

Environmental Regulations Handbook for Nova Scotia Agriculture

Second Edition, 2004



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**NOVA SCOTIA**

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Legislation Cited

The following pieces of Legislation and their accompanying regulations are referred to in this version of the Environmental Regulations Handbook for Nova Scotia Agriculture.

Federal:

- *Canadian Environmental Protection Act* (Environment Canada)
- *Canadian Environmental Assessment Act* (Environment Canada)
- *Species at Risk Act* (Environment Canada)
- *Fisheries Act* (Fisheries and Oceans Canada)
- *Navigable Waters Protection Act* (Transport Canada)
- *Pest Control Products Act* (Health Canada)
- *Endangered Species Act* (NS Department of Natural Resources)
- *Environment Act* (NS Department of Environment and Labour)
- *Farm Practices Act* (NS Department of Agriculture and Fisheries)
- *Fences and Detention of Stray Livestock Act* (NS Department of Agriculture and Fisheries)
- *Fences and Impounding of Animals Act* (Service Nova Scotia and Municipal Relations)

Provincial:

- *Agriculture Administration Amendment (2002) Act* (NS Department of Agriculture and Fisheries)
- *Agricultural Marshland Conservation Act* (NS Department of Agriculture and Fisheries)
- *Conservation Easements Act* (NS Department of Natural Resources)
- *Ditches and Water Courses Act* (Services Nova Scotia and Municipal Relations)
- *Forests Act* (NS Department of Natural Resources)
- *Health Act* (NS Department of Health)
- *Municipal Government Act* (Service Nova Scotia and Municipal Relations)
- *Special Places Protection Act* (NS Department of Education)
- *Wilderness Area Protection Act* (NS Department of Environment and Labour)

These acts may be viewed on the internet at <http://www.gov.ns.ca/legi/legc/index.htm> . This site contains links to full texts of the statutes and regulations of Nova Scotia, as well as a link to federal legislation.

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CHAPTER 1

INTRODUCTION

The purpose of this handbook is to provide guidance to agricultural producers of the environmental regulations, standards, codes and guidelines which affect, or may affect decisions made in the management of their farm. The information contained in this handbook is a synthesis of the material contained in the various acts and regulations cited. The various sections of this handbook are organized by agricultural activity.

The handbook is structured with each section and/or subsection representing an agricultural activity. Under each activity, the regulations, standards, codes and/or guidelines which apply are described.

While it is recognized that municipal jurisdiction also affects many aspects of agriculture, individual municipal by-laws are not included due to the large number of municipalities and by-laws that exist, as well as the difficulty in tracking all of the changes that can occur over a period of time. They are therefore outside the scope of the present document.

1.1 Canadian Environmental Assessment Act

The *Canadian Environmental Assessment Act* (CEAA) requires federal decision makers to consider the environmental effects of proposed projects before taking any actions that would allow the project to go ahead. The Act often applies to private sector projects where there are specific federal decisions or approvals that must be made or granted. For example, if an agriculture producer requires an approval under the *Fisheries Act* or *Navigable Waters Protection Act* for a water intake structure, the CEAA also applies and a federal environmental screening is needed. Permits or approvals under other federal legislation may also trigger the CEAA. Applying for federal funding to enable an agricultural producer to carry out a project, is subject to CEAA. If acquisition or lease of federal land is needed for the project to proceed, the project is subject to CEAA.

When the CEAA applies, the agricultural producer may be asked to provide information or prepare an environmental assessment for their proposed project. For further information on the Act, or advice on

whether it applies to your project or activities, please contact the **Canadian Environmental Assessment Agency, Atlantic Region at (902) 426-0564.**

Where both a federal and provincial environmental assessment are required for the same project, the two governments work together in a harmonized manner.

1.2 Important Notices

This document was prepared under the direction of the Nova Scotia Department of Agriculture and Fisheries. Although every effort has been made to ensure the accuracy of its contents, the Department of Agriculture and Fisheries assumes no liability for the accuracy or reliability of the information contained herein. It must be recognized by the user of this handbook that acts, regulations, by-laws, standards, codes and guidelines are constantly changing. **Users of this handbook are recommended to contact the regulating agency for further information on laws, regulations or by-laws which may affect their operations.**

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CHAPTER 2

PLANNING TO REDUCE ENVIRONMENTAL IMPACT

Introduction

Various agricultural activities have the potential to pollute or damage the environment. It should also be evident from the following chapters that there are a number of laws, regulations, standards, codes and guidelines that regulate agricultural activities as they interact with the environment. It is the intent of this handbook to help farmers be aware of these ordinances so that they can be proactive in the way they practice agriculture. Farmers can also take practical actions in managing their operations in order to reduce the risk of causing environmental damage and be in compliance with the law.

2.1 Environmental Farm Plans (EFP)

In order to be pro-active the Nova Scotia Federation of Agriculture and the NS Department of Agriculture and Fisheries have developed an Environmental Farm Plan Program. This program is voluntary and its goal is to help farmers identify and assess environmental risk by examining their farm operation from an environmental management perspective. It allows farmers to incorporate environmental considerations into their business decision making process rather than addressing environmental issues on a stop gap basis.

The EFP program was initiated in 1997 and modified in 1999. The program includes the following components:

1. Initial farm visit
2. On farm environmental review by an Agricultural Engineer

3. Documentation of the review findings
4. Presentation of the findings and an environmental farm plan (all aspects of the process are kept confidential)
5. Follow-up visit

Included in the assessment is a consideration of water use and management, farm waste management, manure storage and handling, fertilizer management and livestock production, pest management practices, pesticide storage and application practices.

The Environmental Farm Plan is voluntary at this time. It is recommended that farmers participate in this program. For further information regarding this program, contact the Nova Scotia Federation of Agriculture or your local Agricultural Resource Coordinator.

CHAPTER 3

WATER USE AND MANAGEMENT

Introduction

Water is a valuable resource which we must share with other people and with the ecosystem in which we live. The agricultural industry is highly dependant on a quality source of water for many aspects of production, whether it be for growing crops, livestock, for sanitation of equipment or application of pest control products. As with any industry or human activity, agricultural practices have the potential to adversely impact water quality. The following describes the legislation which helps to protect and regulate the use of this valuable resource.

3.1 Water Supply

3.1.1 Wells

An approval from the NS Department of Environment and Labour is required for the withdrawal or diversion of more than 23,000 L of water per day from any surface or groundwater source (*Environment Act* (NS), *Activities Designation Regulations*). Should the water be extracted from a surface water supply, the intake must be screened as per the federal *Fisheries Act*.

The *Well Construction Regulations* of the *Environment Act* (NS) regulate all aspects of the construction, maintenance and abandonment of wells. It is mandatory that drilled well construction be carried out by a licensed well contractor. However, if a producer were to dig their own well, the well construction must meet all the requirements for the *Well Construction Regulations*, which include the following items:

1. During construction or maintenance all debris should be removed from within and around the well, and the well must be disinfected using a method approved by an inspector.
2. No wells can be built in such a manner or location that surface water may enter the well or aquifer.
3. Wells must be located at minimum specified distances from potential contaminant sources as follows:
 - 61 m from a cesspool receiving raw sewage

(this applies to manure storage lagoons)

- 15.2 m (drilled well) or 30.5 m (dug well) from a seepage (leaching) pit, filter bed, soil adsorption field, earth pit, privy, or similar disposal unit; septic tank, concrete vault privy, sewer of tightly joined tile or equivalent material or sewer connected foundation drain
- 3 m from a sewer of cast iron with leaded or approved mechanical joints, independent clear water drain or cistern
- 610 mm from a pump house floor drain, cast iron with leaded joints, draining to ground surface
- 1.5 m of a property boundary
- 6.1 m from the outer boundary of any road or public highway unless approved by an inspector

It is recommended that the “Guidelines for the Management and Use of Animal Manure in Nova Scotia” be consulted for separation distances from wells and manure spreading operations.

Wells must be maintained to ensure they do not pose a safety or environmental hazard.

Abandoned or unused wells must be sealed to prevent the vertical movement of water into the well, and wells maintained for future use must be sealed in a manner approved by an NSDEL inspector.

For additional details on well abandonment procedures, consult your local NSDEL office.

3.1.2 Ponds

An approval from the NS Department of Environment and Labour is required for the storage of more than 25,000 m³ of water (*Environment Act*, (NS), *Activities Designation Regulations*). This would cover most agricultural ponds.

When extracting water from a water body (stream, lake or pond) that may contain fish, the federal *Fisheries Act* requires that the pump intake be screened to prevent fish from being drawn into the pump.

There is also a requirement for maintenance of a minimum flow in the watercourse, and an assessment to ensure that the water withdrawal rate will not exceed the capability of the watercourse.

3.2 Ditches and Watercourses

An approval from the NS Department of Environment and Labour is required for the construction or maintenance of a dam, the removal of material from a surface watercourse, the diversion of a watercourse from its natural channel, the dredging or modification of a surface watercourse, the placement of rock or other erosion control material in a surface water course, or any other alteration of a surface watercourse or the flow of water. Other alterations would include stream crossings/fords. (*Environment Act* (NS), *Activities Designation Regulations*).

An environmental assessment is required for a project which involves the transfer of water between drainage basins where the drainage area to be diverted is greater than 1 km² (*Environment Act* (NS) *Environmental Assessment Regulations*). In this act “watershed” means the area drained by, or contributing to a stream, lake or other body of water. It is possible for larger farms, or farms which have land holdings in more than one location to be part of two or more watersheds.

An approval is required for the construction of any dam or obstruction of a watercourse or any other construction which alters the watercourse, or may affect the watercourse and/or the quality of the water or fish habitat as per the federal *Fisheries Act*. If such a construction obstructs the movement of fish, the construction of a fish way may be required by Fisheries and Oceans Canada (*Fisheries Act*).

Under the *Environment Act* (NS) a manmade ditch is not a water course.

Some municipalities have by-laws specifying buffer strips along streams. Check with the municipal office in your area to determine if by-laws regarding buffer strips are in effect.

The *Ditches and Water Courses Act* (Service Nova Scotia and Municipal Relations) provides for agreements between land owners to build, widen or deepen ditches to remove run off from their properties. The agreements apply to new owners of the same lands until the municipally appointed engineer decides otherwise. The ditch cannot affect other owners’ lands without their consent. The Act provides dispute resolution mechanisms for disputes between owners who have entered into these agreements. The municipal clerk is the contact person in the case of disputes.

3.3 Wetlands

The “*Wetlands Directive*” of the NS Department of Environment and Labour states that an area which is in active agricultural use, dykeland, existing cranberry bog¹, etc., is not a wetland for the purposes of the Act and its regulations. The following provisions, therefore would **not** apply to these areas.

¹ **Note:** The term cranberry bog refers to a man made structure which is only flooded under controlled conditions as part of cranberry crop management.

An environmental assessment under the NS Department of Environment and Labour is required for any activity which disrupts 2 ha or more of any wetland (*Environment Act, Environmental Assessment Regulations* schedule "A" F.2). An approval from the NS Department of Environment and Labour is required for any activity which takes place on or may disrupt any wetland of less than 2 ha (*Environment Act, Activities Designation Regulations*).

3.4 Dykelands

Dykelands are regulated under the provincial *Agricultural Marshland Conservation Act*. Under this act, no development shall, on and after November 7, 2000, be carried out in a marshland section unless authorized by the Marshland Administrator or the development conforms with generally accepted farming practices that do not require structures to be built. "Development" includes the erection, construction, alteration, placement, location, replacement or relocation of, or addition to, a structure or a change or alteration in the use made of lands or structures.

There is an exemption under the *Environment Act, Activities Designations Regulations* that any development must be approved by the Marsh Body (board appointed to administer the marsh).

3.5 Watercourse Protection

Regulations have been added to the *Forests Act, Wildlife Habitat and Watercourses Protection Regulations*, which must be followed when forest harvesting takes place on any woodland in Nova Scotia. These require: 1. Leaving buffer strips (special management zones) along water-courses, 2. Leaving legacy trees/wildlife clumps, 3. Leaving coarse woody debris. The first requirement applies to the protection of watercourses.

Alteration of a water course by activities related to wood lot management, and other activities such as stream crossings, the placement of rock or other erosion protection material in a surface watercourse; or any other alteration of a surface watercourse or the flow of the water therein, is designated as an activity under the provincial *Environment Act, Activities Designation Regulations*. This requires an approval from the NS Department of Environment and Labour

3.6 Livestock Access To Natural Water Bodies

Over the past many years people have become more aware of the impact that livestock operations can have on the natural environment. Complaints over cattle having access to, or standing in, streams and rivers have become more frequent. While there is no law that specifically says "you shall not allow your cattle to enter a natural water body", there are several laws which in effect say this in other ways. The key ones among these are:

1. The federal *Fisheries Act* states that no person shall alter fish habitat without approval and "no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish" or where the substance may enter water frequented by fish.
2. The provincial *Environment Act* also basically says that no one can release (knowingly or not) into the environment a substance that causes or may cause a significant adverse effect.

These laws are significant because the bacteria and nutrients from the feces and urine of cattle qualify as deleterious substances that may cause a significant adverse effect. Almost all of our waters are frequented by fish or flow into areas frequented by fish. As well, the uncontrolled trampling of cattle on the banks of streams

and on stream bottoms can disturb soil and stream sediments leading to siltation. Silt is also deemed a deleterious substance under the federal *Fisheries Act*.

If you are a livestock producer and your cattle currently have access to a natural water body (stream, river, brook, lake, natural pond, or natural wetland) then there are a few steps you should take.

1. You should restrict your cattle's access to the natural water body using some form of fencing.
2. You should invest in an alternative watering system for your cattle.
3. If your cattle must cross a natural water body to get from one field to another, you should construct a properly designed and permitted stream crossing. This activity requires an approval from the NS Department of Environment and Labour (*Environment Act, Activities Designation Regulations*) and approved by the Fisheries and Oceans Canada). Fisheries and Oceans Canada has a useful brochure on their website at http://www.dfo-mpo.gc.ca/habitat/law_req/index_e.asp entitled "Fish Habitat Conservation and Protection - What The Law Requires"

which explains section 35 (2) of the federal *Fisheries Act* on habitat alterations and approvals.

3.7 Designation of Protected Water Areas

Protected Water Areas may be applied to surface water supply areas as well as ground water supply areas.

Under the *Environment Act* (NS), The Minister, when requested by an operator of a water works or proposed water works, may designate an area surrounding any source or future source of water supply for a water works as a protected water area. This allows water utility owners to restrict activities including agriculture in a designated watershed. Setbacks and other restrictions may also apply. While it is advised that water utility owners purchase all land within a designated watershed, there may be some cases where this is not possible. Guidelines have been prepared for agricultural practices within designated water sheds. Refer to **Recommended Agricultural Practices within Municipal Drinking Water Supply Areas in Nova Scotia**.

CHAPTER 4

FARM WASTE MANAGEMENT

Introduction

There are a number of waste products which are produced or accumulated by any farm operation. These include solid wastes such as plastics, wood, brush, twine and liquid wastes such as milkhouse washwater, silage leachate and used oil. The following outlines legislation which regulate the disposal of these wastes. Animal wastes and pesticide wastes will be dealt with in separate sections.

4.1 Solid Waste

The *Solid Waste Resource Management Regulations* of the provincial *Environment Act* regulate the way in which solid wastes generated on the farm can be disposed of. The following sections summarize these regulations.

4.1.1 Dumps

Under the *Solid Waste Resource Management Regulations* (NS Department Environment and Labour), it is illegal to “own, construct, manage, operate, alter or modify a landfill, incinerator, ash disposal site, or disposal site for construction or demolition debris without obtaining approval from the Minister”. This means that it is generally illegal to dump solid wastes on the farm. Some exceptions to this outlined in the regulations are:

“rock (excluding rock containing a sulphide bearing material), aggregate, soil bricks, mortar, concrete, asphalt, pavement, porcelain or ceramic materials, tress, brush, limbs, stumps, root balls, organic mat, and milled wood that is free of adhesives, coatings or preservatives”.

4.1.2 Designated Materials

The *Solid Waste Resource Management Regulations* identify a number of designated materials which are banned from landfills. The list of materials includes the following, which are taken from Schedule B of the regulations.

- Redeemed beverage containers – Ethylene glycol (automotive antifreeze)
- Corrugated cardboard – Compostable organic material
- Newsprint – Steel/tin food containers
- Used tires – Glass food containers
- Lead-acid (automotive) batteries – Low-density polyethylene bags and packaging
- Leaf and yard waste – High-density polyethylene bags and
- Waste paint – packaging

This requires that you find alternative methods of disposing of these materials such as recycling, composting, or returning to place of purchase as appropriate.

4.1.3 Burning

There is a prohibition on the burning of tires, waste dangerous goods, used oil, materials containing rubber or plastic, railway ties or other woods treated with preservative and asphalt shingles in the provincial *Environment Act, Air Quality Regulations*, Schedule “B”. As a result, tires, used oil, etc. may not be burned or used to facilitate the burning of brush piles.

The burning of municipal solid wastes is also prohibited under the *Environment Act, Solid Waste Resource Management Regulations*. “Municipal solid waste” means garbage, refuse, sludge, rubbish, tailings, debris, litter and other discarded materials resulting from residential, commercial, institutional and industrial activities which are commonly accepted at a municipal solid

waste management facility, but excludes wastes from industrial activities regulated by an approval issued under the Act.

Various permits may be required before undertaking burning operations on your farm such as disposal of brush piles or burning of blueberry fields. You are advised to check with your municipal office to determine if municipal burning permits are required.

Under the **Forest Fire Protection Regulations** of the provincial **Forests Act**, a burning permit from the Department of Natural Resources is required to “set, start, kindle or maintain a fire in the woods or within 1000 ft of the woods” during the forest fire season¹. Please consult with your local office of the Department of Natural Resources to determine the type of permit and specific conditions and stipulations which apply in your situation. Also note that permits are sometimes required from both the Department of Natural Resources and the Municipality.

¹ The forest fire season for Yarmouth, Digby, Shelburne, Kings, Annapolis, Queens and Lunenburg is April 1st through October 15th inclusive. For All other counties it is April 15th through October 15th inclusive.

4.2 Liquid Waste

Many liquid wastes, such as milkhouse wash water, silage leachate, field runoff, etc., generated by the farm are not specifically regulated. However, liquid wastes released into the environment, ie applied to land, entering surface or groundwater in levels considered to be deleterious could trigger charges under four separate pieces of legislation, the **Canadian Environmental Protection Act (CEPA)**, the federal **Fisheries Act**, the **Health Act (NS)**, or the **Environment Act (NS)**. These wastes should be contained, handled and disposed of in a manner which prevents their entry into surface or groundwater.

The following section outlines specific liquid wastes for which regulations do exist (note manure and pesticides are discussed in CHAPTERs 5 and 10).

4.2.1 Storage and Disposal of Used Oil

Used oil should be safely stored as per the requirements defined in the NS Department of Environment and Labour’s Guidelines for the Storage of Used Oil. The disposal of used oil is regulated by the **Used Oil Regulations** under the provincial **Environment Act**.

Under these regulations, used oil is defined as petroleum or synthetic lubrication oils, hydraulic fluids, metal working fluids and insulating fluids which have been used and are no longer suitable for their original purpose, but are suitable for other uses, including re-refining or other uses that are considered acceptable to the Minister. Contaminated used oil is defined as used oil that has a flash point less than 38°C or contains any of the substances listed in Column I of Schedule “A” in a concentration in excess of the limit stated in Column II of Schedule “A” of the **Used Oil Regulations**. The chief contaminants of concern include PCBs, Total Organic Halocarbons (as chlorine), cadmium, chromium, and lead.

Under these regulations the following restrictions apply:

1. Used oil or contaminated used oil must be disposed of by transfer to a NSDEL licenced used oil collector or an NSDEL approved used oil storage facility.
2. Used crankcase oil may also be returned to a used oil return facility (volume limitations may apply – check with the seller of the crankcase oil for locations of return facilities)
3. Used crankcase oil generated on site may be burned only in NSDEL registered used oil furnaces.

4. Used oil may NOT be applied to “a public or private highway, road, lane, trail, bridge, parking area or any land for any purpose including dust suppression”.

Under the *Emergency Spill Regulations*, Schedule “A” spills of used oil greater than 100 Litres or spills of contaminated used oil greater than 5 Litres must be reported by

calling the environmental emergencies centre at 1-800-565-1633. Following the reporting of a spill, the person responsible for the petroleum storage must provide all information required by the emergency responder from the NS Department of Environment and Labour and must comply with all orders issued under the *Emergency Spill Regulations*.

CHAPTER 5

MANURE STORAGE HANDLING AND USE

Introduction

Proper management of manure storages and manure spreading can decrease the potential for odour generation and environmental pollution. Manure storage is a necessary part of livestock production, since incorporation of manure into the soil or spreading on the soil should only be done at certain times of the year. The following legislation and guidelines apply to all livestock operations including beef, dairy, sheep, goat, turkey, layer, swine, broiler, hogs and mink where the storage, handling and use of animal manure constitutes a significant component of the farm operation.

Livestock manure has the potential to contaminate both surface water and groundwater supplies. Manure entering surface water or groundwater in levels considered to be deleterious could trigger charges under four separate pieces of legislation, the *Canadian Environmental Protections Act (CEPA)*, the federal *Fisheries Act*, the *Health Act* (NS), or the *Environment Act* (NS). Manure should be contained, handled and applied in a manner which prevents its entry into surface water or groundwater.

5.1 Manure Storage

In general, the storage of manure is not regulated under Federal or Provincial Statutes at present. However, an environmental assessment through the NS Department of Environment and Labour is required on any storage holding more than 5000 m³ of liquid or gaseous substances, which would include liquid manure (*Environment Act, Environmental Assessment Regulations*).

Under Municipal by-laws, the location of manure storages, as well as setback distances from neighbouring properties and or streams, may be regulated. For information on setbacks within your community, please contact your municipal office for by-law information.

Where specific by-laws do not exist it is recommended that the setbacks in the “**Guidelines for the Management and Use of Animal Manure in Nova Scotia**” be followed.

Under Municipal by-laws a development permit or building permit may be required for the construction of a manure storage. For information on building permits within your community, please contact your municipal office for by-law information.

Also, a variance ruling would be required for construction on land that is protected as marshland under the *Agricultural Marshland Conservation Act* (NS).

CHAPTER 6

FERTILIZER

Introduction

Fertilizers have the potential to be contaminants in both surface and groundwater supplies. Fertilizer entering surface or groundwater in levels considered to be deleterious could trigger charges under four separate pieces of legislation, the *Canadian Environmental Protection Act* (CEPA), the federal *Fisheries Act*, the *Health Act* (NS), or the *Environment Act* (NS). Fertilizers should be stored, handled and applied in a manner which prevents its entry into surface or groundwater.

6.1 Storage

Only storage of very large quantities of fertilizer, generally in excess of that used by most farms, is regulated. An approval from the NS Department of Environment and Labour is required for the construction or operation of a storage facility that has the capacity to store 250t or more of anhydrous ammonia or 500t or more of granular or prilled ammonia phosphate, ammonium nitrate or urea fertilizer products (*Environment Act* (NS), *Activities Designation Regulations*).

6.2 Spills

Under section 5 of the *Environment Act* (NS) *Emergency Spill Regulations* and Schedule "A" spills of 50L or 50kg or more of miscellaneous products must be reported by calling the environmental emergencies centre at 1-800-565-1633. Following the reporting of a spill, the person responsible for the fertilizer must provide all information required by the emergency responder from the NS Department of Environment and Labour. As well they must comply with all orders issued under the *Emergency Spill Regulations*.

A person responsible must also initiate containment and cleanup of a spill as soon as possible after they are aware of the spill.

CHAPTER 7

LIVESTOCK PRODUCTION

Introduction

The following section deals with legislation and regulations affecting areas of livestock production other than waste production. These include livestock facilities, stocking density and fencing regulations.

7.1 Livestock Facilities

Construction of livestock facilities is regulated by municipal by-laws. In most municipalities a **development permit** or **building permit** is required for the construction of a livestock facility. Be sure to consult your municipal office to find out the requirements for your location.

Livestock facilities must be constructed in accordance with the “**National Farm Building Code of Canada**”.

Location of livestock facilities may be regulated by Municipal by-laws. These control both the location (zones) in which livestock operations are permitted, and the setbacks required. If you farm in one of these municipalities, please contact your municipal office for by-law information.

7.2 Stocking Density

Some municipalities and planning areas regulate livestock stocking densities, in planning areas, for both commercial livestock and household livestock operations. The definitions for commercial and household livestock operations as well as the various conversions for animal type vary from by-law to by-law. Refer to the current by-laws, or contact the local development officer for the pertinent definition and conversions.

Where no specific municipal by-law restrictions apply it is recommended that figure 2, “Minimal Annual Hectareage

Required for Manure Application” of the “**Guidelines for the Management and Use of Animal Manures in Nova Scotia**” be utilized.

7.3 Fencing and Restraint

The provincial *Fences and Detention of Stray Livestock Act* requires the owner of a livestock farm to build and maintain fences to prevent his livestock from escaping from the farm. It requires the owner of an adjoining non-livestock farm not to plant or cultivate any crop other than hay or pasture closer than eight feet to the livestock owner’s fence, that would constitute an enticement to livestock. The Act requires owners of adjoining livestock farms to share the costs of building and maintaining fences. Livestock means cattle, horses, ponies, mules, sheep, swine and goats. The Act applies only to municipalities designated by the Governor in Council. Sixteen municipalities were designated as of 2002. Check with your municipal office as to their status under this act.

The *Fences and Detention of Stray Livestock Act* was amended in 2002. The changes are found in the *Agriculture Administration Amendment Act*.

For those municipalities not designated under the previous Act, the *Fences and Impounding of Animals Act* (NS) requires the proprietor of a field adjoining another improved and enclosed field to build or maintain his proportion of the fencing. Fences are to be built of stones, pickets,

boards, logs, poles, brush, posts and rails, or posts and wire, barbed or plain, unless the lands are bounded by unfordable ponds, rivers or the sea or surrounded by hedges. The fences must be at least four and a half feet high, except stone walls and picket, board and wire fences which shall be at least four feet high. Owners of wood or barren or burnt lands not under improvement are not compelled to have fences.

The Act prohibits animals to run at large where a municipal bylaw prohibits it and provides for damages from the owner of an animal who breaks another's fence. The Act

provides for impounding animals. Animals means horses, asses, mules, cattle, sheep, goats and swine.

The type of fencing permitted may be regulated by municipal by-law under the provisions of the *Municipal Government Act* (NS). Check with your municipal office to determine if by-laws are in effect.

While fencing of livestock from watercourses is not currently regulated, it is the recommended practice within the "**Guidelines for the Management and Use of Animal Manure in Nova Scotia**".

CHAPTER 8

SOIL MANAGEMENT

Introduction

In general, there are no specific pieces of legislation, regulations, or by-laws which deal with soil management. However, "release" of sediment into surface water can trigger charges under three separate pieces of legislation, the *Canadian Environmental Protection Act* (CEPA), the federal *Fisheries Act*, or the *Environment Act* (NS). In particular, Fisheries and Oceans Canada, which administers the *Fisheries Act*, is very concerned about sediment entering streams, particularly those which are spawning grounds for salmonoids (salmon and trout). Fisheries and Oceans Canada has set a standard of 25 mg/L of sediment in water. If water running off from your farm can be shown to exceed this amount, you may be charged under the federal *Fisheries Act* or the provincial *Environment Act*.

CHAPTER 9

PETROLEUM STORAGE AND HANDLING

Introduction

The storage, handling and disposal of petroleum products is highly regulated. Producers should be aware that virtually every aspect of the process will require compliance with some form of regulatory control. This section will assist in identifying the issues and requirements surrounding petroleum products on the farm.

9.1 Storage and Handling

The management of petroleum products is regulated by the ***Petroleum Management Regulations*** under the provincial ***Environment Act***. Under the regulations, the following general conditions apply:

1. No person shall install an underground storage tank system with a capacity less than 2000 Litres.
2. Steel underground tanks installed prior to 1995 are subject to service life restrictions (e.g. 15 years) depending on construction specifications. Section 15 of the ***Petroleum Management Regulations*** should be referenced to determine service life restrictions.
3. All aboveground storage tanks with a combined capacity greater than 4000 L and underground storage tanks with a combined capacity greater than 2000 L shall register the system with the Department of Environment and Labour.

With the proclaiming of the Petroleum Management Regulations in March of 2002, NSDEL no longer requires approvals for the installation of storage tanks. Instead of an approval, the tank owner must submit a prenotification form to NSDEL for any new tank installation and the installer submits an installation report once the work is completed.

4. No person shall install, alter or remove a storage tank system unless that person holds a certificate of qualification as a licensed petroleum storage tank installer.

5. Anyone who constructs, installs or alters a new or relocated storage tank system shall meet the minimum requirements set forth in the Nova Scotia Standards for the Construction and Installation for Petroleum Storage Tank Systems (1997 edition)

Agricultural operations with petroleum storage facilities should review the ***Petroleum Management Regulations*** as well as any other applicable legislation (i.e. Fire Code, Municipal Bylaws). The local office of the NS Department of Environment and Labour may also be contacted for any inquiries on the specific requirements of the ***Petroleum Management Regulations***.

Agricultural operations with smaller systems should ensure that the system is managed in such a way as to prevent leaks or spills from entering the environment. Further, it is a recommended practice to monitor the tank system in a fashion similar to that set out in the ***Petroleum Management Regulations***. Such monitoring allows early detection of leaks (or theft) which will serve to both protect the environment and save money.

9.2 Spills

Under section 10 of the ***Petroleum Management Regulations*** spills of petroleum products must immediately be reported as set out in the ***Emergency Spill Regulations***. According to these regulations spills of 100

litres or more of flammable liquids (including petroleum) must be reported by contacting the environmental emergencies reporting centre by telephone at (902) 426-6030 or at 1-800-565-1633. Following the reporting of a spill, the person responsible for the spill and/or the person responsible for the petroleum storage system must provide all reasonable assistance and information required by the NS Department of Environment and Labour Inspector in order that the inspector can carry out their duties

pursuant to the provincial *Environment Act*. They must also comply with all orders issued under the *Emergency Spill Regulations*.

Further, for any petroleum leak or spill (no amount limit) all steps must be taken that are necessary to end the leak or spill and the area affected and the environment must rehabilitate the environment to a standard prescribed by the NS Department of Environment and Labour.

CHAPTER 10

PESTICIDES

Introduction

Pesticides, while important in agricultural production, do pose risks to human health, especially to those applying them, and to the environment. Their registration, sale, use, storage and disposal are strictly regulated. The legislation which pertains to pesticides is discussed in this section.

Pesticide storage, handling and use are regulated under the federal *Pest Control Products Act* and the provincial *Environment Act*. However, spills and/or release of pesticides into surface and/or groundwater can trigger charges under four separate pieces of legislation, the *Canadian Environmental Protection Act* (CEPA), the federal *Fisheries Act*, the *Health Act* (NS), or the *Environment Act* (NS).

The federal *Pest Control Products Act* makes it mandatory to follow all directions and limitations shown on the label of the pest control product. The *Pesticide Regulations* of the *Environment Act* (NS), stipulates a similar requirement. The pesticide label is a legal document. Pesticides must be used according to the instructions on the label. If label directions are not followed, laws are being broken.

The federal *Pest Control Products Act* and the *Pesticide Regulations* of the provincial *Environment Act* stipulate that only products registered in accordance with the federal *Pest Control Products Act* can be used.

10.1 Storage

Under the *Pesticide Regulations* of the provincial *Environment Act* all pesticides must be stored in the labelled manufacturers container. Producers storing greater than 25 L of liquid product or 25 kg of solid product must store the product in a pesticide storage facility which prevents uncontrolled release of the pesticide (*Pesticide Regulations* of the *Environment Act*). Further, they must have a listing of the pesticides stored in the facility along with estimated quantities available at the request of local fire officials, the door must be clearly placarded and emergency phone numbers posted.

10.2 Handling and Application

Under the provincial *Pesticide Regulations* of the *Environment Act (NS)* a certificate of qualification (pesticide applicators certificate) is required for all agricultural operators using commercial class or restricted class pest control products. However, it is possible for a certified applicator to supervise non-certified applicators.

Section 21 of the provincial *Pesticide Regulations* of the *Environment Act* stipulates that pesticides cannot be applied in a designated protected water area unless the protected water area regulations are complied with. Pesticides are prohibited altogether in some of the protected water supply areas. If your operation falls within a designated protected water area check with the water utility operator to find out the restrictions before thinking of using pest control products. Not every municipal water supply area in Nova Scotia has been designated as a Protected Water Area under the *Environment Act*.

An approval from NSDEL is required for application of a pesticide over or on a surface watercourse and for all aerial application of a pesticide (*Activities Designation Regulations* of the *Environment Act*).

Setbacks for application of pesticides generally take two forms: (1) those specified on the label, and (2) those specified in either Municipal bylaws or in regulations for Protected Water Areas designated under the provincial *Environment Act*.

Buffer zones specified on the pesticide label apply to downwind applications only.

10.3 Disposal

Under the provincial *Pesticide Regulations* of the *Environment Act*, sprayers must be filled, flushed or cleaned in such a way that contamination will not result, containers must be disposed of at a container collection facility, and unused product must be disposed of in a manner specified on the label and in such a way that contamination will not result.

10.4 Spills

Under the *Emergency Spill Regulations* of the *Environment Act*, Schedule "A", spills of concentrated pesticide of 5 L or 5 kg or more and dilute pesticide of 70 L or more must be reported by calling the environmental emergencies centre at 1-800-565-1633. Following the reporting of a spill, the person responsible must provide information required by the emergency responder from the NS Department of Environment and Labour. They must also comply with all orders issued under the *Emergency Spill Regulations*.

A person responsible must also initiate containment and cleanup of a spill as soon as possible after they are aware of the spill, using all possible safety precautions.

CHAPTER 11

NUISANCE

Introduction

Nuisance is generally defined as something which “impairs the reasonable enjoyment of life or property”. A nuisance could be noise, odour, dust or other airborne material, vibration, or any other thing that can affect enjoyment of life and property. In general, nuisance is a common law rather than statutory law matter. The provincial *Environment Act*, however, defines adverse effect as “an effect that impairs or damages the environment, including an adverse effect respecting the health of humans or the reasonable enjoyment of life or property”, making it possible for nuisance to be a statutory offense under the provincial *Environment Act*. Note that the provincial *Environment Act* prohibits the release of any substance which causes a “significant” adverse effect. While most nuisance problems do not result in a “significant” adverse effect, there are regulatory limits for some parameters such as dust and hydrogen sulphide as stipulated in the *Air Quality Regulations*.

11.1 Farm Practices

The *Farm Practices Act*, replaced the *Agricultural Operations Protection Act* in June of 2000. This act is designed to provide a mechanism for the establishment of normal farm practices and to protect farmers who are following normal farm practices from civil action due to nuisance or negligence. It establishes a committee (The Farm Practices Board) to review complaints of nuisance brought against farmers. The committee determines if the farmer is following “normal farm practices”. If the ruling is in favour of the farmer the farmer cannot be sued for nuisance in civil court. The board may also recommend changes to the farmers’

operation to mitigate the circumstance. The provincial *Farm Practices Act* also allows for the development of codes of practice that define a normal farm practice. So far there has not been any development of codes of practice.

Decisions of the board may be appealed to the Supreme Court of Nova Scotia. No municipal by-law respecting a nuisance, activity or other disturbance applies to restrict a normal farm practice carried on as part of an agricultural operation. However, nothing in this Act affects the ability of a municipality to apply a municipal planning strategy or land-use by-law to farm land.

CHAPTER 12

ENERGY EFFICIENCY

Introduction

Both the federal and provincial government have passed energy efficiency legislation. This legislation regulates the types of equipment which can be sold in Canada and does not apply directly to farm operations, as all new equipment purchased should meet the standards set out in these laws. At present, used equipment is not covered by these Acts and their regulations.

CHAPTER 13

WILDLIFE MANAGEMENT

Introduction

The agricultural landscape provides many important wildlife habitats and farmers play a major role in maintaining the quality of these habitats. Legislation has been implemented to protect and preserve wildlife and wildlife habitat.

13.1 Endangered Species

The Nova Scotia Provincial government enacted the *Endangered Species Act* in 1998. The Federal *Species at Risk Act* was proclaimed on June 4, 2003. Under the provincial act no person shall destroy, disturb or interfere with or attempt to destroy, disturb or interfere with the specific dwelling place or area occupied or habitually occupied by one or more individuals or populations of an endangered or threatened species, including the nest, nest shelter, hibernaculum or den of an endangered or threatened species. Most farms have been established for many years and the likelihood of a terrestrial type endangered species being found there is extremely remote. However aquatic and riparian species, both plants and animals, are likely to be found anywhere in the province. Good farming practices, such as leaving effective watercourse buffers (or re-establishing them), preventing nutrient inputs to watercourses and following spray buffer zones stated on pesticide labels, should provide a level of protection for these species.

13.2 Wildlife Habitat

Wildlife Habitat and Watercourses Protection Regulations have been added under the *Forests Act*(NS). Under these regulations when forest harvesting takes place on any woodland in Nova Scotia you must leave at least a 20 metre (66 feet) wide strip, called a Special Management Zone (SMZ), along each edge of the watercourse. Partial harvesting, under certain conditions, is permitted within the Special Management Zone. Refer also to section 3.5 on CHAPTER 3.

When harvesting any area larger than 3 hectares (7.4 acres), leave at least 10 living trees standing (future cavity trees) for each hectare harvested, leave these trees in clumps, with a minimum of 30 trees per clump.

When harvesting leave standing dead trees and as much large woody debris on the harvested area as possible.

This does not apply to land being cleared for agricultural use.

CHAPTER 14

AIR QUALITY

Introduction

Agricultural activities may also impact air quality. Agriculture has been indicated as a significant source of “Greenhouse Gas” emissions. As well, other air pollutants such as ozone depleting substances are regulated.

14.1 Air Quality

Under the *Environment Act* (NS), farm operations shall not exceed the maximum permissible ground level concentrations for ambient air quality prescribed in Schedule “A” of the *Air Quality Regulations*. These include, Carbon Monoxide, Hydrogen Sulphide, Nitrogen Dioxide, Ozone and

Sulphur Dioxide. Farm operators should also be aware of the *Ozone Layer Protection Regulations* of the provincial *Environment Act*, which prohibits the release of ozone depleting substances.

CHAPTER 15

NATURAL AREAS CONSERVATION

Introduction

Farm properties sometimes contain natural areas considered to be of significant value for the biological features they support. Examples can include natural old forests, forests which are periodically flooded, areas of gypsum or limestone sinkholes, caves, natural salt marshes, freshwater swamps, marshes, meadows, or bogs, or special habitats containing rare species. In areas where farming is extensive, even moderately sized patches of forest may have significant natural value, in providing homes or stopover areas to a great variety of species, especially in landscapes where those species have little else to choose from.

The NS Department of Environment and Labour, as well as some non-governmental conservation organizations, such as the Nova Scotia Nature Trust and the Nature Conservancy of Canada, offer farmers a variety of options for those wishing to voluntarily conserve significant natural areas on their farm properties. Conservation of natural areas is becoming recognized as a component of environmental management systems.

15.1 Special Places Designation

The NS Department of Environment and Labour works with landowners who wish to voluntarily protect significant natural areas on their land by offering designations under the *Special Places Protection Act* (NS) or the *Wilderness Areas Protection Act* (NS). It will also work with landowners on conservation easements (a voluntary agreement provided for under the *Conservation Easements Act* (NS), by which a landowner and a conservation group or agency can ensure the conservation of significant natural areas on a landowner's property in perpetuity or for a fixed term). The Department may also accept donations through the provincial *Environment Act* of land containing significant natural features, and works with other organizations to purchase of significant natural areas for protection.

Organizations such as the Nova Scotia Nature Trust and the Nature Conservancy of Canada offer many of the same conservation options to landowners who prefer to work with non-governmental, charitable organizations. These options range from perpetual protection under a piece of legislation, to protection using self-management, through to stewardship options.

Staff from the NS Department of Environment and Labour, Protected Areas Branch, as well as from the above-mentioned organizations, are available to help farmers identify significant natural areas on their properties, and to discuss the options available to farmers who wish to voluntarily conserve such areas.