

Mink Farm in Cox's Cove
Registration Pursuant to Section 49 of
The Environmental Protection Act

NuMink Inc.

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THE UNDERTAKING

The scope of this report includes proposed construction and operation of infrastructure for a mink farm in Cox's Cove, Newfoundland. Farm construction is proposed to commence this fall (2003) and all phases to be complete by the fall 2005.

The Goal of *NuMink Inc.* is to introduce a small number of animals to the site next spring (450 bred females), and to increase to 5000 female breeders within 3 years. A complete analysis of the fur industry has been conducted and it shows viability for us especially with our current involvement in pelagic and seal trade. Farm construction with respect to timing, layout, and size, are based on achieving our goal and ensuring adherence to the "Environmental Farm Practices Guidelines for Livestock Producers in Newfoundland and Labrador" (November 2001). The proposal is designed to make *NuMink Inc.* competitive in the international fur trade.

DESCRIPTION OF THE UNDERTAKING

Geographical Location:

The proposed site is located within the municipal boundaries of Cox's Cove, in the Bay of Islands, approximately 3 km along Country Road, away from domestic dwellings and commercial operations. The site location map, 1:12,500 scale map, in *Appendix A*, shows the site location with respect to the municipality and surrounding area. The size of the site including all five parcels is approximately 120 acres (54 Ha) with a total cleared area of 98 acres.

The area is comprised of granted and leased agriculturally zoned lands. The map in *Appendix B* shows all land parcels actively being acquired and their relative positioning to each other at a scale of 1:2,500. *Table 1* gives a complete list of all the lands acquired and currently in the process of being acquired, and the expected timing of their acquisition.

Table 1. All Land Proposed For Acquisition, Associated Uses, Size, and Date of Acquisition.

LAND PARCEL / MAP I.D.	STATUS	SIZE ACRES	ACTION	DATE
Melvin Payne (NuMink Inc.)	Grant	26.7	Purchase	Complete
Melvin Payne (Lot 1)	Agricultural Lease	13.6	Transfer Lease	Complete
Melvin Payne (Lot 2)	Agricultural Lease	25.3	Transfer Lease	Complete
Town of Cox's Cove (Old Dump)	Grant	4.2	Purchase	Oct-2003
Crown Lands (Lot 3)	Agricultural Lease	27.7	Obtain Lease	Oct-2003
Crown Lands (CB Pulp & Paper)	Agricultural Lease	22.0	Obtain Lease	Oct-2003
Total Area		120 acres 54 hectares		

Melvin Payne is the only resident living in close proximity to the proposed site. *NuMink Inc.* has purchased three parcels of land from Mr. Payne for development and Mr. Payne has stated his support of this project. Land use conflicts are not an issue in this area.

The site for the building structures is well drained, slightly stony, with several small rock outcrops. The land is located on both the North and South sides of Country Road with a Southeast aspect and a slight slope between 1 and 5%.

Physical Features:

A number of physical structures will be required for the complete development of the farm. Complete construction will occur in three phases from October 2003 to November 2005. To be constructed in phase one are the following:

1. Road

This requires primarily surface grading, with minor re-alignment. There will be no streams or poorly drained soils encountered.

It is not foreseen that construction of any of these structures will negatively impact either flora or fauna, or drainage in the area. The land on which construction is scheduled is cleared agricultural land, hay and pasture, since the early 1970's.

Cox's Brook runs along the down slope edge of the property. It is not a scheduled Salmon River and is protected by a heavily vegetated, mostly birch and fir, buffer

zone of approximately 25m depth. No construction of any kind will occur within this buffer zone.

These structures, their associated uses, and proposed construction dates are given in *Table 2*. To see each structure's positioning on site to scale of 1:2,500.

See *Appendix C*

2. Mink Sheds

Sheds will be constructed to house the mink. These are pole barn structures with metal sheathing and translucent panels for natural lighting. They are designed to be well ventilated, and to minimize odors. They will have simple plumbing to deliver water, from the Town Water Supply, for animal consumption, and for cleaning purposes. The sheds will not be heated and electricity will be provided locally with minor re-alignment by *Newfoundland Power*.

The sheds will be fenced with a four-foot high mesh that will eliminate rodent problems and keep pests to a minimum. The sheds are designed to keep mink contained in case of escape from their cages.

See *Appendix D*

3. Manure Holding Facility

A facility will be constructed with a concrete platform, slightly sloping towards the hill. This platform will have raised sides, to prevent seepage, and a roof to prevent wash out by precipitation. The sides will not be enclosed. This facility will be situated on the old Cox's Cove Dumpsite, on the upper land - away from Cox's Cove and any water systems. This dumpsite has been inactive for twenty years, and has been land-filled with four feet of soil.

This facility will be capable of holding a 6-month supply of manure. In the fall of the year, this manure will be picked up by local farmers, trucked off-site, and will be spread on their land. There is a great demand for this manure by the local farmers.

The prevailing winds are directed away from the community of Cox's Cove.

See *Appendix E*

Construction:

Total construction period is to last from October 2003 to November 2005 in 3 stages as indicated in *Table 2*. Pollutants will not be an issue during any construction phase. All are simple structures built with low environmental impact. Any and all solid waste materials will be removed from the site by the contractor and disposed of in the most environmentally friendly fashion, recycling when possible.

Table 2. Proposed Structure Development by Stage, Purpose, Site of Construction, and Expected Completion Date.

Structure	Purpose	Area	Completion Date
PHASE 1			
Shed (260'x 35')	Mink Housing	Lot 2	November 2003
Road	Facility Access	Lot 2	October 2003
Manure Platform (33' x 42')	Holding Manure for Spreading	Old Dump	November 2003
2" Water Line	Cleaning and Animal Drinking	Lot 2	October 2003
Single Phase Power	Lighting Mink Houses; Automatic	Lot 2	October 2003

	Watering System; and Construction	NuMink Inc.	
PHASE 2			
Staff House	Staff Day Use	NuMink Inc.	June 2004
Septic System	Staff House Plumbing	NuMink Inc.	June 2004
Extension to Shed / New Shed	Mink Housing	Lot 2	September 2004
PHASE 3			
Additional Shed (s)	As Required to Hold Additional Mink	Lot 2	September 2005

There will be minimal leveling of land and all properties are currently ditched to divert heavy rainwater. Disturbance to soil and vegetation from road construction will be non-significant and drainage patterns will not be affected. Sheds are built with shallow foundations or intermittent pole supports so excessive ground disturbance will not exist. Property access roads already exist and they need only be realigned during the construction phase.

Operation:

The operation will consist of raising animals from birth to maturity and harvesting their pelts that same year. Next spring we will purchase 450 bred females to commence production. On average, mink produce 4-5 offspring per female annually. It is projected that by 2006 we will house 5000 female breeders on site, producing 20,000 kits annually.

Resource conflict is not of concern in this area.

Solid Manure Management

The single largest environmental concern on this type of operation is the handling of manure. In the case of mink farming it is not as significant since the amount of excrement is minimal.

The following steps will further reduce any possible negative impacts of manure on the environment.

1. The farm will not compost manure.
2. The manure shed will minimize exposure of the pile to the elements (rain, wind and sun) and prevent seepage into the soil and any chance of water contamination.
3. Manure Shed will be located on the purchased land that was previously the old Municipal Dump. The shed design (33' x 42') will allow easy access and loading of transport vehicle.
4. Manure will be mixed with straw and sawdust. Manure in this form is drier with less odor, less bacteria and easier to transport and spread as it is more solid.
5. Manure will be held until an adequate amount is accumulated for spreading. This will reduce transport risks, with fewer larger loads as opposed to many small loads being moved.

The following are calculations on the total estimated waste generated in one year at maximum production.

1. How much excrement will each animal produce annually?

Amount of Feed = 100lbs/animal/year

(100lbs is the annual average including adults and kits)

Digestive Utilization Rate = 50%

Therefore 100lbs/animal/year x 0.50
 = 50lbs excrement/animal/year

2. How much manure is generated per animal per year?

Excrement = 50lbs/animal/year
Bedding = 30lbs/animal/year
(30lbs is the Average bedding required for 50lbs of excrement)

Therefore 50lbs + 30lbs
 = 80lbs manure/year

3. What is the maximum amount of manure to be disposed of?

Maximum Farm Size = 25,000 animals (Kits and Adults)
Total Manure per Animal = 80lbs/yr

Therefore 25,000 animals x 80lbs/year
 = 2,000,000 lbs Manure/year

Conversion 2,000,000lbs / 2204.6lbs (Metric Tonne)
 = 907 Tonne of Waste Per Year

4. Where will we dispose of all this manure?

Ronnie Crowell spreads 20 tonne/acre/year
Therefore 907tonne / 20tonne/acre
 = 46 acres

We will spread our manure on 46 acres of agricultural land between September and November each year.

Farmers in the local area, Warren Blanchard and Melvin Payne, have indicated that they would like to use our manure for spreading on their hay fields, as there is a short supply of manure in the area. All manure will be trucked off-site for spreading.

Health

Both health of animals and community will be of utmost concern. The following steps are being taken to ensure the healthiest farm environment is maintained.

1. Disease free breeder stock is being purchased from the best breeders in the country.
2. Sheds are designed to be well ventilated in summer months, and warm and draft free in the winter.
3. Water from the town supply, prior to chlorination, will be available for use to clean sheds and as natural drinking water for the animals.
4. Top quality feed will be produced at *T&H Fisheries*, a pelagic plant in Cox's Cove. The work force in Cox's Cove has a fully trained staff in quality control and the site is regularly inspected by the *Canadian Food Inspection Agency (CFIA)*.
5. A four-foot wire fence will enclose all sheds, to prevent mink from escaping, and to prevent wildlife and possible intruders from entering. There will be no interaction between the mink and the outside environment.
6. Animals will be sent off-site for processing (*340 Ranchers Co-op* in Nova Scotia), so there will be no by-products to contend with.

Table 3. All Relevant Production Aspects that may be Considered Hazardous With Respect to the Environment and Precautionary Steps Taken to Mitigate Potential Risk.

Production Aspect	Precautionary Steps to Reduce Risk
Purchase Healthy Stock / Health Maintenance	<ul style="list-style-type: none"> - All breeding stock will be certified Aleutian Disease-Free - Any animals introduced to the farm will undergo a period of quarantine - All mink will be vaccinated at ~10 weeks of age - Manure removed from shed frequently to ensure a healthy growing environment.
Mink Housing	<ul style="list-style-type: none"> - Houses constructed to be well ventilated in summer and draft free in winter
Mink Feeding	<ul style="list-style-type: none"> - Feed produced at Cox's Cove T&H Fisheries from Herring offal - By-Product of poultry will be purchased and mixed for optimal feed
Manure Disposal	<ul style="list-style-type: none"> - Manure will be stored on concrete platform w/ 2' - 4' knee wall and later carried off-site for spreading by local farmers - Located on Old Dump Site >50m from watercourse
Animal Harvest	<ul style="list-style-type: none"> - Animals will be euthanized via contained exposure to carbon monoxide
Animal Processing	<ul style="list-style-type: none"> - Whole frozen carcasses will be trucked off-site for pelting/processing (340 Ranchers Co-op in Nova Scotia).

Occupations:

During construction and operation phases there will be a number of individuals employed. Table 4 gives a breakdown of all expected occupations and the associated National Occupational Classification as per the 2001 guide.

Table 4. Occupations Related to Site Construction and Operation and their Associated National Classification.

Occupation	Code	Description
<u>Operational</u>		
Farm Manager	8251	<ul style="list-style-type: none"> - Farm manager is responsible for over-seeing the day-to-day operations of the fur farm, and ensuring that the animals' nutritional, environmental and nurturing requirements are being met
General Farm Workers	8431	<ul style="list-style-type: none"> - Farm workers are responsible for meeting the needs of the mink (feeding, watering, manure removal, etc.)
Marketing Manager	0611	<ul style="list-style-type: none"> - Marketing manager is responsible for the marketing and sales of the finished mink pelts
Specialized Livestock Worker	8253	<ul style="list-style-type: none"> - Specialized livestock worker is responsible for the preparation of mink feed
<u>Construction</u>		
Contractors & Supervisors	7215	<ul style="list-style-type: none"> - Carpentry Trades
	7241	<ul style="list-style-type: none"> - Electricians
Trades & Related Workers	7252	<ul style="list-style-type: none"> - Pipe Fitters (Water Line)
	7251	<ul style="list-style-type: none"> - Plumbers

- According to the National Occupational Classification 2001

APPROVAL OF THE UNDERTAKING

Table 5. Approvals Required for the Construction and Operation of NuMink Inc. Farm, and the Responsible Issuing Body.

Approval/ Certificate/ License/ Permit or Inspection	Issuing Agency	Required For
Crown Land Applications	Customer Services	Crown Lands
Crown Lands Application for Consent and Notice of Assignment of Lease/License	Customer Services	Crown Land (New Lease)
Crown Lands – Applications for Grant Pursuant to Lease/License/Permit	Customer Services	All Crown Land
Crown Lands - Municipal Assessment Form for Crown Land Applications	Customer Services	All Crown Lands
Building Permit	Town of Cox's Cove	All Buildings

Develop Land – Application is required for the inspection of the Sewage disposal system for a residential building lot.	Operations Division	Staff House
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SCHEDULE

The latest possible start date for this project is set at October 1st, 2003. Approval has been granted by the Town of Cox's Cove to commence construction immediately. This is necessary to ensure completion prior to unfavorable weather conditions. A copy of the Construction Permit granted by the Town of Cox's Cove can be seen in Appendix 4.

FUNDING

Funding for the operation will consist mainly of private investment. *NuMink Inc.* has applied for assistance through Atlantic Canada Opportunities Agency (No-Interest Loan) and Industry Trade & Rural Development (Seed Capital Equity Program). Approval of such funding has not yet been granted.

Bill Barry, President and CEO
Barry Group Inc.

October 4, 2003

Appendix A

Site Location Map, 1:12,500 Scale Map.

(Please See Accompanying Map)

Appendix B

Site Plan Map, 1:2,500 Scale

(Please See Accompanying Map)

Appendix C

Engineering Diagrams of
Road and Water Line

Appendix D

Engineering Diagrams of
Mink Shed

Appendix E

Engineering Diagrams of
Manure Storage Facility & Location

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