

Victoria on the River, Phase 6, (1934 Commissioners Road East), revised EIS dated December, 2020, received by EEPAC at its February 2021 meeting. Reviewed by S. Hall, S. Levin, and I. Whiteside

Also reviewed were the updated Hydrological Assessment and Water Balance by EXP dated December 3, 2020, and the unrevised Geotechnical Investigation - Slope Assessment from 2017 by EXP

Noted that this woodland patch 09028, has a dense canopy of 90 to 100% (page 12) which is unusual on the landscape. The SWT ELC is also found on less than 10% of London's landscape.

WATER BALANCE

EEPAC has received the revised water balance showing that the site has achieved the goal of at least 80% post-development infiltrations as compared to pre-development infiltration. We note that the change in assumptions from the 2018 water balance assessment have resulted in a material change to the evaluation of pre-development conditions on the effectiveness of the LID measures (e.g. pre-development infiltration is estimated to be 14,684 m³/yr, an 11% reduction from the 2018 assumption of 16,504 m³/yr, while the proposed LID mitigation measures are anticipated to result in post-development infiltration of 13,384 m³/yr versus 11,392 m³/yr in the 2018 calculations, a 17% improvement); however, even considering the (higher) 2018 pre-development infiltration, the revised estimate of the post-development infiltration achieves the 80% target. It would be helpful to receive a description of the assumption changes that resulted in the changes to the water balance assumption.

While the post-development infiltration target of 80% appears to have been met, EEPAC continues to have concerns that the stormwater management strategy is predicated on the long-term successful implementation of LID measures whose long term efficacy has not been demonstrated, and as such, run-off towards the ravine system may increase with time and infiltration decrease. Furthermore, the LID measures appear to be located on private property, and the eventual home owners may lack expertise to properly maintain the LID measures. Lastly, we note that the 2018 Water Balance report recommended percolation tests at proposed LID measure to demonstrate the feasibility of the LID designs; however, the 2020 report did not include this recommendation – it would be helpful to have confirmation that these percolation tests were conducted to confirm the viability of the LID measures.

Here is a summary of our calculations (for reference).

	<u>Pre</u>		<u>Post</u>		<u>% Pre-Development</u>		<u>Post with Mitigation</u>		<u>% Pre-Development with Mitigation</u>	
	2018	2020	2018	2020	2018	2020	2018	2020	2018	2020
to TRIBUTARY 3										
Estimated Runoff	11,567	19,967	7,945	20,288	69%	102%	7,963	15,003	69%	75%
Estimated Infiltration	16,508	14,684	8,471	8,794	51%	60%	11,392	13,384	69%	91%
to SWMF 2										
Estimated Runoff	1,150	1,178	7,711	3,510	671%	298%	4,971	2,632	432%	223%
Estimated Infiltration	1,725	1,767	2,814	1,538	163%	87%	3,114	2,320	181%	131%
to SWMF 1										
Estimated Runoff	0	0	3,061	2,600	n/a	n/a	2,289	1,950	n/a	n/a
Estimated Infiltration	0	0	1,064	0	n/a	n/a	1,178	0	n/a	n/a

Our specific recommendations with respect to the stormwater management plan is similar to our previous one:

RECOMMENDATION 1: The proposed LID systems should 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.

Infiltration galleries and other LID should NOT be placed on private property. We are unclear why “The City of London has insisted that LID features be outside of the municipal road allowance and on private property, a monitoring and maintenance document will be provided to the homeowners/condo corporation where these features are located similar to other underground infrastructure. “ There have been no studies as far as EEPAC is aware of the ability of private land owners in London to maintain such infrastructure much less, a condo corporation. Until such a study is undertaken in London, or until there is a way for the city to force a private land owner to do and report on maintenance, no LID should be on private property. The City should review the SWM feature at 161 Windemere Road to see if it has functioned properly without damage to the cliffs below the site.

RECOMMENDATION 2: A fund be set aside for any remediation or compensation required as per Recommendation 18 due to any impacts to the wetland areas in the ravine caused by changes to the water balance. It should be noted that EEPAC did not receive the Dev Eng functional servicing report dated September, 2019, to assist in addressing comments.

BARN SWALLOW

RECOMMENDATION 3: EEPAC recommends that the proponent and/or the City consult Cole Engineering on the replacement of the unsuccessful kiosk. One thought is to use the remaining beams and other materials from the barn that was removed that appear to still remain on the proponent’s lands on the west side of the ravine (personal visit by S. Levin on March 7, 2021)

https://www.coleengineering.ca/blog/Blog32/Saving_Ontario_s_Barn_Swallow_Population

<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>

NET IMPACTS TABLE

The Net Impacts table adds a number of impacts to the previous version as noted in the Dec 2020 comments in the table of comments provided to EEPAC (thank you for including it for our review). All of the new additions are no to low impact. The only positive net impact is the naturalization of the buffer. Therefore, EEPAC disagrees with the consultant's conclusion that there is a positive impact. It is no net impact at best, more likely a low negative (which was the 2019 comment of Development Services in the table of responses).

RECOMMENDATION 4: The statement "Based on the identified potential impacts and mitigation measures listed above, it is anticipated that the net environmental impacts will be positive. " on page 44 should be changed to "... it is anticipated that the net environment impacts will be neutral." The net impacts table and the EIS itself does not prove that "Ecological restoration within identified compensation areas will more than offset vegetation and habitat loss." (p. 44)

EEPAC is encouraged by the suggested plantings in the hydro corridor. However it is unclear to us who is responsible for approaching Hydro One and whether or not approval will be granted. If it is not granted, there is a low net loss rather than a neutral impact at best.

The Net Impacts Table mentions potential bioswales. They are not mentioned in the hydro-g report and it is unlikely they would be used as the site is not large enough.

PEDESTRIAN BRIDGE AND TRAIL (see air photos from City web site and Figure 6 from EIS at end of this report)

The EIS report and the Geotechnical Assessment and Slope Stability study were prepared to assess the development's impact on the site, not the footbridge, and so neither study is sufficient for the bridge (see note from page 17 of the Slope Assessment at end of this report). As the city clearly states in their comments, the bridge is "conceptual" at this stage so additional studies will clearly have to be done to support any concrete plans/proposals. EEPAC agrees with the comment from AECOM that an EIS will "likely" be required to specifically address the proposed bridge at the time the works are being planned (page 28 of the Comments). What is clear from the Geotechnical report is that it recommends that "future development generally not occur within the Erosion Hazard Limit identified at the site" (General Comments for Site Work on page 15). If we consider cross-sections E-E' and G-G', and that the foundations for the footbridge need to occur outside of the Erosion Hazard Limit, the foundations will need to be at least 26m + 24m from the edge of the creek (plus the creek width, say 2m). That is, the foundations for the footbridge need to be 50m+ apart (probably closer to 55m?) at minimum to ensure the foundations are constructed outside the Erosion Hazard Limit. Not being 100% sure on the design of the footbridge, but it will be a long one for somewhat marginal benefit, (saves ~400m to walk around the ravine? That's ~3-4 minutes of walking time at a normal rate.) It is also not clear what the limiting set-backs are here – is it the

Erosion Hazard Limit or the Buffer? If it's the Buffer, then obviously the bridge will have to be longer.

The proposed pedestrian pathway will need to meet AODA standards. Hopefully this can be done without pavement as having to mow on both sides will reduce the amount of area re-naturalized which is the only net positive in the net impacts table. Like the UTRCA, EEPAC does not support the trail in the buffer and appreciate that it has been moved to mostly avoid conflict with the buffer.

RECOMMENDATION 5: If the path on the east side is built, EEPAC recommends defined access point(s) to the pedestrian trail from the subdivision to the east so that multiple informal access points are not created. Multiple access points will damage and eventually destroy the restoration plantings planned for the buffer on the east side of the ravine. Such access points would be appropriate places for informational signage about the feature.

EEPAC is puzzled why the pathway is needed on the east side of the feature as there is a sidewalk on Constance Avenue which is outside the buffer! The path would end at the new street that will connect Constance to the new development. The path does not continue on the west side of the ravine due to the infiltration galleries at the back of the multi family development. Pedestrians would continue to walk on the sidewalk of the new street, to the next new street (Darlington Pl) to get to the park. We note in the table of responses Dec 2020, city staff said" ... *If the City / Parks Planning would prefer to have the trail overlap with the sidewalk in certain sections, we have no issue with that.*" It is noted that a final decision is going to occur later at "detailed design."

If the pedestrian bridge project goes ahead despite our recommendation not to build it (it is not very far around the ravine to the other side), another EIS is required for the affected areas because this EIS clearly states (p. 35) it did not deal with its potential impacts on the Significant Woodland or the watercourse. The other reason for EEPACs recommendation that no bridge be constructed is because there is no managed trail system for the adjacent Meadowlily ESA. Without any plan in place, unmanaged trails will develop as the population increases. It should not be made easier to access the ESA until such time as a managed trail system with appropriate signage and wayfinding is implemented.

A managed trail from these developments to the Meadowlily ESA must be developed by Parks Planning. Without a managed trail system (now that the CMP is done) many informal trails can be created by new residents who are unaware of the significance of the area. This is particularly true of the section on the other side of Hamilton Road along the hydro corridor.

RECOMMENDATION 6: Signage in addition to the homeowner brochure should be placed along the trail. This should be a condition of draft plan approval if the bridge is not built. Otherwise, the city must install signage about the significance of the woodland feature.

RECOMMENDATION 7: Vegetation removal (and trees will be lost if the bridge is constructed) MUST take place outside of bird breeding seasons. We believe the consult should say that rather than say it is recommended. It is a requirement of the Migratory Birds Convention Act.

RECOMMENDATION 8: An EIS be required before the bridge can proceed. If no net loss can be demonstrated, compensation must be provided by the City.

RECOMMENDATIONS IN THE EIS THAT EEPAC SUPPORTS (page 48+)

EEPAC agrees with designating Patch No. 09028 as Open Space on the OP, Green Space on the London Plan and zoned as OS(4) and included as a Significant Woodland the relevant maps using the boundaries shown on Figure 7 of the EIS. The boundary of the Significant Woodland and the buffers must also be indicated on Site Plan and construction contract drawings.

RECOMMENDATION 9: EEPAC would add to this recommendation that:

- **The boundary shown in the maps of the London Plan include the buffer**
- **the Site Plan and construction contracts also include Figure 7 which show the buffer and restoration areas**

EEPAC supports recommendations 2 and 3 on page 50, 5 on page 52,

EEPAC hopes recommendation 6 comes to pass. We, like the UTRCA, do not support LID measures on private property due to the lower chance of ongoing maintenance. We are doubtful any compensation will be forthcoming if the wetland features change post development as it will be impossible to prove causation.

EEPAC agrees with Recommendations 7 and 8 and further recommends

RECOMMENDATION 10: The Bird Friendly lighting guidelines be used. EEPAC also recommends that all windows on adjacent lots facing the Significant Woodland be treated in such a way to reduce bird collisions.

<https://abcbirds.org/glass-collisions/stop-birds-hitting-windows/>

Recommendation 9 of the EIS should be amended to say that permanent fencing **with no gates** must be required for any lots adjacent to the Natural Heritage Features.

We agree with Recommendations 10 to 15 with the addition that **should vegetation removal occur within candidate SWH habitat of Wood Thrush and Eastern Wood Peewee, additional surveys shall (not may) be required.**

Further to recommendation 10, It is required under the ***Migratory Birds Convention Act*** that any vegetation removal be conducted outside of the bird nesting season (April 1st to September 31st).

EEPAC agrees with an Invasive Plant Management Plan (#14) but the EIS is unclear if this is a condition of development or part of the draft plan conditions. EEPAC is indifferent to which but wants it included where it will be most effective and where performance can be monitored by the City.

We agree with Recommendation 16 and are encouraged by Recommendation 17 but wonder who will talk to Hydro One about this idea? If it is not agreed to, what next?

SUMMARY OF DRAFT PLAN and/or DEVELOPMENT AGREEMENT CONDITIONS RECOMMENDED BY EEPAC

Detailed Environmental Management Plan as noted by both Development Services and AECOM

The recommended Environmental Monitoring Plan should be a condition of both the development agreement and in the draft plan conditions.

Any trail lighting and all building lighting must follow the bird friendly guidelines.

All installed windows facing the woodland must be treated to reduce bird collisions.

<https://abcbirds.org/glass-collisions/stop-birds-hitting-windows/>

Invasive Plant Management Plan (rec #14)

Environmental Monitoring Plan and Program (recommendation 18 - p. 55). This is where the detail mentioned by AECOM in its response to Development Services will be required.

- EEPAC agrees that vegetation monitoring must be done for three years following construction. What is unclear is when the clock starts – when is construction finished – upon assumption? When site preparation is complete? This must be clarified so that it can be included clearly in the appropriate document
- Recommendation #19 speaks to the Barn Swallow kiosk. EEPAC is unclear if this refers to the enhanced kiosk or the existing unsuccessful one. We agree with a three year period but it must be clarified that this is three breeding seasons. We are unclear as to what happens if the enhanced kiosk is also unsuccessful.

Recommendation #20 – page 55-6. Although EEPAC agrees, we believe signage that remains in place is more useful than a Homeowner Manual that will be set aside and likely not get to subsequent owners. EEPAC would also recommend that the Living with Natural Areas, Your Dog and Nature, and Is your Cat Safe Outdoors be sent to all residents within the subdivision upon assumption.

OTHER

Extract from page 17 of the 2017 Slope Assessment regarding the pedestrian bridge

“It should be noted that the recommended bearing capacities have been calculated by EXP from the test hole information for the preliminary design stage only. The investigation and comments are necessarily on-going as new information of underground conditions becomes available (for example, if more specific information becomes available with respect to conditions between test holes, when foundation construction is underway). The interpretation between the test holes and the recommendations of this report must therefore be checked through field inspections provided by EXP to validate the information for use during the construction stage.”

The update should have used currently available air photos that are on the city web site. It would have made things easier to review as the current air photos show the recent construction activity on both sides of the feature.

Figures should be updated to show that there is no clarity as to where the watercourse enters the Thames because it was not studied as part of the EIS and that access was not given by some property owners. It is unfortunate no further investigations were done.

p. 30 (bottom half) is not clear that the second SWH is Terrestrial Crayfish. This page was updated to reflect it but the wording was not done well.

The location of the anuran call count station is not shown on any map either in the original EIS or in the revision. EEPAC also questions the date in Table 8 as it does not match the Environment Canada weather data at London Airport for the days and times listed. Also AECOM indicates in the table of comments that all three surveys were done in 2017. The EIS says the April survey was done in 2018 which is consistent with the weather data from Environment Canada for the day in question.

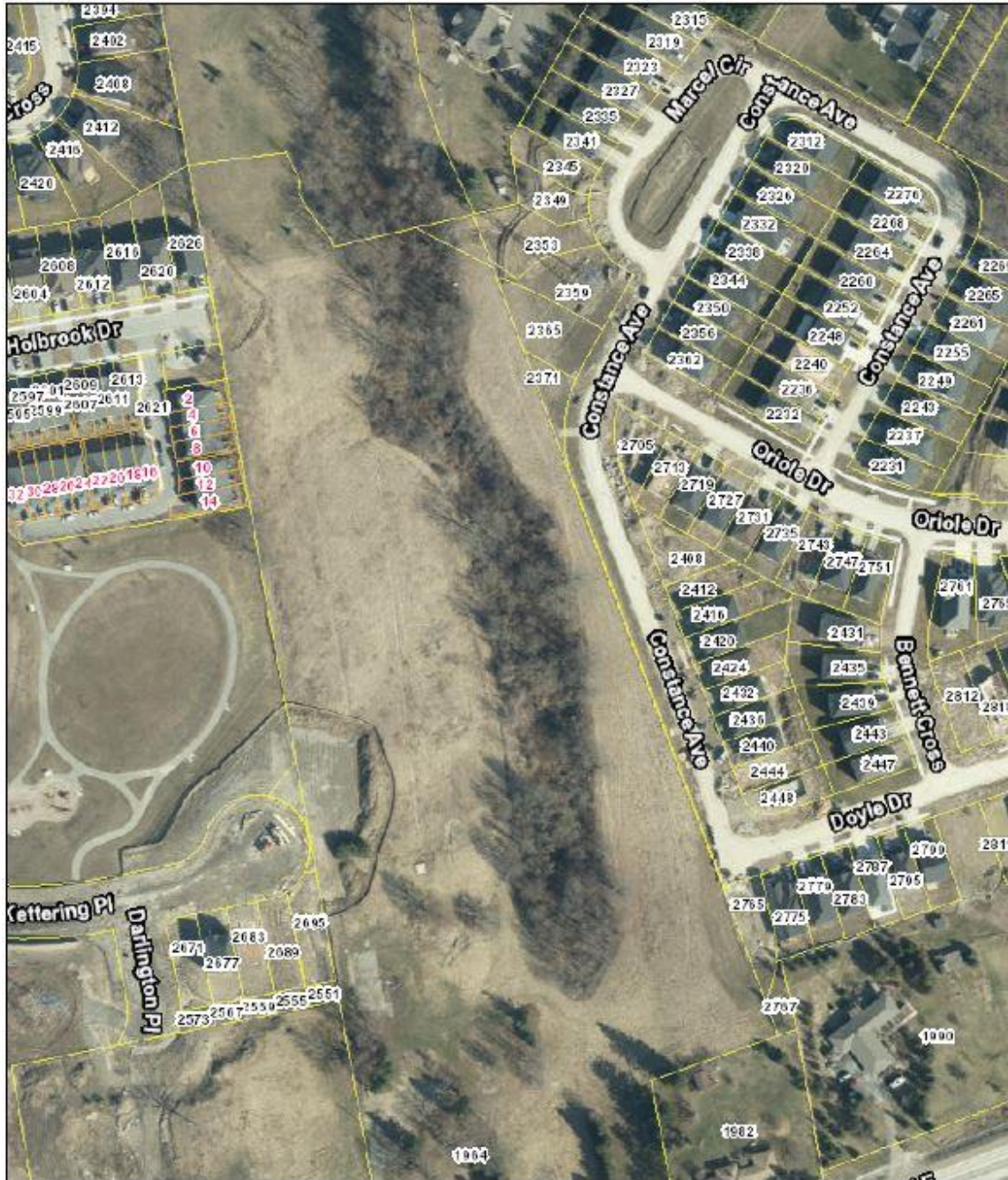
We appreciate these recommendations on page 38 but wonder how they can be mandated or even encouraged.

- o Limit use of commercial fertilizers in areas bordering a habitat feature
- o Limit use of salts or other additives for the control of snow and ice

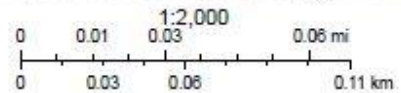
RECOMMENDATION 11: A meeting between the Condo Board and city reps and/or EEPAC, be arranged soon after the Condo Board is convened, to explain why it is important to follow the recommendation re fertilizers and salt, rather than leaving it up to some clause buried in the condo board documents.

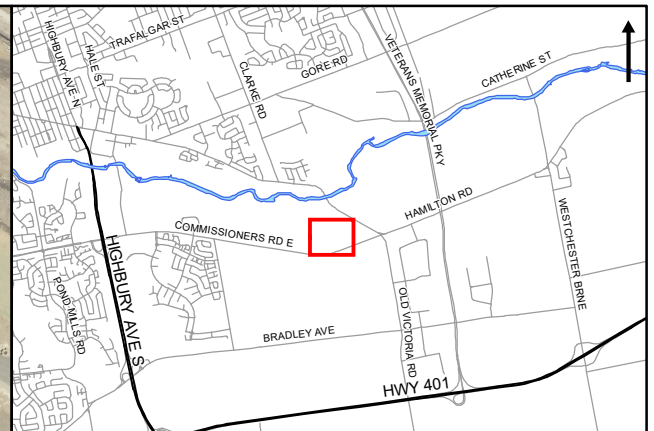
The calculation of the buffer seems to be unique. It would have been helpful to see what the buffer width would have been using current techniques and recommendations as per the work done by Beacon.

Aerial Photos Selector



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Legend

- Subject Lands
- Property parcel
- Proposed Development**
- Easement
- Roads
- Pathway
- Lots
- Development Limits
- Erosion Hazard Limit
- Top of Slope
- Top of Stable Slope
- ELC Community**
- FOD7-4 - Fresh - Moist Black Walnut Lowland Deciduous Forest Type
- FOD9-5 - Fresh - Moist Bitternut Hickory Deciduous Forest Type
- OAO - Open
- SWT2 - Mineral Thicket Swamp Ecosite

Meters

Victoria on the River Phase 6
Environmental Impact Study

Proposed Development Plan

December 2020	1:1,900	Datum: NAD 83 Zone 17 Source: City of London, LIO
P#: 60572621	V#:	

Figure 6

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