Municipality of Leamington: Land Use Compatibility Study Terms of Reference

October 20, 2022

This document serves as a Terms of Reference (ToR) for completing a Land Use Compatibility Study (a Study) within the Municipality of Leamington (the Municipality).

The objective of the ToR is to assist developers and their consultants in scoping and preparing a Study, in support of a planning approval submission to the Municipality.

Note that all Studies may be subject to an independent peer review, at the proponents' expense, at the discretion of the Municipality.

1.0 Study Objective

The objective of a Study prescribed in the ToR is to assess potential adverse effects and recommend separation distances and mitigation measures, if needed, to promote compatibility with surrounding land uses.

All industries in Ontario are required to comply with MECP Regulations and guidelines with respect to air quality and noise. This ToR describes Land Use Compatibility Studies which are separate from the studies required to demonstrate/achieve MECP compliance.

2.0 Applicability

This ToR applies to an application submitted to the Municipality for any development, as defined in the Official Plan as:

"the creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the Planning Act, but does not include:

- *a) activities that create or maintain infrastructure authorized under an environmental assessment process;*
- *b) works subject to the Drainage Act; or*
- *c) underground or surface mining of minerals or advanced exploration on mining lands in significant areas of mineral potential, where advanced exploration has the same meaning as under the Mining Act."*

3.0 Requirement for Pre-**Application Consultation Meeting**

The ToR prescribes that proponents of all proposed sensitive and facility developments are required to participate in preliminary and pre-application consultation meetings with the Municipality. During the preliminary meeting, the Municipality will work with the proponent and proponent's consultants to confirm the requirement for a Land Use Compatibility Study based on the nature of the proposed application and the context of the study area.

4.0 Study Requirements

4.1 Who Can Complete a Study

A Study is to be prepared on behalf of the proponent by consultants that are fully accredited, qualified and/or certified in the relevant matters being evaluated and recommended (for example air quality assessments should be performed by an engineer/practitioner fully accredited in such field, etc.).

4.2 D-Series Guidelines

The intent of the MECP's D-Series of Guidelines is to minimize or prevent, through the use of buffers and separation of uses, the encroachment of incompatible land uses. Guideline D-6 of the D-series delegates responsibility to the planning authorities and requires that they be followed where there is potentially encroachment of sensitive land uses to existing facilities and vice versa.

Guideline D-6 provides an assessment framework which prescribes Recommended Minimum Separation Distances and Potential Influence Areas based on three industrial classifications (i.e., Class I, Class II, and Class III). Where a sensitive land use or facility is proposed, and as determined during a pre-consultation meeting between a proponent and the Municipality, a Study is required to provide an assessment of Land Use Compatibility under the Guideline D-6 framework. Guideline D-2 (Compatibility between Sewage Treatment and Sensitive Land Use) and Guideline D-4 (Land Use On or Near Landfills and Dumps) of the D-series may also be applicable to a Study, depending on the land use types.

Additional components of the Guideline D-6 framework, including definitions and methodologies to be used, are described below.

4.3 Definitions Applicable to the Study

Key definitions applicable to the ToR from relevant Acts, Regulations, policies, and guidelines are as follows:

Actual Influence Area: the overall range within which an adverse effect would be or is experienced. This area is site-specific and may be defined within, or in exceptional circumstances beyond the Potential Influence Area either before, or where applicable, after buffers have been used to reduce, eliminate or otherwise intercept adverse effects.

Adverse effect: as defined in the EPA, means one or more of:

a) impairment of the quality of the natural environment for any use that can be made of it;
b) injury or damage to property or plant or animal life;
c) harm or material discomfort to any person;
d) an adverse effect on the health of any person;
e) impairment of the safety of any person;
f) rendering any property or plant or animal life unfit for human use;
g) loss of enjoyment of normal use of property; and
h) interference with normal conduct of business.

Committed Land Use: as defined in the D-Series Guidelines, a land use in accordance with federal, provincial or municipal plans, by-laws and/or zoning orders, which has been approved by the regulatory authority, but is not yet existing.

Facility: as defined in the D-Series Guidelines, a transportational, commercial, industrial, agricultural, intensive recreational or utilities/services building or structure and/or associated lands (e.g. abattoir, airport, railway, sewage treatment plant, landfill, manufacturing plant, generation stations, sports/concerts stadium, etc.) which produce(s) one or more 'adverse effect(s)' on a neighbouring property or properties.

Industry, Industrial Land Use or Industrial Facility: as defined in Guideline D-6, means a facility or activity relating to: the assemblage and/or storage of substances/goods/raw materials; their processing and/or manufacturing; and/or the packaging and shipping of finished products. Industrial facilities are further refined through categorization into 3 classes (Class I, II, or III) in Guideline D-6, which is provided in Appendix A of Guideline D-6. Note that the examples provided in this table should not be considered a comprehensive list but are to be used to provide examples of each industrial category. Additionally, the examples listed may not apply to all instances of a particular industry type; for example, some electronics manufacturing and repair facilities may meet the definition of a Class II or Class III facility.

Potential Influence Area: an area surrounding the property boundary of an existing or planned industry where adverse effects on surrounding sensitive land uses have a moderate likelihood of occurring. It also represents the area between an industry and sensitive receptors within which technical studies should be performed to demonstrate the uses are compatible prior to approval. These studies may include air dispersion modelling and / or noise modelling to determine the Actual Influence Area. The Potential Influence Areas corresponding to each Industrial Class (I, II, or III) are provided in Section 4.1 of Guideline D-6 and are illustrated in Appendix C of Guideline D-6.

Recommended Minimum Separation Distance: a recommended minimum distance within which adverse effects are highly likely to occur and incompatible development should not normally take place. Section 4.10 of Guideline D-6 allows for development within the Recommended Minimum Separation Distance, in cases of redevelopment, infilling, and transitions to mixed use, provided that the appropriate studies are conducted and that the relevant air quality and noise guidelines are met. The Recommend Minimum Separation Distances corresponding to each Industrial Class (I, II, or III) are provided in Section 4.3 of Guideline D-6 and are illustrated in Appendix C of Guideline D-6.

Sensitive Land Use: as defined in the PPS, means buildings, amenity areas or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated by a nearby major facility. Sensitive land uses may be a part of the natural or built environment. Examples may include, but are not limited to: residences, day care centres, and educational and health facilities. Certain commercial and institutional uses may be deemed sensitive on a case-by-case basis and based on typical operating hours.

4.4 Study Methodologies

A Decision Tree outlining the process for assessing Land Use Compatibility for a proposed sensitive land use and proposed facility is provided in Figure 1a) and 1b), respectively, at the end of the ToR.

4.4.1 Proposed Sensitive Land Use

When a sensitive land use is proposed, a qualified practitioner should perform a Study in accordance with the D-Series Guidelines, as follows:

- Determine the Potential Influence Area and Recommended Minimum Separation Distance for each industrial use in the area in relation to the proposed development site.
  - Note that, in addition to existing land uses, a Study should include consideration of vacant industrial lands and allowable uses in accordance with Guideline D-6, which notes the following:

    "Where there is no existing industrial facility within the area designated or zoned for industrial land use, determination of the potential influence area shall be based upon a hypothetical 'worst case scenario' for which the zoned area is committed."

- For each industrial use where the Potential Influence Area intersects the proposed development site, evaluate and define the Actual Influence Area. This may include identifying any existing approval or other authorization from the Ministry of Environment, Conservation and Parks (MECP) for these industrial uses, such as an Environmental Compliance Approval (ECA) or a registration in the Environmental Activity and Sector Registry (EASR). This may also include technical studies, such as air dispersion modelling, but such studies are not required in every case.
- For each industrial use where the Recommended Minimum Separation Distance or Actual Influence Area intersects with the proposed sensitive use, perform detailed technical studies (see below) for noise, vibration, fugitive dust, and odour, as applicable, to identify compatibility issues. These studies should consider the following:
  - Industries' operations and emissions;
  - Relevant background conditions (such as the existing acoustical environment or ambient air quality);
  - Local meteorology;
  - The presence or absence of complaints related to that industry and any actions undertaken to address the concerns; and
  - The nature of existing sensitive receptors in proximity to the proposed development site.
- Where potentially incompatible land uses are identified, evaluate mitigation measures through further detailed technical studies.
- Upon completion of development construction, inspect all relevant mitigation measures to confirm that Study recommendations, as approved, have been implemented correctly, and are functioning as intended. A final confirmation letter summarizing the inspection is required to be submitted by the proponent's qualified consultant, to the Municipality, as well as confirming that the development is in compliance with the applicable criteria.
- Involvement of the owners of the surrounding industrial uses in completing a Study is considered best practice and is highly recommended. Description of the engagement completed with industry owners, including who was contacted, how they were contacted, and how the input was incorporated into the compatibility study should be provided.
- Provide conclusions including a determination regarding the compatibility of the proposed land use with the existing and planned surrounding uses.
- Provide confirmation that the proposed development is not expected to impact any industry's ability to comply with applicable environmental permissions, such as an ECA, including under a planned expansion scenario.

4.4.2 Proposed Facility

When a facility or facility expansion is proposed, a qualified practitioner should perform a Study in accordance with the D-Series Guidelines, as follows:

- Map out the Potential Influence Area and Recommended Minimum Separation Distance for the proposed industrial development site.
- Where the Potential Influence Area intersects with one or more sensitive land uses, evaluate and determine the Actual Influence Area of the proposed facility. This may include technical studies such as air dispersion modelling, but such studies are not required in every case.
- Where the Minimum Recommended Separation Distance or Actual Influence Area of the proposed facility intersects with one or more sensitive land uses, perform detailed technical studies.
- Where incompatibility issues are identified, evaluate mitigation measures through further detailed technical studies.
- Upon completion of development construction, inspect all relevant mitigation measures to confirm that Study recommendations, as approved, have been implemented correctly, and are functioning as intended. A final confirmation letter summarizing the inspection is required to be submitted by the proponent's qualified consultant, to the Municipality, as well as confirming that the development is in compliance with the applicable criteria.
- Provide conclusions including a determination regarding the compatibility of the proposed land use with the existing and planned surrounding uses.

4.4.3 Detailed Technical Studies

Detailed technical studies should be performed in accordance with the relevant Regulations and guidelines, as follows:

- Perform transportation noise studies for proposed sensitive land uses that are located in proximity to a roadway.
- Perform stationary noise and transportation noise studies in accordance with MECP's NPC-300.
- Perform industrial vibration studies in accordance with NPC-207.
- Perform air quality studies in accordance with MECP publications Guideline A-10: Procedure for Preparing an Emission Summary and Dispersion Modelling (ESDM) Report, Guideline A-11: Atmospheric Dispersion Modelling Guideline for Ontario, and the MECP's Technical Bulletin on the Methodology for Modelling Assessments of Contaminants with 10-Minute Average Standards and Guidelines for Odour under O. Reg. 419/05.

4.4.4 Additional Considerations for Detailed Technical Studies

Project-specific considerations for detailed technical air quality studies:

- In the context of a proposed sensitive land use, the dispersion modelling study should consider the conceptual built forms of a proposed development when determining the impact of building effects. Where no built form has been established, consideration should be given to general building massing when performing the modelling.
- Air quality impacts from transportation corridors may be included in Land Use Compatibility studies for proposed sensitive land uses within proximity to significant roadways (e.g., 400-series highways, major arterial roads), which do not currently exist in the Municipality. However, determination of the requirements for a transportation air quality impact assessment should be determined by a qualified practitioner, and at the discretion of the Municipality.
- Detailed noise studies should be completed for proposed noise sensitive land uses that are located at or above Noise Exposure Forecast/Noise Exposure Projection 25 contours of any airport. It should be noted that certain airport facilities and activities, such as mechanical systems serving terminals, are considered as stationary sources of noise.
- Typically, cumulative air quality impacts and cumulative noise impacts are not required to be assessed as part of a Land Use Compatibility Study. However determination of the requirements for a cumulative assessment should be determined by a qualified practitioner, and at the discretion of the Municipality.

Figure 1a): Decision Tree for Assessing Land Use Compatibility for a Proposed Sensitive Land Use

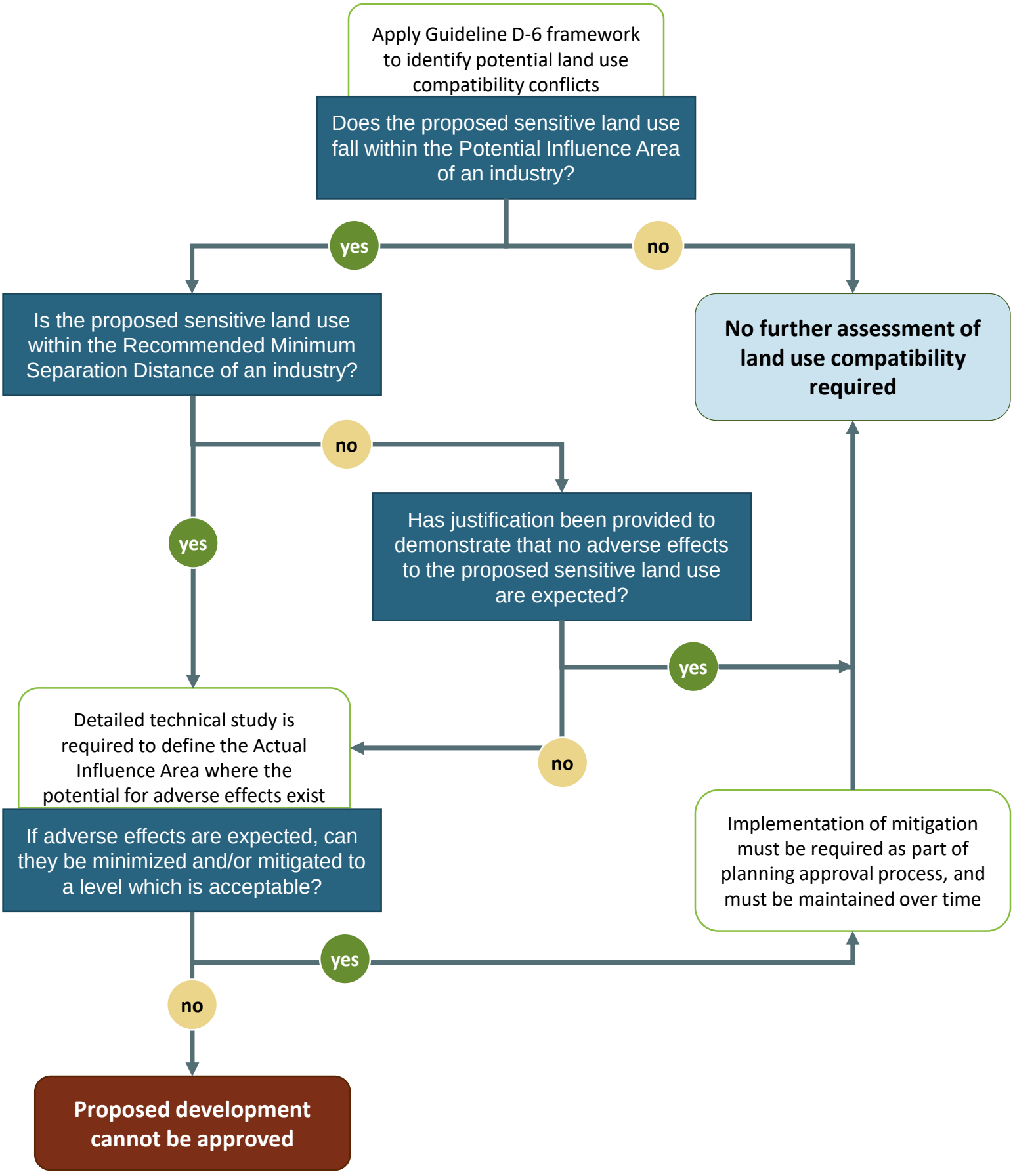

Figure 1b): Decision Tree for Assessing Land Use Compatibility for a Proposed Facility