

Tourism and Open-net Pen Salmon Farming in Nova Scotia – *with a focus on the South Shore.*

Following are some key issues with open-net pen salmon farming in response to the recent granting of 20 Options to Licence open pen fish farms in Nova Scotia to Cermaq, including in waters from Peggy's Cove to Green Bay (St. Margaret's Bay, Mahone Bay and Lunenburg)

Four Key Issues stand out:

- 1. Brand Positioning for Coastal Tourism**
- 2. Visitor experience**
- 3. Coastal ecosystem**
- 4. Economic Impact**

1. **Brand Positioning** – Tourism marketing has positioned the province as some of the best protected and accessible coastlines in North America. We are a relatively unspoiled coastal destination with accessible islands and desirable ocean experiences highly sought after by a growing travel market. Our pristine and uncrowded coastlines are a major draw as both a demand generator and demand supporter while in the region. In fact, the past provincial moratorium which limited open-net pen salmon farming has allowed us to maintain and arguably stand above in that positioning as many other coastlines have experienced their ill effects.

Two of the provinces premier attractions are included in the license area. (Note: There are also operations and expansion plans for the recently protected 100 Wild Islands / Eastern Shore by another applicant). While this response focuses along the South Shore other possible license areas include Digby/Bay of Fundy, Guysborough/Chedebucto Bay and Richmond County in Cape Breton. All of these are prime tourism coastal destinations and similar issues can apply.

Open-net pen aquaculture has for the last 20+ years been at the centre of controversy for its business practices and impact on the environment. Most communities around the world take issue with its practices and impact through die offs, disease, high concentration feces waste, equipment debris, impact on natural wildlife, and impact on the coastal landscape including smell, noise and lights. Most recently the disaster that occurred in Newfoundland directly affected (polluted) its shoreline as well as made headlines regionally and nationally.

[CBC News - 2.6 million salmon die along Newfoundland's coast](#)
[Global News - Newfoundland salmon deaths Sept '19](#)

The mayor of Tofino, B.C. who has tried to find a way for both tourism and open-net pen salmon farms to exist since the late 90's said, after a recent die off disaster, that her faith was severely shaken. "It was shocking to see that video and frankly I was disappointed in myself for not knowing that this was going on," (full article [Salmon Farm controversy in Tofino, Coastal BC](#))

These kinds of practices are counter to the Nova Scotia brand and visitor promise to experience pristine waters and accessible shorelines. Significant headway has been made in our efforts to protect unique islands such as 100 Wild Islands, Mahone Islands (MICA) and the most recent

announcement of the St Margaret's Bay Island Nature Preserve by the province. Open-net pen salmon farming is in direct contrast given its known impacts on coastal environments. In October the Federal Government committed to working with British Columbia to divest of open-net pen salmon farms by 2025 because of its negative impact. Other jurisdictions like Washington State have already started the process to divest and move to land based operations.

We have the ability to be ahead of the competition by protecting our shorelines as they struggle to recapture theirs.

2. Guest Experience - More and more visitors to Nova Scotia are looking for authentic and natural experiences on and around our waters, not just passive viewing as was the case years ago. Boat tours, eco tourism including kayaking and coastal hiking, beaches & swimming, scuba diving, surfing, sailing, and coastal touring both by car and bike are all part of the essential experience for Nova Scotia visitors (as well as residents). A recent blog post by a travel writer highlighted an ideal 10-day itinerary along our coast. Virtually every community mentioned is a candidate site for Cermaq's open-net pen licenses. [Nova Scotia's Ideal Coastal Tour Itinerary](#) Specifically, direct impact would include:

- reduced availability of navigable waters for coastal boat tours, kayaker, sailors and other water-based activities. St Margaret's Bay and Mahone Bay regularly host regional, national and international sailing regattas, deemed some of the best waters in the Eastern North America.
- gear fowling boats / props (a common occurrence in navigable waters along the NB Bay of Fundy is broken gear from storms)
- pollution along shorelines under normal conditions depending on the location of the farms (untreated waste, chemicals and fish feed).
- risk of disasters such as occurred in Newfoundland and have occurred in NB, BC and other countries with large scale fish farming, shutting down areas to visitors
- Sound, odour and light pollution from 24/7 operations using diesel engines and commercial lighting that covers the size of 3 football fields for each farm. Smell is also an issue.
- Visual impact for those visiting iconic sites such as Peggy's Cove, Mahone Bay and Lunenburg area. Unlike remote areas of BC, salmon farms in Nova Scotia are proposed in a much more heavily populated area for both residents and tourists. The conflicts are well documented in BC and would simply be imported and amplified in Nova Scotia.

Proactive communications from the aquaculture industry underscores the documented years of conflict and controversy the industry has created along the coast of BC and Atlantic Canada. Cermaq themselves acknowledge this may not be a fit for Nova Scotia. A scan of Aquaculture and Tourism conflicts around the world highlights these universal issues. There is no reason to think we will be immune to this if we proceed.

3. Coastal ecosystem - the primary reason open-net pen aquaculture meets opposition in any jurisdiction around the world is the direct impact it has on the ecosystem. By its very design it is an open system and, at best, the efforts to contain it made by the operators serve only to mitigate the risk and direct impact. Some of these issues were mentioned earlier.

- Waste from feces.
 - Chemicals and medication.
 - Die offs and escaped fish.
 - Impact on local wild salmon stocks.
 - Impact to Lobster fishery, including hatchery areas
5. **Economic Impact.** Clearly the benefit to supporting open-net pens is job creation and economic investment in infrastructure. While the company communications quote “300 jobs and \$500 million in investment”, it is unclear how this will transpire at this point¹. Discussions with the company indicate closer to 16 jobs associated with the pens along the south shore and roughly 20 land based jobs. The concern is these jobs will come at social, environmental and potential economic price as trade offs are made against the lobster fishery, tourism and real estate. The industry is quickly moving towards more mechanized operations requiring fewer jobs on site. They are known to be minimum wage positions with harsh working conditions, while higher skilled management positions would be included in centralized locations. It is unclear how the investment would be generated, especially if the technology they employ is imported from their home base of Norway.

The Future is Still Positive

Ocean based aquaculture can be viable and sustainable in smaller shellfish operations using the natural ecosystem to feed the stocks, but this is not the case with open pen salmon farming. However, there is an attractive and superior, Made in Nova Scotia alternative. This alternative is land based closed containment aquaculture of superior quality in many ways. It is a home grown, innovative, technologically advanced, sustainable and exportable solution that provides the many benefits of fish protein without the negative impacts of open pen farming. The technology and business model has advanced dramatically in the last few years and continues to improve. Internationally, such as in Norway, operators are moving in this direction where sustainability is an overriding factor in the choice of the types of industry that are supported. In order to understand what the future of aquaculture in Nova Scotia can be it is useful to watch the video from Sustainable Blue: [Land Based Salmon Farming Now](#)

As others in the country and parts of the world are getting out of open-net pen salmon farming, Nova Scotia has the unique position to build for future solutions rather than divest of old technology and techniques. No one is investing in coal powered energy today and likewise we do not have to invest in high risk, environmentally compromising aquaculture technology. We can invest in renewables as well as land-based aquaculture that is exportable, brand aligned and future facing. The quality of our valuable natural ocean resources can then be maintained for sustainable, highly sought-after tourism experiences, sustainable lobster fisheries and protected habitats.

¹ Numbers quoted for large projects are often best case scenario if peak production is met. Note in BC they currently have 25 farms and employ 250 workers. It is not clear if these are FT or PT.

Appendix

- **Waste from feces.** Industry research has equated 1 fish farm to a human population of 10,000 - 50,000 people. This varies based on size and conditions. Attempts to mitigate the impact are done by rotating operations or laying fallow. This allows natural wave and tidal action to disperse the waste but does not eliminate it.
- **Chemicals and medication.** Feed, pesticides and other chemicals are used in production, some as a matter of course such as feed while others are used in the presence of lice and other health issues of the stock.
- **Die offs and escaped fish.** In varying degrees this is also a matter of course that operators mitigate through individual practices but never eliminate. Cermaq had a die off in the fall of 2019 off Vancouver Island with close to 200,000 fish disposed of. Causes range from warming water, such as in Newfoundland (a more and more common occurrence given ocean temperatures rising) to algae blooms to storms.
 - [CTV News - mass salmon farm die offs - Cermaq](#)
[Global News - mass salmon die off - Cermaq](#)
- **Impact on local wild stocks.** Many examples exist of escaped fish directly affecting wild stocks due to interbreeding and spreading of disease. Nova Scotia has experienced this already in existing salmon operations and New Brunswick, with its longer more intense history, has many occurrences documented. Recreational fishing organizations have seen the most direct impact and in fact this is one of the key reasons DFO has committed to exiting the industry on the west coast.
- **Impact to Lobster fishery.** Salmon farming grounds are in direct conflict with lobster habitat. Reduced stocks have been recorded. The salmon aquaculture industry supported research would indicate otherwise but independent research and experience from lobster fishermen have repeatedly cited the impact of feces waste and chemicals on the lobster stocks. A Dalhousie researcher studied the effects on Port Mouton with a published report in 2019. [Effects of Salmon Farming in Port Mouton Nova Scotia](#) Given lobsters are bottom feeders, it does nothing to support the marketing of fresh lobster harvested along the pristine shores with a string of salmon farms.
- **Large Scale divestment of open-net pen salmon farming** – Open Letter from leaders in British Columbia October 2019 is an example of large scale support for the end of open pen farms. [Open Letter from industry leaders opposing Open pen net salmon farms](#) Norway has shifted its policy to charge prohibitively large prices for new open pen farms while allowing land based closed systems to expand without fees. Rather than regulate against open pens, they have included the fuller social and environmental cost in the operation of open pens.