

Nova Scotia Department of the Environment October 17, 1997

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INTRODUCTION

The purpose of this guide is to describe the information requirements and the process for obtaining environmental approvals for proposed cranberry operations.

A number of operating approvals are required for the development of cranberry operations on upland sites - these approvals will be rolled into one. Similar operating approvals are required for wetland sites. In addition, environmental assessment approval is required for wetland sites that are two hectares or greater in size. This approval requires that the public be given an opportunity to participate in the review of proposed projects. As a result, it will take longer to obtain approval of a wetland site than an upland site.

What is a "Wetland"?

Wetlands are lands that play very important functions in the biophysical environment as well as the human environment. Their importance affords them special protection by the *Environment Act*.

A wetland is land that is saturated or covered with water long enough to promote vegetation and biological activity which are adapted to a wet environment (Please see Appendix G for the technical definition of a wetland). Lands that are currently being used for agricultural purposes or for stormwater drainage that are periodically soaked or wet are not deemed to be wetlands as they are considered to have been converted to alternate use.

General Instructions

This guide describes the minimum content and nature of the information required to apply for operating approvals and, in the case of wetlands greater than two hectares in area, to register a cranberry operation (undertaking) for environmental assessment approval. Every site is unique and different; it is not possible to provide a complete list of information that will be required in every case. However, this guide does contain suggestions regarding all major information requirements.

Confidentiality

All information under the control of the Department of the Environment is accessible to the public, subject only to the *Freedom of Information and Protection of Privacy Act*. In particular,

Section 21 of that Act provides in part that information which the proponent considers to be a trade secret and/or confidential business information is to be clearly identified and made known to staff of the Department, who will consider a request to keep this information confidential.

How to minimize approval processing time

By far the most effective method to minimize the regulatory approval period is to provide a complete information package along with applications for approval. The local Nova Scotia Department of the Environment office (see Appendix D) and the Nova Scotia Department of Agriculture & Marketing (see Appendix E) can provide environmental baseline information on many environmental aspects, and can provide guidance to a proponent prior to submission of a completed application form.

A decision on the issuance of environmental assessment approvals will be made on or before 25 days from the date that a **complete information package** is provided to the Nova Scotia Department of the Environment. If environmental assessment approval is required, and if granted, applications for operating approvals will be processed as soon as the assessment approval is completed.

A decision on the issuance of operational approvals for cranberry operations will be made on or before 60 days from the date that a **complete information package** is provided to Nova Scotia Department of the Environment.

If the proposed cranberry operation is an upland site or would disrupt less than two hectares of wetland, then go to "Operational Approvals", page 3.

If the site of the proposed cranberry operation will disrupt 2 or more hectares of wetland, then go to "Environmental Assessment Approval", page 6.

Federal Environmental Approvals

Proposed projects may be subject to the federal environmental assessment process if (a) the federal government is the proponent, (b) federal grants or other forms of federal financial assistance are used to carry out the project or (c) the federal government is required to exercise a regulatory duty in relation to the project, such as issuing a permit or licence that is included in the Law List prescribed in the regulations to the Canadian Environmental Assessment Act. If there may be federal involvement, please contact the environmental assessment administrator at the Nova Scotia Department of the Environment in Halifax (see Appendix D) to determine the appropriate federal agency and contact person.

Acknowledgement

This publication was produced with the assistance of the Nova Scotia Department of Agriculture and Marketing.

OPERATIONAL APPROVALS - Part V of the Environment Act

This section describes the information that is required for an application for operational approvals. Projects that require operational approvals are listed in the *Activities Designation Regulations*. The approval process is described in the *Approvals Procedure Regulations*.

1.0 Applicant Description

Name of Applicant Postal address Street (courier) address Telephone No. Fax No. e-mail address (if available)

Name of Property Owner (if different from the above) and copy of the deed for the property to be developed.

2.0 Location of Project

Ultimate mapped boundaries of the proposed site in a regional and local context showing infrastructure such as site access, road and rail networks, and proximity to settled areas.

2.1 Property map, including Property Identifier Number (PIN) available from the nearest Nova Scotia Geomatics & Land Information Centres (see Appendix E for locations)

3.0 Description of the Project

- 3.1 Construction Details
 - .1 A detailed description of the construction of the proposed cranberry operation
 - vegetation removal
 - soil profile description at the proposed site (pre development)
 - proposed methods to prevent groundwater contamination (if necessary)
 - ditching
 - discharge of water (during ditching operation) to watercourses
 - application of sand
 - planting
 - .2 Approximate total construction period. If construction is to be done in stages, list each stage and its approximate duration
 - .3 Proposed date of first physical construction-related activity on site
 - A plan (drawing) of the layout of the proposed project. The plan should include all significant features of the operation such as location of the beds, ponds, wells for water supply, ditching, withdrawal and discharge points

3.2 Operation

Describe the proposed operation of the cranberry project in detail. As a minimum, this description should include the following:

- .1 water for cranberry operation
 - source and amount of water available

- daily/weekly requirement
- method of obtaining water
- frequency that water required
- discharge of water from cranberry operation
- dimensions and volume of storage reservoirs
- ability of source to meet requirements

.2 sand

- source
- amount required per year
- distance of source to nearest residence
- distance of source to nearest watercourse

.3 pesticides

- pesticides to be used
- frequency of application for a typical program
- method of application
- pest control practices to be used in association with pesticides

.4 fertilizers

- amount to be used
- method and frequency of application

.5 wildlife control

This section should state if it is anticipated that wildlife control will be utilized at the cranberry operation. If so, state the species that may need to be controlled and the methods that would be used.

4.0 Description of the Environment

- 4.1 General description of the local terrain, including features such as nearby watercourses, wetlands, dwellings, wells and public roads and topography within the area that may be adversely affected by the project.
- 4.2 If water for the operation is to be withdrawn from a watercourse or operational water is to be discharged directly to a watercourse, an inventory shall be conducted in the receiving stream(s) for fish, fish habitat, flow, velocity, depth, and water quality. The inventory shall be conducted above the influence of the proposed project, and at an appropriate

number of locations downstream from the proposed stormwater discharge (survey locations shall cover the area of anticipated influence). This section should indicate the ability of the watercourse to meet demand. It should be noted that it is unlikely approval will be given if withdrawal from a watercourse will have adverse effects on other species that depend on the watercourse for all or part of their life cycles.

- 4.3 If the proposed cranberry operation is to be on a wetland that is less than two hectares, the project is subject to provisions of the 1995 Nova Scotia Department of the Environment Wetlands Directive (currently being revised). The following issues must be addressed in any proposal that disrupts wetlands, and will be evaluated by the Nova Scotia Department of the Environment before any approvals to proceed with the project are issued:
 - .1 wildlife habitat potential;
 - .2 rare and endangered species;
 - .3 groundwater recharge potential;
 - .4 surface flow regulation;
 - .5 agricultural use of the wetland;
 - .6 water treatment; and
 - .7 potential for peat development.

ENVIRONMENTAL ASSESSMENT APPROVAL - Part IV of the Environment Act

Environmental assessment approval is required for all proposed cranberry operations that would disrupt more than two hectares of wetland. No site development activity can occur until environmental assessment approval is issued. The *Environmental Assessment Regulations* require that the Minister of Environment make a decision regarding proposed projects within 25 days of the registration of projects.

The Minister of the Environment will make a decision whether an undertaking may proceed, or if more information is required, based upon the criteria set out in Section 12 of the *Environmental Assessment Regulations*. Section 12 and the definitions of "commence", "environment", "environmental effect" and "wetland", are reproduced in Appendix B of this document.

Cranberry operators will be required to place advertisements in a local newspaper and a newspaper with province wide distribution. These advertisements invite members of the public

to provide comments to Nova Scotia Department of the Environment regarding proposed projects.

Cranberry operators are **encouraged but not required** to undertake consultation with parties potentially affected by the undertaking well in advance of project registration. This consultation would involve identification of affected residents, public interest and watershed management groups, and other appropriate government regulators. The proponent should present project related information to these groups, explain the undertaking, and seek their comments and modify the project where possible, to accommodate concerns before proceeding.

E.A. Branch staff in Halifax (902) 424-4936 or (902) 424-6343 can provide advice on how to undertake this pre-registration consultation.

The required steps in the environmental assessment process are:

- contact Nova Scotia Dept. of the Environment in Halifax to confirm information requirements for proposed project
- collect appropriate information and prepare detailed description of project
- submit multiple copies of the above to NSDOE as a "registration document"
- place advertisements in a newspaper with local distribution and one with province-wide circulation
- provide NS Dept. of the Environment with copies of the advertisements

The proponent is reminded that the environmental assessment process examines the impact of a proposed project ("undertaking") on the environment. The environment is defined as including the human and built environment, as well as the biophysical environment. It should be noted that much of the information required for environmental assessment approval is the same as for operational approvals.

5.0 Proponent Description

Name of individual, partnership or corporation, and address

Chief Execu	tive Officer		rson for purposes nental assessment
Name Official Title Address	e (if different from above address)	Name Official Titl Address	e (if different from above address)
Telephone No. Fax No. e-mail address (if available)		Telephone N Fax No. e-mail addre	No. ess (if available)

6.0 Nature of the Undertaking

- 6.1 Purpose/Rationale/Need for the Undertaking:
 - .1 Purpose/Reason for the Undertaking
 - Other Methods for Carrying Out the Undertaking
 Briefly describe any viable options to the proposed method(s) of carrying out the
 undertaking and provide reasons for the selection of the proposed method(s).
 This would include the reasons why the development is proposed for a wetland
 site and not an upland site.

7.0 Description of the Undertaking

7.1 Site Location Mapping

Ultimate mapped boundaries of the proposed site in a regional and local context showing infrastructure such as; site access, road and rail networks, proximity to settled areas, individual and designated water supplies, archaeological sites, etc.

- .1 Property map, including Property Identifier Number (PIN)
- Latitude, longitude (decimal degrees) of centre of site

 Large scale (1:10000 minimum preferred 1:25000 acceptable, 1:50000 location
 map), original base map(s) and/or recent air photos clearly indicating the site
 location relative to existing communities and transportation facilities, and
 showing the proposed project access routes

7.2 Construction Details

- .1 A detailed description of the construction of the proposed cranberry operation
 - vegetation removal
 - ditching
 - discharge of water (during ditching operation) to watercourses
 - application of sand
 - planting
- .2 Approximate total construction period (if staged, please list each stage and its approximate duration)
- .3 Proposed date of first physical construction-related activity on site

7.3 Operation

Describe the proposed operation of the cranberry project in detail. As a minimum, this description should include the following:

- .1 water for cranberry operation
 - source and amount of water available
 - daily/weekly requirement
 - method of obtaining water
 - frequency that water will be required
 - discharge of water from cranberry operation
 - dimensions and volume of storage reservoirs
 - ability of source to meet requirements
- .2 sand
 - source
 - amount required per year

- distance of source to nearest residence
- distance of source to nearest watercourse

.3 pesticides

- pesticides to be used
- frequency of application for a typical operation
- receiving watercourse
- method of application
- cultural practices to be used to minimize pesticide use

.4 fertilizers

- amount to be used
- method of application

.5 wildlife control

This section should state if it is anticipated that wildlife control will be utilized at the cranberry operation. If so, state the species that may need to be controlled and the methods that would be used.

7.4 Occupations

List the number of employees and their occupations anticipated for this undertaking.

8.0 Description of the Environment

8.1 Biophysical Environment

General description of the local terrain, including features such as nearby watercourses, dwellings, wells and public roads and topography within the study area.

- 8.2 Area to be affected by the undertaking
- 8.3 Sensitive Environment Descriptions

Description of those sensitive aspects of the biophysical environment that may be adversely affected by the project.

.1 Survey of Flora (Plants) in Affected Area

If a proposed cranberry operation is to be located on a wetland, a professional botanist shall conduct an inventory of the area to be developed. If rare or endangered species of flora are found in a wetland or in an area that would be adversely affected by disruption of a wetland, it is unlikely that environmental approval will be issued.

.2 Survey of Fauna (animals & fish) in Affected Area

A professional biologist shall conduct an inventory of the wetland and receiving watercourses that may be impacted by the proposed operation. If rare or endangered species of fauna are found, it is unlikely that environmental approval will be issued.

3 Survey of Receiving Watercourses for Water Quality, Fish Habitat, and Hydrologic and Hydraulic Characteristics

Fish, fish habitat, water quality and hydrology should be addressed in the following manner:

- An inventory shall be conducted in the receiving stream(s) for fish, fish habitat, flow, velocity, depth, and water quality. The survey shall be conducted above the influence of the proposed project, and at an appropriate number of locations downstream from the proposed stormwater discharge (survey locations shall cover the area of anticipated influence).
- Indicate the percent of the watershed containing the proposed cranberry operation that is covered by wetlands. If there are other wetlands within the watershed, indicate if they have been altered from the natural state and if so, the cumulative impact of development of the proposed cranberry operation on wetlands in the watershed.
- .4 Description of Existing Groundwater Resources
 - Describe the quality and quantity of groundwater resources in the project area.

Indicate the number of residences that use groundwater for drinking water. The radius of the area that needs to be investigated is very much site dependant - it could be as little as 100 metres or as much as 1000 metres.

9.0 Environmental Impacts

9.1 Potential Impacts

This section should describe all potential impacts that may occur as a result of the construction and operation of the cranberry facility and must be prepared by a qualified person. Listed below are **some** of the issues that should be addressed:

- if groundwater is to be used as the source of water for the cranberry operation, indicate the capacity of the aquifer to meet water demand
- if surface water is to be used as the source of water for the cranberry operation, indicate the capacity of the watercourses to meet water demand and potential impacts on organisms that depend on the watercourses for all or part of their life cycles. Note If water requirements of the cranberry operation will result in significant adverse impacts to the watercourses from which the water is obtained, it is unlikely that environmental approval will be granted.
- .3 the proponent should describe the potential impacts of discharge of water on receiving watercourses. This should include impacts on fauna, water quality and potential flooding.
- .4 if the project is to be located on a wetland, the proponent should state the potential impacts on rare and endangered species of flora and fauna.
- .5 state the amount of employment that will be generated by the proposed operation

10.0 Impact Mitigation

This section should describe measures that were taken in the design of the cranberry facility or measures that will be taken during construction and operation that will minimize or eliminate potential adverse impacts.

11.0 Project-Related Documents

Provide a bibliography of any pertinent project-related documents.

Provide one copy of any report(s) on environmental work already performed by or for the proponent.

12.0 Schedule

Please indicate proposed dates for start of construction and start of operations. Briefly state the reasons for the selection of these dates.

13.0 Approval of the Undertaking

List of main permits, licenses, approvals, and other forms of authorization required for the undertaking, together with the names of the authorities responsible for issuing them (e.g. federal government department, provincial government department, municipal government department, etc.).

14.0 Funding

If a grant or loan from a government agency(ies) (federal, provincial or otherwise), constitutes all or part of the financing for this undertaking, state the agency(ies) from which the funds have been requested. This information is required to ensure that all relevant agencies are involved in the decision regarding proposed projects.

15.0 Signature of Proponent

The registration document must be signed and dated by the person applying for approval or chief executive officer of a partnership or company applying for approval.

Contact the EA Administrator prior to registration to determine the number of copies of the Registration Document that will be required.

Nova Scotia Department of the Environment PO Box 2107	Phone: (902) 424-6343 424-4936
Halifax, NS B3J 3B7	Fax: (902) 424-0501
	e-mail: hlfxterm.envi.kendalaj@gov.ns.ca Attention: Environmental Assessment Administrator

Dated this 17 day of October, 1997

Director, Regional Offices

Director, Environmental Support Services

Appendix A

Supporting Documentation

The following supporting documentation is mandatory in order to process approvals issued under the Activities Designation Regulations. Environmental assessment approval is required before other environmental approvals can be issued. In order to coordinate and simplify approvals information filing requirements, the information if available at the environmental assessment stage, can be filed with the EA registration document. If the information is unsuitable for the environmental assessment stage, it will be forwarded onto other approvals staff.

Put a check in the boxes in front of each piece of supporting documentation supplied with this application that is included and relevant to it.

certified copy of the articles of incorporation of the company.
comprehensive written description of the operation being applied for.
scaled drawings of property layout.
engineering drawings, plans and specifications.
additional information filed in support the application.

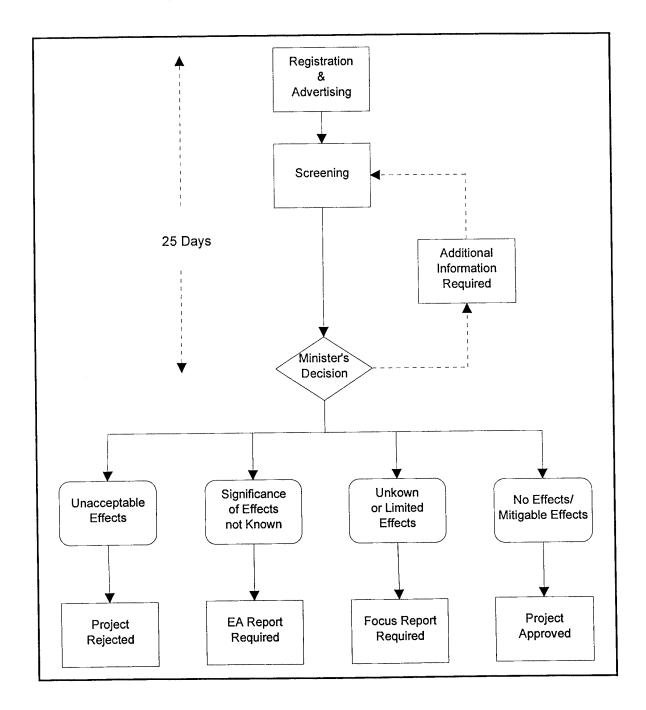
Appendix B

FACTORS RELEVANT TO THE MINISTER'S DECISION

The Minister of the Environment is directed by s.12 of the *Environmental Assessment Regulations* as to the decision for undertaking approval, rejection, or necessity for additional information (information addendum, focus report, or environmental assessment report)

- The Minister requires the following information to make his decision regarding projects that are registered under the *Environmental Assessment Regulations*:
 - (a) the location of the proposed undertaking and the nature and sensitivity of the surrounding area;
 - (b) the size and scope of the proposed undertaking;
 - (c) concerns expressed by the public about the adverse effects or the environmental effects of the proposed undertaking;
 - (d) steps taken by the proponent to address environmental concerns expressed by the public;
 - (e) potential and known adverse effects or environmental effects of the technology to be used in the proposed undertaking;
 - (f) project schedules where applicable;
 - (g) planned or existing land use in the area of the undertaking;
 - (h) other undertakings in the area; and
 - (i) such other information as the Minister may require.

Appendix C
Environmental Assessment Flow Chart



Appendix D

Nova Scotia Department of the Environment Offices

For environmental assessment approval (Part IV of the Environment Act) contact:

Halifax Office

Environmental Assessment Administrator or

Environmental Assessment Officer

5151 Terminal Road Halifax, NS B3J 1J4 Tel: (902) 424-6305 Fax: (902) 424-0503

For operational approval (Part Vof the Environment Act) contact:

1595 Bedford Highway Central Region (Bedford)

Mezzanine Level, Suite 224 Bedford, NS B4A 3Y4 Tel: (902)424-7773 Fax: (902)424-0597

44 Inglis St, 2nd Fl. Northern Region (Truro)

PO Box 824

Truro, NS B2N 5G6 Tel: (902) 893-5880 (902) 893-0282 Fax:

PO Box 675 Northern District (Pictou)

> New Glasgow, NS B2H 5E7 Tel: (902) 396-4194

(902) 396-4765 Fax:

Northern District (Amherst) 32 Church Street

Amherst, NS B4H 3A8 (902) 667-6205 Tel: (902) 667-6214 Fax:

Western Region (Kentville) 136 Exhibition St.

Kentville, NS B4N 4E5 Tel: (902) 679-4366

Fax: (902) 679-6186

Western District (Middleton) 32 Commercial St

PO Box 1240

Middleton, NS B0S 1P0 Tel: (902) 825-2123 Fax: (902) 825-4471

Western District (Yarmouth) 13 First Street

Yarmouth, NS B5A 2S9 Tel: (902) 742-8985 Fax: (902) 742-7796

Western District (Liverpool) 255 Main Street

Privateers Place, Suite 201

PO Box 819

Liverpool, NS B0T 1K0 Tel: (902) 354-5784 Fax: (902) 354-2453

Western District (Bridgewater) 373 King Street

Bridgewater, NS B4V 1B1 Tel: (902) 543-4685 Fax: (902) 543-8024

Eastern Region (Sydney) P.O. Box 714

295 Charlotte Street Sydney, NS B1P 6H7 Tel: (902) 563-2100

Fax: (902) 563-0502

Eastern District (P.Hawkesbury) P.O. Box 603

Old Pulp Mill Road Port Hawkesbury, NS

B0E 2V0

Tel: (902) 625-0791 Fax: (902) 625-3722

Eastern District (Antigonish) 23 Bay Street

Suite 200

Antigonish, NS B2G 2G7 Tel: (902) 863-7389 Fax: (902) 863-7476

Appendix E

Nova Scotia Department of Agriculture & Marketing Contacts

Soils and Water Engineer

Harlow Institute, NSAC

P.O. Box 550

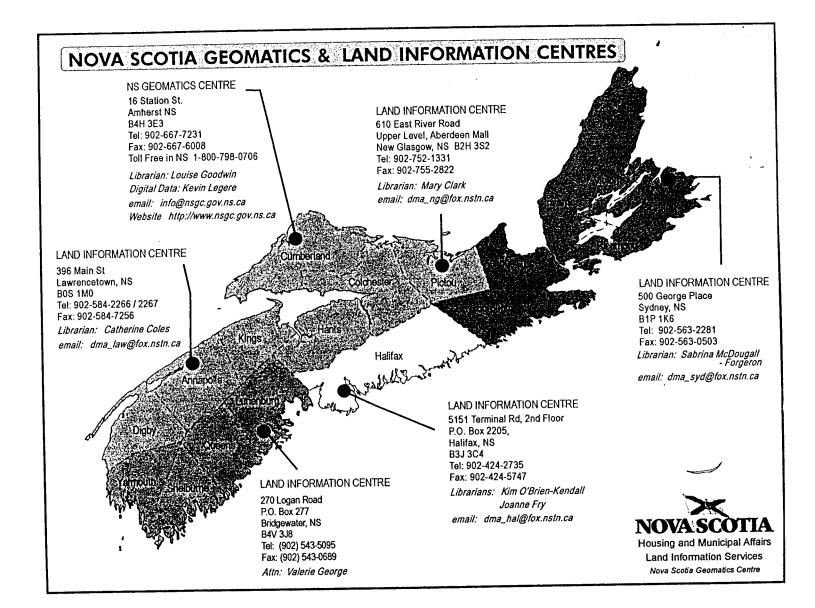
Truro, NS B2N 5E3 Tel: (902) 893-6577 Fax:(902) 893-0244

Berry Crops Specialist

Kentville Agricultural Centre

Kentville, NS B4N 1J5 Tel: (902) 679-6016 Fax: (902) 679-6062

Appendix F



Appendix G

DEFINITIONS

Note: please refer to the Environment Act and the Environmental Assessment Regulations for complete definitions and procedures

"commence work"

means to begin construction or site preparation activity for an undertaking or any part thereof;

"environment"

means the components of the earth and includes

- (i) air, land and water,
- (ii) the layers of the atmosphere,
- (iii) organic and inorganic matter and living organisms,
- (iv) the interacting systems that include components referred to in subclauses (i) to (iii); and
- (v) for the purpose of Part IV, the socioeconomic, environmental health, cultural and other items referred to in the definition of environmental effect;

"environmental effect" means, in respect of an undertaking,

- (i) any change, whether positive of negative, that the undertaking may cause in the environment, including any effect on socioeconomic conditions, on environmental health, physical and cultural heritage or on any structure, site or thing including those of historical, archaeological, paleontological or architectural significance, and
- (ii) any change to the undertaking that may be caused by the environment, whether the change occurs inside or outside the Province;

"wetland"

means lands commonly referred to as marshes, swamps, fens, bogs, and shallow water areas that are saturated with water long enough to promote wetland or aquatic processes which are indicated by poorly drained soil, vegetation and various kinds of biological activity which are adapted to a wet environment.