

2054 Adelaide Street North

Scoped EIS Dated September, 2012 and Letter to proponent from Biologic re UTRCA comments, October 21, 2013

Reviewers: J. Bird, S. Levin, R. Trudeau, January, 2014

THEME #1 –Hydrology and Storm water management

It appears that none of the submissions to date have addressed the hydrogeological long term impact of the development on the natural heritage features located on the site. EEPAC notes from Figure 6 of the EIS, that for most of the southwest portion of the subject site (except for Blocks 7, 10, 16, and 17 (blocks as per the map included in October 21, 2013 letter), surface water flows towards the wetland. There is no information in the EIS about pre and post water balance for the wetland. As the UTRCA points out in its November 14, 2012 letter:

- There needs to be more discussion about how the wetland is being sustained. How will the sources of water be maintained (i.e. quantity, quality and timing) during and following development?
- Section 5.3 states the EIS will investigate flow through the site, south of the ponds. There was no further mention of how flow will be maintained through the site post development.

EEPAC notes that in its letter of November 14, 2012, the UTRCA has pointed out that a hydrogeological review is needed to determine if the ponds contribute to the function of the wetland and that the results of which must be included in an EIS to determine if the proposed development will impact features and functions. EEPAC agrees with the UTRCA's position.

The previous work on the site for storm water as provided to EEPAC by city staff indicate that major flows will continue overland to existing storm water pond at Sunningdale Road. We are not clear how this will take place. EEPAC would not support any construction that would be in the Patch for outlets.

There is important information contained in the January 27, 2011 Stantec letter to City Staff entitled "Comfort Lands Subdivision Stormwater Management Strategy. " Stantec estimates a post development infiltration deficit of 11,310 cubic meters per year (30% less than pre development). It recommends further detailed work in reviewing hydrogeological conditions on the site at the Design Studies stage to determine the impact of reduced infiltration on the wetland including recommendations for mitigation measures. We are alarmed that post development infiltration will be less than pre-development and that further work should be delayed only until detail design stage. This seems to be too late in the process.

Recommendation 1: EEPAC recommends a hydrogeological study be required to ensure flows and infiltration to the wetland are maintained at pre-development levels and that the post development hydro-period be consistent with the pre development hydro-period.

Recommendation 2: EEPAC agrees with the EIS and the UTRCA that a hydrogeological review is required before development is permitted to proceed. It should be conducted before the change in land use is approved as it may require a change in the land use designations and zoning as well as the design of the subdivision.

Recommendation 3: No construction be allowed in the Patch for outlet pipes.

Recommendation 4: Block 15 on the map included in the October 21, 2013 letter to the proponent is not being considered for development at this time. Therefore EEPAC recommends an EIS addendum or similar review be required prior to development of this Block to determine the then present state of the wetland and the potential impact of additional development on the wetland that may be caused by loss of infiltration and overland flow.

THEME #2 – Patch Evaluation

Although its designation as a Significant Woodland provides protection, EEPAC continues to be of the opinion that patch 02031 is either part of the Arva Moraine ESA or an ESA itself as it meets two or more criteria included in the City's Official Plan.

- a. The subject site is located within the general boundaries of the Arva Moraine ESA as per 15.4.1.1(xx) of the City's Official Plan:

*This complex of uplands and provincial significant wetland vegetation patches is located on the Arva Moraine landform unit located along the northern limit of the City, generally bounded by Fanshawe Park Road, Richmond Street and Highbury Avenue.
(Clause xx added by OPA 438 Dec. 17/09)*

- b. The patch is a link to the Ballymote ESA and adjacent to the woodland to the north located across the City-County border. As the UTRCA points out in its letter of November 14, 2012, this woodland is provincially significant as per the Middlesex Natural Heritage Study (MNHS, July 2003). The wetland within the subject site is Provincially Significant and part of the Arva Moraine Provincially Significant Wetland Complex (MNR, 1999, revised 2009). The EIS Appendix mentions the 1999 Area Plan conclusion that the patch was not an ESA, but we discount the conclusions as the Area Plan pre-dates the decision of the OMB and the MNR that the wetland complex is provincially significant.

Which criteria does the Patch meet?

EEPAC agrees with the conclusion of the EIS that Criterion 2 of the Official Plan has been met:

CRITERION 2

The Area contains high quality natural landform-vegetation communities that are representative of typical pre-settlement conditions of the dominant physiographic units within the London subwatershed region, and/or that have been classified as distinctive in the Province of Ontario

EEPAC also believes that Criterion 1 has been met as the moraine is a unique landform in the region (as noted in the EIS). The EIS discounts this unique feature because it is common in the area. Although Undrumlined Till Plains, Till Moraines and Clay Plains are common physiographic types in Middlesex County (20% of area), only a relatively small proportion (10%) of these areas are covered in woodlands. (from Bowles, 2003 Natural Heritage Study for Middlesex County).

CRITERION 1

The Area contains unusual landforms and/or rare to uncommon natural communities within the country, province or London subwatershed region.

Background: Identification of landforms that reflect geological processes or features instrumental in forming London's landscape or communities that have limited occurrence, abundance or range (distribution) is important for the maintenance of biodiversity including ecosystem, landscape, species and genetic diversity.

Application: Unusual Landforms

National level

: Areas identified by recognized experts as geologically significant (e.g. Ontario Geological Survey)

Provincial level

: Earth Science ANSIs

Regional level:

Expert opinion (e.g. Dreimanis 1963, 1964) and data obtained through the Subwatershed Studies

EEPAC also takes the position that Criterion 6 is met due to the linkages noted above.

CRITERION 6

*The Area serves an important wildlife habitat **or linkage function.***

Background: The focus of this criterion is to identify important “wildlife” habitats or “linkages” between significant natural features. This contributes to overall landscape richness and provides habitat for wildlife (City of London, 1995).

The site fulfills an external linkage or corridor function between two or more significant habitats. The value of a linkage or corridor will be based upon characteristics such as width, quality and length. Linkages may include, but are not limited to:

- *early successional woodlands and plantations;*
- *water bodies, water courses and valley lands;*
- *riparian zones;*
- *steep slopes and ground water discharge areas;*
- *old fields;*
- *hydro and pipeline corridors;*
- *abandoned road and rail allowances;*
- *recreational greenway parks.*

Source Reference: Riley and Mohr (1994)

Recommendation 5: Patch 2013 be designated on Schedule B as an Environmentally Significant Area or included as part of the Arva Moraine Wetland Complex ESA on Schedule B.

Theme #3 – Patch Boundary

EEPAC appreciates the decision to revise the boundary and include the south pond as recommended by EEPAC in its September 19, 2012 review.

EEPAC also believes that the entire white pine plantation (Community 1) should be within the patch boundary as it meets Guideline 8 of the Guidelines for Assessing Ecological Boundaries of Vegetation Patches. It is for this reason that EEPAC does not accept the EIS recommendation that part of the pines be included as private property (see next Theme). EEPAC also points out that in the Scoped EIS for the Forest Hill Estates Phase V subdivision to the east, Stantec wrote:

*Activities such as the dumping of garden waste, compost and other refuse, clearing and manicuring of natural areas and encroachment through the construction of structures within a natural area has direct impacts on a natural feature. Such activities result in the loss of natural vegetation and increased human activity and disturbance within a natural feature. **These impacts are more pronounced where the backyards are not fenced or where the rear lot line is within the significant natural feature.** (EEPAC highlighting)*

THEME #4– Ecological Buffers and Setbacks

EEPAC agrees with the need for a 30 m buffer from the wetland feature. At the same time, EEPAC believes the EIS has incorrectly determined that no buffer is required for the Patch itself. This is in marked contrast to the buffering on the other side of the patch adjacent to the Forest Hill Estates Phase V subdivision. Stantec, in its letter to Planning staff on June 3, 2010, pointed to an average minimum setback of 13.8 metres and 10.2 metres being maintained from the wetland and woodland boundaries, respectively.

The October 21, 2013 letter from Biologic to the proponent asserts that education is sufficient protection and that because the land below the dripline was plowed, it is not necessary to follow the *Guideline Document for the Determination of Ecological Buffers and Development Setbacks*. The Guideline calls for a minimum 10 m setback from the dripline. EEPAC does not accept that because the land was plowed within the dripline in the past that it means that it is no longer available as buffer.

There is no evidence to date to show that the material given to new homeowners has or has not improved stewardship. From the anecdotal evidence of the actions of homeowners in the area abutting the northern part of the Medway Valley Heritage Forest ESA, it appears it is not an effective way to prevent incursions and gates with fences being installed after assumption.

Page 3 of the letter to the proponent also asserts that there are examples of sites with and without buffers in the city. However, there are no specific sites mentioned, nor information provided about pre and post development data collected to prove this point. Without actual data to support this assertion, EEPAC does not see why the Guideline should not be followed.

Recommendation 6: A 10 m buffer from the drip line be the minimum buffer required for the Patch

Recommendation 7: The pine trees should not be placed on private lands as this would make it difficult to fence the boundary as a means to protect the natural heritage feature.

THEME #5 – Faunal survey

EEPAC reiterates its previous position that the inventory of the subject lands is based on survey data that missed the fall period. The city's *Data Collection Standards for Ecological Inventory* point to a full three season inventory. We note from Stantec's work on the other side of the patch, American toad, leopard frogs, brown snake and Eastern garter snake were all found in 2009.

Recommendation 8: EEPAC recommends a fall faunal survey

Theme #6 - Mitigation and Protection during and post construction

EEPAC is disappointed with the limited information about protecting the natural heritage feature after development. The EIS indicates that there are opportunities to address the conservation focus of a number of Partner in Flight birds but there are no plans or suggestions for how to put this idea into action.

EEPAC also believes there are opportunities to protect the features and functions of the Patch during and post construction.

Recommendation 9: Any plantings should be non- invasive native species consistent and appropriate with an area associated with a woodland adjacent to a wetland.

Recommendation 10: Clean Equipment Protocol should be followed during construction.

Recommendation 11: Buckthorn removal/herbiciding should be a condition of any transfer of ownership to the City.

Recommendation 12: A plan to address the conservation focus of PIF species, including timelines, monitoring, responsibilities for doing and paying for, must be a condition of development

Recommendation 13: A plan for monitoring the natural features must be a condition of development. This plan should include timelines (including the frequency of monitoring and reporting), the responsible party for action and for payment (city or developer).

THEME #7 – other matters

EEPAC agrees with the UTRCA and city staff (as mentioned in the October 21, 2013 letter to the proponent) that no trail system be developed.

Recommendation 14: A Guideline for trail planning for Significant Woodlands be developed prior to trails being introduced to woodlands designated as significant on Schedule B-1 of the Official Plan.