Land Use Compatibility Guidelines

Regional Official Plan Guidelines

Halton REGION

Halton Region Official Plan Guidelines

The **Regional Official Plan (ROP)** is Halton's guiding document for land use planning. It contains policies that guide decisions related to, among other things, managing growth and its effects on Halton's social, economic and natural environment.

The **ROP Guidelines** are a set of documents that clarify, inform, and aid in the implementation of the Plan's policies.

"This Plan calls for the preparation of certain guidelines or protocols to provide more detailed directions in the implementation of its *policies*."

Halton Region Official Plan [2009] – Section 192

The Guidelines have been prepared in accordance with Section 192 of the ROP. They provide direction and outline approaches that may be used to satisfy the relevant policies of the Plan. They do not introduce additional policy requirements, and, in the event of a conflict between the Guidelines and the Regional Official Plan, the Plan shall prevail.

The Guidelines may be updated from time to time as required through a report to Regional Council.

For more information, visit **halton.ca/ROP** or **halton.ca/ROPguidelines** or call 311.

Land Use Compatibility Guidelines

The **Land Use Compatibility Guidelines** provide guidance on the implementation of the Regional Official Plan's land use compatibility policies which seek to minimize and mitigate potential conflict between non-compatible land uses.

Purpose	The purpose of the **Land Use Compatibility Guidelines** is to: • **provide guidance** and identify a process for assessing land use compatibility.
Application & Use	These guidelines apply to industrial and sensitive land uses in proximity to one another. They may be used to inform Official Plan and Zoning By-law amendments.
Supporting Documents	In addition to the direction provided by the Regional Official Plan and this Guideline, the most recent versions of the following documents should be considered as appropriate: • *Planning Act* R.S.O. 1990 • *Environmental Protection Act* R.S.O. 1990 • Provincial Policy Statement, 2005 • Growth Plan for the Greater Golden Horseshoe, 2006 • Ministry of Environment D-Series Guidelines • Local Official Plans & Zoning By-laws
Version	**Version 1.0 |** This version of the Guidelines was brought before the Inter-Municipal Liaison Committee on June, 18 2014 through Report No. IMLC01-14.

Table of Contents

1.0 Introduction

1.1 Overview

The Land Use Compatibility Guidelines ("the Guidelines") identify how land use compatibility issues may be addressed by municipalities during a development proposal, namely Official Plan or Zoning By-law amendments. The goal of land use compatibility is to minimize adverse effects of "industrial, transportation and utility" uses that emit noise (vibration), odour or air pollution on sensitive uses (e.g. residential).

The definition of "development" in the Regional Official Plan is:

> "the creation of a new lot, a change in land use, or the construction of buildings and structures, any of which requires approval under the Planning Act or that are subject to the Environmental Assessment Act."

1.2 Applicable Policy

Section 143(10) of the Regional Official Plan [2009] calls for the development of Land Use Compatibility Guidelines whose purpose is to:

> "develop, in consultation with the local municipalities, the Province, the Federal government and the railway agencies, Land Use Compatibility Guidelines to minimize the *adverse effects* of noise, vibration, odour and air pollution from industrial, transportation and *utility* sources on *sensitive land uses*, including the application of separation distance between these non-compatible uses."

Further Official Plan policies recognize the Ministry of the Environment's legislation and applicable guidelines that regulate noise, odour and air emissions from industrial, transportation and utility sources. The main legislation being the *Environmental Protection Act* that ensures that no adverse effects are caused to sensitive uses and the public at large.

2.0 Provincial Legislation, Regulations & Guidelines

The Province of Ontario provides legislation to regulate the emissions (noise (vibration), odour and air) from industrial, transportation and utility sources to reduce adverse effects on sensitive uses (residential, institutional, natural heritage). The following provides a listing of several applicable legislation and guidelines. A further list of applicable Provincial legislation and guidelines may be found in Appendix 1 and Appendix 2.

2.1 Ministry of the Environment: *Environmental Protection Act*

The Ontario Ministry of the Environment (MOE) is responsible for protecting clean and safe air, land and water to ensure healthy communities, ecological protection and sustainable development for present and future generations. The MOE fulfills these responsibilities, in part, by ensuring the sources of emissions to the environment are adequately controlled to prevent the potential for *adverse effects*.

The MOE, under the *Environmental Protection Act* approves uses such as industrial, transportation and utility sources of emissions:

> 9. (1) No person shall, except under and in accordance with an environmental compliance approval,
> (a) use, operate, construct, alter, extend or replace any plant, structure, equipment, apparatus, mechanism or thing that may discharge or from which may be discharged a contaminant into any part of the natural environment other than water; or
> (b) alter a process or rate of production with the result that a contaminant may be discharged into any part of the natural environment other than water or the rate or manner of discharge of a contaminant into any part of the natural environment other than water may be altered. R.S.O. 1990, c. E.19, s. 9 (1); 2010, c. 16, Sched. 7, s. 2 (4)

The MOE regulates and prohibits the discharging of contaminants that may cause adverse effects:

> **Prohibition, discharge of contaminant**
> 14. (1) Subject to subsection (2) but despite any other provision of this *Act* or the regulations, a person shall not discharge a contaminant or cause or permit the discharge of a contaminant into the natural environment, if the discharge causes or may cause an adverse effect. 2005, c. 12, s. 1 (5).

The MOE also approves Environmental Assessments (EAs) of proponents of industrial and utility (sewage/wastewater) facilities as well as highways and arterial roadways. This approval process ensures that these sources of emissions (noise, odour, air) do not cause adverse effects to sensitive uses in proximity to them (see Appendix 2 regarding applicable MOE guidelines).

2.1.1 Odour (contaminant)

Detection of 'odour' by a population is considered to be the point where 50% of the population can detect a difference between the odour and 'clean' air.

Under the MOE's Environmental Compliance Approval process, a major facility must undertake an atmospheric dispersion model (approved MOE dispersion models: AERMOD or Screen3) to predict off-property odour concentration. The MOE uses a 10-minute time averaging period for results.

Control, or mitigation measures for facilities producing 'odour' include: production shifting / reformulation / process retrofitting; enhanced dispersion; additives; condensation; absorption; adsorption; biofiltration; and oxidation.

The simplified 'odour' or 'contaminant' complaints procedure protocol for an industrial facility (Class I, II or III) is: 1) report to MOE District Office; 2) Investigate; 3) Remediate; and 4) Report to Complainant.

2.1.2 Noise

The objective of the MOE's Environmental Noise Guideline (NPC-300) is to address the proper control of sources of noise emissions to the environment that affect humans.

For a major facility (as defined in the Provincial Policy Statement and regulated by the Province) to obtain a Certificate of Approval (Noise), a proponent must assess and document the impacts of noise emissions from the facility on Points of Reception (PORs – e.g. residential buildings) in comparison to the MOE's Noise Pollution Control (NPC) sound level limits. If the facility does not comply, a Noise Abatement Action Plan (NAAP) must be prepared and the mitigation measures must be implemented within the MOE's prescribed timelines. The goal of this is to mitigate the facility's noise impacts on the PORs. Once mitigated, an Acoustic Audit is required to be conducted by an independent acoustic consultant. If the facility continues to be non-compliant, further noise mitigation measures are developed and must be implemented.

For a 'major facility' that is a 'resource extraction' operation, the Ministry of Natural Resources requires that the subject site for a Class A licence be designed by a Professional Engineer and a Landscape Architect (both members of their respective professional associations) or other qualified person approved in writing by the Minister (Aggregate Resources Act, s.8(4) (ARA)). For wayside pit extractions, the Minister considers the effect of the operation of the pit or quarry on the environment and nearby communities, amongst many other matters (ARA, s.26(b)). Mitigation measures to ensure the health and safety of adjacent properties may be undertaken through the development of property line setbacks, berms, fencing and vegetation as determined by the Minister to ensure the health and safety of adjacent properties.

2.1.3 Contaminants (Air: particulates)

Any industrial facility must meet the air limits regulations of the Ministry of the Environment's O.Reg. 419/05. To gain an Environmental Compliance Approval, the industrial facility's proponent must use emission factors to quantify the facility's air emissions and undertake engineering calculations as well as the atmospheric dispersion modelling.

2.1.4 MOE Land Use Compatibility Guidelines (D-Series)

The Ministry of Environment (MOE) produced guidelines (D-Series) in the 1990s to guide and direct municipalities when they are assessing land use compatibility during the development of Official Plan policies and for establishing setback distances in Zoning By-laws. The D-Series are used for development applications that require the re-designation (Official Plan Amendment) or rezoning of land uses (Zoning By-law amendment). The MOE's D-Series are only applicable when a:

- new sensitive land use requires a land use amendment and is proposed to be located within the influence, or potential influence, area of an impacting use, such as an existing industrial land use; or when a
- new industrial use requires a land use amendment and is proposed to be located near an existing sensitive residential use.

The D-Series identifies "potential areas of influence" in which adverse effects '*may*' be experienced within industrial use areas as follows:

Ministry of Environment: D-Series – INDUSTRIAL USES Potential Areas of Influence and Minimum separation Distances*		
Industrial Facility	Potential Area of Influence (metres)	Minimum Separation Distance (metres)
Class I	70	20
Class II	300	70
Class III	1000	300

**Areas of influence are site specific and the above are provided by the MOE as reference. These influence areas may be reduced and adverse effects mitigated through industrial controls.*

The types of industrial facilities and how they may be classified by the MOE are provided in Appendix 3. Within section 4.4.5 Vacant Industrial, D-6 series, the following should be noted if "a proposed development falls within potential areas of influence of existing and committed uses": "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."

2.2 Ministry of Transportation: *Public Transportation and Highway Improvement Act*

The Ministry of Transportation requires and approves Traffic Impact Studies prior to municipal approval of secondary plans and subdivisions (i.e. 'new growth and development' near transportation corridors).

The Ministry of Transportation recommends that municipalities include the following text within the General Provisions section of an Official Plan:

> In addition to all the applicable municipal requirements, all proposed development located adjacent to and in the vicinity of a provincial highway within MTO's *permit control area* under the Public Transportation and Highway Improvement Act (PTHIA) will also be subject to MTO approval. Early consultation with the MTO is encouraged to ensure the integration of municipal planning initiatives with provincial transportation planning. Any new areas in the municipality identified for future development that are located adjacent to or in the vicinity of a provincial highway or interchange/intersection within MTO's permit control area will be subject to MTO's policies, standards and requirements. Direct access will be discouraged and often prohibited.

Diagrams that illustrate the MTO's 'control area' are provided in Appendix 4. The following identifies the regulated 'control area' of developing new buildings and structures near Provincial highways:

MTO: Control Area and Statutory Authority under *Public Transportation and Highway Improvement Act*	
An MTO permit is required for the following structures	Within this distance
Place a building, structure, entrance or any road	**45 m** of the limit of any highway
	180 m of the centre point of any intersection (on King's Highways)
	395 m of the centre point of any interchange (on controlled-access highways)
Place a sign	**400 m** of the limit of the highway
Change the use of land in a way that	**800 m** of the limit of the highway

will generate large amounts of traffic	

2.3 Separation Distances

Implementation of separation distances between emission sources (industrial, transportation, utility) and sensitive land uses is undertaken by local municipalities through development of new Zoning By-laws. Zoning By-law regulations identify area-specific 'incompatible' land use separation distances that are based on studies prepared by qualified professionals (e.g. professional engineers who undertake noise and air quality studies).

3.0 Guidelines

The following chart identifies the policy and regulatory amendment processes under the *Planning Act* and the *Environmental Protection Act* pertaining to land uses near industrial, transportation and utility sources.

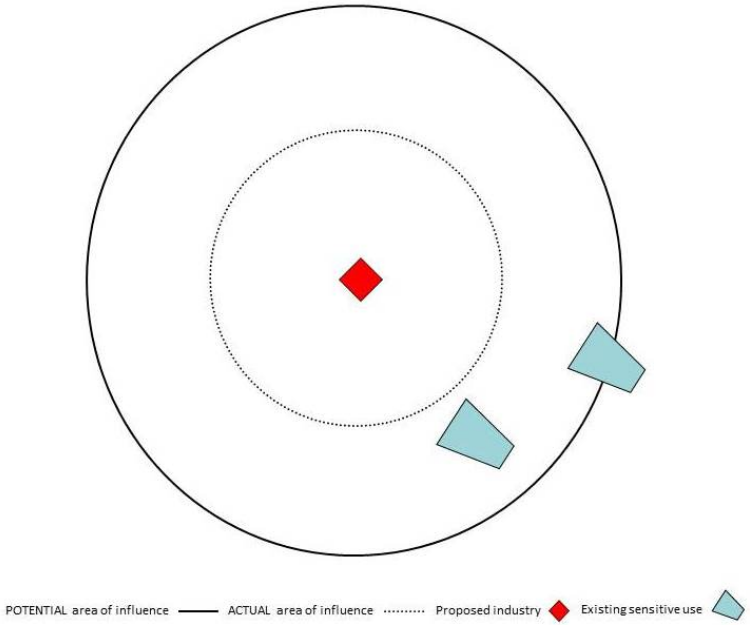
3.1 Official Plan/Zoning By-law Amendment: Class III Industrial Facility proposed near Existing Sensitive Land Uses

The Ministry of the Environment requires any Class III Industrial Facility to submit an application regarding any new, proposed industrial use. The application for MOE compliance must identify the proposed structure's noise, odour and air emissions in context of existing Official Plan designations and Zoning By-law districts within the vicinity of the new use. The local planning approval authority would request the Certificate of Compliance from the 'new' industrial use prior to development approvals. The following identifies the applicable legislation, the type of application and the statutory authority for this situation:

New Industrial Use proposed near Existing Sensitive Land Uses:			
Applicable Legislation	**Application**	**Statutory Authority**	**Required Studies for Compliance**
Environmental Protection Act	Compliance Approval	Ministry of the Environment	• Air Quality Impact Assessment • Acoustic Assessment • Odour Studies • Existing Land Use Designations & Zoning in Vicinity of Proposed Use

3.1.1 Example of Proposed, New Industrial Use near Existing Sensitive Use

Requiring an Official Plan Amendment and Zoning By-law Amendment:



Step 1: A new industrial use proponent determines that the use is a Class III Industrial Facility and applies to the MOE for a Compliance Approval.

Step 2: It is determined that the new industrial use's potential area of influence is 1000 m. The proponent identifies in the MOE Compliance Approval's application any lands designated or zoned for sensitive uses within this potential area of influence.

Step 3: As existing sensitive land uses fall within the potential area of influence of the proposed Class III Industrial Facility, an Air Quality Impact Assessment, prepared by a qualified Professional Engineer, is submitted to the MOE to ensure compliance with Provincial regulatory standards. The MOE determines that the actual area of influence of the proposed facility is smaller than the potential area of influence and that the existing sensitive land uses fall outside of this area. Therefore no adverse effects will be felt.

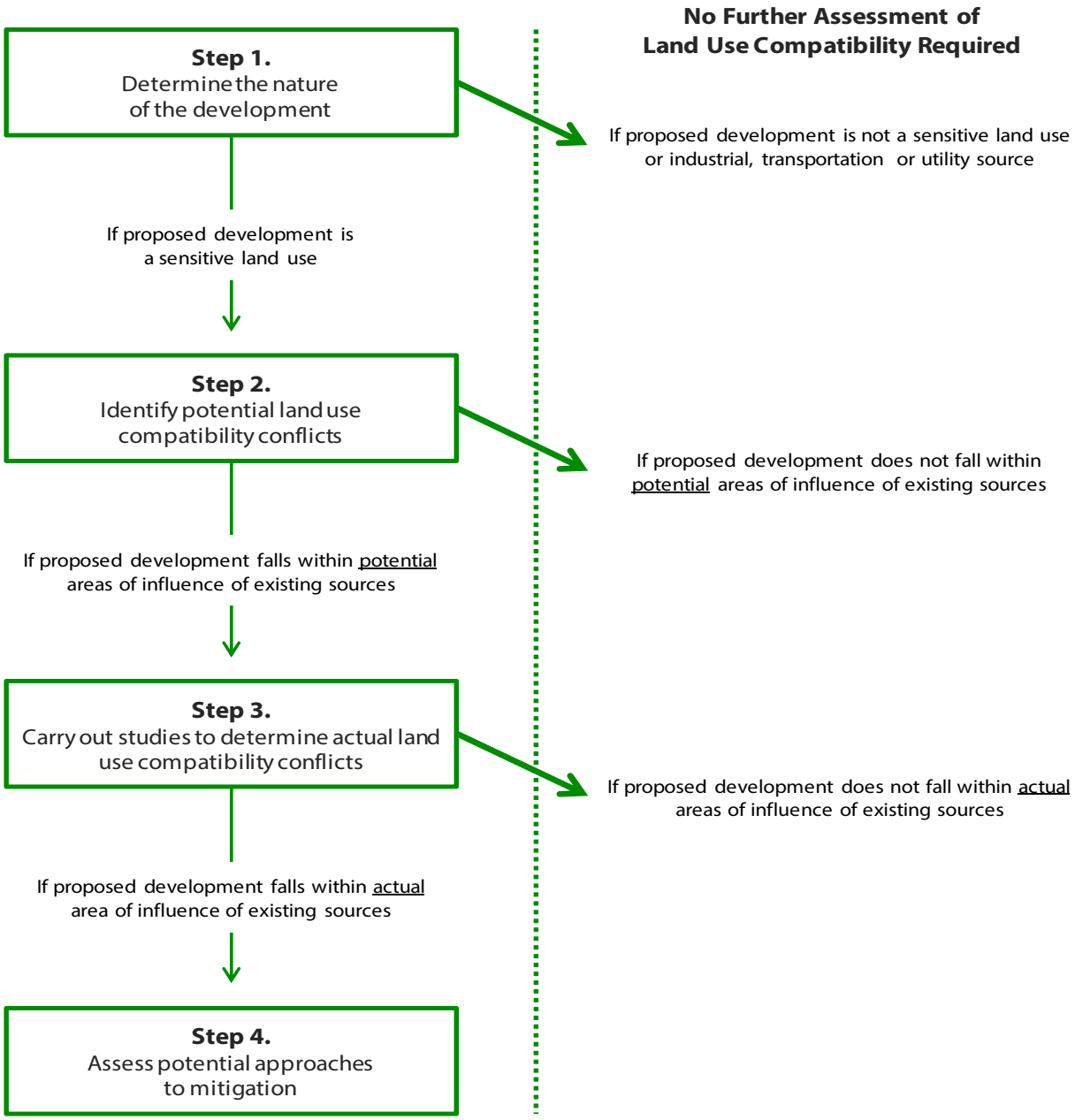
Step 4: As no land use compatibility problems have been identified, the site may be re-designated and rezoned for the industrial use, and the new industrial facility may be built.

3.2 Official Plan/Zoning By-law Amendment for a New Sensitive Land Use proposed near Existing Industrial Use

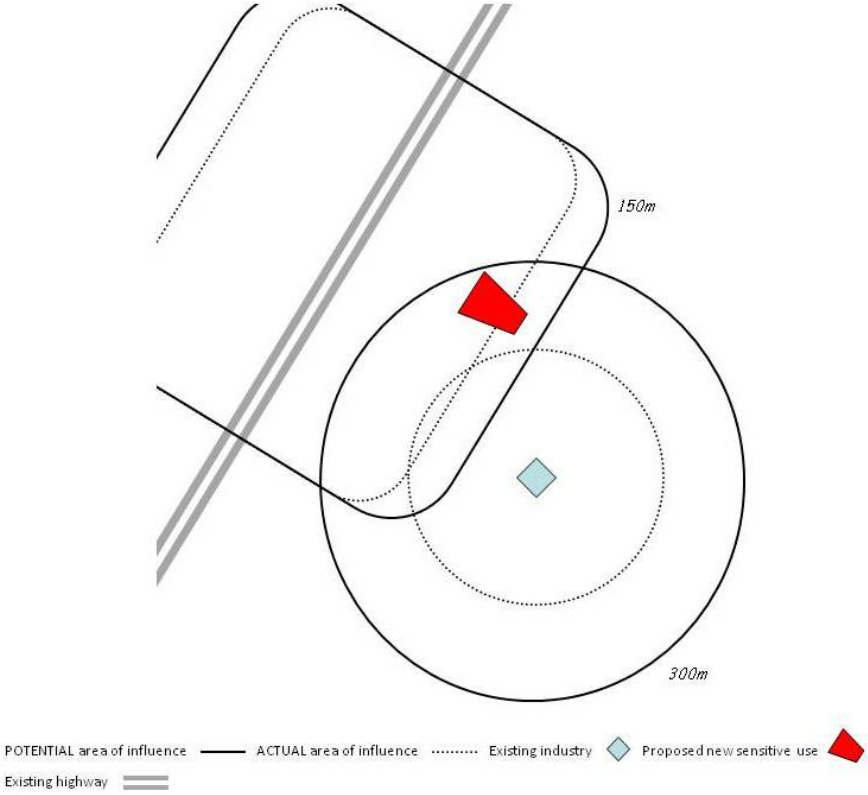
The proponent of a 'new' sensitive land use near an existing industrial use may require an Official Plan Amendment and Zoning By-law Amendment, and as part of those amendments, it would be necessary to meet the requirements as outlined in the table below:

New Sensitive Use proposed near Existing Industrial Land Uses:			
Applicable Legislation	**Application**	**Statutory Authority**	**Official Plan & Zoning By-law Amendment studies that may be requested (Local OP criteria)**
Environmental Protection Act	Compliance Approval	Ministry of the Environment	• Approved Certificate of Compliance for Industrial Use (area of influence)
Planning Act	OP/ZB Amendment	Delegated Approval Authority	• Local Official Plan policies and Zoning By-laws identifying criteria and studies to be met for a specific land use amendment

3.2.1 Example of Official Plan/Zoning By-law Amendment Decision Tree for Local Municipalities (New Sensitive Land Use)



3.2.2. Example - Proposed New Sensitive Land Use



Step 1: The proponent for the development of a sensitive land use applies for an Official Plan and/or Zoning By-law amendment to permit a sensitive use on a parcel of land.

Step 2: The local municipality identifies the criteria to be met by the applicant to fulfill the requirements of a complete application, as the proposed 'new' sensitive use may fall within a potential area of influence.

Step 3: The applicant fulfills the requirements of a complete application. The requirements may include that the applicant provides a justification report based on studies regarding land use compatibility. The report may determine that the actual area of influence of the existing industrial facility is smaller than the potential area of influence identified by the MOE's D-Series and no adverse effects will impact the proposed sensitive land use. The justification report may determine that the new sensitive use falls within the actual area of influence of the highway.

Step 4: The local official plan policies and Zoning By-law regulations identify the applicable mitigation measures that may be required on the property to support the reduction of the adverse effects of the highway on the proposed sensitive land use.

4.0 Separation Distances and Other Mitigation Measures

The mitigation approaches used to limit adverse effects due to land use compatibility are determined through Zoning By-law regulations and Provincial legislation. The examples below are included for illustrative purposes only and may not be appropriate or adequate to satisfactorily reduce adverse effects in all cases.

4.1 Separation distances

Separation distances are the most common approach to mitigation between diverse land uses. In cases of land use planning, assessments evaluating noise, vibration, odour and air quality may be conducted or requested by local municipalities prior to lands being designated in local official plans. These assessments may determine actual areas of influence and possible separation distances for particular facilities and sources. Other mitigation approaches are identified through Zoning By-laws that assist in minimizing adverse effects of land uses on one another.

Examples

- ***The development of a Comprehensive Zoning By-law***: Potential areas of influence will be used to create appropriate separation distances between incompatible land uses and zoned accordingly.
- ***A new sensitive use is proposed on lands zoned for industrial use that is in proximity to an existing industrial facility and the development proponent requires a Zoning By-law amendment:*** As the sensitive use falls within the potential area of influence of the existing industrial facility, the local municipality may require that the development proponent submit a justification report based on studies undertaken by qualified professionals (e.g. engineers, architects, planners) to determine the compatibility of the proposed use in context of existing land uses. If the sensitive use falls within the actual area of influence of the industrial facility, site specific mitigation measures may be identified by the local municipality through the Zoning By-law amendment.

4.2 Zoning By-law Setbacks: Site layout

The potential impact of adverse effects may vary across a specific lot's area. In the instance of a new emission source being built, the activities most likely to cause adverse effects may be located as far away as possible from neighbouring sensitive land use areas.

In the case of development applications, such as consents or site plans, the Zoning By-law regulates building setbacks from property lines that vary dependent upon the zoning district in which a parcel is located. Zoning By-law regulations for industrial uses may stipulate that new structures should be placed to the boundary line furthest away from sensitive land uses.

4.3 Local Municipal Site Plan Control: Site Specific Mitigation Measures

A variety of physical features may be incorporated through local municipal site plan control to support the mitigation of adverse effects of one land use from another.

Examples

- ***Acoustic barriers:*** Specially designed fences or berms (mounds of earth) that attenuate noise from highways and other sources. Acoustic barrier standards are determined by the Transportation departments of municipalities.

- ***Vegetation:*** Vegetation is known to act as a carbon sink to air contaminants. Vegetation may also be used as a buffer for noise. While a single strip of planting may not have a significant mitigative effect other than to visually screen land uses, stands of vegetation, or tiered vegetative plantings, may provide a mitigative effect.

4.4 Building design

The design of a building may be used to protect public health and safety by mitigating adverse impacts. The building's design is regulated under the Ontario Building Code Act, 1992. This Act requires that a range of individuals and firms responsible for activities regulated under the Act be qualified and registered. These requirements apply to: building officials, certain classes of designers, private companies hired by municipalities to conduct inspections and on-site sewage system installers. To be qualified in a particular field of practice, an individual must successfully complete the examination program related to their area of practice. Individuals or their firms then register with the Ministry of Municipal Affairs and Housing.

5.0 Conclusion

The Land Use Compatibility Guidelines support the implementation of Regional Official Plan policies to identify development application processes for new industrial or sensitive land uses based on the Ministry of the Environment's D-Series. The Guidelines provide a possible approach to assessing land use compatibility issues in Halton.

Appendix 1: Federal/Provincial Legislation

Federal and Provincial Legislation: Noise, Odour, Contaminants

This table identifies Government of Canada and the Province of Ontario's applicable legislation guiding odour, noise and contaminant emissions from industrial, transportation and utility sources.

Canadian & Provincial Legislation regulating odour/noise/contaminant emissions	
Major Facility Type	**Applicable Legislation/Regulation**
Airports	Government of Canada: Aircraft Noise Management; Noise Exposure Forecast (NEF) systems; Noise Exposure Projections (NEP); TP 1247 – Aviation – Land Use in the Vicinity of Airports National/Provincial Building Codes
Transportation Infrastructure/Corridors	Ministry of Transportation: Environmental Protection Requirements for Transportation Planning and Highway Design, Construction, Operation and Maintenance (Oct, 2006)(Noise, Air, Land Use) Ministry of Environment: *Environmental Protection Act* (EA approvals)
Rail Facilities	Government of Canada: *Canada Transportation Act*
Marine Facilities	Government of Canada: *Canada Marine Act; Canadian Environmental Protection Act*
Sewage Treatment Facilities	Ministry of Environment: *Environmental Protection Act*; Ministry of Natural Resources: *Nutrient Management Act*
Waste Management Systems	Ministry of Environment: *Environmental Protection Act*; Ministry of Natural Resources: *Nutrient Management Act*
Oil/Gas Pipelines	Government of Canada
General Industry	Government of Canada: National Pollutant Release Inventory (NPRI) Ministry of Environment: *Environmental Protection Act* (Environmental Compliance Approvals) Toxics Reduction Act, O.Reg. 455/09 Designed to Reduce Front-End Toxic Substances
Energy Generation Facilities/Transmission Systems	Ministry of Environment: *Green Energy Act* *O.Reg. 359/09* *Electricity Act* *Energy Board Act* (Board approves construction of new transmission/distribution facilities) *Reliable Energy and Consumer Protection Act* Government of Canada: *Radiocommunication Act* (cell towers) Industry Canada: CPC-02-0-03 Radiocommunication and Broadcasting Antenna Systems Government of Canada: *Canadian Environmental Assessment Act* (Broadcast Antenna)
Resource Extraction Activities	Ministry of Natural Resources: *Aggregate Resources Act*, Provincial Standards V.1: Aggregate Licences (Cat. 1 to 8); Aggregate Permits (Cat. 9 to 13) Ministry of Housing & Municipal Affairs: *Planning Act* (PPS 2014 – man-made hazards/public health and safety)

Appendix 2: Federal/Provincial Regulations and Standards

Federal and Provincial Regulations and Standards: Noise, Odour, Contaminants

The following table expands upon Appendix 1's applicable legislation and provides the relevant regulations and guidelines for noise (includes vibration), odour and contaminant emissions:

Federal and Provincial Regulations/Guidelines Pertaining to noise, odour and contaminant emissions on Sensitive Land Uses	
Emission	**Regulations/guidelines/Separation Distances**
Noise (vibration)	O.Reg. 349/09 Renewable Energy Approvals Technical Guide to REAs (infrasound, sound, etc) MOE: Air & Noise Certificate of Approval (including Acoustic Assessment Report) Environmental Noise Guideline Publications: NPC-205, Sound Level limits for Stationary Sources Class 1 & 2 areas (urban); NPC-232 Sound Level limits for stationary sources Class 3 areas (rural); NPC-233 Stationary Sources of Noise; NPC-300 stationary and transportation sources; NPC– 119 Blasting *Radiocommunication Act* (Cell Towers) Health Canada - Cell Towers > 15 m: Limits of Human Exposure to Radiofrequency Electromagnetic Energy in the Frequency Range from 3 kHz to 300GHz – Safety Code 6 (2009)Safety Code 6, Radio Standards Specification 102 Industry Canada: Guidelines for the Protection of the General Public in Compliance with Safety Code 6 Industry Canada: Antenna Tower Siting Policy Industry Canada: Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) Section 9, EPA, R.S.O. 1990 – Sample Application Package for an Air & Noise Certificate of Approval including an Acoustic Assessment Report; Landfill Gas Collection and Control System Noise Pollution Control (NPC) guidelines O.Reg.116/01 Electricity Projects (Category C, Individual EA – Transmission Corridor)
Odour	MOE: Certificate of Approval (AERMOD dispersion model; including Acoustic Assessment Report) O.Reg. 349/09 Renewable Energy Approvals Technical Guide to REAs O.Reg. 419/05 Air (see contaminants) Methodology for Modelling Assessments of Contaminants with 10-Minute Average Standards and Guidelines under O.Reg. 419/05 Guideline A-8 Guideline for the Implementation of Canada-wide Standards for Emissions of Mercury and of Dioxins and Furans and Monitoring and Reporting Requirements Guideline A-12: Guideline for the Implementation of Air Standards in Ontario 127/01, amendment O.Reg. 37/06 Airborne Contaminant Discharge Monitoring and Reporting Guideline for the Production of Compost
Contaminants	http://www.ontario.ca/environment-and-energy/air-and-noise-approvals-sample-applications-guides-and-resources MOE: Protocol for updated Certificates of Approval for Air Emissions MOE: Air & Noise Certificate of Approval O.Reg. 349/09 Renewable Energy Approvals Technical Guide to REAs O.Reg. 102/94 Waste – Industrial, Commercial, Institutional Sectors Guide to Waste Audits and Waste Reduction Work Plans for the Industrial, Commercial and Institutional Sectors as Required under O.Reg. 102/94) EPA, ChapterE-19,ss.27,30,31 and 32; Guide for Applying for Approval of a Hauled Sewage septage) or processed organic waste (biosolids) waste disposal site – water and sewage works approvals C-9 Approval of Waste Management Systems for Dust Suppression using a Waste Material O.Reg. 419/05 Air (prohibits discharging contaminants exceeding the standards at POI "where human activities regularly occur at a time when those activities regularly occur" (POI – Point of Intercept) Guide to Environmental Assessment Requirements for Waste Management Projects (O.Reg.101/07) Protocol for Updating Certificates of Approval for Waste Management Guidelines for environmental protection measures at chemical and waste storage facilities

	Guideline A-1: Combustion, Air Pollution Control and Monitoring Requirements for Biomedical Waste Incinerators in Ontario Procedure B-7-1 Determination of Contaminant Limits and Attenuation Zones Guideline C-3 Approval Responsibilities for Waste Disposal (EPA, V.ss.27,30,31,32 and 39,) June, 2010 Guideline A-7: Air Pollution Control, Design and Operation Guidelines for Municipal Waste Thermal Treatment Facilities Technical Standards to Manage Air Pollution, Version 2, March 5, 2014 PIBs # 7306e01 O.Reg. 455/09 Toxics Reduction O.Reg.346 Air Dispersion Modelling Procedure for Preparing an Emission Summary and Dispersion Modelling Report Standards and Guidelines to Support Air Pollution – Local Air Quality (sorted by Chemical Abstracts Services (CAS) Registry Number) Standards and Guidelines to Support Air Pollution – Local Air Quality (by Contaminant Name) A Screening Tool for Ontario Regulation 419: Air Pollution – Local Air Quality Emission Summary and Dispersion Modelling Report Check-List Air Dispersion Modelling Guideline for Ontario Appendix to Regulation 346 General – Air Pollution Site Specific: Guideline for the Implementation of Air Standards in Ontario Guide to Requesting an Alternative Air Standard Guide to Applying for Registration to the Technical Standards Registry

Appendix 3 Industrial Facility Classification Table

Industrial Facility Classification Table

The following table identifies the types of industrial facilities as they may be categorized by the MOE's industrial 'class' system. This table is adapted from the Province of Ontario's Procedure D-6-1, Appendix A: Industrial Categorization Criteria.

Ministry of Environment: D-Series' Industrial Categorization Criteria			
Item	**Class 1**	**Class 2**	**Class 3**
Noise	• Sound not audible off property	• Sound occasionally audible off property	• Sound frequently audible off property
Dust and /or Odour	• Infrequent and not intense	• Frequent and occasionally intense	• Persistent and/or intense
Vibration	• No ground-borne vibration on plant property	• Possible ground-borne vibration, but cannot be perceived off property	• Ground-borne vibration can frequently be perceived off property
Air Quality	• Low probability of fugitive emissions	• Occasional outputs of either point source or fugitive emissions	• High probability of fugitive emissions
Scale of Production	• Small scale plant or scale is irrelevant in relation to all other criteria for this Class	• Medium level of production allowed	• Large production levels
Outside Storage	• Minimal storage	• Outside storage permitted	• Outside storage of raw and finished products
Process	• Self-contained plant or building	• Open process – outdoor storage of wastes or materials	• Open process – outdoor storage of wastes or materials
Process Outputs	• Produces/stores a packaged product	• Periodic outputs of minor annoyance	• Frequent outputs of major annoyances
Possibility of Fugitive Emissions	• Low probability of fugitive emissions	• Low probability of fugitive emissions	• High probability of fugitive emission
Hours of Operation	• Daytime operations only	• Shift operations permitted	• Daily shift operations permitted
On-site Movement	• Infrequent movement of products and/or heavy trucks	• Frequent movement of products and/or heavy trucks with the majority of movements during daytime hours	• Continuous movement of products and employees
Examples (not comprehensive)	• Electronics manufacturing and repair • Furniture repair and refinishing • Beverages bottling • Auto parts supply • Packaging and crafting services • Distribution of dairy products • Laundry and linen supply	• Magazine printing • Paint spray booths • Metal command • Electrical production manufacturing • Manufacturing of dairy products • Dry cleaning services • Feed packing plant	• Manufacturing of paint and varnish • Organic chemicals manufacturing • Breweries • Solvent recovery plants Soaps and detergent manufacturing • Manufacturing of resins and costing • Metal manufacturing

Appendix 4 MTO Highway Permit Control Area

Ministry of Transportation: Highway Permit Control Area

The following is taken directly from the Ministry of Transportation's website: www.mto.gov.on.ca:

"**When is an MTO permit required?**
You need an MTO permit for the following:

- New entrance onto a provincial highway, including temporary accesses;
- New entrance onto a public road that is within MTO's permit control area;
- Change in location or use of an existing entrance onto a provincial highway;
- Change in location or use of an existing entrance onto a public road that is within MTO's permit control area;
- Change in land use within MTO's permit control area;
- Change in property ownership
- Paving an existing gravel entrance."

"Each OP should include the following policy under the General Provisions section of the OP, to notify landowners adjacent to a provincial highway of the mandate of MTO:

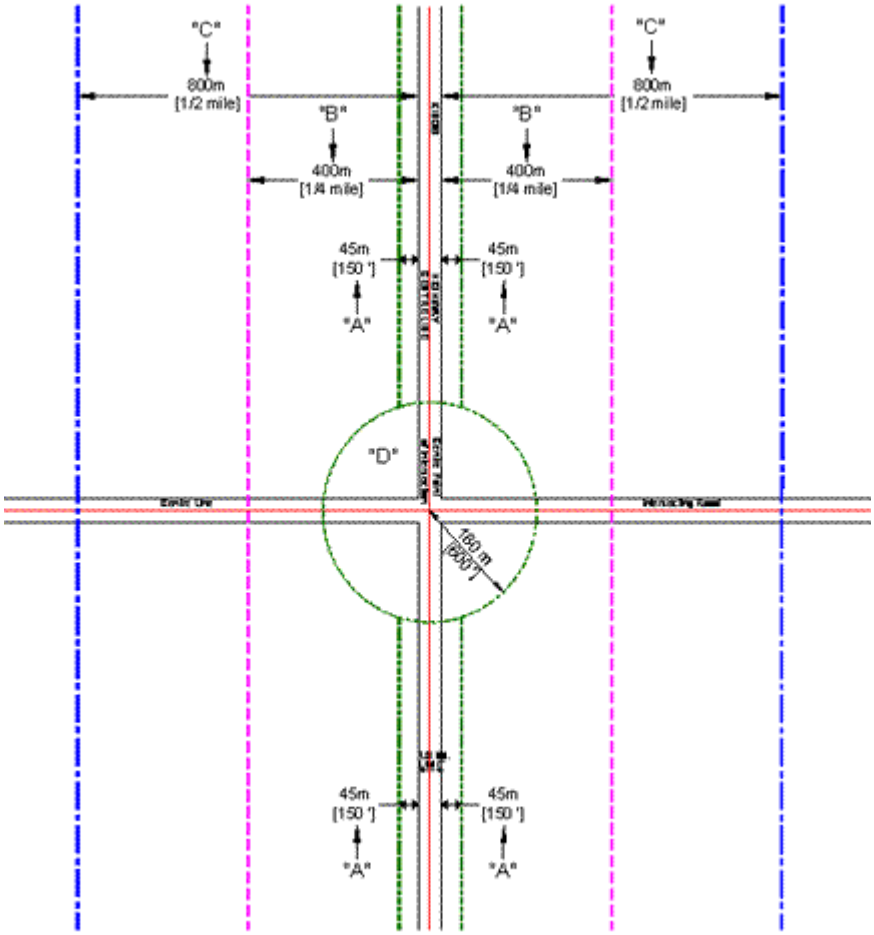
"In addition to all the applicable municipal requirements, all proposed development located adjacent to and in the vicinity of a provincial highway within MTO's permit control area under the *Public Transportation and Highway Improvement Act* (PTHIA) will also be subject to MTO approval. Early consultation with the MTO is encouraged to ensure the integration of municipal planning initiatives with provincial transportation planning. Any new areas in the municipality identified for future development that are located adjacent to or in the vicinity of a provincial highway or interchange/intersection within MTO's permit control area will be subject to MTO's policies, standards and requirements. Direct access will be discouraged and often prohibited."
http://www.mto.gov.on.ca/english/engineering/management/corridor/municipal-guideline/standards.shtml#section_three_three_five

Summary of the Ministry's control area and 'statutory authority' under the *Public Transportation and Highway Improvement Act*

An MTO permit is required if you want to...	**Within this distance**
Place a building, structure, entrance or any road	**45 m** of the limit of any highway
	180 m of the centre point of any intersection (on King's Highways)
	395 m of the centre point of any interchange (on controlled-access highways)
Place a sign	**400 m** of the limit of the highway
Major developments or uses i.e. shopping centre, stadium, fair ground, race track, drive-in theatre or any other purpose that causes persons to congregate in large numbers	**800 m** of the limit of the highway

The following two figures illustrate the extent of MTO's permit control area for King's Highways and controlled-access highways.

Figure 1: MTO's Permit Control Area – King's Highway



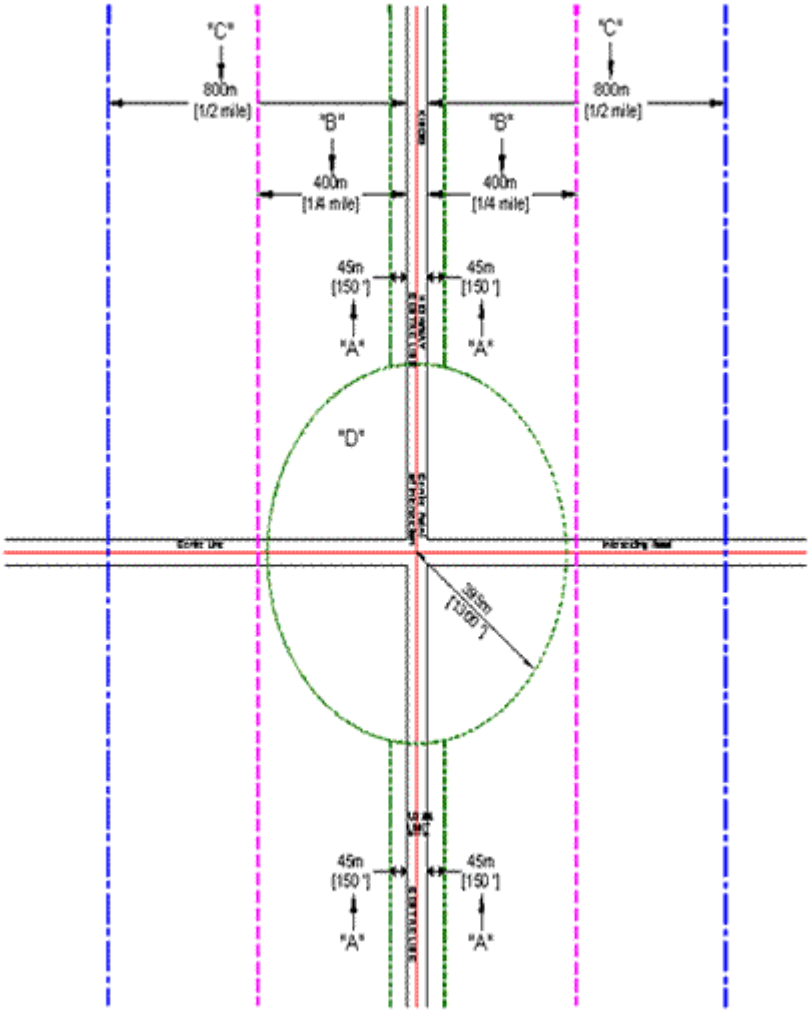
A: 45 m Control Area: placement of buildings or other structures or any road

B: 400 m Control Area: placement of signs

C: 800 m Control Area: use any land for the purposes of large traffic generators

D: 180 m Control Area: placement of buildings or other structures, entrances or any road within 180 metres of the centre point of an interchange/intersection

Figure 2: MTO's Permit Control Area – Controlled Access Highway



A: 45 m Control Area: placement of buildings or other structures or any road

B: 400 m Control Area: placement of signs

C: 800 m Control Area: use any land for the purposes of large traffic generators

D: 395 m Control Area: placement of buildings or other structures, entrances or any road within 395 metres of the centre point of an interchange/intersection

Reference:
www.mto.gov.on.ca