

Livestock Facility Guidelines

Regional Official Plan Guidelines



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.

The Guidelines have been prepared in accordance with Section 192 of the ROP. They provide direction and outline approaches that can 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.

"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 – Section 192
as adopted by Regional Council, December 16, 2009

Livestock Facility Guidelines

The **Livestock Facility Guidelines** clarify the application of provincial Minimum Distance Separation (MDS) formulae between livestock facilities and non-farm uses and provide further guidance on best management practices as a means of improving the coexistence of farm and non-farm uses in the rural area.

Purpose

The purpose of the Livestock Facility Guidelines is to:

- **clarify the requirements** for applying the provincial MDS formulae in certain situations;
- **provide guidance** beyond the application of provincial MDS formulae to improve the coexistence of livestock facilities and non-farm uses in a fair and objective manner; and,
- **facilitate understandings** of efficient and flexible agricultural practices that support the right of a farmer to lawfully pursue agriculture in areas where agriculture is permitted.

Application & Use

The Livestock Facility Guidelines outline the process for the application of provincial MDS formulae. It is intended to be used for this purpose by a variety of users, including:

- **Regional, Local and external agency staff:** as a resource when reviewing development applications requiring the application of provincial MDS formulae.
- The **development industry and agricultural community:** for clarity on the development process, MDS application, and other potential requirements.
- The **public:** to understand Halton's approach to minimizing conflicts between farm and non-farm uses in the rural area through both the development process and the promotion of best management practices.

Supporting Documents

In addition to the policy direction provided by the Regional Official Plan, the following documents should be considered alongside this Guideline, as appropriate:

- The Farming and Food Production Protection Act (FFPPA), 1998
- The Nutrient Management Act, 2002
- The Niagara Escarpment Plan, 2005
- The Greenbelt Plan, 2005
- Provincial Policy Statement, 2014
- MDS Implementation Guidelines, 2006
- Halton ROP Guidelines – Agricultural Impact Assessment (AIA) Guidelines
- Local Official Plan & Zoning By-law

Version

Version 1.0 | This version of the Livestock Facility Guidelines was brought before the Inter-Municipal Liaison Committee on June, 18 2014 through Report No. IMLC01-14. It replaces the July 2007 "Livestock Facility Guidelines (Odour)".

Note: This version of the Guidelines is based on the Halton Region Official Plan as amended by Regional Official Plan Amendment (ROPA) No. 38, adopted by Regional Council on December 16, 2009. Many of the pertinent ROP policies are currently under appeal at the Ontario Municipal Board. The Guidelines may be updated to address any changes that may occur as a result of the hearing once it is complete.

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1.0 Introduction

1.1 Purpose

The purpose of this Guideline is to:

- a) clarify the application of provincial Minimum Distance Separation (MDS) formulae in providing a reasonable distance between livestock facilities and non-farm uses to mitigate odour impact;
- b) provide further guidance beyond the application of provincial MDS formulae to improve the coexistence of livestock facilities and non-farm uses in a fair and objective manner; and,
- c) facilitate efficient and flexible agricultural practices that support the right of a farmer to lawfully pursue agriculture in areas where agriculture is permitted.

The Guideline clarifies the application of MDS, which will at certain times be done in conjunction with the completion of an Agricultural Impact Assessment (AIA). Additional measures to ameliorate the potential impact of livestock facilities such as buffering, landscaping, setbacks and increased separation from non-agricultural development should also be considered and should be addressed in any AIA that is required in accordance with the policies of the Regional Official Plan. Further to this is the right of farmers to lawfully pursue a full range of agricultural practices in areas where agriculture is permitted. This is fundamental to maintaining a permanently secure and economically viable agricultural industry in Halton Region.

1.2 Planning Framework

The Livestock Facility Guideline must be consistent with Provincial legislation. From time-to-time, the specific Provincial legislation, policies or guidelines may change. The most recent version must be confirmed and applied.

1.2.1 Provincial Policy Statement, 2014

The Provincial Policy Statement (PPS) states that *“prime agricultural areas shall be protected for long-term use for agriculture”* and that *“proposed agriculture-related uses and on-farm diversified uses shall be compatible with, and shall not hinder, surrounding agricultural operations.”*

The PPS discourages lot creation in prime agricultural areas and goes on to state that: *“New land uses, including the creation of lots, and new or expanding livestock facilities shall comply with the **minimum distance separation formulae.**”*

These PPS requirements are reflected in the Halton Region Official Plan.

1.2.2 Minimum Distance Separation (MDS)

The Ontario Ministry of Agriculture and Food and Rural Affairs' (OMAF) MDS Implementation Guidelines provide guidance on interpreting and implementing PPS policy. The purpose of MDS I and II is to ensure sufficient separation between potentially incompatible uses in order to minimize odour complaints between neighbours living in areas where livestock facilities are a permitted use.

“MDS I - provides the minimum distance separation between proposed new development and existing livestock facilities and/or permanent manure storages located in areas where the keeping of livestock is permitted.

MDS II – provides the minimum distance separation between proposed new, enlarged or remodeled livestock facilities and/or permanent manure storages and existing or approved development located in areas where the keeping of livestock is permitted.¹

1.2.3 Nutrient Management Act

Province-wide nutrient management standards are set out in regulations under the *Nutrient Management Act* and have the objective of enhancing the protection of the natural environment and providing a sustainable future for agricultural operations. As part of the building permit application process, these regulated livestock operations are required to complete MDS II calculations. All intensive livestock operations and those livestock operations applying for a building permit to construct animal housing or build manure storage must obtain a provincially approved Nutrient Management Strategy² that focuses on livestock facilities. Nutrient Management Plans that consider field nutrient management practices must also be approved for intensive livestock operations and those in close proximity to a municipal well. The *Nutrient Management Act* includes regulations for the land application of non-agricultural source material (NASM) effective January 1, 2011. Regulations for the disposal of dead farm animals is now included in the *Nutrient Management Act*³.

1.2.4 Farming and Food Production Protection Act

The Farming and Food Production Protection Act (FFPPA) which protects farmers against nuisance complaints over light, vibration, smoke, flies, noise, odour and dust resulting from a normal farm practice states that new or existing municipal by-laws that restrict a normal farm practice as part of an agricultural operation do not apply. The Normal Farm Practices Protection Board is the body that determines if the practice restricted by the by-law is a normal farm practice. If so, the Board can rule that the by-law does not apply to that location and under those particular circumstances.

1.2.5 Niagara Escarpment Plan

Within the Niagara Escarpment Plan Area the Niagara Escarpment Plan Development Act (NEPDA) provides that the policies of the NEP are to prevail in the event of any conflict with provisions in any municipal plan or by-law. Where the municipal plan policies are more restrictive or rigorous, these policies may be applied in the NEP area. The NEP Part 2.10 Agriculture states that *“The objective is to encourage agricultural uses in agricultural areas, to permit uses that are compatible with farming and to encourage accessory uses that directly support continued agricultural use.”* Further, Part 2.10.1 requires that *“development...should maintain and protect agricultural areas from uses considered incompatible with sustaining the agricultural use and/or land base.”*

Depending on the undertaking proposed, a NEP Amendment or Development Permit (under Ontario Regulation 828/90) may be required. In addition a “special agricultural development”⁴, may require an NEP Development Permit.

The Niagara Escarpment Commission (NEC) is responsible for development within the NEP area and is not bound by this Guideline.

1.2.6 Greenbelt Plan

In Halton, the Greenbelt area, as defined by the Greenbelt Plan, extends into and beyond the NEP Area up to the northern limit of the Region. The Greenbelt Plan’s purpose is to permanently protect the agricultural land

¹ <http://www.omaf.gov.on.ca/english/landuse/mds.htm>

² *Nutrient Management Act* regulations apply to new or expanding livestock farms with greater than five Nutrient Units and existing operations when the number of Nutrient Units is 300 or more (“intensive”) or the operation is expanding to 300 Nutrient Units or more.

³ Ontario Regulation 106/09 made under Nutrient Management Act, 2002, published on e-Laws March 27, 2009.

⁴ As defined in Ontario Regulation 828/90 “means a class of development whereby land, buildings or structures are used for the purpose of intensive livestock, poultry, cattle or other farm operations and includes use as a piggery, a turkey, a game bird or chicken farm or hatchery, a fur farm, a mushroom farm, an animal kennel and a feed lot area or manure storage area”

base and the ecological features and functions within its boundaries. Where the Greenbelt area overlaps that of the NEP, the Greenbelt Plan states that *“The requirements of the NEP, established under the Niagara Escarpment Planning and Development Act, continue to apply and the Protected Countryside policies (in the Greenbelt Plan) do not apply with the exception of section 3.3”*⁵.

Greenbelt lands outside of the NEP area are designated as Protected Countryside and then subdivided based on the land capability. In these areas, all decisions and plans must conform to the Greenbelt Plan. In the rural area of the Protected Countryside, limited lot creation and minor rounding out of hamlet boundaries is permitted at the time of municipal conformity updates. Lots may also be created for the range of uses permitted by the Greenbelt Plan, to accommodate infrastructure, to convey lands for natural heritage conservation purposes, or for minor lot or boundary adjustments.

Lot creation is more restricted in the Prime Agricultural Area. The Greenbelt Plan indicates that in the Prime Agricultural Area within the Greenbelt, *“New land uses and the creation of lots, as permitted by the policies of this Plan, and new or expanding livestock facilities shall comply with the minimum distance separation formulae.”*⁶

Halton Region contains significant prime agricultural lands, which are found both inside and outside of the Greenbelt Plan area.

1.2.7 Halton Region Official Plan

A significant amount of Halton Region is prime agricultural land as shown on Map 1E of the Regional Official Plan. Under the Regional Official Plan, agricultural lands outside of the urban boundaries, which occur both inside and outside of the Greenbelt, are generally designated as “Agricultural Area”. Agricultural operations are also found within other land use designations, and it should be noted that this Guideline applies to all agricultural operations in **all designations** outside of the urban areas where livestock facilities are a permitted use or where there are existing, legally established, livestock facilities.

A main goal of the Regional Official Plan is to maintain a permanently secure, economically viable agricultural industry. As a result, the prime objective of the Agricultural Area designation is to recognize agriculture as the primary activity and land use in this designation and to protect farms from incompatible activities and land uses which would limit agricultural flexibility, productivity, expansion options or efficiency. This Guideline, by providing clarity about the approval process, is designed to protect farmers’ ability to achieve these goals.

While the Regional Official Plan no longer permits rural severances, the reality is that rural severances have been approved in the past and the owners have certain rights to use and enjoy their property. Even though agriculture is the predominant use in the rural area, single-detached dwellings are a permitted use on existing lots.

Since some farm practices may have an effect on the groundwater, Halton Region’s Official Plan also contains policies regarding municipal wellhead protection, which are identified as a result of the Clean Water Act, 2006. Prior to deciding on new development applications or issuing building permits within this zone, local municipal staff should consult Regional staff.

1.3 Application and Use

This Guideline provides clarity on the application of the Provincial MDS criteria in addressing the coexistence of livestock facilities and non-farm uses.

⁵ Section 2.2 Greenbelt Plan 2005,

⁶ Greenbelt Plan 2005, Section 3.1.3 sub 4.

The Regional Official Plan references this Guideline and requires the local municipalities within Halton to implement those aspects that it can address through the planning and development process involving official plan policies, zoning bylaws, site plan approvals and building permits. For situations where building permits are not required, Halton Region will work in partnership with the Halton Region Federation of Agriculture (HRFA), the local municipalities and the Ontario Ministry of Agricultural and Food (OMAF) to promote the implementation of best management practices (BMP).

This Guideline applies to all agricultural operations that are not located within the urban areas of the Region where livestock facilities are a permitted use or where there are existing, legally established livestock facilities. On properties that abut the boundary of an urban area, mitigating measures may need to extend into the urban area. In this case, every effort should be made to minimize the impacts of new urban development on the existing and future agricultural uses in the rural areas of the Region. Best efforts shall be used to either buffer these uses within the urban boundary through the use of (but not limited to) buffer plantings, building setbacks or other zoning provisions and the use of warning clauses registered on title. In the rural areas this can be achieved through working cooperatively with the adjacent farm operator. Ways in which to minimize the impacts on the farm include but is not limited to buffer plantings and vegetative screens. In both situations, it is the expectation of the Region that the costs associated with any mitigation measures should be borne by the development proponent. Where legally established livestock facilities exist in urban areas, best efforts will be made to mitigate impacts.

Within the NEP Area, land use is governed by the NEP and its regulations take precedence over municipal plans or guidelines. Therefore, this livestock guideline may be considered where they are not in conflict with the NEP "Objectives and Development Criteria".

2.0 Guideline

2.1 Types of Undertakings Under this Guideline

This Guideline applies when any of the following are proposed in designations and zones where livestock facilities are a permitted use:

- urban area expansion;
- new/expanded non-farm use;
- new or expanded building on existing lot of records;
- replacement or improvement to existing livestock facilities;
- new or expanded livestock operations;
- new or expanded earthen manure storage facilities; or
- livestock conversions.

Figure 1 identifies these undertakings, the approvals required, whether MDS calculations are required, and the basis for permissions.

To complement the guideline that addresses each of these identified undertakings, Halton Region will promote adoption of Best Management Practices and greater understanding of Normal Farm Practices generally. Methods for doing so are discussed in Part 3.0.

Where recommended in an Agricultural Impact Assessment, consideration could be given to applying MDS I setbacks from lot boundaries to protect the agricultural development options on farm properties.

2.2 Urban Area Expansions and New Non-Farm Uses

This scenario occurs when one of the following is proposed in the rural area:

- a) urban area expansion;
- b) new or expanded non-farm land use e.g. golf course (requiring Official Plan and Zoning amendments);
or
- c) new lot or use in the rural area (requiring a Planning Act approval).

Approach:

Local official plans and zoning by-laws should stipulate that MDS I applies to rural land considered for urban expansions, new or expanded non-farm uses, and new lots in the rural area. For scenarios a) and b) above, an Agricultural Impact Assessment would be required, including an evaluation of MDS constraints. Specifically,

1. MDS I is applied to rural land considered for urban area expansion and is one of several factors (including servicing efficiency, natural environment, etc.) that the Region must evaluate when determining where growth should be directed. Impacts to agriculture from urban area expansions must be mitigated at the time of development in a way that will preserve maximum flexibility for agricultural operations. MDS I requirements must be met.

Regarding scenarios b) and c),

2. To create non-farm uses such as golf courses or residential lots, MDS I requirements must be met.

Figure 1: Summary of Livestock Facility Guidelines¹

Approvals	Scenarios	MDS Applicability		Decision***
Major Official Plan Amendment or Secondary Plan	2.2a) Urban Area Expansions	MDS Requirement addressed in AIA		MDS will be Applied
Site Specific Official Plan Amendments, Zoning By-law Amendments, Plans of Subdivision and/or Consents	2.2b) New or expanded non-farm use (e.g. golf course)	Requires MDS I Calculations	Met	Development Permitted
	2.2c) New lot in Rural Area		Not Met	Development Denied
Building Permit Application	2.3a) New building on existing lot of record	Requires MDS I Calculations	Met	Permit Granted
	2.3b) Extension to existing non-farm use		Not Met	Development may be permitted subject to the approval and conditions* of a minor variance
	2.4a) Replace livestock facility after catastrophe	MDS II Does Not Apply		Permit Granted
	2.4b) Rebuilding or improving existing livestock facility with no change in type or capacity ²			
	2.5a) New livestock facility	Requires MDS II Calculations	Met	Permit Granted
	2.5b) Expanding facility for additional livestock		Not Met	Development may be permitted subject to the approval and conditions* of a minor variance
	2.5c) Improvements to introduce livestock in an existing building not previously used for livestock			
Earthen Manure Storage	2.6 New or expanded	Requires MDS Calculations	Met	Storage may be constructed
			Not Met	Storage may not be constructed
Other Situations	2.7a) Change in animal type with same building capacity	MDS II Does Not Apply		No approval required**; farmers to contact OMAF regarding Best Management Practices to maintain pre-conversion odour levels; Region staff to help mediate disputes
	2.7b) Re-introduce livestock to existing livestock building			

¹Any planning exercise involving boundary expansion will require an Agricultural Impact Assessment (AIA) and MDS will be applied as part of the process.

*Conditions may include best management practices

**See Section 1.2 for areas under the NEP

***Prior to making a decision on areas within municipal wellhead protection areas, Halton staff must be consulted

2.3 New or Expanded Non-Farm Uses on Existing Lot

This scenario applies when a building permit is required to:

- a) construct a new non-farm building on a previously vacant lot; or
- b) improve or extend an existing non-farm use (e.g. residence) that would reduce the separation distance from livestock operations.

Within the Halton Region Official Plan, a single detached dwelling is in most cases permitted on each legally existing lot of record. Lots that have been approved in the past may or may not meet present day MDS standards in which case development may be restricted.

Approach:

Local official plans and zoning by-laws should require that MDS I be considered in the placement of a building or building extension and require the identification of appropriate mitigation if MDS I cannot be met under the above scenarios.

- a) Prior to the issuance of a building permit for a non-farm use or expansion to a non-farm use on an existing lot (e.g. house extension), the applicant must complete an MDS I calculation, or request that such a calculation be completed.
- b) A building permit may be issued if the new building can be located in an area on the lot outside the MDS I distance, assuming other building permit requirements are met.⁷
- c) If the MDS I requirements cannot be met, an application must be submitted to the Committee of Adjustment. The Committee will consider allowing a minor variance⁸ subject to the following conditions:
 - the new building be located as far as possible from the livestock facility with the shortest MDS I distance and other nearby livestock facilities; or
 - measures to mitigate impact can be implemented e.g. treed screening from the livestock facility(ies), warning clauses registered on title etc.

2.4 Replacement or Improvement to Existing Livestock Facilities

This scenario occurs when a building permit is required for:

- a) replacing a livestock facility after a catastrophe that destroys part or all of a livestock facility; or
- b) re-building or improving an existing livestock facility without changing livestock type or capacity.

⁷ This includes consideration of whether the area is located in a municipal wellhead protection zone, in which case, Regional staff must be consulted

⁸ The Committee of Adjustment uses four tests based on the Planning Act to rule on the merits of an application and considers a report from planning with additional information to assist the Committee in their decisions. The four tests are:

- Is the application minor in nature?
- Does it meet the intent of the official plan?
- Does it meet the intent of the zoning bylaw?
- Is the proposal in keeping with the general character of the area?

Approach:

If a livestock facility needs to be re-built after a catastrophe or altered for other purposes, without changing livestock type or capacity, MDS II calculations are not required. The building permit may be granted for re-building in the same location or a location no closer to surrounding development. *Nutrient Management Act* and Regulations still apply.

2.5 New or Expanding Livestock Operations

This scenario addresses situations where a building permit is required for:

- a) a new livestock facility where none previously existed;
- b) expanding existing livestock facilities to accommodate additional livestock; or
- c) improving existing facilities to establish a livestock facility in an existing building(s) or structure(s) that has not been used for a livestock operation.

Approach:

Local zoning by-laws should indicate that new or expanding livestock buildings and structures must meet MDS II and requirements of the *Nutrient Management Act* and Regulations.

- 1) Prior to the issuance of a building permit for establishing a livestock facility in an existing building or structure, the applicant must complete an MDS II calculation or request that such a calculation be completed by local municipal or Regional staff, with assistance from OMAF staff upon request.
- 2) A building permit may be issued if the MDS II requirements are met assuming other Building Permit requirements are satisfied.
- 3) If MDS II is not met, a building permit may be granted if a minor variance has first been approved by the Committee of Adjustment addressing impact mitigation.⁹ Comments from OMAF will be considered.

2.6 New or Expanded Earthen Manure Storage Facilities

Despite the fact that earthen manure storage facilities are not considered to be buildings that require a building permit, the provincial MDS Guidelines require that MDS be applied to such facilities. The construction of an earthen storage facility must also be compliant with the *Nutrient Management Act* and Regulations. When proposed within the NEP Area an NEP Development Permit may be required.

- 1) Prior to establishing a new or expanded earthen storage facility, MDS II must be calculated or requested to be completed by Regional staff, with assistance from OMAF staff upon request. If the site is located in a municipal wellhead protection area, Regional staff must first be consulted.
- 2) If MDS II requirements are met and a provincially approved Nutrient Management Strategy is obtained, the storage may be constructed.
- 3) If MDS II requirements are not met, the storage may not be constructed.

⁹ Mitigation may include Best Management Practices such as those listed in Appendix 2

2.7 Livestock Conversions

This part of the Guideline applies when a farmer wishes to:

- a) convert from one type of livestock to another in the same building; or
- b) re-introduce livestock to an existing building that has previously been used for livestock.

Moving animals in and out of an existing livestock facility in an agricultural area where the keeping of livestock is permitted does not require any approvals and MDS II is not triggered. (If a building permit is required, Sections 2.3 or 2.4 may apply).

Approach:

- 1) For conversions, the goal is to maintain or reduce pre-conversion odour. Prior to converting from one type of livestock to another, farmers are urged to contact OMAF staff to discuss how Best Management Practices and livestock type and number can achieve land use compatibility and good neighbour relations. Notwithstanding that MDS II does not apply, MDS may be used as a reference for determining appropriate Best Management Practices.
- 2) To re-introduce livestock into vacant buildings designed for and capable of housing livestock, the goal is to maintain or reduce the odour level based on the most probable type of livestock the building could be used for. Farmers are urged to contact OMAF staff to discuss how Best Management Practices and livestock type and number can achieve land use compatibility and good neighbour relations.
- 3) If there is a dispute between neighbours regarding conversions, at the request of the parties, Regional staff, with input from OMAF, will help to mediate the dispute.

Farmers in the NEP Area are advised to consult with the NEC concerning any additional requirements of the NEP that may be applicable with respect to livestock conversions. See Section 1.2 "Niagara Escarpment Plan" of this Guideline.

3.0 Complementary Initiatives

Complementary initiatives are measures that will improve the understanding, interpretation and ability to implement this Guideline and will generally improve relations between farm and non-farm residents.

3.1 Training and Tools for Building Officials

It has been OMAF staff's experience that when MDS is achieved, there are fewer odour complaints.¹⁰ However, the MDS Guidelines were originally developed to be implemented by experienced OMAF staff, not by municipal staff now charged with implementing them. Training (OMAF-initiated or on request) will help municipal staff consistently implement MDS. Even with this municipal staff training, OMAF will need to be consulted on an on-going basis on such areas as the degree of effectiveness of BMPs and the structural soundness of barns and their capability of housing livestock.

3.2 Education on Normal Farm Practices

The PPS states that prime agricultural areas, agricultural uses and normal farm practices will be promoted and protected. Likewise, MDS documents state that *"the primary purpose and use of prime agricultural areas should be for agriculture."* The MDS Implementation Guidelines indicate that municipalities should *"work towards controlling or limiting future development that would not be compatible with agricultural uses and livestock operations. A principle of land use planning is the grouping together of compatible land uses and the separating of incompatible land uses."* Non-farm residents who seek to live in or near to rural areas must be made aware of the noise, odour and dust associated with normal farm practices.

Over the years, past land use decisions have led to a sizeable number of non-farm residences locating in the rural area. While this trend has been halted by the current policies in the Regional Official Plan, the presence of non-farm residences in a predominantly agricultural area has the potential to create conflicts from time to time. Many new residents have no connection to agriculture and would benefit from a greater understanding of normal farm practices.

There is a need to promote greater understanding of a broad range of normal farm practices and rural realities including livestock odour, hours of operation, bio security, emergency services, movement of farm vehicles on rural roads, trespass issues, etc. This can be done through:

- Regional staff advocacy of agricultural area declaration on "Seller Property Information Statements" (Ontario Real Estate Association) to advise prospective buyers of agricultural uses in the area;
- local municipal building officials and Regional staff providing details on normal farm practices in response to property enquiries in the rural area;
- workshops to further inform prospective and existing rural residents and real estate agents on the realities of modern agricultural practices and living in the rural area;
- posting of information on Regional or local municipal websites; and,
- including information in newsletters sent to residents throughout the Region.

3.3 Promotion of Best Management Practices

Farmers can proactively cultivate good will and trust with neighbours by implementing Best Management Practices (BMPs). One of the key BMPs is to openly communicate with neighbours. For example, farmers can explain their farming practices to neighbours, provide informal notification prior to manure spreading, plant trees along the property lines, etc. Other potential BMPs and their references are listed in Appendix 2.

¹⁰ Neumann, Carol. Personal Communication, February 10, 2004. OMAFRA

OMAF training and printed materials on BMPs may also assist farmers.

Another opportunity to encourage BMPs is the promotion locally of the Environmental Farm Plan (EFP) which is a voluntary education and awareness program to help Ontario farmers identify environmental risks for their farms and implement BMPs to address those concerns. Included is a worksheet that considers Nuisances under the Farming and Food Production Protection Act and promotes the use of practices to reduce odour concerns and other possible point source nuisances for a neighbouring home.

Rural non-farm residents too can implement BMPs such as planting vegetated buffer areas and increasing setbacks from farm operations. Increased education and awareness of normal farming practices is available in OMAF factsheets to help familiarize non-rural neighbours to normal farming practices and implications of living adjacent to livestock operations.

For neighbours that may be concerned about a farming operation, the best management practice to address a possible conflict is to speak to the farmer believed to be creating the nuisance. If the complaint is not resolved, neighbours or farmers could contact the Halton Agricultural Advisory Committee through Regional staff to determine if the Committee could assist in addressing the nuisance issues. If further mediation is still necessary, neighbours or farmers can contact OMAF's Agricultural Information Contact Centre to arrange for an OMAF staff person to facilitate a conflict resolution process. For those issues that cannot be resolved through mediation, the Normal Farm Practices Protection Board provides a forum for complaint resolution other than the courts.¹¹

¹¹ Normal Farm Practices Protection Board - <http://www.omaf.gov.on.ca/english/engineer/nfppb/nfppb.htm>

Appendix 1

Definitions

Best Management Practices (BMPs)

For the purpose of this Guideline, BMPs are practices implemented to reduce odour conflict between farm and non-farm neighbours.

Catastrophe

An unanticipated, disastrous loss of part, or all, of a livestock facility due to fire, collapse, flood, wind, or other such event.¹²

Livestock Facilities

The provincial MDS Implementation Guidelines defines Livestock Facility as “one or more barns or permanent structures with livestock-occupied portions, intended for keeping or housing of livestock. A livestock facility also includes all manure or material storages and anaerobic digester.” They go on to explain that small holding facilities before transfer to other storage, spreading areas or off farm should be considered as part of the barn and have the same MDS setbacks as the barn. MDS does not apply to abattoirs, apiaries, fairgrounds, feed storages, feed preparation areas, field shade shelters, livestock assembly areas, livestock loading chutes, milking centres, offices, washrooms, riding arenas, silos greenhouses, kennels, livestock facilities less than 10m² in floor area, machinery sheds, mushroom farms, pastures, slaughter houses, stockyards, or temporary field nutrient storage sites.¹³

Manure Storages

Permanent storages, which may or may not be associated with a livestock facility containing liquid manure (<18% dry matter), solid manure (>18% dry matter) or digestate (≥18% dry matter). Permanent storages may come in a variety of:

- Locations (under, within, nearby, or remote from barn)
- Materials (concrete, earthen, steel, wood)
- Coverings (open top, roof, tarp, or other materials)
- Configurations and shapes
- Elevations (above, below or partially above grade)¹⁴

Normal Farm Practices

A normal farm practice is one which, a) is conducted in a manner consistent with proper and acceptable customs and standards, as established and followed by similar agricultural operations under similar circumstances, or b) makes use of innovative technology in a manner consistent with proper advanced farm management practices.¹⁵ Normal farm practices shall be consistent with the *Nutrient Management Act* and regulations made under the Act.

¹² Ontario Ministry of Agriculture, Food and Rural Affairs. 2006. MDS Implementation Guidelines Publication 707. Guelph, Ont.

¹³ Ibid

¹⁴ Ibid

¹⁵ Farming and Food Production Protection Act, 1998.

Appendix 2

Examples of Methods to Reduce Odour Conflict Between Farm and Non-Farm Neighbours

The list below is not exhaustive. It contains examples of practices that may or may not be appropriate to any given situation and require case-by-case consideration.

Farmers

Facilities Odour Control

Site selection and management

- Select site based on MDS II and predominant wind direction
- If available, use hilly areas as a natural windbreak and visual screen
- Plant shelterbelts/windbreaks to slow wind speed, increase dilution by ambient air by creating airflow turbulence, and aid in upward dispersion of exhaust air
- Maintain sanitation and aesthetics around the facilities; visual screens

Facilities Design

Buildings

- Well ventilated livestock buildings with proper air distribution
- Choose designs that are easy to clean, allow for routine removal of waste, and require minimal amounts of water (reduces manure volume)
- Slated floors and under-floor ventilation and/or flow-through partitions to keep floor dry
- Solid floors sloped towards gutters
- Flushing gutters, limited surface gutters
- Bottom loading of liquid storages
- Solid manure management systems

Open lots

- Minimize open lots where possible
- Open lots should be designed with good drainage (e.g. 2-4% slope) and runoff collection; sloped to the south or southeast if possible to optimize drying.
- Divert clean water runoff from lot and storage areas

Barn Management

- Frequent manure removal to prevent build-up of odorous gases
- Watering system maintenance: prevent watering facilities from overflowing and wetting the manure pack
- Reduce feed spillage and clean up spills
- Dust reduction through cleaning, low dust emission feed distribution systems or oil/water spraying
- Livestock diet manipulations to reduce nitrogen, ammonia and sulphide production (phase feeding, pelleted or properly ground feed to increase feeding efficiency, etc.)
- Maintain animal health, appropriate pen temperature and space
- Ensure adequate bedding. Odour is related to the moisture content, which can be reduced by sufficient bedding

Manure Storage Management

Liquid Manure Storage Systems

- Minimize the surface area to volume ratio. "Odour is in proportion to volume, surface area and temperature of the stored manure." (West, 1998)
- For anaerobically stored manure, avoid situations that disturb the storage such as top discharge or exposure to the wind
- Covering manure storage with organic material like straw or corn stalks - reapply when about 15% of the surface is exposed (Alberta Factsheets)
- In-ground concrete covered tanks
- Anaerobic digesters

Solid Manure Storage Systems

- Use sufficient bedding. Odour is related to the moisture content; bedding reduces the moisture content of the manure
- Composting solid manure in properly managed facilities
- Roofed manure storage to prevent moisture addition from rainfall and volatilization of odour compounds

General

- Sufficient long-term storage to avoid frequent application (i.e. greater than 1-3 times per year) to the same parcel of land
- Plant tree windbreaks and screen manure storages from view
- Develop a contingency plan in case of manure handling emergencies
- Type of manure and how it is managed e.g. liquid storage uncovered, will affect the MDS II calculation

Deadstock Management

- Manage deadstock in a timely and appropriate manner. See the OMAF Best Management Booklet on Deadstock Disposal or OMAF Factsheets
- Avoid visual impacts

Land Application

"The single event having the greatest odour impact is the spreading of anaerobically stored manure on land. Disturbance of the manure in storage plus spreading it on the land allows the escape of many volatile odorous compounds." (West, 1998)

- Agitate and empty pits only when favourable wind conditions prevail
- Always agitate slurry with the pump exhaust spout below the surface
- Timing of manure application (cool days, early morning when air is rising, midweek, low humidity, when prevailing winds are away from neighbours or nearby communities)
- Techniques to limit vaporization of manure e.g. injection, immediate incorporation. "If equipment is available to inject, the fertilizer value of the extra nutrients saved more than justifies the cost"
- Optimal manure application rate
- Reduced frequency. Limiting application to once or twice a year if possible is recommended. This requires sufficient long-term storage.
- Communicate with neighbours if possible regarding any major social events. If possible avoid spreading on long weekends or all weekends during the summer

- Promote manure as a resource

Rural Non-Farm Residents:

- Support local farmers by buying local farm products
- Familiarization with normal farm practices (see Clark and Johnson, OMAF Factsheet)
- Do not trespass on farmland; ask for the owners' permission

Good Neighbour Practices for both Farm and Rural Non-Farm Residents:

- Get to know each other
- Open communication (seek to understand and to be understood)
- Organize annual local food events or farmers markets
- Visits/tours
- Tree planting/screening/fencing
- Sharing of equipment

Additional References

- Alberta Agriculture, Food and Rural Development (AARDA), Factsheets, *Meeting Odour Head On*: 1. Dealing with livestock concerns, 2. How does Alberta Legislation Address Odour? 4. Odour Reduction Practices: Animal Diets and Land Application of Manure, 5. Odour Reduction Practices: Considerations for Site, Buildings, Manure Storage and Treatment.
[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/epw10940](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/epw10940)
- Bradshaw, Sam. 2003. Shelterbelts can help reduce odours, so get out there and plant some trees! Better Pork. October.
- Carter, Judy and Lorne Owen. 2002. Farming with Neighbours - Preventing, Managing and Resolving Community Conflicts over Farming Practices: A Guide for Canadian Farmers. For Canadian Farm Business Management Council, Ottawa, Ont.
[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/epw5837/\\$FILE/feedlot9.pdf](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/epw5837/$FILE/feedlot9.pdf)
- Clark, V. and J. Johnson, 2006. What Rural Neighbours Can Expect from Large Livestock Operations, OMAFRA Factsheet: Agdex 720. Order No. 06-027. <http://www.omafra.gov.on.ca/english/engineer/facts/06-027.pdf>
- Fraser, Hugh. Reducing Odour and Noise Conflicts Between Rural Neighbours. For Ontario Ministry of Agriculture and Food. Guelph, Ont.
- Fraser, H. 2001. Agricultural odours: 25 years of reducing complaints about barns and manure storages using the minimum distance separation formulae. *Water Science and Technology*, 44(9):211-217.
- Fraser, H. and J. Turvey, 2010. Minimum Distance Separation (MDS) Formula, 40 Years Young (1970-2010) but Still Improving. Presented at the XVIIIth World Congress of CIGR (International Commission of Agriculture and Engineering (CIGR), Quebec City, Canada June 13-17, 2010
- Heber, J. and G.J. Jones, 1999. Methods and practices to reduce odor from swine facilities. Purdue University Cooperative Extension Service <http://www.ces.purdue.edu/extmedia/AE/AQ-2/AQ-2.html>
- Hoff, S., D.S. Bundy, J. Harmon and C.D. Johnson, 2009. A Receptor-Based Siting Strategy for Swine Production Systems, Mitigating Air Emissions from Animal Feeding Operations Conference Proceedings http://www.ag.iastate.edu/wastemgmt/Mitigation_Conference_proceedings/CD_proceedings/Siting_and_Environmental_Barriers/Hoff-Receptor-ased%20Siting%20Strategy.pdf
- Laporte, J. and B. Hawkins, 2009. Deadstock disposal options for on-farm. OMAFRA Agdex 729/400. <http://www.omafra.gov.on.ca/english/engineer/facts/09-025.pdf>
- Lemay, Stephane. 1999. Barn Management and Control of Odours. Prairie Swine Centre Inc., Advances in Pork Production. Volume 10, pgs. 81-91. <http://www.prairieswine.com/database/pdf/1893.pdf>
- Leuty, T. 2004 Using Shelterbelts to Reduce Odors Associated with Livestock Production Barns, http://www.omafra.gov.on.ca/english/crops/facts/info_odours.htm
- McTavish, G.J., 2005. Farmer and Neighbour Relations: Preventing and Resolving Local Conflicts, OMAFRA Factsheet. Agdex 720, Order No. 05-001. <http://www.omafra.gov.on.ca/english/engineer/facts/05-001.pdf>
- Official Plan for the Halton Planning Area (ROPA 38) Policies 69, 77(5)q, 77(7) d&e,99(4) &(4..
- Ontario Ministry of Agriculture and Food. Best Management Practices Series (Buffer Strips, Livestock and Poultry Waste Management, Nutrient Management, Deadstock Management, etc.)

Ontario Ministry of Agriculture, Food and Rural Affairs. Citizen's Guide to the Farming and Food Production Protection Act <http://www.omafra.gov.on.ca/english/engineer/nfppb/guide.htm>

Ontario Ministry of Agriculture, Food and Rural Affairs. 2006. Publication 707, Minimum Distance Separation (MDS) Implementation Guidelines. Queen's Printer for Ontario. ISBN 1-4249-1815-4.

West, B., 1998. *Odour Control for Livestock Facilities*. The Canada Plan Service, M-10704 96:08. <http://www.cps.gov.on.ca/english/plans/E10000/10704/M-10704L.pdf>

