

PROCEDURE D-1-1
(formerly referenced by 07-03)

LAND USE COMPATIBILITY:

IMPLEMENTATION

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NOTE: ! Nothing in this procedure is intended to alter or modify the definition of 'adverse effect' in the *Environmental Protection Act*.

 ! Terms in italics (not including titles of Acts) are defined in Procedure D-1-3, "Land Use Compatibility: Definitions".

1.0 RESPONSIBILITIES

The main responsibility for identifying and implementing the necessary steps to make a development environmentally acceptable rests with the developer. As a result, the Ministry requests developers of land to provide information on potential or known constraints to development and based on that information, identify necessary remedial measures. The types of studies and remedial measures depend on the land in question and the use proposed for the land. Studies should be prepared by qualified professionals to the satisfaction of the Ministry.

1.1 Ministry Staff or Delegated Authority

When a change in land use will place sensitive land use(s) within the influence area/potential influence area of one or more facility, Ministry staff shall expect the proponent, along with the approving authority, to prevent land use conflicts.

Ministry staff or the delegated authority, when circulated, will provide comments to the approving authority on applications, planning documents, evaluations and studies. However, staff will not normally review reports in isolation of the development proposal or planning document.

1.1.1 **Commenting on Feasibility**

Ministry staff or the delegated authority will normally comment on the feasibility of a development proposal at the official plan amendment (OPA) or plan of subdivision/condominium stage. These are the areas of municipal plan review with which the Ministry is routinely involved.

1.1.2 Request for Studies

When staff question the feasibility of meeting Ministry objectives within the context of the particular development proposal, feasibility studies shall be required prior to the Ministry or delegated authority recommending draft approval for plans of subdivision/condominium or OPA approval. For more specific details concerning the requirement of studies, refer to the "Guide to Provincial Planning Applications" (MMA, OHBA, UDI - September, 1993).

In the case of plans of subdivision where feasibility is not in question, further studies will likely be required to determine which mitigative measures, if any, would be necessary to meet Ministry objectives. The approval authority shall require that these studies be performed, to the satisfaction of the Ministry, as a condition of draft approval. Staff shall not recommend final approval until such time as the Ministry is provided with assurances that the recommendations of said studies will be met, and there will not be significant impacts (i.e. an 'adverse effect' under the *Environmental Protection Act*, Section 14).

The Ministry or delegated authority shall also require implementation of any necessary mitigation measures as a condition of draft approval. Staff must then be satisfied that conditions are met before recommending final approval.

1.1.3 Technical Approvals Under Ministry Legislation

When appropriate, the Ministry shall issue technical approvals (i.e. Certificates of Approval) for emissions and/or controls under the *Environmental Protection Act* and the *Ontario Water Resources Act*, after the approving authority grants the land use approval.

1.2 Municipalities & Other Planning Authorities

The Ministry expects planning authorities within the Province to identify, separate and/or otherwise protect facilities and sensitive land uses (defined in Procedure D-1-3, "Land Use Compatibility: Definitions") through various means available to them (see Section 7 of this procedure, "Methods", for some details).

This guideline provides a framework which municipalities and other approving authorities may use to make their own informed decisions to reflect local conditions and the available planning

mechanisms, including regulations, detailed policies, guidelines and studies.

Planning authorities are encouraged to ensure that the principles and objectives of Guideline D-1 entitled: "Land Use Compatibility", are applied in the formulation and review of matters identified in Sections 1.2.1 and 1.2.2.

Where approval is given for situations which are contrary to the intent and principles of Ministry Guideline D-1, "Land Use Compatibility" or any specific application including the Ministry policies and guidelines listed Procedure D-1-2, "Specific Applications", in the approving authority will be responsible for related complaints and investigations.

Approving authorities should not allow development to proceed where there are irreconcilable incompatibilities (i.e. significant impact(s) and no feasible remedial measures).

1.2.1 Land Use Plans, Policies, Guidelines & Programs

Consideration of this guideline is required for land use related plans, policies, guidelines and programs including but not limited to municipal official plans and amendments, municipal secondary plans, provincial resource management plans, and Ministry of Natural Resources District Land Guidelines on Crown Land.

1.2.2 Site-Specific Applications

Consideration of this guideline is required for development applications including zoning by-laws and amendments and variances, zoning orders, development permits, site plans, plans of subdivision and condominium and consents.

Since there is often no planning application circulated to the Ministry in the case of site specific development or redevelopment, the municipality or other approving authority should ensure that the principles of this guideline are adhered to.

1.2.3 Identify Need for Studies

The Ministry encourages Municipal official plan policies and where appropriate, policies of other plan approval agencies to indicate when studies for conflicts between sensitive land uses and various facilities are required, including feasibility studies, the timing or phasing-in schedule if applicable, and the party responsible for the preparation of the study. For details on the contents of studies, see

Section 2.0 of this Procedure, "Studies".

1.2.4 Identify Facilities and Influence Areas/Potential Influence Areas

Planning authorities are encouraged to prepare inventories of the location of all existing and *committed facilities* and the *influence areas/potential influence areas*, within their jurisdiction. **See Section 7.2 of this Procedure, "Inventories", for details.**

NOTE: It would also be advisable to include locations of former facilities, since decommissioning and clean up may be required. In such circumstances, the Ministry's "Materials Management Policy" and Guideline C-15: "Guideline for the Decommissioning and Cleanup of Contaminated Sites in Ontario" may apply.

1.2.5 Responsibility for Feasibility Studies

The Ministry recommends that **municipalities be responsible for carrying out feasibility studies, with the proponent covering the costs of the studies.**

1.2.6 Mitigation Implementation

The local municipality or other approving authority is responsible for approving mitigative measures, including design details and specifications, and for ensuring that required mitigation measures are implemented by the proponent.

In situations where the Ministry or delegated authority does not provide comments, approving authorities are encouraged to require that the proponent, as a condition of approval, provide mitigative measures at the draft plan stage.

1.3 Proponents

The proponent shall investigate the presence and severity of impacts, and propose any necessary remedial measures, including design details and specifications.

1.3.1 When Sensitive Land Use is Proposed

The proponent shall evaluate the proposal and provide evidence to the approving authority that a compatibility problem will not exist. The evaluation should be based on the nature of *facilities* (defined in Procedure D-1-3, "Land Use Compatibility: Definitions") in the vicinity that could

have an impact on the proposed *sensitive land use(s)*, and the nature of the *sensitive land use(s)*. The purpose of the evaluation/study would be as follows:

(a) Evaluate Impacts

The proponent is responsible for evaluating the severity of impacts, both before and after mitigation, within the *facility or facilities influence area(s)* or *potential influence area(s)*, according to whether there will be a *trivial impact* (i.e. no adverse effect) or a *significant impact* (i.e. an adverse effect).

Information to be provided, and when necessary gathered from the local municipality, Ministry Regional or District Offices and other appropriate agencies, and utilized in the decision-making process may include but is not necessarily limited to:

- (i) nature of the sensitive land use;
- (ii) all existing and *committed facilities* within the study area, and those not within it but which would impact the study area;
- (iii) duration, timing and types of operational activities, shipping, receiving and other transport activities, and outputs/*contaminants* (e.g. noise, odour, dust/particulates, vibration) associated with the *facility or facilities*;
- (vi) distance of *sensitive land use* from *facility or facilities* or *facility/facilities influence area(s)/potential influence area(s)*;
- (v) hours of operation/normal use periods for both the *facilities* and *sensitive land use*;
- (vi) site plan details and building fenestration for *sensitive land use* (i.e. number, type and location of windows);
- (vii) wind patterns, topography and natural and man-made barriers/buffers (e.g. elevation, vegetation, walls, berms, ground and surface water); and
- (viii) any existing complaint history associated with the operation of *facilities* which would impact the *sensitive land use site*.

(b) Identify/Implement Feasible Mitigation

The proponent is responsible for proposing, designing and implementing mitigation, as required by the Ministry, delegated authority and/or approving authority (**See Section 4.0, "Mitigation"**). Mitigative measures can be located either at the *contaminant* source or elsewhere on the *facility* site, on the *sensitive land use* site, or on the site of an intervening land use. (**See Section 5.0, "Legal Agreements" also.**)

1.3.2 When a Facility is Proposed

(a) Identify the Influence Area or Potential Influence Area

The proponent is responsible for determining the *influence area* for a particular *facility* or a designated area, based on:

- (i) all components of the *facility's* operations/processes and transport activities (e.g. shipping and receiving or transporting) likely to generate *contaminant discharges* or other compatibility problems (e.g. visibility for landfills);
- (ii) the types and extent of outputs/*contaminants* (e.g. noise, odour, dust/ particulates, vibration) associated with the *facility* - technical studies (see Section 2.0, "Studies") may be required;
- (iii) site plan details for the *facility*;
- (iv) the *facility's* building ventilation system;
- (v) the *facility's* building fenestration (i.e. number, type and location of windows);

In the absence of an analysis based on the above information, the proponent shall follow a generic approach and utilize the *potential influence areas* set out in other Ministry policies, guidelines and procedures which are specific applications of Guideline D-1 (**see Procedure D-1-2**).

(b) Evaluate Impacts

The proponent is responsible for evaluating the severity of impacts, both before and after mitigation, within the *influence area(s)* or *potential influence area(s)*, according to whether there will be a *trivial impact* (i.e. no adverse effect) or a *significant impact* (i.e. an adverse effect).

Information to be provided, and when necessary gathered from the local municipality, Ministry Regional or District Offices and other appropriate agencies, and utilized in the decision-making process may include but is not necessarily limited to:

- (i) distance from *sensitive land use(s)* and/or all existing and *committed sensitive land use* within the *facility's influence area* or *potential influence area*;
- (ii) land use designation/nature of *sensitive land use(s)*;
- (iii) hours of operation/normal use period for both the *facility* and *sensitive land use(s)*;
- (iv) wind patterns, topography and natural and man-made barriers/buffers (e.g. elevation, vegetation, walls, berms, ground and surface water); and/or
- (v) complaint data from similar industries in the area.

(c) Identify/Implement Feasible Mitigation

The proponent is responsible for proposing, designing and implementing mitigation, as required by the Ministry, delegated authority and/or approving authority (**See Section 4.0, "Mitigation"**). Mitigative measures can be located either at the *contaminant source* or elsewhere on the *facility site*, on the *sensitive land use site*, or on the site of an intervening land use. (**See Section 5.0, "Legal Agreements" also.**)

2.0 STUDIES

Studies should be provided by the proponent to the approving authority. Refer to Section 1.1.2 of this Procedure to determine when Ministry staff will require the proponent to carry out studies.

2.1 Types of Studies

The types of studies required may vary with the particular facility involved. Specific requirements are included in the various documents listed in Procedure D-1-2, "Land Use Compatibility: Specific Applications".

2.2 Study Exemptions

Formal studies normally will not be required for a *land use proposal* where the Ministry or the delegated authority and/or the approving authority is satisfied that the evaluation of existing data indicates that there will not be a compatibility problem. For example, complaint data for existing *facilities* which may be available in Regional and/or District Offices and/or field inspections can often indicate the *influence area*, precluding the need for detailed studies.

3.0 COSTS

The costs of studies and mitigation, where an existing land use is in compliance with government legislation, regulations, codes and standards, is normally the responsibility of the proponent of the new development. See Sections 1.3.1 (b) and 1.3.2 (c) "Identifying/Implementing Feasible Remedial Measures" for more details.

4.0 MITIGATION

4.1 Purpose of Buffers

Buffers are used to minimize or prevent *adverse effects* associated with *facilities*. *Buffers* are not a substitute for legislated controls at the *facility* source which deal with difficult to contain *discharges* and other compatibility problems. In many cases *buffers* cannot be expected to eliminate all conflicts, but should reduce the *contaminant discharges* and other compatibility problems to the *trivial impact* level.

4.2 Types of Buffers

In addition to *separation distance*, *adverse effects* may be able to be minimized or prevented at the site specific planning stage by incorporating other buffering techniques. Other types of *buffers*, on a case-by-case basis, may include berms, walls, fences, vegetation, and/or location and orientation of buildings and activity areas. This list is not all-inclusive, and one or a number of combinations might be used to achieve the desired

results.

4.3 Effectiveness

Land use separation and other mitigation measures are to be based on the *facility's* scale and design, and the duration, frequency and the type of *discharges/impacts*.

To be effective, a *buffer* must be appropriately designed, constructed and maintained, bearing in mind the overall intended purpose. The *buffer(s)* should permit the normal functioning of the two incompatible land uses **without conflict**.

The following are some more specific considerations for *buffers*:

4.3.1 Noise & Other Air Contaminants

Buffers which may be satisfactory for the control of noise may not be adequate for dust, odours, or gaseous air contaminants. A berm or wall will usually have little or no effect on these, and **distance is often the only effective buffer**.

It should be noted also that **narrow strips of plantings, trees or shrubs, and privacy fences have little or no actual effect with regard to the reduction of noise or air pollution**. These buffers may provide limited benefit, however, if they screen the source from view, and reduce the perceived impact.

4.3.2 Site Planning

Site plan design/orientation of *facilities* or *sensitive land uses* should take into account the *contaminants* and *discharges* associated with the operation of the *facility*. These may include such things as: smoke, **noise, dust and odour generated by loading and unloading of trucks**, odours from process venting and any on-site waste receptacles. The degree of impact may be affected by site-specific topography, building layout and massing, the direction of prevailing winds and possibly vegetation, among other matters.

4.3.3 Operational Procedures

General 'housekeeping' practices, such as outdoor storage of waste materials in closed containers to control odours, litter and/or dust, can also reduce *discharges/impacts* on surrounding land uses.

5.0 LEGAL AGREEMENTS

When mitigative controls are to be installed on surrounding properties, the local municipality or other approving authority should **require an agreement between the developer and the affected property owners**, to ensure mitigation of *discharges* to established/acceptable Ministry standards.

When this Ministry or the delegated authority has required the mitigative controls, the legal agreements between the developer and other affected parties to ensure the installation and maintenance of adequate measures on surrounding properties should be reviewed and endorsed by Ministry staff or the delegated authority **prior to development approval**.

NOTE: There are no provisions under the *Planning Act* to impose the requirement for agreements on surrounding lands where no planning approvals are required.

6.0 FINANCIAL ASSURANCE

Bonds or other financial assurance should be required by the approving authority to ensure that mitigation will be satisfactorily carried out by the proponent.

7.0 METHODS

There are numerous means and approaches available to assist planning authorities in achieving compatibility among land uses within their jurisdiction (the *Planning Act* in particular provides some useful tools). The following provides some examples:

7.1 Policies and Principles

The Ministry recognizes that a municipal official plan is the main instrument for expressing general planning policies. Municipalities are required to have official plans in place. To be most effective, the Ministry recommends that the principles of **Guideline D-1, "Land Use Compatibility"** be incorporated into the official plan when it is being prepared or updated.

The Ministry recommends that *land use compatibility* policies and principles be included in the official plan, and reflected in a land use schedule, for incorporation in zoning by-laws, secondary plans and other planning documents. More specific policies, as set out in documents listed in **Procedure D-1-2, "Specific Applications"**, may also be included to identify planning considerations and/or procedures for particular types of

facilities.

Other plan approval authorities as well should include appropriate *land use compatibility* policies in planning documents (e.g. resource management plans), with a view to identifying and rectifying existing areas of incompatibility where feasible, and to guide new development and *redevelopment* in accordance with **Guideline D-1, "Land Use Compatibility"**.

7.2 Inventories

The Ministry recommends that municipalities and other planning agencies maintain inventories of the location of all existing, *committed* and former *facilities* within their respective jurisdictions. The information should be provided on some form of scaled map (e.g. official plan schedules, neighbourhood plans, MNR District Land Guidelines, aerial photographs), and be easily accessible to the public.

7.3 Influence Areas/Potential Influence Areas

The Ministry recommends that the *influence area*, or where an *influence area* has not yet been determined on a site-specific basis, the *potential influence area* outlined in various documents which deal with particular types of *facilities*, (**see Procedure D-1-2, "Specific Applications"**) be identified and delineated on a scaled map at an early stage in the land use planning process. An example of how this may be done for *industrial facilities* is illustrated in **Diagram No. 2 of Guideline D-6, "Compatibility Between Industrial Facilities and Sensitive Land Uses"**. Sections 4.2.2, "Determining Permitted Uses within Industrial Land Use Designations" and 4.2.3, "Existing and Committed Industrial Land Use" of **Guideline D-6** which deal with industrial facilities may provide further guidance for dealing with other facilities as well.

When a new *facility* or an expansion to an existing *facility* is proposed, or conversely when *sensitive land use* is proposed, particular attention must be paid to ensure there will not be a compatibility problem with those land uses that fall within the facility's *influence area/potential influence area*.

7.4 Zoning By-Laws

Zoning can be used separately, or in conjunction with Site Plan Control (**See Section 7.6, "Site Plan Control"**). The Ministry recommends that zoning by-laws and amendments to them regulate land uses so that future permitted uses will be compatible within the *influence area(s)/potential influence area(s)* of nearby

facilities, and vice versa.

The municipality may apply traditional 'interim' zoning methods, such as the use of a non-development zone, where the municipality does not have holding provisions (**see Section 7.7, "Holding Provisions"**), the situation is not suitable for holding provisions, or the ultimate use of lands within an area formally undergoing transition is unclear or unknown.

On-site *buffers* could be required by a municipality through zoning by-law setback requirements, but this approach may not be practical, as the provision of very deep lots would likely be necessary. The use of other forms of mitigation (**see Section 4.2, "Types of Buffers"**) may have to wait until a specific *facility* and/or *sensitive land use* has been identified for the zoning in place.

7.5 Subdivisions, Condominiums and Consents

The Ministry recommends that plans of subdivision/condominium and consents to sever, located within the *influence area/potential influence area* of a *facility* only be permitted if there are no compatibility problems, or if the proponent can demonstrate how incompatibilities will be satisfactorily mitigated to the level of a *trivial impact*. The concerns for *land use compatibility* would be in addition to other factors that are normally considered by the Ministry or delegated authority in the overall decision for approval of a land use. The same restrictions should apply when a *facility* is proposed which would impact on these land uses.

7.6 Site Plan Control

Site Plan Control under Section 41(2) of the *Planning Act, R.S.O. 1990* may be used separately or in conjunction with zoning (**see Section 7.4, "Zoning By-Laws"**) to determine practical approaches for mitigation on a specific development proposal, if a site plan control area is shown or described in an approved official plan (**see Section 7.1, "Policies and Principles" for information on official plans**). The *Planning Act*, Section 41(7)(a) 6-9 inclusive provides a number of useful planning tools to deal with *land use compatibility* concerns through Site Plan Control.

Site Plan Control requires the preparation of detailed site specific development plans, and enables the review of such matters as building location and massing, access, outdoor storage, park land, walkways, landscaping, grading and external non-design features. Detailed architectural controls, however, such as type of building materials, window details or interior

design, are excluded from Site Plan Control (and are normally only considered with the building permit application). As well, Site Plan Control cannot be used to regulate the general use of land; it can only be used to establish on-site physical conditions such as setbacks or site plan layout.

Plans showing the location of all buildings and structures, including such things as walls and fences for either a *facility* site or a *sensitive land use* site can be used to require any necessary on-site distance setbacks. The massing and conceptual design of buildings may be used to mitigate *adverse effects*. For example, Site Plan Control could be used as a noise control tool in locating facilities so that noisy operations are shielded by other equipment or structures, or in locating buildings so that outdoor living areas are shielded. It should be noted that trees, shrubs and other plant material do little to attenuate noise.

Site Plan Control should not be used for requiring large studies which may necessitate a change in land use - in this respect the principle of development is determined and established in the official plan (i.e. the official plan determines land use).

It should be noted also that Site Plan Control is not applicable to all developments, even though they may be within a site plan control area. The local municipal council may designate the whole or any part of an area shown or described in an official plan as a proposed site plan control area. Accordingly, when an opportunity arises, the Ministry shall encourage municipalities to adopt site plan control for all land uses, and residential in particular, in areas of site plan control.

7.7 Holding Provisions

Where the local municipality knows precisely what uses will be developed in future, the municipality may institute holding provisions to accommodate phased development. The holding symbol "H" freezes transition from the current use of land to a future use, until such time as certain conditions are met.

It should be noted that holding symbols cannot be applied unless there are enabling official plan policies in place. The official plan policies must outline the objectives or reasons for using the holding provision. As well, the municipality must have provisions for implementation through the use of zoning by-laws which specify permitted interim uses prior to the removal of the "H".

Permitted uses and setbacks would have to be determined at the time the original zoning was established, and could only be

altered through rezoning. The "H" could be lifted once conditions are satisfied.

As the Ministry has no control over when the "H" may be lifted, staff should only recommend the use of the holding symbol where there are not *significant impacts*, and a legal agreement (**see Section 5.0, "Legal Agreements"**) is in place to ensure mitigation.

8.0 COMPATIBILITY EXAMPLES

The chart below shows very simplified examples of compatibility ratings for different types of *facilities* and *sensitive land uses*.

Facility	Compatibility Rating	Comments
Transportation meeting Ministry criteria/standards with use of buffers (e.g. noise)	possible with conditions Corridors	subject to
Class I Industrial upon nature of effective mitigation	not recommended	may be possible depending industry and
Class II Industrial frequent dust, odour -- intense	poor	occasional noise; often
Class III Industrial ground borne vibration; persistent dust, odour	incompatible	frequent noise, intense &

Table No. 1: Compatibility with Sensitive Land Uses

9.0 REFERENCE DOCUMENT

"Guide to Provincial Planning Applications", Ministry of Municipal Affairs/Ontario Home Builders Association/ Urban Development Institute, September 1993.