CORPORATION OF THE TOWN OF ERIN

BY-LAW # 99-37

Being a By-Law to Regulate Nutrient Management for Certain Livestock Operations in the Town of Erin

WHEREAS the Council of the Corporation of the Town of Erin deems it necessary in the public interest to regulate nutrient management for certain livestock operations;

AND WHEREAS, pursuant to Section 102 of *The Municipal Act*, R.S.O. 1990, as amended from time to time, by-laws may be enacted by local municipal Councils for the health, safety and welfare of the public;

AND WHEREAS, pursuant to Section 210, para. 144, of *The Municipal Act*, as amended, by-laws may be enacted by local municipal councils for regulating the location, erection and use of stables, barns and manure pits;

NOW THEREFORE, THE COUNCIL OF THE CORPORATION OF THE TOWN OF ERIN ENACTS AS FOLLOWS:

SECTION 1 - TITLE

This By-Law may be cited as the "Nutrient Management By-Law".

SECTION 2 - SCOPE

This By-Law shall apply to all lands where farming is a permitted use within the limits of the Corporation of the Town of Erin.

SECTION 3 - DEFINITIONS

For the purpose of this By-Law, the definitions and interpretation of this Section apply:

3.1 **Alter** shall mean any alteration in a bearing wall or partition or column, beam girder or other supporting member of a building or structure or any increase in the area, volume or capacity of a building or structure. The words altered and alteration shall have a corresponding meaning.

3.2 **Building** includes any structure whether temporary or permanent, used or built for any purpose other than a lawful boundary, wall or fence. Any enclosure, awning,

bin, bunk, or other container, or platform, used upon any land or in conjunction with or connected to any structure for any purpose shall be deemed a building.

3.3 **Code, National Farm Building (1995)** is a regulation for the design, construction, remodelling and evaluation of a wide variety of farm buildings other than living quarters. Contains recommendations designed to obtain safe and efficient performance and economy within such buildings.

3.4 **Code, Ontario Building** is a set of regulations prepared by the Ministry of Municipal Affairs and Housing consisting of building requirements to minimize the risk of injury and property damage from structural failure and fire and health hazards.

3.5 **Consultant in Agriculture** means a practising agricultural professional specializing in all aspects of sound agronomical, economical and environmental crop production who has been certified and/or recommended by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA).

3.6 **Corporation** means the Corporation of the Town of Erin.

3.7 **Erect** includes build, construct, or reconstruct, alter, enlarge, and relocate and without limiting the generality of the foregoing, shall be taken to include any associated physical operation such as excavating, grading, berming, piling, cribbing, filling, or draining, structurally altering any existing building or structure by an addition, deletion, enlargement or extension.

3.8 **Existing** means existing on the date of passing of this By-Law.

3.9 **Farm Unit** means the composite of all parcels operated as a farm, the principal farm residence, any accessory residences, woodlot, barns and other structures necessary to support agricultural and ancillary uses.

3.10 **Livestock** means chickens, turkeys, cattle, hogs, horses, mink, rabbits, sheep, goats, fur bearing animals, or any other domestic animal used for consumption.

3.11 **Livestock Barn** is a building used for the housing, feeding or keeping of livestock.

3.12 **Livestock Manure** is principally composed of livestock feces and urine, and may include some bedding material and some dilution water.

3.13 **Livestock Unit** refers to the equivalent values for various types of animals and poultry based on manure production and production cycles as outlined in Section 5.2 (Livestock Farms Requiring a Nutrient Management Plan).

3.14 **Manure Storage Facility** means an earthen, steel or concrete containment system, with or without a roof or covering enclosing the surface area of the container, used for the storage of liquid or solid livestock manure.

3.15 **Nutrient Management Plan (NMP)** means the science-based process for optimizing the relationship between the land-based application of nutrients (i.e. nitrogen, phosphorus and potash), farm management techniques, crop requirements, and land use and is consistent with standards and practices outlined in the Nutrient Management Plan Best Management Practices published from time to time by the Ontario Ministry of Agriculture, Food and Rural Affairs. (See Appendix A for a more complete description of a Nutrient Management Plan.)

3.16 **Operator** is a person who owns the livestock, or is responsible for the care, control and management of the livestock, on a livestock farm requiring a Nutrient Management Plan.

3.17 **Owner** is a person who owns the land or buildings on which a livestock farm has a Nutrient Management Plan.

3.18 **Permitted** shall mean permitted by this By-Law.

3.19 **Person** includes any individual, association, partnership, corporation, municipal corporation, agent or trustee and the heirs, executors or other legal representative of a person to whom the context can apply according to law.

3.20 **Solid Livestock Manure** means livestock manure with an average dry matter content ranging from 15 to 100 percent by weight.

3.21 **Tillable Acre** means land, including pasture, that can be worked or cultivated.

3.22 **Zoning Relief** means a minor variance or zoning by-law amendment.

SECTION 4 - APPLICATION, ADMINISTRATION AND ENFORCEMENT

4.1 **Application**

No person shall use any land, or erect, alter or use any livestock barn or manure storage facility or part thereof within the limits of the Corporation except in conformity with the provisions of this By-Law and Zoning By-Law No. 99-34.

4.2 **Administration and Enforcement**

This By-Law shall be administered and enforced by such person or persons as shall be appointed from time to time by the Corporation and in accordance with the Nutrient Management Strategy attached as Appendix A.

4.3 **Inspection**

The Chief Building Official for the Town of Erin, or any inspector duly authorized pursuant to the Building Code Act, is hereby authorized to enter with prior notification at any reasonable time on any day upon any property or premises for the purpose of discharging their duties and obligations under this By-Law, or if there is reason to believe that the provisions of the By-Law are not being complied with in whole or in part.

4.4 **Application for Permit**

4.4.1 No person shall erect, alter or use any livestock barn or manure storage facility or part thereof within the limits of the Corporation of the Town of Erin, unless a Building Permit has been issued by the Chief Building Official.

4.4.2 In addition to all the requirements of the Ontario Building Code, as amended, the National Farm Building Code, as amended, or any other By-Law of the Corporation, every applicant for a Building Permit for a livestock barn or a manure storage facility shall be assessed to determine whether the farm operation meets or will meet, once the existing barn or manure storage facilities have been altered, the criteria for a Nutrient Management Plan.

4.4.3 Every owner and/or operator whose farm operation meets or will meet the criteria for a Nutrient Management Plan shall, prior to the issuance of a Building Permit, satisfy the Chief Building Official that the following requirements have been met:

(1) The livestock barn(s) and/or manure storage facility(ies) will be located in accordance with the Ontario Ministry of Agriculture, Food and Rural Affairs

Minimum Distance Separation Formula II, as provided in Section 7 and Appendix E to this By-Law, and as established by Zoning By-Law No. 99-34;

(2) The owner and/or operator has developed a nutrient management plan in accordance with the Nutrient Management Strategy attached as Appendix A to this By-Law, and required under Zoning By-Law No. 99-34; and

(3) With respect to construction standards and sizing, the proposed facility meets the requirements set out in Section 6.1 of this By-Law.

SECTION 5 - NUTRIENT MANAGEMENT PLAN

5.1 Nutrient Management Plan Required for a Building Permit

5.1.1 The requirement for a Nutrient Management Plan shall only apply to certain livestock farms based on the criteria noted under Section 5.2. A Nutrient Management Plan shall be completed in accordance with the Nutrient Management Strategy (attached as Appendix A) prior to the issuance of a Building Permit:

(i) for erecting a new livestock barn and/or manure storage facility, or
(ii) for altering a livestock barn or manure system and where the livestock operation is being expanded by 10 livestock units or more.

5.1.2 Prior to the issuance of a Building Permit, the owner and/or operator shall demonstrate that the nutrient management plan has been reviewed by the Ontario Ministry of Agriculture, Food and Rural Affairs (Agricultural Engineer) or a Consultant in Agriculture, and that any concerns or issues with respect to the plan identified in the review have been addressed to the satisfaction of the Ontario Ministry of Agriculture, Food and Rural Affairs (Agricultural Engineer) or the Consultant in Agriculture.

5.2 Livestock Farm Requiring a Nutrient Management Plan

A livestock farm will require a Nutrient Management Plan where the number of livestock units on the farm unit is 50 or more and the ratio of livestock units to tillable acres on the farm unit is 2 or greater, where livestock unit equivalency is defined by the following table:

ANIMAL GROUP	ANIMALS PER LIVESTOCK UNIT	ANIMALS
Beef	1	Beef Cow[1] - barn confinement or barn with yard

ANIMAL GROUP	ANIMALS PER LIVESTOCK UNIT	ANIMALS
	2	Beef Feeders - barn confinement or barn with yard
Chicken	125 200 500	Layers - Caged Layers or Chicken Breeder Layers Chicken Broilers/Roasters Pullets (replacement layers)
Dairy	1 2	Milking Cow[1,2] - tie stall or free stall Dairy Heifers - barn confinement or bard with yard
Duck	100	Ducks
Emu	5	Emu
Fox	40	Adult Fox[4]
Goat	4 10	Adult Goats[3] Feeder Goats (>20 kg)
Horse	1	Horse[3]
Mink	80	Adult Mink[4]
Ostrich	3	Ostrich
Rabbit	40	Adult Rabbits[4]
Sheep	4 10	Adult Sheep[3] Feeder Lambs (>20 kg)
Swine	5 4 20	Sows/Boars Feeder Hogs (30-120 kg) Weaners (4-30 kg)
Turkey	50 75 100 500	Meat Turkeys (>10 kg) Meat Turkeys (5 - 10 kg) or Turkey Breeder Layers Meat Turkeys (<5 kg) Pullets (replacement breeders)
Veal	6 3	White Veal Red Veal (<300 kg)

[1] Includes calf to 150 kg

[2] A dairy/cow-calf farm usually has milking cows, dry cows, heifers and calves. Multiply the number of milking/nursing cows by 1.5 to account for the followers when they are kept on the same farm

[3] Includes offspring until weaned

[4] Includes offspring to market size

[5] Multiply number of sows by 2.4 to determine the number of weaners

Note: For all other animals/poultry use 1 livestock unit per 450 kg housed at one time.

or the number of livestock units on the farm unit is 150 or more.

5.3 **Land Base Requirement**

5.3.1 A sufficient, tillable land base shall be maintained for the application of livestock manure as prescribed by the Nutrient Management Plan.

5.3.2 The submission of the Nutrient Management Plan shall be accompanied by signed agreements as outlined in Appendix C with persons whose lands will be used for the application of livestock manure and which are not owned by the owner and/or operator.

5.3.3 For the owner and/or operator of a livestock farm which requires a Nutrient Management Plan who owns less than 100 percent of the tillable land base required for the application of livestock manure, the owner shall be required to submit to the municipality by March 1st every three years or if a change occurs the local municipality shall be notified, documentation to demonstrate that the livestock farm will meet the tillable land base requirements, as set out above, including all signed and executed agreements for the use of lands for application of livestock manure in accordance with the from outlined in Appendix C.

5.4 Alternative Disposition of Livestock Manure

5.4.1 If the owner and/or operator wishes to dispose of livestock manure by alternative off-site arrangements, he shall set out these alternative arrangements as part of the nutrient management plan and any agreement shall provide for appropriate and adequate manure storage and management by the purchaser in accordance with recognized best environmental management practices.

5.4.2 In the case of alternative disposition of livestock manure, the submission of the nutrient management plan shall be accompanied by a signed agreement as outlined in Appendix D with persons who will be acquiring a quantity of livestock manure, which shall be defined in the agreement.

5.4.3 The owner and/or operator shall demonstrate to the municipality that the alternative arrangement for disposal of livestock manure has been reviewed by OMAFRA (Agricultural Engineer), and that any concerns or issues identified by OMAFRA (Agricultural Engineer) have been addressed to the satisfaction of OMAFRA (Agricultural Engineer).

SECTION 6 - PROVISIONS FOR MANURE STORAGE FACILITIES

6.1 Construction Standard and Sizing

No manure storage facilities shall be constructed or altered, except in accordance with the following provisions:

6.1.1 Manure storage facilities shall be designed and constructed in accordance with the provisions of the Ontario Building Code, as amended, with specific reference to CAN/CSA A23.3 - M84 "Design of Concrete Structures for Buildings", and the National Farm Building Code, as amended, or the Agricultural Pollution Control Manual, as amended, in the case of earthen manure storage facilities.

6.1.2 All manure storage facilities for livestock manure shall be required to have a method for the adequate elimination and/or management of liquids. Prior to obtaining a building permit, the owner and/or operator shall demonstrate that the method for adequate elimination and/or management of liquids has been reviewed by OMAFRA (Agricultural Engineer) or a Consultant in Agriculture, and that all identified concerns have been resolved to the satisfaction of OMAFRA (Agricultural Engineer) or a Consultant in Agriculture.

6.1.3 For livestock farms requiring a Nutrient Management Plan, new manure storage facilities, or existing manure storage facilities being expanded, require sufficient manure storage to be verified in accordance with the Nutrient Management Strategy attached as Appendix A. New operations or expansions to existing operations require sufficient manure storage. Farm operations with liquid manure systems should have a minimum of 240 days storage. However, 200 days of liquid manure storage may be accepted if supported by OMAFRA (Agricultural Engineer). Under no circumstances will less than 200 days of liquid manure storage be acceptable.

SECTION 7 - MINIMUM DISTANCE SEPARATION

7.1 Prior to the issuance of a Building Permit, the owner and/or operator shall demonstrate that livestock barns and manure storage facilities will be located in accordance with the Ontario Ministry of Agriculture, Food and Rural Affairs' Minimum Distance Separation Formula II, as provided for in Appendix E to this By-Law, and as required by Zoning By-Law No. 99-34.

7.2 Where the livestock barn or manure storage facility cannot satisfy the requirements of Minimum Distance Separation Formula II, the owner may apply to the local municipality for zoning relief.

7.3 An owner who is granted zoning relief by the local municipality for a livestock barn or manure storage facility, shall be deemed to satisfy the requirements of the Minimum Distance Separation Formula II.

SECTION 8 - ISSUANCE OF PERMIT

A Building Permit shall be issued for a livestock barn or manure storage facilities for livestock operations requiring a Nutrient Management Plan upon demonstration to the satisfaction of the Chief Building Official at the completion of the following:

- compliance with minimum separation distance requirements as set out in Section 7 of this By-Law, and Zoning By-Law No. 99-34;
- compliance with construction and standard sizing requirements for manure storage facilities as set out in Section 6 of this By-Law;
- compliance with the nutrient management planning requirements as set out in Section 5 of this By-Law, and Zoning By-Law No. 99-34.

SECTION 9 - VIOLATION AND PENALTIES

Every person who uses, erects or alters any livestock barn or manure storage facility in a manner contrary to any requirements of this By-Law or who causes or permits such use, erection, or alteration or who violates any provision of this By-Law or causes or permits a violation, shall be guilty of an offence and upon conviction thereof shall forfeit and pay a penalty not exceeding an amount as provided under *The Provincial Offenses Act* , R.S.O. 1990, as amended, for each offence, and each day of the occurrence of the offence shall be deemed to be a separate occurrence for each such offence, and every such penalty shall be recoverable under *The Municipal Act*, R.S.O. 1990, as amended, and *The Provincial Offenses Act*.

SECTION 10 - VALIDITY

If any section, clause or provision of this By-Law, including anything contained in the appendices attached hereto, is for any reason declared by a court of competent jurisdiction to be invalid, the same shall not affect the validity of the By-Law as a whole or any part thereof other than the section, clause or provision so declared to be invalid and it is hereby declared to be the intention that all the remaining sections, clauses or provisions of this By-Law shall remain in full force and effect until repealed, notwithstanding that one or more provisions thereof shall have been declared to be invalid.

SECTION 11 - REMEDIES

In case any building or structure is to be erected, altered, extended or part thereof is to be used, or any land is to be used, in contravention of any requirement of this By-Law, such contravention may be restrained by the Corporation, provided that such action shall be taken in accordance with Complaint Process contained within the Nutrient Management Strategy attached as Appendix A or pursuant to the provisions of *The Municipal Act*, R.S.O. 1990 as amended.

READ a first and second time this 1st day of June 1999.

READ a third time and finally passed this _____ day of _____ 1999.

_____

MAYOR

_____

CLERK

LIST OF APPENDICES

APPENDIX "A"

NUTRIENT MANAGEMENT STRATEGY
FOR THE COUNTY OF WELLINGTON

NUTRIENT MANAGEMENT STRATEGY
FOR THE
COUNTY OF WELLINGTON

1.0 Background to the Nutrient Management Strategy

The County of Wellington established a Nutrient Management Committee in the fall of 1998 to develop a Nutrient Management Strategy for the County. This Strategy will serve to address the concerns expressed by residents of County of Wellington regarding the production, storage and utilization of nutrients derived from livestock manure and will assist in the implementation of County Official Plan policies relating to water resource protection. The Committee's work resulted in the preparation of a Nutrient Management Strategy for livestock farms which based on the criteria established require a Nutrient Management Plan, as well as the accompanying municipal Nutrient Management By-Laws.

The Nutrient Management Strategy will be used by both the agricultural community and the municipal governments to set and implement standards that will permit the agriculture industry to continue to thrive with minimal environmental and societal concerns. The Nutrient Management Strategy puts particular emphasis on ensuring that water quality and soil health are maintained or improved on farm operations throughout the County.

2.0 Objective of the Nutrient Management Strategy

For the purpose of this document, "nutrient management planning" is defined as the science-based process of optimizing the relationship between the application of nutrients to soil for the purpose of growing crops. The objective for nutrient management plans is to provide for this optimization on a farm-by-farm basis in the interests of protecting the County's water resources, while maximizing the economic and biological value of the nutrients.

County Official Plan (1999) policies recognize the importance of the agriculture industry to the County's economy. Section 4.3 (Farmland Protection) states:

> *"Areas of Class 1, 2 and 3 agricultural soils will normally be set aside as prime agricultural areas and protected so that normal farming operations are not hindered."*

The strategic approach to agriculture primarily involves the identification and protection of agricultural areas, minimizing conflict between farm operations and non-farm uses and providing for the protection of environmental resources. These resources include water resources.

The Official Plan recognizes that the County is dependent on groundwater supplies for human, animal and industrial consumption. An inter-relationship exists between surface water quality, groundwater quality and surface activities. Section 4.9.3 (Groundwater) of the County Official Plan (1999) states:

> *"Groundwater resources occur throughout the County and are not confined to the greenlands system. Groundwater needs to be protected as it is an essential resource for urban and rural water supplies, agricultural production and the maintenance of many components of the greenlands system."*

Based on consultation with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the County has concluded that the Nutrient Management Strategy and associated implementing by-laws should not rely upon the Certificate of Compliance program itself as the basis for its strategy. The Certificate of Compliance is not a formal legislative requirement, but rather a policy-based program. The County has reached the conclusion that its Nutrient Management Strategy should be entirely consistent with the approach adopted by OMAFRA with respect to Certificates of Compliance, but should be based on the underlying core components of the program, specifically, requirements with respect to:

- nutrient management planning;
- minimum separation distance; and
- appropriate sizing of manure storage facilities.

By putting in place a strategy, including municipal by-laws, to implement these three components, the County and participating area municipalities are implementing the policy direction established by the County Official Plan.

2.1 Guiding Principles for Farmers

The Province of Ontario has recognized the need to address nutrient management by the development of a provincial strategy by the Ontario Farm Environmental Coalition. County of Wellington, within its Nutrient Management Strategy, adopts the Coalition's guiding principles:

"*1. Farmers do not have the right to violate pollution laws, and anyone doing so should be held accountable.*

2. Farmers should document and periodically review their nutrient management plans.

3. *Farmers support having the agricultural industry and governments work cooperatively to achieve a consensus on pollution prevention standards with respect to agricultural nutrients.*
4. *Farmers should follow acceptable nutrient management standards for pollution prevention.*
5. *Farmers will be encouraged to maintain or enhance their stewardship goals relating to nutrient management."*

3.0 Purpose and Implementation of the Nutrient Management Strategy

The purpose of the County of Wellington Nutrient Management Strategy is to provide a uniform, county-approved policy for nutrient management across all municipalities within County of Wellington. This Strategy is consistent with the provincial strategy, which provides a standard approach to nutrient management across the province.

In County of Wellington, the Nutrient Management Strategy and accompanying by-laws are intended to be used as the primary tools for mitigating environmental risks associated with the application of manure nutrients to soil. The implementation of the Nutrient Management Strategy in County of Wellington is through Nutrient Management By-Laws and local Zoning By-laws in effect in all of the area municipalities.

4.0 Components of a Nutrient Management Strategy

The County of Wellington Nutrient Management Strategy consists of the three components, which are currently endorsed by the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and are incorporated into OMAFRA's current Certificate of Compliance Program, as amended, administered by OMAFRA.

i) satisfaction of the Minimum Distance Separation Formula II (MDS II);
ii) proper containment of agricultural nutrients while being stored and storage capacity of a minimum of 240 days, in most cases; and
iii) development and implementation of a Nutrient Management Plan.

It is important to emphasize that the County of Wellington Nutrient Management Strategy requires that all three components be in place prior to the granting of a building permit for the new or expanded livestock facility.

4.1 Minimum Distance Separation Formula II (MDS II)

The MDS II provides for adequate distances between new or expanding livestock or poultry barns and manure storages and existing or approved development. The MDS II shall be calculated in accordance with the guidelines published by the OMAFRA, and the prescribed distances shall be satisfied by the proposed building plans. The prescribed distance(s) may be varied by a local municipality through zoning relief should it not be possible for the farm owner to satisfy the prescribed distance(s) for either the livestock barn or the manure storage. Technical support for review of applications will be provided by OMAFRA staff to local municipalities, where requested.

4.2 Minimum Manure Storage with Contingency Plan

New operations or expansions to existing operations require sufficient manure storage. Farm operations with liquid manure systems should have a minimum of 240 days storage. However, 200 days of liquid manure storage may be accepted if supported by OMAFRA (Agricultural Engineer). Under no circumstances will less than 200 days of liquid manure storage be acceptable.

The County of Wellington adopts, as the standard method for calculating manure storage capacity, OMAFRA's *MSTOR97* program, as amended. The *MSTOR97* program can be used to calculate tank dimensions using livestock type and numbers, tank dimensions using actual volumes of manure or storage volume from known manure storage dimensions. Data sheets to provide equivalent manure storage calculations are also available from the OMAFRA for the purpose of estimating storage capacity.

The storage capacity requirement shall be considered to be satisfied once the farm owner and/or operator has demonstrated to the satisfaction of OMAFRA (Agricultural Engineer) or a Consultant in Agriculture, that their plans reflect an adequately sized manure storage. In addition, the County of Wellington Nutrient Management Strategy requires that the farm owner and/or operator provide contingency plans for use in the event of a manure spill or manure storage system failure.

The *MSTOR97* computer-based program or data sheets which can be used to calculate manure storage capacity are available from the OMAFRA.

4.3 Nutrient Management Plans

The County of Wellington adopts, as the standard in Nutrient Management Plans, the OMAFRA's *Nutrient Management Program (NMAN99)*, as amended. The *NMAN99* program is a computer-based model. Data sheets for the development of a Nutrient Management Plan are also available to provide for a manual method of nutrient management planning. The nutrient management planning process may include, but is not limited to, the following data requirements:

- farm and field identification for the purposes of manure application;
- type and volume of manure or biosolid, i.e. dairy, hog, sewage sludge, etc.
- form of manure and dry matter content;
- manure nutrient content;
- information for each field, including: soil type, slope, size, proposed crop, anticipated yield, previous crop, soil test results, previous manure applications;
- type, blend and application rate of commercial starter fertilizer, if used;
- application information such as season of application, timing of soil incorporation, weather conditions, method of application and calibration of application system;
- optional, unless spreading biosolids, heavy metal soil analysis;
- optional, the cost of application of the manure.

The *NMAN99* program calculates the following outputs:

- based on the proposed manure/biosolid application rate, a nutrient summary is provided for each field indicating the availability of nutrients from the manure, additional nutrient requirements for the proposed crop, whether any build-up of Phosphorous or Potassium exists in the soil, and whether the build-up is considered excessive;
- a volume summary is provided for all fields indicating, cumulatively, the volume of manure to be utilized by each field, showing how all of the manure will be allocated at acceptable levels;
- a heavy metal analysis provides an opportunity to ensure heavy metal application is within MOE guidelines.
- an economic summary may be generated for all fields indicating the economic value of manure on a per acre basis;
- the minimum separation distances between the application of manure and water courses, surface entry points, ie. catch basins and wells.

The requirement for a Nutrient Management Plan (NMP), incorporating the above-noted components, shall be considered to be satisfied once the owner has demonstrated to the satisfaction of OMAFRA (Agricultural Engineer) or a Consultant in Agriculture, that the Nutrient Management Plan is adequate. For farms in County of Wellington using biosolids (sewage sludge), heavy metal analysis is a mandatory component of the NMP.

The farm owner and/or operator is required to enter into written agreements for manure receiving fields which are not owned by them. In all cases, the fields to be used for manure application must only be used by one farmer under one NMP. The County Planning and Development Department will develop and maintain NMP mapping to track land application of manure to ensure no doubling up occurs between NMP's. The municipality will inform the County of any changes to a Nutrient Management Plan to ensure overall mapping and information is kept up-to-date. Should lands outside the County be proposed for the application of manure, it is incumbent on the local municipal

staff to notify the neighbouring municipality of the plans to apply manure to properties in their jurisdiction.

Alternative arrangements to dispose of livestock manure off-site, such as sale to mushroom producers or composting operations may also be permitted. The municipality will take direction from the OMAFRA (Agricultural Engineer) regarding the acceptability, terms and conditions of such alternative arrangements for livestock manure.

Nutrient Management Plan records shall be required to be kept for a minimum of 6 years as evidence of due diligence in the implementation of the NMP.

The *NMAN99* computer-based program or data sheets, as amended, which provide for the manual preparation of a NMP are available from the OMAFRA.

5.0 Nutrient Management Planning Process

Figure 1 indicates the process required to obtain a Building Permit for new livestock farms which require a Nutrient Management Plan and for existing farms expanding which require a Nutrient Management Plan in the County of Wellington. As indicated on the Figure 1, the process is triggered by the need for a building permit to erect, modify or enlarge a livestock facility, i.e. barn or manure storage system, and where the livestock operation is being expanded by 10 livestock units or more.

Farm owners and/or operators required to follow this process include those whose livestock operations require a Nutrient Management Plan as per the municipal Nutrient Management By-Laws. Farmers who do not require a Nutrient Management Plan need only satisfy the MDS II requirements of the local Zoning By-Laws.

The owner and/or operator of a livestock operation which requires a Nutrient Management Plan is responsible for meeting the requirements as indicated within the Nutrient Management Strategy on their own or hire a Consultant in Agriculture to assist them fulfil these requirements. The term "Consultant in Agriculture" is defined in the municipal Nutrient Management By-Laws to be "a practising agricultural professional specializing in all aspects of sound agronomical, economical and environmental crop production who has been certified and/or recommended by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)."

Should the farm owner be unable to satisfy the MDS II requirement, they have the option of applying for zoning relief from a local municipality. The local municipality will consider technical support/information from the OMAFRA regarding the suitability of the relief requested from the calculated MDS II setbacks. If the zoning relief is granted, this will satisfy the MDS II component of the strategy.

The manure storage component of the strategy will be considered to be satisfied once the owner and/or operator has calculated the size of manure facility required for a minimum of 200 to 240 days storage and has incorporated this facility into their building plans or has verified that the existing facility has sufficient manure storage capacity for the proposed operation. The farmer is also required to identify a contingency plan for accidental manure spills or manure system failure. OMAFRA (Agricultural Engineer) or a Consultant in Agriculture must be satisfied with the proposed manure storage system. The *MSTOR97* program, as amended, can be used to calculate manure storage capacity and will be used by OMAFRA (Agricultural Engineer) to review this component.

The NMP component of the strategy requires the farm owner and/or operator to provide the information detailed in Section 4.3 of this document and develop a NMP for their farm operation. It is the farm owner's and/or operator's responsibility to locate sufficient lands for the application of manure and obtain written agreements with landowners for this purpose.

Alternatively, it is the farm owner's and/or operator's responsibility to find other acceptable arrangements for the disposition of livestock manure such as sale to composting companies or to mushroom producers. Such alternative arrangements must be acceptable to the OMAFRA (Agricultural Engineer) and written agreements for these alternative arrangements will be required as part of the NMP process.

Prior to the approval of a NMP, the Chief Building Official for the municipality will verify using the County Planning and Development Department NMP mapping that all parcels of land to be party to a NMP have not yet been committed for use by any other NMP, so that lands are registered for use by only one farm operation for manure application. Should the Chief Building Official find that a farm is already registered to another NMP, the farmer will be notified and provided with the opportunity to find alternative lands for the application of manure or an alternative arrangement for the disposition of manure. Written agreements are required for the application of manure to lands not owned by the farm owner and/or operator or for alternative arrangements to dispose of manure. Such agreements must accompany the NMP, in all cases. Also, both the farmer and/or the private manure hauler are responsible to ensure that all regulations governing the transportation of the manure are followed.

Figure 1
NUTRIENT MANAGEMENT PLANNING PROCESS

5.1 Renewal Process

Best environmental management and land stewardship practices require that nutrient management plans be updated on a regular basis to reflect both changing circumstances and new approaches and technologies. Accordingly, local municipalities, with the assistance and support of the County, will establish a formal renewal process for nutrient management plans. This process will involve the following:

- At the time of approval of the nutrient management plan, the municipality shall advise the owner and/or operator of the livestock farm that it is their responsibility to renew the nutrient management plan every 3 years, effective March 1st of the third year in order to ensure compliance with best environmental management practices.

- It is recommended that the farm owner and/or operator obtain a third party review by a Consultant in Agriculture prior to submitting a renewed nutrient management plan.

- The submission of a nutrient management plan renewal should be accompanied by a signed statement as outlined in Appendix A-1 to this Strategy.

- Six months prior to the renewal date for a nutrient management plan, the local municipality shall send a letter to the farmer providing notice of the deadline for renewing the nutrient management plan, together with the request that the renewed plan be submitted prior to the deadline.

The importance of renewing nutrient management plans will be stressed as part of the education process outlined in Section 7 of this Strategy.

It is a requirement of this Strategy that all NMP's must be reviewed, either by the OMAFRA (Agricultural Engineer) or a Consultant in Agriculture, in accordance with the *NMAN99* program, as amended. The NMP must be found to be adequate by OMAFRA (Agricultural Engineer) or a Consultant in Agriculture before the municipality will consider the NMP to be in compliance of the Nutrient Management By-law.

Once all three components of the strategy are completed satisfactorily, the Chief Building Official will be in a position to issue the building permit.

6.0 Compliance with the Nutrient Management By-Law

In essence, the Nutrient Management By-laws require farmers to be in compliance with current best nutrient management practices as established by OMAFRA policies and guidelines. Figure 2 outlines the compliance process for the Nutrient Management By-Laws.

6.1 The Complaint Process

Complaints regarding the Nutrient Management By-Law may be activated by a telephone call, with a written complaint received within 24 hours or the investigation may be halted, unless it has been established that there is a violation of provincial legislation. Upon receiving the complaint, the local By-Law Enforcement Officer will assess whether the complaint involves a violation of provincial legislation. If it does, the complaint will be directed to the MOE and/or the OMAFRA (Agricultural Engineer), who will then re-assess the complaint to determine which legislation, if any, it concerns. If the MOE or the OMAFRA (Agricultural Engineer) finds the complaint involves a violation of legislation, staff will forward it to the appropriate Ministry for further action. If the MOE or the OMAFRA (Agricultural Engineer) finds that the complaint does not involve a violation of provincial legislation, staff will send the complaint back to the local municipality.

The local municipality investigates all complaints which do not involve a violation of provincial legislation and forwards such complaints to the County Agricultural Advisory Committee. The Advisory Committee is described in more detail in Section 6.2 of this Strategy. The Agricultural Advisory Committee reviews all complaints and determines whether each complaint is valid. For those complaints which are not considered to be valid, a written response is provided to the Complainant and copied to the farm owner and/or operator implicated in the complaint.

For valid complaints, a subcommittee of the Agricultural Advisory Committee further investigates each complaint and then recommends actions to remediate the problem based on the principles of agricultural Best Management Practices (BMP's), good farm management practices and proper land stewardship. When appropriate, advice from provincial Ministry staff may be sought. Such recommendations will be provided in writing to the farm owner and/or operator and a specified time period will be provided for the farmer to correct the problem(s). Once the farmer has corrected the problem, the matter is considered to be resolved and the Complainant is notified in writing.

In the unlikely event that the farm owner and/or operator chooses not to comply with the recommendations made by the Agricultural Advisory Committee, the Committee has the option of recommending to the municipality that the Farming and Food Production Protection Act (FFPPA) process be triggered. This process can be used if the complaint relates to the following areas of nuisance dealt with by this legislation: noise, odour, dust, flies, light, vibration and smoke. Should this avenue be appropriate, an attempt will be made by the Ministries involved to resolve the complaints without a hearing, however, the option of a hearing with the Normal Farm Practices Protection Board is also available if required.

If the complaint does not pertain to the Farming and Food Production Protection Act (FFPPA), the Agricultural Advisory Committee may recommend that the local municipality lay charges against the farm owner and/or operator for failure to comply with the Nutrient

Management By-Law or if the farmer is not willing to cooperate with the Agricultural Advisory Committee. If this avenue is followed, the issue is forwarded to the Provincial Court system for resolution. It is anticipated that this situation will be extremely rare.

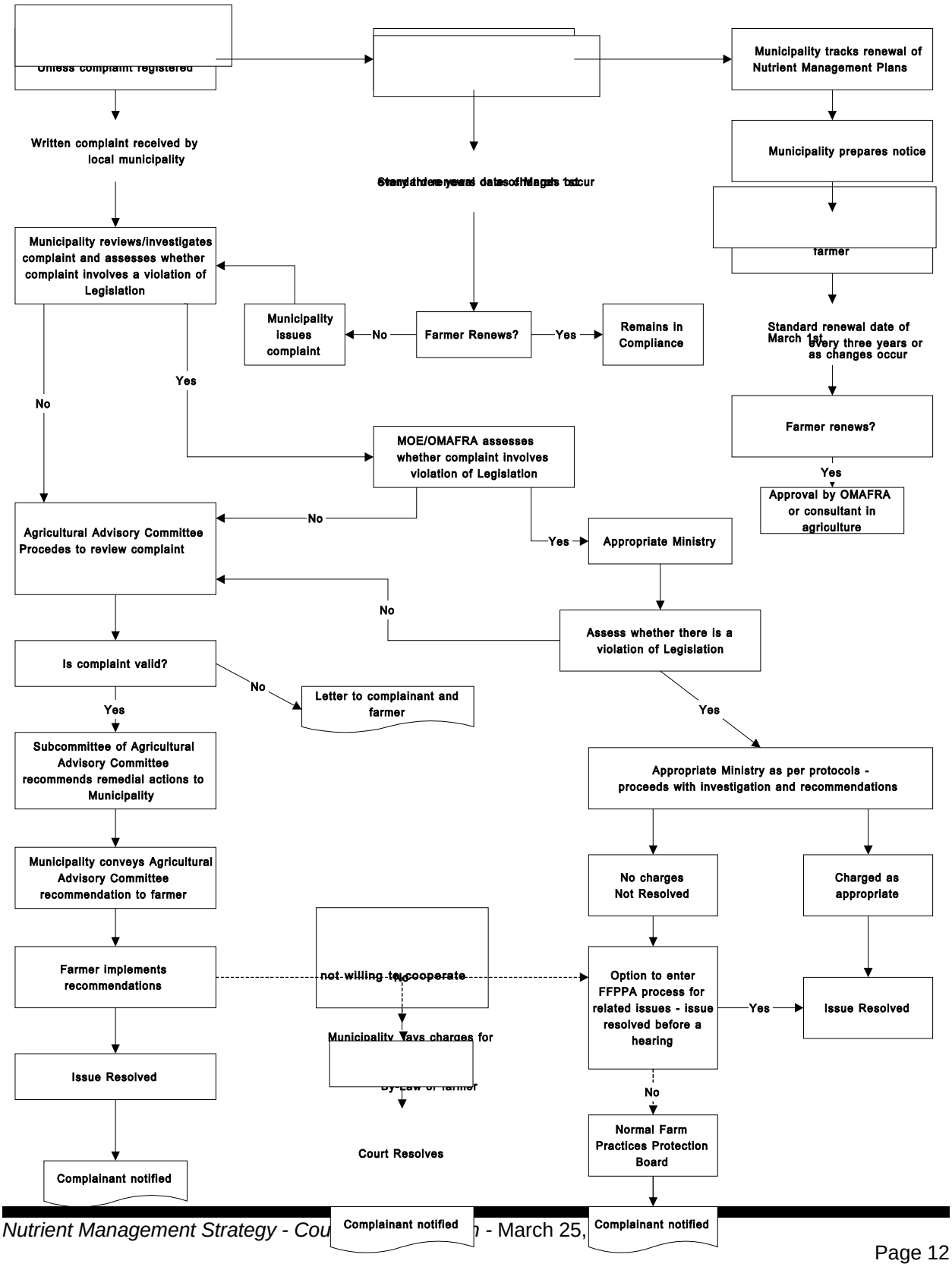
In all cases, it is the policy of this Strategy to notify the Complainant in writing of the outcome of their complaint.

6.2 The Agricultural Advisory Committee

A County-wide Agricultural Advisory Committee will be formed by the County of Wellington by by-law to assist with the complaint process for the municipal Nutrient Management By-Laws. The purpose of the Agricultural Advisory Committee is to review complaints that arise from the Nutrient Management By-Laws and to recommend to the municipality remediation actions to resolve these complaints based on agricultural Best Management Practices (BMP's), good farm management practices and proper land stewardship. Advice from provincial Ministry staff may be sought prior to making such recommendations. Access to the property subject to the complaint will be on a voluntary basis.

The Committee will operate as a group of peers from the farm community with representation from the major commodity groups and farm organizations in the County. It is intended that the Committee review complaints and consider inquiries regarding farm management practices that relate to the Nutrient Management By-Laws and that it will provide advice in respect to same. With the agreement of the parties involved, it may provide an alternative dispute resolution service and has the potential to resolve many agricultural issues without provincial involvement. Some complaints, including those relating specifically to manure spills, clearly fall within the mandate of the MOE or other provincial Ministry and therefore, the Committee would not become involved with these complaints.

Figure 2
NUTRIENT MANAGEMENT COMPLAINT PROCESS



6.2.1 Committee Composition and Operations

The Committee will consist of representatives nominated annually and appointed by County Council from the following organizations. The Committee will consist of 13 members, as follows:

- one representative from the Ontario Veal Association (County of Wellington);
- one representative from the Wellington Cattleman's Association;
- one representative~~s~~ from the Dairy Farmers of Ontario (County of Wellington);
- one representative~~s~~ from the Wellington Pork Producers Association;
- one representative~~s~~ from the Chicken Farmers of Ontario, District 7;
- one representative~~s~~ from the Ontario Egg Producers Marketing Board, Zone 8;
- one representative from the Wellington Federation of Agriculture;
- one representative from the Wellington Christian Farmers Association;
- one representative from the Ontario Sheep Marketing Agency, District 5;
- one representative from the Wellington Soil and Crop Improvement Association;
- two non-farm public representatives; and,
- one representative from Wellington County Council.

The Committee members shall elect a Chair and Vice Chair for the purpose of chairing meetings and overseeing Committee operations. The County shall provide secretarial services for the purpose of providing secretarial duties at general meetings and to process reports, correspondence, etc. and to provide bookkeeping services for the Committee. The County will also be responsible for accessory services such as photocopying and postage.

It is intended that the entire Committee meet as necessary to discuss central issues, deal with general information/education matters, and review the types of complaints/inquiries the Committee is fielding. For this purpose, the entire Committee should meet four times in the initial year, or at the call of the Chair, and at least twice a year thereafter. Following this annual meeting, a report of the Committee's undertakings within the previous year should be prepared for consideration by County Council.

When dealing with a specific complaint or inquiry, a subcommittee consisting of not more than three Committee members will be established for the purpose of conducting investigations, including on-site investigations by way of request to the farmer, of the complaint/inquiry and to formulate recommendations. When dealing with a specific complaint, it will be the responsibility of each local municipality to provide the expertise of the Chief Building Official and/or By-Law Enforcement Officer to the subcommittee for the purpose of the investigation of the complaint.

6.2.2 Committee Response to Complaints

The Agricultural Advisory Committee will follow a series of steps of action in response to complaints lodged under the Nutrient Management By-Laws:

- the local Chief Building Official and/or By-Law Enforcement Officer notifies the Committee Chair or Vice Chair upon receipt of a complaint which has been screened for violations to provincial legislation;
- upon notification by the local municipal staff, the Chair or Vice Chair will strike a review group consisting of not more than three of the Committee members. It will be the responsibility of this subcommittee to make recommendations regarding the remediation of the complaint. This process may involve an on-site investigation. Any investigations will ensure that bio-security of the livestock operation is not compromised.
- within a week of the meeting with the farm owner, the subcommittee will prepare a brief report outlining its findings and recommendations in respect of the complaint/inquiry. Copies of the report are to be provided to the farm owner, the complainant/inquirer and the host municipality.
- the findings and recommendations of the subcommittee shall be derived from the principles of agricultural Best Management Practices (BMP's), good farm management practices and proper land stewardship. Advice from OMAFRA (Agricultural Engineer) staff may be sought prior to making such recommendations.
- if during its review, the subcommittee determines that the subject matter should be dealt with by the MOE or other provincial Ministry, the Committee will notify the local municipality immediately;
- it will be necessary for the subcommittee to determine whether any follow-up action is required and who should be responsible for such follow-up.

The above-noted procedures are considered to be the basic framework by which the Agricultural Advisory Committee should function. The Committee is expected to develop a standard form to be used by a local municipality when forwarding a complaint to the Committee. The Committee is also expected to prepare and adopt a more detailed procedural guideline for assisting the municipality with complaints.

6.2.3 Committee Funding

Given that the adherence to good farm management practices and the resolution of disputes at a local level are of benefit to all taxpayers in a given area, the cost of operations for the Committee, when dealing with a complaint/inquiry should be borne by the local municipality. Accordingly, the cost of operations will be charged back to the host municipality on a cost recovery basis.

When the entire Committee is meeting to discuss central issues, deal with general information/education matters and review types of complaints that are coming before it, the costs associated with such meetings shall be borne by the County based on County policies and procedures.

7.0 Education

It is generally agreed that the success of the Nutrient Management Strategy relies on the commitment of the farming community to comply with the requirements of the Strategy and its accompanying by-laws. In an effort to reinforce the Nutrient Management Strategy, it is strongly recommended that the Agricultural Advisory Committee hold one seminar annually to provide an education forum regarding nutrient management. The format and content of the seminar will be determined by the Agricultural Advisory Committee. Funding for the seminar will be provided by the County since the issue of nutrient management is of county-wide interest.

APPENDIX "A -1"

A. Certificate Signed by the Person who Prepared the Nutrient Management Plan

I, _____, hereby certify that based on relevant information provided in good faith and excluding unforeseen or uncontrollable circumstances, the recommendations contained in the attached report will, if implemented, result in acceptable management practices. Acceptable management practices refer to normal farming practices that do not contravene any applicable law.

Signature _____ Date

B. Certificate Signed by Farm Owner and/or Operator

The farm owner and/or operator who is renewing their Nutrient Management Plan and who has authorized a consultant in agriculture to review their nutrient management plan shall append the following statement to the report.

I, _____, hereby certify that I have reviewed my Nutrient Management Plan and I shall, in good faith, follow and implement the recommendations as set out within the Nutrient Management Plan.

Signature _____ Date

C. Certificate signed by OMAFRA (Agricultural Engineer) or a Consultant in Agriculture Reviewing the Nutrient Management Plan

I, _____, have reviewed the Nutrient Management Plan as submitted and confirm that it meets the Nutrient Management review criteria of the Ontario Ministry of Agriculture, Food and Rural Affairs.

Signature _____ Date

APPENDIX "B"

In accordance with the Corporation of the _____ Nutrient Management By-law # _____, the Corporation of the _____ requires the following information to determine compliance of lands which are included in a Nutrient Management Plan. This information is to be registered on the County of Wellington NMP Mapping.

APPLICANT

NAME

ADDRESS _____ **POSTAL CODE**

TELEPHONE _____ **FAX**

PROPERTY LOCATION: **ROLL #** _____

LOT _____ **CONC.** _____ **CIVIC ADDRESS**

MUNICIPALITY

LANDS AFFECTED BY NUTRIENT MANAGEMENT PLAN

Roll No.	Civic Address	Munic.	Owner	Distance to Subject Property (miles)	Tillable Acres	Agreement Yes / No	Municipality Registration - Initials

Legend - Local Municipality Abbreviations

MIN	**-**	**Town of Minto**	**E**	**-**	**Town of Erin**
WN	**-**	**Township of Wellington North**	**GE**	**-**	**Township of Guelph-Eramosa**
MAP	**-**	**Township of Mapleton**	**P**	**-**	**Township of Puslinch**
CW	**-**	**Township of Centre Wellington**			

I _____ hereby certify that the above information is true, as if taken under oath.

Signed:

Dated:

NOTES

1. This form must be submitted and approved by the Corporation of the_____before submission to the Ontario Ministry of Agriculture, Food and Rural Affairs (Agricultural Engineer) for approval of the Nutrient Management Plan.
2. Approval and/or notification for any lands not within the County of Wellington that are to be used in the calculation of the Nutrient Management Plan will be submitted to the appropriate local municipality.
3. Copy of Manure Application Agreement must be submitted with this form.
4. Please allow two (2) weeks for processing by local municipality.
5. Form must be submitted **in triplicate**.
6. It will be necessary to re-submit and verify this information by March 1st every three years or if a change occurs the local municipality shall be notified.

LOCAL MUNICIPAL APPROVAL

The above-noted properties have been registered on the County of Wellington NMP Mapping for the purpose of determining availability of land to be used in a Nutrient Management Plan.

Twp. Official _____ Dated

APPENDIX "C"

MANURE APPLICATION AGREEMENT

_____
(Livestock Farm Name)

Lot ____, Concession _____, Municipality _____, County _____Roll # _____Civic Address
(Livestock Farm Location)

A Nutrient Management Plan for our _____ operation, our goal is to carry
(Type of Livestock)

out an environmentally sound program. In order to accomplish this, we need more land than we currently own. The proper application of livestock manure, following a Nutrient Management Plan would be carried out to minimize the impact on the environment.

If you are interested in being part of this program, please complete this form as follows:

_____ gives permission to
(Landowner) (Livestock Farm)

to spread manure on land owned at the following locations:

1. Lot __ Conc. ___ Municipality _____ County _____ Tillable Acres ___ Roll # _____Civic Address

2. Lot __ Conc. ___ Municipality _____ County _____ Tillable Acres ___ Roll # _____Civic Address

3. Lot __ Conc. ___ Municipality _____ County _____ Tillable Acres ___ Roll # _____Civic Address

(If more space is required, please attach a separate list including the same information as requested above.)

The landowner gives permission to the livestock farm to do soil sampling of his property to determine the condition of their soil as required for the purpose of a Nutrient Management Plan.

The landowner will not give permission to use the land identified above for the application of livestock manure or bio-solids (sewage sludge) to any other livestock farm during the term of this agreement.

The landowner also agrees that any bio-solid or livestock manure application to the land identified above must be incorporated into a Nutrient Management Plan.

This agreement shall be in force for a period of three years from the date of signing the agreement or should changes occur. However, sufficient lead time would be required if plans need to be altered.

Pollution liability insurance will be carried to cover spill cleanup and liability and proof of the insurance should be given to the local municipality.

The livestock farm will work in conjunction with the landowner's cropping plans to maximize nutrient utilizations.

The landowner is notified by this agreement that their land will be registered on the County of Wellington NMP Mapping by the local municipality in which the livestock farm produces the livestock manure.

NAME OF LIVESTOCK FARM (please print)

SIGNATURE OF LIVESTOCK FARMER

NAME OF LANDOWNER (please print)

SIGNATURE OF LANDOWNER

WITNESS

DATE

APPENDIX "D"

AGREEMENT FOR THE DISPOSAL OF LIVESTOCK MANURE

Agreement for the sale of livestock manure to meet the requirements of a Nutrient Management Plan.

This Agreement is made between: Farm Owner
hereafter referred to as the "Applicant"

And

Purchaser of Livestock Manure
hereafter referred to as the "Purchaser"

WHEREAS the Applicant has contracted the lands of the Purchaser for the sale of livestock manure in accordance with an approved Nutrient Management Plan;

AND WHEREAS THE Purchaser agrees to use the livestock manure in accordance with sound environmental and/or agricultural practices;

NOW THIS AGREEMENT WITNESSES that the parties hereto agree as follows:

1. The Owner has contracted to the Purchaser for disposal of _____ of livestock manure.

(amount)

2. The Purchaser proposes to use the livestock manure for the following purposes:
(Provide description and location, and how manure will be disposed of)

(Example: Manure applied to lands at Lot 1, Conc. 3, Local Municipality of..., County of Nowhere)

_____

_____

_____

_____

_____

_____

3. The Purchaser will not contract with any other applicant during the term of this agreement without the prior approval of the Ontario Ministry of Agriculture, Food and Rural Affairs (Agricultural Engineer) or unless the livestock manure is to be used for purposes other than those listed above.

4. This agreement shall be in force for a period of three (3) years from the date of ____ or as changes occur.

5. The terms of this agreement shall strictly apply to the present Purchaser. Should the purchaser use the livestock manure for any purpose not listed in this agreement, the term of the agreement become null and void.

6. The Purchaser is notified by this agreement that any lands on which the livestock manure is to be applied in accordance with this agreement, will be registered on the County of Wellington NMP Mapping.

IN WITNESS WHEREOF the parties have hereunto affixed their hands and seals this

day of _____ , 199__ .

Signed, Sealed and Delivered)
in the presence of)
)
)
)
_____)
)

_____
Applicant (Farm Purchaser)

Signed, Sealed and Delivered)
in the presence of)
)
)
)
_____)
)

_____
Purchaser (Livestock Manure Application)

APPENDIX E

EXCERPTS FROM
MINIMUM DISTANCE SEPARATION II
(PAGES 2, 6, 7 & 8)

ONTARIO MINISTRY OF AGRICULTURE, FOOD AND RURAL AFFAIRS
MARCH, 1995

IMPLEMENTATION GUIDELINES

The applicant completes the MDS II Data Sheet available from OMAFRA or municipal offices. The completed data sheet is submitted to the OMAFRA Agricultural Engineer, or, in some municipalities, directly to the municipal office for determination of separation distances.

General

1. MDS formulae and criteria are to be referenced in official plans and included in by-laws and are to be applied in designations and zones where livestock facilities are a permitted use and is to be implemented at the time of planning and/or development review.

2. MDS II applies when an application is made for a new, existing, modified or expanding livestock facility. The application may be for a building permit or an application under the Ontario Certificate of Compliance Program.

3. MDS II applies only to livestock and poultry facilities. It is not used to calculate separation distances from uses such as kennels, apiaries, greenhouses, mushroom farms, stockyards, assembly yards, or slaughterhouses.

4. MDS II is to be applied in any non-urban designation where agriculture and the keeping of livestock is a permitted use. MDS II is not applied where the livestock facility is within an approved urban designation.

5. The direction of the prevailing winds, the presence of berms or other forms of screening do not affect the calculated MDS II distance.

6. In cases of rebuilding such as after a fire, municipalities have the option of applying MDS II.

7. Minor variances to the MDS II distances can be considered based on site specific circumstances. Municipal officials must consult with Ontario Ministry of Agriculture, Food & Rural Affairs staff when considering a variance application. Conditions that meet the intent, if not the precise distance of MDS II or mitigate environmental impacts, will receive further consideration.

Measurement

8. Distances to the Nearest Neighbours Dwelling are measured as the shortest distance between the barn, or manure storage and the dwelling.

9. Distances to Residential Subdivisions, Urban Areas, areas zoned or designated Agriculturally Related Commercial Use, Passive Recreational, Institutional, Active Recreational or Commercial/Industrial are measured as the shortest distance between the barn or manure storage and the land uses noted above.

10. Distances to the Nearest Side Lot Line, Rear Lot Line, and Nearest Road Allowance are measured between the closest point of the barn or manure storage and the lot line or road allowance.

11. All distances are measured from the closest point of the barn used for animal housing.

DEFINITIONS

Active Recreational Use:

Recreational use usually with buildings or with a concentration of users such as golf courses, other playing fields, trailer parks, campgrounds and conservation areas with facilities.

Agriculturally Related Commercial Uses:

Uses directly related to agriculture and necessary in close proximity to farm operations, such as animal husbandry services, produce or grain storage facilities, or farm machinery outlets.

Housing Capacity:

Total maximum livestock/poultry capacity for the facility at any one time.

Institutional Use:
Uses such as schools, churches, hospitals, seniors complexes.

Livestock Facilities:

Livestock/poultry barns where agricultural animals are housed and the associated manure storage.

Livestock Unit:

Equivalent values for various types of animals including poultry, based on manure production and production cycles.

Passive Recreational Use:

Recreational use not requiring buildings and not altering the soil or topography, such as open space and environmental areas.

Residential Area: Areas zoned or designated residential.

Tillable Hectares:
Land, including pasture, that can be worked or cultivated.

Urban Area:

Cities, towns, villages, and hamlets for such uses as residential, recreational, institutional, commercial and industrial.

TABLE I: FACTOR 'A' (Barn Odour Potential).
and Animals per Livestock Unit (based on housing capacity).

	Animals per Livestock Unit		Factor A:
BEEF	1	Beef Cow[1] (barn confinement)	0.7
	1	" (barn with yard)	0.8
	2	Beef Feeders (barn confinement)	0.7
	2	" (barn with yard)	0.8
CHICKEN	125	Caged Layers (manure stored in barn)	1.0
	125	Caged Layers (daily manure removal)	0.8
	125	Chicken Breeder Layers	0.8
	200	Chicken Broilers/Roasters	0.65
	500	Pullets (replacement layers)	0.7
DAIRY	1	Milking COW[1,2] (tie-stall)	0.65
	1	" (free-stall)	0.7
	2	Dairy Heifers (barn confinement)	0.7
	2	" (barn with yard)	0.8
DUCK	100	Ducks	0.7
EMU	5	Emu	0.7
FOX	40	Adult Fox[4]	1.1
GOAT	4	Adult Goats[3]	0.7
	10	Feeder Goats (>20 kg)	0.7
HORSE	1	Horse[3]	0.65
MINK	80	Adult Mink[4]	1.1
OSTRICH	3	Ostrich	0.7
RABBIT	40	Adult Rabbits[4]	0.8
SHEEP	4	Adult Sheep[3]	0.7
	10	Feeder Lambs (>20 kg)	0.7
SWINE	5	Sows/Boars	1.0
	20	Weaners (4-30 kg)[5]	1.0
	4	Feeder Hogs (30-120 kg)	1.0
TURKEY	50	Meat Turkeys (>10 kg)	0.7
	75	Meat Turkeys (5-10kg)	0.7
	75	Turkey Breeder Layers	0.8
	100	Meat Turkeys (<5 kg)	0.7
	500	Pullets (replacement breeders)	0.7
VEAL	6	White Veal	1.0
	3	Red Veal (<300 kg)	0.8

Notes: For all other animals/poultry use 1 livestock unit per 450 kg housed at one time (A=0.8).

[1]Includes calf to 150 kg.

[2]A dairy farm usually has milking cows, dry cows, heifers and calves. Multiply the number of milking cows by 1.5 to account for the followers when they are all kept on the same farm.

[3]Includes offspring until weaned.

[4]Includes offspring to market size.

[5]Multiply number of sows by 2.4 to determine the number of weaners.

TABLE 2: FACTOR 'B' (Final Livestock Units).

Livestock Units	Factor B	Livestock Units	Factor B	Livestock Units	Factor B	Livestock Units	Factor B
5 -	107	95 -	313	500 -	578	1600 -	821
6 -	119	100 -	318	520 -	585	1650 -	829
7 -	129	110 -	327	540 -	592	1700 -	836
8 -	138	120 -	335	560 -	598	1750 -	844
9 -	145	130 -	343	580 -	605	1800 -	851
10 - 152	140	- 350	600	- 611	1850	- 858	
12 - 164	150	- 357	620	- 617	1900	- 865	
14 - 175	160	- 366	640	- 623	1950	- 872	
16 - 183	170	- 374	660	- 629	2000	- 879	
18 - 191	180	- 383	680	- 635	2100	- 892	
20 - 198	190	- 392	700	- 640	2200	- 905	
22 - 205	200	- 400	720	- 646	2300	- 917	
24 - 210	210	- 409	740	- 651	2400	- 929	
26 - 216	220	- 418	760	- 656	2500	- 941	
28 - 221	230	- 426	780	- 661	2600	- 952	
30 - 225	240	- 435	800	- 666	2700	- 963	
32 - 230	250	- 444	850	- 679	2800	- 974	
34 - 234	260	- 452	900	- 690	2900	- 985	
38 - 241	280	- 470	1000	- 713	3200	- 1015	
40 - 245	290	- 478	1050	- 723	3400	- 1034	
45 - 253	300	- 487	1100	- 733	3600	- 1053	
50 - 261	320	- 501	1150	- 743	3800	- 1071	
60 - 275	360	- 522	1250	- 762	4200	- 1105	
65 - 281	380	- 531	1300	- 771	4400	- 1121	
70 - 287	400	- 540	1350	- 780	4600	- 1136	
75 - 293	420	- 548	1400	- 789	4800	- 1152	
80 - 298	440	- 556	1450	- 797	5000	- 1166	
85 - 304	460	- 564	1500	- 805	7500	- 1326	
90 - 309	480	- 571	1550	- 813	10000	- 1455	

TABLE 3: FACTOR 'C' (Percentage Increase).

Percentage Increase	Factor C	Percentage Increase	Factor C	Percentage Increase	Factor C
0-50 -	0.70	120 -	0.86	280 -	1.03
55 -	0.72	130 -	0.88	300 -	1.04
60 -	0.73	140 -	0.90	325 -	1.05
65 -	0.75	150 -	0.91	350 -	1.06
70 -	0.76	160 -	0.92	375 -	1.07
75 -	0.77	170 -	0.94	400 -	1.08
80 -	0.78	180 -	0.95	425 -	1.09
85 -	0.79	190 -	0.96	450 -	1.10
90 -	0.81	200 -	0.97	500 -	1.11
95 -	0.82	220 -	0.99	550 -	1.12
100 -	0.83	240 -	1.00	650 -	1.13
110 -	0.85	260 -	1.02	700 -	1.14

Note: For new livestock farms or if the % increase is greater than 700 percent, use Factor C = 1. 14

TABLE 4: SITING DISTANCES FOR MANURE STORAGES (metres).

Column 1: Roofed or covered storages for manure, runoff, and milkhouse washwater. Includes any covered or roofed concrete, steel or earthen storages, in-barn solid manure packs, and storages under fully slatted floors.

Column 2: Open solid manure pile on concrete slab. Includes the runoff storages (concrete or earthen) used for capturing seepage liquids from solid manure storage or runoff liquids from yards. If yards are scraped into runoff storage, use column 3 when runoff storage is a concrete or steel tank and column 4 when runoff storage is earthen. Milkhouse washwater may be added to runoff storage.

Column 3: Open concrete or steel tanks used for storing liquid manure, milkhouse washwater, or yard runoff where yard is scraped into storage.

Column 4: Open earth-sided or earth-sided storage with concrete floor to be used for storing liquid manure or yard runoff when yard is scraped into storage or milkhouse washwater.

MANURE STORAGE BASIC DISTANCE'S'

Minimum Base Distance 'F' for the Building (m)	Column 1 Covered Storage Systems (m)	Column 2 Open Solid and Runoff Storage Systems (m)	Column 3 Open Liquid Tank and Runoff Storage Systems (m)	Column 4 Earthen Liquid and Runoff Storage Systems (m)
40	40	55	119	324
45	45	60	123	326
50	50	65	128	328
55	55	70	132	331
60	60	74	136	333
65	65	79	140	335
70	70	84	144	337
75	75	89	149	340
80	80	94	153	342
85	85	99	157	344
90	90	104	161	346
95	95	108	166	348
100	100	113	170	351
105	105	118	174	353
110	110	123	178	355
115	115	128	182	357
120	120	133	187	360
125	125	138	191	362
130	130	142	195	364
135	135	147	199	366
140	140	152	204	368
145	145	157	208	371
150	150	162	212	373
160	160	172	220	377
170	170	181	229	382
180	180	191	237	386
190	190	201	246	391
200	200	210	254	395
210	210	220	263	399
220	220	230	271	404
230	230	239	280	408
240	240	249	288	413
260	260	269	305	422
280	280	288	322	430
300	300	307	339	439
320	320	327	356	448
360	360	366	389	466
380	380	385	406	475
400	400	404	423	484
420	420	424	440	492
440	440	443	457	501
480	480	482	491	519
500	500	502	508	528
550	550	550	550	550