

9345 Elviage Drive EIS

Dated September, 2013

Reviewers: Kristen Delaney, Sandy Levin, Dr. Gabor Sass, Dr. Chris Smart
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It is in the opinion of EEPAC that there is no suitable area for development on the subject site

Recommendation 1: EEPAC recommends that the application be refused given that there is no suitable area within subject lands that can accommodate the proposed development without harm to this part of the Natural Heritage System.

THEME #1 – Inconsistent application of Boundary Delineation Guidelines

Page 21 of the EIS argues that there is a “lot of record” for this property and therefore a “theoretical building envelope needs to be considered.” (p. 21). Not only is this a misinterpretation of guideline 10, it was clearly stated in the staff report to the committee dated March 19, 2013 that an existing “lot of record” has no bearing on whether the parcel of land can be developed on or not.

The EIS also relies on an incorrect application of the section of the Guidelines entitled “Other Planning Considerations.” Optional areas are limited to cultural habitat or plantations, bays or mantels of vegetation along the perimeter of the ESA, or satellite wooded areas; projections of vegetation extending from the main body of the ESA, such as satellite woodlands, marshes, etc. The area in question is none of these. Therefore the other planning considerations listed on page 21 of the EIS are irrelevant. However, this section of the Guideline is applied correctly to include the bay on the subject site.

Recommendation 2: Guideline 10 (residential building envelopes) cannot be used to justify placing a new building in an envelope created after illegal clearing of ER/OS-5 lands. Allowing this application of guideline 10 would create a dangerous precedent. EEPAC recommends that this application of guideline 10 be refused.

Recommendation 3: Guideline 7 is applied correctly and the bay (which was created by illegal logging in the first place) should be within the boundaries of the ESA. To suggest that Guideline 7 is optional as is suggested on page 21 of the report is a misapplication of this section of the Guideline.

Recommendation 4: This site does not meet the criteria in the section “Other Planning Considerations” of the Boundary Delineation Guideline. As such, it should not be considered as an “optional area” as claimed on page 21 of the EIS.

Recommendation 5: Lot of record, as per the city staff report of March 19, 2013, has no basis in law and is irrelevant to the application of the Boundary Delineation Guidelines.

THEME #2 –Buffer identification is completely missing from EIS

A superficial site inspection suggests that the “wetlands” of the subject site are more extensive than implied and extend further up slope into 2a and 2b. The wetlands are generally “fens” and result from discharge of shallow perched aquifers. The distribution of wetlands species like skunk cabbage (p26) are not a result of wicking upwards of swamp water, but indicate the high level of outflow. Great care has to be taken in predicating precise development plans on generalised and inaccurate mapping.

City of London Environmental Management Guidelines p. 128 indicate that an Ecological buffer of >~30m from the boundary of an ESA and PSW is required. The subject lands are part of an ESA and the subject lands contain a PSW, yet no buffers are indicated anywhere in the EIS. Appropriate application of buffers within this site leaves no suitable area for construction of a single family dwelling and septic system.

What the report seems to suggest is that the ESA itself should be a buffer from the building, rather than having a buffer or critical habitat zone identified for the ESA. There is NO buffer for the ESA delineated. The building envelope is essentially buffered from the fen by the swamp! The “buffer” on the east (Figure 6) is community FOD4 (part of the ESA). This creates a “buffer” between the building envelope and the edge of the wetland (Community 6C). The building is 2.5 m from 6C!

Even the EIS, on page 16, applies the criteria for significance to the **subject site itself** and determined that it meets 4 of the 7 criterion for significance and for protection (even though this is an inappropriate application of the Guidelines as they are to be applied to a patch or patch cluster).

Page 26 suggests the wetland is buffered by 5 to 10 m of skunk cabbage. Skunk cabbage only grows in groundwater saturated wet areas, and this area is part of the wetland rather than a buffer. The EIS seems to claim that the proposed “boundary” will protect the features and functions, but there is no plan for how people, domestic animals and invasive plants will be kept out. Indeed, Figure 8 seems to suggest that the building footprint does not include lawn or other modifications to the vegetation. We find it difficult to accept any EIS in this location without a landscaping plan.

The land use assessment does not seem consistent with observed and likely wetland extent and continuity. The wetland should extend downstream. There appears to be a high level groundwater discharge zone at the site that is not adequately mapped, being variously designated 2a, A1.

Recommendation 6: The proposal lacks clarity. The impact is potentially greater than implied. The plan contravenes the proponents own specifications. The plan should be provided in a coherent form using accurate and clear mapping.

Recommendation 7: Given it is illogical and unacceptable to use an ESA to buffer another part of an ESA, this application is contrary to City Policy (section 15 of the Official Plan). The subject site is part of a larger patch (10003) and is part of the ESA. A buffer of at least 30m is required at this site. Applying such a buffer would show that the proposed development could not occur.

THEME #3 – Surface and Ground Water Hydrology

Development will increase runoff intensity from the building site, delivering water to the steep slopes surrounding the building site. Page 27 (and p27 Trow/EXP Jan 26 2011) recommends that roof leaders should be directed away from the adjacent slopes and some could be directed towards the rear of the site and the remainder to the “expanded wetland area to the southeast” (Area W on Figure 9). There is little consideration of how this enhanced runoff will impact the slopes and receiving wetland.

Water well data have been downloaded from Ministry of the Environment in support of the hydrogeological assessment. However, there is no location or elevation data for the wells, no stratigraphic information or references to prior work preventing informed analysis. There is no basis for the hydrogeological description, nor the claim of immunity from development. The site sits very close to a complex set of seasonal and perennial groundwater controlled wetlands that need to be understood if the construction, slope stability, altered runoff and septic seepage are to be demonstrated harmless.

The local scale hydrogeology is indicated to be groundwater recharge. But this seems contrary to the mixed permeability materials encountered during site assessment. Wet season conditions are critical to accurate assessment.

The wetlands are identified as “not hydrogeologically connected” (p1). Given the poor mapping and lack of any substantial information, it is difficult to see how this conclusion can be drawn. A basic analysis of the setting suggests that the wetlands at the site consist of multiple level seeps corresponding to a number of aquifer horizons exposed by the ravine.

Recommendation 8: Any approval must be subject to surface and ground water baseline data being collected and subsequently after construction, monitored by the owner and reported annually to city staff. However, this is an empty recommendation as revisions to surface

water flows are unlikely post construction and should not be relied on as a reason for approval.

Recommendation 9: The intimate relationship between the groundwater discharge wetland, seasonal seepage faces and hydrogeology needs to be correctly mapped and worked out in detail if the intent is to demonstrate slope stability, runoff and seepage are acceptable.

Recommendation 10: Site hydrogeology should be reported with appropriate wet season mapping and conceptual groundwater model.

THEME #4 – Septic System

The design and layout of the septic system indicates a weeping tile system installed in fill material deployed along and west of the driveway and above the wetland. This will significantly alter the site morphology and hydrology, delivering nutrient rich water above the wetland.

Recommendation 11: City Staff and the UTRCA should not approve the location of a septic system in such a challenging location

THEME #5 – Mitigation

The EIS (p. 24) recommends planting 8 trees (2:1) to replace the four mature trees to be removed. This does not offset the illegal clearing that was done by the previous owner in 2004. While it is appreciated that the proponent proposes to remove the phragmites on site, it is unclear how the application of herbicide will not leach into the wetland area and reduce it rather than expand it as stated on page 24. It is unclear how the proponent proposes to establish “an area of upland vegetation adjacent to the expanded wetland area (Area U on Figure 9).” There is no planting plan or species list. Similarly, page 25 wisely recommends the “development and implementation of a buckthorn management plan for the wetland communities.” While this is appreciated, there are no details. More time on such a plan would be time better spent than on a tree preservation report for the house construction and installation of the septic system.

Recommendation 12: A requirement of any agreement with the proponent will require a holding provision for the receipt of a buckthorn management plan with timelines included and the ability for the city to enter the site to determine compliance with the plan.

Recommendation 13: Clear plans of upland and wetland naturalization are needed including species lists.

Recommendation 14: An accurate tree removal request should be provided.

THEME #6 – Construction Impacts

EEPAC does not support construction on this site. The limits of construction are not marked in the EIS and since the construction “envelope” is wider than the building footprint, it is unlikely impacts on the ESA can be avoided. The ridge top site is a challenging location as the apparent building footprint extends close to the crest and

conflicts with wetlands. This leaves no buffer zone or maneuvering/stockpiling space. While all the “standard” mitigation measures are included, this is a unique site and standard procedures are not good enough. Page 26-7 mentions temporary soil stockpiling that may occur. It ignores that there is only one place on the subject site to stockpile soil – south of the building site because north of the building site would block the access to the site or require additional clearing. This is unacceptable.

Recommendation 15: Development not be permitted in such a constricted site with no place for stockpiling and maneuvering.

THEME #7 – Monitoring

Page 26 reviews recommendations for construction monitoring but none for post construction monitoring and follow up. On page 27, the EIS recommends a homeowner brochure that includes “appropriate measures to protect the natural heritage components within and beyond the property boundaries.” Since the EIS specifically excludes lands outside the property boundary, this sudden interest in areas outside is curious. There are no detailed measures provided in the EIS to protect the natural heritage components within the property let alone beyond. If despite EEPAC’s best advice, development is permitted:

Recommendation 16: The proponent must permit the city to approve a monitoring program that would permit the city to inspect the site for at least two years post-construction and to hold a bond to allow for remediation and compensation if the natural heritage features and functions within and beyond the property boundaries experience negative impacts as a result of this site being developed.

Recommendation 17: Clean Construction Protocols must be followed

Recommendation 18: Seeding and planting only with native, non-invasive species consistent with the area, with no lawn.

THEME #8 – Missing Data Collection as per “Data Collection Standards for Ecological Inventory”

Starting at page 7, the EIS lists dates of data collection. When referring back to the Standards, it is clear that the work is incomplete.

- Despite the existence of a tributary of the Dingman, no benthic inventory has been done.
- Vegetation field work was done on Apr 25, May 2, and Aug 10, 2012 (p. 7). Floral inventories were completed Nov 6, 2009 and June 11, 2013 (p. 9). The Standards indicate late May to early September.
- Faunal site inventory done May 15 and June 14 2013. One season only and neither done before dawn or dusk or later (p. 11 and Appendix F).
- No fall migratory bird study was completed (page 11).
- Amphibian monitoring done April 15, May 6, May 15, and June 15, 2013. Study done too late to identify early calling frogs (page 12). The second visit on June

- 15th seems too late to identify mating calls. The Standard cites late March to early April as to when to identify salamanders, wood and chorus frogs, and spring peepers
- Little effort was made to do aquatic habitat work. NHIC identified three potential Species at Risk in the Sandford Drain. The EIS notes (p. 10) that “possible habitat for aquatic species at risk may be further downstream within the Sandford Drain. However, potential impacts from development on this site are not even discussed.

Recommendation 19: Three of the five data collection points for the vegetation survey were done outside the time period specified in the Data Collection Standards. This means the data collection is incomplete and does not meet the Standards required by the City. A complete 5 season inventory needs to be conducted within the required time windows.

Recommendation 20: Potential impacts on the aquatic habitat downstream must be included in the EIS.

THEME #9 – Other relevant points

- This was already adjudicated at the OMB (see city report of March 19, 2013).
- UTRCA actions are not an approval. They are subject to and contingent on city actions.
- The site is part of Patch 10003. On page 7 of the EIS, the author points out data were only collected on the proponent’s property. This “slicing and dicing” an ESA is inappropriate and unscientific. This approach could lead to a patchwork of patches.