

Hon. Perry Trimper, Minister of Environment and Conservation

Hon. Steve Crocker, Minister of Fisheries and Aquaculture

The Western Environment Centre (WEC) is a charitable, non-profit, volunteer organization. We strive to engage communities in environmental issues in a balanced, objective, and informed manner; work with community partners, businesses, and government agencies to build capacity and involvement in projects related to environmental action and sustainability; and create a community of environmentally pro-active citizens.

WEC has carefully conducted an unbiased scientific literature review and we have found several reasons to be cautious with the Grieg proposal. We have outlined a few of the main concerns below. WEC believes that the precautionary principle inherent in the environmental assessment process should be exercised in this case. In addition to overall impacts on not only the marine environment, but the environment as a whole, scientists agree that drastic impacts are possible to a very sensitive species; *Salmo salar*. **A full Environmental Impact Statement which considers alternative methods and includes public consultations should be conducted before the project is allowed to proceed.**

The following major points of concern are condensed for ease of review. These points are not the only potential concerns with the project and are by no means intended as an exhaustive summary. If you would like any additional information on any of the areas of concern please do not hesitate to contact us and we can provide more complete responses and references.

- 1) Salmon populations on the South Coast of Newfoundland are already under consideration as threatened under the Species at Risk Act (SARA). Assessments have concluded that over the past three generations stocks of mature *Salmo salar* are showing a declining trend with no sign of recovery. Information found within the ongoing SARA and DFO review cites present and expanding aquaculture as a specific risk to the species. Furthermore, phase 2 of the proposal involves placing 11 sites directly in the line of Salmon migration thereby increasing the likelihood that any potential negative effects would impact the species.
- 2) Fish feces and other waste are deposited directly into the surrounding water. This has proven to alter the chemical makeup and biological diversity of the surrounding seabed. Studies have found that marine life in proximity to salmon pens have higher levels of mercury than normal. All of this waste can result in a loss biomass and productivity. Phytoplankton and marine plants are unable to undergo photosynthesis in areas surrounding salmon farms which has a profound ripple effect throughout the entire ecosystem.
- 3) High density leads to issue with disease and parasites. The proponent has not made clear how they intend to deal with this beyond the industry standard of pesticide and antibiotics. Like waste, these chemicals go directly into the water and can be found in higher concentrations throughout the marine ecosystem as a result. The Newfoundland and Labrador aquaculture industry has been riddled with disease outbreak and the way to prevent these outbreaks is not done in environmentally sound nor ethical manners.

- 4) The proponent intends to introduce a strain of salmon which is foreign to Newfoundland and Labrador. Even using industry best practise to prevent escapes, lessons from other jurisdictions show that escape is unavoidable. These escaped fish interbreed and mix with the local population which has significant impact on the genetic makeup. Wild fish stocks are susceptible to the diseases and parasites carried by the farmed fish.
- 5) The high amount of feed for salmon farms is resulting in a depletion of forage fish stocks. Globally aquaculture accounts for as much as 88% of all fishmeal consumption which equates to roughly 1/3 of the global fish catch each year. With intensifying climate change this has led to local depletion of overall fish stocks and in some instances total fishery collapse from removal of biomass from the marine food chain.
- 6) The proponent has not considered alternatives such as land based pens. The proponent also glosses over mitigation measures in some instances such as disease prevention and completely ignores industry best practise mitigation measures in other areas. If the province is to accept a proposal, wouldn't it be sensible to be confident that the proponent has considered all the options and brought forward the best possible techniques?

WEC is cognizant that the Economy and the Environment are very closely intertwined. We are not saying that a safe, environmentally sound and sustainable aquaculture industry isn't possible. With the close ties the people of this province have with our resource based economy and our fisheries; it only makes sense to proceed with caution. With time and careful consideration we can learn from the mistakes of others and maybe even do this right - but with the proven negative impacts of salmon farming on the environment, the commercial fishery, traditional practises, and an entire species at risk of collapse we simply cannot afford to be wrong. Short term gain of jobs will not make up for the continued delayed recovery of our commercial and recreational fisheries, nor will those jobs repair the damage done to our fragile ecosystems. WEC respectfully asks you to delay this decision until such a time that it can be proven safe beyond any reasonable doubt.

#### References

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