



GEORGIAN BAY INNOVATION GROUP UPDATE

JUNE 18, 2021

OVERVIEW

According to a published history of the area, the Town of South Bruce Peninsula, in particular Wiarton, was initially built on the [lumber](#) industry. The harvest of timber and the manufacture of goods from lumber were an important industry early in the area's development, until two widespread forest fires, the first in the late 1800s and the later in the early 1900s, wiped out the local forests.

The next most important industry was fishing. In 1906, Wiarton was awarded a federal fish hatchery, which helped maintain the fish stock in the area for many years. Fishing was at its peak in the early 20th century, but suffered from the introduction of the invasive [sea lamprey](#) to the upper Great Lakes through the [Welland Canal](#) in 1921. By 1932, the sea lamprey had arrived in Georgian Bay, and, together with the [Great Depression](#), it brought the decline of the fishing industry.

Tourism, agriculture, livestock and aggregate extraction are today the major economic forces, but in the past the Town of South Bruce Peninsula has expressed a desire to attract innovative businesses that would provide good-paying, year-round jobs, particularly for the young generation, who are forced to leave the area for better paying, full-time employment elsewhere.

The principals of Georgian Bay Innovation Group believe their proposal satisfies the town's strategy to attract innovative businesses, create year-round employment, provide good job prospects for future generations and introduce an industrial that will generate opportunities for new spin-off enterprises, thereby adding to the growth of the local economy.

Our Aquaculture project will not only employ 200 or more but will initially require skilled construction labour, and spur the growth of service businesses that will generate additional jobs in an area whose economy has been relatively stagnant for several years.

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The Recycled Aquaculture System (RAS) proposed for 83 Berford Lake Road is one of only a dozen developed in the world, thereby bringing international attention to South Bruce Peninsula.

To support our conviction that this facility will put South Bruce Peninsula on the global map, here are some of the facts:

- U.S. is the largest salmon market in the world and import around 95% of its product from Norway/UK, Chile and Canada. All of them are presently marine open pen operated producers.
- The world market for salmon increases with around 10% per year while the supply has an average increase of production of around 3% per year.
- Main growth of production has been in Europe while Chile and Canada have seen a slight stagnation due to biological and regulatory challenges.
- The limitation of increased future supply mainly driven by regulatory and biological challenges for the marine open pen producers, freight costs and a very strong growth in the US market makes this project location in Wiarton ideal.
- Canadian sector growth will continue, supported by strong world demand.
- Canada's production is expected to remain at about 4% of global production.
- Ontario currently does not have any salmon aquaculture.

The domestic pressures to build land-based fish farms are:

- Canadian government has decided to prohibit large portion of the marine cages' operations in BC for trout and salmon within 2025.
- First move was carried out for 2021-2022 where a large number of marine cages sites and licenses were given notice to be closed within 2022.
- Eastern Canada is obviously facing the same challenges in the years to come
- Pressure from Ottawa to move all activities to land-based operations.

"Our government is working on a responsible plan to transition the industry away from open net-pen salmon farming in B.C., and we have committed to developing this plan by 2025."

-Jane Deeks, press secretary for Bernadette Jordan, Minister of Fisheries and Oceans

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Benefits of land-based salmon farming:

- **Controlled Production Environment:** Land-based RAS operation is a controlled environment for the fish.
- **Output Control:** Land-based aquaculture allows for production expansion and the ability to increase capacity.
- **Shorter Production Time:** Steady temperature water flow and current through the whole production cycle results in significant increase of the growth for the salmon. Therefore, shorter time of production.
- **No External Impacts:** No impact from marine environment like sea lice, various parasites, algae blooming or various amoeba.
- **Humane Production:** No antibiotic or harsh mechanical treatment of the fish or no use of well boats.
- **Feeding Ratio, Growth, and Mortality:** Huge positive impact.
- **Significantly Lower Costs:** Total cost of production is significantly lower compared to the traditional production.
- **Product Consistency:** Uncertainty around average weight, quality and numbers is another cost that often has a large negative impact on salmon prices.

The advantages of the proven technology of RAS:

- **Low Water Consumption:** The advanced proprietary Minimal Liquid Discharge (MLD) technology utilizes several water treatment patents and filtering techniques to cut water consumption.
- **Harvest Planning:** Full parameter monitoring and control allow for enhanced efficiency and productivity, resulting in a higher-quality fish and all year-round harvest that can be forecasted.
- **Naturally Healthy:** Closed containment systems to keep a secure environment and allow full control of the facility. This reduces risks for disease and contamination and produces healthier fish without using chemicals.
- **Lower Energy Cost:** Efficient power management, dramatically reducing costs of energy.
- **Controlled Environment:** Strict biosecurity protocols and complete environmental control enable elimination of antibiotics and chemicals in the process and high survival rates.

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- Control Feed: Advanced feeding management system – enable reduction of the Feed Conversion Ratio (FCR) and operational costs.
- Close to Market: Unconstrained by location and climate, our operational installations are adaptive and can be set up close to markets, substantially reducing transportation costs and quickly connecting between water and plate.

The RAS has significant environment benefits:

- Reduce CO2 footprint: Located close to one of the world’s strongest markets for salmon which results in short transportation to end consumers and a reduced CO2 footprint.
- No impact on other species: No impact on wild salmon or other species.
- No untreated waste: No untreated waste returning to the water source.
- No organic build up: No organic build up or negative impact on the surrounding environment.
- Global warming: No impact from global warming or changes in weather conditions.
- Supportive of environmental groups vs. traditional salmon farming.
- Strong support from the federal government

Georgian Bay Innovation Group has decades of experience. The RAS technology has existed for several decades, and while there are continual evolutionary improvements, as is the case with any innovations, the technological foundation is sound, and we possess the expertise and experience to ensure safe and proper construction and operation.

GBIG uniquely combines the skill sets of a limited number of qualified land-based marine biologists with that of specialized RAS aquaculture operators:

- Expertise to build and operate a best-in-class ESG friendly facility.
- More than 30 years of experience in fish farming including salmon hatchery and grow out operations.
- Built and managed multiple land-based and marine salmon operations including various RAS systems.

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- Launched and grew a small, regional fish brand into a multi-million national brand with distribution to all major retail accounts including Walmart, Costco and Loblaws.
- Approved for and acquired aquaculture license from the Ontario Ministry of Natural Resources and Forestry for proposed site.
- Support of local government.

GBIG is committed to addressing concerns being expressed and will be putting in place a system to answer concerns, address misconceptions and misinformation.

Concerns currently being expressed include:

The whole concept of taking and returning over 50,000 litres of water daily from Colpoys Bay.

The daily intake of water is replaced by daily discharge of treated clean water, so there is no major impact on the Bay water quality or level. In fact, the amount of draw by the GBIG facility will be less than what a ski resort is taking out of the lake for its snowmaking – water that is not replaced by the resort.

Construction of a pipeline from proposed site to Colpoys Bay.

The proposed pipe will not be a major disruption. This is a 6” pipe that will be buried 6’ below ground and follow the road allowance.

All the unforeseen environmental impacts that may result.

All federal, provincial and municipal environmental requirements will be met. The technology for this system has existed for more than three decades, so fail-safes are built in to eliminate or mitigate any potential failures in the system.

Impact of increased commercial traffic.

We anticipate 3 trucks a day will use Berford Lake Road and the provincial Highway 6. This is a minor impact compared to the tourism and commercial traffic currently using Highway 6.

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24 / 7 noise and odours.

The facility is fully enclosed therefore there are no noise and odours emitted by the plant.

Diminished values on adjacent residential and agricultural properties.

GBIG will bring national and global attention to South Bruce Peninsula and increase the town's economy, which has been stagnant for the past several years. Economic growth increases property values.

Impact of natural beauty of the Escarpment and Bruce Walking Trails and conservation areas in the immediate region.

The property was a private cattle farm. The company will have no other presence beyond this property. The property's wooded section and wetland will be left untouched.

Quality of life for residents and visitors to the area.

Increasing the economic health of the town will potentially lead to improved services, higher property values, full-time employment for residents and young workers who would rather live in their home town versus commuting or moving away for better work opportunities, and encourage additional economic development – all of which will raise the standard of living for the residents of South Bruce Peninsula.

Plans to address future questions:

- Public information session in the fall.
- Website with section to submit questions, which will be answered in a timely manner.
- Regular newsletter or communiqué to keep politicians and residents updated.
- Consider additional methods of maintaining an open communication with the town and residents.
- Approach Georgian College to explore how this facility could have a tie in with the college's marine and environmental programs.

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