

Registration Format – ENVIRONMENTAL ASSESSMENT – Updated July 5, 2018

NAME OF UNDERTAKING :

EWS Nursery and Laydown space

- 1) Name of Corporate body : EWS - Engineered Wetland Solutions Ltd.
Incorporation # 75169, Business # 759797129 RT0001
- 2) Address : 105 Old Mill Road, Goobies, NL, A0B 1N0
- 3) Chief Executive Officer:
 - a. Name: Mr. Glenn Sharp P. Eng
 - b. Official Title: President
 - c. Address: 405 Old Mill Rd, Goobies, NL, A0B 1N0
 - d. Telephone No.: 709-330-7878
- 4) Principal Contact for Environmental Assessment: Mr. Glenn Sharp P.Eng
Same contact info. as above.
- 5) Date : July 5, 2018

DESCRIPTION OF UNDERTAKING:

- 1) Geographical Location :

Situated on the Burin Peninsula Highway just down from turn-off from the Trans-Canada on both sides of road. Land on both sides is bounded by the highway and by the Come-By-Chance river and adjacent Mill pond and Goobies Pond. See attached map, and aerial photographs.

Agreed with Department of Transportation for highway access for two access driveways across from each other at Southern end of land just before guardrails on Burin Peninsula Roadway. Shown on attached photos of land.

- 2) Physical Features:

Nursery operation for growing Canadian Local reed plants (Phragmites Australis) for wetland treatment systems. Similar to past nurseries at Rushmere Farm on the Argentia Highway and the current associated nursery operation in Appleton/Glenwood.

Wetland plant raised beds will be in special contained HDPE - plastic cells to create water baths – not in the ground. The water baths will be 10 inches deep to accommodate the largest 8 inch pots. The plants are kept in a reduced state, by being pot bound at the nursery approx. 2 ft. growth for easy transportation to the projects. The water baths will be filled with pots and then filled half height 4 inches with water. The operation will start with a temporary greenhouse tunnel arrangement – four (4) units at 4ft x 40 ft. After several years and proven success a permeant greenhouse 24ft x 60ft will be considered and applied for. All beds are fabricated so they are mobile and can be disassembled and moved if required.

A storage structure or container for misc. hand tools and equipment will be placed on the property, and will be mobile. Power line connection will be an option, or we will use electric generator. The remainder of the cleared area will be for laydown and working space. The areas for first year operations will be 2-3 acres, on right hand side of Burin Peninsula coming from Trans-Canada

Highway (First area) . The land will be cleared of trees and grubbed and leveled with a gravel stone base. Six (6) water baths for plants will be raised above the ground and contained within HDPE plastic units approximately 4 ft. wide x 40 ft. long. A ground water well for watering plants will also be installed. The area proposed is surrounded by trees and natural growth for protection from the North side of the property. A buffer of trees will be maintained at a 50 – to -100 ft. perimeter and will be maintained on all sides of proposed cleared area. No fencing will be erected, but use of the natural buffer will be used. No waterbodies, wildlife or other vegetation will be affected.

If the operation is successful and expanding in 3-5 years, we will move to expand to the other property on the left hand side of the Burin Peninsula highway (Secondary Area) to have more laydown space 5-7 acres, and additional space for the specialized plant water baths to grow with more plants. A service and storage building will be applied for and constructed for office, employee lunch room, bathroom and kitchen facilities with connection to the existing power lines on the property. An approved wetland septic system and water well will be installed to service building.

3) Construction:

The clearing of land and set up will take approximately 1-2 months. The start date will depend on application approval but is expected to start in August or September 2018. During construction the sources of pollution will be from cutting with chainsaws and grubbing with an excavator -so main potential sources of pollution is spills or leakage of gas or hydraulic oil. Measures will be taken to prevent this and to take immediate action if something happens. Run-off from exposed earth while grubbing operation is underway, until it is again stabilized, will be prevented with ditching and containment cells around work area. We see no resource conflicts.

4) Operations :

The nursery will operate as a part time activity to supply plants for wetland treatment projects by affiliated company WTS (Wetland Treatment Solutions). Only nursery activities and related works will be conducted on site, there will be no treatment of external waste or material brought to site for treatment. WTS has been in discussions with the Sunnyside town council to obtain a parcel of land at the Sunnyside landfill for its pilot treatment works.

The main activities on site will be the propagation of the plants from cuttings of existing plant stock, to pot the plants and to get the plants set up and growing by providing watering as required, but very little other activities are required. There is very little fertilizer used as we wish to keep the plants small for transport to WTS for their projects. Also there is no pesticides used in the growth or maintenance of the plants. To eliminate weeds the water level in the baths are raised to cover the pots and weeds die off naturally as they become submerged in water. As both EWS & WTS together are in the Green Environmental business of providing treating solution we are extremely concerned with keeping the nursery as green and environmentally managed as possible.

With the sale of projects for Wetland projects expected to rise significantly in the next 2-3-5 years – this initial plant stock will be split and sold to WTS and moved off site to active projects with trailers or small flatbed trucks. There will be very little to no activity in the winter. The potential sources of pollutants will be very limited during operations. The plants are all contained inside HDPE (plastic) water baths so there will be no plant interaction with the existing ground. Minimal fertilization in spring will be employed, and all areas fertilized will be self-contained within plastic cells. No fertilization outside of plastic water beds will be used, and no natural ground will be fertilized. The fertilized water will be reused and will be totally absorbed over time by the wetland plants. We wish to keep the plants in a reduced pot bound state so transportation to the wetland projects is

easier so very little fertilization is used as limited growth at the nursery is the preferred objective. The fertilizer will be a standard 20-20-20 mix and will be stored in a dry storage unit/container. Possible spills or damage from gas or oil from equipment or vehicles will be controlled and immediately dealt with if they occur. The nursery operation will have a permanent ditch and a containment cell system, installed during the grubbing stage, and maintained for collection of any spill if it occurs. We see no resource conflicts.

5) Occupation:

The number of employees will be 2 part time during construction and operations. We expect to have 6 months total employment throughout the year. With success and sales moving forward in years 2-3-5 this will increase to 3-4-8 employees but will stay part time with primary summer activities of 6 months. The National Occupation Classification is : Labourer- with garden skills- or additional skills of Horticultural. Employees will be direct hire, and will be from the local area with consideration for part time employment. This we hope will be particularly be suitable for students, women and semi-retired individuals.

6) Project Related Documents:

The initial nursery is to support the pilot work proposed by WTS (Wetland Treatment Solutions Ltd.) separate company (but with same ownership) for its NRC, ACOA and POC (Proof of concept) with TCII – Provincial Government pilot project at Sunnyside Landfill, NL. The documents for this related pilot work, that will take place at the Sunnyside Landfill and are available if of interest from Wayne Roebathan at TCII at email: WayneRoebathan@gov.nl.ca and phone: 709- 729-0594. These documents describe the pilot work at a separate site and do not discuss directly the nursery or its operations. The other document that discusses the nursery and its operation is the Farm Plan submitted to the Provincial government. The wetland projects where the nursery plants will be eventually moved, will be expected to generate carbon offsets as achieved by Sharp Management Ltd. For more information on these achievements please review web site www.sharpmgmt.ca. No other related documents exist.

APPROVAL OF UNDERTAKING:

We assume we would need to get formal approval from the LSD of Goobies where this land falls within its boundaries, and so we have discussed the proposal with Mr. Bill Goodie the head of the LSD, and he had no issues with the proposed nursery. We will seek to be registered with the Provincial Government as a nursery/ farm operation and acquire the required permits from the Province as required, and have a completed a current official Farm Plan.

SCHEDULE:

The anticipated schedule is to start in August or September 2018 with approvals. Work has started at a temporary nursery location and will be moved once all approvals have been achieved.

FUNDING:

The activities will be funded by EWS (Engineered Wetland Solutions Ltd.) with no outside funding or grants at this time. The total costs to set up the nursery activities in the first year is expected to be between \$30,000 - \$50,000. The operations and labour for 4-6 months with 2 employees will to be approximately \$30,000, each year.

July 5, 2018

A handwritten signature in blue ink, appearing to be 'R. Glenn Sharp P. Eng', written over a horizontal line.

Date

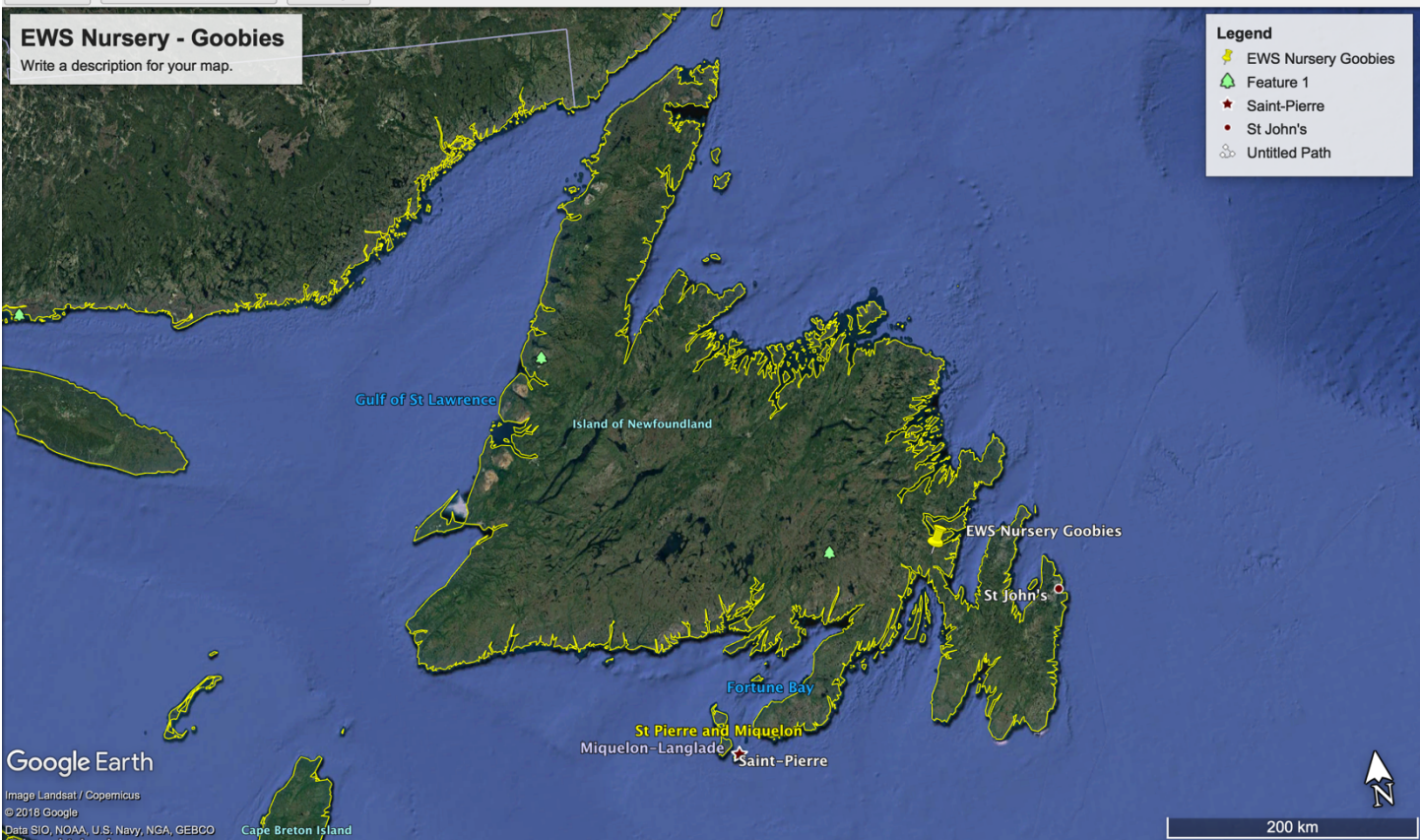
Signature of Chief Executive Officer
President of EWS
(R. Glenn Sharp P. Eng)

ATTACHED : Aerial photos and map of property.

EWS Nursery - Goobies

Write a description for your map.

- Legend**
- EWS Nursery Goobies
 - Feature 1
 - Saint-Pierre
 - St John's
 - Untitled Path



Google Earth

Image Landsat / Copernicus
© 2018 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

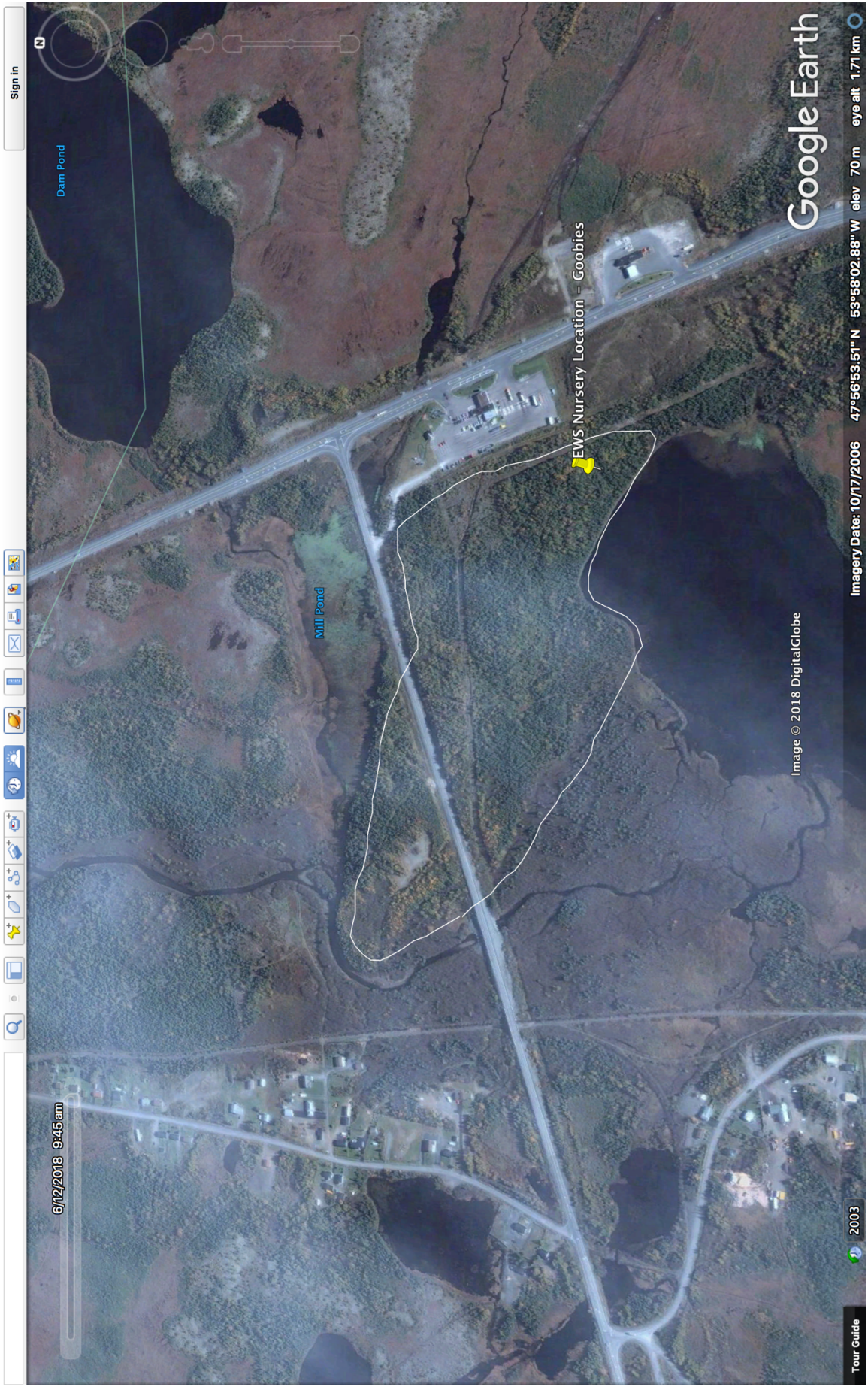
Cape Breton Island

200 km

Land Application for:
Engineered Wetland Solutions Ltd.
105 old Mill Rd.
Goobies, NL
AOB 1N0
709-330-7878

Contact : Glenn Sharp





Sign In

6/12/2018 9:45 am

Dam Pond

Mill Pond

EWS Nursery Location - Goobies

Image © 2018 DigitalGlobe

Google Earth

Tour Guide

2003

Imagery Date: 10/17/2006

elev 70 m

eye alt 1.71 km





First Nursery Area

Proposed development
Wetland beds built above
the ground 6 @ 4 ft. x 40 ft.

Wetland beds built above
the ground with
Greenhouse tunnels
4 @ 4 ft. x 40ft
Storage shed and work shed

Secondary Nursery and
Laydown Area

For expansion and
development in the future.