

NOV 29 2018

Reg. #1834

Mr. Bill Bryden
P.O. Box 63
Lumsden, NL
A0G 3E0

Dear Mr. Bryden:

Re: Placentia Bay Atlantic Salmon Aquaculture Project Section 107 *Environmental Protection Act* Appeal

Thank you for your Notice of Appeal received on October 30, 2018.

Background

On May 22, 2018, Grieg NL Nurseries Ltd. and Grieg NL Seafarms Ltd. (Grieg NL) submitted an environmental impact statement (EIS) for the Placentia Bay Atlantic Salmon Aquaculture Project (the undertaking). The EIS informs that Grieg NL is planning to build and operate a land-based Recirculating Aquaculture (RAS) System Hatchery for Atlantic salmon in the Marysville Marine Industrial Park, and marine-based farms located in the northern portion of Placentia Bay. The development will undergo a phased approach before reaching peak production of seven million salmon per year in year eight.

As per the routine process, the EIS was circulated to the project Environmental Assessment Committee for a scientific and technical review, and posted on the Department of Municipal Affairs and Environment (this Department) web page for a 50-day public review. All review comments were considered. On September 6, 2018, the Minister announced that the EIS was acceptable and the undertaking was released from further environmental assessment with conditions. The Minister's EIS acceptance letter and the undertaking release letter can be found on the department's web page at:

www.mae.gov.nl.ca/env_assessment/projects/Y2016/1834/index.html.

Environmental assessment is defined in section 45 of the *Environmental Protection Act* (the *Act*), as “*a process by which the environmental effect of an undertaking is predicted and evaluated before the undertaking has begun or occurred*”. Environment, which as stated in section 2 of the *Act*, includes air, land, water, plant, animal, and human life, social, economic, recreational, cultural, and aesthetic conditions, and factors that influence quality of life. During the environmental assessment process, all relevant facts are considered, including those presented in the EIS, public comments, and scientific and technical review

comments, to come to a reasonable decision on the acceptability and overall environmental impact of a proposed undertaking.

Appeal

Section 107 of the *Act* provides that a person who is aggrieved by a decision made under the *Act* may appeal that decision in writing to the Minister within 60 days of receipt of that decision.

On October 30, 2018, this Department received your appeal pursuant to section 107, which stated, in part:

“...I am writing to ask for an appeal of the decision to release the EA Reg. #1834, without a Land Based Feasibility Study as required under the EIS Guidelines and thus the Environmental Assessment Act and Regulations. You also requested: I ask the government to review this decision and demand that the company comply with the EIS guidelines and provide a full Land Based Feasibility Study.”

In consideration of your appeal of the former Minister's decision to accept the EIS, specifically the alternatives, as compliant with the *Act* and the EIS Guidelines, I offer the response below.

Land-Based Alternative – EIS Guideline Requirements

The former Minister appointed an Environmental Assessment Committee to advise him on the scientific and technical matters related to the undertaking. The Committee consisted of a 12-member Federal/Provincial team. As required by section 53 of the *Act* that Committee provided Guidelines for the Minister's consideration with respect to the EIS.

As you noted, section 57(f) of the *Act* states, *“An environmental impact statement shall be prepared in accordance with the guidelines, and shall include; (f) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking.”* Section 3.2 of the EIS Guidelines provides direction on what information Grieg NL should submit regarding alternative methods of carrying out the undertaking.

For example, section 3.2 of the Guidelines requires the proponent to *“provide the rationale for selecting project components and discuss the state of the art technologies being proposed. The proponent shall indicate known experience with, and effectiveness and reliability of the equipment, techniques, procedures, and policies, for each alternative, particularly under arctic or subarctic conditions in Canada and elsewhere, and their relation*

to best practices in Newfoundland and Labrador.” In addition, section 3.2 of the Guidelines states that, “the EIS shall analyze and compare the design alternatives for the project in relation to their environmental and social costs and benefits, including those alternatives which cost more to build and/or operate but which cause less harmful environmental effects. The range of alternatives considered for the annual production and scale of the operation shall be discussed, and the chosen alternative justified.”

The EIS Guidelines were specific in requiring Grieg NL to describe alternative means of carrying out the undertaking, including a description of “seafarm operations (land-based versus marine-based)”.

Land-Based Alternative – EIS Description

In response to that direction, section 2.7.3.4 of the EIS compares the alternative of an entirely land-based aquaculture project to the proposed option of having a sea cage component. This section of the EIS acknowledges that the on-land concept “*has been advocated as an attractive and viable replacement for the proposed project*”, and has a number of potential advantages including “*minimized fish escapes, minimized predator interactions, reduced disease transmission, lower feed inputs, higher stocking densities, and improved waste management capabilities*”.

In analyzing the option of an entirely land-based facility, the EIS considers the aspects of environmental interactions, and technical and economic feasibility, and provides analysis that includes considerations of:

- Marine environmental effects;
- Land, electricity, and water use;
- Carbon footprint;
- Stocking densities;
- Farmed fish health;
- Cost analysis comparisons; and
- Market access.

Section 2.7.3.4 of the EIS summarizes this analysis as follows, “*While Grieg NL recognizes the benefits of a closed-containment RAS [land-based recirculating aquaculture system], this alternative is just not feasible for the Placentia Bay project for production of 33,000 mt of Atlantic salmon grown to a 5 kg fish size. Currently, the costs associated with such a system render this alternative economically unviable. In the event that a totally land-based production system does become economically viable, such a facility would not likely be located in Placentia Bay. An important advantage of the Placentia Bay region is the availability of extensive, suitable marine water. For these reasons, the land-based*

alternative was rated as most unattractive with respect to the economic feasibility and market access criteria."

Land-Based Alternative – EIS Review

Upon receipt of the EIS, the Minister has to provide it to the Environmental Assessment Committee, which has to make a recommendation to the Minister whether or not the EIS is deficient or that the undertaking be released. Where in the Minister's opinion an EIS is deficient, section 61 of the Act provides the Minister with authority to require a proponent to conduct further work, amend the EIS, or revise and submit another EIS or amendment to that statement. After full consideration of the EIS submitted by Grieg NL on May 22, 2018, the former Minister was of the opinion that the EIS had been completed and complied with Part X of the Act and the Guidelines and I agree with his position on that. A copy of this letter is available at: www.mae.gov.nl.ca/env_assessment/projects/Y2016/1834/index.html.

The Department of Fisheries and Land Resources (FLR), a member of the Environmental Assessment Committee for this undertaking, reviewed the EIS, as well as your appeal and advise that, with respect to the global context of salmon aquaculture, growth in salmon aquaculture is expected to continue, including production by land-based closed containment system producers. Several large-scale investments in full cycle land-based production, using RAS technologies, have been announced over the past year in North America, China, and Northern Europe. However, a key outcome of advancements in RAS technologies is that the majority of primary commercial salmon producers are building these facilities to increase the size of smolt on land in conjunction with final grow out at sea. This reduces the time at sea and the associated constraints. FLR advises there are projections that indicate on-land production of Atlantic salmon will continue growing in conjunction with sea-based production. Full cycle land-based production is likely to grow at a faster rate in regions where appropriate sea conditions are limited. Land-based production will not replace sea production.

After review of the EIS, specifically the analysis of alternative methods of carrying out the undertaking, and your appeal, FLR was of the view that Grieg NL had adequately considered the entirely land-based aquaculture alternative to the proposed project. FLR concluded that the characterization and evaluation of the entirely land-based alternative, as presented in its EIS, is consistent with FLR's knowledge, recent industry reports, and industry projects.

I have reviewed the land-based projects listed in your appeal, and note that the projects are either not of a comparable scale to the annual production of this undertaking, or are in the early stages of development, and land-based production at this scale has not been established.

Decision

In summary, the EIS Guidelines required Grieg NL to describe alternative means of carrying out the undertaking, including a description of “*seafarm operations (land-based versus marine-based)*”. In response to that direction, the EIS compared the alternative of a land-based alternative to the proposed option. The analysis included consideration of, among other things, the potential advantages and constraints of a land-based option on marine environmental effects, land, electricity, and water use, the carbon footprint, costs, and farmed fish health. Overall, the EIS complied with Part X of the *Act* and the Guidelines and contained an acceptable evaluation of the land-based farm operation. The decision to release the undertaking was made after a full consideration of all relevant facts and a reasonable decision reached based on those facts.

For all of these reasons, and after fully considering your arguments and the comments provided by the Department of Fisheries and Land Resources, pursuant to section 107 of the *Act*, I am dismissing your appeal.

If you have any questions concerning this matter, please contact Dr. Susan Squires, Director, Environmental Assessment Division, at (709) 729-0673 or susansquires@gov.nl.ca.

Sincerely,



GRAHAM LETTO, MHA

District of Labrador West

Minister of Municipal Affairs and Environment