**REGISTRATION PURSUANT TO SECTION 40 OF THE ENVIRONMENTAL PROTECTION ACT**

**NAME OF UNDERTAKING:** **NEWTOWN CRANBERRY FARM**

**PROPONENT:**

| | | |
|---|---|---|
| **(i)** | ***Name of Corporate Body:*** | **Beothic Fish Processors Limited** |
| **(ii)** | ***Address:*** | **P. O. Box 10**<br>**New-Wes-Valley, NL**<br>**A0G 1B0** |
| **(iii)** | ***President:*** | **Mr. Scott Boland**<br>**P. O. BOX 10, Valleyfield,**<br>**New-Wes-Valley, NL**<br>**A0G 1B0**<br>**709-536-2425** |
| **(iv)** | ***Principal Contact:*** | **Ms. Ruth Knee**<br>**Mr. Scott Boland**<br>**Beothic Fish Processors Limited**<br>**P. O. Box 10, Valleyfield**<br>**New-Wes-Valley, NL**<br>**A0G 1B0**<br>**709-536-2425** |

## THE UNDERTAKING:

### (i) *Nature of the Undertaking:*

Beothic Fish Processors Limited (Beothic Fish) is presently seeking an Agriculture Crown Land Lease or License to Occupy from the Department of Environment and Conservation to develop and operate a cranberry farm in the Newtown area.

### (ii) *Purpose / Rationale / Need for the Undertaking:*

Beothic Fish views Newfoundland and Labrador as offering a significant opportunity for the development of a first class cranberry farm. It has been proven that the Bonavista North area has a climate suitable for cranberry production. The market for cranberries has been very strong and it is anticipated that the demand for cranberries will continue to grow. This farm would further contribute to the establishment of a cranberry industry in the Province while providing employment and financial diversification of Beothic Fish.

If successful in its submission to obtain title to the proposed land through either a land lease or permit to occupy, Beothic Fish intends to set up a new company to manage the cranberry operation.

## DESCRIPTION OF THE UNDERTAKING:

### (i) *Geographical Location:*

The proposed site, 40 hectares, is located off of Route 320, between Newtown and Lumsden. A 1:50,000 scale location map and 1:8,000 scale aerial photo of the site is attached to this registration.

### (ii) *Physical Features:*

The ground vegetation consists of sphagnum moss, caribou moss, grasses, kalmia and black crowberry. The overall slope is 1% and micro topography is level. There are no flashets or rock outcrops within the area proposed for development. The site is located between a pond and shallow inlet. The area of this proposed site approximately 40 hectares.

Access to the site will be gained through the construction of a road from Route 320 for a distance of approximately 1.7 kilometers. The road will be constructed on bog, mineral soil and bedrock.

**(iii)** ***Construction:***

The construction of the site will be subject to a detailed engineering design. The concept of the project is described on the attached map.
The site will be constructed over five years with approximately 40 hectares placed in production.
Construction will consist of:

- Preliminary ditching in the proposed berm locations and discharge areas;
- Cranberry bed development, consisting of removing a layer of peat to level the bed, with the excavated peat used for the berm construction measuring two metres high and five metres wide;
- Ditching between the bed and berm;
- Construction of discharge area/sediment pond;
- Installation of water control structures (sheet metal sluices);
- Installation of drainage tile in the bed;
- Construction of a 1.7 km access road to the site;
- Placement and leveling of approximately 20 cm of sand on the constructed cranberry beds. The sand will be acquired from local "permitted" quarries.

The potential sources of pollutants during the construction period are associated with machinery diesel fuel and lubricants. Machinery such as farm tractors, excavators, and dump trucks will be refueled and lubricated on mineral soil - off the construction site. Refuse and human waste will be disposed and addressed using procedures specified by the Department of Environment and Conservation. Buffers will be maintained between the development and water courses during (and after) the construction. The water courses are shown on the attached map. The buffers will be a minimum of 30 metres wide.

The phased development of this project will be completed over a five year period as follows:

Year 1 - Commencement in May, 2009, consisting of a 1.7 km of service road to the site and eight hectares of cranberry site development.

Year 2 - Field season 2010, an additional eight hectares.

Year 3 - Field season 2011, an additional eight hectares.

Year 4 - Field season 2012, an additional eight hectares.

Year 5 - Field season 2013, remaining eight hectares constructed.

**(iv) Operations:**

The goal of Beothic Fish is long term commitment of producing a high quality cranberry product with a vision of being a model steward to the environment.

This proposed cranberry site is located within a Sensitive Waterfowl Area (SWA) as identified on the Provincial Land Use Atlas. The area was identified as an SWA due to migratory waterfowl, mainly Canada Geese, congregating (staging) in the area in the month of September. The proposed cranberry site is located on a bog located between a freshwater pond and a shallow saltwater bay. The waterfowl use both water bodies as staging areas.

This proposed development will not interfere with waterfowl feeding, nesting patterns, or with the hunting. Canada Geese have been present on two cranberry sites on the island portion of the Province, without impact on the cranberry crop. There have been no reports of the geese eating or damaging the berries or the plants at these sites. In one case the geese grazed on an adjacent horticultural grass farm. It is noted that hunting season starts (third Saturday in September) at about the time the berries are ripening, which further supports the expectation that waterfowl should not be a problem.

Whereas the site is located in a SWA, Beothic Fish will monitor waterfowl presence within the development as illustrated on the attached form (Appendix B). The annual results of the monitoring project will be discussed with the Wildlife Division by November 30th. Whereas the site will be developed over a five year period, the monitoring will allow Beothic to demonstrate its ability to establish the farm in a manner which will not impact waterfowl.

In the event that unforeseen circumstances result in waterfowl jeopardizing the berries/plants, the proponent will use techniques which have been effective in controlling waterfowl. The Department of Natural Resources, Government of Michigan web site, Goose-Human Conflicts and Control Techniques concludes that the best way to control Canada Geese is using a combination of several different control methods and changing tactics to prevent geese from becoming conditioned to any one tactic.

Scare tactics have proven protective in scaring water fowl, specifically geese. These techniques will scare waterfowl in the immediate area of the cranberry beds. Scare techniques, such as a variety of noise makers can repel geese from the sites if applied consistently once the geese arrive. Stimuli techniques, such

as balloons, Mylar scare tape and plastic flags have proven useful. General harassment, by humans and dogs, has also been effective in dissuading geese from frequenting cranberry beds. The systems will not impact waterfowl outside of the project area. As mentioned, the hunting season will also dissuade water fowl from congregating at the site. Jonathan Sharpe, Senior Biologist, Wildlife Division, Department of Environment and Conservation explained that scare tactics are acceptable and not expected to cause disturbance or harassment of migratory birds. Mr. Sharpe also stated that scare tactics need to be alternated to be effective.

Geese prefer to land on water (USDA, *Fact Sheet* Managing Canada Goose Damage) and graze on short grasses within the site of water. If necessary, water levels in the bogs will be controlled to limit access of water fowl during periods of flood. However, typically flooding occurs in late October and in the winter when waterfowl are not present. Runoff from winter ice will drain from the site in late winter, before water fowl return to the area. In addition the high berms around the cranberry beds should also dissuade the geese as water will not be visible. The proposal includes a small sedimentation pond. If necessary, this pond could be fenced to restrict access by geese, which would also be important from causing the geese to establish themselves as "decoys". Harvesting in late October infers significant harvest activity which would also scare waterfowl, however it is understood most water fowl have left the area by this time.

The cranberry harvest consists of field by field flooding with approximately 30-45cm of water. Fields are flooded individually to reduce large volumes of discharge. While flooded, a cranberry beater will dislodge the cranberries from the vines underwater allowing them to float to the surface, where they are gathered by a boom and loaded into containers via a conveyor system. Once the harvesting of a field is completed, flood water discharge will be diverted into another field for harvesting or through maintained ditches and routed to a sediment pond, which will contain any potential contaminants, and act as a supplementary water source if required.

Farm operational procedures will be consistent with appropriate environmental standards for sustainable agriculture. Cranberry farms can be maintained for over 100 years.

Common agricultural chemicals, used at minimal levels on cranberry operations within the Province, include the following registered products:

| | |
|---|---|
| Herbicides: | Devrinol, Callisto, Roundup |
| Insecticides: | Sevin, Diazinon |
| Fungicides: | Bravo |
| Fertilizers: | 17 17 17/50lbs/acre, 4600/10lbs/acre |

Potential sources of pollutants during farming include the same as the construction period associated with machinery fuel and lubricants. Machinery such as farm tractors and flat bed trucks will be refueled and lubricated on mineral soil – away from the construction site. Refuse and human waste will be disposed of using procedures specified by the Department of Environment and Conservation.

**(v) Occupations:**

General Manager (1)
Executive Assistant (1)
Design Engineer (1)
Licensed Pesticide Applicator (1)
Field workers (4)
Plant workers (40)
Office administrator (1)
Heavy Equipment Operators (4)
Heavy Equipment Mechanic (1)
* Will include other positions as required

**(vi) Project Related Documents:**

Crown Land Application Number: CL 131653 in progress

**Approval of the Undertaking:**

Following is a list of main permits, licenses and approvals required for this project.

| Approval/Certification/License/Permit | Authority |
|---|---|
| Environmental Registration | Department of Environment and Conservation |
| Environmental Assessment Approval | Department of Environment and Conservation |
| Crown Land | Department of Environment and Conservation |
| Fuel Storage & Handling. | Department of Government Services |
| Road Access Approval | Department of Transportation and Works |
| Pesticides (applicator/Operator) | Department of Environment and Conservation |
| Water Use License | Department of Environment and Conservation |
| Permit to Alter a Body of Water | Department of Environment and Conservation |
| Workers Health and Safety Compensation | Workplace Health Safety and Compensation Commission |

**Schedule:**

The earliest construction start date is May 2009, latest being October 2009. Construction will then be conducted over five years.
Project construction is projected to occur from May 2009 through to November 2013.

**Funding:**

No application for funding at this time.
Typical cost of cranberry bed development is approximately $75,000/hectare.
Typical cost of road construction is $25,000/kilometer.

| | |
|---|---|
| _____ | _____ |
| Date | Proponent |

## APPENDIX A
## Location & Aerial Maps

## APPENDIX B
## Waterfowl Monitoring Form

## Beothic Fish Processors – Newtown Cranberry Site

## Waterfowl Monitoring Record

**Date: _____ Time:_____ Observer: _____**

**General Observations:**

**Cloud Cover**
0% 75%
25% 100%
50%

**Air Temperature _____**

**Wind Conditions**
Calm Breezy
Strong Direction: _____

**Water Surface**
Calm
Ripple
Small Waves
Moderate Waves
White Caps
Comment: _____

**Water Temperature_____**
**Weather _____**

General Comments:
_____
_____
_____
_____

**Waterfowl Observations:**

| Time | Field # [1] | Location[2] | Type/Number of Waterfowl[3] | Activity of Waterfowl |
|---|---|---|---|---|
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**Note: 1: On field sightings – identify which field sighting was in**
**2: Off field sightings – identify location of sighting *i.e. shore of salt water***
**(Indicate distance to field if possible)**
**3: Indicate all waterfowl (especially geese)**

**Comments: _____**
_____
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