

**NOVA SCOTIA AQUACULTURE REVIEW BOARD**

IN THE MATTER OF: *Fisheries and Coastal Resources Act, SNS 1996, c 25*

- and -

IN THE MATTER OF: An Application by KELLY COVE SALMON LTD. for a boundary amendment and two new finfish aquaculture licenses and leases for the cultivation of Atlantic salmon (*Salmon salar*) – AQ#1205x, AQ#1432, AQ#1433, in Liverpool Bay, Queens County

**Rebuttal Affidavit of Jeffery Nickerson affirmed on February 16, 2024**

I affirm and give evidence as follows:

1. I am Jeffery Nickerson, of Conquerall Mills, Nova Scotia. I am the Business Development Manager for the Applicant in this proceeding Kelly Cove Salmon Ltd, the Canadian Farming Division of Cooke Aquaculture Inc (“KCS”).
2. I have personal knowledge of the evidence affirmed in this affidavit except where otherwise stated to be based on information and belief.
3. I state, in this affidavit, the source of any information that is not based on my own personal knowledge, and I state my belief of the source.

**(1) SOUND**

4. I have reviewed the Affidavit of Brian Muldoon affirmed on January 18, 2024 and filed in this proceeding on behalf of the Intervenor Protect Liverpool Bay Association, with particular attention to paragraphs 27-38 regarding Mr. Muldoon’s complaints about noise which he associates with KCS’s existing operations at the Coffin Island farm.

**Additional Context to Mr. Muldoon’s Evidence**

5. In Mr. Muldoon’s affidavit, the specific dates he mentions in respect of noise issues are July 31, 2020; June 29, 2021; August 12, 2021; June 18, 2021 and June 24, 2023.

6. I have reviewed KCS's its records to determine the activities at the Coffin Island farm on these dates. I believe these records, which were created in the ordinary course of business, accurately reflect activities which took place at the Coffin Island farm on the stated dates.
7. KCS's records indicate that the following activities took place on the dates referenced by Mr. Muldoon:

<b>Date</b>	<b>Exhibit of Affidavit of Brian Muldoon</b>	<b>Additional Context from KCS's records</b>
July 31, 2020	N/A	Net wash vessel was on site from 6:00pm-10:25pm.
June 29, 2021	Exhibit O	Net wash vessel was on site and in use from 7:20am-2:15pm.
August 12, 2021	Exhibit Q	Net wash vessel was on site and in use from 7:55am-3:00pm.
June 18, 2022	Exhibit U	Feed delivery barge (barge delivering food to stationary barge) was on site from 4:00am-11:59pm.
June 24, 2023	N/A	No record of any additional equipment on site.

### **Sound Attenuation Improvements**

8. KCS made sound attenuation improvements to its operations in 2023 to its net wash vessel and to the supplemental oxygen barge which is sometimes put in operation in the summer.

- **Net Wash Vessel**

9. Our net wash vessel for Southern Nova Scotia is called the *Lady Jeanelle*. It has been deployed as required at the Coffin Island farm since 2017. It is equipped with a remote operated net cleaner.
10. The *Lady Jeanelle*'s remote operated net cleaner consists of a diesel engine which drives a high-volume water pump. The high volume water pump is used to remove biofouling as a remote operator guides it around the net.
11. In the past, this equipment was on the deck of the *Lady Jeanelle*.
12. In January 2023, the vessel underwent an extensive refit which resulted in both the diesel engine and the high-volume water pump being placed in a noise-attenuated compartment under the deck.
13. Since that refit, we utilized that equipment to wash nets for a total of **26 days** at our Coffin Island farm, each of which are listed in following chart:

Vessel	Date	Site Name
MV Lady Jeanelle	July 3 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	July 4 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	July 5 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	July 14 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	July 15 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	July 25 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	July 26 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Aug 3 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Aug 14 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Aug 15 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Aug 24 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Aug 25 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Sept 7 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Sept 8 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Sept 23 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Sept 30 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Oct 11 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Oct 12 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Oct 23 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Oct 24 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Oct 25 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Nov 10 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Nov 16 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Nov 30 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Dec 1 2023	AQ#1205- Coffin Island
MV Lady Jeanelle	Dec 14 2023	AQ#1205- Coffin Island

14. We have had no noise complaints on any of the above-listed dates.
15. The only record KCS has of any noise complaints in respect of its operations at the Coffin Island site is the complaint from Mr. Muldoon on August 1, 2020. KCS has a policy of keeping track of the complaints and I believe that any other complaints would have been recorded.
16. The noise readings from the existing net wash operations of the *Lady Jeanelle* are included in Fundy Engineering's report which is attached as Exhibit A to the Affidavit of David Richards affirmed on January 19, 2024 and was filed in this proceeding.
17. The refitted *Lady Jeanelle* is the net wash vessel which we intend will service each of the proposed sites.
- ***Supplemental Oxygen***
18. At the Coffin Island farm, we use supplemental oxygen during periods when O2 levels decrease during the summer of the second year of the grow-out period.
19. The equipment used to provide supplemental O2 includes:
  - (a) two 20 foot Seacan (shipping containers) with a DOCS 500 O2 generator in each;
  - (b) one diesel generator with sound attenuation; and
  - (c) one 40 foot steel barge, which the equipment is placed upon.
20. In the first generations of this system, the machines were left on almost all the time during August to September as there was no way to forecast when the O2 Levels would dip.
21. Supplemental oxygen is not used every summer and was not used in the summer of 2023 in Liverpool Bay.
22. In 2023, we installed Innovasea's ***Realfish Pro*** system. This system takes data from dissolved oxygen probes in each cage and will turn on and shut down the equipment as required.
23. The ***Realfish Pro*** system lowers the run time significantly.

24. Additionally, we have insulated the walls of the Seacans and reengineered the ventilation systems to maximize sound attenuation.
25. We are currently looking at shore-based electrical power for one of our marine farms near Digby. If this project is successful, we would investigate the potential of installing shore-based electricity to power these systems. This would further reduce any noise associated with the provision of supplemental oxygen, and it would eliminate diesel generators from the feeding system.

**(2) LOBSTER FISHING PATTERNS**

26. I have received and reviewed the material in the following affidavits filed in this proceeding by the Group of 22 Fishermen:
  - (a) the Affidavit of Victor Westhaver affirmed on January 17, 2024;
  - (b) the Affidavit of Matthew Manthorne affirmed on January 17, 2024;
  - (c) the Affidavit of Justin Munroe affirmed on January 17, 2024;
  - (d) the Affidavit of Peter Stewart affirmed on January 16, 2024;
  - (e) the Affidavit of Bobby Lohnes, Jr. affirmed on January 17, 2024; and
  - (f) the Affidavit of Kevin Colp affirmed on January 17, 2024.
27. My CV is was previously filed in this proceeding and is attached as Exhibit B to my affidavit affirmed on January 22, 2024.
28. I come from a family of lobster fishermen and my previous experience prior to my positions with KCS includes commercial lobster fishing.
29. In my experience as Area Manager of operations in Southern Nova Scotia and Production Manager throughout Nova Scotia, I have observed lobster fishing activity which takes place around various marine salmon farms in Nova Scotia over the last two decades and specifically the Coffin Island farm in Liverpool Bay over the course of the last thirteen years.

30. Lobster fishing patterns have evolved over the years. Historically fishing was mainly concentrated in nearshore areas and the majority of lobsters were caught in the first few weeks of the fall seasons and late May along the shoreline.
31. Now, many vessels fish further from shore in the fall season and follow the lobster migration to deeper offshore waters where the temperature is warmer, thus experiencing higher catch rates. Lobster catches have increased and are plentiful throughout the fall season, not just the first few weeks as was historically experienced. I believe significant advances in technology such as GIS bottom mapping and equipment improvements have provided lobster fishers with sophisticated tools to track and locate productive lobster fishing habitat and detect changes in lobster migration patterns. I believe changing climate coupled with improved technology and larger fishing vessels has in recent years increased the intensity of lobster fishing further from shore.
32. Vessels still fish along the shoreline (including around AQ#1205X) in mid-late May as water temperatures warm and lobsters start moving after being dormant in cool waters.
33. From my observations, there is very limited lobster commercial fishing around AQ#1432 and AQ#1433 in the Fall season. There is a moderate amount of lobster fishing in the Fall season around the cages and moorings of AQ#1205X. Occasionally Fishermen will move their gear from outside of Liverpool Bay and place in within Liverpool Bay when a major storm is forecast to prevent damage to their equipment.
34. There is what I believe to be an Aboriginal Lobster fishery in Liverpool Bay, concentrated in the vicinity of AQ#1205X after the commercial fishery ends in June and before it begins in late November.

**VIRTUALLY AFFIRMED** before me in Halifax, Nova Scotia, on MS Teams, with Mr. Nickerson in Bridgewater, Nova Scotia on February 16, 2024.

[Redacted Signature]

David A. Barry  
A Barrister of the Supreme Court of Nova Scotia

[Redacted Signature]

Jeffery Nickerson