

## **Proposed Townhouse Development-Site Plan 4519, 4535 & 4557 Colonel Talbot Road, Lambeth, ON**

Site Plan's Environmental Impact Study (EIS), Preliminary Stormwater Management (SWM), Geotechnical Reports-August 1921 and Hydrogeological Assessment Report-July, 2021 received by EEPAC in December 2021.

Reviewers: Sandy Levin, Randy Trudeau and Berta B. Krichker

Submitted to January 20,2022 meeting of EEPAC

### **Overview - *Minimize and Mitigate Potential Adverse Impacts from Proposed Townhouse Development 4519, 4535 & 4557 Colonel Talbot Road***

1. Ensure that the proposed 30 m buffer/setbacks intended to be created between the property line of the subject property and the UTCA 250 flood lines will be maintained without any future reductions and/or any potential encroachment on the Flood, Erosion Hazardous Areas and/or the Mapped Highly Vulnerable Aquifer Area and Significant Recharge Areas that were identified in the EIS will be minimized.
2. Monitor the water quality drainage/stormwater (surface) discharges from the subject site to the Dingman Creek under the baseline-pre, post and during the construction conditions.
3. Provide required erosion control storage/dissipation mitigation measures for the proposed post-construction storm/drainage flow discharges, eliminate the existing erosion and slope stability deficiencies and to minimize and mitigate any potential adverse impacts on both eroded and vulnerable Dingman Creek banks along the subject properties.
4. Provide more detailed evaluations/calculations on the pre and post-development water balance assessment and support detailed information on the proposed SWM water quality, quantity and additional infiltration LID system (s).

#### **Item #1-Proposed 30 m Buffer**

EIS's recommended 30 m buffers/setbacks that are required to be created to protect important water resources, environmental/ecological conditions, natural heritage features from adverse effects of nearby development in accordance with City's EMG requirements. A 30 m buffer from Dingman Creek and the wetlands (SWTM3 and MAMM I-3) is proposed for this development as a mechanism to protect all these ecological functions. The current proposed development plan includes encroachments by the City's desire for a Multi-Use Trail (3 m wide) and SWM pond within the 30 m wetland and watercourse buffer. Page 31 shows the multi-use trail but it appears not to link to anything. The figure after page page 37 shows the multiuse trail encroaching into both the woodland buffer and the 6 m erosion setback (the latter by 1 m).

These encroachment areas reduce the identified and very critical buffers/setbacks and may adversely impact the existing natural features and functions.

*EEPAC recommends to minimize any encroachments or any potential reductions of the proposed buffers/setbacks and to ensure the proposed development will be in compliance with EMG (2021) buffers/setback requirements, the City's London Plan Policies and requirements, completed and accepted by the City Council, Subwatershed and Municipal Class EA studies for the subject area, MOECP and UTRCA Acts, Regulations and requirements. In accordance with the OWRA definitions, storm drainage and SWM systems, including the SWM Facilities, are considered to be a sewer system. Therefore, the permanent location, maintenance activities and SWM Facility and the Multi-Use Trail and construction activities may impact adversely existing environmental /ecological conditions. It being noted that the previous EMG says there should be a 30 m buffer from the high water mark of the watercourse or 30 m + 0.5 m per 1% of slope.*

*EEPAC also recommends as a condition of development, that units on the west and north side of the property be fenced with no gates which will aid in reducing the impact on the Significant Wildlife Habitat identified for Terrestrial Crayfish.*

*EEPAC also recommends as a condition of development that plants suitable for the site be planted within the buffer to reduce encroachment by residents.*

## **Item #2-Monitor the pre (baseline), post and during construction water quality conditions for drainage/stormwater (surface) discharges**

The EIS recommended a Water Quality Monitoring Program (WQMP) for drainage/stormwater (surface) discharges from the subject site into the Dingman Creek under the post-construction conditions be implemented. However, neither the water quality parameters and methodology/monitoring protocol, nor duration for this WQMP for this program was identified. Also, the preliminary SWM Report recommends that a WQMP for drainage/stormwater (surface) discharges during the construction activities will be implemented for the subject site. However, once again neither the water quality parameters and methodology/monitoring protocol, nor duration for this WQMP was identified.

*EEPAC recommends that WQMPs be undertaken for the subject site for existing and proposed drainage/stormwater (surface) discharges from the subject site into the Dingman Creek under the (baseline)-pre, post and during construction conditions that will include, but will not be limited to, the water quality parameters and methodology/monitoring protocol and WQMPs durations for all identified conditions. These WQMPs will be required to comply with MECP's Provincial Water Quality Objectives (PWQO) under OWRA, the City's Environmental Management Guidelines (EMG), By-Laws, policies to ensure that existing ecological/environmental conditions, including, but not limited to baseflow, banks slope stability and erosion, water quality, as well as fishery, aquatic habitat will not be adversely impacted by the proposed site plan development.*

## **Item #3-Implement maintenance and mitigation measures and design requirements to improve the existing Dingman Creek banks erosion and slope stability deficiencies and provide energy dissipation requirements for the storm flows outlet (s)**

*The EIS identified that both banks were considered to be eroded and vulnerable within the study area. Several groundwater seeps were absorbed along the North bank during the assessments. Seeps are an indicator of groundwater being present and the groundwater contributes to the existing baseflow conditions.*

The south and west portions of the subject property are located within the UTRCA's regulation limits, which includes Dingman Screening and Flood Hazardous Areas. The property is located within the UTRCA mapped Highly Vulnerable Aquifer Area and Significant Recharge Area. EEPAC also notes the UTRCA does not support storm outlets in erosion hazard areas.

The preliminary SWM Report identifies the preliminary design requirements of water quality and water quantity, but does not identify the required erosion storage requirements that are needed to mitigate potential erosive adverse impacts of the increased post-construction flows and velocities and to address, mitigate and improve existing erosion and slope stability deficiencies on both banks of the Dingman Creek .

*EEPAC recommends that the applicable maintenance, mitigation measures and design requirements be incorporated into the site plan with approval requirements to include:*

*a) address, mitigate and eliminate the existing erosion and slope stability deficiencies on both banks of the Dingman Creek along the subject site;*

*b) effective erosion storm drainage storages and/or energy dissipation measures/systems to minimize and/or eliminate adverse effects of additional (post-construction) storm/drainage surface peak flows that will outlet into the Dingman Creek, due to increases in peak flows and velocities (energy of discharges) that may adversely effect this portion of the Dingman Creek existing erosion slope stability conditions . Also the developer's consultant engineer should be required to undertake a stream morphology evaluation in order to efficiently address all the above described deficiencies for this portion of the Dingman Creek, as recommended by the City-Alanna Riley email dated August 20, 2020, that included in the Preliminary SWM report for this site plan.*

**Item #4-Provide more detailed evaluations/calculations on the pre and post-development water balance assessment and support detailed informations on the proposed SWM water quality, quantity and additional proposed infiltration LID system.**

As identified in EIS and SWM reports, the required diversion of the surface/storm flows, increases in impervious services that prevent infiltration (an average runoff coefficient on this site from 0.25-0.35 was approximately increases to 0.64-0.7) and reduction in the trees, vegetation sustainability and all this substantially modified the water balance. The EIS notes on pages 7 and 8 that the 2015 MECP bulletin requires LID to the greatest extent possible.

*EEPAC recommends that the **final SWM report include** more detailed evaluations/calculations on the pre and post-development water balance assessment meet 80% of the pre-development water balance conditions, with the provision of more detailed design information on the proposed SWM water quality, quantity and additional infiltration in the SWM Facility and LID system (s) to support the required water balance calculations will be developed in this final SWM report and will be submitted for the further review by EEPAC.*

### **Item #5 – Construction Impacts**

EEPAC notes there is no information at this time about the timing of or length of construction of the private SWM facility and outlet (which notably would be outside the Urban Growth Boundary).

*EEPAC recommends that construction be limited to a period where it is least likely to have rain or rapid snow melt events. This would reduce the impacts on the slope and avoid, as much as possible, sediment control failures.*

### **Item #6 – Post development**

The Planner letter mentions de-icing salts but there is nothing in EIS regarding the possible impact on the aquatic habitat as the melting snow will end up in the Creek. As there are no clear standards for private snow removal it is likely the development pre and post assumption will use the least expensive (“saltiest”) option for snow and ice removal. There is no data regarding water quality.

*EEPAC recommends the City develop a standard for snow management for developments adjacent to its Natural Heritage System and use this development as a test site to study the effectiveness of such a standard.*