

Jason Hynes
PO Box 131
Port au Port East, NL, A0N1T0

Sept 12, 2017

Honourable Perry Timper
Minister of Environment and Climate Change
PO Box 8700
St. John's NL A1B 4J6

RE: Secret Cove Brewing Company - Microbrewery

Dear Honourable Trimper;

Please accept the attached documents for registration and review of our proposed project through the environmental assessment process.

Please contact me at 709-649-2064 if you have any questions. I look forward to hearing from you.

Sincerely,
Jason Hynes
Secret Cove Brewing Co.

REGISTRATION

Pursuant to s. 37(1)(e) of the Environmental Protection Act,
SNL 2002, cE -14.2

UNDERTAKING:

Micro Brewery

LOCATION:

92-96 Main Road, Port au Port East, Newfoundland

SUBMITTED BY:

Jason Hynes on behalf of
Secret Cove Brewing Company LTD.

SUBMISSION DATE:

September 12, 2017

(* Resubmitting as we changed address/location)

Name of Undertaking:

Micro Brewery: Secret Cove Brewing Company LTD., The Well Taproom

Proponent:

1) Name of Corporate body:

Secret Cove Brewing Company., “The Well” Taproom

2) Address:

P.O. Box 131,
92-96 Main Road,
Port au Port, NL. A0N 1T0

3) Chief Executive Officer:

Name: Jason Hynes

Official Title: Director

Address: P.O. Box 131,
311, Route 462,

Port au Port, NL. A0N 1T0

Telephone: 709-649-2064

4) Principle Contact Person for the purpose of environmental assessment

Name: Jason Hynes

Official Title: Director

Address: P.O. Box 131,
Port au Port, NL. A0N 1T0

Telephone: 709-649-2064

The Undertaking:

1) Nature of the undertaking:

Jason Hynes and Dr. Sheila Dwyer, the owners of Secret Cove Brewing Co. , “The Well” Taproom, are presently seeking approval to develop an existing 6000 sq foot single story building located at 92-96 Main Road, Port au Port to operate a small 10-barrel capacity microbrewery along with a tap room (The Well Taproom). The beer produced will be small batch, hand crafted beer made from all natural ingredients (water, yeast, grain and hops) and no added preservatives.

In 2014 Canadians consumed more than 220,000,000 litres of beer, a quantity that superseded any other alcoholic beverage. Of this quantity, 84% was Canadian produced. More than 520 breweries now exist in Canada and this number continues to grow yearly. Newfoundland and Labrador has lagged behind this trend somewhat. To date there exist six small scale breweries on the island. The Bay St. George / Stephenville / Port au Port area boasts no independent micro brewery at this time.

A microbrewery is a very small brewery. We plan to produce less than 15,000 barrels of beer per year, thus falling in the microbrewery category. In comparison, we are significantly smaller than traditional major breweries such as Labatts or Coors which can brew up to 10,000,000 barrels per year. We will operate as a very small brewery with a seasonal schedule.

2) Purpose/Rationale/Need for the Undertaking

The Bay St. George surrounding area is home to approximately 28,000 residents. Each year, tourists come and visit the area, where they stay and enjoy the beauty of the region. A small craft brewery in the area will boost tourism and provide local

residents and tourists alike, with a place to visit, tour and taste locally made hand crafted small batch beer.

Craft brewing has exploded across the country in recent years and many of the new microbreweries opening up are based in rural locations where visitors to the brewery can take in the scenery and beauty of the region while enjoying a local made product. In Nova Scotia alone, there are over 45 craft breweries in operation spread out throughout smaller towns across the province.

There is a great opportunity in the tourism sector alone for the Stephenville and Port au Port area to make a local hand crafted beer while providing a unique “experience” to each visitor. We plan to provide small tours of the brewery whereby the brewmaster can discuss the various brewing processes and styles of each beer made in house.

Description of the Undertaking:

1) Geographic Location:

The micro brewery will be located in the town of Port au Port East. The town is welcoming the business venture and we are zoned (Mixed Development) for business. The brewery itself will reside on 1 acre of deeded, surveyed land in Port au Port East.

The property was originally used for over 30 years as a licensed lounge. There will be minor renovations to the outside along with renovations inside where we plan to pour concrete floors with drains and make other minor cosmetic changes. There is no farming activity or likewise in the immediate area.

2) Physical Features:

We plan to work with ServiceNL to design, build and install a new septic field system. The water will be provided by the Town of Port au Port East. We have already spoke with an approved septic designer and have a proposed location. The new septic system will be commercially approved (1000 L capacity tank) and service the bathrooms in the brewery.

There will be no new roads cut or developed to gain access to the proposed micro brewery. Parking is already established as it was an existing business.

The physical structure of the planned brewery will not only contain the brewery, but also the tasting room/taproom “The Well”. The affected area of land that contains the brewery has already been surveyed and registered with deeds, and is approximatley 1 acre in size.

The area affected is flat, drains very well and is already landscaped with ample access/parking from the main road. The ocean is several hundred meters away from the brewery and is not impacted by this project. There is no commercial or residential farming in the surrounding area.

3) Construction/Renovation

The commercial building that will be renovated will be approved by the council of Port au Port East and have a valid building permit in place prior to renovation. The building is approx 6000 sqft and will be renovated by professional contractors. The floor plan of the taproom, brewery and retail area is provided below; approved floor plans can be provided upon request. The microbrewery brewing space will be approximatly 1620sq feet in size with an approved fire separated rated wall between the brewing area from the public.

We will require confirmation from all contractors that they are following provincial occupational health, safety and environmental standards and guidelines throughout the construction work.

The brewery/taproom reno will take place once all approvals are in place. The estimated renovation project plan will start fall 2017, and take 3 months to complete. The steps are as follows:

- provide all electrical systems upgrades if needed, this will be installed by licensed contractor.
- slab on grade concrete, with floor drains for brewery connected to approved septic. Plumbing will be provided by professional contractors.
- Installation of fixtures and other finishing work to bathrooms, including work to ensure one is wheelchair accessible.
- Other construction and finishing work such as installation of a wheel chair ramp, fire-rated dry wall(typex), industrial hand-washing sinks, 3 compartment sinks etc. to meet building codes to obtain all the necessary permits and approvals (e.g. Building Accessibility and Life & Fire Safety, Food Establishment Licence, Newfoundland Liquor Corporation licences, etc.).
- The interior of the building in the brewery section will be industrial in design with walls and floors that can be easily washed. Any grain milling will be in a separate room adjacent to the brewing area, and enclosed with proper ventilation and separate from public space. Walls in the graining section will be reinforced and properly vented to the outside of the building.
- The brewery area will be enclosed with glass windows so people can view the stainless tanks, but will be closed to public access during brew days.
- The only potential sources of pollutants we can think of during the construction period would be related to the use of any machinery, such as an excavator, such as the

spill of any diesel fuel or lubricants. Equipment will be fueled off-site and will not need to be re-fueled at our location due to the short nature of the work requiring such equipment. Though the use of such equipment would very be minimal, should this be a concern, we will purchase a BrenKir (from Mount Pearl) spill kit to have on site.

4) Operations

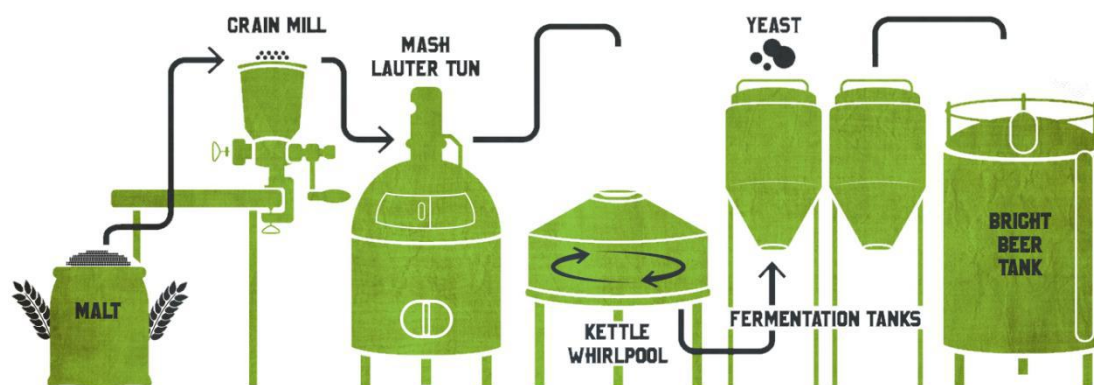
Microbrewery Operations:

The operation of the microbrewery will consist of:

- (a) the brewing process, which is carried out once a week with stages taking place over a 2-3 week period,
- (b) kegging,
- (c) milling grain and
- (d) cleaning.

(a) The Brewing Process

A schematic of the brewing process is as follows:



The brewing process typically runs over an 8-hour period and the steps shown above can be described as follows:

Heating, approximately 600 L of water in a large stainless steel tank to a temperature of 75C.

The heated water is transferred via pump and hose to a second stainless steel insulated tank where malted barley/grain is added. The grains are “steeped” in the hot water (63 C) for approximately 1 hour. Additional water (approximately another 150 –200 L, depending on the recipe) is added to sprinkle over the grains to draw off more starches where possible.

The liquid (now called “wort”) is then drawn off the tank via pump and hose and transferred into a third stainless steel tank fitted with electrical elements. The wort is heated to 100 C and boils for approximately 1.5 hour. During the boil, hops (the female flower of the hop plant, *Humulus lupulus*) are added giving the beer its bitterness along with further flavour and aroma.

The wort is then drawn off the tank via pump and hose and passes through a plate chiller (heat exchanger) that runs on cold water. In the plate chiller, the wort passes alongside cold running water to cool it down to room temperature.

The wort then leaves the plate chiller and enters a fermentation tank that contains a glycol jacket. Dry brewer’s ale yeast is added to the wort in this tank. The temperature of the tank is controlled to hold the wort at a consistent 18 degrees Celsius for 5-7 days. Glycol circulates throughout the outside of the tank (via the “jacket”) to keep the temperature consistent. The glycol is kept cool via the operation of a small glycol chiller.

After fermentation is complete, the liquid (now alcohol beer) is cooled in the same tank over a 12-24 hour period to reach a temperature of 4 degrees Celsius. The beer is then transferred

via pump and hose to a carbonating/conditioning tank that is also glycol-jacketed.

The temperature of the carbonating/conditioning tank is held at 4C during which is carbonated via the addition of CO₂. The carbonated beer is then transferred into kegs.

During the brewing process, we will be operating two 2.5 HP mobile variable frequency drive pumps that will perform all of the above transfers of liquid via hose.

(b) Bottling (limited activity to once a year in Year 1):

Bottling is carried out over a couple of hours and consists of transferring beer from kegs into a small bottling machine that is also connected to a source of CO₂. The bottling machine has ports for filling 2 bottles at a time (it is not a conveyor belt operation). The footprint is very small a foot or two in width and length. The machine operates via electricity.

C) Milling Grain:

We will be milling small amounts of grains prior to brewing and we will be doing so in a small enclosed room with explosion-proof fixtures, emergency stops, and proper ventilation.

(d) Cleaning:

The tanks and equipment are cleaned and sanitized after every use utilizing a clean-in-place (CIP) system with non-caustic

(alkaline) cleaner and sanitizer. Less frequently on an as-needed basis, diluted caustic cleaners are used to remove scale and stone from inside the tanks. The cleaners will be discussed further below.

Other Operations

We will also be operating a walk-in cooler in the Brewery for keg and hop storage. We will have a tasting area, which will be a licensed lounge area, including a ground level fenced patio(future build), where we will have a small draft system to offer our beer on tap to the public in pint and sample-sized glasses. We will have a small retail area where we will offer souvenir merchandise and our packaged beer for off-site consumption.

Water Demand/Usage

The water demand will fluctuate daily. Aside from a baseline demand for regular washroom use, the only times water will be required will be: 1) on a brew day and 2) during cleaning. On a brew day, our water demand is approximately 1000 litres (~264 gallons) for the brewing process. During the cleaning process (which follows a brew day), approximately 150 litres (40 gallons) is used. Based on discussions with Fire & Life Safety and Service NL, we are planning for an occupancy of 50.

We will be using a hot water tank as a storage tank to collect our brewing water over time so that on a brew day we will already have the 1000 litres (~264 gallons) of water ready and will not need to draw all that water in a single day.

Period of Operations

The brewery and tasting room “The Well” (lounge area) will be open to the public on a seasonal basis from May until October. This is the peak time that the microbrewery will operate. There

will be some brewing throughout the winter season on a minimal basis. The brewery and tasting room will not be open to the public during this time.

Potential Sources of Pollutants

Airborne emissions:

There are only two very small opportunities for airborne emissions during our operations:

- 1) vented steam during the brewing and
- 2) vented grain dust during the milling process. We confirm that both will result in very little to no actual air emissions and all are 100% natural and will contain no chemicals or toxic substances. The vented steam occurs during the brewing process. Water that has steeped in malted barley/wheat is drawn off and put into a boil kettle. It is boiled for approximately 1-1.5 hour and hops (a natural plant grown in the North-west of the U.S. and throughout Europe) are added at various stages of the boil to give the beer a more distinct flavour. At this point, the liquid only contains starches from the grains and flavours drawn off of the hops, which are all-natural and contain no chemicals or toxic substances. The steam from this boil emits only a slight odour, consisting of barley and hops. We will be venting such steam outside of our building. Due to the very small production capacity of our brewing equipment, the smell would be very minor, if at all, and only detected if you were standing very close and adjacent to the exterior vent on the roof. The brewery system is simply too small to create any significant air emission or noxious smell. There will be a very small amount of airborne grain dust when we mill the grains. To safely address this we will be milling the grain in a small fully-enclosed room with an exterior wall with direct ventilation to the outside. We will use explosion-proof fixtures and motor for the mill. We confirm that the emission of grain dust will be very small in nature, all-natural (non-toxic and no chemicals of

any nature) and will dissipate in the air within a meter or two from the exterior vent.

Solid Waste & Liquid effluents:

Fortunately, all waste produced during the brewing process is organic material, which therefore has the potential to be recycled, reused or composted. It is our goal to operate as environmentally-friendly as possible and with the very small scale of our operations, we believe a fully sustainable operation is attainable. The wastes produced during the brewing process of a single batch of 1000 litres of beer and subsequent cleaning of the equipment, consist of:

Water (varies, around 150litres)

– though the majority of water used makes up the beer product, a considerable amount of water will also be used to cool the beer through our plate chiller and used in cleaning the equipment. We intend to recapture the water used in the plate chiller for our cleaning process to dilute and rinse our cleaners. Upon completion of the cleaning process, it will become an effluent discharge.

Waste beer (variable)

–this will be a minimal liquid effluent that will result from any accidental spillage.

Spent grains (approx. 275-300 lb)

– this is the “steeped” grains leftover once the liquid has been drawn off from the tank. Since this is a food-grade by-product, it will be reused for a subsequent brew, as ingredients for baking or animal feed for a local farmer that we have an arrangement

with. We can also compost the grains if we cannot reuse them. A farmer has confirmed he will collect the spent grain for feeding his livestock.

Spent hops/Kettle Trub (approx. 14-15 litres)

–this is the precipitate left in the boil kettle upon completion of the boil and removal of the liquid. It has a “slurry” consistency since this is a food-grade by-product, we intend to either re-use it as a soil improver or compost. We also plan to grow our own hop plants and will incorporate some of our spent hops in our own garden as well.

Yeast/Fermentation Trub (approx. 17-22litres)

–this is the biomass left at the bottom of the fermentation tank upon removal of the liquid (beer). It is composed of mainly heavy fats, proteins and inactive yeast. A portion (5-7 litres) will be re-used for yeast propagation for a future batch and once its lifespan has expired, we will use it for compost.

Cleaning products(small amounts)

–fortunately there are environmentally-friendly products available for the cleaning needs of the brewery. The cleaning product most used, particularly for every cleaning session after every brew, will be PBW (powdered brewery wash). This is a low alkaline, non-caustic, environmentally and user-friendly clean-in-place cleaner. There may be some instances where we have to use a peroxide-based acid cleaner to dissolve scale and beerstone from inside the tanks. This would be highly diluted (2000:1 ratio of water to cleaner) and will not be used during every cleaning session. When required with our system, 20mL of caustic is used and diluted with 40L of water.

All “slurry” and liquid effluents will be disposed of in the septic system. If this presents a problem or concern, we will alternatively drain these to a grey water holding tank for

alternate proper and safe disposal. For cleaning of the tasting room, bathrooms, etc. we also intend to use biodegradable, environmentally friendly cleaning products.

5) Occupations:

The brewery will operate on a seasonal basis, focusing on the tourism market. Because the brewery is so small in size, there will not be any employees as it will be small enough to be operated by the two owners. We may hire 1-2 initially if needed and bring people in as needed.

All of the previously mentioned renovation work will be completed by contracts with local suppliers. Once the business is operating, if any maintenance or repair work is required for the equipment, this will also be contracted out to local businesses. We are two socially aware owners who own 100% of the business and should we engage in any hiring down the road, we will ensure there will be no gender or age discrimination in that process.

APPROVAL OF THE UNDERTAKING:

The following is a list of permits, licences and approvals required for this microbrewery:

Municipal

Municipal Approval

– Town of Port au Port East

Provincial

Food Establishment Licence(includes water & septic approval)

- Department of Health

Septic System Approval

– Service NL

Non-Domestic Well Permit

– Department of Environment and Conservation, Water Resources Management Division

Environmental Assessment Approval & Registration

–Department of Environment and Conservation

Building Accessibility & Fire and Life Safety Approval

– Service NL

Manufacturer's Licence (Brewery)

–Newfoundland Liquor Corporation

Lounge Licence

–Newfoundland Liquor Corporation

Patio Licence

–Newfoundland Liquor Corporation

Brewer's Agent Licence

–Newfoundland Liquor Corporation

Federal Excise Duty Licence

- Canada Revenue Agency

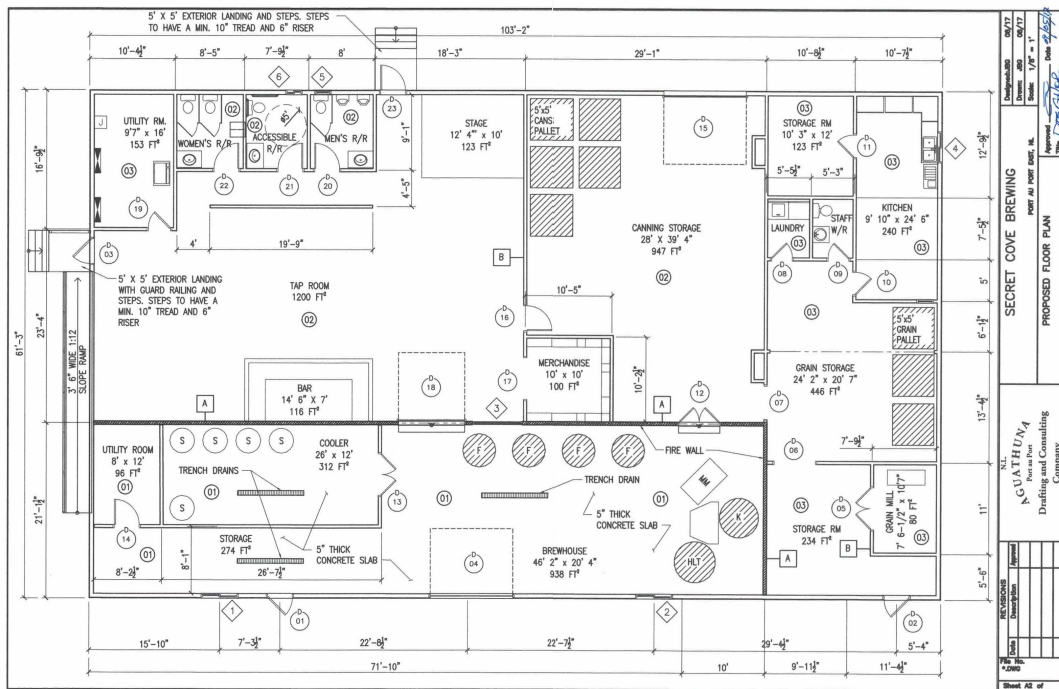
Labelling requirements

- Canadian Food Inspection Agency

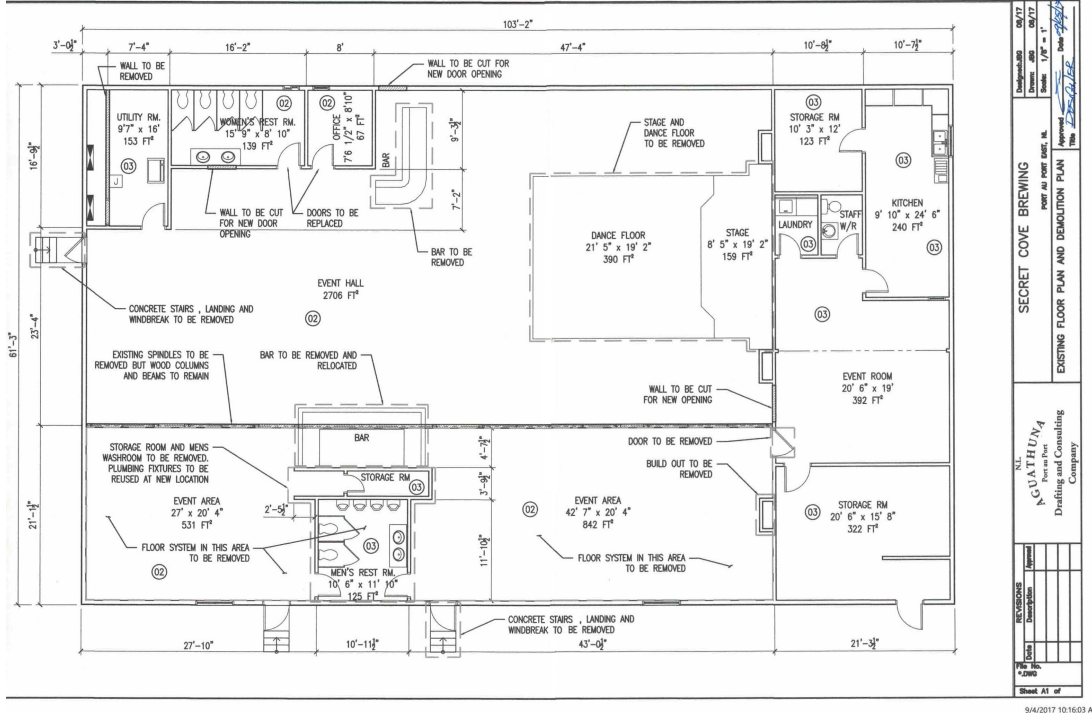
Location of building:



Floorplans
(proposed)



Floorplans (existing)



Schedule (walls ceiling doors etc)

