the widened road will be regarding these species. The EIS did not make a clear statement either way. For instance, the EIS notes that through construction a small part of 10063 will be removed. However, it fails to note that roughly 180m of new edge will be created. The EIS also does not indicate whether or not any of the sensitive species will be affected as we know only that certain species like Wood Horsetail were found in the significant woodland but not specifically where.

Similarly, on pages 21-22 the report discusses the importance of the North Talbot Provincially Significant Wetland, which scored 250 points "within the Special Features Component due to the presence of END false hop sedge". The EIS does not make clear whether or not the false hop sedge was found within or outside the study area, nor whether this plant species would be affected by the construction.

Recommendation: To be considered complete the EIS must clearly state whether the plant species with a high coefficient of conservation are found within or outside the study area, and whether these species will be affected by construction. And if affected, what compensatory mitigation will be required.

Recommendation: In the cases where these sensitive plant species are found within the study area and will be negatively impacted by construction, clearly specify what actions will be taken to reduce harm and/or to compensate any loss either in the EIS or at detailed design.

2. Invasive Species

Phragmites is prevalent in south western London. Indeed, the EIS makes reference to the "phragmites choked swale" (p.13) and provides photographic evidence (Appendix D p. 4). Moreover, the road widening will create roughly 180 metres of new edge along a significant woodland, and as it is not the area but the *length* of this edge that is relevant when considering the spread of invasive species and the creation of new edge effect, more attention should be paid to this issue. The reviewers are concerned that with the proposed road widening a very real risk exists of spreading phragmites further along the disrupted edges and into the wetlands and Thornicroft Drain.

Recommendation: Clean equipment protocol should be closely adhered to during construction.

Recommendation: An invasive species management plan including monitoring **must** be included in the project budget and contract documents.

Recommendation: The detailed design must include recommendations for mitigation caused by creating new edge.

3. Barn Swallows

This monitoring for this EIS noted fly-overs by barn swallows (at stations GR01, GR02 and GR03) and suggested that suitable habitat may be found in the barn to which AECOM was not granted access. The report states that "no nesting structures have been observed" (p. 44). However, a previous development study in that same area by Duggan they found that barn swallows were nesting in the culvert.

Recommendation: AECOM should examine the culvert coming from the Storm Water Management Facility within Southwest Optimist Park for evidence of barn swallows nesting. If nesting, alternative nesting kiosks must be included in the project.

4. Culvert related to Thornicroft Drain

The EIS leaves many questions in regards to the culvert associated with Thornicroft Drain. On page 12 the report notes that "[t]he culvert under Southdale Road creates a permanent barrier to fish passage as the upstream section appears to be buried". We wondered at the wording "appears to be" and would like to know if AECOM investigated to determine whether or not

this was actually the case. Housing development is slated for 3080 Bostwick Road and the reviewers wondered whether it would be the responsibility of those developers or the City, in regards to this road widening, to address the situation with the culvert. It is our belief that likely the housing development will go forward before the road expansion occurs. An EIS carried out by StanTec, for the development at 3080 Bostwick, which included a fluvial geomorphological study of the Thornicroft Drain by Parish dated May 2016, noted that turbidity from the north is causing problems to the south where the watercourse passes through a Significant Woodland and provides warm water fish habitat. Given that fish inhabit the Thornicroft Drain, a plan must be in place to ensure that species are protected and damage downstream is minimized.

Recommendation: Work that impacts on the Thornicroft Drain must have a plan to avoid damage downstream and reduce erosion. (The downstream section of the Thornicroft Drain is remarkably "natural", and it would be advantageous to keep it in that state or even enhance it through improvements to the north (i.e. the culvert).

Recommendation: It is noted that it is the City's storm sewers which are causing high flows in the Thornicroft Drain, resulting in high turbidity and it is noted that the culvert is insufficient, therefore, it is recommended that it is the City's duty to fix the submerged culvert *prior* to the road expansion and perhaps even *prior* to the other development projects slated for the area.

Recommendation: If work is not done prior to the road project, then funds to reduce the impact or eliminate erosive flows during storm events must be included in the contract documents for the road project.

5. Loss of Wetlands

According to the monitoring that was done for this EIS, there appears to be a lot of bird activity around the small wetland south of Southdale, which demonstrates its ecosystem function even if it is small. We would also like to note that a number of development projects that have been undertaken recently or have been approved for future development involve the loss of wetlands, which is concerning even if these wetlands do not cover a great area. Wetlands provide numerous ecosystem services, such as storm management, water filtration and serve as habitat for numerous species.

a) Consistent with the London Plan, all wetlands are to be protected regardless of size.

If part a), above is not achievable, "b) Minimize disturbance and/or removal of the small wetland south of Southdale and ensure that the North Talbot Provincially Significant Wetland is not adversely affected. Moreover, through the process of widening the road, the City should ensure that the flow of water into small wetland is maintained."

If part b), above is not achievable, “c) In the event of loss of wetland area, the road project include sufficient budget to compensate for the loss of wetland through creation of a wetland of at least 4 ha, elsewhere close to the disturbance site.

6. Meadowlark Habitat

This project will result in the loss of 1.3 hectares of Meadowlark habitat. Consequently, a minimum of 4 hectares of replacement habitat is required according to the consultant who spoke at the August EEPAC meeting. The report makes mention on p. 70 of the creation of a Habitat Management Plan for the Meadowlark but one does not currently exist. The reviewers also take exception to the rating of “low-no effect” regarding the removal of SAR habitat on p. 70.

Recommendation: The City should not approach habitat loss and its replacement/offsetting in a piecemeal fashion, especially given the high level of development in that corner of the City. In most EIS work in the southwest, meadowlark and/or bobolink are noted in the field work. Therefore, we recommend that the City begin purchasing land in and around that area to offset the loss of habitat for species like the Meadowlark. The City could consider purchasing land using money from either development charges or infrastructure projects, outside the growth boundary, west of Colonel Talbot and south of Southdale which would enlarge the close to development project to protect significant woodland, significant valley land and cultural meadows.

Recommendation: No construction works or removal of habitat should occur before a Habitat Management Plan is submitted as part of the permitting process for this project. EEPAC would appreciate the opportunity to be involved in the creation of this plan. We would also like to suggest that the City follow the example of the Brantford and Grand River Conservation Authority which is a 20-year plan (dated August 22, 2017) which requires a five-year monitoring period after the implementation of a habitat management plan.

7. Species and Habitat Management Plan

The southwest corner is currently experiencing rapid development. Indeed, three development projects -- road widening, community centre and housing development -- each which hired a different consulting firm to undertake an environmental impact study or assessment, are completed or currently expected to occur in the near future. As a consequence, significant areas meadowland, woodland and wetland will be affected, either directly (due to loss as a result of land conversion) or indirectly (through increased particulate pollution, noise pollution and light pollution). Significant valley lands will be heavily impacted around Southdale. With London’s growing population, the trend towards greater development in this area is unlikely to slow. It is therefore important to work now to protect some of the important relatively wild areas in this area.

Recommendation: The City should take a holistic, integrated approach when looking at southwestern London to ascertain which areas would be beneficial to preserve, particularly as a result of this road widening project.

Recommendation: A Habitat Management Plan for SAR birds must be created *prior* to the start of construction on the new road and approved by the Ministry.

Recommendation: The City should start purchasing land in the southwest corner of London now to take a proactive approach to conservation amidst all the construction. These lands could become part of a future ESA or an enlargement to the Lower Dingman ESA. A 20-year management plan for this area should be considered.

Recommendation: The City should consider the acquisition and creation of wildlife corridors in the area to connect bird species (and other species) inhabiting that region to the various valley lands, woodlands, wetlands and meadow lands in the area.

Final Queries:

1. On p. 69-70, the report makes mention of "integrated restoration plantings". We would like to know what exactly is meant by this phrase.

Recommendation: A significant number of trees and other plants will be lost as a result of this project. We would like to suggest that replacement species are **native** to south western Ontario. For instance, a number of Norway maples will be removed; these could be replaced by native varieties such as sugar or red maple. Native species will prove more beneficial for insects and birds. In addition, though cities often like to have a uniform tree species lining streets, we would like to suggest that the City replace trees with a variety of species. Recent pest outbreaks (i.e. emerald ash borer) and diseases demonstrate that it is not to have a monoculture of species should a new threat target a particular tree.

2. According to this EIS, there are no cavity trees within the ROW, but there is possibility of cavity trees within the woodland. We appreciate the precautionary approach that will be used in regards to candidate habitats for bats and that any vegetation removal occur outsides of bat roosting season.

Recommendation: Though bats may not have been observed, a buffer should be applied for species that are in recovery, i.e. bats and recent outbreaks of white nose disease. For that reason, we recommend that any cavity trees that are found during the construction phase retained to serve as future habitat when the species rebounds.

3. Figure 5 on p. 38 shows several amphibian monitoring stations located near the small wetland south of Southdale and near the Storm Water Management facility, but only two by the North Talbot Provincially Significant Wetland. We would like to know the rationale behind this decision. Moreover, amphibians got a low rating for activity and presence but these findings seem contrary to comments made by others working and studying the area, as well as anecdotal reports.

Recommendation: New amphibian surveys may be necessary to establish their level of presence in the affected area.

4. Reference is made to the “detailed design” stage of the development, such as on p. 58 regarding how to deal with the loss of vegetation. As it is difficult to determine how sound mitigation policies are or will be without access to this information, it would be beneficial if EEPAC could be included at the Detailed Design phase.

Recommendation: That EEPAC be offered the opportunity to comment on the Detailed Design for this project to ensure that mitigation recommendations – such as dealing with loss of habitat or vegetation – meet high standards given this is a city project.