# **REGISTRATION PURSUANT TO SECTION 49 OF THE ENVIRONMENTAL PROTECTION ACT**

# NAME OF UNDERTAKING:

# NF Fur Farm Enterprises Inc. 4,000 Breeder Mink Farm

# **PROPONENT:**

(i)	Name of Corporate Body:	NF Fur Farm Enterprises Inc.
(ii)	Address:	P.O. Box 130 North Harbour, Placentia Bay, NL A0E 2N0
(iii)	Chief Executive Officer:	Mr. Mervin Wiseman President/Owner P.O. Box 130 North Harbour, Placentia Bay, NL A0E 2N0 (709) 689-5735
(iv)	Principal Contact:	Mr. Mervin Wiseman President/Owner P.O. Box 130 North Harbour, Placentia Bay, NL A0E 2N0 (709) 689-5735

# THE UNDERTAKING:

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

Proposed development of a mink farm at the former site of the Central Swine Breeding Station, located off of Portugal Cove Road. The farm is being developed to produce high quality mink varieties for sale through the North American auction houses. Farm construction is proposed to begin in the Fall of 2006.

The project proponents include Mr. Mervin Wiseman and Mr. Stewart King. Mr. Wiseman is an established fur farmer, with over 22 years in the fox industry. His fox farm in North Harbour, Placentia Bay is currently the largest silver fox farm in North America. Mr. King is an established swine and turkey farmer and owner of the proposed site.

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

The proponents view Newfoundland and Labrador as offering a significant opportunity for the development of a world-class mink industry, and well on its way to reaching that goal. Mr. Wiseman, as President of the Newfoundland and Labrador Fur Breeders Association, has been instrumental in this growth and is pursuing this opportunity to develop his own mink farming operation. The site has been chosen due to the availability of existing infrastructure.

This undertaking consists of a mink farming operation and a feed kitchen.

# **DESCRIPTION OF THE UNDERTAKING:**

# • Geographical Location:

The proposed site is located off of Portugal Cove Road and is the site of the former Central Swine Breeding Station and is situated within the local agricultural development area (ADA). The total site consists of approximately 150 acres, of which approximately 30 acres will be utilized for the mink farming operation. Maps of the proposed site are attached in Appendix 1. These maps include a location map and aerial photo of the site showing the boundary and existing infrastructure.

# • *Physical Features:*

Physical requirements for the mink farm will include the utilization and upgrading of existing infrastructure, including: 10 former swine sheds (7 at 20' x 150' and 3 at 36' x 150'); an existing office building (70' x 33') and small repair shop; a manure holding pit; existing electrical service (3-phase, 400 Amp); access roads; and perimeter fencing. A new

building will be added to the site to serve as a feed kitchen (approx. 4,000-5,000 sq. ft.). Additional mink sheds (26' x 300') will be constructed starting in the third year of operation to bring the farm to its target capacity of 4,000 female breeders. The main farm area is situated well off the main road to limit exposure. Additional land will be developed, as required, for manure spreading. Each of the required physical features are further described below:

#### Road

Access to the site from Portugal Cove Road will be gained using existing access roads on the site. Access will be upgraded as required. No water bodies are to be crossed in construction of the required access.

## **Mink Sheds**

The proposed mink sheds for this farm will initially consist of refurbishing and upgrading the existing swine sheds. Each of the 20' x 150' sheds will hold four rows of mink cages while the 36' x 150' sheds will hold six to eight rows of mink cages. These sheds will have the capacity to hold 2,500-3,000 female breeders.



**Existing Sheds and Manure Storage** 

**Existing Sheds** 

Additional sheds required to increase the farms capacity to 4,000 breeders will be added in the third year. A total of 3-4 sheds will be required. These sheds are to be constructed using simple post and beam wooden construction, with galvanized aluminum sheeting attached for roofing, as well as a fibreglass skylights, and a plastic fabrene material used on the exterior sides (to enable natural light penetration). See pictures below for examples of the type of construction to be used.



**Exterior of Large Mink Shed** 

**Interior of Large Mink Shed** 

An automatic watering system will be installed in all the sheds such that the mink will have access to a continuous supply of water. Artesian well(s) will be used to provide the necessary water requirements.

## **Storage/Auxiliary Sheds**

The existing office building and repair shop will be utilized to provide for office space, storage, lunchroom space, washroom facilities, etc.

# Feed Kitchen /Cold Storage

The feed kitchen and cold storage requirements will be met through a new building to be constructed adjacent to the existing office building. This building will be approximately 4,000-5,000 sq. ft. in size. The equipment requirements for the feed kitchen operation are outlined in Table 1. Below is a brief description of these equipment requirements.

Table 1: Feed Kitchen Equipment Requirements		
Equipment Requirements	Number	
Grinder	1	
Mixer	1	
Conveyors	2	
Scales	1	
Silo (for dry goods/grains)	1	
Forklift	1	
Truck	1	
Pressure Washer	1	
Pallet Wrapper	1	
Totes/Pans	10/300	

- (i) *Grinder:* An industrial scale grinder, such as that shown in Figure 1, is required for the feed kitchen. The grinder will be used to process fresh and frozen raw materials to a size usable in the mixer.
- (ii) *Mixer:* An industrial scale mixer, such as shown in Figure 2, will also be required for the feed kitchen operation, to mix the necessary feed ingredients for finished feed production. ;
- (iii) Conveyors: Conveyors are required for the movement of materials in and out of the main production equipment, the grinder and mixer.
- (iv) Scales: In order to obtain an accurate assessment of the production volumes, a set of industrial scales will be place under the mixer, such that batch weights can be recorded;



Figure 1: Industrial Grinder



Figure 2: Industrial Mixer

- (v) *Silo:* A silo or silos will be required for the storage of dry materials, i.e. grain mixtures;
- (vi) *Forklift:* A forklift will be required for the movement of materials to/from the freezer and cold storage areas and into/out of the facility;
- (vii) *Truck:* A truck will be required for the collection and distribution of raw materials and finished feeds. The truck will have to have at least a 5-tonne capacity and must have a reefer box;
- (viii) *Pressure Washer:* A pressure washer is required for the regular cleanup of the production equipment and production area, as well as the feed truck and totes/pans;
- (ix) *Pallet-Wrapper:* Once product comes out of the blast freezer it will be taken out of the pans and stacked on pallets, which will then be wrapped with a pallet wrapper; and
- (x) **Totes/Pans:** Large fish tubs/totes will be used for raw material collection and finished feed distribution. Smaller berry pans (40-50 lb capacity) or trays will be used for the freezing of ground raw materials in the blast or plate freezers.

#### **Perimeter Fencing**

In addition to the existing perimeter fencing on site, the main shed site will be enclosed with chain link fencing, encompassing approximately 5 acres in area, to prevent encroachment by pests/animals and mink escapement. To prevent possible escapement, the bottom of the fence will be extended 6-8 inches below the ground surface. Total fence height will be approximately four to five feet.

#### **Manure Storage**

The farm will utilize the existing temporary manure storage structure on site, which was originally designed for swine manure and has a capacity well in excess of that required for the mink farm. This facility will provide for temporary storage only during the growing season after the manure is removed from the sheds, with the manure ultimately being used on fields to be developed by the proponent and/or made available to local farmers within the ADA for spreading on their fields. During the winter season the farm will only house the required breeding stock, resulting in minimal manure production. The fabrene sides of the sheds will be enclosed during this period and manure will not be removed until the late Spring, after breeding. To ensure proper pest (fly) control the manure pit will also be covered with a dark tarp and, if required, spraying will take place.

#### • Construction:

Project construction is projected to planned to occur in two phases. Construction will be undertaken to meet the requirements of the expanding farm. Following are the projected construction requirements for each phase:

#### Phase 1 - Initial Construction/Upgrading

• November 2006 - May 2007

Upgrade Access

Refurbish/Upgrade Existing Sheds (2,500-3,000 female capacity)

- Construct Cage Systems
- Refurbish Storage Building

Perimeter Fencing

Construct Feed Kitchen/Cold Storage

#### Phase 2 - Expansion

• May 2009 - November 2009

Up to 4 new Mink Sheds for expansion (to 4,000 breeders and kits)

Cage Systems

The main site has been selected to minimize clearing and leveling requirements. Construction involves simple structures with low potential for environmental impact.

#### • **Operation:**

#### <u>Farm</u>

The process of farming mink is closely tied to the natural breeding cycle of the animal. The basics of the mink year are outlined in the following figure, which was prepared for the US

mink industry. For mink farming in Newfoundland and Labrador the primary seasons are as follows:

- Breeding Breeding to start in early March;
- Whelping The breeding females will start having their kits as early as April 20<sup>th</sup>. Litters may range from as few as three to as many as 13, but four or five is the average;
- Weaning Separating the kits from their mother and getting them on solid food starts after six to eight weeks, in late June or early July;
- Growth and Furring From August through to pelting time in November/December the focus is on kit growth and proper fur development;
- Grading and Pelting Prior to pelting, mink are graded such that the best performers can be retained as breeding stock . Pelting starts in November and can continue to early December.

JAN.	FEB.	MAR.	APR.
2004-01010	BREEDING		2000000
			WHELPING
MAY	JUNE	JULY	AUG.
		WEANING	& SEPARATING
WHELPING			<b>GROWTH &amp; FURRING</b>
SEPT.	ОСТ.	NOV.	DEC.
		GRADING	
GROWTH &	FURRING		PELTING

#### Mink Farm Season

NF Fur Farm Enterprises Inc. plans to start with 1,000 disease free, high quality bred mink females from an existing farm in the province. These mink will be transferred to the site in the Spring of 2007. On average mink produce between four to five offspring. In 2007 the projected kit production will be approximately 4,000-5,000 kits. Over the following three years the operation will expand to 4,000 female breeders, producing up to 20,000 kits per annum.

This proposed operation will consist of the farm and a feed kitchen. The proponent will be utilizing an existing supplier for pelting.

#### Feed Kitchen

The process involved in feed kitchen operations will depend on whether the facility will be producing a finished feed, ready to take to the farm for feeding, or more simply just the raw materials, which can then be combined by the farmer into a finished feed. NF Fur Farm Enterprises plans to produce a finished feed, for the proponent's farm.

NF Fur Farm Enterprises will utilize local raw materials (fish, chicken, etc.) where

available, supplemented by materials to be purchased from other feed kitchens and suppliers. The local materials will be ground and frozen for later utilization in finished diets. The process involved in grinding and freezing raw material is very simple, consisting of: sourcing the fresh or frozen raw materials, grinding these materials and placing the ground product in pans for freezing, freezing the ground material in a blast or plate freezer, removing the frozen blocks from the pans, palletizing and shrink wrapping the frozen blocks, and storing the pallets in a cold storage room until needed. Proper procedures need to be followed in raw material handling (proper icing, use of reefer trucks, etc.) to ensure that product is maintained at the proper temperatures to minimize potential bacterial buildup. For raw materials where the risks of bacterial contamination are higher, eg. spent hens, regular laboratory tests must be conducted to ensure product quality. At the end of each production run proper cleanup will also be required, using high pressure steam cleaning, to prevent bacterial buildup on the machinery.

The production of a finished feed builds upon the process identified above. A finished feed uses a combination of raw materials to produce a nutritionally balanced diet. Diet composition will vary throughout the year, to meet the varying needs of the fur animal during the production cycle. As such, perhaps the most critical component to finished feed production will be to have the person or persons available with the nutritional background and/or experience in fur feed production.

Finished feed production would consist of securing the proper combination of raw materials, grinding those materials that require grinding, placing all the ingredients in a mixer and possibly a homogeniser to produce a finished feed, which can then be placed in the feed cart for utilization on the farm. Regular nutritional and quality testing are required to ensure the fur animals are receiving the nutrition and quality of feed they require. NF Fur Farm Enterprises plans to have regular analyses completed on both the raw material and finished diets produced through this facility.

The feed kitchen will need to have a production capacity of approximately 2 million pounds per annum.

#### Waste Production/Handling

#### <u>Farm</u>

Waste production from a mink farm consists of one primary waste stream, manure and urine from the mink, which is mixed with wood shavings and straw from the nest boxes. Manure production varies with the time of year, with lower volumes produced from late-November through May, as the farm is populated only with breeding stock, and larger and increasing volumes produced from June through November, as the kits grow. The mixing of the manure/urine with the wood shavings/straw produces a very manageable solid waste product. Carcasses are the primary waste stream from pelting, which will be contracted out to an existing supplier. The projected maximum waste production for a 4,000 female mink farm is as follows:

•	Manure	720 tonnes
•	Shavings/Straw	100 tonnes

#### Feed Kitchen

Waste production from the feed kitchen operation will be minimal, as all materials collected will be used in the feed production.

#### Waste Collection

#### <u>Farm</u>

With all animals held in cages the manure and urine collects directly under these cages, in the sheds. In a vast majority of cases the mink return to the same spot to deposit their waste on an ongoing basis. In addition, straw and/or wood shavings are used in the nest boxes and the manure/urine becomes mixed with the straw/shavings that fall through the cage, producing a more manageable waste product. For hygiene purposes and to reduce odour, waste will be collected from the sheds on a regular basis, consisting of every two weeks in the late summer and less often during cooler periods.

Waste is to be collected using a small articulating tractor which is capable of operating in the sheds. A special attachment will be imported from Denmark which enables the tractor to easily collect the waste in an efficient manner.

#### Waste Handling and Disposal

#### <u>Farm</u>

The handling and disposal of the waste from the mink farm will be undertaken using approved manure management strategies. The primary handing and disposal methodologies to be used will include short-term stockpiling, land application and potentially composting.

#### Short-term Stockpiling

Stockpiling of manure will only take place on a short-term basis, to accumulate for land application or transfer to a composting facility. Stockpiling will be done in an approved manner utilizing the existing infrastructure on site.

#### Land Application

A total of 150 female mink (plus kits and males) per acre is the recommended maximum from the "Environmental Farm Practice Guidelines for Livestock Producers in Newfoundland and Labrador" for manure spreading. As such, for a 4,000 female farm the recommended minimum acreage for manure spreading would be 26.67 acres. The complete site has a land base of 150 acres providing more than sufficient area for manure spreading. In addition, manure will be made available to other local farmers within the ADA for spreading on their fields.

## Feed Kitchen

The handling and disposal of the waste from the feed kitchen will use approved management strategies.

## • Occupations:

The proposed farm will require a projected 4-5 employees during the construction and operations phases. This will include one site foreman and the remainder as general labourers. This labour pool will meet the requirements for farm construction during the first three years as well as ongoing farm operations as the farm grows from 1,000 female breeders to a proposed 4,000 female breeders by the third year.

The proposed feed kitchen operation will use the farm staff plus part time employees at peak raw material collection seasons.

## • *Project-Related Documents:*

N/A

# **APPROVAL OF THE UNDERTAKING:**

Approvals required for the construction and operations phases for NF Fur Farm Enterprises' farm include the following:

• Waste Management Certificate - Government Services Centre - Approval required prior to 2007 operations

# **SCHEDULE:**

The initial land development and construction phase for this project will start in November 2006. The upgrading of mink sheds and the installation of an automatic watering system will be completed prior to the transfer of the bred females in the Spring of 2007.

# **FUNDING:**

Funding for this operation will consist primarily of private investment. The proponents plan to apply for assistance through the Atlantic Canada Opportunities Agency (repayable loans), Human Resources and Skills Development Canada and/or the Department of Human Resources, Labour and Employment (wage subsidies), the Agricultural Policy Framework (APF), and the Farm Credit Corporation (repayable loans). No approvals have been granted to date.

Mr. Mervin Wiseman President Date

APPENDIX 1

SITE MAPS







